Тучин Валерий Викторович
Биография

Википедия https://ru.wikipedia.org/wiki/Тучин,_Валерий_Викторович
Официальный сайт СГУ https://www.sgu.ru/person/tuchin-valeriy-viktorovich
WoS Researcher ID C-7865-2013 https://www.researcherid.com/rid/C-7865-2013
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Google Scholar https://scholar.google.com/citations?user=wkUfJAYAAAAJ&hl=en
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e-library https://www.elibrary.ru/author_profile.asp?id=20243
Research Gate https://www.researchgate.net/profile/Valery-Tuchin
Exaly https://exaly.com/author/1186974/valery-v-tuchin/rankings

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Тучин Валерий Викторович
Родился 4 февраля 1944 года, г. Саратов
Член-корреспондент РАН
Доктор физико-математических наук
Заслуженный деятель науки РФ
Профессор
заведующий кафедрой оптики и биофотоники и руководитель научного медицинского центра Саратовского национального исследовательского государственного университета им. Н.Г. Чернышевского
заведующий лабораторией лазерной диагностики технических и живых систем Института проблем точной механики и управления, ФГБУН Федеральный исследовательский центр «Саратовский научный центр Российской академии наук»
научный руководитель междисциплинарной лаборатории биофотоники Национального исследовательского томского государственного университета, Томск
научный руководитель лаборатории фемтомедицины университета ИТМО, Санкт-Петербург

Образование
1966 – Саратовский государственный университет, физический факультет, радиофизика и электроника
1970 – 1974 – аспирантура, кафедра оптики СГУ
1974 – кандидат физико-математических наук по специальности 01.04.05 – оптика
1982 – доктор физико-математических наук по специальности 01.04.03 – радиофизика, включая квантовую радиофизику

Карьера
1966 – 1970 – инженер Научно-исследовательского института механики и физики при СГУ (НИИМФ СГУ)
1971 – 1974 – ассистент и аспирант кафедры оптики СГУ

1974 – 1982 – старший преподаватель, доцент кафедры оптики СГУ

1982 – 1989 – профессор, заведующий кафедрой оптики, декан физического факультета СГУ

1989 – по настоящее время – профессор, заведующий кафедрой оптики и биофотоники, заведующий лабораторией лазерной диагностики технических и живых систем Института проблем точной механики и управления, ФГБУН Федеральный исследовательский центр «Саратовский научный центр Российской академии наук»

2014 – по настоящее время – научный руководитель междисциплинарной лаборатории биофотоники Национального исследовательского Томского университета

2017 – по настоящее время – научный руководитель лаборатории фемтомедицины Национального исследовательского университета ИТМО

2020 – по настоящее время - руководитель научного медицинского центра СГУ

Профессиональная деятельность

2000-2015 – директор по внешним связям научно-образовательного центра Министерства образования и науки РФ и Американского фонда гражданских исследований «Нелинейная динамика и биофизика»

2003 – по настоящее время – директор Научно-образовательного института оптики и биофотоники при СГУ

2005 – настоящее время – вице-президент Российского фотобиологического общества

2007 – по настоящее время – директор Международного научно-образовательного центра оптических технологий в промышленности и медицине (МНОЦ) «Фотоника» при СГУ

Председатель диссертационного совета при СГУ по защите докторских диссертаций по специальностям оптика и биофизика (физико-математические науки)

Член совета физического факультета и отделения механики и физики Института естественных наук СГУ

Член ученого совета Института точной механики и управления ФГБУН Федеральный исследовательский центр «Саратовский научный центр Российской академии наук»

Член международного совета научно-образовательной школы «Фотонные и квантовые технологии. Цифровая медицина» Московского государственного университета имени М.В. Ломоносова

Главный редактор журнала Journal of Biomedical Photonics & Engineering http://jbpe.ssau.ru/index.php/JBPE

Главный редактор журнала The Open Biomedical Engineering Journal https://benthamopen.com/TOBEJ/editorial-board/

Главный редактор журнала **Materials** по направлению Optics and Photonics https://www.mdpi.com/journal/materials/sectioneditors/optics_photonics

Заместитель главного редактора журнала Известия Саратовского университета – Новая серия. Физика https://fizika.sgu.ru/en/editorial-board

Тематический редактор/Редактор-консультант журнала Journal of Biomedical Optics, https://www.spiedigitallibrary.org/journals/journal-of-biomedical-optics/editorial-board?SSO=1#navBarAnchor

Член редакционного совета журналов

Journal of Innovative Optical Health Sciences (JIOHS) https://www.worldscientific.com/page/jiohs/editorial-board

Квантовая электроника https://iopscience.iop.org/journal/1063-7818

Лазерная медицина http://www.goslasmed.ru/laser_medicine_periodical/

Current Pharmaceutical Biotechnology http://www.eurekaselect.com/node/607/current-pharmaceutical-biotechnology/editorial-board

Член редколлегии журналов:

Известия ВУЗов - Прикладная нелинейная динамика, https://andjournal.sgu.ru/ru/content/redakcionnaya-kollegiya

Оптика и спектроскопия, https://journals.ioffe.ru/journals/5

Письма в журнал технической физики, http://journals.ioffe.ru/journals/editors/4

Журнал технической физики, https://www.elibrary.ru/title_about_new.asp?id=7801

Light: Advanced Manufacturing (LAM), https://www.light-am.com/index.htm
Journal of Biophotonics, https://onlinelibrary.wiley.com/journal/18640648
Translational Biophotonics, https://www.onlinelibrary.wiley.com/journal/26271850
Journal of X-Ray Science and Technology – Clinical Applications of Diagnosis and Therapeutics, https://www.iospress.nl/journal/journal-of-x-ray-science-and-technology/
Journal of Applied Scientific Reports, http://www.hoajonline.com/applscirep/editorialboard
Advanced Biomaterials and Devices in Medicine,
http://journals.tsu.ru/abdm/&journal_page=edition&id=152
Frontiers of Optoelectronics https://link.springer.com/journal/12200
Член международного совета журнала Physics in Medicine and Biology (2013-2016)
Приглашенный редактор журналов:
Оптика и спектроскопия, Квантовая электроника, Известия ВУЗов - Прикладная нелинейная динамика, Phys. Med. Biol., Medical Physics, Cytometry A, Biomed. Opt. Express., JIOHS, J. of Biomedical Optics, J. of Biophotonics, J. of X-Ray Science and Technology – Clinical Applications of Diagnosis and Therapeutics, Adv. Opt. Technol., Medical Laser Application., Journal of Physics: Conference Series, Photon. Lasers Med., IEEE J. Selected Topics in Quantum Electronics, International Journal of Spectroscopy, Materials, Light: Science & Applications (LSA), Optical Engineering и др.
Рецензент журналов: Science Translational Medicine, Nature Protocols, Nature Scientific Reports, Light: Science & Applications (LSA), Opt. Communications, Optics Letters, Optics Express, Biomed. Opt. Express, Applied Optics, JOSA, J. of Biomedical Optics, J. Biophotonics, Laser Surgery and Medicine, Applied Physics, IEEE J. of Selected Topics in Quantum Electronics, Phys. Med. Biol., Прикладная нелинейная динамика, Оптика и спектроскопия, Квантовая электроника, Optics & Laser in Engineering (Singapore), Cytometry A, PLoS ONE, Laser Photonics Rev. Light: Applications and Science и др.

Член международных научных обществ: SPIE, OSA, IEEE
Член комитета по биофотонике международного научного общества IEEE
Узловой лидер по РФ Всемирного консорциума по биофотонике BP4L (Node Leader of Biophotonics4Life Worldwide Consortium)
Член международного совета Центра биомедицинской фотоники им. Бриттона Чанса Хуажонг научно-технологического университета г. Ухани (2013 – 2015)
Член совета факультета инженерных наук Национальной лаборатории по оптоэлектронике г. Ухани Хуажонг научно-технологического университета г. Ухани (2014 –2019)
Член рабочих групп 3 и 7 Европейской технологической платформы Photonics21
Член рабочей группы по биофотонике технологической платформы РФ «Фотоника»
Член рабочей группы по международным связям технологической платформы РФ «Медицина будущего»
Член комитета EPIC Biophotonics, EPIC - Европейский консорциум фотонной промышленности
Член рабочей группы по биологическим и медицинским наукам по оценке исследовательской инфраструктуры для включения в национальную дорожную карту Германии (2016).
Член Совета Российского отделения SPIE, член комитетов SPIE по организации научных конференций, по публикациям и советников президента SPIE по Европе (1990-2005).
Член/Председатель комитета по премиям OSA Robert E. Hopkins Leadership Award (2017/2018)
Член/Председатель комитета по премиям OSA/SPIE Joseph W. Goodman Book Writing Award (2018-2024)
Эксперт научного фонда Израиля
Эксперт проектов Европейского союза 7-й Рамочной программы и Horizon 2020
Эксперт исследовательской программы профессоров SFI научного фонда Ирландии
Член подкомитета “Thermal Medicine” of The American Society of Mechanical Engineers (с 2020).

Основатель, председатель и сопредседатель международных конференций

1. Saratov Fall Meeting (Chair: V.V. Tuchin) (1996-2022).
2. Optical Coherence Tomography and Coherence Domain Optical Methods in Biomedicine, SPIE, Photonics West, USA (Chairs: V.V. Tuchin, J.G. Fujimoto, J.A. Izatt) (1997-2019).
3. Dynamics and Fluctuations in Biomedical Photonics, SPIE, Photonics West, USA (Chairs: V.V. Tuchin, M.J. Leahy, R.K. Wang) (2005-2023).

4. International Conference on Photonics and Imaging in Biology and Medicine (PIBM), (Chairs: Q. Luo, L.V. Wang, V.V. Tuchin), China (2001-2022).
5. Biophotonics: Photonic Solutions for Better Health Care, SPIE Photonics Europe (Chairs: J.Popp, W. Drexler, V.V. Tuchin, D.L. Matthews, F. Pavone) (2008-2018).
6. Biophotonics, Programme track (Chairs: J.Popp, S. Gioux, V.V. Tuchin), SPIE Photonics Europe, Strasburg, France, 2020, 2022
7. Tissue Optics and Photonics (Chairs: V.V. Tuchin, W.C. P. M. Blondel, Z. Zalevsky), SPIE Photonics Europe, Strasburg, France, 2020, 2022
8. Honorary co-chair of OPORTO 22 – 1st Spring Biophotonics Conference in Porto (Chair Luis Oliveira and Igor Meglinski), Porto, Portugal, 2022 https://stemm.tech/oporto22/
9. International Symposium FLAMN-22, Fundamentals of Laser Assisted Micro- & Nanotechnologies, The 3rd International Scientific School "Biomedical Laser Technologies" (Chairmen: Andrey Belikov, Valery Tuchin, Vadim Veiko), St. Petersburg, Russia, 2022 https://flamn.itmo.ru/

С 1987 года организовал более 50 международных конференций в России, США, Европе, Китае и сделал более 100 приглашенных и пленарных докладов

Член консультативных комитетов международных конференций и проектов:

1. BIOS Symposium of Photonics West Symposia, США (1997-2023)
2. International Conference Laser Applications in Life Sciences (2010-2022)
3. International Photonics and OptoElectronics Meetings (POEM), Wuhan, China
4. The Conference on Laser Surgery and Medicine 2012 (CLSM 2012), Yokohama, Japan, on April 25–27, 2012
5. 4th International Conference "Smart Materials, Structures and Systems" CIMTEC 2012, Montecatini Terme, Italy, June 10 to 15, 2012
6. The H2020 Project "(AMPLITUDE – Advanced Multimodal Photonics Laser Imaging Tool for Urothelial Diagnosis and Endoscopy [Grant Agreement: 871277] (2020-2023).
7. The 9th International Conference on Perspectives in Vibrational Spectroscopy (https://icopvs2022.in/), Indore, India, December 13-17, 2022.
8. The 2nd Edition of the International Conference on Nanoscience and Photonics for Medical Application (ICNPMA-2022, 28-30th Dec. 2022).

Член программных комитетов научных школ и конференций

1. International Conference on Advanced Laser Technologies (2005-2022); 29th International Conference on Advanced Laser Technologies (ALT'22), Moscow, Russia, 11-16 September 2022.
2. International Conference on Nanoscience and Photonics for Medical Applications – ICNPMA", Manipal Academy of Higher Education, Maniple, India (28-30th December, 2019, 2022); https://conference.manipal.edu/icnpma2019/Default .
3. Biophotonics and Imaging Graduate Summer School (BIGSS 2020), *National University of Ireland, Galway,* 25-29 August 2020, Digital Forum. https://optics.org/events/2020/895
4. The 8th International Conference on Photonics, Optics and Laser Technology - PHOTOPTICS 2020, 27 - 29 February, 2020 - Valletta, Malta. http://www.photoptics.org/Biophotonics.aspx?y=2020
5. Moderator of Seeing Through Tissue, JBO Webinar Series, Hot Topics in Biomedical Optics.
6. Member of Organizing Committee of SPIE Poincaré Webinar Series on Optical Polarization and Related Phenomena. https://groups.google.com/g/the-henri-poincare-webinar-series?pli=1
7. The 3rd International Conference "Biophotonics Riga – 2020", 24-25 August, 2020, Riga.
8. The 4-th International Conference Terahertz and Microwave Radiation: Generation, Detection and Applications (TERA), August 24-26, 2020, Tomsk. http://tera2020.tsu.ru/
9. VII Троицкая конференция с международным участием "Медицинская физика" (ТКМФ-7), 19–21 октября 2020 г.http://www.medphys.troitsk.ru/
10. ICLO, St. Petersburg, November 2-6, 2020, https://laseroptics.ru/general-information.html
11. XII Международная конференция "Фундаментальные проблемы оптики" ФПО-2020, Санкт-Петербург, 19- 23 октября 2020 года.

12. SPIE Photonics Asia Conferences, Optics in Health Care and Biomedical Optics X (PA110), 11 - 13 October 2020, Beijing International Convention Center, Beijing, China
13. The International Conference on Spectroscopic Ellipsometry (ICSE), May 22-28, 2022, South Tower of Junefield Plaza, Beijing, China; http://www.icse-9.com/En/Menu/11a22a2d-bb5e-4e6a-a1db-ee1f6680e3fa
14. International Symposium Fundamentals of Laser Assisted Micro– & Nanotechnologies (FLAMN-22), June 27 - 30, 2022, St. Petersburg, Russia https://flamn.itmo.ru/
15. 25th Congress of the International Commission for Optics (ICO) and 16th Conference of International Society on Optics Within Life Sciences (OWLS), 5 - 9 September 2022; Program Committee Subcommittee Chair on Biomedical Optics https://ico25.org/?s=program-committee-subcommittees
16. 16th International Conference on Photonics and Imaging in Biology and Medicine — PIBM-2023, Chairs: Q. Luo (China), V. Tuchin (Russia) and L. Wang (USA), March 29 - April 1, 2023, Haikou, Hainan, China
17. Chinese-Russian Workshop on Biophotonics and Biomedical Optics, Chairs: V. Tuchin (Russia) and D. Zhu (China), March 29 - 31, 2023, Haikou, Hainan, China

Индивидуальные гранты, почетные звания и награды

Медаль «За Трудовое Отличие» (1976)

Орден «Трудового Красного Знамени» (1986)

Орден «Дружбы» (2005)

Звание «Заслуженный деятель науки России» (1999)

Звание «Почетный профессор Саратовского университета» (2014)

Медали оптического общества им. Д.С. Рождественского: имени Д.С. Рождественского (2018) и имени С.И. Вавилова (2022)

Избран членом-корреспондентом РАН по специальности «медицинская физика» по отделению физических наук (2019).

Медаль имени Александра Михайловича Прохорова за разработку спектральных методов исследования биологических тканей для решения задач медицинской диагностики и дозиметрии в лазерной терапии и хирургии, присужденная Академией инженерных наук им. А.М. Прохорова (2021).

Гранты ведущего научного работника РФ, 1994 - 1996; 1997-2000; 2001-2003

Академик Международной Академии Информатизации (с 1994) и Академии Естественных Наук РФ (с 1996)

Соросовский профессор в 1997, 1998 и 1999.

FiDiPro профессор университета Оулу (Finland Distinguished Professor, TEKES, 2011-2014)

Chime Bell Prize of Hubei Province, China (2014) - Премия за вклад в развитие провинции Хубей, а именно научных исследований, создание платформы и обучение талантов Национальной лаборатории по оптоэлектронике (Wuhan National Laboratory for Optoelectronics (WNLO)), а также за развитие двухсторонних связей провинции Хубей с ее зарубежными партнерами.

Гранты Президента РФ поддержки научных школ №№ 96-15-96389, 00-15-96667, 25.2003.2, НШ-208.2008.2, НШ-1177.2012.2, НШ-703.2014.2 и НШ-7898.2016.2.

Грант Министерства образования и науки РФ 1.4.06, РНП.2.1.1.4473 «Ведущие научно-педагогические коллективы» 2003-2014.

Краткосрочные гранты приглашенного профессора (1990–2020 годы) в университетах и компаниях США (36), Европы (21), Японии (4), Китая (15), Южной Кореи (4), Сингапура и Бразилии, включая Wellman Laboratories в 2002 году (серия лекций по фотомедицине MGH), Технологический институт Роуз-Халмана в 2007 году (Индиана, США), Университет науки и технологии (HUST), Ухань, Китай, 2012, 2016, 2017; Университет Оулу, Финляндия, 2011–2014 годы, 2019 год; Индия (4 университета) 2020.

Приглашенный профессор Хуажонг научно-технологического университета г. Ухани (Huazhong University of Science and Technology) (Китай).

Приглашенный профессор Тяньцзиньского университета (Tianjin University) (Китай).

Адъюнкт профессор университета Лимерика (University of Limerick) (Ирландия)

Адъюнкт профессор Национального университета Ирландии (Голуэй) (National University of Ireland Galway)

Почетный член международного общества по оптической технике (SPIE Fellow 2005)

Почетный член международного оптического общества (OSA Fellow 2016)

Премия международного общества по оптической технике (SPIE Educational Award, 2007) за выдающиеся достижения и в знак признания беспрецедентного вклада в мировое образование и распространение технической информации в области биомедицинской оптики и биофотоники, а также новаторскую работу в рамках SPIE образовательных программ по биомедицинской оптике. http://spie.org/x15039.xml

В 2016 году награжден OSA / SPIE премией Джозефа У. Гудмана за написание монографии V.V. Tuchin, *Tissue Optics: Light Scattering Methods and Instruments for Medical Diagnostics*, 3rd edition, **PM 254**, SPIE Press, Bellingham, WA, 2015, которая признана выдающейся монографией, внесшей значительный вклад в исследования, преподавание и развитие промышленности в области оптики и фотоники. http://www.osa.org/en-us/awards_and_grants/awards/award_description/goodmanbookaward/ (**2669** цитирований в Google Scholar)

В 2019 году был награжден премией OSA Майкла С. Фельда по биофотонике за новаторские исследования в биофотонике, особенно в области оптики и оптического просветления биологических тканей, а также за развитие биофотоники путем издания основополагающих монографий и обзоров для обучения будущих исследователей. https://www.osa.org/en-us/awards_and_grants/awards/award_description/michaelsfeld/

Лауреат конкурса на лучшую научную работу 2010 года, 12 мая 2010 года, Международная конференция CYTO 2010, Seattle, Washington (Galanzha EI, Shashkov EV, Tuchin VV, Zharov VP. In Vivo Multispectral Photoacoustic Lymph Flow Cytometry with Natural Cell Focusing and Multicolor Nanoparticle Probes. *Cytometry*, 2008; 73:884-894; **115** цитат в Google Scholar)

Премия «Международной академической издательской компании «Наука» за лучшую публикацию в издаваемых ею журналах» за цикл работ «Биомедицинская оптика и спектроскопия», опубликованных в журнале «Оптика и спектроскопия» коллективом авторов: Тучин В.В., Башкатов А.Н., Генина Э.А., Синичкин Ю.П., Кочубей В.И., Правдин А.Б., Симоненко Г.В., Трунина Н.А., Янина И.Ю., Лычагов В.В. (диплом № 142, решение комиссии о присуждении премии от 22 ноября 2011 г., протокол заседания № 2).

Премия издательства Tsinghua University Press “Nano Research Top Papers Award” (2016) за публикацию статьи Terentyuk, G; Panfilova, E; Khanadeev, V; Chumakov, D; Genina**,** E; Bashkatov, A; Tuchin, V; Bucharskaya, A; Maslyakova, G; Khlebtsov, N; Khlebtsov, B. Gold nanorods with a hematoporphyrin-loaded silica shell for dual-modality photodynamic and photothermal treatment of tumors in vivo, Nano Research, 7 (3), 325-337 (2014), DOI: 10.1007/S12274-013-0398-3. Citations Google Scholar: **151**, IF 8.515.

Paper, O. Semyachkina-Glushkovskaya, A. Abdurashitov, A. Dubrovsky, M. Klimova, I. Agranovich, A. Terskov, A. Shirokov, V. Vinnik, A. Kuzmina, N. Lezhnev, I. Blokhina, A. Shnitenkova, V. Tuchin, E. Rafailov, and J. Kurths, Photobiomodulation of lymphatic drainage and clearance: perspective strategy for augmentation of meningeal lymphatic functions, Biomedical Optics Express **11** (2), 725-734 (2020). https://doi.org/10.1364/BOE.383390, **IF 3.482, Q1**, has been chosen for inclusion in *Spotlight on Optics* (http://www.osapublishing.org/spotlight/)

Профессор Тучин является лауреатом премии Nanqiang Life Science серии лекций Сямынь университета, Китай (2016).

Благодарственные письма Министерства образования и науки РФ как эксперту и руководителю экспертной группы конкурса на получение гранта Правительства РФ для государственной поддержки научных исследований, проводимых под руководством ведущих ученых в российских

образовательных учреждениях высшего профессионального образования, научных учреждениях государственных академий наук и государственных научных центрах Российской Федерации (2013).

Диплом Лазерной Ассоциации РФ за лучшую отечественную разработку в области лазерной аппаратуры и лазерно-оптических технологий в номинации «Учебные пособия, справочные и научно-популярные издания лазерной тематики» за книгу В.В. Тучин, «Лазеры и волоконная оптика в биомедицинских исследованиях», М.: Физматлит, 2010 (2012).

Наиболее цитируемые статьи:

1. A.N.Bashkatov, E.A.Genina, V.I.Kochubey, V.V.Tuchin. Optical properties of human skin, subcutaneous and mucous tissues in the wavelength range from 400 to 2000 nm. – J. Phys. D: Appl. Phys., vol. 38, 2005, pp. 2543-2555 (**1839** цитирований в Google Scholar) вошла в список из 12 наиболее важных статей, опубликованных в журнале J. Physics D, и в 50 лучших публикаций серии журналов J.Phys за 50 лет существования.
2. J.T. Alander, I. Kaartinen, A. Laakso, T. Pätilä, T. Spillmann, V.V. Tuchin, M. Venermo, P. Välisuo, A review of indocyanine green fluorescent imaging in surgery, International journal of biomedical imaging 2012 (**67302** views, **15,033** downloads, **1198** citations in Google Scholar, 19.04.2023). https://doi.org/10.1155/2012/940585
3. A.N. Bashkatov, E.A. Genina, and V.V. Tuchin, Optical properties of skin, subcutaneous, and muscle tissues: a review, J. Innovative Optical Health Sciences, 4(1) pp. 9–38 (2011) (**779** цитирований в Google Scholar).
4. Пионерская работа по технологии оптического просветления V.V. Tuchin, I.L. Maksimova, D.A. Zimnyakov, I. L. Kon, A. H. Mavlutov, and A. A. Mishin, “Light propagation in tissues with controlled optical properties,” J. Biomed. Opt. 2(4), pp.304-321, 1997 (**590** цитирований в Google Scholar).
5. B Khlebtsov, V Zharov, A Melnikov, V Tuchin, N Khlebtsov, Optical amplification of photothermal therapy with gold nanoparticles and nanoclusters, Nanotechnology 17 (20), 5167, 2006 (**482** цитирований в Google Scholar).
6. Dan Zhu, Kirill V. Larin, Qingming Luo, and Valery V. Tuchin, Recent progress in tissue optical clearing, Laser Photonics Rev. 7, No. 5, 732–757 (2013) (**466** цитирований в Google Scholar).
7. В. В. Тучин, Исследование биотканей методами светорассеяния УФН, 1997, 167:5, 517 (**499** цитирований в Google Scholar)

Наиболее загружаемые и цитируемые книги:

1. Tuchin, V.V. (ed.) Coherent-Domain Optical Methods: Biomedical Diagnostics, Environmental Monitoring and Material Science, vols. 1&2, Second edition. Berlin, Heidelberg, N.Y.: Springer-Verlag, 2013, более **63000** загрузок on SpringerLink to 19.04.2023.
2. V.V. Tuchin, *Optical Clearing of Tissues and Blood*, **PM 154**, SPIE Press, Bellingham, WA, 2005 – 254 p. https://spie.org/Publications/Book/637760?SSO=1(**492** цитирований в Google Scholar).
3. V.V. Tuchin, L. Wang, and D.A. Zimnyakov, *Optical Polarization in Biomedical Applications*, Springer-Verlag, Berlin, Heidelberg, N.Y., 2006 - 275 p. (**404** цитирований в Google Scholar).
4. V.V. Tuchin, *Tissue Optics: Light Scattering Methods and Instruments for Medical Diagnostics*, 3rd ed., **PM 254**, SPIE Press, Bellingham, WA, 2015– 988 p. ISBN: 9781628415162 https://spie.org/Publications/Book/2175698 (**2760** цитирований в Google Scholar).
5. V.V. Tuchin (Ed.), *Handbook of Optical Biomedical Diagnostics. Light-Tissue Interaction*, vol.1, 2nd ed., SPIE Press **PM262**, Bellingham, WA, USA, 2016 – 864 p. *Methods*, vol.2, 2nd ed., SPIE Press **PM263**, Bellingham, WA, USA, 2016 – 688 p. (**879** цитирований в Google Scholar).

По данным РИНЦ на 04.09.2017 В.В. Тучин входит в Топ-100 самых цитируемых (1 место) и продуктивных (1 место) российских учёных по направлению «Биотехнология», по направлению «Биология» (соответственно 9 и 18 места) и по направлению «Медицина и здравоохранение» (соответственно 18 и 28 места).

Специальный выпуск журнала Professor Valery V Tuchin’s contribution to the field of biomedical optics, Eds. R.K. Wang, A.V. Priezzhev and S. Fantini, *J. Phys. D: Appl. Phys*., vol. 38, 2005, pp. 2497-2747

Специальный выпуск журнала "Лазерная биофотоника", посвященный 70-летию В. В. Тучина, редакторы А. В. Приезжев, А. Н. Башкатов, Э. А. Генина, *Квантовая электроника*, том 44, 2014, вып. 7 и 8.

Специальный выпуск журнала: In Honor of Valery V. Tuchin's 70th Birthday, Ed. Kirill Larin, *J. Biophotonics*, **8** (4), 2015.

Специальный выпуск журнала: Celebrating Prof. Valery Tuchin's 70th Birthday, Kirill V. Larin and Dan Zhu, *J. Innovative Optical Health Sciences* **8** (4), 2015.

Спецвыпуск Biomed. Opt. Express (**10**(9), 2019) посвящен пионерским работам Тучина В.В.: "*a comprehensive overview of current research in tissue optics, much of it inspired and informed by the pioneering work of Prof. Valery Tuchin*."

A special issue on Biophtonics dedicated to Prof. Valery V. Tuchin, *Ed. N. Ghosh, Asian Journal of Physics* **29** (1 & 2), **2020**, pp.1-128.

Учебная работа

В СГУ и ТГУ подготовил и читает для студентов биофизических специальностей курс введение в специальность, общий курс оптики и специальные курсы по оптике биотканей, медицинским лазерам и волоконным световодам, микроструктурным световодам для медицины, оптическим измерениям в биомедицине, оптической цитометрии и лазерному микроспектральному анализу.

Подготовил и прочитал более 50 кратких курсов по оптике и спектроскопии биотканей и биофотонике для российской и международной аудитории аспирантов, докторантов, инженеров, работников компаний и медицинских работников (1991-2022), том числе в рамках образовательных программ международных оптических обществ SPIE и OSA и Оптического общества имени Д. С. Рождественского. В России: МИЭТ, ТГУ, МГТУ им. Н.Э. Баумана, МГУ, Приволжский исследовательский медицинский университет Н. Новгород, университет ИТМО, ФГБУ «НМИЦ им. В. А. Алмазова» Минздрава России и др. За рубежом: Украина, Латвия, Литва, Канада, Италия, Германия, США, Великобритания, Франция, Венгрия, Польша, Испания, Греция, Финляндия, Португалия, Республика Корея, Китай, Сингапур, Япония, включая последние: Греция (2015), Великобритания (2016), Литва (2017), Латвия (2017), Италия (2018), Германия (2015, 2018, 2019, 2021), США (2015, 2016, 2018, 2020), Израиль (2015, 2016, 2018), Франция (2017, 2018), Польша (2016), Испания (2017, 2018), Финляндия (2019), Республика Корея (2016, 2017), Макао (2016), Китай (2016, 2017, 2018), Япония (2016), Бразилия (2019), Индия (2020), Швейцария (2020), Пермь (2021), Иран (2021, 2022), Турция (2022).

Область научной деятельности

Биологическая и медицинская физика, биофотоника, биомедицинская оптика, лазерная спектроскопия и визуализация в биомедицине, нелинейная динамика лазерных и оптических систем, физика оптических и лазерных измерений, нанобиофотоника.

Публикации

Автор более 60 патентов РФ, Белоруссии и США, автор или редактор более 100 книг, глав в книгах, специальных выпусков журналов, трудов конференций, учебных пособий, лекционных пособий, брошюр и более 1000 научных статей и аналитических обзоров.

Цитируемость

Google Scholar (27.05.2023) https://scholar.google.com/citations?user=wkUfJAYAAAAJ&hl=en

Число публикаций (с 2018)	Число цитир. (с 2018)	h-индекс (с 2018)	Среднее число цитир. на публ. (с 2018)	Среднее число цитир. в год (с 2018)
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1746 (1355)	**24700 (21916)**	**64 (60)**	**13.52(16.3)**	**781.6 (688.4)**

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Q-SJR журналов https://www.scimagojr.com/journalrank.php
https://journalrank.rcsi.science/ru/record-sources/

Избранные монографии

1. А.В. Приезжев, В.В. Тучин, Л.П. Шубочкин, Лазерная диагностика в биологии и медицине, Наука, Москва, 1989.
2. В.В. Тучин, Динамические процессы в газоразрядных лазерах, Энергоатомиздат, Москва, 1990.
3. V.V. Tuchin (Ed.), *Tissue Optics: Applications in Medical Diagnostics and Therapy*, Book of selected papers, SPIE Milestone Series **MS 102**, Bellingham, WA, USA, 1994.
4. В.В. Тучин, Лазеры и волоконная оптика в биомедицинских исследованиях, Изд-во Саратовского ун-та, Саратов, 1998.
5. V.V. Tuchin, *Tissue Optics: Light Scattering Methods and Instruments for Medical Diagnosis*, SPIE Tutorial Texts in Optical Engineering **TT38**, Bellingham, WA, USA, 2000.
6. V.V. Tuchin (Ed.), *Handbook of Optical Biomedical Diagnostics*, SPIE Press **PM107**, Bellingham, WA, USA, 2002 – 1093 pp.
7. V.V. Tuchin (Ed), *Handbook of Coherent-Domain Optical Methods for Biomedical Diagnostics, Environmental and Material Science*, Kluwer Academic Publishers, Boston, USA, vols. 1 & 2, 2004 – 1003 p.
8. B. Wilson, V. Tuchin, S. Tanev, Eds., Advances in Biophotonics, NATO Science Series I. Life and Behavioural Sciences – Vol. 369, IOS Press, Amsterdam, 2005, 283 p.

9. V.V. Tuchin, *Optical Clearing of Tissues and Blood*, **PM 154**, SPIE Press, Bellingham, WA, 2005 – 254 p. https://spie.org/Publications/Book/637760?SSO=1

10. V.V. Tuchin, L. Wang, and D.A. Zimnyakov, *Optical Polarization in Biomedical Applications*, Springer-Verlag, Berlin, Heidelberg, N.Y., 2006 - 275 p.

11. V.V. Tuchin, *Tissue Optics: Light Scattering Methods and Instruments for Medical Diagnosis*, second edition, **PM 166**, SPIE Press, Bellingham, WA, 2007 – 840 p.

12. V.V. Tuchin (ed.), *Handbook of Optical Sensing of Glucose in Biological Fluids and Tissues*, CRC Press, Taylor & Francis Group, London, 2009 – 709 p.

13. Тучин В.В. Лазеры и волоконная оптика в биомедицинских исследованиях/2-е издание. — Москва: Физматлит, 2010, 488 с.

14. Valery V. Tuchin (ed.), *Handbook of Photonics for Biomedical Science*, CRC Press, Taylor & Francis Group, London, 2010. – 815 p.

15. Г. Симоненко, В. Тучин, Д. Зимняков, Оптические характеристики жидкокристаллических и биологических систем, LAMBERT Academic Publishing GmbH & KG, Berlin, 2010.

16. Valery V. Tuchin (ed.), *Advanced Optical Flow Cytometry: Methods and Disease Diagnoses*, WILEY-VCH Verlag GmbH & Co. KGaA, Weinheim, 2011– 701 p.

17. J. Popp, V.V. Tuchin, A. Chiou, and S.H. Heinemann (eds.), *Handbook of Biophotonics*, vol.1: *Basics and Techniques*, WILEY-VCH Verlag GmbH & Co. KGaA, Weinheim, 2011- 665 p.

18. J. Popp, V.V. Tuchin, A. Chiou, and S.H. Heinemann (eds.), *Handbook of Biophotonics*, vol. 2: *Photonics for Health Care*, WILEY-VCH Verlag GmbH & Co. KGaA, Weinheim, 2011 – 1131 p.

19. J. Popp, V.V. Tuchin, A. Chiou, and S.H. Heinemann (Eds.), Handbook of Biophotonics, vol. 3: Photonics in Pharmaceutics, Bioanalysis and Environmental Research, WILEY-VCH Verlag GmbH & Co. KGaA, Weinheim, 2012, 304 p. http://www.beck-shop.de/Popp-Tuchin-Chiou-Handbook-of-Biophotonics/productview.aspx?product=9717775&utm_source=pdf&utm_medium=clickthru_lp&utm_campaign=pdf_9717775&campaign=pdf/9717775

20. О.В. Мареев, А.А. Свистунов, И.В. Федосов, В.В. Тучин, Г.О. Мареев, С.И. Луцевич, И.С. Букреев, Р.С. Прохоров, Е.С Краснова, *Лазерная допплеровская флоуметрия и возможности ее применения в оториноларингологии*, Издательство Саратовского медицинского университета, Саратов, 2012, 83 с.

21. В.В. Тучин, *Оптика биологических тканей. Методы рассеяния света в медицинской диагностике*, 2-е издание, Физматлит, 2012, 811 с.

22. Tuchin, V.V. (ed.) Coherent-Domain Optical Methods: Biomedical Diagnostics, Environmental Monitoring and Material Science. V. 1, 2/Second edition. Berlin, Heidelberg, N.Y.: Springer-Verlag, 2013, ISBN: 978-1-4614-5175-4 (Print) 978-1-4614-5176-1, 1330 p. http://www.springer.com/physics/biophysics+%26+biological+physics/book/978-1-4614-5175-4

23. R.K. Wang and V.V. Tuchin, eds, *Advanced Biophotonics: Tissue Optical Sectioning,* CRC Press, Taylor & Francis Group, London, 2013 – 681p. ISBN 9781439895818

24. V.V. Tuchin, *Tissue Optics: Light Scattering Methods and Instruments for Medical Diagnostics*, 3rd ed., **PM 254**, SPIE Press, Bellingham, WA, 2015– 988 p. ISBN: 9781628415162 https://spie.org/Publications/Book/2175698

25. V.V. Tuchin (Ed.), *Handbook of Optical Biomedical Diagnostics. Light-Tissue Interaction*, vol.1, 2nd ed., SPIE Press **PM262**, Bellingham, WA, USA, 2016 – 864 p. ISBN 9781628419092, https://spie.org/Publications/Book/2219613?SSO=1

26. V.V. Tuchin (Ed.), *Handbook of Optical Biomedical Diagnostics. Methods*, vol.2, 2nd ed., SPIE Press **PM263**, Bellingham, WA, USA, 2016 – 688 p. ISBN 9781628419139 https://spie.org/Publications/Book/2219613?SSO=1

27. L. Oliveira and V. V. Tuchin, *The Optical Clearing Method: A New Tool for Clinical Practice and Biomedical Engineering*, Basel: Springer Nature Switzerland AG, 2019 – 188 p. ISBN 978-3-030-33054-5. ISBN 978-3-030-33055-2 (eBook), https://www.springer.com/gp/book/9783030330545 (August 2022, more than 2600 chapter downloads).

28. V.V. Tuchin, J. Popp, and V.P. Zakharov (Eds.), *Multimodal optical diagnostics of cancer*, Basel: Springer Nature Switzerland AG, 2020 600 p., ISBN 978-3-030-44593-5 https://www.springer.com/gp/book/9783030445935

29. Тучин В.В. Лазеры и волоконная оптика в биомедицинских исследованиях : монография / Тучин В.В.. — Москва : Ай Пи Ар Медиа, 2021. — 495 c. — ISBN 978-5-4497-0568-6. — Текст : электронный // Электронно-библиотечная система IPR BOOKS : [сайт]. — URL: http://www.iprbookshop.ru/103652.html (дата обращения: 13.05.2021). — Режим доступа: для авторизир. пользователей. - DOI: https://doi.org/10.23682/103652

30. Тучин, В. В. Оптика биологических тканей. Методы рассеяния света в медицинской диагностике : монография / В. В. Тучин. — Москва : Ай Пи Ар Медиа, 2021. — 802 c. — ISBN 978-5-4497-0569-3. — Текст : электронный // Электронно-библиотечная система IPR BOOKS : [сайт]. — URL: http://www.iprbookshop.libgateway.psu.kz/103653.html (дата обращения: 20.02.2021). DOI: https://doi.org/10.23682/103653

31. Тучин В.В. Оптическая биомедицинская диагностика. В 2 т. Т. 1 : учебное пособие / Тучин В.В.. — Москва : Ай Пи Ар Медиа, 2021. — 549 c. — ISBN 978-5-4497-0570-9 (т. 1), 978-5-4497-0592-1. — Текст : электронный // Электронно-библиотечная система IPR BOOKS : [сайт]. — URL: http://www.iprbookshop.ru/103654.html (дата обращения: 12.05.2021). — Режим доступа: для авторизир. пользователей. - DOI: https://doi.org/10.23682/103654

32. Тучин В.В. Оптическая биомедицинская диагностика. В 2 т. Т. 2 : учебное пособие / Тучин В.В.. — Москва : Ай Пи Ар Медиа, 2021. — 463 c. — ISBN 978-5-4497-0571-6 (т. 2), 978-5-4497-0592-1. — Текст : электронный // Электронно-библиотечная система IPR BOOKS : [сайт]. — URL: http://www.iprbookshop.ru/103655.html (дата обращения: 12.05.2021). — Режим доступа: для авторизир. пользователей. - DOI: https://doi.org/10.23682/103655

33. V.V. Tuchin, D. Zhu, and E.A. Genina (Eds.), *Handbook of Tissue Optical Clearing: New Prospects in Optical Imaging*, Taylor & Francis Group LLC, CRC Press, Boca Raton, FL (2022). – 688 p. https://www.routledge.com/Handbook-of-Tissue-Optical-Clearing-New-Prospects-in-Optical-Imaging/Tuchin-Zhu-Genina/p/book/9780367895099

Review by Christian Brosseau, OPTICA Fellow and professor of physics, Université de Bretagne Occidentale, Brest, France, Publish Date: 02 June 2022 https://www.optica-opn.org/home/book_reviews/2022/0622/handbook_of_tissue_optical_clearing_new_prospects/

34. A.V. Dunaev, V.V. Tuchin (Eds.), *Biomedical Photonics for Diabetes Research*, Taylor & Francis Group LLC, CRC Press, Boca Raton, FL, September 29, 2022.- 278 p. https://doi.org/10.1201/9781003112099
https://www.taylorfrancis.com/books/edit/10.1201/9781003112099/biomedical-photonics-diabetes-research-andrey-dunaev-valery-tuchin

Избранные главы в монографиях

1. V.V. Tuchin, S.R. Utz, and I.V. Yaroslavsky, “Skin optics: modeling of light transport and measuring of optical parameters,” *Medical Optical Tomography: Functional Imaging & Monitoring*, SPIE. Inst. Ser. **IS11**, Bellingham, WA, USA, 1993, pp. 234-258.

2. V.V. Tuchin, Y.N. Scherbakov, A.N. Yakunin, and I.V. Yaroslavsky, “Numerical technique for modeling of laser-induced hyperthermia,” *Laser - Induced Interstitial Thermotherapy*, SPIE Press **PM 25**, Bellingham, WA, USA, 1995, pp. 100-113.

3. Chernova S., Pravdin A., Sinichkin Y., Tuchin V., Vari S. (2000) Layered Gel-Based Phantoms Mimicking Fluorescence of Cervical Tissue. In: Fotakis C., Papazoglou T.G., Kalpouzos C. (eds) Optics and Lasers in Biomedicine and Culture. Series of the International Society on Optics Within Life Sciences, vol 5. Springer, Berlin, Heidelberg; https://doi.org/10.1007/978-3-642-56965-4_59; Print ISBN 978-3-642-63073-6; Online ISBN 978-3-642-56965-4

4. D.A. Zimnyakov and V.V. Tuchin, “Optical Medical Tomography,” in *Lasers in Medicine*, D.R. Vij (Ed.) Kluwer, USA, 2002, pp. 147-194.

5. Yu. P. Sinichkin, N. Kollias, G. Zonios, S. R. Utz, and V. V. Tuchin, "Reflectance and Fluorescence Spectroscopy of Human Skin *In Vivo*," Chapter 13 in *Optical Biomedical Diagnostics*, V.V. Tuchin (ed.), SPIE Press, Bellingham, WA, 2002, pp. 725-785.

6. V. V. Tuchin, "Biomedical Spectroscopy," in *Encyclopedia of Optical Engineering*, R. G. Driggers (ed.), Marcel-Dekker, New York, 2003, pp.166-182.

7. V. V. Tuchin, "Optical Spectroscopy of Tissue," in *Encyclopedia of Optical Engineering*, R.G. Driggers (ed.), Marcel-Dekker, New York, 2003, pp.1814-1829.

8. V.V. Tuchin, "Light-Tissue Interactions" in *Biomedical Photonics Handbook*, Tuan Vo-Dinh (ed.), CRC Press, Boca Raton, 2003, pp. 3-1-3-26.

9. D.A. Zimnyakov, V.V. Tuchin, "Speckle Correlometry" in *Biomedical Photonics Handbook*, Tuan Vo-Dinh (ed.), CRC Press, Boca Raton, FL, 2003, pp.14-1-14-23.

10. A.N. Bashkatov, E.A. Genina, and V.V. Tuchin, "Optical immersion as a tool for tissue scattering properties control" in *Perspectives in Engineering Optics*, eds. Kehar Singh and V.K. Rastogi, Anita Publications, New Delhi, India, 2003, pp 313-334.

11. V.V. Tuchin, "Tissue and Blood Optical Properties Control," in *Advances in Biophotonics*, NATO Science Series I. Life and Behavioural Sciences – Vol. 369, B. Wilson, V. Tuchin, S. Tanev, Eds., IOS Press, Amsterdam, 2005, pp. 79-122.

12. S. Tanev, W. Sun, N. Loeb, and V. Tuchin, "The Finite-Difference Time-Domain Approach and its Application to the Modelling of Light Scattering by Biological Cells in Absorbing and Controlled Extra-cellular Media," in *Advances in Biophotonics*, NATO Science Series I. Life and Behavioural Sciences – Vol. 369, B. Wilson, V. Tuchin, S. Tanev, Eds., IOS Press, Amsterdam, 2005, pp. 45-78.

13. Valery V. Tuchin, Gregory B. Altshuler, "Dental and oral tissue optics," Chapter 9 in *Fundamentals and Applications of Biophotonics in Dentistry*, *Series on Biomaterials and Bioengineering*, vol.4, Anil Kishen and Anand Asundi (eds.), Imperial College Press, UK, 2007, pp. 245-300.

14. Stoyan Tanev, Valery V. Tuchin and Paul Paddon, FDTD modeling of light scattering from single biological cells containing gold nanoparticles, in *Photon-Based Nanoscience and Nanobiotechnology*, Eds. J. J. Dubowski and Stoyan Tanev, NATO Science Series II: Mathematics, Physics and Chemistry, Springer, Dordrecht, The Netherlands, 2006, pp. 97-119.

15. Stoyan Tanev, Paul Paddon and V. Tuchin, A simulation equivalent of an optical phase contrast imaging microscope, in *Optical Waveguide Sensing and Imaging*, Eds. Wojtek J. Bock, Israel Gannot and Stoyan Tanev, NATO Science Series, Springer, Dordrecht, The Netherlands 2007.

16. R.K. Wang and V.V. Tuchin, "Optical Tissue Clearing to Enhance Imaging Performance for OCT," Chapter 28 in *Optical Coherence Tomography: Technology and Applications*, W. Drexler, J.G. Fujimoto, eds., Springer, Berlin, 2008, pp. 851-882.

17. S. Tanev, J. Pond, P. Paddon & V. Tuchin, A Finite-difference time-domain model of optical phase contrast microscope imaging, in *Optical waveguide sensing and imaging*, Eds. W. Bock, I. Gannot & S. Tanev, NATO SPS Series B: Physics and Biophysics, Springer, Dordrecht, 2008, pp. 243-258

18. G.B. Altshuler and V.V. Tuchin, Physics behind the light-based technology: Skin and hair follicle interactions with light in *Cosmetic Applications of Laser & Light-Based Systems,* ed. Gurpreet Ahluwalia, William Andrew, Inc., Norwich, NY, USA, 2009. P.49-109.

19. Bashkatov A.N., Genina E.A., Tuchin V.V. Measurement of glucose diffusion coefficients in human tissues / Chapter 19 in: Handbook of Optical Sensing of Glucose in Biological Fluids and Tissues, Valery V. Tuchin (editor), Taylor & Francis Group LLC, CRC Press, 2009, pp. 587-621 (ISBN: 978-1-58488-974-8)

20. Larin K.V., Tuchin V.V. Monitoring of Glucose Diffusion in Epithelial Tissues with Optical Coherence Tomography/ Chapter 20 in: Handbook of Optical Sensing of Glucose in Biological Fluids and Tissues, Valery V. Tuchin (editor), Taylor & Francis Group LLC, CRC Press, 2009, pp. 623-656 (ISBN: 978-1-58488-974-8).

21. Genina E.A., Bashkatov A.N., Tuchin V.V. Glucose-induced optical clearing effects in tissues and blood / Chapter 21 in: Handbook of Optical Sensing of Glucose in Biological Fluids and Tissues, Valery V. Tuchin (editor), Taylor & Francis Group LLC, CRC Press, 2009, pp. 657-692 (ISBN: 978-1-58488-974-8)

22. M.F. Yang, V.V. Tuchin, and A.N. Yaroslavsky, "Principles of light skin interactions," *Light-Based Therapies for Skin of Color*, Ed. E. Baron, Springer, London, 2009, pp. 1-45. – 284 c.

23. Valery V. Tuchin, Optical Spectroscopy of Biological Materials, Chapter 16, in *Encyclopedia of Applied Spectroscopy*. Edited by David L. Andrews. Copyright © 2009 WILEY-VCH Verlag GmbH & Co. KGaA, Weinheim, ISBN: 978-3-527-40773-6, pp. 555-626.

24. Stoyan Tanev, Wenbo Sun, James Pond, and Valery V. Tuchin, FDTD simulation of light interaction with cells for nanobiophotonics: diagnostics and imaging, Chapter 1 in *Handbook of Photonics for Biomedical Science*, Valery V. Tuchin, ed., CRC Press, Taylor & Francis Group, London, 2010, pp. 3-45.

25. Kirill V. Larin, Mohamad G. Ghosn, Valery V. Tuchin, *Noninvasive* Assessment of Molecular Permeability with OCT, Chapter 17 in *Handbook of Photonics for Biomedical Science*, Valery V. Tuchin, ed., CRC Press, Taylor & Francis Group, London, 2010, pp. 410-428.

26. Maxim Nazarov, Alexander Shkurinov, Valery V. Tuchin, X.-C. Zhang, "Terahertz Tissue Spectroscopy and Imaging," Chapter 23 in *Handbook of Photonics for Biomedical Science*, Valery V. Tuchin, ed., CRC Press, Taylor & Francis Group, London, 2010, pp. 591-613.

27. Georgy S. Terentyuk, Garif G. Akchurin, Irina L. Maksimova, Galina N. Maslyakova, Nikolai G. Khlebtsov, Valery V. Tuchin, Cancer Laser Thermotherapy Mediated by Plasmonic Nanoparticles, Chapter 29 in *Handbook of Photonics for Biomedical Science*, Valery V. Tuchin, ed., CRC Press, Taylor & Francis Group, London, 2010, pp. 763-797.

28. Elina A. Genina, Alexey N. Bashkatov, Kirill V. Larin, and Valery V. Tuchin, Light–Tissue Interaction at Optical Clearing (Chapter 7) *in Laser Imaging and Manipulation in Cell Biology*. Ed. Francesco S. Pavone, 2010 WILEY-VCH Verlag GmbH & Co. KGaA, Weinheim, ISBN: 978-3-527-40929-7, pp. 115–164.

29. S. Tanev, W. Sun, J. Pond, V. V. Tuchin, V. P. Zharov, Optical Imaging of Cells with Gold Nanoparticle Clusters as Light Scattering Contrast Agents: A Finite-Difference Time-Domain Approach to the Modeling of Flow Cytometry Configurations, in *Advanced Optical Cytometry: Methods and Disease Diagnoses*, Valery V. Tuchin, ed., WILEY-VCH Verlag GmbH & Co. KGaA, Weinheim, 2011, pp. 35-62.

30. V.V. Tuchin, E.I. Galanzha, and V.P. Zharov, In vivo Image Flow Cytometry in *Advanced Optical Cytometry: Methods and Disease Diagnoses*, V.V. Tuchin (ed.), WILEY-VCH Verlag GmbH & Co. KGaA, Weinheim, 2011, pp. 387-433.

31. V.V. Tuchin, E.I. Galanzha, and V.P. Zharov, *In vivo* Photothermal and Photoacoustic Flow Cytometry in *Advanced Optical Cytometry: Methods and Disease Diagnoses*, V.V. Tuchin (ed.), Wiley-VCH Verlag GmbH & Co. KGaA, Weinheim, 2011, pp. 501-571.

32. Bashkatov A.N., Genina E.A., Tuchin V.V. Tissue Optical Properties (Chapter 5 in: Handbook of Biomedical Optics, D.A. Boas, C. Pitris, and N. Ramanujam (eds.), Taylor & Francis Group, LLC, CRC Press Inc., 2011).

33. Genina E.A., Larin K.V., Bashkatov A.N., Tuchin V.V. Glucose and other metabolites sensing in skin / Chapter 12.1.5 in: *Handbook of Biophotonics*, vol. 2: Photonics for Health Care, Eds. J. Popp, V. Tuchin, A. Chiou, and S.H. Heinemann, Wiley-VCH Verlag GmbH & Co. KGaA, Weinheim, 2011, 835-853.

34. Igor Meglinski and Valery V. Tuchin, Diffusing Wave Spectroscopy: Application for Blood Diagnostics, Chapter 4, Coherent-Domain Optical Methods: Biomedical Diagnostics, Environmental Monitoring and Material Science. V. 1, 2nd edition, ed. by V.V. Tuchin, Berlin, Heidelberg, N.Y.: Springer-Verlag, 2013, pp. 149-166. ISBN: 978-1-4614-5175-4

35. Qingming Luo, Chao Jiang, Pengcheng Li, Haiying Cheng, Zhen Wang, Zheng Wang, and Valery V. Tuchin Laser Speckle Imaging of Cerebral Blood Flow, Chapter 5, Coherent-Domain

Optical Methods: Biomedical Diagnostics, Environmental Monitoring and Material Science. V. 1, 2nd edition, ed. by V.V. Tuchin, Berlin, Heidelberg, N.Y.: Springer-Verlag, 2013, pp. 167-212. ISBN: 978-1-4614-5175-4

36. Ivan V. Fedosov and Valery V. Tuchin, Bioflow Measuring: Laser Doppler and Speckle Techniques, Chapter 13, Coherent-Domain Optical Methods: Biomedical Diagnostics, Environmental Monitoring and Material Science. V. 1, 2nd edition, ed. by V.V. Tuchin, Berlin, Heidelberg, N.Y.: Springer-Verlag, 2013, pp. 487-564. ISBN: 978-1-4614-5175-4

37. Ruikang K. Wang and Valery V. Tuchin, Optical Coherence Tomography: Light Scattering and Imaging Enhancement, Chapter 16, Coherent-Domain Optical Methods: Biomedical Diagnostics, Environmental Monitoring and Material Science. V. 2, 2nd edition, ed. by V.V. Tuchin, Berlin, Heidelberg, N.Y.: Springer-Verlag, 2013, pp. 665-742. ISBN: 978-1-4614-5175-4

38. Dan Zhu, Qingming Luo and Valery V. Tuchin, "Tissue Optical Clearing," *Advanced Biophotonics: Tissue Optical Sectioning*, Chapter 17, Wang R.K. and Tuchin V.V. (Eds.), CRC Press, Taylor & Francis Group, London, 2013, pp. 621-672. ISBN 9781439895818

39. A. Douplik, G. Saiko and I. Schelkanova, and V.V. Tuchin, The response of tissue to laser light, Chapter 3, *Lasers for Medical Applications: Diagnostics, Therapy and Surgery,* Helena Jelinkova (Ed.), Electronic and Optical Materials Series No. 37, Woodhead Publishing, Ltd., 2013, p. 832. ISBN-13: 9780857092373.pp.47-109.

40. G.S. Terentyuk, I.L. Maksimova, N.I. Dikht, A.G. Terentyuk, B.N. Khlebtsov, N.G. Khlebtsov, V.V. Tuchin, Cancer laser therapy using gold nanoparticles, Chapter 22, *Lasers for Medical Applications: Diagnostics, Therapy and Surgery,* Helena Jelinkova (Ed.), Electronic and Optical Materials Series No. 37, Woodhead Publishing, Ltd., 2013, p. 832. ISBN-13: 9780857092373.pp. 659-703.

41. J.S. Skibina, A.V. Malinin, A.A. Zanishevskaya, and V.V. Tuchin, Photonic Crystal Waveguide Sensing, Chapter 1// Portable Biosensing of Food Toxicants and Environmental Pollutants, Series in Sensors, Dimitrios P. Nikolelis, Theodoros Varzakas, Arzum Erdem, Georgia-Paraskevi Nikoleli (Eds.), CRC Press, 2014, 830 p. pp. 1-32. ISBN 9781466576322

42. Tuchin V.V. *In vivo* optical flow cytometry and cell imaging, Proc. of the International School of Physics 'Enrico Fermi,' Course 181 – Microscopy Applied to Biophotonics, edited by F. S. Pavone, P.T.C. So and P.M.W. French, Societa Italiana di Fisica, Bologna, 2014. 45p. 978-1-61499-412-1

43. Igor Meglinski, Alexander Doronin, Alexey N. Bashkatov, Elina A. Genina, and Valery V. Tuchin, Dermal component based optical modeling of the skin translucency: impact on the skin color, Chapter 2 // Computational Biophysics of the Skin, B. Querleux (ed.), CRC Press, Taylor & Francis Group, London, 2014, p. 25-61. ISBN 9789814463843

44. J. Mobley, T. Vo-Dinh, and V.V. Tuchin, Optical Properties of Tissues, Chapter 2, Biomedical Photonics Handbook, Tuan Vo-Dinh (Ed.), Taylor & Francis Group, LLC, Boca Raton, FL, CRC Press Inc., 2015, pp. 23-122. ISBN 9781420085143

45. V.V. Tuchin, Light-Tissue Interactions, Chapter 3, Biomedical Photonics Handbook, Tuan Vo-Dinh (Ed.), Taylor & Francis Group, LLC, Boca Raton, FL, CRC Press Inc., 2015, pp. 123-168. ISBN 9781420085143

46. D.A. Zimnyakov and V.V. Tuchin, Speckle Correlometry, Chapter 19, Biomedical Photonics Handbook, Tuan Vo-Dinh (Ed.), Taylor & Francis Group, LLC, Boca Raton, FL, CRC Press Inc., 2015, 561-586. ISBN 9781420085143

47. J.T. Alander, O.M. Villet, T. Pätilä, I.S. Kaartinen, M. Lehecka, T. Nakaguchi, T. Suzuki, and V. Tuchin, Review of Indocyanine Green Imaging in Surgery, in *Fluorescence Imaging for Surgeons*: *Concepts and Applications,* Dip, F.D., Ishizawa, T., Kokudo, N., Rosenthal, R. (eds.), Springer International Publishing Switzerland, Cham, Heidelberg, New York, Dordrecht, London, 2015, pp. 35-53; ISBN: 978-3-319-15677-4 (Print), 978-3-319-15678-1 (Online)

48. R. K. Wang and V. V. Tuchin, "Optical tissue clearing to enhance imaging performance for OCT," in *Optical Coherence Tomography: Technology and Applications*, 2nd ed., W. Drexler, J.

G. Fujimoto, Eds., Springer International Publishing Switzerland, Cham, Heidelberg, New York, Dordrecht, London, 2015, pp. 1455–1488. ISBN 978-3-319-06420-8

49. M. Jędrzejewska-Szczerska, K. Karpienko, M. S. Wróbel and V. V. Tuchin, "Sensors for Rapid Detection of Environmental Toxicity in Blood of Poisoned People" in *Biosensors for Security and Bioterrorism. Applications, Advanced Sciences and Technologies for Security Applications*, D.P. Nikolelis and G.-P. Nikoleli (eds.), Springer International Publishing Switzerland (2016), pp. 413-430. DOI 10.1007/978-3-319-28926-7_19.

50. V.V. Tuchin, "Editor's Introduction: Optical methods for biomedical diagnosis," in *Handbook of Optical Biomedical Diagnostics. Light-Tissue Interaction*, vol.1, 2nd ed., SPIE Press **PM262**, Bellingham, WA, USA, 2016, pp. xvii-lxiv.

51. N.G. Khlebtsov, I.L. Maksimova, I.V. Meglinski, L. Wang, and V.V. Tuchin, "Introduction to light scattering by biological objects," Chapter 1 in *Handbook of Optical Biomedical Diagnostics. Light-Tissue Interaction*, vol.1, 2nd ed., SPIE Press PM262, Bellingham, WA, USA, 2016, pp. 3 -159.

52. A. B. Pravdin, G. Filippidis, G. Zacharakis, T. G. Papazoglou, V. V. Tuchin. "Tissue phantoms," Chapter 5 in *Handbook of Optical Biomedical Diagnostics. Light-Tissue Interaction*, vol.1, 2nd ed., SPIE Press PM262, Bellingham, WA, USA, 2016, pp. 335 - 395.

53. H. Wabnitz, J. Rodriguez, I. Yaroslavsky, A. Yaroslavsky, H. Battarbee, and V.V. Tuchin, "Time-resolved imaging in diffusive media," Chapter 6 in *Handbook of Optical Biomedical Diagnostics. Light-Tissue Interaction*, vol.1, 2nd ed., SPIE Press PM262, Bellingham, WA, USA, 2016, pp. 401 - 475.

54. T. Myllylä, V. Yu. Toronov, J. Claassen, V. Kiviniemi, and V. V. Tuchin, "Near-infrared spectroscopy in multimodal brain research," Chapter 10 in *Handbook of Optical Biomedical Diagnostics. Light-Tissue Interaction*, vol.1, 2nd ed., SPIE Press PM262, Bellingham, WA, USA, 2016, pp. 687 - 735.

55. Yu.P. Sinichkin, N. Kollias, G. Zonios, S.R. Utz, and V.V. Tuchin, "Reflectance and fluorescence spectroscopy of the human skin *in vivo*," Chapter 3 in *Handbook of Optical Biomedical Diagnostics. Methods*, vol. 2, 2nd ed., SPIE Press **PM263**, Bellingham, WA, USA, 2016, pp. 99-190.

56. I.V. Fedosov, Y. Aizu, V.V. Tuchin, N. Yokoi, I. Nishidate, V. P. Zharov and E. I. Galanzha, "Laser Speckles, Doppler and Imaging Techniques for Blood and Lymph Flow Monitoring," Chapter 6 in *Handbook of Optical Biomedical Diagnostics. Methods*, vol. 2, 2nd ed., SPIE Press **PM263**, Bellingham, WA, USA, 2016, pp. 309-384.

57. D.A. Zimnyakov, O.V. Ushakova, J.D. Briers, and V.V. Tuchin, "Speckle technologies for monitoring and imaging of tissues and tissue-like phantoms," Chapter 8 in *Handbook of Optical Biomedical Diagnostics. Methods*, vol. 2, 2nd ed., SPIE Press **PM263**, Bellingham, WA, USA, 2016, pp. 429-495.

58. E.A. Genina, A.N. Bashkatov, Yu.P. Sinichkin, I.Yu. Yanina, and V.V. Tuchin, "Optical clearing of tissues: benefits for biology, medical diagnostics, and phototherapy," Chapter 10 in *Handbook of Optical Biomedical Diagnostics. Methods*, vol. 2, 2nd ed., SPIE Press **PM263**, Bellingham, WA, USA, 2016, pp. 565-637.

59. O. Semyachkina-Glushkovskaya, E. Borisova, A. Namikin, I. Fedosov, A. Abdurashitov, E. Zhinchenko, A. Gekalyuk, M. Ulanova, V. Rezunbaeva, L. Avramov, D. Zhu, Q. Luo, V. Tuchin, "Hypoxia and Neonatal Haemorrhagic Stroke: Experimental Study of Mechanisms," *Advances in Experimental Medicine and Biology*, vol. **923**, *Oxygen Transport to Tissue XXXVIII,* Eds. Q. Luo, L. Z. Li, D. K. Harrison, H. Shi, D. F. Bruley, Springer International Publishing Switzerland, 2016, pp 173-179; ISBN: 978-3-319-38808-3 (Print) 978-3-319-38810-6 (Online). DOI: 10.1007/978-3-319-38810-6_23

60. A. B. Bucharskaya, G. N. Maslyakova, G. S. Terentyuk, N. A. Navolokin, A. N. Bashkatov, E. A. Genina, B. N. Khlebtsov, N. G. Khlebtsov, V.V. Tuchin, Gold nanoparticle-based technologies in photothermal/photodynamic treatment: the challenges and prospects, D. P. Nikolelis, G.-P. Nikoleli (Eds.), *Nanotechnology and Biosensors*, Elsevier Inc. 2018, pp. 151-173 (ISBN: 978-0-12-813855-7).

61. M. Jędrzejewska-Szczerska, D. Majchrowicz, M. Hirsch, P. Struk, R. Bogdanowicz, M. Bechelany, V. Tuchin, Nanolayers in fiber optic biosensing, D. P. Nikolelis, G.-P. Nikoleli (Eds.), *Nanotechnology and Biosensors*, Elsevier Inc. 2018, pp.395-426 (ISBN: 978-0-12-813855-7).

62. A. N. Bashkatov, V. P. Zakharov, A. B. Bucharskaya, E. G. Borisova, Yu. A. Khristoforova, E. A. Genina, and V. V. Tuchin, "Malignant Tissue Optical Properties," Chapter 1, in *Multimodal optical diagnostics of cancer*, V.V. Tuchin, J. Popp, and V.P. Zakharov (Eds.), Basel: Springer Nature Switzerland AG, 2020, pp. 3-106, ISBN 978-3-030-44593-5 https://www.springer.com/gp/book/9783030445935

63. E. A. Genina, L. M. C. Oliveira, A. N. Bashkatov, and V. V. Tuchin, "Optical Clearing of Biological Tissues: Prospects of Application for Multimodal Malignancy Diagnostics," Chapter 2, in *Multimodal optical diagnostics of cancer*, V.V. Tuchin, J. Popp, and V.P. Zakharov (Eds.), Basel: Springer Nature Switzerland AG, 2020, pp. 108-132, ISBN 978-3-030-44593-5 https://www.springer.com/gp/book/9783030445935

64. O. Semyachkina-Glushkovskaya, M. Klimova, T. Iskra, D. Bragin, Abdurashitov A., Dubrovsky A., Khorovodov A., Terskov A., Blokhina I., Lezhnev N., Vinnik V., Agranovich I., Mamedova A., Shirokov A., Navolokin N., Khlebsov B., Tuchin V., Kurths J. Transcranial Photobiomodulation of Clearance of Beta-Amyloid from the Mouse Brain: Effects on the Meningeal Lymphatic Drainage and Blood Oxygen Saturation of the Brain. In: Nemoto E.M., Harrison E.M., Pias S.C., Bragin D.E., Harrison D.K., LaManna J.C. (eds) Oxygen Transport to Tissue XLII. Advances in Experimental Medicine and Biology, vol 1269. Springer, Cham. (2021), pp. 57-61; https://doi.org/10.1007/978-3-030-48238-1_9

65. O. Semyachkina-Glushkovskaya, D. Bragin, O. Bragina, Y. Yang, A. Abdurashitov, A. Esmat, A. Khorovodov, A. Terskov, M. Klimova, I. Agranovich, I. Blokhina, A. Shirokov, N. Navolokin, V. Tuchin, J. Kurths, Mechanisms of Sound-Induced Opening of the Blood-Brain Barrier. In: Nemoto E.M., Harrison E.M., Pias S.C., Bragin D.E., Harrison D.K., LaManna J.C. (eds) Oxygen Transport to Tissue XLII. Advances in Experimental Medicine and Biology, vol 1269. Springer, Cham. (2021), pp. 197-202; https://doi.org/10.1007/978-3-030-48238-1_31

66. T. Yu, D. Zhu, L. Oliveira, E.A. Genina, A.N. Bashkatov, and V.V. Tuchin, Tissue optical clearing mechanisms, in *Handbook of Tissue Optical Clearing: New Prospects in Optical Imaging*, V.V. Tuchin, D. Zhu, E.A. Genina (Eds.), Taylor & Francis Group LLC, CRC Press, Boca Raton, FL (2022), pp. 3-30. https://www.routledge.com/Handbook-of-Tissue-Optical-Clearing-New-Prospects-in-Optical-Imaging/Tuchin-Zhu-Genina/p/book/9780367895099

67. N. Zeng, H. He, V.V. Tuchin, and H. Ma, Tissue optical clearing for Mueller matrix microscopy, in *Handbook of Tissue Optical Clearing: New Prospects in Optical Imaging*, V.V. Tuchin, D. Zhu, E.A. Genina (Eds.), Taylor & Francis Group LLC, CRC Press, Boca Raton, FL (2022), pp. 31-66. https://www.routledge.com/Handbook-of-Tissue-Optical-Clearing-New-Prospects-in-Optical-Imaging/Tuchin-Zhu-Genina/p/book/9780367895099

68. E.A. Genina, V.D. Genin, J. Zhu, A.N. Bashkatov, D. Zhu, and V.V. Tuchin, Traditional and innovative optical clearing agents, in *Handbook of Tissue Optical Clearing: New Prospects in Optical Imaging*, V.V. Tuchin, D. Zhu, E.A. Genina (Eds.), Taylor & Francis Group LLC, CRC Press, Boca Raton, FL (2022), pp. 67-92. https://www.routledge.com/Handbook-of-Tissue-Optical-Clearing-New-Prospects-in-Optical-Imaging/Tuchin-Zhu-Genina/p/book/9780367895099

69. D. Zhu, Y. Liang, X. Li, and V.V. Tuchin, Chemical enhancers for improving tissue optical clearing efficacy, in *Handbook of Tissue Optical Clearing: New Prospects in Optical Imaging*, V.V. Tuchin, D. Zhu, E.A. Genina (Eds.), Taylor & Francis Group LLC, CRC Press, Boca Raton, FL (2022), pp. 93-108. https://www.routledge.com/Handbook-of-Tissue-Optical-Clearing-New-Prospects-in-Optical-Imaging/Tuchin-Zhu-Genina/p/book/9780367895099

70. W. Blondel, M. Amouroux, S.M. Zaytsev, E.A. Genina, V. Colas, C. Daul, A.B. Pravdin, and V.V. Tuchin, Human skin autofluorescence and optical clearing, in *Handbook of Tissue Optical Clearing: New Prospects in Optical Imaging*, V.V. Tuchin, D. Zhu, E.A. Genina (Eds.), Taylor & Francis Group LLC, CRC Press, Boca Raton, FL (2022), pp. 109-126. https://www.routledge.com/Handbook-of-Tissue-Optical-Clearing-New-Prospects-in-Optical-Imaging/Tuchin-Zhu-Genina/p/book/9780367895099

71. K.V. Berezin, K.N. Dvoretskiy, M.L. Chernavina, A.M. Likhter, and V.V. Tuchin, Molecular modeling of post-diffusion phase of optical clearing of biological tissues, in *Handbook of Tissue Optical Clearing: New Prospects in Optical Imaging*, V.V. Tuchin, D. Zhu, E.A. Genina (Eds.), Taylor & Francis Group LLC, CRC Press, Boca Raton, FL (2022), pp. 127-140. https://www.routledge.com/Handbook-

of-Tissue-Optical-Clearing-New-Prospects-in-Optical-Imaging/Tuchin-Zhu-Genina/p/book/9780367895099

72. E.N. Lazareva, L. Oliveira, I.Yu. Yanina, N.V. Chernomyrdin, G.R. Musina, D.K. Tuchina, A.N. Bashkatov, K.I. Zaytsev, and V.V. Tuchin, Refractive index measurements of tissue and blood components and OCAs in a wide spectral range, in *Handbook of Tissue Optical Clearing: New Prospects in Optical Imaging*, V.V. Tuchin, D. Zhu, E.A. Genina (Eds.), Taylor & Francis Group LLC, CRC Press, Boca Raton, FL (2022), pp. 141-166. https://www.routledge.com/Handbook-of-Tissue-Optical-Clearing-New-Prospects-in-Optical-Imaging/Tuchin-Zhu-Genina/p/book/9780367895099

73. A.Yu. Sdobnov, J. Schleusener, J. Lademann, V.V. Tuchin, and M.E. Darvin, Water migration at skin optical clearing, in *Handbook of Tissue Optical Clearing: New Prospects in Optical Imaging*, V.V. Tuchin, D. Zhu, E.A. Genina (Eds.), Taylor & Francis Group LLC, CRC Press, Boca Raton, FL (2022), pp. 167-184. https://www.routledge.com/Handbook-of-Tissue-Optical-Clearing-New-Prospects-in-Optical-Imaging/Tuchin-Zhu-Genina/p/book/9780367895099

74. Yu. M. Alexandrovskaya, O. I. Baum, V.Yu. Zaitsev, A.A. Sovetsky, A.L. Matveyev, L.A. Matveev, K.V. Larin, E.N. Sobol, and V.V. Tuchin, Optical and mechanical properties of cartilage during optical clearing, in *Handbook of Tissue Optical Clearing: New Prospects in Optical Imaging*, V.V. Tuchin, D. Zhu, E.A. Genina (Eds.), Taylor & Francis Group LLC, CRC Press, Boca Raton, FL (2022), pp. 185-198. https://www.routledge.com/Handbook-of-Tissue-Optical-Clearing-New-Prospects-in-Optical-Imaging/Tuchin-Zhu-Genina/p/book/9780367895099

75. E.A. Genina, A.N. Bashkatov, V.P. Zharov, and V.V. Tuchin, *In vivo* skin optical clearing in humans, in *Handbook of Tissue Optical Clearing: New Prospects in Optical Imaging*, V.V. Tuchin, D. Zhu, E.A. Genina (Eds.), Taylor & Francis Group LLC, CRC Press, Boca Raton, FL (2022), pp. 369-382. https://www.routledge.com/Handbook-of-Tissue-Optical-Clearing-New-Prospects-in-Optical-Imaging/Tuchin-Zhu-Genina/p/book/9780367895099

76. O.S. Zhernovaya, E.A. Genina, V.V. Tuchin, and A.N. Bashkatov, Optical clearing of blood and tissues using blood components, in *Handbook of Tissue Optical Clearing: New Prospects in Optical Imaging*, V.V. Tuchin, D. Zhu, E.A. Genina (Eds.), Taylor & Francis Group LLC, CRC Press, Boca Raton, FL (2022), pp. 383-392. https://www.routledge.com/Handbook-of-Tissue-Optical-Clearing-New-Prospects-in-Optical-Imaging/Tuchin-Zhu-Genina/p/book/9780367895099

77. P.A. Dyachenko (Timoshina), A.S. Abdurashitov, O.V. Semyachkina-Glushkovskaya, and V.V. Tuchin, Blood and lymph flow imaging at optical clearing, in *Handbook of Tissue Optical Clearing: New Prospects in Optical Imaging*, V.V. Tuchin, D. Zhu, E.A. Genina (Eds.), Taylor & Francis Group LLC, CRC Press, Boca Raton, FL (2022), pp. 393-408. https://www.routledge.com/Handbook-of-Tissue-Optical-Clearing-New-Prospects-in-Optical-Imaging/Tuchin-Zhu-Genina/p/book/9780367895099

78. Ju. Cvjetinovic, D. V. Nozdriukhin, M. Mokrousov, A. Novikov, M.V. Novoselova, V.V. Tuchin, and D.A. Gorin, Enhancement of contrast in photoacoustic – fluorescence tomography and cytometry using optical clearing and contrast agents, in *Handbook of Tissue Optical Clearing: New Prospects in Optical Imaging*, V.V. Tuchin, D. Zhu, E.A. Genina (Eds.), Taylor & Francis Group LLC, CRC Press, Boca Raton, FL (2022), pp. 419-444. https://www.routledge.com/Handbook-of-Tissue-Optical-Clearing-New-Prospects-in-Optical-Imaging/Tuchin-Zhu-Genina/p/book/9780367895099

79. O.A. Smolyanskaya, K.I. Zaytsev, I.N. Dolganova, G.R. Musina, D.K. Tuchina, M.M. Nazarov, A.P. Shkurinov, and V.V. Tuchin, Tissue optical clearing in the terahertz range, in *Handbook of Tissue Optical Clearing: New Prospects in Optical Imaging*, V.V. Tuchin, D. Zhu, E.A. Genina (Eds.), Taylor & Francis Group LLC, CRC Press, Boca Raton, FL (2022), pp. 445-458. https://www.routledge.com/Handbook-of-Tissue-Optical-Clearing-New-Prospects-in-Optical-Imaging/Tuchin-Zhu-Genina/p/book/9780367895099

80. A.A. Bogdanov Jr., N.I. Kazachkina, V.V. Zherdeva, I.G. Meerovich, D.K. Tuchina, I.D. Solovyev, A.P. Savitsky, and V.V. Tuchin, Magnetic resonance imaging study of diamagnetic and paramagnetic agents for optical clearing of tumor-specific fluorescent signal *in vivo*, in *Handbook of Tissue Optical Clearing: New Prospects in Optical Imaging*, V.V. Tuchin, D. Zhu, E.A. Genina (Eds.), Taylor & Francis Group LLC, CRC Press, Boca Raton, FL (2022), pp. 459-470. https://www.routledge.com/Handbook-of-Tissue-Optical-Clearing-New-Prospects-in-Optical-Imaging/Tuchin-Zhu-Genina/p/book/9780367895099

81. I.Yu. Yanina, Y. Tanikawa, D.K. Tuchina, P.A. Dyachenko (Timoshina), Y. Iga, S. Takimoto, E.A. Genina, A.N. Bashkatov, G.S. Terentyuk, N.A. Navolokin, A.B. Bucharskaya, G.N. Maslyakova, and V.V. Tuchin, Optical clearing of adipose tissue, in *Handbook of Tissue Optical Clearing: New Prospects in Optical Imaging*, V.V. Tuchin, D. Zhu, E.A. Genina (Eds.), Taylor & Francis Group LLC, CRC Press, Boca Raton, FL (2022), pp. 471-516. https://www.routledge.com/Handbook-of-Tissue-Optical-Clearing-New-Prospects-in-Optical-Imaging/Tuchin-Zhu-Genina/p/book/9780367895099

82. D.K. Tuchina and V.V. Tuchin, *Diabetes mellitus*-induced alterations of tissue optical properties, optical clearing efficiency, and molecular diffusivity, in *Handbook of Tissue Optical Clearing: New Prospects in Optical Imaging*, V.V. Tuchin, D. Zhu, E.A. Genina (Eds.), Taylor & Francis Group LLC, CRC Press, Boca Raton, FL (2022), pp. 517-538. https://www.routledge.com/Handbook-of-Tissue-Optical-Clearing-New-Prospects-in-Optical-Imaging/Tuchin-Zhu-Genina/p/book/9780367895099

83. D. Li, W. Feng, R. Shi, V.V. Tuchin, and D. Zhu, Tissue optical clearing for in vivo detection and imaging diabetes induced changes in cells, vascular structure, and function, in *Handbook of Tissue Optical Clearing: New Prospects in Optical Imaging*, V.V. Tuchin, D. Zhu, E.A. Genina (Eds.), Taylor & Francis Group LLC, CRC Press, Boca Raton, FL (2022), pp. 539-556. https://www.routledge.com/Handbook-of-Tissue-Optical-Clearing-New-Prospects-in-Optical-Imaging/Tuchin-Zhu-Genina/p/book/9780367895099

84. L.M. Oliveira and V.V. Tuchin, Optical clearing for cancer diagnostics and monitoring, in *Handbook of Tissue Optical Clearing: New Prospects in Optical Imaging*, V.V. Tuchin, D. Zhu, E.A. Genina (Eds.), Taylor & Francis Group LLC, CRC Press, Boca Raton, FL (2022), pp. 597-606. https://www.routledge.com/Handbook-of-Tissue-Optical-Clearing-New-Prospects-in-Optical-Imaging/Tuchin-Zhu-Genina/p/book/9780367895099

85. M.A. Ansari and V.V. Tuchin, Measurement of the dermal beta-carotene in the context of multimodal optical clearing, in *Handbook of Tissue Optical Clearing: New Prospects in Optical Imaging*, V.V. Tuchin, D. Zhu, E.A. Genina (Eds.), Taylor & Francis Group LLC, CRC Press, Boca Raton, FL (2022), pp. 619-628. https://www.routledge.com/Handbook-of-Tissue-Optical-Clearing-New-Prospects-in-Optical-Imaging/Tuchin-Zhu-Genina/p/book/9780367895099

86. A.A. Selifonov and V.V. Tuchin, Optical clearing and molecular diffusivity of hard and soft oral tissues, in *Handbook of Tissue Optical Clearing: New Prospects in Optical Imaging*, V.V. Tuchin, D. Zhu, E.A. Genina (Eds.), Taylor & Francis Group LLC, CRC Press, Boca Raton, FL (2022), pp. 629-646. https://www.routledge.com/Handbook-of-Tissue-Optical-Clearing-New-Prospects-in-Optical-Imaging/Tuchin-Zhu-Genina/p/book/9780367895099

87. Q. Lin, E.N. Lazareva, V.I. Kochubey, Y. Duan, and V.V. Tuchin, Optical clearing and Raman spectroscopy: *In vivo* applications, in *Handbook of Tissue Optical Clearing: New Prospects in Optical Imaging*, V.V. Tuchin, D. Zhu, E.A. Genina (Eds.), Taylor & Francis Group LLC, CRC Press, Boca Raton, FL (2022), pp. 647-654. https://www.routledge.com/Handbook-of-Tissue-Optical-Clearing-New-Prospects-in-Optical-Imaging/Tuchin-Zhu-Genina/p/book/9780367895099

88. Valeria V. Telnova, Alexander I. Dubrovsky, Andrey V. Terskov, Anna S. Tsven, Oxana V. Semyachkina-Glushkovskaya,Valery V. Tuchin, Photodynamic therapy of brain diseases, In.: *Advances in Brain Imaging Techniques*, Nirmal Mazumder, Gireesh G, Yury Kistenev (Eds.) Springer, 2022. https://www.kinokuniya.co.jp/f/dsg-02-9789811913518 , pp. 125-145.

89. Daria K. Tuchina, Alla B. Bucharskaya, Polina A. Dyachenko (Timoshina), Nataliya I. Dikht, Georgy S. Terentyuk, Valery V. Tuchin, Chapter 1. "Optical and structural properties of biological tissues under simulated diabetes mellitus" in *Biomedical Photonics for Diabetes Research,* Eds.Andrey Dunaev, Valery Tuchin, Taylor & Francis Group LLC, CRC Press, Boca Raton, FL, September 29, 2022, pp. 1-31; https://www.routledge.com/Biomedical-Photonics-for-Diabetes-Research/Dunaev-Tuchin/p/book/9780367628307

90. A.N. Yakunin, S.V. Zarkov, Y.A. Avetisyan, G.G. Akchurin, V.V. Tuchin, Nanomaterials in Matrix X-ray Sensors for Computed Tomography, Chapter 3, *Nanosensors*, eds. D. Nikolelis, G.P. Nikoleli, CRC Press, 2023, pp. 69-89. - 262 p. ISBN 1000887081, 9781000887082; https://www.taylorfrancis.com/chapters/edit/10.1201/9780367822286-3/nanomaterials-matrix-ray-sensors-computed-tomography-alexander-yakunin-sergey-zarkov-yuri-avetisyan-garif-akchurin-valery-tuchin

91. P. Listewnik, V.V. Tuchin, M. Szczerska, Fiber-optic Sensors with Microsphere, Chapter 7, *Nanosensors*, eds. D. Nikolelis, G.P. Nikoleli, CRC Press, 2023, pp. 159-172. - 262 p. ISBN 1000887081, 9781000887082; https://www.taylorfrancis.com/chapters/edit/10.1201/9780367822286-7/fiber-optic-sensors-microsphere-paulina-listewnik-valery-tuchin-ma%C5%82gorzata-szczerska?context=ubx

Избранные обзорные работы

1. В.В. Тучин, Л.П. Шубочкин, Применение лазеров в офтальмологии. Взаимодействие оптического излучения с тканями глаза, Обзоры по электронной технике, Сер. 11, Лазерная техника и оптоэлектроника, N2 (1037), М., 1984.
2. В.В. Тучин, Л.П. Шубочкин, Применение лазеров в офтальмологии. Лазерные офтальмологические устройства, Обзоры по электронной технике, Сер. 11, Лазерная техника и оптоэлектроника, N3 (1119), Москва, 1985.
3. В.Ф. Изотова, П.И. Сапрыкин, В.В. Тучин, Л.П. Шубочкин, Лазеры в ретинометрии, Зарубежная радиоэлектроника, № 1, с. 91-100, 1985.
4. В.В. Тучин, А.П. Миронычев, "Оптоакустическая спектроскопия в биологических и медицинских исследованиях," Зарубежная радиоэлектроника, № 9, с.51-86, 1986.
5. V.V. Tuchin, “Lasers and fiber optics in biomedicine,” *Laser Physics* **3**(4), pp 767-820; N 5, pp. 925-950, 1993.
6. V.V. Tuchin, “Laser light scattering in biomedical diagnostics and therapy,” *J. Laser Applications* (*Laser Inst. of America*) **5**(2 & 3), pp. 43-60, 1993.
7. S.S. Ul’yanov, D.A. Zimnyakov, and V.V. Tuchin, “Fundamentals and applications of dynamic speckles induced by focused laser beam scattering,” *Optical Engineering*, Special Issue on Optics in Russia **33**(10), pp. 3189-3201, 1994.
8. V.V. Tuchin, S.R. Utz, and I.V. Yaroslavsky, “Tissue optics, light distribution and spectroscopy,” *Optical Engineering*, Special Issue on Optics in Russia **33**(10), pp. 3178-3188, 1994.
9. В.В. Тучин, «Основы взаимодействия низкоинтенсивного лазерного излучения с биотканями: дозиметрический и диагностический аспекты» *Изв. РАН, сер. Физическая*, т. 59, № 6, С. 120 - 143, 1995.
10. В.В. Тучин, "Исследование биотканей методами светорассеяния", *Успехи физических наук,* **167,** с. 517-539, 1997.
11. V.V. Tuchin, “Coherent methods in tissue and cell optics study (overview),” *Laser Physics* **8**(4), pp. 807-849, 1998.
12. V.V. Tuchin, “Coherent optical techniques for the analysis of tissue structure and dynamics,” *J. Biomed. Opt*. **4**(1), pp. 100-125, 1999.
13. Зимняков Д.А., Тучин В.В. Оптическая томография тканей (обзор)// Квантовая электроника. 2002. Т.32. №4. С.849-867.
14. V.V. Tuchin, “Optical Clearing of Tissue and Blood Using Immersion Method,” *J. Phys. D: Appl. Phys*., vol. 38, 2005, pp. 2497-2518.
15. V.V. Tuchin, “Optical Immersion as a New Tool to Control Optical Properties of Tissues and Blood,” *Laser Phys.*, vol. 15, no.8, 2005, pp. 1109-1136.
16. Д.А. Зимняков, М.А. Виленский, В.В. Тучин. Когерентно-оптические методы диагностики в биологии и медицине. - *Вопросы прикладной физики*, изд-во СГУ, с.30-49, 2005.
17. Galanzha EI, Tuchin VV, and Zharov VP. Advances in small animal mesentery models for in vivo flow cytometry, dynamic microscopy, and drug screening (invited review). *World J. Gastroenterology*, January 14, 2007, 13 (2), pp. 198-224.
18. V.V. Tuchin, A clear vision for laser diagnostics, *IEEE J. Select. Topics on Quantum Electronics*, **13,** № 6, pp.1621-1628, 2007.
19. E. A. Genina, A. N. Bashkatov, and V. V. Tuchin, Tissue optical immersion clearing, *Expert Rev. Med. Devices* 7(6), 825–842 (2010).

20. A.N. Bashkatov, E.A. Genina, and V.V. Tuchin, Optical properties of skin, subcutaneous, and muscle tissues: a review, *J. Innovative Optical Health Sciences*, **4**(1) pp. 9–38 (2011).

21. Ю.С. Скибина, В.В. Тучин, В.И. Белоглазов, Г. Штейнмаеер, Й.Л. Бетге, Р. Веделль, Н. Лангхофф, Фотонно-кристаллические волноводы в биомедицинских исследованиях, *Квантовая электроника*, Т. 41, № 4, С. 284-301, 2011

22. V.V. Tuchin, A. Tárnok, and V.P. Zharov, "*In Vivo Flow Cytometry*: *A Horizon of Opportunities*," *Cytometry A*, vol. 79A, N10, 2011, pp. 737–745.

23. K. V. Larin, M. G. Ghosn, A. N. Bashkatov, E. A. Genina, N. A. Trunina, and V. V. Tuchin, Optical clearing for OCT image enhancement and in-depth monitoring of molecular diffusion, *IEEE J. Select. Tops. Quant. Electr.* **18**, 1244-1258 (2012). (22.07.2020) (**87** citations in Google Scholar).

24. Jarmo T. Alander, Ilkka Kaartinen, Aki Laakso, Tommi Pätilä, Thomas Spillmann, Valery V. Tuchin, Maarit Venermo, Petri Välisuo, A Review of Indocyanine Green Fluorescent Imaging in Surgery, *Int. J. Biomed. Imaging*, 2012, Article ID 940585, 26 pages. doi:10.1155/2012/940585. (**64417** views, **14220** downloads, **1023** citations in Google Scholar, 19.05.2022).

25. Dan Zhu, Kirill V. Larin, Qingming Luo, and Valery V. Tuchin, Recent progress in tissue optical clearing, Laser Photonics Rev. 7, No. 5, 732–757 (2013) / DOI 10.1002/lpor.201200056 IF **9.313 Q1**

26. V.V. Tuchin, In vivo optical flow cytometry and cell imaging, *Rivista Del Nuovo Cimento*, **37**(7), 375-416 (2014). DOI: 10.1393/ncr/i2014-10102-x. IF 3.364

27. V.V. Tuchin, Tissue Optics and Photonics: Biological Tissue Structures [Review], J. of Biomedical Photonics & Eng., 1(1), 3-21, 2015. DOI: 10.18287/jbpe-2015-1-1-3; http://jbpe.ssau.ru/index.php/JBPE/article/view/1991/2416; 81 citations.

28. V.V. Tuchin, Tissue Optics and Photonics: Light-Tissue Interaction [Review], J. of Biomedical Photonics & Eng., 1(2), 98-134, 2015. DOI: 10.18287/jbpe-2015-1-2-98; 106 citations.

29. Genina E.A., Bashkatov A.N., Sinichkin Yu.P., Yanina I.Yu., Tuchin V.V. Optical clearing of biological tissues: prospects of application in medical diagnostics and phototherapy // Journal of Biomedical Photonics & Engineering, Vol. 1(1), P. 22-58, 2015(ISSN (online) 2411-2844); 115 citations.

30. V. V. Tuchin, "Polarized light interaction with tissues," *J. Biomed. Opt*. **21**(7), 071114-1-37 (2016); doi: 10.1117/1.JBO.21.7.071114. IF **2.859**. **Q1**

31. A. Bucharskaya, G. Maslyakova, G. Terentyuk, A. Yakunin, Y. Avetisyan, O. Bibikova, E. Tuchina, B. Khlebtsov, N. Khlebtsov and V. Tuchin, "Towards effective photothermal/ photodynamic treatment using plasmonic gold nanoparticles (*Review*)", *Int. J. Mol. Sci.* , **17**(8), 1295-1-26 (2016); doi:10.3390/ijms17081295. IF **3.687**. http://www.mdpi.com/1422-0067/17/8/1295 **Q1**

32. V.V. Tuchin, Tissue Optics and Photonics: Light-Tissue Interaction II [Review], J. of Biomedical Photonics & Eng., 2(3), 030201-1-31, 2016. doi: 10.18287/JBPE16.02.030201; 58 citations.

33. O.V. Semyachkina-Glushkovskaya, S.G. Sokolovski, A. Goltsov, A.S. Gekaluyk, E.I. Saranceva, O.A. Bragina,V.V. Tuchin, E.U. Rafailov, Laser-induced generation of singlet oxygen and its role in the cerebrovascular physiology, Progress in Quantum Electronics, **55**, 112-128, 2017; https://doi.org/10.1016/j.pquantelec.2017.05.001, **IF 10.733 Q1**

34. Sun RW, Tuchin VV, Zharov VP, Galanzha EI, Richter GT. Current status, pitfalls and future directions in the diagnosis and therapy of lymphatic malformation. J. Biophotonics **11**(8), e201700124 (2018); https://doi.org/10.1002/jbio.201700124, IF **4.328 Q1**

35. A.Yu. Sdobnov, M.E. Darvin, E.A. Genina, A.N. Bashkatov, J. Lademann, V.V. Tuchin, Recent progress in tissue optical clearing for spectroscopic application, Spectrochimica Acta

Part A: Molecular and Biomolecular Spectroscopy 197, 216–229 (2018). https://doi.org/10.1016/j.saa.2018.01.085, IF **2.536 Q2**

36. Daria K. Tuchina and Valery V. Tuchin, Optical and structural properties of biological tissues under diabetes mellitus, *Journal of Biomedical Photonics & Engineering* 4 (2) 020201-1-22 (2018); DOI: 10.18287/JBPE18.04.020201

37. A. N. Bashkatov, K. V. Berezin, K. N. Dvoretskiy, M. L. Chernavina, E. A. Genina, V. D. Genin, V. I. Kochubey, E. N. Lazareva, A. B. Pravdin, M. E. Shvachkina, P. A. Timoshina, D. K. Tuchina, D. D. Yakovlev, D. A. Yakovlev, I. Yu. Yanina, O. S. Zhernovaya, V. V. Tuchin, "Measurement of tissue optical properties in the context of tissue optical clearing," *J. Biomed. Opt.* **23**(9), 091416 (2018), doi: 10.1117/1.JBO.23.9.091416. **IF 2.367 Q1**

38. O.A. Smolyanskaya, N.V. Chernomyrdin, A.A. Konovko, K.I. Zaytsev, I.A. Ozheredov, O.P. Cherkasova, M.M. Nazarov, J.-P. Guillet, S.A. Kozlov, Yu.V. Kistenev, J.-L. Coutaz, P. Mounaix, V.L. Vaks, J.-H. Son, H. Cheon, V.P. Wallace, Yu. Feldman, I. Popov, A.N. Yaroslavsky, A.P. Shkurinov, V.V. Tuchin, Terahertz biophotonics as a tool for studies of dielectric and spectral properties of biological tissues and liquids, Progress in Quantum Electronics, 62, November 2018, pp. 1-77; https://doi.org/10.1016/j.pquantelec.2018.10.001 https://www.sciencedirect.com/science/article/abs/pii/S0079672718300454 **IF 5.105 Q1**

39. О. А. Смолянская, Е. Н. Лазарева, С. С. Налегаев, Н. В. Петров, К. И. Зайцев, П. А. Тимошина, Д. К. Тучина, Я. Г. Торопова, О. В. Корнюшин, А. Ю. Бабенко, Ж.-П. Гийе, В.В. Тучин, Мультимодальная оптическая диагностика гликированных биологических тканей, Успехи биологической химии, т. 59, 2019, с. 253–294. (O. A. Smolyanskaya, E. N. Lazareva, S. S. Nalegaev, N. V. Petrov, K. I. Zaytsev, P. A. Timoshina, D. K. Tuchina, Ya. G. Toropova, O.V. Kornyushin, A.Yu. Babenko, J.-P. Guillet, V. V. Tuchin, Multimodal Optical Diagnostics of Glycated Biological Tissues, Biochemistry (Moscow) **84**, Suppl. 1, S124-S143, 2019; DOI: 10.1134/S0006297919140086). **IF 1.724 Q2**

40. А. Ю. Сдобнов, Ю. Лademанн, М. Е. Дарвин, В. В. Тучин, Методы молекулярной оптической визуализации в дерматологии при оптическом просветлении кожи, Успехи биологической химии, т. 59, 2019, с. 295–322. (A. Yu. Sdobnov, J. Lademann, M. E. Darvin, V. V. Tuchin, Methods for Optical Skin Clearing in Molecular Optical Imaging in Dermatology, Biochemistry (Moscow) **84**, Suppl. 1, S144-S158, 2019; DOI: 10.1134/S0006297919140098.). **IF 1.724 Q2**

41. К.И. Зайцев, И.Н. Долганова, Н.В. Черномырдин, Г.А. Командин, Д.В. Лаврухин, И.В. Решетов, В.Н. Курлов, Д.С. Пономарев, В.В. Тучин, И.Е. Спектор, В.Е. Карасик, “Применение терагерцовых технологий в биофотонике. Часть 1: методы терагерцовой спектроскопии и визуализации тканей,” *Фотоника* **13**(7), 1–8 (2019). DOI: 10.22184/FRos.2019.13.5.462.46.

42. K.I. Zaytsev, I.N. Dolganova, N.V. Chernomyrdin, G.M. Katyba, A.A. Gavdush, O.P. Cherkasova, G.A. Komandin, M.A. Shchedrina, A.N. Khodan, D.S. Ponomarev, I.V. Reshetov, V.E. Karasik, M.A Skorobogatiy, V.N. Kurlov, and V.V. Tuchin, The progress and perspectives of terahertz technology for diagnosis of neoplasms: A review, Journal of Optics, **22**(1), 013001 (2020); DOI: https://doi.org/10.1088/2040-8986/ab4dc3 **IF 2.753 Q1**

43. A. Abdurashitov, V. Tuchin and O. Semyachkina-Glushkovskaya, Photodynamic therapy of brain tumors and novel optical coherence tomography strategies for in vivo monitoring of cerebral fluid dynamics, J. Innov. Opt. Health Sci. **13** (2), 2030004 (20 pages) (2020); DOI: 10.1142/S1793545820300049. **IF 1.058, Q3**

44. G. R. Musina, P. V. Nikitin, N. V. Chernomyrdin, I. N. Dolganova, A. A. Gavdush, G. A. Komandin, D. S. Ponomarev, A. A. Potapov, I. V. Reshetov, V. V. Tuchin, and K. I. Zaytsev, Prospects of terahertz technology in diagnosis of human brain tumors – A review, J. Biomed. Photonics & Eng. **6**(2), 020201-1-11, 28 Jun 2020; doi: 10.18287/JBPE20.06.020201; http://jbpe.ssau.ru/index.php/JBPE/article/view/3375/3168

45. T. Ermatov, J. S. Skibina,V. V. Tuchin, and D. A. Gorin, Functionalized Microstructured Optical Fibers: Materials, Methods, Applications, Materials , 13(4), 921 (2020); https://doi.org/10.3390/ma13040921 **IF 2.972, Q2.**

46. E. V. Lengert, E. E. Talnikova, V. V. Tuchin, Yu. I. Svenskaya, Prospective Nanotechnology-Based Strategies for Enhanced Intra- and Transdermal Delivery of Antifungal Drugs,

Skin Pharmacol. Physiol. **33**, 261–269 (2020); DOI: 10.1159/000511038; https://www.karger.com/Article/FullText/511038 **IF 2.460, Q2.**

47. J. T. Sheridan, R. K. Kostuk, A. F. Gil, Y. Wang, W. Lu, H. Zhong, Y. Tomita, C. Neipp, J. Franc´es, S. Gallego, I. Pascual, V. Marinova, S.-H. Lin, K.-Y. Hsu, F. Bruder, S. Hansen, C. Manecke, R. Meisenheimer, C. Rewitz, T. Rölle, S. Odinokov, O. Matoba, M. Kumar, X. Quan, Y. Awatsuji, P. W. Wachulak, A. V. Gorelaya, A. A. Sevryugin, E. V. Shalymov, V. Yu. Venediktov, R. Chmelik, M. A. Ferrara, G. Coppola, A. M´arquez, A. Bel´endez, W. Yang, R. Yuste, A. Bianco, A. Zanutta, C. Falldorf, J. J. Healy, X. Fan, B. M. Hennelly, I. Zhurminsky, M. Schnieper, R. Ferrini, S. Fricke, G. Situ, H. Wang, A. S. Abdurashitov, V. V. Tuchin, N. V. Petrov, T. Nomura, D. R. Morim and K. Saravanamuttu, Roadmap on holography, *J. Opt*. 22 (2020) 123002 (65pp) https://doi.org/10.1088/2040-8986/abb3a4 . **IF 2.960, Q1.**

48. О.П. Черкасова, Д.С. Сердюков, А.С. Ратушняк, Е.Ф. Немова, Е.Н. Козлов, Ю.В. Шидловский, К.И. Зайцев, В.В. Тучин, Механизмы влияния терагерцового излучения на клетки (обзор), *Оптика и спектроскопия* **128**(6), 852–864, 2020; DOI: 10.21883/OS.2020.06.49420.51-20; **IF 0.83, Q3.**

49. Alaa Sabeeh, Valery V. Tuchin, Recent Advances in the Laser Radiation Transport through the Head Tissues of Humans and Animals – A Review, J. Biomed. Photonics & Eng. 6(4) 040201-1-29 (2020); DOI: 10.18287/JBPE20.06.040201

50. O. Semyachkina-Glushkovskaya, D. Postnov, A. Lavrova, I. Fedosov, E. Borisova, V. Nikolenko, T. Penzel, J. Kurths, and V. Tuchin, Biophotonic Strategies of Measurement and Stimulation of the Cranial and the Extracranial Lymphatic Drainage Function, *IEEE Journal of Selected Topics in Quantum Electronics* 27(4), July/August 2021, 7400313**, IF 4.917, Q1.**

51. Alaa Shanshool and Valery V. Tuchin "Improved optical access of laser radiation to the brain using optical clearing and transparent cranial implants: review", Proc. SPIE 11845, Saratov Fall Meeting 2020: Optical and Nanotechnologies for Biology and Medicine, 118450W (4 May 2021); https://doi.org/10.1117/12.2593090

52. L. Fernandes, H. Silva, I. Martins, S. Carvalho, I. Carneiro, R. Henrique, V. V. Tuchin, and L. M. Oliveira, Tissue Spectroscopy and Optical Clearing of Colorectal Mucosa in the Pursuit of New Cancer Diagnostic Approaches, J of Biomedical Photonics & Eng 7(4) 040302-1-16 (2021); doi: 10.18287/JBPE21.07.040302

53. Е.В. Наумова, Ю.А. Владимиров, Л.В. Белоусов, В.В. Тучин, И.В. Володяев, Методы исследования сверхслабого свечения биологических объектов. I. История, фундаментальное и прикладное значение исследований сверхслабого свечения, его типы и свойства, Биофизика **66**(5), 900-916 (2021); DOI: 10.31857/S0006302921050082; E. V. Naumova, Yu. A. Vladimirov, L. V. Beloussov, V. V. Tuchin, and I. V. Volodyaev, Methods of Studying Ultraweak Photon Emission from Biological Objects: I. History, Types and Properties, Fundamental and Application Significance, *Biophysics* 66 (5), 764–778 (2021). DOI: 10.31857/S0006302921050082

54. O.P. Cherkasova, D.S. Serdyukov, E.F. Nemova, A.S. Ratushnyak, A.S. Kucheryavenko, I.N. Dolganova, G. Xu, M. Skorobogatiy, I.V. Reshetov, P.S. Timashev, I.E. Spektor, K.I. Zaytsev, V.V. Tuchin, Cellular effects of terahertz waves, J. Biomed. Opt. 26(9), 090902 (2021).

55. T. Genova, L. Avramov, B. Kolev, A. Gisbrecht, I. Bliznakova, L. Zaharieva, V. Mircheva, S. Ilyov, I. Angelov, V. Mantareva, P. Troyanova, P. Pavlova, T. Novikova, R. Ossikovski, D. Ivanov, V. Dremin, E.U. Rafailov, S.G. Sokolovsky, A. Bykov, I.V. Meglinski, I. Bratchenko, O. Semyachkina-Glushkovskaya, E. Genina, A.N. Bashkatov, A.B. Bucharskaya, V. Zakharov, J. Spigulis, S. K. Melanthota, Spandana K. U., N. Mazumder, Shama Prasada K., P. Townsend, L. Oliveira, A.V. Priezzhev, H.J.C.M. Sterenborg, V.V. Tuchin, A review of career devoted to Biophotonics – In memoriam to Ekaterina Borisova (1978–2021), J. Biomed. Photon. Eng. **7**(4) 040101 (2021). doi: 10.18287/JBPE21.07.040101

56. V.V. Tuchin, E.A. Genina, E.S. Tuchina, A.V. Svetlakova, Y.I. Svenskaya, Optical clearing of tissues: issues of antimicrobial phototherapy and drug delivery, *Advanced Drug Delivery Reviews* **180** (1) , 114037 (2022); **IF 15.470, Q1.**
https://doi.org/10.1016/j.addr.2021.114037

57. M.R. Konnikova, O.P. Cherkasova, T.A. Geints, E.S. Dizer, A.A. Man'kova, I.S. Vasil'evskii, A.A. Butylin, Yu.V. Kistenev, V.V. Tuchin, A.P. Shkurinov, Study of adsorption of the SARS-CoV-2 virus spike protein by vibrational spectroscopy using terahertz metamaterials, *Quantum Electron*. **52** (1), 2–12 (2022); https://doi.org/10.1070/QEL17960

58. Е.В. Наумова, Ю.А. Владимиров, В.В. Тучин, В.А. Намиот, И.В. Володяев, Методы исследования сверхслабого свечения биологических объектов. III. Физические методы, Биофизика 67(1), 37–72 (2022). E.V. Naumova, Yu.A. Vladimirov, V.V. Tuchin, V.A. Namiot, and I.V. Volodyaev, Methods of Studying Ultraweak Photon Emission from Biological Objects: III. Physical Methods, Biophysics 67(1), 27–58 (2022). DOI: 10.1134/S0006350922010109

59. A. Bucharskaya, N. Khlebtsov, B. Khlebtsov, G. Maslyakova, N. Navolokin, V. Genin, E. Genina, V. Tuchin, "Photothermal and photodynamic therapy of tumors with plasmonic nanoparticles: Challenges and prospects," Materials **15**, 1606 (2022). https://doi.org/10.3390/ma15041606 **IF 3.623, Q2.**

60. A Shirkavand, VV Tuchin, F Jahangiri, E Mohajerani, A review on terahertz non-destructive applications for wound and diabetic foot screening, Optical and Quantum Electronics 54 (8), 1-20 (2022). **IF 2.794, Q2.**

61. NV Chernomyrdin, M Skorobogatiy, DS Ponomarev, VV Bukin, VV Tuchin, KI Zaytsev, Terahertz solid immersion microscopy: Recent achievements and challenges, Applied Physics Letters 120 (11), 110501 (2022). **IF 3.971, Q1.**

62. Y. V. Kistenev, A. Das, N. Mazumder, O. P. Cherkasova, A. I. Knyazkova, A. P. Shkurinov, V. V. Tuchin, I. K. Lednev, Label-free laser spectroscopy for respiratory virus detection: A review, J. Biophotonics 2022, e202200100. https://doi.org/10.1002/jbio.202200100 **IF 3.207**, **Q1**

63. A.B. Bucharskaya, I.Yu. Yanina, S.V. Atsigeida, V.D. Genin, E.N. Lazareva, N.A. Navolokin, P.A. Dyachenko, D.K. Tuchina, E.S. Tuchina, E.A. Genina, Yu.V. Kistenev, V.V. Tuchin, Optical clearing and testing of lung tissue using inhalation aerosols: prospects for monitoring the action of viral infections, Biophysical Reviews **14**, 1005–1022 (2022). **Q1** https://doi.org/10.1007/s12551-022-00991-1 https://youtu.be/nfoPoHgbiXA https://twitter.com/BiophysicalRev1/status/1585402068722126848?s=20&t=YhSKnqrLrDO07PKdOer7zQ

64. N.V. Chernomyrdin, G.R. Musina, P.V. Nikitin, I.N. Dolganova, A.S. Kucheryavenko, A.I. Alekseeva, Y. Wang, D. Xu, Q. Shi, V.V. Tuchin, K.I. Zaytsev, Terahertz technology in intraoperative neurodiagnostics: A review. *Opto-Electron Adv* **6**, (5) 220071 (2023). doi: 10.29026/oea.2023.220071 **IF 8.92**, **Q1**

65. I.S. Martins, H.F. Silva, E.N. Lazareva, N.V. Chernomyrdin, K.I. Zaytsev, L.M. Oliveira, and V.V. Tuchin, Measurement of tissue optical properties in a wide spectral range: a review [Invited], Biomedical Optics Express, 14 (1), 249-298 (2023). https://doi.org/10.1364/BOE.479320 **Q1**

Избранные статьи в журналах

1. V. V. Bakutkin, I. L. Maksimova, P. I. Saprykin V. V. Tuchin, L. P. Shubochkin, Diffusion of light by the human sclera, *Journal of Applied Spectroscopy*, 46 (1), 86–89, 1987.
2. S.A. Tatarkova and V.V. Tuchin, "Multistability and chaos in laser with saturable absorber," *Laser Physics* **2**(4), pp.482-489, 1992.
3. S.S. Ul'yanov, V.P. Ryabukho, and V.V. Tuchin, "Speckle interferometry for biotissue vibration measurement," *Optical Engineering* **33**(3), pp. 908 - 914, 1994.
4. Д.А.Зимняков, В.В.Тучин, «О двух-модальности распределения интенсивности спекл-полей для крупно-масштабных рассеивателей,» *Письма в ЖТФ*, № 3, сс. 10-14, 1995.
5. Д.А.Зимняков, В.В.Тучин, А.А.Мишин, К.В.Ларин, Корреляционная размерность спекл-полей для рассеивающих структур с фрактальными свойствами, *Изв. вузов. Прикладная нелинейная динамика*, т.3, №6, с.126-134, 1995.
6. С.А.Татаркова, В.В.Тучин, «Бифуркационные механизмы, свойства и структура хаотических аттракторов в лазерной модели с насыщающимся поглотителем», *Изв. вузов. Прикладная нелинейная динамика*, т.3, № 6, с.24-36,1995.

7. D.A. Zimnyakov, V.V. Tuchin, “Fractality of speckle intensity fluctuations,” *Appl. Optics* **35**(12), pp. 4325 - 4333, 1996.

8. S.S. Ul’yanov, V.V. Tuchin, A.A. Bednov, G. E. Brill, E. I. Zakharova, “Speckle-interferometrical method in application to the blood and lymph flow monitoring in microvessels,” *Laser Med. Sci.* **11**, pp.97-107, 1996.

9. Д.А. Зимняков, В.В.Тучин, А.А.Мишин, «Визуализация фрактальных структур биотканей с использованием метода пространственной спекл-коррелометрии», *Изв. вузов России. Прикладная нелинейная динамика*, т. 4, № 1, с. 49 - 58, 1996.

10. А.А. Беднов, С.С. Ульянов, В.В. Тучин, Г.Е. Брилль, Е.И. Захарова, "Исследование динамики лимфотока методами спекл-интерферометрии," *Изв. вузов. Прикладная нелинейная динамика,* **4**, № 6, с. 45-54, 1996.

11. И.В. Меглинский, Д.А. Боас, А.Г. Йод, Б. Чанс, В.В.Тучин, "Развитие метода корреляции флуктуаций интенсивности лазерного излучения для неинвазивного мониторинга и измерения параметров кровотока," *Изв. вузов. Прикладная нелинейная динамика,* **4,** N6, с.72-81, 1996.

12. Ю.П. Синичкин, С.Р. Утц, Л.Е. Долотов, Е.А. Пилипенко, В.В.Тучин, "Методика и прибор для оценки степени эритемы и меланиновой пигментации," *Радиотехника*, N 4, с.77-81, 1997.

13. V.V. Tuchin, I.L. Maksimova, D.A. Zimnyakov, I. L. Kon, A. H. Mavlutov, and A. A. Mishin, “Light propagation in tissues with controlled optical properties,” *J. Biomed. Opt.* **2(**4), pp.304-321, 1997.

14. D.A. Zimnyakov, V.V. Tuchin, and A.A. Mishin, “Spatial speckle correlometry in applications to tissue structure monitoring,” *Applied Optics* **36**, pp.5594-5607, 1997.

15. I.V. Yaroslavsky, A.N. Yaroslavskaya, V.V. Tuchin, and H.-J. Schwarzmaier “Effect of the scattering delay on time-dependent photon migration in turbid media,” *Applied Optics* **36** (25), pp. 6529-6538, 1997.

16. Д.А. Зимняков, В.В. Тучин «О взаимосвязи характерных масштабов деполяризации и декорреляции оптических полей при многократном рассеянии», *Письма в ЖЭТФ*, т. 67**,** №7, сс. 455-460, 1998.

17. И.В. Ярославский, А.Н. Ярославская, Х.Ж. Пуппелс, Х. Дуиндам, К.Г.Ф.Ж.М. Френсен, Я. Хреве, В.В. Тучин, "Исследование водного обмена хрусталика глаза человека с помощью конфокальной микроскопии комбинационного рассеяния," *Биофизика*, т. 43, №1, сс.125-130, 1998.

18. Д.А. Зимняков, В.П. Рябухо, В.В. Тучин, С.С. Ульянов, Лазерные спекл-корреляционные диагностические технологии для машиностроения и медицины, *Проблемы машиностроения и надежности машин*, №1, с. 117-126, 1999.

19. D.A. Zimnyakov, V.V. Tuchin, and A.G. Yodh, “Characteristic scales of optical field depolarization and decorrelation for multiple scattering media and tissues,” *J. Biomed. Optics*, **4**, 157-163, 1999.

20. P. Starukhin, S. Ulyanov, E. Galanzha, and V. Tuchin, “Blood-flow measurements with a small number of scattering events,” *Applied Optics* **39**(10), pp. 2823-2829, 2000.

21. S.S. Ulyanov and V.V. Tuchin, “Use of low-coherence speckled speckles for bioflow measurements,” *Appl. Opt*. **39**(34), pp.6385-6389, 2000.

22. Г.Г. Акчурин, Д.А. Зимняков, В.В. Тучин, Оптоэлектронный модуль для лазерной СВЧ модуляционной спектроскопии и томографии биотканей», *Биомедицинская радиоэлектроника*, №1, 46-53, 2000.

23. И.Л. Максимова, Д.А. Зимняков, В.В. Тучин, “Управление оптическими свойствами биотканей. 1. Спектральные характеристики склеры глаза,” *Оптика и спектроскопия*, т. 89, №1, с. 86-95, 2000.

24. Д.А. Зимняков, И.Л. Максимова, В.В. Тучин, “Управление оптическими свойствами биотканей. 2. Когерентно-оптические методы исследования структуры тканей,” *Оптика и спектроскопия*, т. 88, №6, с. 1026-1034, 2000.

25. Г.В. Симоненко, В.В. Тучин, Н.А. Лакодина, “Измерение оптической анизотропии тканей с использованием нематической жидко-кристаллической ячейки,” *Оптический журнал*, N6, с. 70-73, 2000.

26. И.В. Меглинский, А.Н. Королевич, В.В. Тучин, «Исследование микроциркуляции кровотока методом диффузионно-волновой спектроскопии», *Биомедицинская радиоэлектроника*, №10, 37-45, 2000.

27. Э.А. Генина, А.Н. Башкатов, В.И. Кочубей, В.В. Тучин, Г.Б. Альтшулер, «In vivo исследование взаимодействия индоцианина зеленого с эпидермисом человека», *Письма ЖТФ*, т. 27(14), с. 63-67, 2001.

28. В.В. Тучин, А.Н. Башкатов, Э.А. Генина, Ю.П. Синичкин, Н.А. Лакодина, «In vivo исследование динамики иммерсионного просветления кожи человека», *Письма ЖТФ*, т. 27(12), с. 10-14, 2001.

29. Брилль Г.Е., Галанжа Е.И., Ульянов С.С., Тучин В.В., Степанова Т.В., Соловьева А.В., «Функциональная организация лимфатических микрососудов брыжейки крысы», *Российский Физиологический журнал им. И.М.Сеченова*, Т.87, №5, С.600-607, 2001.

30. R.K. Wang, V.V. Tuchin, X. Xu, and J.B. Elder, "Concurrent enhancement of imaging depth and contrast for optical coherence tomography by hyperosmotic agents," *J. Opt. Soc. Am. B* **18***,* 948-953, 2001.

31. V.V. Tuchin, X. Xu, and R.K. Wang, "Dynamic optical coherence tomography in optical clearing, sedimentation and aggregation study of immersed blood," *Appl. Opt. – OT* **41** (1), 258-271, 2002.

32. E.A. Genina, A.N. Bashkatov, Yu.P. Sinichkin, V.I. Kochubey, N.A. Lakodina, G.B. Altshuler, and V. V. Tuchin, "*In vitro* and *in vivo* study of dye diffusion into the human skin and hair follicles," *J. Biomed. Opt*. **7**, 471-477, 2002.

33. R.K. Wang and V.V. Tuchin, "Enhance light penetration in tissue for high resolution optical imaging techniques by the use of biocompatible chemical agents," *J. X-Ray Science and Technolog*, **10**, 167-176, 2002.

34. E.I. Galanzha, V.V. Tuchin, A.V. Solov`eva, and V.P. Zharov, "Development of optical diagnostics of microlymphatics at the experimental lymphedema: comparative analysis," *J. X-Ray Sci. and Technol*. **10**, 215-223, 2002.

35. Акчурин Г.Г., Бакуткин В.В., Радченко Е.Ю., Тучин В.В. Лазерная спекл-интерферометрия и возможность определения ретинальной остроты зрения при катаракте. *Биомедицинские технологии и радиоэлектроника* 1, 19-27, 2002.

36. Ларионова Н.Л., Максимова И.Л., Тучин В.В. Спектры рассеяния и цвет дисперсных систем слабопоглощающих частиц. //*Оптика и спектр*. т.93, №2, с.293-302, 2002.

37. Меглинский И.В., Башкатов А.Н., Генина Э.А., Чурмаков Д.Ю., Тучин В.В. Исследование возможности увеличения глубины зондирования методом отражательной конфокальной микроскопии при иммерсионном просветлении приповерхностных слоев кожи человека // *Квантовая электроника*. 2002. Т. 32. № 10. С. 875-882.

38. Малинова Л.И., Симоненко Г.В., Киричук В.Ф., Денисова Т.П., Тучин В.В. Функциональное состояние эритроцитарной системы больных ишемической болезнью сердца // Тромбоз, гомеостаз, реология. 2002. №4. С. 23 – 27.

39. И.В. Федосов, В.В. Тучин Пространственно-временная корреляция интенсивности спекл-поля, сформированного при рассеянии сфокусированного когерентного излучения на капиллярном потоке жидкости, содержащей рассеивающие частицы // Оптика и спектроскопия, 2002. Т.93 № 3. С. 473 – 477.

40. И.В. Федосов, Е.И. Галанжа, А.В. Соловьева, В.В. Тучин, Лазерный мониторинг скорости потока в лимфатических микрососудах с использованием пространственно-временной корреляции динамического спекл-поля // Письма в ЖТФ. 2002. Т.28. № 16. С.58-64.

41. И.В. Федосов, В.В. Тучин, Е.И. Галанжа, А.В. Соловьева, Т.В. Степанова, Регистрация динамики лимфотока в микрососудах с использованием корреляционных свойств рассеянного когерентного излучения, Квантовая электроника, Т.33, №11, 2002, С. 970-974.

42. Башкатов А.Н., Генина Э.А., Синичкин Ю.П., Кочубей В.И., Лакодина Н.А., Тучин В.В. Определение коэффициента диффузии глюкозы в склере глаза человека // Биофизика, Т. 48, № 2, С. 309-313, 2003.

43. X. Xu, R. Wang, J.B. Elder, V.V. Tuchin, "Effect of dextran-induced changes in refractive index and aggregation on optical properties of whole blood," Phys. Med. Biol., 48, 1205-1221, 2003.

44. A.N. Bashkatov, E.A. Genina, Yu.P. Sinichkin, V.I. Kochubey, N.A. Lakodina, V.V. Tuchin, "Glucose and mannitol diffusion in human dura mater," Biophysical J. 85 (5), 3310-3318, 2003.

45. I.V. Meglinsky, A.N. Bashkatov, E.A. Genina, D.Yu. Churmakov, V.V. Tuchin, “Study of the possibility of increasing the probing depth by the method of reflection confocal microscopy upon immersion clearing of near-surface human skin layers,” Laser Physics, 13(1), 65-69, 2003.

46. E.I. Galanzha, V.V. Tuchin, A.V. Solovieva, T.V. Stepanova, Q. Luo, H. Cheng, “Skin backreflectance and microvascular system functioning at the action of osmotic agents,” J. Phys. D: Appl. Phys., 36, 1739-1746, 2003.

47. V.V. Tuchin, E.A. Genina, A.N. Bashkatov, G.V. Simonenko, O.D. Odoevskaya, and G.B. Altshuler “A pilot study of ICG laser therapy of acne vulgaris: Photodynamic and photothermolysis treatment,” Lasers Surg. Med. 33(5), pp. 296-310, 2003.

48. Башкатов А.Н., Генина Э.А., Синичкин Ю.П., Кочубей В.И., Лакодина Н.А., Тучин В.В., Определение коэффициента диффузии глюкозы в склере глаза человека, Биофизика, Т. 48, № 2, С. 309-313, 2003.

49. Малинова Л.И., Симоненко Г.В., Довгалевский Б.П., Денисова Т.П., Тучин В.В., “Влияние глюкозы высоких концентраций на физиологические параметры эритроцитов больных ишемической болезнью сердца, ” Кардиология. 2004. № 11. С. 33-35.

50. А.В. Папаев, Г.В. Симоненко, В.В. Тучин, “Простая модель для расчета спектра пропускания поляризованного света образцом биологической ткани,” Оптический журнал 71(5) 3-6 (2004).

51. Д.А. Зимняков, Ю.П. Синичкин, В.В. Тучин, “Поляризационная отражательная спектроскопия биотканей: диагностические приложения,” Изв. Вузов “Радиофизика”, 47, N. 10-11, С. 860–875, 2004.

52. Башкатов А.Н., Генина Э.А., Кочубей В.И., Чикина Е.Э., Князев А.Б., Мареев О.В., Тучин В.В., Оптические свойства слизистой оболочки в спектральном диапазоне 350-2000 нм, Оптика и спектроскопия, Т. 97, № 6, С. 1043-1048, 2004.

53. E.A. Genina, A.N. Bashkatov, G.V. Simonenko, O.D. Odoevskaya, V.V. Tuchin, and G.B. Altshuler, “Low-Intensity ICG-Laser Phototherapy of Acne Vulgaris: A Pilot Study,” J. Biomed. Opt. 9 (4), pp. 828-834, 2004.

54. L.E. Dolotov, Yu.P. Sinichkin, V.V. Tuchin, S.R. Utz, G.B. Altshuler, I.V. Yaroslavsky, “Design and evaluation of a novel portable erythema-melanin-meter,” Lasers Surg. Med. 34(2), pp.127-135, 2004.

55. V.V. Tuchin, D.M. Zhestkov, A.N. Bashkatov, and E.A. Genina, “Theoretical Study of Immersion Optical Clearing of Blood in Vessels at Local Hemolysis,” Optics Express 12, pp. 2966-2971, 2004.

56. Башкатов А.Н., Генина Э.А., Кочубей В.И., Тучин В.В. Оптические свойства подкожной жировой ткани в спектральном диапазоне 400–2500 нм. Оптика и спектроскопия, 2005, т. 99, № 5, с. 868–874.

57. V.P. Zharov, E.I. Galanzha, and V.V. Tuchin, “Photothermal Image Flow Cytometry in Vivo,” Opt. Let. 30(6), pp. 107-110, 2005.

58. M.Yu.Kirillin, A.V.Priezzhev, V.V.Tuchin, R.K.Wang, R.Myllyla. Effect of red blood cell aggregation and sedimentation on optical coherence tomography signals from blood samples. - J. Phys. D: Appl. Phys., vol. 38, 2005, pp. 2582-2589.

59. A.N.Bashkatov, E.A.Genina, V.I.Kochubey, V.V.Tuchin. Optical properties of human skin, subcutaneous and mucous tissues in the wavelength range from 400 to 2000 nm. – J. Phys. D: Appl. Phys., vol. 38, 2005, pp. 2543-2555.

60. V.P.Zharov, E.I.Galanzha, V.V.Tuchin. Integrated photothermal flow cytometry in vivo. J. Biomedical Optics, vol. 10, 2005, pp. 51502-51510.

61. E.I. Galanzha, V.V. Tuchin, V.P. Zharov. In vivo integrated flow image cytometry and lymph/blood vessels dynamic microscopy. - J. Biomedical Optics, vol. 10, 2005, pp. 54018-54026.

62. E.I. Galanzha, P. Chowdhury, V.V. Tuchin, V.P. Zharov, Monitoring of nicotine impact on microlymphatics of rat mesentery with time-resolved microscopy. – Lymphology, Vol. 38, pp. 181-192, 2005.

63. V.I. Beloglazov, M.V. Chainikov, Yu. S. Skibina, V.V. Tuchin, “Spectral properties of a soft glass photonic crystal fiber,” J. X-Ray Science and Technology, Vol.13, No 4, pp. 171 – 177, 2005.

64. V.I. Beloglazov, N. Langhoff, V.V. Tuchin, A. Bjeoumikhov, Z. Bjeoumikhova, R. Wedel, N.B. Skibina, Yu. S. Skibina, M.V. Chainikov, “Technologies of manufacturing polycapillary optics for x-ray engineering,” J. X-Ray Science and Technology, Vol.13, No. 4, pp. 179 – 183, 2005.

65. Э.А.Генина, А.Н.Башкатов, В.И.Кочубей, В.В.Тучин. Оптическое просветление твердой мозговой оболочки человека. - Оптика и спектроскопия 98(4), С. 725-733, 2005.

66. А.Н.Башкатов, Д.М.Жестков, Э.А.Генина, В.В.Тучин. Иммерсионное просветление крови человека в видимом и ближнем ИК спектральных диапазонах. - Оптика и спектроскопия 98(3), С. 515-521, 2005.

67. А.В.Лепилин, О.А.Финохина, Н.Л.Ерокина, А.П.Креницкий, В.Д.Тупикин, А.В.Майбородин, В.В.Тучин, И.В.Федосов, Г.О.Мареев. Применение электромагнитного излучения терагерцового диапазона на частотах молекулярного спектра оксида азота при хирургическом лечении парадонтита. - Миллиметровые волны в биологии и медицине, № 2(38), С. 67-71, 2005.

68. А.В. Папаев, Г.В. Симоненко, В.В. Тучин, Т.П. Денисова Оптическая анизотропия биоткани в условиях иммерсионного просветления и без него // Оптика и спектроскопия 2006. Т.101. № 1. С. 50 – 57.

69. Э.А. Генина, А.Н. Башкатов, Ю.П. Синичкин, В.В. Тучин, Оптическое просветление склеры глаза in vivo под действием глюкозы, Квантовая электроника, 36 (12), с. 1119-1124, 2006.

70. Башкатов А.Н., Генина Э.А., Кочубей В.И., Тучин В.В., Оценка содержания меланина в волосах человека с помощью инверсного метода Монте-Карло и системы цифрового анализа изображений, Квантовая электроника, Т. 36, № 12, С. 1111-1118, 2006.

71. Каменских Т.Г., Башкатов А.Н., Генина Э.А., Тучин В.В., Клинико-экспериментальное обоснование применения препарата "Кортексин" в лечении частичной атрофии зрительного нерва, Клиническая Офтальмология, Т. 7, № 4, С. 147-150, 2006.

72. Genina E.A., Bashkatov A.N., Chikina E.E., Knyazev A.B., Mareev O.V., Tuchin V.V. Methylene Blue mediated laser therapy of maxillary sinusitis // Laser Physics, Vol. 16, N. 7, P. 1128-1133, 2006.

73. S. Tanev, V. V. Tuchin and P. Paddon, “Light scattering effects of gold nanoparticles in cells: FDTD modeling,” Laser Physics Letters 3 (12), pp. 594-598, 2006.

74. A.N. Bashkatov, A.N. Korolevich, V.V. Tuchin, Yu.P. Sinichkin, E.A. Genina, M.M. Stolnitz, N.S. Dubina, S.I. Vecherinski, and M.S. Belsley, “In vivo investigation of human skin optical clearing and blood microcirculation under the action of glucose solution // Asian Journal of Physics, Vol. 15, N. 1, P. 1-14, 2006.

75. B. Khlebtsov, V. Zharov, A. Melnikov, V. Tuchin, and N. Khlebtsov, Optical amplification of photothermal therapy with gold nanoparticles and nanoclusters, Nanotechnology 17, pp. 5167-5179, 2006.

76. Mohamad G. Ghosn, Valery V. Tuchin, and Kirill V. Larin, “Depth-Resolved Monitoring of Drug Diffusion in Tissues Using Optical Coherence Tomography,” *Optics Letters* **31**(15), pp. 2314-2316, 2006.

77. Zharov VP, Galanzha EI, Tuchin VV. In Vivo Photothermal Flow Cytometry: Imaging and Detection of Individual Cells in Blood and Lymph Flow, *J. Cell Biochem*. **97**(5), pp. 916-930, 2006.

78. Zharov V, Galanzha E, Shashkov E, Khlebtsov N, and Tuchin V. In vivo photoacoustic flow cytometry for monitoring circulating cells and contrast agents, *Opt. Lett*. **31**, pp. pp. 3623-3625, 2006.

79. V.V. Tuchin, G.B. Altshuler, A.A. Gavrilova, A.B. Pravdin, D. Tabatadze, J. Childs, I.V. Yaroslavsky, Optical clearing of skin using flashlamp-induced enhancement of epidermal permeability, *Lasers in Surgery and Medicine*, vol. 38, issue 9, pp. 824–836, 2006.

80. Zharov VP, Galanzha EI, Menyaev Yu, Tuchin VV. In Vivo High-Speed Imaging of Individual Cells in Fast Blood Flow, *J. Biomed. Opt*, vol. 11(5), pp. 054034-1-4, 2006.

81. Zharov V, Galanzha E, Shashkov E, Khlebtsov N, Tuchin V. In vivo *photoacoustic flow cytometry for real-time monitoring of circulating cells and nanoparticles. SPIE* News room, September, 2006, 10.1117/2.1200609.0391, pp. 1-3.

82. Stoyan Tanev, Valery V. Tuchin, Paul Paddon, Cell Membrane and Gold Nanoparticles Effects on Optical Immersion Experiments with Normal and Cancerous Cells: FDTD Modeling, *J. Biomed. Opt*., 11(6), pp.025606-1-6, 2006.

83. Zharov VP, Galanzha EI, Tuchin VV., Photothermal flow cytometry in vivo for detection and imaging of individual moving cells. *Cytometry A*. 71A, 191-206, 2007.

84. D.A.Zimnyakov, A.B.Pravdin, R.Wang, Y.He, L.V.Kuznetsova, V.I.Kochubey, V.V.Tuchin. Peculiarities of the diffusion of light in a dense random medium near the edge of fundamental absorption band. - *JOSA*, 24 (3), pp. 711-723, 2007.

85. Mohamad G Ghosn, Valery V Tuchin, and Kirill V Larin, Non-Destructive Quantification of Analytes Diffusion in Cornea and Sclera by Using Optical Coherence Tomography, *Invest. Ophthal. Visual Sci.* (IOVS), 48(6), 2726-33, 2007.

86. Ivan Fedosov, Igor Nefedov, Boris Khlebtsov, and Valery Tuchin, Particle image velocimetry for visualizing laser-induced motion of nanoparticles, *SPIE Newsroom*, 2007, DOI 10.1117/2.1200706.0803, http://spie.org/x14817.xml?highlight=x2400

87. Malinova L.I., Simonenko G.V., Denisova T.P., Tuchin V.V. Metabolic and hormonal blood flow modeling in patients with coronary heart disease: in vitro and clinical study // *Medical Laser Application*. 2007. Vol. 22. № 3. P. 173 – 184.

88. V.P. Zharov, E.I. Galanzha, E.V. Shashkov, Jin-Woo Kim, N.G. Khlebtsov, and V.V. Tuchin, Photoacoustic flow cytometry: principle and application for real-time detection of circulating single nanoparticles, pathogens, and contrast dyes *in vivo*, *J Biomed Opt,* 2007;12 (5), 051503.

89. Kalchenko V, Brill A, Bayewitch M, Fine I, Zharov V, Galanzha E, Tuchin V, Harmelin A., *In vivo* dynamic light scattering imaging of blood coagulation, *J Biomed Opt*. 2007;12(5): 052002.

90. Galanzha E.I., Tuchin V.V., and Zharov V.P., Optical monitoring of microlympatic disturbances at experimental lymphedema, *Lymphat Res Biol*, 2007; 5:11-27.

91. Bashkatov A.N., Genina E.A., Kochubey V.I., Gavrilova A.A., Kapralov S.V., Grishaev V.A., Tuchin V.V., Optical properties of human stomach mucosa in the spectral range from 400 to 2000 nm: prognosis for gastroenterology, *Medical Laser Application*, Vol. 22, P. 95-104, 2007.

92. Maksimova I.L., Akchurin G.G., Khlebtsov B.N., Terentyuk G.S., Akchurin G.G.Jr., Ermolaev I.A., Skaptsov A.A., Soboleva E.P., Khlebtsov N.G., Tuchin V.V., Near-infrared laser photothermal therapy of cancer by using gold nanoparticles: Computer simulations and.experiment, *Med Laser Appl* **22**, pp. 199-206, 2007.

93. Симоненко Г.В., Моренко Р.А., Тучин В.В., Спектры пропускания и отражения анизотропной среды с хаотической ориентацией оптических осей ее элементов, *Оптический журнал*. 2007. Т. 74. № 9. С. 16 – 19.

94. Симоненко Г.В., Папаев А.В., Тучин В.В., Двухшаговая модель распространения света в биотканях, *Оптический журнал*. 2007. Т. 74. № 10. С. 36 – 40.

95. Симоненко Г.В., Папаев А.В., Малинова Л.И., Кириллова Е.С., Тучин В.В., Использование оптических методов исследования диффузии веществ в различных биологических тканях, *Вестник СПбО АИН*. 2007. № 3 С. 448 – 455.

96. Капралов С.В., Шапкин Ю.Г., Потахин С.Н., Башкатов А.Н., Лычагов В.В., Тучин В.В. Новые экспериментально-клинические подходы к эндохирургическому лечению кровоточащей гастродуоденальной язвы // *Современные проблемы науки и образования*, № 4, С. 18-22, 2007.

97. G.Akchurin, B.Khlebtsov, G.Akchurin, V.Tuchin, V.Zharov, and N.Khlebtsov, "Gold nanoshell photomodification under single nanosecond laser pulse accompanied by color-shifting and bubble formation phenomena," *Nanotechnology* **19**, 2008, 015701-8 p.

98. O.S. Zhernovaya, V.V. Tuchin, and I.V. Meglinski, Monitoring of blood proteins glycation by refractive index and spectral measurements, *Laser Physics Letters*, vol.5, N6, pp. 460-464, 2008.

99. I.V. Larina, E.F. Carbajal, V.V. Tuchin, M.E. Dickinson, and K.V. Larin, Enhanced OCT imaging of embryonic tissue with optical clearing, *Laser Physics Letters*, vol.5, N6, pp. 476-479, 2008.

100. M. G. Ghosn, E. F. Carbajal, N. Befrui, V. V. Tuchin, and K. V. Larin, Differential Permeability Rate and Percent Clearing of Glucose in Different Regions in Rabbit Sclera, *J. Biomed. Opt.*, vol. 13, pp. 021110-1 - 021110-6, 2008.

101. Genina E.A., Bashkatov A.N., Korobko A.A., Zubkova E.A., Tuchin V.V., Yaroslavsky I., Altshuler G.B. Optical clearing of human skin: comparative study of permeability and dehydration of intact and photothermally perforated skin // *J. Biomed. Opt*., Vol. 13, N. 2, 021102, 2008.

102. Genina E.A., Bashkatov A.N., Tuchin V.V. Effect of ethanol on the transport of methylene blue through stratum corneum // Medical Laser Application, Vol. 23, P. 31-38, 2008.

103. E. A. Genina, A.N. Bashkatov, and V.V. Tuchin, "Optical Clearing of Cranial Bone," *Adv. Optical Technologies*, Article ID 267867, 8 pgs, 2008.

104. Mohamad G. Ghosn, Esteban F. Carbajal, Natasha A. Befrui, Valery V. Tuchin, Kirill V. Larin, Concentration effect on the diffusion of glucose in ocular tissues, *Optics and Lasers in Engineering* **46**, pp. 911– 914, 2008.

105. Galanzha EI, Shashkov EV, Tuchin VV, Zharov VP. In Vivo Multispectral Photoacoustic Lymph Flow Cytometry with Natural Cell Focusing and Multicolor Nanoparticle Probes. *Cytometry*, 2008; 73:884-894; Winners of the 2010 Paper of the Year Award for the article; Presented on May 12, 2010 CYTO 2010, Seattle, Washington.

106. S. Tanev, J. Pond, P. Paddon & Valery V. Tuchin, Simulation techniques enhance cellular nanobioimaging, SPIE Newsroom - Biomedical Optics & Medical Imaging, Aug. 2008, http://spie.org/x26884.xml?highlight=x2416

107. А.А. Гаврилова, В. В. Тучин, А.Б. Правдин, И. В. Ярославский, Г. Б. Альтшулер, Спектрофотометрия кожи в условиях изменения проницаемости эпидермиса при островковом фототермическом воздействии, *Оптика и спектроскопия*, 2008, Т. 104, No. 1. С.151–157.

108. И.В.Федосов, И.С.Нефедов, Б.Н.Хлебцов, В.В.Тучин, Динамическая ультрамикроскопия лазер-индуцированных течений в коллоидных растворах плазмонно-резонансных частиц, Квантовая электроника, т.38, №6, 2008.С. 530-535.

109. К.В. Ларин. В.В. Тучин, Функциональная визуализация и оценка скорости диффузии глюкозы в эпителиальных тканях с помощью оптической когерентной томографии, *Квантовая электроника*, т.38, №6, 2008.С. 551-556.

110. Максимова И.Л., Акчурин Г.Г., Терентюк Г.С., Хлебцов Б.Н., Акчурин Г.Г. мл., Ермолаев И.А., Скапцов А.А., Ревзина Е.М., Тучин В.В, Хлебцов Н.Г. Лазерный фототермолиз биотканей с использованием плазмонно- резонансных наночастиц, *Квантовая электроника*, 2008, т. 38, №6, с. 536-542.

111. Stoyan Tanev, James Pond, Paul Paddon, and Valery V. Tuchin, A new 3D simulation method for the construction of optical phase contrast images of Gold nanoparticle clusters in biological cells, *Advances in Optical Technologies*, Volume 2008, Article ID 727418, 9 pages doi:10.1155/2008/727418.

112. Е.С. Тучина, В.В. Тучин, Г.Б. Альтшулер, И.В. Ярославский, Фотодинамическое воздействие красного (625 нм) и инфракрасного (805 нм) излучения на бактерии *P. Acnes*, обработанные фотосенсибилизаторами, *Изв. Саратовск. ун-та. Новая серия*. 2008. Т.8. Сер. Физическая. Выпуск 1. С. 21-25.

113. Назаров М.М., Шкуринов А.П., Кулешов Е.А., Тучин В.В., Терагерцовая импульсная спектроскопия биологических тканей, *Квантовая электроника*, т.38, №7, 2008.С. 647-654

114. Тучин В.В., Скибина Ю.С., Белоглазов В.И, Чайников М.В., Скибина Н.Б., Михайлова Н.А, Жестков П.М., Силохин И.Ю., Сенсорные свойства фотонно- кристаллического волновода с полой сердцевиной, ПЖТФ, 2008,том 34, вып.15, стр. 63-69.

115. Генина Э.А., Федосов И.В., Башкатов А.Н., Зимняков Д.А., Альтшулер Г.Б., Тучин В.В. Визуализация распределения меланина и индоцианина зеленого внутри биоткани // *Квантовая Электроника*, Т. 38, № 3, С. 263-268, 2008.

116. Генина Э.А., Башкатов А.Н., Тучин В.В., Альтшулер Г.Б., Ярославский И.В. Исследование возможности повышения эффективности лазерного удаления татуировок с помощью оптического просветления кожи // *Квантовая Электроника*, Т. 38, № 6, С. 580-587, 2008.

117. Стольниц М.М., Башкатов А.Н., Генина Э.А., Тучин В.В. Математическая модель диффузии лекарственных препаратов и иммерсионных жидкостей в тканях глаза человека // *Изв. Саратовск. ун-та. Новая серия*. 2008. Т.8. *Сер. Физическая*. Выпуск 1. С. 15-20, 2008.

118. Bashkatov A.N., Genina E.A., Tuchin V.V., Altshuler G.B. Skin optical clearing for improvement of laser tattoo removal // *Laser Physics*, Vol. 19, N. 6, P. 1312-1322, 2009.

119. Georgy S. Terentyuk, Galina N. Maslyakova, Leyla V. Suleymanova, Nikolai G. Khlebtsov, Boris N. Khlebtsov, Garif G. Akchurin, Irina L. Maksimova, and Valery V. Tuchin, Laser-induced tissue hyperthermia mediated by gold nanoparticles: toward cancer phototherapy, *J. Biomed. Opt*. Vol. 14 (2), 021016-1-8 (2009); May 11, 2009 issue of Virtual Journal of Nanoscale Science & Technology http://www.vjnano.org.

120. Luıŕs Oliveira, Armindo Lage, M. Pais Clemente, Valery Tuchin, "Optical characterization and composition of abdominal wall muscle from rat," *Optics and Lasers in Engineering*, vol.47, N6, 2009, pp. 667-672.

121. P. Vacas-Jacques, V. Ryabukho, M. Strojnik, V. Tuchin, G. Paez, "Theoretical diffractive filter performance for ballistic transillumination," *Computer Optics*, **33**(2), pp. 129-137, 2009.

122. Georgy S. Terentyuk, Galina N. Maslyakova, Leyla V. Suleymanova, Boris N. Khlebtsov, Boris Ya. Kogan, Garif G. Akchurin, Alexander V. Shantrocha, Irina L. Maksimova, Nicolai G. Khlebtsov, and Valery V. Tuchin. Circulation and distribution of gold nanoparticles and induced alterations of tissue morphology at intravenous particle delivery. *J. Biophoton*. 2, No. 5, 292–302 (2009).

123. Georgy V. Simonenko, Elena S. Kirillova, Valery V. Tuchin, Mathematical model for describing of kinetics of tissue optical clearing// *Optical Memory & Neural Networks*, 2009, V.18, N 2 , P.12-15.

124. Генина Э.А., Башкатов А.Н., Кочубей В.И., Тучин В.В. Влияние условий хранения образцов кожи на их оптические характеристики // Оптика и спектроскопия, 2009, том 107, № 6, с. 990–995 (ISSN: 0030-4034)

125. И.В. Федосов, И.С. Нефедов, Б.Н. Хлебцов, В.В. Тучин, Измерение коэффициента диффузии наночастиц методом микроскопии селективного планарного освещения, Оптика и спектроскопия. – 2009. – том 107, № 6, с. 895–902.

126. В.В. Тучин, Международный научно-образовательный центр оптических технологий в промышленности и медицине (МНОЦ «Фотоника»): достижения и перспективы развития// Инновационная образовательная программа Саратовского государственного университета: итоги и перспективы. Саратов: Изд-во «Саратовск. ун-т», 2009, с. 23-29.

127. S. Tanev, W. Sun, J. Pond, V. V. Tuchin, and V. P. Zharov, “Flow cytometry with gold nanoparticles and their clusters as scattering contrast agents: FDTD simulation of light-cell interaction,” J. Biophotonics, 2, 505–520 (2009).

128. E. I. Galanzha, M. S. Kokoska, E. V. Shashkov, J.-W. Kim, V. V. Tuchin, and V. P. Zharov, In vivo fiber-based multicolor photoacoustic detection and photothermal purging of metastasis in sentinel lymph nodes targeted by nanoparticles, J. Biophoton. 2, 528–539 (2009).

129. Genina E.A., Bashkatov A.N., Tuchin V.V., Simonenko G.V., Sherstneva V.N., Yaroslavsky I.V., Altshuler G.B. Comparative treatment of acne vulgaris using Palomar Lux appliqué technique and direct intralesional injection // J. Innovative Optical Health Sciences, Vol. 2, N. 3, P. 279-287, 2009

130. G. Terentyuk, G. Akchurin, I. Maksimova, A. Shantrokha, V. Tuchin, G. Maslyakova, L.Suleymanova, B. Kogan, N. Khlebtsov, and B. Khlebtsov, Tracking gold nanoparticles in the body. 15 July 2009, SPIE Newsroom. DOI: 10.1117/2.1200907.1619.

131. X. Wen, V. V. Tuchin, Q. Luo and D. Zhu, "Controling the scattering of Intralipid by using optical clearing agents," Physics in Medicine and Biology 54(22), 6917-6930 (2009).

132. Mohamad G. Ghosn, Narendran Sudheendran, Mark Wendt, Adrian Glasser, Valery V. Tuchin, Kirill V. Larin, Monitoring of glucose permeability in monkey skin in vivo using Optical Coherence Tomography, J. Biophoton. 3 (1-2), pp. 25-33 (2010).

133. Xiang Wen, Zongzhen Mao, Zhenzhen Han, Valery V Tuchin, Dan Zhu, In Vivo Skin Optical Clearing by Glycerol Solutions: Mechanism, J. Biophoton. 3 (1-2), pp. 44-52 (2010).

134. Tuchina E.S., Tuchin V.V. TiO_2 nanoparticle enhanced photodynamic inhibition of Pathogens // Laser Phys. Lett., 7. P.1–6 (2010) / DOI 10.1002/lapl.201010030.

135. C. Liu, Z. Zhi, V. V. Tuchin, Q. Luo, and D. Zhu, Enhancement of Skin Optical Clearing Efficacy Using Photo-Irradiation, Lasers in Surgery and Medicine 42:132–140 (2010).

136. Luís Oliveira, Armindo Lage, M. Pais Clemente, and Valery V. Tuchin, Rat muscle opacity decrease due to the osmosis of a simple mixture, J. Biomed. Opt. 15(5), pp. 055004-1-9 (2010); Virtual J. Biological Physics Research 20 (6) (2010).

137. E. V. Migacheva, A. B. Pravdin and V. V. Tuchin, Alterations in autofluorescence signal from rat skin ex vivo under optical immersion clearing, J. Innovative Optical Health Sciences 3(3), 147–152 (2010).

138. N. Sudheendran, M. Mohamed, M.G. Ghosn, V.V. Tuchin, and K.V. Larin, assessment of Tissue optical clearing as a function of glucose concentration using optical coherence tomography, J. Innovative Optical Health Sciences, 3(3), 169–176 (2010).

139. Elina A. Genina, Valery V. Tuchin, Saratov Fall Meeting 2009: International School for Junior Scientists and Students on Optics, Laser Physics & Biophotonics XIII, J. Biophoton. 3, No. 3, 120–121 (2010).

140. Трунина Н.А., Лычагов В.В., Тучин В.В., Исследование диффузии воды в дентине зуба человека методом оптической когерентной томографии // Оптика и спектроскопия, 2010, 109, № 2. С. 190-196.

141. Башкатов А.Н., Генина Э.А., Кочубей В.И., Тучин В.В. Оптические свойства склеры глаза человека в спектральном диапазоне 370–2500 нм// Опт. спектр. 2010. Т. 109, № 2. С. 226–234.

142. Янина И.Ю., Симоненко Г.В., Кочубей В.И., Тучин В.В. Спектры поглощения жировой ткани человека при ее сенсибилизации красителями, *Оптика и спектроскопия*, 2010, № 2. С. 247-255.

143. Генина Э.А., Башкатов А.Н., Синичкин Ю.П., Тучин В.В. Оптическое просветление кожи под действием глицерина: исследования *ex vivo* и *in vivo*// *Оптика и спектроскопия* 2010. Т. 109, № 2. С. 256–263.

144. Симоненко Г.В., Зимняков Д.А., Тучин В.В. Дисперсионная зависимость оптической анизотропии и степени деполяризации фиброзных тканей //*Оптический журнал*. Т. 77. № 9. С. 69 – 74, 2010.

145. Ю.А. Аветисян, А.Н. Якунин, В.В. Тучин, К проблеме управления локальной гипертермией биоткани: многомасштабное моделирование воздействия импульсного лазерного излучения на среду с внедренными наноразмерными частицами, *Квантовая электроника*, Т. 40, № 12, С.1081-1088, 2010.

146. Petri Valisuo, Ilkka Kaartinen, Valery Tuchin, Jarmo Alander, New closed-form approximation for skin chromophore mapping, *J. Biomed. Opt*. **16** (4), 046012-1–10, 2011.

147. В.А. Дубровский, Б.А. Дворкин, И.Ю. Янина, В.В. Тучин. Фотовоздействие на клетки жировой ткани человека in vitro // *Цитология*, Т.53, №5, с. 423-432, 2011.

148. В.А. Дубровский, И.Ю. Янина, В.В. Тучин, Кинетика оптических свойств клеток жировой ткани in vitro как результат фотодинамического действия, *Биофизика*, Т. 56(3),с.425-436, 2011.

149. Е.С. Тучина, В.В. Тучин, Б.Н. Хлебцов, Н.Г. Хлебцов Индуцированное инфракрасным лазерным излучением фототоксическое воздействие конъюгатов плазмонно-резонансных наночастиц с красителем индоцианиновым зеленым на бактерии *Staphylococcus aureus, Квантовая электроника*, Т. 41, № 4, С. 354-359, 2011.

150. А.В. Малинин, Ю.С. Скибина, В.В. Тучин, М.В. Чайников, В.И. Белоглазов, И.Ю. Силохин, А.А.Занишевская, В.А.Дубровский, А.А. Долмашкин, Применение фотонно-кристаллических волноводов с полой сердцевиной в качестве биологических сенсоров, *Квантовая электроника*, Т. 41, № 4, С. 302-307, 2011.

151. М.А. Виленский, Д.Н. Агафонов, Д.А. Зимняков, В.В. Тучин, Р.А. Здражевский Спекл-корреляционный анализ микрокапиллярного кровотока ногтевого ложа, *Квантовая электроника*, Т. 41, № 4, С. 324-328, 2011.

152. Л.Е. Долотов, Ю.П. Синичкин, В.В. Тучин, Г.Б. Альтшулер, И.В. Ярославский Особенности диффузного отражения кожи лица человека для лазерных и нелазерных источников в видимой и ближней инфракрасной области спектра, *Квантовая электроника*, Т. 41, № 4, С. 329-334, 2011.

153. Э.А. Генина, Л.Е. Долотов, А.Н. Башкатов, Г.С. Терентюк, Г.Н. Маслякова, Е.А Зубкина, В.В. Тучин, И.В. Ярославский, Г.Б. Альтшулер, Фракционная лазерная микроабляция кожи для усиления ее проницаемости для наночастиц, *Квантовая электроника*, Т. 41, № 5, С. 396-401, 2011; Genina E. A., Dolotov, L. E., Bashkatov A. N., Terentyuk G. S., Maslyakova G. N., Zubkina E. A., Tuchin V.V., Yaroslavsky I. V., Altshuler G. B,, Fractional laser microablation of skin aimed at enhancing its permeability for nanoparticles, Quantum Electronics 41(5) 396-401 (2011).

154. Э.А. Генина, А.Н. Башкатов, В.В. Тучин, М.Г. Гхосн, К.В. Ларин, Т.Г. Каменских, Диффузия кортексина в склере глаза человека, *Квантовая электроника*, Т. 41, № 5, С.407-413, 2011.

155. Stoyan Tanev, Valery Tuchin, Pavel Cheben, Przemek Bock, Jens Schmid, Siegfried Janz, Danxia Xu, Jean Lapointe, Adam Densmore, James Pond, Advances in the FDTD design and modeling of nano- and bio-photonics applications, *Photon Nanostruct: Fundam. Appl.* doi:10.1016/j.photonics.2011.06.003, 2011.

156. I. Yu. Yanina, V.A. Bochko, J.T. Alander, and V.V. Tuchin, Optical image analysis of fat cells for indocyanine green mediated near-infrared laser treatment, *Laser Phys. Let.* **8**(9), 684-690, 2011.

157. O. Zhernovaya, O. Sydoruk, V. Tuchin, A. Douplik, Refractive index of human hemoglobin in the visible range, *Phys. Med. Biol*. **56** 4013–4021 doi:10.1088/0031-9155/56/13/017, 2011.

158. T. Yu, D. Zhu, Q. Luo, V. Tuchin, and X. Wen. "Quantitative analysis of dehydration in porcine skin for assessing mechanism of optical clearing," J. Biomed. Opt. 16, 095002 (2011); doi:10.1117/1.3621515.

159. Genina E.A., Titorenko V.A., Simonenko G.V., Bashkatov A.N., Shub G.M., Lepilin A.B., Tuchin V.V., Yaroslavsky I.V., Altshuler G.B. Phototherapy of gingivitis: Pilot clinical study // Journal of Innovative Optical Health Sciences, **4** (4), pp. 437-446, 2011.

160. Valery V. Tuchin, Ekaterina I. Galanzha, and Vladimir P. Zharov, *In vivo* flow cytometry, Tutorial, *News of European Network of Excellence for Biophotonics*, N2, pp. 10-12, 2011.

161. Зубкина Е.А., Генина Э.А., Башкатов А.Н., Тучин В.В. Оптическое просветление тканей глаза // Известия Самарского научного центра РАН, 2011 Т. 13, №4, Вып. 2, С.588-594.

162. Аветисян Ю.А., Якунин А.Н., Тучин В.В. Термооптика композитных наночастиц в биомедицинских применениях // *Российский биотерапевтический журнал*. 2011. № 4.

163. Федосов И.В., Хлебцов Б.Н., Аветисян Ю.А., Якунин А.Н., Тучин В.В. Локальные температурные эффекты на субклеточном уровне при взаимодействии лазерных пучков с плазмонными наночастицами // *Российский биотерапевтический журнал.* 2011. № 4.

164. Julia Skibina, Valery Tuchin Photonic crystal waveguide filters, *In vivo* flow cytometry, Tutorial, *News of European Network of Excellence for Biophotonics*, N2, pp. 9, 2011.

165. V.V. Tuchin, Local Cluster - Saratov State University, *News of European Network of Excellence for Biophotonics*, N1, p. 6. 2011.

166. E.A. Genina, V.V. Tuchin, Saratov Fall Meeting 2010. XIV International School for Junior Scientists and Students on Optics, Laser Physics & Biophotonics, *News of European Network of Excellence for Biophotonics*,N1, p. 14. 2011.

167. Y.A. Avetisyan, A.N. Yakunin, and V.V. Tuchin, "Thermal energy transfer by plasmon-resonant composite nanoparticles at pulse laser irradiation," Appl. Opt. **51**, C88-C94 (2012)

168. Yuri A. Avetisyan, Alexander N. Yakunin, and Valery V. Tuchin, Novel thermal effect at nanoshell heating by pulsed laser irradiation: hoop-shaped hot zone formation, *J. Biophotonics*, Vol. 5, No. 10, P. 734–744 (2012) / DOI 10.1002/jbio.201100074

169. X. Wen, S.L. Jacques, V.V. Tuchin, and D. Zhu, "Enhanced optical clearing of skin *in vivo* and OCT in-depth imaging," *J. Biomed. Opt*. **17** (6), 066022 (2012).

170. Г.С.Терентюк, Э.А.Генина, А.Н.Башкатов, М.В.Рыжова, Н.А.Цыганова, Д.С.Чумаков, Б.Н.Хлебцов, А.А.Сазонов, Л.Е.Долотов, В.В.Тучин, Н.Г.Хлебцов, О.А.Иноземцева, Использование фракционной лазерной микроабляции и ультразвука для улучшения доставки наночастиц золота в кожу in vivo, Квантовая электроника, **42**, № 6, 471 – 477 (2012).

171. Генина Э.А., Терентюк Г.С., Хлебцов Б.Н., Башкатов А.Н., Тучин В.В. Визуализация распределения наночастиц золота в тканях печени ex vivo и in vitro методом оптической когерентной томографии // Квантовая электроника, Т. 42, № 6, С. 478-483, 2012; Genina E. A., Terentyuk G. S., Bashkatov A. N., Khlebtsov B. N., Tuchin V. V. Visualisation of distribution of gold nanoparticles in liver tissues ex vivo and in vitro using the method of optical coherence tomography. Quantum Electronics 42 (6), 478–483 (2012). DOI: 10.1070/QE2012v042n06ABEH014884

172. М.А.Виленский, О.В.Семячкина-Глушковская, П.А.Тимошина, Я.В.Кузнецова, И.А.Семячкин-Глушковский, Д.Н.Агафонов, В.В.Тучин Лазерная спекл-визуализация микроциркуляции крови в коре головного мозга лабораторных крыс при стрессе, Квантовая электроника, **42**, № 6 489 – 494 (2012).

173. Irina Yu. Yanina, Valery V. Tuchin, Nikita A. Navolokin, Olga V. Matveeva, Alla B. Bucharskaya, Galina N. Maslyakova, and Gregory B. Altshuler, Fat tissue histological study at indocyanine green-mediated photothermal/photodynamic treatment of the skin *in vivo*, *J. Biomed. Opt*. **17** (5), P. 057006-1-9 (2012).

174. Oleksiy Sydoruk, Olga Zhernovaya, Valery Tuchin, and Alexandre Douplik Refractive index of solutions of human hemoglobin from the near-infrared to the ultraviolet range: Kramers-Kronig analysis, *J. Biomed. Opt*. **17** (11), 115002-1-6 (2012); doi: 10.1117/1.JBO.17.11.115002.

175. A. Sarkar, A. Shchukarev, A.-R. Leino, K. Kordas, J.-P. Mikkola, P. O. Petrov, E. S. Tuchina, A. P. Popov, M. E. Darvin, M. C. Meinke, J. Lademann and V. V Tuchin, Photocatalytic activity of TiO_2 nanoparticles: effect of thermal annealing under various gaseous atmospheres, Nanotechnology **23**, 475711-1-8 (2012).

176. Пономарева Е.Г., Черкасова О.А., Симоненко Г.В., Тучин В.В., Никитина В.Е. Воздействие бактериального лектина и повышенной температуры на адипоциты // Известия Самарского научного центра Российской академии наук. 2012. Т. 14. № 1. С. 283 -287.

177. Olga Zhernovaya, Valery V. Tuchin, and Martin J. Leahy, Blood optical clearing by optical coherence tomography, *J. Biomed. Opt.* **18**(2), 026014-1-8 (2013).

178. Vilensky M.A., Semyachkina-Glushkovskaya O.V., Alexandrov D.A., Tuchin V.V. Timoshina P.A., Kuleshov V. A, Semyachkin-Glushkovsky I.A. Full field speckle-correlation technique in application

to visualization of brain cortex and pancreas microcirculation in animal experiment // *J. Innovative Opt. Health Sci*. **6** (1), 2013.

179. Irina Yu. Yanina, Natalia A. Trunina, and Valery V. Tuchin Optical coherence tomography of adipose tissue at photodynamic/photothermal treatment in vitro, *J. Innovative Opt. Health Sci*. **6** (2) 1350010-1-7(2013).

180. A. A. Zanishevskaya, A. V. Malinin, V. V. Tuchin, Yu. S. Skibina, I. Yu. Silokhin, Photonic Crystal Waveguide Biosensor, *J. Innovative Opt. Health Sci*. **6** (2), 1350008-1-6 (2013).

181. Luís Oliveira, Maria Inês Carvalho, Elisabete Nogueira, and Valery V. Tuchin, Optical measurements of rat muscle samples under treatment with ethylene glycol and glucose, *J. Innovative Opt. Health Sci*. **6** (2), 1350012-1-15(2013).

182. Boris N. Khlebtsov, Elena S. Tuchina, Vitaly A. Khanadeev, Elizaveta V. Panfilova, Pavel O. Petrov, Valery V. Tuchin, and Nikolai G. Khlebtsov, Enhanced photoinactivation of Staphylococcus aureus with nanocomposites containing plasmonic particles and hematoporphyrin, *J. Biophotonics*, **6**, No. 4, 338–351 (2013) / DOI 10.1002/jbio.201200079

183. Semyachkina-Glushkovskaya OV, Lychagov VV, Bibikova OA, Semyachkin-Glushkovskiy IA, Sindeev SS, Zinchenko EM, Kassim MM, Braun HA, Al-Fatle F, Al Hassani L, Tuchin VV. The assessment of pathological changes in cerebral blood flow in hypertensive rats with stress-induced intracranial hemorrhage using Doppler OCT: Particularities of arterial and venous alterations. *Photon Lasers Med.* 2013, **2**(2).

184. Irina Yu. Yanina, Natalia A. Trunina, and Valery V. Tuchin, Photoinduced cell morphology alterations quantified within adipose tissues by spectral optical coherence tomography, *J. Biomed. Opt.* **18**(11), 111407-1-9, 2013.

185. Luís Oliveira, Maria Inês Carvalho, Elisabete Nogueira, and Valery V. Tuchin, The characteristic time of glucose diffusion measured for muscle tissue at optical clearing, *Laser Phys*. **23** 2013. V. 23. P. 075606-1-7.

186. Yang Zhang, Yongjun Chen, Yuan Yu, Xingbo Xue, Valery V. Tuchin, Dan Zhu, Visible and near-infrared spectroscopy for distinguishing malignant tumor tissue from benign tumor and normal breast tissues in vitro, *J. Biomed. Opt*. **18** (7), 077003-1- (July 09, 2013); doi: 10.1117/1.JBO.18.7.077003.

187. Elina A. Genina, Alexey N. Bashkatov, Leonid E. Dolotov, Galina N. Maslyakova, Vyacheslav I. Kochubey, Ilya V. Yaroslavsky, Gregory B. Altshuler, and Valery V. Tuchin, Transcutaneous delivery of micro- and nanoparticles with laser microporation, *J. Biomed. Opt*. **18**(11), 111406-1-9, 2013. doi: 10.1117/1.JBO.18.11.111406 Импакт-фактор **2.859.**

188. И. В. Меглинский, В. В. Кальченко, Ю. Л. Кузнецов, Б. И. Кузник, В. В. Тучин, О природе биологического нуля в задачах динамического рассеяния света, *Доклады Академии Наук,* 2013, том 451, № 4, с. 393–396.

189. Yulian A. Menyaev, Dmitry A. Nedosekin, Mustafa Sarimollaoglu, Mazen A. Juratli, Ekaterina I. Galanzha, Valery V. Tuchin, and Vladimir P. Zharov, Skin optical clearing for in vivo photoacoustic flow cytometry// Biomedical Opt. Express Vol. 4, No. 12, 3030-3041, 2013; DOI:10.1364/BOE.4.003030. IF **3.176**.

190. V. Toronov, T. Myllylä, V. Kiviniemi, and V.V. Tuchin, Dynamics of the brain: Mathematical models and non-invasive experimental studies, *The European Physical Journal Special Topics*, **222** (10), pp 2607-2622, 2013 – IF **1.796**

191. Natalia A. Trunina, Maxim E. Darvin, Krisztian Kordas, Anjana Sarkar, Jyri-Pekka Mikkola, Jürgen Lademann, Martina C. Meinke, Risto Myllylä, Valery V. Tuchin, Alexey P. Popov, Monitoring of TiO2 and ZnO nanoparticle penetration into enamel and dentine of human tooth *in vitro* and assessment of their photocatalytic ability, *IEEE J. Select. Tops. Quant. Electr*. **20** (3), UNSP 7300108, 2014; DOI: 10.1109/JSTQE.2013.2276082, Article#: 7300108. Импакт-фактор **4.078.**

192. M. Mohl, A. Dombovari, A.-R. Rautio, E. S. Tuchina, P. O. Petrov, O. A. Bibikova, I. Skovorodkin, A. P. Popov, A. Sarkar, J.-P. Mikkola, A. Valtanen, M. Huuhtanen, S. Vainio, R. L. Keiski, A. Prilepskyi, A. Kukovecz, Z. Konya, V. V. Tuchin, K. Kordas, Gypsum-titania fiber nanocomposites for indoor antimicrobial coatings, *Journal of Materials Chemistry B*. **2**, 1307-1316, 2014, DOI: 10.1039/C3TB21644F. Импакт-фактор **6.101.**

193. Georgy Terentyuk, Elizaveta Panfilova, Vitaly Khanadeev, Daniil Chumakov, Elina Genina, Alexey Bashkatov, Valery Tuchin, Alla Bucharskaya, Galina Maslyakova, Nikolai Khlebtsov, and Boris Khlebtsov, Gold nanorods with hematoporphyrin-loaded silica shell for dual-modality photodynamic and

photothermal treatment of tumors in vivo, *Nano Research.* 7(3), 325–337, 2014, DOI 10.1007/s12274-013-0398-3, Импакт-фактор **7.392.**

194. Genina E.A., Bashkatov A.N., Kolesnikova E.A., Basco M.V., Terentyuk G.S., Tuchin V.V. Optical coherence tomography monitoring of enhanced skin optical clearing in rats in vivo. *J. Biomed. Opt.* 2014. V. 19. № 2. P. 021109. Импакт-фактор **2.859.**

195. M. Kinnunen, A. Bykov, J. Tuorila, T. Haapalainen, A. Karmenyan, and V. Tuchin, Optical clearing at cellular level, *J. Biomed. Opt.* 2014. V. 19 (7), 071409 Импакт-фактор **2.859.**

196. V.V. Tuchin, Book Review "Second Harmonic Imaging. Francesco S. Pavone and Paul J. Campagnola (Eds). CRC Press, Boca Raton, FL, 2013, 476 pages," *Microscopy and Microanalysis*, 2014. DOI: 10.1017/S1431927614000907, IF **2.495**

197. Kirill V. Larin; Valery V. Tuchin and Alex Vitkin,"Special Section Guest Editorial: Optical Coherence Tomography and Interferometry: Advanced Engineering and Biomedical Applications", *J. Biomed. Opt*. 19(2), 021101 (Feb 25, 2014); http://dx.doi.org/10.1117/1.JBO.19.2.021101**2.859**

198. Pavlov, Alexey; Semyachkina-Glushkovskaya, Oxana; Yang, Zhang; Bibikova, Olga; Pavlova, Olga; Huang, Qin; Zhu, Dan; Li, Pengcheng; Tuchin, Valery; Luo, Qingming, Multiresolution analysis of pathological changes in cerebral venous dynamics in newborn mice with intracranial hemorrhage: adrenorelated vasorelaxation, *Physiological Measurement*, Article: PMEA-100173.R1IF- **1.496**.

199. A.N. Pavlov, A.I. Nazimov, O.N. Pavlova, V.V. Lychagov, V.V. Tuchin, O.A. Bibikova, S.S. Sindeev, O.V. Semyachkina-Glushkovskaya, Wavelet-based analysis of cerebrovascular dynamics in newborn rats with intracranial hemorrhages, *J. Innov. Opt. Health Sci.* 7, 1350055 (2014), DOI: 10.1142/S1793545813500557, IF - **1.110.**

200. Adrián F. Peña, Alexander Doronin, Valery V. Tuchin, and Igor Meglinski, Monitoring of interaction of low-frequency electric field with biological tissues upon optical clearing with optical coherence tomography, *J. Biomed. Opt.* **19**(8), 086002-1-6 (2014), DOI: 10.1117/1.JBO.19.8.086002. IF **2.859**

201. Э.А. Генина, Г.С. Терентюк, Н.А. Михеева, М.В. Баско, А.Н. Башкатов, Е.А. Колесникова, Д.С. Чумаков, Б.Н. Хлебцов, Н.Г. Хлебцов, В.В. Тучин, Сравнительное исследование физического, химического и мультимодального подходов к усилению транспорта наночастиц в коже, *Российские* нанотехнологии, **9** (9–10), 559–570 (2014).

202. Колесников А.С., Колесникова Е.А., Попов А.П., Назаров М.М., Шкуринов А.П., Тучин В.В. Мониторинг дегидратации мышечной ткани in vitro под действием гиперосмотических агентов в терагерцевом диапазоне, *Квантовая электроника*, том 44, № 7 (505), с. 633 – 640 (2014), IF - **0.897.**

203. Тучина Е.С., Петров П.О., Козина К.В., Ратто Ф., Центи С., Пини Р., Тучин В.В. Использование меченых антителами золотых наностержней при фототермическом воздействии ИК лазерного излучения на *Staphylococcus aureus Квантовая электроника*, том 44, № 7 (505), с. 683-688 (2014), IF - **0.897.**
E. S. Tuchina, P. O. Petrov, K. V. Kozina, F. Ratto, S. Centi, R. Pini, V. V. Tuchin, Using gold nanorods labelled with antibodies under the photothermal action of NIR laser radiation on Staphylococcus aureus, *Quantum Electronics* **44** (7) (2014) 683-688. http://dx.doi.org/10.1070/QE2014v044n07ABEH015497

204. Генина Э.А., Башкатов А.Н., Тучин В.В. Исследование диффузии фотодинамического красителя индоцианинового зеленого в коже с помощью спектроскопии обратного рассеяния, *Квантовая электроника*, том 44, № 7 (505), с. 689 – 695 (2014), IF - **0.897.**

205. Башкатов А.Н., Генина Э.А., Кочубей В.И., Рубцов В.С., Колесникова Е.А., Тучин В.В. Оптические свойства тканей толстой кишки человека в спектральном диапазоне 350 – 2500 нм, *Квантовая электроника*, том 44, № 8 (506), с. 779-784 (2014), IF - **0.897.**

206. A. S. Kolesnikov, E. A. Kolesnikova, K. N. Kolesnikova, D. K. Tuchina, A. P. Popov, A. A. Skaptsov, M. M. Nazarov, A. P. Shkurinov, A. G. Terentyuk, and V. V. Tuchin, THz Monitoring of the Dehydration of Biological Tissues Affected by Hyperosmotic Agents, Phys. Wave Phenomena 22(3),169–176 (2014). DOI: 10.3103/S1541308X14030029.

207. Башкатов А.Н., Генина Э.А., Кочубей В.И., Каменских Т.Г., Тучин В.В. Оптическое просветление склеры глаза человека водным 30%-раствором глюкозы // Изв. Сарат. ун-та, Новая сер., Сер. Физика, Т. 15, № 3, С. 18-24, 2015. (ISSN 1817-3020)

208. Бучарская А.Б., Генина Э.А., Башкатов А.Н., Терентюк Г.С., Наволокин Н.А., Маслякова Г.Н., Хлебцов Н.Г., Хлебцов Б.Н., Тучин В.В. морфологические изменения перевитой саркомы С45 при фотодинамической терапии с использованием нанокомпозитов на основе золотых

наностержней // Изв. Сарат. ун-та, Новая сер., Сер. Физика, Т. 15, № 4, С. 22-27, 2015. (ISSN 1817-3020)

209. С.Р. Утц, В.В. Тучин, Е.М. Галкина, Динамика некоторых биофизических параметров кожи человека в процессе оптического просветления при воздействии гиперосмотических агентов, Вестник дерматологии и венерологии (4), 60—68 (2015).

210. M.S. Wróbel, A.P. Popov, A.V. Bykov, M. Kinnunen, M. Jędrzejewska- Szczerska, V.V. Tuchin, Multi-layered tissue head phantoms for noninvasive optical diagnostics // *J. Innov. Opt. Health Sci.* **8** (3) (2015) 1541005-1-10, DOI: 10.1142/S179354581541005, **IF - 1.110.** (ISSN: 1793-5458).

211. Daria K. Tuchina, Alexey N. Bashkatov, Elina A. Genina, Valery V. Tuchin, Quantification of glucose and glycerol diffusion in myocardium // *J. Innov. Opt. Health Sci.* **8** (3) (2015) 1541006-1-10, DOI: 10.1142/S1793545815410060 (ISSN: 1793-5458). IF - **1.110**

212. A. B. Bucharskaya, G. N. Maslyakova, G. A. Afanasyeva, G. S. Terentyuk, N. A. Navolokin, O. V. Zlobina, D. S. Chumakov, A. N. Bashkatov, E. A. Genina, N. G. Khlebtsov, B. N. Khlebtsov and V. V. Tuchin, The morpho-functional assessment of plasmonic photothermal therapy effects on transplanted liver tumor // *J. Innov. Opt. Health Sci.* **8** (3) 1541004-1-8 (2015); DOI: 10.1142/S1793545815410047 (ISSN: 1793-5458). IF **1.110**.

213. Genina E.A., Bashkatov A.N., Kamenskikh I.D., Kolbenev I.O., Kamenskikh T.G., Tuchin V.V. OCT/LCT monitoring the drug effect on the human cornea structure *in vivo* // *Journal of Biomedical Photonics & Engineering*, Vol. 1(1), P. 77-80, 2015 (ISSN (online) 2411-2844)

214. Tuchina D.K., Shi R., Bashkatov A.N., Genina E.A., Zhu D., Luo Q., Tuchin V.V. Ex vivo optical measurements of glucose diffusion kinetics in native and diabetic mouse skin // *Journal of Biophotonics* **8**(4), 332-346, 2015, DOI: 10.1002/jbio.201400138IF **4.447**.

215. D Zhu, S Zeng, VV Tuchin, A special issue on Biomedical Photonics, *Frontiers of Optoelectronics*, **8**(2), 119–121(2015).

216. EA Genina, D Zhu, VV Tuchin, Foreword to the Special Issue on Optical Technologies in Biophysics and Medicine, *J. Innovative Optical Health Sciences*, **8**(3) 1502002 (2 pages) (2015) (ISSN: 1793-5458). IF **1.110.**

217. Luís M. Oliveira, M. Inês Carvalho, Elisabete M. Nogueira, Valery V. Tuchin, Diffusion characteristics of ethylene glycol in skeletal muscle, *J. Biomed. Opt*. **20**(5), 051019-1-10 (2015) DOI: 10.1117/1.JBO.20.5.051019. IF **2.859.**

218. A.N. Yakunin, Y.A. Avetisyan, and V.V. Tuchin, "Quantification of laser local hyperthermia induced by gold plasmonic nanoparticles," *J. Biomed. Opt*., **20**(5), 051030 (2015). doi:10.1117/1.JBO.20.5.051030. IF **2.859.**

219. A.A. Zanishevskaya, A.A. Shuvalov, Y.S. Skibina, V.V. Tuchin, Blood typing using microstructured waveguide smart cuvette, *J. Biomed. Opt*., **20**(4), 040503 (2015). doi:10.1117/1.JBO.20.4.040503. IF **2.859.**

220. E. A. Genina, V. A. Titorenko, A. V. Belikov, A. N. Bashkatov, V. V. Tuchin, Adjunctive dental therapy via tooth plaque reduction and gingivitis treatment by blue light-emitting diodes tooth brushing, *J. Biomed. Opt*. 20(12) 128004, 2015; doi: 10.1117/1.JBO.20.12.12800. IF 2.859.

221. C.-H. Liu, M. Singh, J. Li, Z. Han, C. Wu, S. Wang, R. Idugboe, R. Raghunathan, E. N. Sobol, V. V. Tuchin, M. D. Twa, and K. V. Larin, "Quantitative Assessment of Hyaline Cartilage Elasticity during Optical Clearing using Optical Coherence Elastography," Modern Technologies in Medicine 7, 44-51 (2015).

222. R. Shi, M. Chen, V.V. Tuchin, and D. Zhu, Accessing to arteriovenous blood flow dynamics response using combined laser speckle contrast imaging and skin optical clearing, Biomedical Optics Express 6 (6), 1977-1989 (2015); DOI:10.1364/BOE.6.001977. IF **3.648**.

223. A. S. Abdurashitov, V.V. Lychagov, O.A. Sindeeva, O.V. Semyachkina-Glushkovskaya, V.V. Tuchin, Histogram analysis of laser speckle contrast image for cerebral blood flow monitoring, *Front. Optoelectron*, **8**(2), 187-194 (2015); DOI 10.1007/s12200-015-0493-z

224. O. Bibikova, A. Popov, A. Bykov, A. Prilepskii, M. Kinnunen, K. Kordas, V. Bogatyrev, N. Khlebtsov, S. Vainio, and V. Tuchin "Optical properties of plasmon-resonant bare and silica-coated nanostars used for cell imaging," *J. Biomed. Opt.,* **20**(7), 076017 (2015). doi:10.1117/1.JBO.20.7.076017. IF **2.859.**

225. Belikov A.V., Shatilova K.V., Skrypnik A.V., Tuchin V.V. Multi-beam laser-induced hydrodynamic shock waves used for delivery of microparticles and liquids in skin // Lasers in Surgery and Medicine. 2015. V. 47, №9. P. 723–736. **DOI:** https://doi.org/10.1002/lsm.22417, IF **2.619**.

226. Alexey N Pavlov, Arkady S Abdurashitov, Olga N Pavlova, Valery V Tuchin, Olga S Sindeeva, Sergey S Sindeev, Oxana V Semyachkina-Glushkovskaya, Hidden stage of intracranial hemorrhage in newborn rats studied with laser speckle contrast imaging and wavelets, *Journal of Innovative Optical Health Sciences* 8(5), 1550041(2015).IF **1.110**

227. AV Priezzhev, H Schneckenburger, VV Tuchin, Special Section Guest Editorial: Laser Applications in Life Sciences, *J. Biomed. Opt.,* **20** (5), 051001 (2015). IF **2.859.**

228. Dmitry D Postnov, Olga Sosnovtseva, Valery V Tuchin, Improved detectability of microcirculatory dynamics by laser speckle flowmetry, *J. Biophotonics* **8**(10), 790-794 (2015). DOI: 10.1002/jbio.201500152, IF **4.447**.

229. Oxana Semyachkina-Glushkovskaya, Alexey Pavlov, Jürgen Kurths, Ekaterina Borisova, Alexander Gisbrecht, Olga Sindeeva, Arkady Abdurashitov, Alexander Shirokov, Nikita Navolokin, Ekaterina Zinchenko, Artem Gekalyuk, Maria Ulanova, Dan Zhu, Qingming Luo, Valery Tuchin, Optical monitoring of stress-related changes in the brain tissues and vessels associated with hemorrhagic stroke in newborn rats, *Biomed. Opt. Express* **6**(10), 4088-4097 (2015). IF **3.648.**

230. Maciej S Wróbel, Alexey P Popov, Alexander V Bykov, Matti Kinnunen, Malgorzata Jędrzejewska-Szczerska, Valery V Tuchin, Measurements of fundamental properties of homogeneous tissue phantoms, *J. Biomed. Opt.,* **20**(4), 045004 (2015).IF **2.859.**

231. Maciej S Wróbel, Malgorzata Jędrzejewska-Szczerska, Stanislaw Galla, Leszek Piechowski, Miroslaw Sawczak, Alexey P Popov, Alexander V Bykov, Valery V Tuchin, Adam Cenian, Use of optical skin phantoms for preclinical evaluation of laser efficiency for skin lesion therapy, *J. Biomed. Opt.,* **20**(8), 085003 (2015). IF **2.859.**

232. Boris Khlebtsov, Elena Tuchina, Valery Tuchin, and Nikolai Khlebtsov, Multifunctional Au nanoclusters for targeted bioimaging and enhanced photodynamic inactivation of Staphylococcus aureus, *RSC Advances* **5**, 61639-61649 (2015).IF-**3.84**

233. A. Bykov, T. Hautala, M. Kinnunen, A. Popov, S. Karhula, S. Saarakkala, M. T. Nieminen, V. Tuchin, and I. Meglinski, Imaging of subchondral bone by optical coherence tomography upon optical clearing of articular cartilage, *J. Biophoton*. **9**(3):270-275 (2016), doi: 10.1002/jbio.201500130.IF- **4.447**

234. Башкатов А.Н., Генина Э.А., Тучин В.В. Оптика и спектроскопия в биофизике и медицине // Оптика и спектроскопия, Т. 120, № 1, С. 3-5, 2016. IF **0.723**.

235. Башкатов А.Н., Генина Э.А., Козинцева М.Д., Кочубей В.И., Городков С.Ю., Тучин В.В. Оптические свойства биологических тканей брюшины в спектральном диапазоне 350–2500 нм // Оптика и спектроскопия, Т. 120, № 1, С. 6-14, 2016. IF **0.723**.

236. Генина Э.А., Башкатов А.Н., Козинцева М.Д., Тучин В.В. ОКТ-исследование оптического просветления мышечной ткани *in vitro* с помощью 40%-ного раствора глюкозы // Оптика и спектроскопия, Т. 120, № 1, С. 27-35, 2016. IF **0.723**.

237. Тучина Д.К., Генин В.Д., Башкатов А.Н., Генина Э.А., Тучин В.В. Оптическое просветление тканей кожи *ex vivo* под действием полиэтиленгликоля // Оптика и спектроскопия, Т. 120, № 1, С. 36-45, 2016. IF **0.723**.

238. Maciej S. Wróbel, Alexey P. Popov, Alexander V. Bykov, Valery V. Tuchin, and Małgorzata Jędrzejewska-Szczerska, Nanoparticle-free tissue-mimicking phantoms with intrinsic scattering, *Biomed. Opt. Express* **7**(6), 2088-2094 (2016); doi: 10.1364/BOE.7.002088 IF **3.648**.

239. A.B. Bucharskaya, S.S. Pakhomy, O.V. Zlobina, G.N. Maslyakova, O.V. Matveeva, I.O. Bugaeva, N.A. Navolokin, B.N. Khlebtsov, V.A. Bogatyrev, N.G. Khlebtsov, V.V. Tuchin, "Alterations of morphology of lymphoid organs and peripheral blood indicators under the influence of gold nanoparticles in rats," *J. Innov. Opt. Health Sci.* **9** (1), 1640004 (2016); DOI: http://dx.doi.org/10.1142/S1793545816400046 IF **1.110**.

240. Bucharskaya, A. B., Maslyakova, G. N., Pakhomy, S. S., Zlobina, O. V., Bugaeva, I. O., Navolokin, N. A., Khlebtsov, B. N., Bogatyrev, V. A., Khlebtsov, N. G. and Tuchin, V. V., "The Morphological Changes in the Internal Organs of Laboratory Animals After Prolonged Oral Administration of Gold Nanoparticles," *J. Innov. Opt. Health Sci.* **9** 1642004 (2016) IF **1.110**.

241. E. A. Genina, Y. I. Svenskaya, I. Yu. Yanina, L. E. Dolotov, N. A. Navolokin, A. N. Bashkatov, G. S. Terentyuk, A. B. Bucharskaya, G. N. Maslyakova, D. A. Gorin, V. V. Tuchin, and G. B. Sukhorukov, "In vivo optical monitoring of transcutaneous delivery of calcium carbonate microcontainers," *Biomed. Opt. Express* 7 (6), 2082-2087 (2016); doi: 10.1364/BOE.7.002082 IF **3.648**.

242. W. Feng, R. Shi, N. Ma, D. K. Tuchina, V. V. Tuchin, D. Zhu, "Skin optical clearing potential of disaccharides," *J. Biomed. Opt*. **21**(8), 081207 (2016); doi: 10.1117/1.JBO.21.8.081207. IF **2.859.**

243. L. Oliveira, M. I. Carvalho, E. Nogueira, and V. V. Tuchin, "Optical clearing mechanisms characterization in muscle," *J. Innov. Opt. Health Sci.* **9** (5) 1650035 (19 pages) (2016); DOI: 10.1142/S1793545816500358 IF **1.110**.

244. O. Bibikova, A. Popov, A. Bykov, A. Fales, H. Yuan, I. Skovorodkin, M. Kinnunen, S. Vainio, T. Vo-Dinh, V. V. Tuchin, I. Meglinski, Plasmon-Resonant Gold Nanostars With Variable Size as Contrast Agents for Imaging Applications, *IEEE J. Selec. Tops. Quant. Electron.* **22**(3), 4600808 (2016); **DOI:** 10.1109/JSTQE.2016.2526602 IF **2.828**.

245. P. Peixoto, L. Oliveira, M. I. Carvalho, E. Nogueira, and V. V. Tuchin, "Software development for estimation of optical clearing agent's diffusion coefficients in biological tissues," *J. Biomed. Photon. & Eng.* 1(4) 255-269 (2016); doi: 10.18287/JBPE-2015-1-4-255

246. V. D. Genin, D. K. Tuchina, A. J. Sadeq, E. A. Genina, V. V. Tuchin, and Alexey N. Bashkatov, "*Ex vivo* investigation of glycerol diffusion in skin tissue," *J. Biomed. Photon. & Eng.* 2(1) 010303-1-5 (2016); doi: 10.18287/JBPE16.02.010303

247. O. Sindeeva, E. Borisova, A. Abdurashitov, E. Zhinchenko, A. Gekalyuk, M. Ulanova, A. E. Sharif, V. Razubaeva, S. Serov, L. Yankovskaya, V. Tuchin, and O. Semyachkina-Glushkovskaya, "The stress-related changes in the cerebral blood flow in newborn rats with intracranial hemorrhage: metabolic and endothelial mechanisms," *J. Biomed. Photon. & Eng.* 1(4), 248-254 (2016); doi: 10.18287/JBPE-2015-1-4-248

248. E. A. Genina, A. N. Bashkatov, and V. V. Tuchin, "Special Issue: Optical Technologies for Biomedical Applications," *J. Biomed. Photon. & Eng.* 1(4), 208 (2016)

249. O. V. Semyachkina-Glushkovskaya, J. Kurths, A.N. Pavlov, E. G. Borisova, A. S. Abdurashitov, D. Zhu, P. Li, Q. Luo, and V. V. Tuchin, "Silent Vascular Catastrophes in the Brain in Term Newborns: Strategies for Optical Imaging," *IEEE J. Selec. Tops. Quant. Electron.* **22**(3) 6802514 (2016); **DOI:** 10.1109/JSTQE.2016.2523982 IF **2.828**.

250. D. Chen, N. Zeng, Y. Wang, H. He, V. V. Tuchin, and H. Ma, "Study of optical clearing in polarization measurements by Monte Carlo simulations with anisotropic tissue-mimicking models," *J. Biomed. Opt*. **21**(8), 081209 (2016), doi: 10.1117/1.JBO.21.8.081209.IF **2.859**.

251. D. D. Postnov, V. V. Tuchin, and O. Sosnovtseva, "Estimation of vessel diameter and blood flow dynamics from laser speckle images," *Biomed. Opt. Express* **7** (7), 2759-2768 (2016); DOI:10.1364/BOE.7.002759. IF **3.648**.

252. O. Zhernovaya, V. V. Tuchin and M. J. Leahy, "Enhancement of OCT imaging by blood optical clearing in vessels – A feasibility study," *Photon Lasers Med* **5**(2), 151–159 (2016); DOI 10.1515/plm-2016-0004.

253. T. Novikova, I. Meglinski, J. C. Ramella-Roman, V. V. Tuchin, "Polarized Light for Biomedical Applications," *J. Biomed. Opt.* **21**(7), 071001 (2016), doi: 10.1117/1.JBO.21.7.071001. IF **2.859**.

254. D. Zhu, B. Choi, E. Genina, V. V. Tuchin, "Tissue and Blood Optical Clearing for Biomedical Applications," *J. Biomed. Opt.* **21**(8), 081201 (2016), doi: 10.1117/1.JBO.21.8.081201. IF **2.859**.

255. A.N. Bashkatov, E.A. Genina, A.V. Priezzhev, V.V. Tuchin, "Laser Biophotonics," *Quantum Electronics* 46 (6) 487 (2016); DOI: 10.1070/QEL00000. IF **0.97.**

256. H. Yu, P. Lee, Y.Ju Jo, K.R. Lee, V.V. Tuchin, Y. Jeong, Y.K. Park, "Collaborative effects of wavefront shaping and optical clearing agent in optical coherence tomography," *J. Biomed. Opt.* 21(12), 121510 (2016), doi: 10.1117/1.JBO.21.12.121510.

257. Башкатов А. Н., Генина Э. А., Каменских Т. Г., Тучин В. В. Исследование диффузии милдроната® в склере глаза человека // Изв. Сарат. ун-та. Нов. сер. Сер. Физика. 2016. Т. 16, вып. 3. С. 167–177. DOI: 10.18500/1817-3020-2016-16-3-167-177.

258. Э. А. Генина, А. Н. Башкатов, В. В. Тучин, Исследование влияния этанола на трансэпидермальный транспорт индоцианинового зелёного с помощью спектроскопии обратного

рассеяния, Изв. Сарат. ун-та. Нов. сер. Сер. Физика. 2016. Т. 16, вып. 2. С. 91–96. DOI: 10.18500/1817-3020-2016-16-2-91-96.

259. О.В. Семячкина-Глушковская, А.С. Абдурашитов, С.С. Синдеев, В.В. Тучин, Лазерная спекл-визуализация «автономии» мозгового кровообращения на уровне макро- и микроциркуляции у крыс, «Квантовая электроника», 46, № 6, 496-501 (2016). **IF 0.978**

260. Э.А. Генина, Л.Е. Долотов, А.Н. Башкатов, В.В. Тучин, Фракционная лазерная микроабляция кожи: повышение эффективности чрескожной доставки частиц, «Квантовая электроника», 46, № 6, 502-510 (2016). **IF 0.978**

261. М.В. Корченова, Е.С. Тучина, В.Ю. Швайко, А.Г. Гюльханданян, А.А. Закоян, Р.К. Казарян, Г.В. Гюльханданян, Б.М. Джагаров, В.В. Тучин, Фотодинамическое воздействие излучения с длиной волны 405 нм на клетки микроорганизмов при их сенсибилизации металлопорфириновыми соединениями, «Квантовая электроника», **46**, № 6, 521-526 (2016). **M. V. Korchenova, E. S. Tuchina, V. Y. Shvayko**, A. G. Gulkhandanyan, A. A. Zakoyan, R. K. Ghazaryan, G. V. Gulkhandanyan, B. M. Dzhagarov, **V. V. Tuchin**. "Photodynamic effect of radiation with the wavelength 405 nm on the cells of microorganisms sensitised by metalloporphyrin compounds", *Quantum. Electron.*, 2016, **46** (6), 521–527; DOI: 10.1070/QEL16110 **IF 0.978**

262. A. N. Bashkatov, E. A. Genina, V.I. Kochubey, and V. V. Tuchin, Quantification of tissue optical properties: perspectives for precise optical diagnostics, phototherapy and laser surgery, *J. Phys. D: Appl. Phys*. **49** (2016) 501001 (3p); doi:10.1088/0022-3727/49/50/501001, **IF 2.772**

263. Alexandrov D.A., Timoshina P.A., Tuchin V.V., Maslyakova G.N., Palatova T.V., Sedov D.S., Izmailov R.R. , "Dynamics of laser speckle imaging of blood flow in the tissues at partial temporary pancreatic ischemia of hungry, fed and alcoholized rats," *Saratov Journal of Medical Scientific Research*,**12** (2), 106-109 (2016).

264. Klykov SS. Fedosov IV, Tuchin VV. Erratum: Dynamic analysis of optical cell trapping in the ray optics regime. *Computer Optics* 2016; 40(5): 759-760. DOI: 10.18287/2412-6179- 2016-40-5-759-760.

265. T. Novikova; B. Drévillon; L. Schwartz; P. Validire; A. Nazac, et al. "Special Section Guest Editorial: Antonello De Martino (1954–2014): in memoriam", J. Biomed. Opt. **21**(7), 071101 (2016). http://dx.doi.org/10.1117/1.JBO.21.7.071101 IF **2.859**.

266. Semyachkina-Glushkovskaya O, Borisova E, Abakumov M, Gorin D, Avramov L, Fedosov I, Namykin A, Abdurashitov A, Serov A, Pavlov A, Zinchenko E, Lychagov V, Navolokin N, Shirokov A, Maslyakova G, Zhu D, Luo Q, Chekhonin V, Tuchin V and Kurths J "The Stress and Vascular Catastrophes in Newborn Rats: Mechanisms Preceding and Accompanying the Brain Hemorrhages." *Front. Physiol*. 7, 210-1-11(2016). doi: 10.3389/fphys.2016.00210, **IF 4.031**

267. A. B. Bucharskaya, G. N. Maslyakova, N. I. Dikht, N. A. Navolokin, G. S. Terentyuk, A. N. Bashkatov, E. A. Genina, V. V. Tuchin, B. N. Khlebtsov, N. G. Khlebtsov, "Cancer Cell Damage at Laser-Induced Plasmon-Resonant Photothermal Treatment of Transplanted Liver Tumor," *BioNanoSci*. **7** (1), 216-221 (2017). DOI:10.1007/s12668-016-0320-z, **IF 1.52**

268. Voronin, Denis; Sindeeva, Olga; Kurochkin, Maxim; Mayorova, Oksana; Fedosov, Ivan; Semyachkina-Glushkovskaya, Oksana; Gorin, Dmitry; Tuchin, Valery; Sukhorukov, Gleb, "In vitro and in vivo visualization and trapping of fluorescent magnetic microcapsules in a blood stream", *ACS Applied Materials & Interfaces* **9** (8), 6885–6893 (2017); Manuscript ID: am-2016-15811d.R1; DOI: 10.1021/acsami.6b15811; http://pubs.acs.org, **IF 7.145**

269. A. Sdobnov, M.E. Darvin, J. Lademann and V. Tuchin, A comparative study of *ex vivo* skin optical clearing using two-photon microscopy, *J. Biophoton*. **10**(9),1115-1123, 2017, DOI: 10.1002/jbio.201600066, **IF 4.328.**

270. Э.А. Генина, Н.С. Ксенофонтова, А.Н. Башкатов, Г.С. Терентюк, В.В. Тучин, "Исследование влияния абляции эпидермиса на эффективность оптического просветления кожи in vivo", Квант. электроника, 2017, 47 (6), 561–566. Genina E.A., Ksenofontova N.S., Bashkatov A.N., Terentyuk G.S., Tuchin V.V. Study of epidermis ablation effect on the efficiency of optical clearing of skin in vivo / / Quantum Electronics, Vol. 47(6), P. 561-566, 2017.

271. A. Yu. Sdobnov, V. V. Tuchin, J. Lademann and M. E. Darvin, Confocal Raman microscopy supported by optical clearing treatment of the skin—influence on collagen hydration, J. Phys. D: Appl. Phys. 50 (2017) 285401 (9pp) https://doi.org/10.1088/1361-6463/aa77c9 **IF 2.588**

272. I. Yu. Yanina, N. A. Navolokin, Yu. I. Svenskaya, A. B. Bucharskaya, G. N. Maslyakova, D. A. Gorin, G. B. Sukhorukov, V. V. Tuchin, "Morphology alterations of skin and subcutaneous fat at NIR

laser irradiation combined with delivery of encapsulated indocyanine green," J. Biomed. Opt. 22(5), 055008 (2017), doi: 10.1117/1.JBO.22.5.055008. **IF 2.530**

273. D. Chen, N. Zeng, Y. Wang, H. He, V. V. Tuchin, and H. Ma, "Mueller matrix polarimetry for characterizing microstructural variation of nude mouse skin during tissue optical clearing," *Biomedical Optics Express* **8** (8) 3559-3570 (2017). https://doi.org/10.1364/BOE.8.003559. IF **3.482**.

274. A. Abdurashitov, O. Bragina, O. Sindeeva, S. Sindeev, O.V. Semyachkina-Glushkovskaya, V.V. Tuchin Off-axis holographic laser speckle contrast imaging of blood vessels in tissues, J. Biomed. Opt. 2017. V.22(9). 091514

275. Sónia Carvalho, Nuno Gueiral, Elisabete Nogueira, Rui Henrique, Luís Oliveira, Valery V. Tuchin, Glucose diffusion in colorectal mucosa—a comparative study between normal and cancer tissues, J. Biomed. Opt. 2017. V.22(9), 091506; doi: 10.1117/1.JBO.22.12.125002.

276. Bibikova O., Singh P., Popov A., Akchurin G., Skaptsov A., Skovorodkin I., Khanadeev V., Mikhalevich D., Kinnunen M., Akchurin G., Bogatyrev V., Khlebtsov N., Vainio S.J., Meglinski I., Tuchin V. Shape-dependent interaction of gold nanoparticles with cultured cells at laser exposure, *Laser Phys. Lett*. 2017. V.14(5). 055901 IF –1.151 (Q1: 2018)

277. Калмыков Р.В., Попова Д.В., Каменских Т.Г., Генина Э.А., Тучин В.В., Башкатов А.Н. ОКТ-исследование влияния цементной пыли и препарата-кератопротектора на структуру роговицы, Саратовский научно-медицинский журнал, Т. 13, № 2, С. 400-406, 2017

278. Генина Э.А., Башкатов А.Н., Семячкина-Глушковская О.В., Тучин В.В. Оптическое просветление черепной кости многокомпонентными иммерсионными растворами и визуализация церебрального венозного кровотока, Известия Саратовского университета, Новая серия, Серия Физика, Т. 17, выпуск 2, С. 98-110, 2017

279. Ksenofontova N.S., Genina E.A., Bashkatov A.N., Terentyuk G.S., Tuchin V.V. OCT study of skin optical clearing with preliminary laser ablation of epidermis / / Journal of Biomedical Photonics & Engineering, 3(2), 020307, 2017

280. Genina E.A., Bashkatov A.N., Tuchin V.V. Optical clearing of human dura mater by glucose solutions, Journal of Biomedical Photonics & Engineering, **3**(1), 010309, 2017

281. Tuchina D.K., Bashkatov A.N., Bucharskaya A.B., Genina E.A., Tuchin V.V. Study of glycerol diffusion in skin and myocardium ex vivo under the conditions of developing alloxan-induced diabetes, Journal of Biomedical Photonics & Engineering, **3**(2), 020302, 2017

282. Timoshina P.A., Bucharskaya A.B., Alexandrov D.A., Tuchin V.V. Study of blood microcirculation of pancreas in rats with alloxan diabetes, Journal of Biomedical Photonics & Engineering. **3**(2), 020301, 2017.

283. Isa Carneiro, Sónia Carvalho, Rui Henrique, Luís Oliveira, Valery V. Tuchin, "Simple multimodal optical technique for evaluation of free/bound water and dispersion of human liver tissue," J. Biomed. Opt. 22(12), 125002 (2017), doi: 10.1117/1.JBO.22.12.125002. **IF 2.367**

284. V. V. Tuchin, E. Borisova, M. Jędrzejewska-Szczerska, M. J. Leahy, F. S. Pavone, J. Popp, J. Pozo, A special issue on Biophotonics in Europe, Front. Optoelectron. 2017, 10(3): 203–210, DOI 10.1007/s12200-017-0757-x.

285. O. Semyachkina-Glushkovskaya, A. Abdurashitov, A. Pavlov, A. Shirokov, N. Navolokin, O. Pavlova, A. Gekalyuk, M. Ulanova, N. Shushunova, A. Bodrova, E. Saranceva, A. Khorovodov, I. Agranovich, V. Fedorova, M. Sagatova, A. E. Shareef, C. Zhang, D. Zhu, and V. Tuchin, "Laser speckle imaging and wavelet analysis of cerebral blood flow associated with the opening of the blood–brain barrier by sound," Chinese Optics Letters 15 (9), pp. 090002 (2017). **IF 1.948, Q2**

286. Oxana Semyachkina-Glushkovskaya, Arkady Abdurashitov, Alexander Dubrovsky, Denis Bragin, Olga Bragina, Nataliya Shushunova, Galina Maslyakova, Nikita Navolokin, Alla Bucharskaya, Valery Tuchin, Juergen Kurths, Alexander Shirokov, "Application of optical coherence tomography for in vivo monitoring of the meningeal lymphatic vessels during opening of blood–brain barrier: mechanisms of brain clearing," J. Biomed. Opt. 22(12), 121719 (2017), doi: 10.1117/1.JBO.22.12.121719. **IF 2.367, Q1**

287. Alexandrovskaya, Y., Sadovnikov, K., Sharov, A., Sherstneva, A., Evtushenko, E., Omelchenko, A., Obrezkova, M., Tuchin, V., Lunin, V. and Sobol, E., Controlling the near infrared transparency of costal cartilage by impregnation with clearing agents and magnetite nanoparticles. J. Biophotonics **11** (2), e201700105 (2018); doi:10.1002/jbio.201700105. **IF 3.768, Q1**

288. I. Y. Yanina, A. P. Popov, A. V. Bykov, I. V. Meglinski, V. V. Tuchin, "Monitoring of temperature-mediated phase transitions of adipose tissue by combined optical coherence tomography and

Abbe refractometry," J. Biomed. Opt. 23(1), 016003 (2018), doi: 10.1117/1.JBO.23.1.016003. **IF 2.367, Q1**

289. E.N. Lazareva, V.V. Tuchin, "Measurement of refractive index of hemoglobin in the visible/NIR spectral range," J. Biomed. Opt. **23** (3), 035004 (2018), doi: 10.1117/1.JBO.23.3.035004 **IF 2.367, Q1**

290. K. V. Berezin, K. N. Dvoretski, M. L. Chernavina, A. M. Likhter, V. V. Smirnov, I. T. Shagautdinova, E. M. Antonova, E. Yu. Stepanovich, E. A. Dzhalmuhambetova, V. V. Tuchin, Molecular modeling of immersion optical clearing of biological tissues, J. Molecular Modeling **24**, 45-1-8 (2018); https://doi.org/10.1007/s00894-018-3584-0

291. O. A. Smolyanskaya, I. J. Schelkanova, M. S. Kulya, E. L.Odlyanitskiy, I. S. Goryachev, A. N. Tcypkin, Ya. V. Grachev, Ya. G. Toropova, and V. V. Tuchin, Glycerol dehydration of native and diabetic animal tissues studied by THz-TDS and NMR methods, Biomed. Opt. Express **9**(3) 1198-1215 (2018); https://doi.org/10.1364/BOE.9.001198**, Q1**

292. Oliveira Luís M., Carvalho MI, Nogueira EM, Tuchin VV. Skeletal muscle dispersion (400-1000 nm) and kinetics at optical clearing. J. Biophotonics. 2018;11:e201700094. https://doi.org/10.1002/jbio.201700094 **IF 3.768, Q1**

293. Irina N. Dolganova, Nikita V. Chernomyrdin, Polina V. Aleksandrova, Sheykh-Islyam T. Beshplav, Alexander A. Potapov, Igor V. Reshetov, Vladimir N. Kurlov, Valery V. Tuchin, Kirill I. Zaytsev, "Nanoparticle-enabled experimentally trained wavelet-domain denoising method for optical coherence tomography," J. Biomed. Opt. 23(9), 091406-1-9 (2018), doi: 10.1117/1.JBO.23.9.091406. **IF 2.367, Q1**

294. Semyachkina-Glushkovskaya O, Chehonin V, Borisova E, et al. Photodynamic opening of the blood-brain barrier and pathways of brain clearing. J. Biophotonics**11**(8), e201700287 (2018). https://doi.org/10.1002/jbio.201700287 **IF 3.768, Q1**

295. Namykin AA, Shushunova NA, Ulanova MV, Semyachkina-Glushkovskaya OV, Tuchin VV, Fedosov IV. Intravital molecular tagging velocimetry of cerebral blood flow using Evans Blue. J. Biophotonics. **11**(8), e201700343 (2018) https://doi.org/10.1002/jbio.201700343 **IF 3.768, Q1**

296. Yanina IY, Svenskaya YI, Prikhozhdenko ES, D. N. Bratashov, M. V. Lomova, D. A. Gorin, G. B. Sukhorukov, V.V. Tuchin, Optical monitoring of adipose tissue destruction under encapsulated lipase action. J. Biophotonics 11(11), e201800058 (2018). https://doi. org/10.1002/jbio.201800058 **IF 3.768, Q1**

297. Irina V. Vidiasheva, Anatolii A. Abalymov, Maxim A. Kurochkin, Oksana A. Mayorova, Maria V. Lomova, Sergey V. German, Dmitry N. Khalenkow, Mikhail N. Zharkov, Dmitry A. Gorin, Andre G. Skirtach, Valery V. Tuchin and Gleb B. Sukhorukov, Transfer of cells with uptaken nanocomposite, magnetite-nanoparticle functionalized capsules with electromagnetic tweezers, Biomaterials Science, 2018, DOI: 10.1039 / C8BM00479J **IF 4.210, Q1**

298. V.V. Tuchin, V.P. Zharov, E.I. Galanzha, "Biophotonics for lymphatic theranostics in animals and humans," J. Biophotonics **11**(8), 15750479 (2018); DOI: 10.1002/jbio.201811001; http://dx.doi.org/10.1002/jbio.201811001 **IF 3.768, Q1**

299. A. Abdurashitov and V. Tuchin, "A robust model of an OCT signal in a spectral domain," *Laser Phys. Lett*. 15 (8), 086201 (2018); https://doi.org/10.1088/1612-202X/aac5c7 IF – 2.328 **(Q1**: 2018)

300. O. Pavlova, A. Shirokov, A. Fomin, N. Navolokin, A. Terskov, A. Khorovodov, A. Namykin, A. Pavlov, V. Tuchin, and O. Semyachkina-Glushkovskaya, "Optical in vivo and ex vivo imaging of glioma cells migration via the cerebral vessels: Prospective clinical application of the beta2-adrenoreceptors blockade for glioma treatment," J. Innov. Opt. Health Sciences **11** (4) 1850025 (10 pages) (2018); DOI: 10.1142/S1793545818500256

301. Shadi Masoumi, Mohammad Ali Ansari, Ezeddin Mohajerani, Elina A. Genina, Valery V. Tuchin, "Combination of analytical and experimental optical clearing of rodent specimen for detecting betacarotene: phantom study," J. Biomed. Opt. 23(9), 095002 (2018), doi: 10.1117/1.JBO.23.9.095002. **IF 2.367, Q1**

302. Mikhail Yu. Kirillin, Kirill V. Larin, Ilya V. Turchin, Valery V. Tuchin, "Topical Problems of Biophotonics: from Optical Bioimaging to Clinical Biophotonics," J. Biomed. Opt. 23(9), 091401 (2018), doi: 10.1117/1.JBO.23.9.091401. **IF 2.367, Q1**

303. N. V. Chernomyrdin, A. S. Kucheryavenko, G. S. Kolontaeva, G. M. Katyba, I. N. Dolganova, P. A. Karalkin, D. S. Ponomarev, V. N. Kurlov, I. V. Reshetov, M. Skorobogatiy, V. V. Tuchin, K. I.

Zaytsev, Reflection-mode continuous-wave 0.15 λ -resolution terahertz solid immersion microscopy of soft biological tissues, Applied Physics Letters **113**(11):111102, 2018; DOI:10.1063/1.5045480, **IF 3.495, Q1**.

304. Y.M. Alexandrovskaya, E.G. Evtushenko, M.M. Obrezkova, V.V. Tuchin, E.N. Sobol, Control of optical transparency and infrared laser heating of costal cartilage via injection of iohexol. J Biophotonics. **11** (12), e201800195 (2018). doi: 10.1002/jbio.201800195 . **IF 3.768, Q1**.

305. I. Yu. Yanina, E. N. Lazareva, and V. V. Tuchin, Refractive index of adipose tissue and lipid droplet measured in wide spectral and temperature ranges, Applied Optics **57** (17) pp. 4839-4848 (2018) https://doi.org/10.1364/AO.57.004839 **IF 1.791, Q1**

306. Volkova E.K., Yanina I.Yu., Genina E.A., Bashkatov A.N., Konyukhova J.G., Popov A.P., Speranskaya E.S., Bucharskaya A.B., Navolokin N.A., Goryacheva I.Yu., Kochubey V.I., Sukhorukov G.B., Meglinski I.V., Tuchin V.V. Delivery and reveal of localization of upconversion luminescent microparticles and quantum dots in the skin in vivo by fractional laser microablation, multimodal imaging, and optical clearing // J. Biomed. Opt., Vol. 23, N. 2, 026001, 2018. **IF 2.367, Q1**

307. Тучина Д.К., Башкатов А.Н., Генина Э.А., Тучин В.В. Исследование воздействия иммерсионных агентов на весовые и геометрические параметры ткани миокарда *in vitro* // Биофизика, Т. 63, № 5, С. 989-996, 2018

308. M Aliannezhadi, M Minbashi, VV Tuchin, Effect of laser radiation intensity and exposure time on photothermal therapy using nanoparticles heated by radiation of a diode laser at λ= 793 nm, and optical clearing of biological tissues, Quantum Electronics 48 (6), 559-564 (2018). **DOI** https://doi.org/10.1070/QEL16505 IF - 1.404, **Q2**

309. O. A Sindeeva, O. I Gusliakova, O. Inozemtseva, A. S Abdurashitov, E. P Brodovskaya, M. Gai, V. V Tuchin, D. A Gorin, G. B Sukhorukov, The effect of a controlled release of Epinephrine hydrochloride from PLGA microchamber array: in vivo studies, ACS Appl. Mater. Interfaces **10**, 44, 37855-37864 (2018). **DOI:** 10.1021/acsami.8b15109. **IF 8.097**

310. KN Dvoretsky, KV Berezin, ML Chernavina, AM Likhter, IT Shagautdinova, EM Antonova, ON Grechukhina, VV Tuchin, Molecular Modeling of the Post-Diffusion Stage of Surface Bio-Tissue Layers Immersion Optical Clearing, Journal of Surface Investigation: X-ray, Synchrotron and Neutron Techniques 12 (5), 961-967 (2018). https://doi.org/10.1134/S1027451018050233. **IF 0.359**

311. A. B. Bucharskaya, G. N. Maslyakova, M. L. Chekhonatskaya, G. S. Terentyuk, N. A. Navolokin, B. N. Khlebtsov, N. G. Khlebtsov, A. N. Bashkatov, E. A. Genina, V. V. Tuchin, Plasmonic photothermal therapy: Approaches to advanced strategy, Lasers Surg. Med. **50** (10), 1025-1033 (2018); https://doi.org/10.1002/lsm.23001. **IF 2.726, Q1**

312. EN Lazareva, VV Tuchin, Blood refractive index modelling in the visible and near infrared spectral regions, Journal of Biomedical Photonics & Engineering **4** (1), 010503 (2018).

313. Isa Carneiro, Sónia Carvalho, Vânia Silva, Rui Henrique, Luís Oliveira, Valery V. Tuchin, "Kinetics of optical properties of human colorectal tissues during optical clearing: a comparative study between normal and pathological tissues," J. Biomed. Opt. **23**(12), 121620 (2018), doi: 10.1117/1.JBO.23.12.121620. http://dx.doi.org/10.1117/1.JBO.23.12.121620 . **IF 2.555**, **Q1.**

314. Зайцев С. М., Башкатов А. Н., Тучин В. В., Генина Э. А. Оптическое просветление как способ увеличения глубины детектирования наночастиц в коже при ОКТ-визуализации // Изв. Сарат. ун-та. Нов. сер. Сер. Физика. 2018. Т. 18, вып. 4. С. 275–284. DOI: https://doi.org/10.18500/1817-3020-2018-18-4-275-284.

315. I. N. Dolganova, K. I. Zaytsev, S. O. Yurchenko, V. E. Karasik, V. V. Tuchin, Scattering in Quasi-Ordered Structures for Terahertz Imaging: Local Order Can Increase an Image Quality, IEEE Transactions on Terahertz Science and Technology **8** (4), 403-409 (2018). **IF 2.955**, **Q1.**

316. O. Semyachkina-Glushkovskaya, V. Chekhonin, D. Bragin, O. Bragina, E. Vodovozova, A. Alekseeva, V. Salmin, A. Morgun, N. Malinovskaya, E. Osipova, E. Boytsova, A. Tohidpour, A. Shirokov, N. Navolokin, Y. Yang, C. Zhang, W. Feng, A. Abdurashitov, M. Ulanova, N. Shushunova, A. Khorovodov, A. Terskov, A. Esmat Shareef, A. Pavlov, Q. Luo, D. Zhu, V. Tuchin, J. Kurths, Loud music and the specific sound stress open the blood-brain barrier: new fundamental, biomedical, and social aspects. BioRxiv preprint first posted online Dec. 31, 2018; doi: http://dx.doi.org/10.1101/509042 .

317. А.В. Приезжев, А.Е. Луговцов, М.Ю. Кириллин, В.В. Тучин, "Актуальные проблемы биофотоники", *Квант. электроника*, 2020, 50 (1), 1–1; A.V. Priezzhev, V.V. Tuchin, A.E. Lugovtsov, M.Yu. Kirillin, Laser biophotonics, *Quantum Electronics* (2019), 49 (1), 1; http://dx.doi.org/10.1070/QEL16946 **IF: 1.404, Q2.**

318. И.Ю. Янина, Е.К. Волкова, Е.А. Сагайдачная, В.И. Кочубей, В.В. Тучин Влияние нагрева биологической ткани на термометрию при помощи люминесценции апконверсионных наночастиц, «Квантовая электроника», 49, № 1, 59-62 (2019); I.YuYanina, E.K. Volkova, E.A. Sagaidachnaya, V.I. Kochubei, V.V. Tuchin, Effect of light scattering on biological tissue thermometry from photoluminescence spectra of up-conversion nanoparticles, Quantum Electronics 49 (1) 59 – 62 (2019); DOI: https://doi.org/10.1070/QEL16931 **IF 1.404, Q2.**

319. I. Carneiro, S. Carvalho, R. Henrique, L. Oliveira, V. V. Tuchin, "Measuring optical properties of human liver between 400 and 1000 nm", Quantum Electronics **49** (1), 13–19 (2019); DOI: https://doi.org/10.1070/QEL16903 **IF 1.404, Q2.**

320. A.Yu. Sdobnov, M. E. Darvin, J. Schleusener, J. Lademann,V. V. Tuchin, Hydrogen bound water profiles in the skin influenced by optical clearing molecular agents– quantitative analysis using confocal Raman microscopy, J Biophotonics. **12** (5) e201800283 (2019) **IF 3.768, Q1.**

321. I. Carneiro, S. Carvalho, R. Henrique, L. Oliveira, and V. V. Tuchin, Kinetics of optical properties of colorectal muscle during optical clearing, IEEE Journal of Selected Topics in Quantum Electronics **25** (1), 7200608-8p., 2019. DOI: 10.1109/JSTQE.2018.2840346. **IF 3.367, Q1.**

322. D. K. Tuchina, P. A. Timoshina, V. V. Tuchin, A. N. Bashkatov, and E. A. Genina Kinetics of rat skin optical clearing at topical application of 40% glucose: *ex vivo* and *in vivo* studies, IEEE Journal of Selected Topics in Quantum Electronics **25** (1), 7200508-8p., 2019. DOI: 10.1109/JSTQE.2018.2830500. **IF 3.367, Q1.**

323. Malinova L., Lazareva E., Dolotovskaya P., Furman N., Puchnyan N., Portnov S., Tarakanchikova Y., Denisova T., Tuchin V., The kinetics of platelet-derived microparticles in patients with ST segment elevation acute myocardial infarction under pharmacological suppression of platelet aggregation, Hamostaseologie 2019; **39**(S 01): S1-S92, SY02 Arterial Thrombosis, Georg Thieme Verlag KG Stuttgart · New York; DOI: 10.1055/s-0039-1680089. **IF1.345**.

324. I. Carneiro, S. Carvalho, R. Henrique, L. M. Oliveira, V.V. Tuchin, A robust ex vivo method to evaluate the diffusion properties of agents in biological tissues, J. Biophotonics **12**(4), e201800333 (2019); DOI: 10.1002/jbio.201800333, **IF 3.763, Q1.**

325. Luís Oliveira, Valery V. Tuchin, Robust spectroscopy method to evaluate chemical diffusion in biological tissues, 20.04.2019 https://www.biophotonics.world/magazine/article/761/robust-spectroscopy-method-to-evaluate-chemical-diffusion-in-biological-tissues

326. Timur Ermatov, Yury V. Petrov, Sergei V. German, Anastasia A. Zanishevskaya, Andrey A. Shuvalov, Vsevolod Atkin, Andrey Zakharevich, Boris N. Khlebtsov, Julia S. Skibina, Pavel Ginzburg, Roman E. Noskov, Valery V. Tuchin, and Dmitry A. Gorin, Microstructured Optical Waveguide-Based Endoscopic Probe Coated with Silica Submicron Particles, Materials **12**, 1424-1-16, 2019; doi:10.3390/ma12091424, **IF=2.972, Q2.**

327. R.E. Noskov,A. A. Zanishevskaya, A. A. Shuvalov, S. V. German, O. A. InozemtsevA, T. P. Kochergin, E. N. Lazareva, V. V. Tuchin, P. Ginzburg, J. S. Skibina, D. A. Gorin, Enabling magnetic resonance imaging of hollow-core microstructured optical fibers via nanocomposite coating, Optics Express 27 (7) 9868-9878 (2019); https://doi.org/10.1364/OE.27.009868, **IF=3.356, Q1.**

328. Yu. I. Svenskaya, E. A. Genina, B. V. Parakhonskiy, E. V. Lengert, E. E. Talnikova, G. S. Terentyuk, S. R. Utz, D. A. Gorin, V. V. Tuchin, G. B. Sukhorukov, A Simple Non-Invasive Approach toward Efficient Transdermal Drug Delivery Based on Biodegradable Particulate System, ACS Appl. Mater. Interfaces, 11(19), 17270-17282 (2019); https://doi.org/10.1021/acsami.9b04305 **IF 8.456, Q1.**

329. S. Mahmoodkalayeh, M. A. Ansari, V. V. Tuchin, Head model based on the shape of the subject's head for optical brain imaging, Biomedical Optics Express **10** (6), 2795-2808 (2019). https://doi.org/10.1364/BOE.10.002795, **IF 3.482, Q1.**

330. P. Rakotomanga, C. Soussen, G. Khairallah, M. Amouroux, S. Zaytsev, E. Genina, H. Chen, A. Delconte, C. Daul, V. Tuchin, W. Blondel, Source separation approach for the analysis of spatially resolved multiply excited autofluorescence spectra during optical clearing of ex vivo skin, Biomed. Opt. Express **10** (7), 3410-3424 (2019). https://doi.org/10.1364/BOE.10.003410. IF **3.482, Q1.**

331. Q. Xie, N. Zeng, Y. Huang, V. V. Tuchin, H. Ma, Study on the tissue clearing process using different agents by Mueller matrix microscope, Biomedical Optics Express **10** (7), 3269-3280 (2019). https://doi.org/10.1364/BOE.10.003269, **IF 3.482, Q1.**

332. E. Zinchenko, N. Navolokin, A. Shirokov, B. Khlebtsov, A. Dubrovsky, E. Saranceva, A. Abdurashitov, A. Khorovodov, A. Terskov, A. Mamedova, M. Klimova, I. Agranovich, D. Martinov, V.

Tuchin, O. Semyachkina-Glushkovskaya, and J. Kurts, Pilot study of transcranial photobiomodulation of lymphatic clearance of beta-amyloid from the mouse brain: breakthrough strategies for nonpharmacologic therapy of Alzheimer's disease, Biomedical Optics Express **10** (8), 4003-4017 (2019). https://doi.org/10.1364/BOE.10.004003, **IF 3.482, Q1.**

333. E. N. Lazareva, P. A. Dyachenko (Timoshina), A. B. Bucharskaya, N. A. Navolokin, and V. V. Tuchin, Estimation of dehydration of skin by refractometric method using optical clearing agents, Journal of Biomedical Photonics & Engineering **5** (2), 020305 (2019). doi: 10.18287/JBPE19.05.020305.

334. Carneiro I, Carvalho S, Henrique R, Oliveira L, Tuchin V. Moving tissue spectral window to the deep-ultraviolet via optical clearing. J. Biophotonics. 2019, **12** (12), e201900181. https:// doi.org/10.1002/jbio.201900181, **IF 3.763, Q1.**

335. Elina A Genina, Alexey N Bashkatov, Daria K Tuchina, Polina A Dyachenko, Nikita Navolokin, Alexander Shirokov, Alexander Khorovodov, Andrey Terskov, Maria Klimova, Aysel Mamedova, Inna Blokhina, Ilana Agranovich, Ekaterina Zinchenko, Oxana V Semyachkina-Glushkovskaya, Valery V Tuchin, Optical properties of brain tissuess at the different stages of glioma development in rats: pilot study, Biomedical Optics Express **10** (10), 5182-5197 (2019). https://doi.org/10.1364/BOE.10.005182 **IF 3.482, Q1.**

336. Yali Huang, Minghui Li, Doudou Huang, Qi Qiu, Wenzhen Lin, Jiyan Liu, Wensheng Yang, Youliang Yao, Guoliang Yan, Ning Qu, Valery V Tuchin, Shanhui Fan, Gang Liu, Qingliang Zhao, Xiaoyuan Chen, Depth-Resolved Enhanced Spectral-Domain OCT Imaging of Live Mammalian Embryos Using Gold Nanoparticles as Contrast Agent, Small **15**(35) 1902346 (2019). https://doi.org/10.1002/smll.201902346 , **IF 10.856, Q1.**

337. Yanina IY, Navolokin NA, Bucharskaya AB, Maslyakova GN, Tuchin VV, Skin and subcutaneous fat morphology alterations under the LED or laser treatment in rats in vivo, J Biophotonics **12** (12), e201900117 (2019); doi: 10.1002/jbio.201900117. **IF 3.763, Q1.**

338. A.A. Gavdush, N.V. Chernomyrdin, K.M. Malakhov, S.-I.T. Beshplav, I.N. Dolganova, A.V. Kosyrkova, P.V. Nikitin, G.R. Musina, G.M. Katyba, I.V. Reshetov, O.P. Cherkasova, G.A. Komandin, V.E. Karasik, A.A. Potapov, V.V. Tuchin, K.I. Zaytsev, "Terahertz spectroscopy of gelatin-embedded human brain gliomas of different grades: a road toward intraoperative THz diagnosis," *Journal of Biomedical Optics* **24**(2), 027001 (2019), DOI: 10.1117/1.JBO.24.2.027001, **IF: 2.555, Q1.**

339. I.N. Dolganova, I.A. Shikunova, G.M. Katyba, A.K. Zotova, E.E. Mukhina, M.A. Shchedrina, V.V. Tuchin, K.I. Zaytsev, V.N. Kurlov, "Optimization of sapphire capillary needles for interstitial and percutaneous laser medicine," *Journal of Biomedical Optics* (2019), **IF: 2.555, Q1.**

340. M. A. Ansari, V.V. Tuchin, "Infrared neurostimulation of earthworm: from modeling to experiment," *Opt. Eng*. **59**(6), 061627 (2020), doi: 10.1117/1.OE.59.6.061627, **IF: 1.209, Q1.**

341. Semyachkina-Glushkovskaya O, Abdurashitov A, Klimova M, A. Dubrovsky, A. Shirokov, A. Fomin, A. Terskov, I. Agranovich, A. Mamedova, A. Khorovodov, V. Vinnik, I. Blokhina, N. Lezhnev, A. E. Shareef, A. Kuzmina, S. Sokolovski, V. Tuchin, E. Rafailov, J. Kurths, Photostimulation of cerebral and peripheral lymphatic functions. *Translational Biophotonics*. 2020; e201900036. https://doi.org/10.1002/tbio.201900036

342. Selifonov, A.A., Tuchin, V.V. Determination of the kinetic parameters of glycerol diffusion in the gingival and dentinal tissue of a human tooth using optical method: in vitro studies. *Opt Quant Electron* **52,** 123 (2020). https://doi.org/10.1007/s11082-020-2234-9 **IF: 1.547, Q2.**

343. Oxana Semyachkina-Glushkovskaya, Arkady Abdurashitov, Alexander Dubrovsky, Maria Klimova, Ilana Agranovich, Andrey Terskov, Alexander Shirokov, Valeria Vinnik, Anna Kuzmina, Nikita Lezhnev, Inna Blokhina, Anastassia Shnitenkova, Valery Tuchin, Edik Rafailov, and Jurgen Kurths, Photobiomodulation of lymphatic drainage and clearance: perspective strategy for augmentation of meningeal lymphatic functions, Biomedical Optics Express **11** (2), 725-734 (2020). https://doi.org/10.1364/BOE.383390, **IF 3.482, Q1.**

344. S. M. Zaytsev, Yu. I. Svenskaya, E. V. Lengert, G. S. Terentyuk, A. N. Bashkatov, V. V. Tuchin, E. A. Genina, Optimized skin optical clearing for optical coherence tomography monitoring of encapsulated drug delivery through the hair follicles *J. Biophotonics* **13** (4) e201960020 (2020); 23 January 2020 https://doi.org/10.1002/jbio.201960020 **IF 3.763, Q1.**

345. Maxim A. Kurochkin, Olga A.Sindeeva, Ekaterina P.Brodovskaya, Meiyu Gai, Johannes Frueh, Lei Su, Andrei Sapelkin, Valery V. Tuchin, Gleb B.Sukhorukov, Laser-triggered drug release from polymeric 3-D micro-structured films via optical fibers, Materials Science and Engineering: C **110**, May

2020, 110664 https://doi.org/10.1016/j.msec.2020.110664 **IF 4.959, Q1.**

346. А. А. Селифонов, В. В. Тучин, “Управление оптическими свойствами тканей десны и дентина зуба человека на лазерных линиях в диапазоне 200–800 нм”, *Квантовая электроника*, **50**:1 (2020), 47–54 [*Quantum Electron.*, **50**:1 (2020), 47–54]; A.A. Selifonov and V.V. Tuchin, Control of the optical properties of gums and dentin tissue of a human tooth at laser spectral lines in the range of 200 – 800 nm, Quantum Electronics, 50 (1), 47-54 (2020) **DOI:** https://doi.org/10.1070/QEL17228; **IF: 1.404, Q2.**

347. А.В.Приезжев, А.Е.Луговцов, М.Ю.Кириллин, В.В.Тучин Актуальные проблемы биофотоники, Квантовая электроника 50 (1), 1 (2020); http://www.quantum-electron.ru; **IF: 1.404, Q2.**

348. Salem S., Tuchin V. Trapping of Magnetic Nanoparticles in the Blood Stream under the Influence of a Magnetic Field. *Izv. Saratov Univ. (N. S.), Ser. Physics*, 2020, vol. 20, iss. 1, pp. 72–79. DOI: https://doi.org/10.18500/1817-3020-2020-20-1-72-79.

349. O.A. Sindeeva, R.A. Verkhovskii, A.S. Abdurashitov, D. V. Voronin, O.I. Gusliakova, A.A. Kozlova, O.A. Mayorova, A. V. Ermakov, E. V. Lengert, N.A. Navolokin, V. V. Tuchin, D.A. Gorin, G.B. Sukhorukov, D.N. Bratashov, Effect of Systemic Polyelectrolyte Microcapsule Administration on the Blood Flow Dynamics of Vital Organs, *ACS Biomater. Sci. Eng.* 6 (2020) 389–397. doi:10.1021/acsbiomaterials.9b01669. **IF: 4.511, Q1.**

350. Genina EA, Bashkatov AN, Terentyuk GS, Tuchin VV. Integrated effects of fractional laser microablation and sonophoresis on skin immersion optical clearing in vivo. *J. Biophotonics*. 2020;e2020000101. https://doi.org/10.1002/jbio.202000101 **IF 3.763, Q1.**

351. Sergey V. Zarkov, Yuri A. Avetisyan, Garif G. Akchurin, Georgy G. Akchurin, Olga Bibikova, Valery V. Tuchin, Alexander N. Yakunin, “Numerical modeling of plasmonic properties of gold nanostars to prove the threshold nature of their modification under laser pulse,” *Opt. Eng.* 59(6), 061628 (2020), doi: 10.1117/1.OE.59.6.061628 **IF: 1.209, Q1.**

352. И.Ю. Янина, И. Шлойзенер, Ю. Лademанн, В.В. Тучин, М.Е. Дарвин, Исследование эффективности оптического просветления кожи растворами глицерина методом конфокальной микроспектроскопии комбинационного рассеяния света, Оптика и спектроскопия **128** (6), 753-759 (2020) DOI: 10.21883/OS.2020.06.49407.52-20 [Yanina, I.Y., Schleusener, J., Lademann, J., Tuchin, V.V., Darvin M.E. The Effectiveness of Glycerol Solutions for Optical Clearing of the Intact Skin as Measured by Confocal Raman Microspectroscopy. *Opt. Spectrosc.* **128,** 759–765 (2020). https://doi.org/10.1134/S0030400X20060259]; **IF 0.83, Q3.**

353. А.Б. Бучарская, Г.Н. Маслякова, М.Л. Чехонацкая, Н.Б. Захарова, Г.С. Терентюк, Н.А. Наволокин, Б.Н. Хлебцов, Н.Г. Хлебцов, В.Д. Генин, А.Н. Башкатов, Э.А. Генина, В.В. Тучин, К вопросу об эффективности плазмонной фототермической терапии экспериментальных опухолей, *Оптика и спектроскопия* **128**(6), 846–851, 2020, DOI: 10.21883/OS.2020.06.49419.34-20; **IF 0.83, Q3.**

354. Е.С. Тучина, В.В. Тучин Фототермическое действие инфракрасного (808 nm) лазерного излучения и наночастиц золота в различных модификациях на S. Aureus, *Оптика и спектроскопия* **128**(6), 840–845, 2020; DOI: 10.21883/OS.2020.06.49418.49-20; **IF 0.83, Q3.**

355. А.А. Селифонов, В.В. Тучин, Определение коэффициента диффузии 40%-глюкозы в ткани десны человека оптическим методом, *Оптика и спектроскопия* **128**(6), 760–765, 2020; DOI: 10.21883/OS.2020.06.49408.29-20; **IF 0.83, Q3.**

356. Н.В. Черномырдин, К.И. Зайцев, И.Н. Долганова, П.С. Тимашев, В.В. Тучин, Биофотоника. Saratov Fall Meeting 19: 7th International Symposium ” Optics and Biophotonics“, 23rd International School for Junior Scientists and Students on Optics, Laser Physics & Biophotonics and 4th School on Advanced Fluorescence Imaging Methods,*Оптика и спектроскопия* **128**(6), 734–735, 2020; https://journals.ioffe.ru/issues/1991 **IF 0.83, Q3.**

357. R.A. Verkhovskii, E.V. Lengert, M.S. Saveleva, A.A. Kozlova, V.V. Tuchin, and Yu. I. Svenskaya, Cellular Uptake Study of Antimycotic-Loaded Carriers Using Imaging Flow Cytometry and Confocal Laser Scanning Microscopy, *Optics and Spectroscopy* **128** (6), 799-808 (2020). **IF 0.83, Q3.**

358. Г.Р. Мусина, А.А. Гавдуш, Н.В. Черномырдин, И.Н. Долганова, В.Э. Улитко, О.П. Черкасова,В.Н. Курлов, Г.А. Командин, И.В. Животовский, В.В. Тучин, К.И. Зайцев, Оптические свойства гиперосмотических агентов для иммерсионного просветления тканей в терагерцовом диапазоне, *Оптика и спектроскопия* **129**(1), 1020–1029, 2020; DOI: 10.21883/OS.2020.07.49576.65-20; **IF 0.83, Q3.**

359. А.А. Манькова, О.П. Черкасова, Е.Н. Лазарева, А.Б. Бучарская, П.А. Дьяченко, Ю.В. Кистенев, Д.А. Вражнов, В.Е. Скиба, В.В. Тучин, А.П. Шкуринов, Исследование сыворотки крови у крыс с трансплантированной холангиокарциномой с использованием спектроскопии комбинационного рассеяния света, *Оптика и спектроскопия* **129**(1), 956–963, 2020; DOI: 10.21883/OS.2020.07.49568.73-20; **IF 0.83, Q3.**

360. E.A. Genina, Y.I. Surkov, I.A. Serebryakova, A.N. Bashkatov, V.V. Tuchin, V.P. Zharov Rapid ultrasound optical clearing of human light and dark skin, *IEEE Trans Med Imaging*. **39** (10), 3198 - 3206 (2020); doi:10.1109/TMI.2020.2989079; https://ieeexplore.ieee.org/document/9072444 **IF: 9.710, Q1.**

361. Y.I. Svenskaya, E.E. Talnikova, B.V. Parakhonskiy, V.V. Tuchin, G.B. Sukhorukov, D.A. Gorin and S.R. Utz, Enhanced topical psoralen–ultraviolet A therapy via targeting to hair follicles, *British Journal of Dermatology* **182**,1479–1481 (2020); DOI: 10.1111/bjd.18800; **IF: 6.714, Q1.**

362. K.I. Zaytsev, I.N. Dolganova, V.V. Tuchin, V.N. Kurlov, "Special Section Guest Editorial: Terahertz and Infrared Optics: Towards Biophotonics," *Optical Engineering* **59**(6), 061601 (2020); DOI: 10.1117/1.OE.59.6.061601; **IF: 1.209, Q1.**

363. M. V. Novoselova, T. O. Abakumova, B. N. Khlebtsov, T. S. Zatsepin, E. N. Lazareva, V. V. Tuchin, V. P. Zharov, D. A. Gorin, E. I. Galanzha, Optical clearing for photoacoustic lympho- and angiography beyond conventional depth limit in vivo, *Photoacoustics* 20, 100186 (2020); https://www.sciencedirect.com/science/article/pii/S2213597920300264?via%3Dihub; **IF: 5.870, Q1.**

364. K. V. Berezin, K. N. Dvoretskiy, V. V. Nechaev, A. M. Likhter, I. T. Shagautdinova, and V. V. Tuchin, Optical clearing of human skin using polyethylene glycols, *J. Biomed. Photonics & Eng.* **6**(2), 020308-1-5, 27 Jun 2020; doi: 10.18287/JBPE20.06.020308; http://jbpe.ssau.ru/index.php/JBPE/article/view/3373/3169

365. D.K. Tuchina, I.G. Meerovich, O.A. Sindeeva, V. V. Zherdeva, A. P. Savitsky, A. A. Bogdanov Jr, V. V. Tuchin, Magnetic resonance contrast agents in optical clearing: Prospects for multimodal tissue imaging. *J. Biophotonics* **13**(11), e201960249 (2020); https://onlinelibrary.wiley.com/doi/abs/10.1002/jbio.201960249 ; **IF 3.763, Q1.**

366. I. N. Dolganova, I. A. Shikunova, A. K. Zotov, M. A. Shchedrina, I. V. Reshetov, K. I. Zaytsev, V. V. Tuchin, V. N. Kurlov, Microfocusing sapphire capillary needle for laser surgery and therapy: Fabrication and characterization. *J. Biophotonics* **13,** e202000164 (2020);. https://doi.org/10.1002/jbio.202000164; **IF 3.763, Q1.**

367. G. R. Musina, I. N. Dolganova, N. V. Chernomyrdin, A. A. Gavdush, V. E. Ulitko, O. P. Cherkasova, D. K. Tuchina, P. V. Nikitin, A. I. Alekseeva, N. V. Bal, G. A. Komandin, V. N. Kurlov, V. V. Tuchin, K. I. Zaytsev, Optimal hyperosmotic agents for tissue immersion optical clearing in terahertz biophotonics, *J. Biophotonics*. **13**(12), e202000297 (2020); https://doi.org/10.1002/jbio.202000297; **IF 3.763, Q1.**

368. O. Gusliakova, R. Verkhovskii, A. Abalymov, E. Lengert, A. Kozlova, V. Atkin, O. Nechaeva, A. Morrison, V. Tuchin, Yu. Svenskayaa, Transdermal platform for the delivery of the antifungal drug naftifine hydrochloride based on porous vaterite particles, *Material. Sci. Eng. C* **119** (2), 111428 (2021); https://doi.org/10.1016/j.msec.2020.111428; **IF 5.88, Q1.**

369. T. Ermatov, R. E. Noskov, A. A. Machnev, I. Gnusov, V. Atkin, E. N. Lazareva, S. V. German, S. S. Kosolobov, T. S. Zatsepin, O. V. Sergeeva, J. S. Skibina, P. Ginzburg, V. V. Tuchin, P. G. Lagoudakis and D. A. Gorin. Multispectral sensing of biological liquids with hollow-core microstructured optical fibres, *Light: Science & Applications* **9**, 173 (2020) https://doi.org/10.1038/s41377-020-00410-8; **IF 14.520, Q1.**

370. S. Carvalho, I. Carneiro, R. Henrique, V. Tuchin, L. Oliveira, Lipofuscin-type pigment as a marker of colorectal cancer, preprint 2020/10/14. https://www.preprints.org/manuscript/202010.0306/v1

371. S. Carvalho, I. Carneiro, R. Henrique, V. Tuchin, L. Oliveira, Lipofuscin-type pigment as a marker of colorectal cancer, *Electronics* **2020**, **9**(11), 1805; https://doi.org/10.3390/electronics9111805 (registering DOI) - 31 Oct 2020; **IF 2.412, Q2.**

372. Q. Lin, E.N. Lazareva, V.I. Kochubey, Y. Duan, V.V. Tuchin, Kinetics of optical clearing of human skin studied in vivo using portable Raman spectroscopy, *Laser Physics Letters* 17 (10), 105601(2020). https://iopscience.iop.org/article/10.1088/1612-202X/abae6d; **IF 2.328, Q1.**

373. S.F. Salem, V.V. Tuchin, Numerical Simulation of Blood Flow in a Vessel by Using COMSOL Multiphysics® Software, *Annual Research & Review in Biology* **9** (2), 76-82 (2020) 2020/9/2;

DOI: https://doi.org/10.9734/arrb/2020/v35i930274; https://journalarrb.com/index.php/ARRB/article/view/30274 ; **IF 0.410, Q2.**

374. K. I. Zaytsev, G. M. Katyba, N. V. Chernomyrdin, I. N. Dolganova, A. S. Kucheryavenko, A. N. Rossolenko, V. V. Tuchin, V. N. Kurlov, M. Skorobogatiy, Overcoming the Abbe Diffraction Limit Using a Bundle of Metal-Coated High-Refractive-Index Sapphire Optical Fibers, Advanced Optical Materials 8 (18), 2000307 (2020); https://doi.org/10.1002/adom.202000307; https://onlinelibrary.wiley.com/doi/abs/10.1002/adom.202000307; **IF 8.286, Q1.**

375. M. Minbashi, A. A. Kordbacheh, A. Ghobadi, V. V.Tuchin, Optimization of power used in liver cancer microwave therapy by injection of Magnetic Nanoparticles (MNPs), *Computers in Biology and Medicine* **20**, 103741 (2020); https://doi.org/10.1016/j.compbiomed.2020.103741; https://www.sciencedirect.com/science/article/abs/pii/S0010482520301219 **IF 3.434, Q2.**

376. N. Gomes, V.V. Tuchin, L.M. Oliveira, UV-NIR efficiency of the refractive index matching mechanism on colorectal muscle during treatment with different glycerol osmolarities, *Journal of Biomedical Photonics & Engineering* **6**(2) 020307 (2020); doi: 10.18287/JBPE20.06.020307; http://jbpe.ssau.ru/index.php/JBPE/article/view/3374

377. Salem S. F., Tuchin V.V. Magnetic Particle Trapping in a Branched Blood Vessel in the Presence of Magnetic Field *Journal of Biomedical Photonics & Engineering* **6**(4) 040302 (2020). doi: 10.18287/JBPE20.06.040302.

378. Igor V. Minin, Oleg V. Minin, Yan-Yu Liu, Valery V. Tuchin, Cheng-Yang Liu, Concept of photonic hook scalpel generated by shaped fiber tip with asymmetric radiation, *J. Biophoton.* **13**, e202000342 (2020); https://doi.org/10.1002/jbio.202000342; **IF 3.763, Q1.**

379. Ekaterina S.Prikhozhdenko, Olga I.Gusliakova, Oleg A.Kulikov, Oksana A.Mayorova, Natalia A.Shushunova, Arkady S.Abdurashitov, Daniil N.Bratashov, Nikolay A.Pyataev, Valery V.Tuchin, Dmitry A.Gorin, Gleb B.Sukhorukov, Olga A.Sindeeva, "Target delivery of drug carriers in mice kidney glomeruli via renal artery. Balance between efficiency and safety," *Journal of Controlled Release* **329**, 175-190 (2021); 2 December 2020 https://doi.org/10.1016/j.jconrel.2020.11.051 **IF 7.720, Q1**

380. O. Semyachkina-Glushkovskaya, A. Esmat, D. Bragin, O. Bragina, A. A. Shirokov, N. Navolokin, Y. Yang, A. Abdurashitov, A. Khorovodov, A. Terskov, M. Klimova, A. Mamedova, I. Fedosov, V. Tuchin and J. Kurths, "Phenomenon of music-induced opening of the blood-brain barrier in healthy mice," *Proc. R. Soc. B* **287**, 20202337 (2020). https://doi.org/10.1098/rspb.2020.2337 **IF 4.637, Q1.**

381. A.A. Selifonov, V.V. Tuchin, Tissue Optical Clearing in the Ultraviolet for Clinical Use in Dentistry to Optimize the Treatment of Chronic Recurrent Aphthous Stomatitis, *J. Biomed. Photonics & Eng*. **6**(4), 040301-6 (2020); DOI: 10.18287/JBPE20.06.040301

382. A. A. Gavdush, N. V. Chernomyrdin, G. A. Komandin, I. N. Dolganova, P. V. Nikitin, G. R. Musina, G. M. Katyba, A. S. Kucheryavenko, I. V. Reshetov, A. A. Potapov, V. V. Tuchin, K. I. Zaytsev, Terahertz dielectric spectroscopy of human brain gliomas and intact tissues ex vivo: double-Debye and double-overdamped-oscillator models of dielectric response, Biomed. Opt. Express **12** (1), 411025, 69-83 (2021); https://doi.org/10.1364/BOE.411025; https://www.osapublishing.org/boe/fulltext.cfm?uri=boe-12-1-69&id=444278; **IF 3.921, Q1.**

383. R. A. Verkhovskii, A. A. Kozlova, O. A. Sindeeva, I. O. Kozhevnikov, E. S. Prikhozhdenko, O. A. Mayorova, O. V. Grishin, M. A. Makarkin, A. V. Ermakov, A. S. Abdurashitov, V. V. Tuchin, and D. N. Bratashov, "Lightsheet-based flow cytometer for whole blood with the ability for the magnetic retrieval of objects from the blood flow," Biomed. Opt. Express 12 (1), 380-394 (2021); https://www.osapublishing.org/boe/fulltext.cfm?uri=boe-12-1-380&id=444783 ; **IF 3.921, Q1.**

384. I. Carneiro, S. Carvalho, R. Henrique, A. Selifonov, L. Oliveira, V.V. Tuchin, Enhanced ultraviolet spectroscopy by optical clearing for biomedical applications, *IEEE J. Selec. Tops Quant. Electr.* **27** (4), 7200108-1-8, doi: 10.1109/JSTQE.2020.3012350 (2021); https://ieeexplore.ieee.org/abstract/document/9153126 **IF 4.917, Q1.**

385. N. M. Gomes, V. V. Tuchin, and L. M. Oliveira, Refractive index matching efficiency in colorectal mucosa treated with glycerol, *IEEE Journal of Selected Topics in Quantum Electronics* **27** (4), July/August 2021, 7200808, 1-8 (2021) https://doi.org/10.1109/JSTQE.2021.3050208 ; **IF 4.917, Q1.**

386. P.A. Dyachenko, L.E. Dolotov, E.N. Lazareva, A.A. Kozlova, O.A. Inozemtseva, R.A. Verkhovskii, G.A. Afanaseva, N.A. Shushunova, V.V. Tuchin, E.I. Galanzha, and V.P. Zharov, "Detection

of melanoma cells in whole blood samples using spectral imaging and optical clearing," *IEEE J. Selec. Tops Quant. Electr.* **27** (4), 7200711-1-11 (2021), doi: 10.1109/JSTQE.2020.3047437. **IF 4.917, Q1.**

387. P. Listewnik, M. Ronowska, M. Wasowicz, V.V. Tuchin, M. Szczerska, Porous phantoms mimicking tissues—Investigation of optical parameters stability over time. *Materials* **14**, 423-1-11 (2021). https://doi.org/10.3390/ma14020423. **IF 3.057, Q2.**

388. Lin Q, Wang S, Duan Y, Tuchin VV. Ex vivo three-dimensional elemental imaging of mouse brain tissue block by laser induced breakdown spectroscopy. J. Biophotonics. 14, e202000479 (2021). https://doi.org/10.1002/jbio. 202000479; **IF 3.032, Q1.**

389. Yakunin, A.N., Zarkov, S.V., Avetisyan, Y.A., Akchurin G.G., Aban'shin, N.P., Tuchin, V.V. Modeling of laser-induced plasmon effects in GnS-dlc-based material for application in x-ray source array sensors, *Sensors* (Switzerland) **21**(4), 1248, 1–14 (2021).

390. Д. К. Тучина, И. Г. Меерович, О. А. Синдеева, В. В. Жердева, Н. И. Казачкина, И. Д. Соловьев, А. П. Савицкий, А. А. Богданов мл., В. В. Тучин, "Перспективы мультимодальной визуализации биологических тканей с использованием флуоресцентного имиджинга", *Квантовая электроника*, **51**:2 (2021), 104–117 [*Quantum Electron.*, **51**:2 (2021), 104–117] Tuchina, D.K., Meerovich, I.G., Sindeeva, O.A., Zherdeva V.V., Kazachkina N.I., Solov'ev I.D., Savitsky A.P., Bogdanov, A.A., Tuchin, V.V., Prospects for multimodal visualisation of biological tissues using fluorescence imaging, *Quantum Electronics* **51**(2), 104–117 (2021).

391. I. Martins, H. Silva, V.V. Tuchin, L. Oliveira, Estimation of Rabbit Pancreas Dispersion Between 400 and 1000 nm, *Journal of Biomedical Photonics & Engineering* **7** 020303 (2021).

392. N.I. Kazachkina, V.V. Zherdeva, A.N. Saydasheva, I.G. Meerovich, V.V. Tuchin, Savitsky A.P., Bogdanov, A.A. Topical Gadobutrol Application Causes Fluorescence Intensity Change in RFP-expressing Tumor-Bearing Mice, *Journal of Biomedical Photonics & Engineering* **7** 020301(2021).

393. Y.I. Svenskaya, E.A. Genina, V.V. Tuchin, Sonophoretic acceleration of degradation process for vaterite particles delivered into the hair follicles, *Izv. Sarat. Univ. New ser. Ser.: Physics* **21** (1) (2021).

394. А. В. Приезжев, А. Е. Луговцов, М. Ю. Кириллин, В. В. Тучин, "Лазерная биофотоника", *Квантовая электроника* **51**(1), 1 (2021); A.V. Priezzhev, A.E. Lugovtsov, M.Y. Kirillin, V.V. Tuchin, Laser biophotonics, *Quantum Electronics* **51** (1), 1(2021).

395. С. В. Зарьков, Ю. А. Аветисян, А. Н. Якунин, И. Г. Меерович, Д. Фикслер, А. П. Савиц кий, В. В. Тучин Взаимодействие лазерного излучения и комплексов золотых плазмонных наночастиц с белками, Квантовая электроника, **51**(1), 52–63 (2021); S.V. Zar'kov, Y.A. Avetisyan, A.N. Yakunin, I.G. Meerovich, D. Fixler, A.P. Savitsky, V.V. Tuchin, Interaction of laser radiation and complexes of gold nanoparticles linked with proteins, Quantum Electronics 51 (1), 52-63 (2021).

396. Luís Fernandes, Sónia Carvalho, Isa Carneiro, Rui Henrique, Valery V. Tuchin, Hélder P. Oliveira, *and* Luís M. Oliveira, Diffuse reflectance and machine learning techniques to differentiate colorectal cancer *ex vivo, Chaos* **31**, 053118 (2021); https://doi.org/10.1063/5.0052088; **IF 2.832, Q1.**

397. A. Jaafar, M.H. Mahmood, R. Holomb, L. Himics, T. Váczi, A. Y. Sdobnov, V. V. Tuchin and M. Veres, *Ex-vivo* confocal Raman microspectroscopy of porcine skin with 633/785-nm laser excitation and optical clearing with glycerol/water/DMSO solution, Journal of Innovative Optical Health Sciences, 14(5), 2142003-1-13 (2021); https://doi.org/10.1142/S1793545821420037

398. Z. Wei, Q. Lin, E.N Lazareva, P.A. Dyachenko (Timoshina), J. Yang, Y. Duan and V.V Tuchin, Optical clearing of laser-induced tissue plasma, Laser Phys. Lett. 18 (2021) 085603 (7pp); https://doi.org/10.1088/1612-202X/ac0e40 **IF 3.032, Q1.**

399. А.В. Светлакова, М. Sanchez Mendez, Е.С. Тучина, А.Н. Ходан, M. Traore, R. Azouani, A. Kanaev, В.В. Тучин, Исследование фотокаталитической антимикробной активности нанокомпозитов на основе TiO_2−Al_2O_3 при воздействии светодиодного излучения (405 нм) на стафилококки, Оптика и спектроскопия **129** (6), 736-740 (2021). A.V. Svetlakova, M. Sanchez Mendez, E.S. Tuchina, A.N. Hodan, M. Traore, R. Azouani, A. Kanaev, V.V. Tuchin, Investigation of the photocatalytic antimicrobial activity of nanocomposites based on TiO_2 - Al_2O_3 under the action of LED radiation (405 nm) on Staphylococci, Optics and Spectroscopy 129 (6), 736-740 (2021). DOI: 10.21883/OS.2021.06.50984.9k-21

400. A.S. Abdurashitov, E.S. Prikhozhdenko, O. A. Mayorova, V.O. Plastun, O.I. Gusliakova, N.A. Shushunova, O.A. Kulikov, V.V. Tuchin, G.B. Sukhorukov, and O.A. Sindeeva, Optical coherence microangiography of the mouse kidney for diagnosis of circulatory disorders, Biomedical Optics Express

12 (7), 4467-4477 (2021). https://www.osapublishing.org/boe/fulltext.cfm?uri=boe-12-7-4467&id=452857 **IF3.921, Q1.**

401. Gonçalves, T.; Martins, I.S.; Silva, H.; Tuchin, V.; Oliveira, L. Spectral optical properties of rabbit brain cortex between 200 and 1000 nm. *Preprints* **2021**, 2021060707 (doi: 10.20944/preprints202106.0707.v1).

402. N. Semenova and V.V. Tuchin, 3D models of the dynamics of cancer cells under external pressure, *Chaos* **31** (8), 083122 (2021); doi: 10.1063/5.0056764; **IF 2.832, Q1.**

403. Семенова Н. И., Тучин В. В. Влияние осмотического давления на раковые клетки в трехмерной клеточной решетке и клеточном сфероиде // Известия вузов. ПНД. 2021. Т. 29, № 4. С. 559–570. https://doi.org/10.18500/0869-6632-2021-29-4-559-570

404. I.N. Dolganova, D. Ponomarev, I.E. Spektor, M.S. Shur, P.S. Timashev, and V.V. Tuchin "Special Section Guest Editorial: Advances in Terahertz and Infrared Optoelectronics," Optical Engineering 60(8), 082001 (31 March 2021). https://doi.org/10.1117/1.OE.60.8.082001

405. K.I. Zaytsev, V.N. Kurlov, M. Skorobogatiy, I.V. Reshetov, and V.V. Tuchin "Special Section Guest Editorial: Advances in Terahertz Biomedical Science and Applications," Journal of Biomedical Optics 26(4), 043001 (28 April 2021). https://doi.org/10.1117/1.JBO.26.4.043001; **IF 3.170**, **Q1**

406. V.D. Genin, E.A. Genina, V.V. Tuchin and A.N. Bashkatov, Glycerol effects on optical, weight and geometrical properties of skin tissue, *Innov. Opt. Health Sci*. 14 (5), 2142006-1-11 (2021); https://doi.org/10.1142/S1793545821420062 **IF 1.770, Q1**

407. M. Kozintseva, V. Kochubey, J. Konyukhova, and V. Tuchin, Varying of up-conversion nanoparticles luminescence from the muscle tissue depth during the compression, *Innov. Opt. Health Sci*. 14 (5), 2143001-1-8 (2021); https://doi.org/10.1142/S179354582143001X **IF 1.770, Q1**

408. Gonçalves, T.M.; Martins, I.S.; Silva, H.F.; Tuchin, V.V.; Oliveira, L.M. Spectral optical properties of rabbit brain cortex between 200 and 1000 nm. *Photochem* **2021**, *1*, 190-208. DOI: 10.3390/photochem1020011

409. V.V. Tuchin, L. M. Oliveira, Recent progress in tissue enhanced spectroscopy for cancer detection, Asian J. Physics **30** (1) 427-444 (2021); *www.asianjournalofphysics.in*

410. A. S. Kucheryavenko, N. V. Chernomyrdin, A. A. Gavdush, A. I. Alekseeva, P. V. Nikitin, I. N. Dolganova, P. A. Karalkin, A. S. Khalansky, I. E. Spektor, M. Skorobogatiy, V. V. Tuchin, K. I. Zaytsev, Terahertz dielectric spectroscopy and solid immersion microscopy of ex vivo glioma model 101.8: brain tissue heterogeneity, Biomed. Opt. Express **12** (8) 5273-5289 (2021).

411. N. V. Chernomyrdin, M. Skorobogatiy, A. A. Gavdush, G. R. Musina, G. M. Katyba, G. A. Komandin, A. M. Khorokhorov, I. E. Spektor, V. V. Tuchin, K. I. Zaytsev, Quantitative super-resolution solid immersion microscopy via refractive index profile reconstruction, *Optica* **8**(11) 1471-1480 (2021). https://doi.org/10.1364/OPTICA.439286; **IF 11.104**

412. Березин К.В., Дворецкий К.Н., Нечаев В.В., Новоселова А.В., Лихтер А.М., Шагаутдинова И.Т., Грабарчук Е.В., Тучин В.В. Оптическое просветление биологических тканей рядом дисахаров, Оптика и спектроскопия **129** (6) 677-683 (2021); DOI: 10.21883/OS.2021.06.50977.8k-21 ; Berezin, K.V., Dvoretskii, K.N., Nechaev, V.V. et al. Optical Clearing of Biological Tissues with a Number of Disaccharides. Opt. Spectrosc. (2021). https://doi.org/10.1134/S0030400X21060035

413. Dolganova IN, Varvina DA, Shikunova IA, Alekseeva AI, Karalkin PA, Kuznetsov MR, Pavel V. Nikitin, Arsen K. Zotov, Elena E. Mukhina, Gleb M. Katyba, Kirill I. Zaytsev, Valery V. Tuchin, Vladimir N. Kurlov. Proof of concept for the sapphire scalpel combining tissue dissection and optical diagnosis. *Lasers Surg Med*. **54** (4), 611-622 (2022). https://doi.org/10.1002/lsm.23509 **IF 4.025, Q1**

414. S. M. Zaytsev, M. Amouroux, G. Khairallah, A. N. Bashkatov, V. V. Tuchin, W. Blondel, E. A. Genina, Impact of optical clearing on ex vivo human skin optical properties characterized by spatially resolved multimodal spectroscopy, *J. Biophotonics* **15**(1), e202100202 (2022). https://doi.org/10.1002/jbio.202100202

415. P. A. Dyachenko (Timoshina),A. N. Bashkatov, D. A. Alexandrov,V. I. Kochubey and V. V. Tuchin, Laser speckle contrast imaging for monitoring of acute pancreatitis at ischemia–reperfusion injury of the pancreas in rats, JIOHS **15** (1), 2242002-1-13 pages) (2022); DOI:10.1142/S1793545822420020224002-1

416. A.G. Gyulkhandanyan, M.H. Paronyan, A.G. Gyulkhandanyan, K.R. Ghazaryan, M.V. Parkhats, B.M. Dzhagarov, M.V. Korchenova, E.N. Lazareva, E.S. Tuchina, G.V. Gyulkhandanyan, and

V.V. Tuchin, Meso-substituted cationic 3- and 4-N-Pyridylporphyrins and their Zn(II) derivatives for antibacterial photodynamic therapy, JIOHS **15** (1), 2142007 (16 pages)(2022); DOI: 10.1142/S1793545821420074

417. A. Jaafar, R. Holomb, A. Y. Sdobnov, Z. Ocskay, Z. Jakus, V. V. Tuchin, M. Veres, Ex vivo confocal Raman microspectroscopy of porcine *dura mater* supported by optical clearing, *J. Biophotonics* **15** (1), e202100332 (2022). https:// doi.org/10.1002/jbio.202100332; **IF 3.207**

418. А. В. Приезжев, В. В. Тучин, А. Е. Луговцов, М. Ю. Кириллин, Специальный выпуск по лазерной биофотонике, Квантовая электроника, том 52 (1), 1 (2022); [Quantum Electronics, 2022, **52**:1, 1].

419. М. Р. Конникова, О. П. Черкасова, Т. А. Гейнц, Е. С. Дизер, А. А. Манькова, И. С. Васильевский, А. А. Бутылин, Ю. В. Кистенев, В. В. Тучин, А. П. Шкуринов, Изучение адсорбции спайкового белка вируса SARS-CoV-2 методами колебательной спектроскопии с применением терагерцевых метаматериалов, Квантовая электроника, том 52 (1), 2-12 (2022) [MR Konnikova, O.P Cherkasova, TA Geints, ES Dizer, AA Man'kova, IS Vasil'evskii, AA Butylin, YuV Kistenev, VV Tuchin, AP Shkurinov, Study of adsorption of the SARS-CoV-2 virus spike protein by vibrational spectroscopy using terahertz metamaterials, Quantum Electronics, 2022, **52**:1, 2-12].

420. N.I. Kazachkina, V.V. Zherdeva, I.G. Meerovich, A.N. Saydasheva, I.D. Solovyev, D.K. Tuchina, A.P. Savitsky, V.V. Tuchin, A.A. Bogdanov Jr., "MR and fluorescence imaging of gadobutrol-induced optical clearing of red fluorescent protein signal in an in vivo cancer model," *NMR in Biomedicine*, e4708-1-13 (2022). doi:10.1002/nbm.4708; **IF 4.044**, **Q1**

421. I.S. Martins, H.F. Silva, V.V. Tuchin, L.M. Oliveira, "Fast estimation of the spectral optical properties of rabbit pancreas and pigment content analysis," *Photonics* **2022**, 9, 122. https://doi.org/10.3390/photonics9020122 **IF 2.676**, **Q2**

422. H. Zuhayri, V.V. Nikolaev, A.I. Knyazkova, T.B. Lepekhina, N.A. Krivova, V.V. Tuchin, Y.V. Kistenev, "In vivo quantification of the effectiveness of topical low-dose photodynamic therapy in wound healing using two-photon microscopy," *Pharmaceutics* **2022**, 14, https://doi.org/10.3390/pharmaceutics14020287 **IF 6.321**, **Q1**

423. Genin, V.D.; Bucharskaya, A.B.; Terentyuk, G.S.; Khlebtsov, N.G.; Navolokin, N.A.; Tuchin, V.V.; Genina, E.A. Changes in Optical Properties of Model Cholangiocarcinoma after Plasmon-Resonant Photothermal Treatment. *Photonics* 2022, 9, 199. https://doi.org/10.3390/ photonics9030199 **IF 2.676**, **Q2**

424. N. V. Chernomyrdin, D. V. Lavrukhin, V. E. Ulitko, R. R. Galiev, A. A. Gavdush, V. B. Anzin, A. N. Perov, G. M. Katyba, V. V. Tuchin, M. Skorobogatiy, I. V. Reshetov, D. S. Ponomarev, and K. I. Zaytsev, Continuously tunable middle-IR bandpass filters based on gradient metal-hole arrays for multispectral sensing and thermography, J. Appl. Phys. 131, 123103 (2022); https://doi.org/10.1063/5.0079713

425. I. Y. Yanina, Y. Tanikawa, E. A. Genina, P. A. Dyachenko, D. K. Tuchina, A. N. Bashkatov, L. E. Dolotov, Y. V. Tarakanchikova, G. S. Terentuk, N. A. Navolokin, A. B. Bucharskaya, G. N. Maslyakova, Y. Iga, S. Takimoto, V. V. Tuchin, "Immersion optical clearing of adipose tissue in rats: ex vivo and in vivo studies," J. Biophotonics **15**(7), e202100393-1-11 (2022). https://doi.org/10.1002/jbio.202100393 **IF 3.207**, **Q1**

426. Arkady S. Abdurashitov, Pavel I. Proshin, Valery V. Tuchin, and Gleb B.Sukhorukov. Integrated binary hologram to monitor cargo release from a drug-eluting film. Light: Advanced Manufacturing, 3, 1-10 (2022); doi: 10.37188/lam.2022.030.

427. B Shariati BK, SS Khatami, MA Ansari, F Jahangiri, H Latifi, VV Tuchin, Method for tissue clearing: temporal tissue optical clearing, Biomedical Optics Express 13 (8), 4222-4235 (2022). https://doi.org/10.1364/BOE.461115 **IF 3.732**, **Q1**

428. A Bykov, V Tuchin, I Meglinski, Multiplexed spatially-focused localization of light in adipose biological tissues, Scientific Reports 12 (1), 1-6 (2022). **IF 4.996**, **Q1**

429. P Xi, X Wei, J Qu, VV Tuchin, Shedding light on biology and healthcare—preface to the special issue on Biomedical Optics, Light: Science & Applications 11 (1), 1-3 (2022). **IF 20.257**, **Q1**

430. AN Yakunin, YA Avetisyan, GG Akchurin, SV Zarkov, NP Aban'shin, VA Khanadeev, VV Tuchin, Photoemission of Plasmonic Gold Nanostars in Laser-Controlled Electron Current Devices for Technical and Biomedical Applications, Sensors **22** (11), 4127 (2022). **IF 4.350**, **Q1**

431. EN Lazareva, AY Zyubin, NI Dikht, AB Bucharskaya, IG Samusev, VA Slezhkin, VI Kochubey, VV Tuchin, Optical Properties of Glycated and Non-Glycated Hemoglobin–

Raman/Fluorescence Spectroscopy and Refractometry, *Journal of Biomedical Photonics & Engineering*, 020303 (2022). **Q2**

432. LR Oliveira, IS Martins, HF Silva, LM Oliveira, TM Gonçalves, MR Pinheiro, LE Fernandes, HP Oliveira, VV Tuchin, Invasive and minimally invasive optical detection of pigment accumulation in brain cortex, *Journal of Biomedical Photonics & Engineering* **8** (1), 010304 (2022). **Q2.**

433. Shanshool, A.S.; Lazareva, E.N.; Hamdy, O.; Tuchin, V.V. Optical Properties and Fluence Distribution in Rabbit Head Tissues at Selected Laser Wavelengths. Materials 2022, 15, 5696. https://doi.org/10.3390/ma15165696 **IF 3.742**, **Q2**

434. L. R. Oliveira, R. M. Ferreira, M. R. Pinheiro, H. F. Silva, V. V. Tuchin, L. M. Oliveira, Broadband spectral verification of optical clearing reversibility in lung tissue, J. Biophotonics 15, e202200185, 2022. https://doi.org/10.1002/jbio.202200185 **IF 3.207**, **Q1**

435. Verkhovskii, R.; Ermakov, A.; Grishin, O.; Makarkin, M.A.; Kozhevnikov, I.; Makhortov, M.; Kozlova, A.; Salem, S.; Tuchin, V.; Bratashov, D. The Influence of Magnetic Composite Capsule Structure and Size on Their Trapping Efficiency in the Flow. Molecules 2022, 27, 6073. https://doi.org/10.3390/molecules27186073

436. A. Jaafar, M.E. Darvin, V.V. Tuchin, M. Veres, Confocal Raman Micro-Spectroscopy for Discrimination of Glycerol Diffusivity in Ex Vivo Porcine Dura Mater. *Life* 2022, 12, 1534. https://doi.org/10.3390/life12101534 **IF 3.778**, **Q2**

437. Yanina, I.Y.; Nikolaev, V.V.; Zakharova, O.A.; Borisov, A.V.; Dvoretskiy, K.N.; Berezin, K.V.; Kochubey, V.I.; Kistenev, Yu.V.; Tuchin, V.V. Measurement and Modeling of the Optical Properties of Adipose Tissue in the Terahertz Range: Aspects of Disease Diagnosis. *Diagnostics* 2022, 12, 2395. https://doi.org/10.3390/diagnostics12102395 **IF 3.240**, **Q2**

438. Tsygankov, A., Tuchin, V. Commentary to "Biophotonics of molecules and nanoparticles": a session of the Russian Photobiology Society 9th Congress Shepsi, Krasnodar region, Russia; September 12–19, 2021. *Biophys Rev* **14** (4), 759–760 (2022). **Q1** https://doi.org/10.1007/s12551-022-00976-0 YouTube – https://youtu.be/nfoPoHgbiXA Twitter https://twitter.com/BiophysicalRev1/status/1585392434363912192?s=20&t=YhSKnqrLrDO07PKdOer7zQ

439. A. Tsygankov, G. Riznichenko, A. Rubin, A. Solovchenko, and V. Tuchin, Editorial for the special issue of biophysical reviews on the 9th Congress of the Russian society for photobiology held in Shepsi, Krasnodar region, Russia, on September 12–19, 2021. *Biophys Rev* **14**, 743–749 (2022). **Q1** https://doi.org/10.1007/s12551-022-00993-z

440. G.M. Katyba, M. Skorobogatiy, D.G. Melikyants, N.V. Chernomyrdin, A.N. Perov,E.V. Yakovlev, I.N. Dolganova, I.E. Spektor, V.V. Tuchin, V.N. Kurlov, and K.I. Zaytsev, Superresolution imaging using a tapered bundle of high-refractive-index optical fibers, Physical Review Applied, 18(3), 034069 (2022). **IF 4.931 Q1** DOI: 10.1103/PhysRevApplied.18.034069

441. A.B. Konovalov, V.V. Vlasov, S.I. Samarin, I.D. Soloviev, A.P. Savitsky, V.V. Tuchin, "Reconstruction of fluorophore absorption and fluorescence lifetime using early photon mesoscopic fluorescence molecular tomography: A phantom study," *J. Biomed. Opt.* **27**(12), 126001 (2022), **IF 3.758 Q1**, doi: 10.1117/1.JBO.27.12.126001. JBO-220203GR_online.pdf

442. В.Д. Генин, А.Б. Бучарская, Н.А. Наволокин, Г.С. Терентюк, Н.Г. Хлебцов, В.В. Тучин, Э.А. Генина, Влияние иммерсионных агентов на оптические параметры биотканей в процессе лазерной фототермической терапии опухоли: пилотное исследование, Оптика и спектроскопия,130(6) 861-871 (2022); DOI: 10.21883/OS.2022.06.52628.27-22; V.D. Genin, A.B. Bucharskaya, N.A. Navolokin, G.S. Terentyuk, N.G. Khlebtsov, V.V. Tuchin, E.A. Genina, Influence of immersion agents on optical parameters of bio-tissues during laser photothermal therapy of tumor: pilot study, Optics and Spectroscopy **130** (6), 678-687 (2022). DOI: 10.21883/EOS.2022.06.54704.27-22

443. A.A. Selifonov, T.Yu. Rusanova, E.I. Selifonova1, and V.V. Tuchin, Study of the diffusion of tetracycline in the dentin of the human tooth *ex vivo,* J.Biomed. Photon. & Eng. 8(3) 030303-1-9 (2022); doi: 10.18287/JBPE22.08.030303. **Q2**

444. V.V. Tuchin, Tissue Optics: Student Lab in the Kitchen with First Aid Kit and Smartphone, Teaching Methodologies and Paradigms, Field Guide to Optics Education: A Tribute to John Greivenkamp, Eds.: J. Scott Tyo, Eric Pepper, SPIE Press, Bellingham, WA, 2022, pp. 29-32. https://spie.org/Publications/Book/2635871?SSO=1

445. I. N. Dolganova, A. K. Zotov, L. P. Safonova, P. V. Aleksandrova, I. V. Reshetov, K. I. Zaytsev, V. V. Tuchin, V. N. Kurlov, Feasibility test of a sapphire cryoprobe with optical monitoring of tissue freezing, J. Biophotonics 2022, e202200288-1-9. https://doi.org/10.1002/jbio.202200288 **IF 3.207**, **Q1**

446. L.M. Oliveira, I. Meglinski, V.V. Tuchin, 1st Spring Biophotonics Conference in Porto, Journal of Biophotonics, e202380001(2022). https://onlinelibrary.wiley.com/doi/epdf/10.1002/jbio.202380001 **IF 3.207**, **Q1**

447. P. Dyachenko, T. Yu, D. Zhu, V.V. Tuchin, Introduction to the Special Issue on Advances in Biophotonics and Biomedical Optics: Part II, Journal of Innovative Optical Health Sciences 15 (1), 2202001(2022). DOI: 10.1142/S179354582102003X **IF 1.770, Q2**

448. H. F. Silva, I. S. Martins, A. A. Bogdanov Jr, V. V. Tuchin, L. M. Oliveira, Characterization of optical clearing mechanisms in muscle during treatment with glycerol and gadobutrol solutions, J. Biophotonics 16(1), e202200205 (2023). https://doi.org/10.1002/jbio.202200205 **IF 3.207**, **Q1**

449. Yanina, I.Y., Dyachenko, P.A., Abdurashitov, A.S. *et al.* Light distribution in fat cell layers at physiological temperatures. *Sci Rep* **13**, 1073 (2023). https://doi.org/10.1038/s41598-022-25012-9 **IF 4.996** , **Q1**

450. A.R. Botelho, H.F. Silva, I.S. Martins, I.C. Carneiro, S.D. Carvalho, R.M. Henrique, V.V. Tuchin, L.M. Oliveira, Fast calculation of spectral optical properties and pigment content detection in human normal and pathological kidney, *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy* **286**, 122002 (2023), doi: https://doi.org/10.1016/j.saa.2022.122002 **IF 4.480**, **Q2** (https://www.sciencedirect.com/science/article/pii/S1386142522011507)

451. Selifonov, A.A.; Rykhlov, A.S.; Tuchin, V.V. The Glycerol-Induced Perfusion-Kinetics of the Cat Ovaries in the Follicular and Luteal Phases of the Cycle. Diagnostics **2023**, 13, 490. https://doi.org/10.3390/diagnostics13030490; **IF 3.24, Q2**

452. Qingming Luo, Valery V. Tuchin, Lihong Wang, Introduction to the special issue on celebrating the 15th anniversary of JIOHS and the 70th anniversary of HUST, Journal of Innovative Optical Health Sciences **16**(1), 2302001 (4 pages) (2023) DOI: 10.1142/S1793545823020017 **IF 2.40, Q2**

453. Jürgen Kurths, Thomas Penzel, Valery Tuchin, Teemu Myllylä, Ruikang Wang, Oxana Semyachkina-Glushkovskaya, Editorial on the focus point on breakthrough optics- and complex systems-based technologies of modulation of drainage and clearing functions of the brain, Eur. Phys. J. Plus (2023) 138:226; https://doi.org/10.1140/epjp/s13360-023-03777-w **IF 3.758, Q2**

454. Maria Rosario Pinheiro, Valery V. Tuchin, and Luis Manuel Oliveira, Invasive and Minimally Invasive Evaluation of Diffusion Properties of Sugar in Muscle, IEEE J. Select. Tops. Quant. Electr. **29** (4) 7000508 (2023) **IF 4.653, Q1**

455. J. Song, N. Zeng, H. Ma and V. V. Tuchin, A rapid Stokes imaging method for characterizing the optical properties of tissue during immersion optical clearing, in *IEEE Journal of Selected Topics in Quantum Electronics* **29** (4: Biophotonics) 2023, doi: 10.1109/JSTQE.2022.3197599. https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=9852661&isnumber=4481213 **IF 4.653**, **Q1**

456. Alexey Selifonov, Ekaterina Selifonova, Valery V. Tuchin, Effect of e-liquid on the optical properties of the gingival mucosa: ex vivo studies, IEEE J. Select. Tops. Quant. Electr. **29** (4) (2023) DOI 10.1109/JSTQE.2023.3259244 **IF 4.653, Q1**

457.

Избранные статьи в трудах конференций и сборниках трудов

1. I. L. Maksimova, V. V. Tuchin, and L. P. Shubochkin, "Light Propagation in Anisotropic Biological Objects," in *Laser Beams*, Khabarovsk Technical Inst. Press, Khabarovsk, USSR, pp. 91-95, 1985.
2. I.L. Maksimova, S.V. Romanov, L.P. Shubochkin, and V.V. Tuchin, "Structural diagnostics of biological objects by elastic and quasi-elastic laser light scattering," in Laser Scattering Spectroscopy of Biological Objects, Pecs, Hungary, pp.216-227, 1988.
3. V.V. Tuchin and L.P. Shubochkin, "*In vivo* laser scattering spectroscopy of human eye tissues," in Spectroscopy of Biological Molecules, Bologna, pp. 421-424, 1989.
4. I. V. Yaroslavsky and V. V. Tuchin, "An Inverse Monte Carlo Method for Spectrophotometric Data Processing," Proc. SPIE **2100**, pp. 57-68, 1994.

5. V.V. Tuchin, “Facility profile: Saratov Scientific Centre,” *The Newsletter of BiOS, Biomedical Optics* **4**(1), pp. 4-5, 1995.

6. V.V. Tuchin, J. Culver, C. Cheung, S.A. Tatarkova, M.A. DellaVecchia, D. Zimnyakov, A. Chaussky, A.G. Yodh, and B. Chance, “Refractive Index Matching of Tissue Components as a New Technology for Correlation and Diffusing-Photon Spectroscopy and Imaging,” Proc. SPIE **3598**, pp. 111-120, 1999.

7. S. E. Skipetrov, S. S. Chesnokov, I. V. Meglinski, V. V. Tuchin, "Diffusing-wave spectroscopy of flows," Proc. SPIE 3732, ICONO '98: Laser Spectroscopy and Optical Diagnostics: Novel Trends and Applications in Laser Chemistry, Biophysics, and Biomedicine, (5 February 1999); doi: 10.1117/12.340032

8. V.V. Tuchin, “Controlling of tissue optical properties,” Proc. SPIE **4001**, pp. 30-53, 2000.

9. V.V. Tuchin, “Immersion effects in tissues,” Proc. SPIE **4162**, pp. 1-12, 2000.

10. Valery Tuchin, Ruikang K Wang, Ekaterina I Galanzha, Nina A Lakodina, Anastasiya V Solovieva, “Monitoring of glycated hemoglobin in a whole blood by refractive index measurement with OCT,” Conference on Lasers and Electro-Optics, 2003. CLEO'03, Published 6/6/2003, 2 pp, IEEE, http://ieeexplore.ieee.org/document/1298048/, Cited by 14

11. Ekaterina I. Galanzha; Anastasia V. Solovieva; Valery V. Tuchin; Ruikang K. Wang; Sergey G. Proskurin, “Application of optical coherence tomography for diagnosis and measurements of glycated hemoglobin,” Proc. SPIE 5140, Optical Coherence Tomography and Coherence Techniques, October 2003, 8 pages; doi: 10.1117/12.500532

12. Valery V. Tuchin; Ruikang K. Wang; Ekaterina I. Galanzha; James B. Elder; Dmitry M. Zhestkov, “Monitoring of glycated hemoglobin by OCT measurement of refractive index,” Proc. SPIE 5316, Coherence Domain Optical Methods and Optical Coherence Tomography in Biomedicine VIII, 66 (July 1, 2004); doi:10.1117/12.528623

13. Olga S Zhernovaya, Valery V Tuchin, “Measurements of refractive index of hemoglobin mixed with glucose at physiological concentrations,” Proc. SPIE 6163, Saratov Fall Meeting 2005: Optical Technologies in Biophysics and Medicine VII, 61631Q-61631Q-6, 2006/8/1

14. Vladislav V. Lychagov, Valery V. Tuchin, Maxim A. Vilensky, Boris N. Reznik, Thomas Ichim, Luis De Taboada, Experimental study of NIR transmittance of the human skull, Complex Dynamics and Fluctuations in Biomedical Photonics III, edited by Valery V. Tuchin Proc. of SPIE 6085, 60850T-1-5 (2006); doi: 10.1117/12.650116

15. Ekaterina N. Lazareva, Valery V. Tuchin, “Estimations of complex refractive index of hemoglobin at its incubation with glucose,” Proc. SPIE 6535, Saratov Fall Meeting 2006: Optical Technologies in Biophysics and Medicine VIII, 65351I (April 26, 2007); doi: 10.1117/12.740993

16. M. M. Nazarov ; A. P. Shkurinov ; V. V. Tuchin and O. S. Zhernovaya "Modification of terahertz pulsed spectrometer to study biological samples", Proc. SPIE 6535, Saratov Fall Meeting 2006: Optical Technologies in Biophysics and Medicine VIII, 65351J (April 26, 2007); doi:10.1117/12.740994

17. V.V. Tuchin, Improvements of laser biomedical spectroscopy and imaging at tissue and blood optical clearing, Proc. SPIE **6633**-10-1-11, 2007.

18. Mohamad G. Ghosn, Esteban F. Carbajal, Natasha A. Befrui, Valery V. Tuchin, Kirill V. Larin, “Nonlinear diffusivity of analytes in tissues,” Proc. of SPIE Vol. 6855, 685503-1-7, 2008.

19. Stoyan Tanev, Valery V. Tuchin, and James Pond, “Simulation and modeling of optical phase contrast microscope cellular nanobioimaging,” Proc. SPIE Vol. 7027, 702716-1-8 (Dec. 19, 2008).

20. O. S. Zhernovaya, V. V. Tuchin, “Refractive index of hemoglobin and albumin solutions incubated with glucose,” Advances in Biomedical Photonics and Imaging: Proceedings of the 6th International Conference on Photonics and Imaging in Biology and Medicine (PIBM 2007) 41-44, World Scientific, 2008.

21. E. Lazareva, V. Tuchin, “Dynamics of visible absorbance spectrum of hemoglobin solution incubated with glucose,” Advances in Biomedical Photonics and Imaging: Proceedings of the 6th International Conference on Photonics and Imaging in Biology and Medicine (PIBM 2007) 45-50, World Scientific, 2008.

22. I.V. Meglinski, V.V. Tuchin,"The enhancement of confocal probing with optical clearing," Advances in Biomedical Photonics and Imaging: Proceedings of the 6th International Conference on Photonics and Imaging in Biology and Medicine (PIBM 2007) 33-38, World Scientific, 2008.

23. E. Lazareva, V. Tuchin, "Monitoring of interaction of hemoglobin and glucose molecules by spectral method," Proc. of SPIE Vol. 7176, 71760O-1-9, 2009.

24. Caihua Liu, Zhongwei Zhi, Valery V. Tuchin, Dan Zhu, "Combined laser and glycerol enhancing skin optical clearing," Proc. of SPIE Vol. 7186, 71860D-1-10, 2009.

25. Valery V. Tuchin, Irina Yu. Yanina, and Georgy V. Simonenko, "Destructive fat tissue engineering using photodynamic and selective photothermal effects," Proc. of SPIE Vol. 7179, 7179-1-11, 2009.

26. M. Ghosn, V. Tuchin, K. Larin, "Optical coherence tomography in estimating molecular diffusion of drugs and analytes in ocular tissues," Proc. of SPIE Vol. 7163, 71631H-1-7, 2009.

27. E. Tuchina, V. Tuchin, "Low-intensity LED (625 and 405 nm) and laser (805 nm) killing of *Propionibacterium acnes* and *Staphylococcus epidermidis*," Proc. of SPIE Vol. 7165, 71650I-1-7, 2009.

28. I. Larina, E. Carbajal, V. Tuchin, M. Dickinson, K. Larin*, "*Enhanced OCT imaging of embryonic tissue with optical clearing," Proc. of SPIE Vol. 7168, 71682C-1-7, 2009.

29. M. Ghosn, V. Tuchin, K. Larin, "The nonlinear relationship between concentration of analyte and its permeability coefficient in ocular tissues," Proc. of SPIE Vol. 7176, 71760D-1-6, 2009.

30. E. Lazareva, V. Tuchin, "Monitoring of interaction of hemoglobin and glucose molecules by spectral method," Proc. of SPIE Vol. 7176, 71760O-1-9, 2009.

31. G. Terentyuk, G. Maslyakova, L. Suleymanova, V. Borodulin, Yu. Dudakova, N. Khlebtsov, B. Khlebtsov, G. Akchurin, I. Maksimova, V. Tuchin, "Morphological and biochemical changes after intravenous injection of gold nanoparticles," Proc. of SPIE Vol. 7280, 728005-1-9, 2009.

32. Tuchina E.S., Tuchin V.V. Photodynamic/ photocatalytic effects on microorganisms processed by nanodyes // Reporters, Markers, Dyes, Nanoparticles, and Molecular Probes for Biomedical Applications II. – 2010. – Proc. SPIE Vol. 7576.

33. Tuchin V.V., Altshuler G.B., Yanina I.Yu., Kochubey V.I., Simonenko G.V. Fat tissue staining and photodynamic/photothermal effects, Dynamics and Fluctuations in Biomedical Photonics VII, San Francisco, California, USA: Proc. SPIE - 2010, Vol.7563, 75630V1-7.

34. Yanina I.Yu., Bochko V.A., Simonenko G.V., Välisuo P., Alander J.T., Tuchin V.V. Photo analysis methods for fat cell destructive engineering, Saratov Fall Meeting 2009: Optical Technologies in Biophysics and Medicine XIII, Proc. SPIE - 2010, Vol. 7547, 754708.

35. Vera D. Prytkova, Valery V. Tuchin, The calculations of electromagnetic fields around nanoparticles embedded in biological media in *Plasmonics: Metallic Nanostructures and Their Optical Properties VIII*, Mark I. Stockman, Editor, Proc. SPIE, Vol. 7757, 77572T, 2010.

36. Ivan V. Fedosov, Igor S. Nefedov, Boris N. Khlebtsov, and Valery V. Tuchin Optical microscopy for nanoparticles temperature and velocity field visualization, Proc. SPIE 7563, P.75630C (2010)

37. Georgy G. Akchurin, Akchurin G. Garif, Irina L. Maksimova, Alexander A. Skaptsov, Georgy S. Terentyuk, Boris N. Khlebtsov, Nikolai G. Khlebtsov, Valery V. Tuchin, Three-dimensional dynamics of temperature fields in phantoms and biotissue under IR laser photothermal therapy using gold nanoparticles and ICG dye, SPIE Proc. Vol. 7563, Dynamics and Fluctuations in Biomedical Photonics VII, Valery V. Tuchin; Donald D. Duncan; Kirill V. Larin, Eds. P. 75630M-1-7, 2010.

38. N. A. Trunina; V. V. Lychagov; V. V. Tuchin, OCT monitoring of diffusion of water and glycerol through tooth dentine in different geometry of wetting, SPIE Proc. Vol. 7563, Dynamics and Fluctuations in Biomedical Photonics VII, Valery V. Tuchin; Donald D. Duncan; Kirill V. Larin, Eds. P. 75630U-1-7, 2010.

39. M. G. Ghosn, S. H. Syed, M. Leba, J. D. Morrisett, V. V. Tuchin, and K. V. Larin, "Assessment of permeation of lipoproteins in human carotid tissue," San Francisco, California, USA, 2010, pp. 75483M-5.

40. S. Tanev, V. Tuchin & J. Pond, FDTD Modeling of Nano- and Bio-Photonic Imaging, Invited paper, American Institute of Physics (AIP) Proceedings of the Third International Workshop

on Theoretical and Computational Nanophotonics (TACONA Photonics 2010), 2-4 November 2010, Bad Honnef, Germany, Dmitry N. Chigrin, Ed., Vol. 1291, 2010, pp. 30-34.

41. S. Tanev, V. Tuchin, P. Cheben, P. Bock, J. Schmid & J. Pond, Advances in Photonics Design and Modeling for Nano- and Bio-photonics Applications, Invited paper presented at the 16th International School on Quantum Electronics: Lasers Physics and Applications, Sept. 20-24, 2010, Nesebar, Bulgaria, Proc. SPIE, 2010.

42. Elena S. Tuchina; Fulvio Ratto; Boris N. Khlebtsov; Sonia Centi; Paolo Matteini; Francesca Rossi; Franco Fusi; Nikolai G. Khlebtsov; Roberto Pini; Valery V. Tuchin, Combined near infrared photothermolysis and photodynamic therapy by association of gold nanoparticles and an organic dye, Proc. SPIE, **7911**, Plasmonics in Biology and Medicine VIII, Tuan Vo-Dinh; Joseph R. Lakowicz, Editors, 79111C-1-7 (2011).

43. Elena S. Tuchina, Valery V. Tuchin, Photodynamic action of LED-light on standard and clinical strains of Staphylococcii, processed by brilliant green and titanum dioxide nanoparticles, *Mechanisms for Low-Light Therapy VI*, Michael R. Hamblin, Ronald W. Waynant, Juanita Anders (eds.), Proc. SPIE, Volume 7887, 78870A-1-6 (2011); doi:10.1117/12.878963, Online Publication Date: Feb 17, 2011.

44. Narendran Sudheendran, Valery V. Tuchin, Kirill V. Larin, Assessment of tissue optical clearing as a function of glucose concentration using optical coherence tomography, Paper 7889-81, Joseph A. Izatt, James G. Fujimoto, and Valery V. Tuchin (Editors), *Optical Coherence Tomography and Coherence Domain Optical Methods in Biomedicine XV*, Proc SPIE, **7889**, Bellingham, WA, USA, 2011.

45. Valery V. Tuchin, Alexey N. Bashkatov, Elina A. Genina, Vyacheslav I. Kochubey, Vladislav V. Lychagov, Sergey A. Portnov, Natalia A. Trunina, Seongmoon Cho, Hyunho Oh, Bong Chu Shim, Moosub Kim, Jeankun Oh, Hyejin Eum, Yunhee Ku, Dami Kim, Yongju Yang, David R. Miller, Finger tissue model and blood perfused skin tissue phantom, *Dynamics and Fluctuations in Biomedical Photonics VIII*, Valery V. Tuchin, Donald D. Duncan, Kirill V. Larin, Martin J. Leahy, Ruikang K. Wang (Eds.), Proc SPIE, **7898**, 78980Z -1-10(2011); doi:10.1117/12.881604, Online Publication Date: Feb 10, 2011.

46. Anton Malinin, Anastasija Zanishevskaja, Julia S. Skibina, Igor Silohin, Valeriy A. Dubrovskiy, Valery V. Tuchin, Aleksey Dolmashkin, Determination of blood types using a chirped-photonic fiber, *Dynamics and Fluctuations in Biomedical Photonics VIII*, Valery V. Tuchin, Donald D. Duncan, Kirill V. Larin, Martin J. Leahy, Ruikang K. Wang (Eds.), Proc SPIE, **7898**, 78981A1-10 (2011); doi:10.1117/12.879794, Online Publication Date: Feb 10, 2011.

47. Olga S. Zhernovaya, Enock Jonathan, Valery V. Tuchin, Martin J. Leahy, Study of optical clearing of blood by immersion method, *Dynamics and Fluctuations in Biomedical Photonics VIII*, Valery V. Tuchin, Donald D. Duncan, Kirill V. Larin, Martin J. Leahy, Ruikang K. Wang (Eds.), Proc SPIE, **7898**, 78981B1-10 (2011); doi:10.1117/12.879822, Online Publication Date: Feb 17, 2011.

48. M. A. Vilensky, D. N. Agafonov, P. A. Timoshina, O. V. Shipovskaya, D. A. Zimnyakov, V. V. Tuchin, and P. A. Novikov, Speckle-correlation monitoring of the internal microvascular flow, *Dynamics and Fluctuations in Biomedical Photonics VIII*, Valery V. Tuchin, Donald D. Duncan, Kirill V. Larin, Martin J. Leahy, Ruikang K. Wang (Eds.), Proc SPIE, **7898**, 78981C-1-6 (2011); doi:10.1117/12.879890, Online Publication Date: Mar 03, 2011.

49. Irina Yu. Yanina, Tatyana G. Orlova, Valery V. Tuchin, Gregory B. Altshuler. The morphology of apoptosis and necrosis of fat cells after photodynamic treatment at a constant temperature *in vitro, Mechanisms for Low-Light Therapy VI*, edited by Michael R. Hamblin, Ronald W. Waynant, Juanita Anders, Proceedings of SPIE Vol. 7887 78870X-1-6; doi:10.1117/12.878754, 2011.

50. V.A. Doubrovsky, I.Yu. Yanina,V.V. Tuchin. Inhomogeneity of photo-induced fat cell lipolysis, *Proc. SPIE*, **7999,** 7999 0M-1-6, 2011.

51. Irina Yu. Yanina, Valery V. Tuchin, Leyla V. Suleymanova, Alla B. Bycharskaya, Galina N. Maslyakova. Fat tissue histological study at NIR laser treatment of the human skin *in vitro.* Paper 8092-33, European Conferences on Biomedical Optics, 22 - 26 May 2011, Munich.

52. Yakunin A.N., Avetisyan Yu.A., Tuchin V.V. Laser-induced thermal dynamics and temperature localization phenomenon in tissues and cells doped with nanoshells / SPIE Photonics West

2012: Dynamics and Fluctuations in Biomedical Photonics VII, Valery V. Tuchin Ed., Proc. SPIE. Vol. 8222. 8222F. (2012).

53. M.G. Ghosn, M. Mashiatulla, V.V. Tuchin, J.D. Morrisett, and K. V. Larin, "Optical coherence tomography in quantifying the permeation of human plasma lipoproteins in vascular tissues," SPIE Photonics West, vol. 8222, pp. 82220E-8, 2012.

54. Vilensky M.A., Semyachkina-Glushkovskaya O.V., Timoshina P.A., Berdnikova V. A., Kuznetsova Y.V., Semyachkin-Glushkovsky I.A., Agafonov D.N., Tuchin V.V. Monitoring of the microhemodynamic in an aggressive clinical behavior of cerebral hemorrhage using dynamic light scattering techniques // Proc. of SPIE V.8427, pp.842747, 2012.

55. Tuchin V.V., Skibina J.S., Malinin A.V. Photonic crystal fibers in biophotonics, Proc. SPIE V.8311, 83110N-1-10 (2012).

56. A. V. Malinin; A. A. Zanishevskaja; V. V. Tuchin; Yu. S. Skibina; I. Yu. Silokhin « Oxidase method for glucose determination using long-period grating waveguide» Proc. SPIE 8222, Dynamics and Fluctuations in Biomedical Photonics IX, 82221B (February 9, 2012); doi:10.1117/12.914547; http://dx.doi.org/10.1117/12.914547

57. Malinin A. V., Zanishevskaja A. A., Tuchin, V. V., Skibina, Yu. S., Silokhin, I. Y., Photonic crystal fibers for food quality analysis, Proc. SPIE 8427, Biophotonics: Photonic Solutions for Better Health Care III, 842746 (June 1, 2012); doi:10.1117/12.924096; http://dx.doi.org/10.1117/12.924096

58. Kozina A.M., Genina E.A., Terentyuk G.S., Terentyuk A.G., Bashkatov A.N., Tuchin V.V., Khlebtsov B.N. The development of skin immersion clearing method for increasing of laser exposure efficiency on subcutaneous objects // in Biophotonics: Photonic Solutions for Better Health Care III (Photonics Europe 2012), Chairs: Jürgen Popp, Wolfgang Drexler, Valery V. Tuchin, Dennis L. Matthews, Brussels, Belgium, 16-19 April 2012, *Proc.* SPIE, Vol. 8427, 842726, 2012 (ISBN: 9780819491190)

59. Natalia A. Trunina, Alexey P. Popov, Jürgen Lademann, Valery V. Tuchin, Risto Myllylä, Maxim E. Darvin. Two-photon-excited autofluorescence and second-harmonic generation microscopy for the visualization of penetration of TiO2 and ZnO nanoparticles into human tooth tissue *ex vivo*. Proc. SPIE, 2012, vol.8427, pp.8427OY-1-8427OY-6 (Best Student Paper Award).

60. Irina Yu. Yanina, Natalia A. Trunina, Valery V. Tuchin. Temporal change of adipose tissue refractive index at photodynamic treatment: in vitro study using OCT. *Proc. SPIE,* 2012, V. 8222. pp. 82221G-1 – 82221G-6. ISBN:9780819488657

61. Yanina I.Yu., Kochubey V.I., Tuchin V.V., Portnov S.A., Svenskaya Yu.I., Gorin D.A., Ponomareva E.G., Nikitina V.E. Effect of bacterial lectin on acceleration of fat cell lipolysis at *in vitro* diode laser treatment using encapsulated ICG // Optical Technologies in Biophysics and Medicine, Proc. SPIE. – 2012. – Vol. 8337. - 83370F-1-7

62. Yanina I.Yu., Navolokin N.A., Nikitina V.V., Bucharskaya A.B., Maslyakova G.N., and Tuchin V.V. Studies of lipid peroxidation of rat blood after *in vivo* photodynamic treatment // Optical Technologies in Biophysics and Medicine, Proc. SPIE. – 2012. – Vol. 8337. - 83370G-1-7

63. DoubrovskyV.A., Yanina I.Yu., TuchinV.V. Porosity of photo-induced fat cell lipolysis // Proc. SPIE. - 2012. – Vol. 8427. – 8427-157.

64. Vilensky M.A., Semyachkina-Glushkovskaya O.V., Timoshina P.A., Berdnikova V. A., Kuznetsova Y.V., Semyachkin-Glushkovsky I.A., Agafonov D.N., Tuchin V.V. Monitoring of the microhemodynamic in an aggressive clinical behavior of cerebral hemorrhage using dynamic light scattering techniques // Proc. of SPIE V.8427, pp.842747, 2012.

65. A. V. Malinin; A. A. Zanishevskaja; V. V. Tuchin; Yu. S. Skibina; I. Yu. Silokhin « Oxidase method for glucose determination using long-period grating waveguide» Proc. SPIE 8222, Dynamics and Fluctuations in Biomedical Photonics IX, 82221B (February 9, 2012); doi:10.1117/12.914547; http://dx.doi.org/10.1117/12.914547

66. Malinin A. V., Zanishevskaja A. A., Tuchin, V. V., Skibina, Yu. S., Silokhin, I. Y., «Photonic crystal fibers for food quality analysis», Proc. SPIE **8427**, Biophotonics: Photonic Solutions for Better Health Care III, 842746 (June 1, 2012); doi:10.1117/12.924096; http://dx.doi.org/10.1117/12.924096

67. Kolesnikova E.A., Kolesnikov A.S., Genina E.A., Dolotov L.E., Tuchina D.K., Bashkatov A.N., Tuchin V.V. Use of fractional laser microablation of skin for improvement of its immersion clearing // *Proc.* SPIE, 2013, **8699**, 8699-58.

68. Oliveira L., Carvalho M.I., Nogueira E., Tuchin V.V. Comparison between optical measurements made from natural and frozen samples at optical clearing // *Proc.* SPIE, 2013, **8699**, 8699-12.

69. Yanina I.Yu., Doubrovsky V.A., Tuchin V.V. Control of optical transmittance of fat tissue slices at NIR photodynamic action mediated by indocyanine green // *Proc.* SPIE, 2013, **8699**, 8699-17.

70. Kazadaeva N.I., Dolotov L.E., Pravdin A.B., Altshuler G.B., Yaroslavsky I.V., Tuchin V.V. Photowhitening of dentin under various chemical conditions // *Proc.* SPIE, 2013, **8699**, 8699-45.

71. M. Kinnunen, J. Tuorila, T. Haapalainen, A. Karmenyan, V. Tuchin, and R. Myllylä, INVITED PAPER "Optical tweezers-assisted measurements of elastic light scattering," Proc.SPIE, **9031**, 90310A (2014).

72. Elina A. Genina; Vladimir L. Derbov; Igor Meglinski; Valery V. Tuchin, Saratov Fall Meeting 2013: Optical Technologies in Biophysics and Medicine XV; and Laser Physics and Photonics XV, *Proc. SPIE* **9031**, 903101 (January 30, 2014); doi: 10.1117/12.2057778.

73. Maxim A. Kurochkin, Ivan V. Fedosov, Valery V. Tuchin, In-vivo study of blood flow in capillaries using μPIV method, Saratov Fall Meeting 2013: Optical Technologies in Biophysics and Medicine XV; and Laser Physics and Photonics XV, *Proc. SPIE* **9031**, 903107 (January 30, 2014); doi: 10.1117/12.2051593.

74. Natalia A. Trunina, Vladimir L. Derbov, Valery V. Tuchin, Simple numerical model of OCT signal evolution due to the diffusion of an optical clearing agent, Saratov Fall Meeting 2013: Optical Technologies in Biophysics and Medicine XV; and Laser Physics and Photonics XV, *Proc. SPIE* **9031**,, 90310B (January 30, 2014); doi: 10.1117/12.2049685.

75. Ekaterina A. Kolesnikova, Aleksandr S. Kolesnikov, Urszula Zabarylo, Olaf Minet, Elina A. Genina, Alexey N. Bashkatov, Valery V. Tuchin, Optical clearing of human skin for the enhancement of optical imaging of proximal interphalangeal joints, Saratov Fall Meeting 2013: Optical Technologies in Biophysics and Medicine XV; and Laser Physics and Photonics XV, *Proc. SPIE* **9031**, 90310C (January 30, 2014); doi: 10.1117/12.2049525.

76. Aleksandr S. Kolesnikov, Ekaterina A. Kolesnikova, Daria K. Tuchina, Artem G. Terentyuk, Maxim Nazarov, Alexander A. Skaptsov, Alexander P. Shkurinov, Valery V. Tuchin, In-vitro terahertz spectroscopy of rat skin under the action of dehydrating agents, Saratov Fall Meeting 2013: Optical Technologies in Biophysics and Medicine XV; and Laser Physics and Photonics XV, *Proc. SPIE* **9031**, 90310D (January 30, 2014); doi: 10.1117/12.2052226.

77. Marina D. Kozintseva, Alexey N. Bashkatov, Vyacheslav I. Kochubey, Elina A. Genina, Sergey Y. Gorodkov,Dmitry A. Morozov, Valery V. Tuchin, Optical properties of parietal peritoneum in the spectral range 350-2500 nm, Saratov Fall Meeting 2013: Optical Technologies in Biophysics and Medicine XV; and Laser Physics and Photonics XV, *Proc. SPIE* **9031**, 90310E (January 30, 2014); doi: 10.1117/12.2051685.

78. Valery V. Tuchin; Kirill V. Larin; Martin J. Leahy; Ruikang K. Wang, Dynamics and Fluctuations in Biomedical Photonics XI, *Proc. SPIE* **8942**, 894201 (March 24, 2014); doi: 10.1117/12.2052740.

79. Grigor V. Gyulkhandanyan, Robert K. Ghazaryan, Marina H. Paronyan, Anna G. Gyulkhandanyan, Marina A. Sheyranyan, Boris M. Dzhagarov, Elena S. Tuchina, Maria A. Korchenova, Valery V. Tuchin, Photophysical properties and photodynamic efficiency of cationic porphyrins, *Dynamics and Fluctuations in Biomedical Photonics XI*, *Proc. SPIE* **8942**, 894212 (February 26, 2014); doi: 10.1117/12.2039715

80. Anna G. Gyulkhandanyan, Elena S. Tuchina, Robert K. Ghazaryan, Marina H. Paronyan , Grigor V. Gyulkhandanyan, Valery V. Tuchin. Photophysical properties and antimicrobial activity of new metalloporphyrins. *FEBS Journal*, **281 (Suppl. 1)**, 65-783, p. 665, (2014).

81. E.S. Tuchina, K.V. Kozina, N.A. Shelest, V.I. Kochubey, and V.V. Tuchin, Iron oxide nanoparticles in different modifications for antimicrobial phototherapy, Proc. SPIE 8955, 89551P (2014); https://doi.org/10.1117/12.2038421

82. Joseph A. Izatt; James G. Fujimoto; Valery V. Tuchin, Optical Coherence Tomography and Coherence Domain Optical Methods in Biomedicine XVIII, *Proc. SPIE* **8934**, 893401 (March 11, 2014); doi: 10.1117/12.2053617

83. Olga Bibikova, Alexey Popov, Alexander Bykov, Artur Prilepskii, Matti Kinnunen, Krisztian, Kordas, Vladimir Bogatyrev, Nikolai Khlebtsov, and Valery Tuchin, Gold nanostructures for OCT imaging of capillary flow, Proc. of SPIE **9129** 912930-1-9, 2014 (Biophotonics: Photonic Solutions for Better Health Care IV, eds. Jürgen Popp, Valery V. Tuchin, Dennis L. Matthews, Francesco S. Pavone), doi: 10.1117/12.2052019

84. Alexey Popov, Alexander Bykov, Eugeny Khaydukov, Vladimir Semchishen, Krisztian Kordas, Valery Tuchin, Application of semiconductor and upconversion nanomaterials in cosmetics, coatings and phantoms, Proc. SPIE **9421**, 942107-1-9 (2014); Eighth International Conference on Advanced Optical Materials and Devices (AOMD-8), Janis Spigulis, Ed.; doi: 10.1117/12.2084938

85. EA Genina, VL Derbov, KV Larin, DE Postnov, VV Tuchin, Optical Technologies in Biophysics and Medicine XVI; Laser Physics and Photonics XVI; and Computational Biophysics, *Proc. SPIE* **9448**, 944801-1(2015).

86. O.V. Grishin, I.V. Fedosov and V.V. Tuchin, Lens-free dark-field digital holographic microscopy for 3D tracking of microparticles, *Proc. SPIE* **9448**, 94481K (2015).

87. Sergei S Klykov, Ivan V Fedosov, Valery V Tuchin, Cell trapping in a blood capillary phantom using laser tweezers, *Proc. SPIE* **9448**, 94480A-1-6 (2015).

88. Maxim A Kurochkin, Polina A Timoshina, Ivan V Fedosov, Valery V Tuchin, Advanced digital methods for blood flow flux analysis using μPIV approach, *Proc. SPIE* **9448**, 94481A-1-8 (2015).

89. AN Pavlov, OV Semyachkina-Glushkovskaya, OA Bibikova, ON Pavlova, YK Mohammad, Q Huang, D Zhu, P Li, VV Tuchin, Q Luo, Detrended fluctuation analysis of cerebral venous dynamics in newborn mice with intracranial hemorrhage, *Proc. SPIE* **9448**, 94481I-1-6 (2015).

90. Polina A Timoshina, Rui Shi, Yang Zhang, Dan Zhu, Oxana V Semyachkina-Glushkovskaya, Valery V Tuchin, Qingming Luo, Comparison of cerebral microcirculation of alloxan diabetes and healthy mice using laser speckle contrast imaging, *Proc. SPIE* **9448**, 94480B-1-8 (2015).

91. Genin V.D., Bashkatov A.N., Genina E.A., Tuchin V.V. Measurement of diffusion coefficient of propylene glycol in skin tissue, *Proc.* SPIE **9448**, 94480E-1-7, 2015.

92. Anastasiya A Zanishevskaya, AA Shuvalov, Yu S Skibina, VV Tuchin, Microstructured waveguides for serological examination of blood, *Proc.* SPIE **9448**, 944807-1-8, 2015.

93. Teemu Myllylä, Vesa Korhonen, Vesa Kiviniemi, Valery Tuchin, Experimental studies with selected light sources for NIRS of brain tissue: quantifying tissue chromophore concentration, Proc. SPIE BiOS **9305**, 93051S-1-8 (2015).

94. OV Semyachkina-Glushkovskaya, VV Lychagov, AS Abdurashitov, OV Sindeeva, SS Sindeev, EM Zinchenko, EI Kajbeleva, AN Pavlov, M Kassim, VV Tuchin, Changes in the cerebral blood flow in newborn rats assessed by LSCI and DOCT before and after the hemorrhagic stroke, Proc. SPIE BiOS **9305**, 93051D-1-6 (2015).

95. AN Pavlov, OV Semyachkina-Glushkovskaya, OA Sindeeva, ON Pavlova, EP Shuvalova, Q Huang, D Zhu, P Li, VV Tuchin, Q Luo, Cerebral venous dynamics in newborn mice with intracranial hemorrhage studied using wavelets, Proc. SPIE BiOS **9322**, 932214-1-5(2015).

96. Chih-Hao Liu, Manmohan Singh, Jiasong Li, Zhaolong Han, Chen Wu, Shang Wang, Rita Idugboe, Raksha Raghunathan, Valery P Zakharov, Emil N Sobol, Valery V Tuchin, Michael Twa, Kirill V Larin, Quantitative assessment of hyaline cartilage elasticity during optical clearing using optical coherence elastography, Proc. SPIE BiOS **9322**, 93220B-1-9 (2015).

97. Elena S Tuchina, Pavel O Petrov, Fulvio Ratto, Sonia Centi, Roberto Pini, Valery V Tuchin, The action of NIR (808nm) laser radiation and gold nanorods labeled with IgA and IgG human antibodies on methicillin-resistant and methicillin sensitive strains of Staphylococcus aureus, Proc. SPIE BiOS **9324**,93240X-1-10 (2015).

98. Olga Bibikova, Prateek Singh, Alexey Popov, Georgy Akchurin, Ilya Skovorodkin, Vitaly Khanadeev, Matti Kinnunen, Vladimir Bogatyrev, Nikolai Khlebtsov, Seppo Vainio, Valery Tuchin, The effect of laser irradiation on living cells incubated with gold nanoparticles, *Proc. SPIE* **9340**, 934010-1-9 (2015).

99. M. Jędrzejewska-Szczerska ; M. S. Wróbel ; S. Galla ; A. P. Popov ; A. V. Bykov ; V. V. Tuchin ; A. Cenian, Investigation of photothermolysis therapy of human skin diseases using optical phantoms, *18th International School on Quantum Electronics: Laser Physics and Applications*, Proc. SPIE **9447**, 944715 (2015); doi:10.1117/12.2177790

100. I. Yu. Yanina, E. K. Volkova, A. P. Popov, A. V. Bykov, V. I. Kochubey, A. A. Skaptsov, J. G. Konyukhova, V. V. Tuchin, "Temperature dependence of the fluorescence spectrum of ZnCdS nanoparticles introduced into adipose tissue *in vitro*," Proc. SPIE **9537**, 953724 (2015).

101. Volkova E.K., Yanina I.Yu., Genina E.A., Dolotov L.E., Bashkatov A.N., Genin V.D., Konyukhova J.G., Popov A.P., Kozintseva M.D., Speranskaya E., Lomova M., Terentyuk G.S., Bucharskaya A.B., Navolokin N.A., Goryacheva I. Yu., Kochubey V.I., Gorin D.A., Tuchin V.V., Sukhorukov G.B. Luminescence monitoring of particle delivery into rat skin in vivo, *Proc.* SPIE-OSA **9537**, 95371P (2015).

102. A. P. Popov, E. V. Khaydukov, A. V. Bykov, V. A. Semchishen, V. V. Tuchin, "Enhancement of upconversion deep-tissue imaging using optical clearing," *Proc. SPIE* **9540**, 95400B (2015).

103. Alexander Bykov, Tapio Hautala, Matti Kinnunen, Alexey Popov, Sakari Karhula, Simo Saarakkala, Miika T Nieminen, Valery Tuchin, Optical clearing of articular cartilage: a comparison of clearing agents, *Proc. SPIE* **9540**, 95400A-1-7 (2015).

104. I Yu Yanina, Yu I Svenskaya, NA Navolokin, AB Bucharskaya, GN Maslyakova, DA Gorin, GB Sukhorukov, VV Tuchin, OV Matveeva, Histological study of subcutaneous fat at NIR laser treatment of the rat skin in vivo, *Proc. SPIE* **9542**, 954216-1-6 (2015).

105. N. Talaikova, A. Popov,V. Ryabukho, V. Tuchin, I. Meglinski Compact diffraction phase microscope for biomedical applications // Photonica 2015. V International School and Conference on Photonics. Book of abstracts.-2015.- P. 147.

106. Tuchin, Valery V., "Tissue optical clearing: New prospects in optical imaging and therapy," in *BioPhotonics, IEEE International Conference,* pp.1-10, 20-22 May 2015; doi: 10.1109/BioPhotonics.2015.7304023

107. Zanishevskaya, Anastasiya A.; Skibina, Yulia S.; Shuvalov, Andrey A.; Tuchin, Valery V., "Microstructured waveguides for express analysis of water, coffee, tea, wine, and spirit," in *BioPhotonics, IEEE International Conference*, pp.1-5, 20-22 May 2015; doi: 10.1109/BioPhotonics.2015.730404

108. Yakunin, A.N.; Avetisyan, Y.A.; Bykov, A.A.; Tuchin, V.V., "Spatio-temporal thermal processes induced by pulsed laser irradiation of medium doped by nanoparticles," in *BioPhotonics, IEEE International Conference,* pp.1-5, 20-22 May 2015; doi: 10.1109/BioPhotonics.2015.7304051

109. Borozdova M. A., Fedosov I. V., Tuchin V. V. Laser Doppler anemometer: new algorithm for signal processing at high light scattering // Proc. SPIE 9448, Saratov Fall Meeting 2014: Optical Technologies in Biophysics and Medicine XVI; Laser Physics and Photonics XVI; and Computational Biophysics, 94481N (March 19, 2015); doi:10.1117/12.2180005.

110. Kurochkin M.A., Timoshina P.A., Fedosov I.V., Tuchin V.V, Advanced digital methods for blood flow flux analysis using μPIV approach // Proc. SPIE 9448, Saratov Fall Meeting 2014: Optical Technologies in Biophysics and Medicine XVI; Laser Physics and Photonics XVI; and Computational Biophysics, 94481A (March 19, 2015); doi:10.1117/12.2179974.

111. Tuchina D.K., Bashkatov A.N., Timoshina P.A., Genina E.A., Tuchin V.V. Study of the Optical Clearing Kinetics of Skin Using Aqueous 40%-glucose Solution // AIP Conference Proceedings Vol. 1688, 030026-7 (2015).

112. Genin V.D., Tuchina D.K., Bashkatov A.N., Genina E.A., Tuchin V.V. Polyethylene Glycol Diffusion in Ex Vivo Skin Tissue // AIP Conference Proceedings 1688, 030028-6 (2015)

113. Valery V. Tuchin; Kirill V. Larin; Martin J. Leahy; Ruikang K. Wang, Dynamics and Fluctuations in Biomedical Photonics XII, *Proc. SPIE* 9322, 932201 (April 9, 2015); doi:10.1117/12.2192394.

114. James G. Fujimoto; Joseph A. Izatt; Valery V. Tuchin, Optical Coherence Tomography and Coherence Domain Optical Methods in Biomedicine XIX, *Proc. SPIE* 9312, 931201 (March 23, 2015); doi:10.1117/12.2183953

115. H. Yu, J. P. Lee, Y. Jo, Y. Jeong, V. Tuchin, and Y. Park, "Hybrid application of complex wavefront shaping optical coherence tomography and optical clearing agents for the

penetration depth enhancement," in *Asia Communications and Photonics Conference 2015*, C. Lu, J. Luo, Y. Ji, K. Kitayama, H. Tam, K. Xu, P. Ghiggino, and N. Wada, eds., OSA Technical Digest (online) (Optical Society of America, 2015), paper ASu2A.158. https://www.osapublishing.org/abstract.cfm?URI=ACPC-2015-ASu2A.158

116. O. Semyachkina-Glushkovskaya, A. Pavlova, N. Navolokin, V. Lychagov, A. Abdurashitov, E. Zinchenko, A. Gekaluk, D. Zhu, R. Shi, Q. Luo, and V. Tuchin, "Cerebral venous circulatory disturbance as an informative prognostic marker for neonatal hemorrhagic stroke (invited)," Proc. SPIE **9887**, 98872I-1-6 (2016); doi: 10.1117/12.2225489

117. I. Gabay, K. G. Subramanian, C. Martin, M. Yildirima, V. V. Tuchin, and A. Ben-Yakar, "Increasing the penetration depth for ultrafast laser tissue ablation using glycerol based optical clearing," Proc. SPIE **9707** 97070X-1-8 (2016); doi: 10.1117/12.2213482

118. A. B. Bucharskaya; S. S. Pakhomy; O. V. Zlobina; G. N. Maslyakova; O. V. Matveeva; N. A. Navolokin; B. N. Khlebtsov; V. A. Bogatyrev; N. G. Khlebtsov; V. V. Tuchin, "The morphological changes in lymphoid organs and peripheral blood indicators in rats after peroral administration of gold nanoparticles," Proc. SPIE **9709**, 97090V-1-9 (2016); doi:10.1117/12.2216045; http://dx.doi.org/10.1117/12.2216045

119. A. B. Bucharskaya, G. N. Maslyakova, N. A. Navolokin, N. I. Dikht, G. S. Terentyuk, A. N. Bashkatov, E. A. Genina, B. N. Khlebtsov, N. G. Khlebtsov, V. V.Tuchin, "The morphological changes in transplanted tumors of rats at plasmonic photothermal therapy," Proc. SPIE **9917**, 991708-1-6 (2016); doi: 10.1117/12.2229873

120. E. A. Genina, V. L. Derbov, D. E. Postnov, A. B. Pravdin, K. V. Larin, I. V. Meglinski, and V. V. Tuchin, "Introduction to Special Issue: Optical Technologies for Biomedical Applications," Proc. SPIE **9917**, 991701-1-24 (2016); doi: 10.1117/12.2242333

121. E. N. Lazareva and V. V. Tuchin, "The temperature dependence of refractive index of hemoglobin at the wavelengths 930 and 1100 nm," Proc. SPIE **9917**, 99170U-1-9 (2016); doi: 10.1117/12.2234181

122. M.A. Borozdova, E. S. Stiukhina, A. Yu. Alexandrnov, I. V. Fedosov, D. E. Postnov, and V. V. Tuchin, "Quantitative measurement of blood flow dynamics in chorioallantoic membrane of chicken embryo using laser Doppler anemometry," Proc. SPIE **9917**, 99170W-1-9 (2016); doi: 10.1117/12.2229830

123. M. A. Kurochkin, E. S. Stiukhina, I. V. Fedosov , D. E. Postnov , V. V. Tuchin, "Micro-PIV quantification of capillary blood flow redistribution caused by laser-assisted vascular occlusion," Proc. SPIE **9917**, 99171T-1-8 (2016); doi: 10.1117/12.2229766

124. O. V. Grishin, I. V. Fedosov, V. V. Tuchin, "Simple technique of Fourier-transform holographic microscope with compensation of phase aberration," Proc. SPIE **9917**, 99171W-1-7 (2016); doi: 10.1117/12.2229839

125. Joseph A. Izatt, James G. Fujimoto, Valery V. Tuchin, "Front Matter," Optical Coherence Tomography and Coherence Domain Optical Methods in Biomedicine XX, Proc. SPIE **9697**, 969701-1-12; doi: 10.1117/12.2231307

126. V.V. Tuchin, K. V. Larin, M. J. Leahy, R. K. Wang, "Front Matter," Dynamics and Fluctuations in Biomedical Photonics XIII, Proc. SPIE **9707**, 970701-1-16 (2016); doi: 10.1117/12.2229270

127. J. Popp, V. V. Tuchin, D. L. Matthews, F. S. Pavone " Front Matter," Biophotonics: Photonic Solutions for Better Health Care V, Proc SPIE 9887, 988701-1-18 (2016); doi:10.1117/12.2244169; http://dx.doi.org/10.1117/12.2244169

128. D. Chen, N. Zeng, Y. Wang, H. He, V.V. Tuchin, H. Ma, "Circular polarized incident light scattering properties at optical clearing in tissues," Proc. SPIE **9953**, 995308, 2016; doi: 10.1117/12.2238789

129. E.K. Volkova, I.Yu. Yanina, A.P. Popov, A.A. Skaptsov, Ju.G. Konyukhova, V.I. Kochubey, V.V. Tuchin, I.V. Meglinski, "Spectroscopic assessment of biological tissue temperature using upconversion particles," *Laser Optics* (LO), S2-47, 2016. DOI: 10.1109/LO.2016.7550014.

130. Y. A. Avetisyan, A. N. Yakunin, A. A. Bykov and V. V. Tuchin, "The modeling of local distribution of the temperature photo-induced by ensemble of nanoparticles," *2016 International*

Conference Laser Optics (LO), St. Petersburg, 2016, pp. S2-48. doi: 10.1109/LO.2016.7550015

131. http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=7550015&isnumber=7549617

132. O Bibikova, S Prateek, I Skovorodkin, A Popov, A Bykov, E Panfilova, M Kinnunen, V Bogatyrev, S Vainio, K Kordas, N Khlebtsov, V Tuchin, I Meglinski, "Plasmon-resonant nanoparticles with variable morphology for optical imaging," Photonica2015: V International School and Conference on Photonics, 24-28 August 2015, Belgrad, Serbia, Book of abstracts, Eds. S. Petrović, G. Gligorić, and M. Stepić, Belgrad, 2016, p. 137.

133. NA Talaikova, A Popov, VP Ryabukho, V Tuchin, I Meglinski, "Compact diffraction phase microscope for biomedical applications," Photonica2015: V International School and Conference on Photonics, 24-28 August 2015, Belgrad, Serbia, Book of abstracts, Eds. S. Petrović, G. Gligorić, and M. Stepić, Belgrad, 2016, p. 147.

134. V Kochubey, V Tuchin, I Meglinski, I Yanina, J Konyukhova, A Popov, "Monitoring of temperature-mediated response of biological tissues in vitro by administered luminescent ZnCdS nanoparticles," Photonica2015: V International School and Conference on Photonics, 24-28 August 2015, Belgrad, Serbia, Book of abstracts, Eds. S. Petrović, G. Gligorić, and M. Stepić, Belgrad, 2016, p. 149.

135. I Yanina, A Popov, A Bykov, V Tuchin, I Meglinski, "Cell morphology alterations quantified within adipose tissues at different physical action by 3D Optical Coherence Tomography," Photonica2015: V International School and Conference on Photonics, 24-28 August 2015, Belgrad, Serbia, Book of abstracts, Eds. S. Petrović, G. Gligorić, and M. Stepić, Belgrad, 2016, p. 150.

136. O. Semyachkina-Glushkovskaya, A. Shirokov, A. Gekalyuk, M. Abakumov, N. Navolokin, A. Abdurashitov, M. Ulanova, V. Fedorova, V. Razubaeva, E. Saranceva, P. Li, Q. Huang, and V. Tuchin, "Stress Plays Provoking Role in Hypertension-Related Stroke: Injuries of Blood-Brain Barrier Function," in *Asia Communications and Photonics Conference 2016*, OSA Technical Digest (online) (2016), paper AS1K.3. https://www.osapublishing.org/abstract.cfm?URI=ACPC-2016-AS1K.3

137. V.V. Tuchin, "Creation of new diagnostic/therapeutic windows in tissues: from UV to terahertz," in *Asia Communications and Photonics Conference 2016,* OSA Technical Digest (online) (2016), paper AF3K.6. https://doi.org/10.1364/ACPC.2016.AF3K.6

138. O. Sindeeva, A. Abdurashitov, S. Sindeev, N. Navolokin, V. Tuchin, and O. Semyachkina-Glushkovskaya, "A new model of cerebral hemorrhages in newborns rats," Asia Communications and Photonics Conference 2016, OSA Technical Digest (online) (2016), paper AS1K.5; https://doi.org/10.1364/ACPC.2016.AS1K.5

139. O. Semyachkina-Glushkovskaya, E. Borisova, S. Sokolovski, A. Shirokov, N. Navolokin, N. Shushunova, A. Khorovodov, M. Ulanova, M. Sagatova, I. Agranivich, A. Bodrova, M. Dvoryatkina, E. Rafailov, and V. V. Tuchin, "Laser-induced generation of singlet oxygen: new strategies in the treatment of brain tumor," in *International Conference on Photonics and Imaging in Biology and Medicine*, (Optical Society of America, 2017), paper T2B.5. https://www.osapublishing.org/abstract.cfm?URI=PIBM-2017-T2B.5

140. N. Zeng, H. Ma, Y. Huang, D. Chen, Q. Xie, and V. V. Tuchin, "Study on the Influence of Optical Clearing on Polarization Imaging Contrast," in *International Conference on Photonics and Imaging in Biology and Medicine*, (Optical Society of America, 2017), paper W3A.96. https://www.osapublishing.org/abstract.cfm?URI=PIBM-2017-W3A.96

141. Y. Huang, N. Zeng, D. Chen, Q. Xie, V. V. Tuchin and H. Ma, "Study on the Influence of Optical Clearing on Polarization Imaging Contrast," 14th International Conference on Photonics and Imaging in Biology and Medicine (PIBM), W3A.96.pdf, OSA 2017, pp. 1-3.

142. S. Carvalho, N. Gueiral, E. Nogueira, R. Henrique, L. Oliveira, V.V. Tuchin, Comparative study of the optical properties of colon mucosa and colon precancerous polyps between 400 and 1000 nm, Proc. of SPIE Vol. 10063, 100631L-1-16, 2017; doi: 10.1117/12.2253023

143. A. B. Bucharskaya, S. S. Pakhomy, O. V. Zlobina, G. N. Maslyakova, N. A. Navolokin, O. V. Matveeva, B. N. Khlebtsov, V. A. Bogatyrev, N. G. Khlebtsov, V. V. Tuchin, The effects of

prolonged oral administration of gold nanoparticles on the morphology of hematopoietic and lymphoid organs, Proc. of SPIE Vol. 10065, 100650V-1-7. 2017.

144. N. Zeng, Q. Xie, D. Chen, H. Ma,V. V. Tuchin, "The microstructural variation during tissue optical clearing by Mueller matrix polarimetry," *Dynamics and Fluctuations in Biomedical Photonics XV*, Photonics West, San Francisco, 2018, paper # [10493-32].

145. Mikhail K. Tarabrin, Vladimir A. Lasarev, Sergey M. Tomilov, Valery E. Karasik, Valery V. Tuchin, "Broadband tunable mid-IR Cr^{2+}:CdSe lasers for medical applications," Proc. SPIE 10717, Saratov Fall Meeting 2017: Laser Physics and Photonics XVIII; and Computational Biophysics and Analysis of Biomedical Data IV, 1071707 (26 April 2018); doi: 10.1117/12.2315035

146. Bucharskaya A.B., Maslyakova G.N., Terentyuk G.S., Afanasyeva G.A., Navolokin N.A., Zakharova N.B., Khlebtsov B.N., Khlebtsov N.G., Bashkatov A.N., Genina E.A., Tuchin V.V. The inflammation markers in serum of tumor-bearing rats plasmonic photothermal therapy // *Proc.* SPIE, Vol. 10495, 104950X, 2018

147. Wrobel M.S., Bashkatov A.N., Yakunin A.N., Avetisyan Yu.A., Genina E.A., Galla S., Sekowska A., Truchanowicz D., Genian A., Jedrzejewska-Szczerska M., Tuchin V.V. Model of optical phantoms thermal response upon irradiation with 975 nm dermatological lasers // *Proc.* SPIE, Vol. 10716, 1071604, 2018

148. Genin V.D., Genina E.A., Bucharskaya A.B., Tuchin V.V., Khlebtsov N.G., Terentyuk G.S., Bashkatov A.N. Investigation of the change of tumor optical properties after laser-induced plasmon-resonant photothermal treatment of transplanted tumors in rats // *Proc.* SPIE, Vol. 10716, 107160Z, 2018

149. Borisova E., Genova-Hristova Ts., Troyanova P., Terziev I., Genina E.A., Bashkatov A.N., Semyachkina-Glushkovskaya O., Tuchin V., Avramov L. Optical UV-VIS-NIR spectroscopy of benign, dysplastic and malignant cutaneous lesions ex vivo // *Proc.* SPIE, Vol. 10685, 106853T, 2018

150. Genina E.A., Goryacheva I.Yu., Tuchin V.V. Introduction // in *Saratov Fall Meeting 2017: Optical Technologies in Biophysics and Medicine XIX* edited by Elina A. Genina, Irina Yu. Goryacheva, and Valery V. Tuchin, *Proc.* SPIE, Vol. 10716, P. xv-xvi, 2018

151. S. Masoumi, M.A. Ansari, E. Mohajerani, E.A. Genina, V.V. Tuchin, Estimation of beta-carotene using calibrated reflection spectroscopy method: phantom study // IEEE Conference Proceedings: International Conference Laser Optics 2018 (ICLO 2018) St. Petersburg, Russia 4 - 8 June, p. 496, 2018, ISBN: 978-1-5386-3612-1 (DOI: 10.1109/LO.2018.8435691)

152. L.M.Oliveira, I. Carneiro, S. Carvalho, R. Henrique, D.K. Tuchina, P.A. Timoshina, A.N. Bashkatov, E.A. Genina, V.V. Tuchin, Tissue optical clearing as a diagnostic tool for tissue pathology differentiation // IEEE Conference Proceedings: International Conference Laser Optics 2018 (ICLO 2018) St. Petersburg, Russia 4 - 8 June, p. 508, 2018, ISBN: 978-1-5386-3612-1 (DOI: 10.1109/LO.2018.8435385)

153. I.Yu. Yanina, E.N. Lazareva, A.N. Bashkatov, E.A.Genina, V.V. Tuchin, Refractive properties of human adipose tissue at hyperthermic temperatures// IEEE Conference Proceedings: International Conference Laser Optics 2018 (ICLO 2018) St. Petersburg, Russia 4 - 8 June, p. 517, 2018, ISBN: 978-1-5386-3612-1 (DOI: 10.1109/LO.2018.8435657)

154. I.N Dolganova, K. I Zaytsev, S. O Yurchenko, V. E Karasik, V. V Tuchin, The Role of Scattering in Quasi-Ordered Structures for Terahertz Imaging: Local Order Can Increase an Image Quality, IEEE Conference Proceedings: International Conference Laser Optics 2018 (ICLO 2018) St. Petersburg, Russia 4 - 8 June, p. 403, 2018, ISBN: 978-1-5386-3612-1 (**DOI:** 10.1109/TTHZ.2018.2844104).

155. VV Tuchin, EI Galanzha, VP Zharov, Optical amplification of in vivo photoacoustic flow cytometry, IEEE Conference Proceedings: International Conference Laser Optics 2018 (ICLO 2018) St. Petersburg, Russia 4 - 8 June, p. 481, 2018, ISBN: 978-1-5386-3612-1 (**DOI:** 10.1109/LO.2018.8435881).

156. K. I Zaytsev, N. V Chernomyrdin, K. M Malakhov, S.-I. T Beshplav, S. A Goryaynov, V. N Kurlov, I. V Reshetov, A. A Potapov, V. V Tuchin, In vitro terahertz dielectric spectroscopy of human brain tumors, IEEE Conference Proceedings: International Conference Laser Optics 2018 (ICLO 2018) St. Petersburg, Russia 4 - 8 June, p. 498, 2018, ISBN: 978-1-5386-3612-1 (DOI: 10.1109/LO.2018.8435242)

157. OV Semyachkina-Glushkovskaya, EU Rafailov, SG Sokolovsky, EG Borisova, Vanya Mantareva, Ivan Angelov, Alexander Shirokov, Nikita Navolokin, NA Shushunova, AP Khorovodov, AV Terskov, AA Bodrova, MV Ulanova, Esmat Shrif, VV Tuchin, J Kurths, The Laser Technologies of Targeted Opening of Blood-Brain Barrier for Drug Brain Delivery, IEEE Conference Proceedings: International Conference Laser Optics 2018 (ICLO 2018) St. Petersburg, Russia 4 - 8 June, p. 501, 2018, ISBN: 978-1-5386-3612-1 (**DOI:** 10.1109/LO.2018.8435846).

158. V. N. Kurlov, I. A Shikunova, G. M Katyba, K. I Zaytsev, N. V Chernomyrdin, I. N Dolganova, V. V Tuchin, I. V Reshetov, Biomedical applications of sapphire shaped crystals, IEEE Conference Proceedings: International Conference Laser Optics 2018 (ICLO 2018) St. Petersburg, Russia 4 - 8 June, p. 503, 2018, ISBN: 978-1-5386-3612-1 (**DOI:** 10.1109/LO.2018.8435774).

159. NV Chernomyrdin, KM Malakhov, ST Beshplav, AA Gavdush, GA Komandin, IE Spector, VE Karasik, SO Yurchenko, IN Dolganova, SA Goryaynov, IV Reshetov, AA Potapov, VV Tuchin, KI Zaytsev, In vitro terahertz spectroscopy of malignant brain gliomas embedded in gelatin slab, IEEE Conference Proceedings: International Conference Laser Optics 2018 (ICLO 2018) St. Petersburg, Russia 4 - 8 June, p. 520, 2018, ISBN: 978-1-5386-3612-1 (**DOI:** 10.1109/LO.2018.8435613).

160. NV Chernomyrdin, AS Kucheryavenko, GS Kolontaeva, AO Schadko, S–IT Beshplav, KM Malakhov, GA Komandin, VE Karasik, IE Spector, VV Tuchin, KI Zaytsev, Sub-wavelength-resolution imaging of biological tissues using THz solid immersion microscopy, IEEE Conference Proceedings: International Conference Laser Optics 2018 (ICLO 2018) St. Petersburg, Russia 4 - 8 June, p. 519, 2018, ISBN: 978-1-5386-3612-1 (**DOI:** 10.1109/LO.2018.8435491).

161. I.Carneiro, S. Carvalho, R. Henrique, L. Oliveira, V. V Tuchin, Optical properties of colorectal muscle in visible/NIR range, Proc SPIE 10685, 106853D (2018).

162. VV Tuchin, Advances in skin optical clearing, Photonic Therapeutics and Diagnostics XII, Proc SPIE 9689, 96890K (2018).

163. Yu. Yanina; E. Volkova; E. Sagaidachnaya; J. Konyukhova; V. Kochubey; V. Tuchin Comparison of temperature sensing of the luminescent upconversion and ZnCdS nanoparticles // Proc. SPIE. 10506, Nanoscale Imaging, Sensing, and Actuation for Biomedical Applications XV, №1050616, 8 P., doi: 10.1117/12.2295618, 20 February 2018.

164. Elena Volkova; Irina Yu. Yanina; Elena Sagaidachnaya; Julia Konyukhova; Vyacheslav Kochubey; Valery Tuchin Effect of luminescence transport through adipose tissue on measurement of tissue temperature by using ZnCdS nanothermometers // Proc. SPIE. 10493, Dynamics and Fluctuations in Biomedical Photonics XV, N 104931K, 7P, doi: 10.1117/12.2295620, 13 February 2018.

165. Irina Yu. Yanina, Elena K. Volkova, Elena A. Sagaydachnaya, Nikita A. Navolokin, Dmitry A. Mudrak, Andrey M. Zakharevich, Vyacheslav I. Kochubey, Valery V. Tuchin Interaction of upconversion luminescent nanoparticles with tissues and organs // Proc. SPIE 10685, Biophotonics: Photonic Solutions for Better Health Care VI, 106852X (17 May 2018); doi: 10.1117/12.2304709; doi:10.1117/12.2304709.

166. Ekaterina N. Lazareva, Andrey Y. Zyubin, Ilya G. Samusev, Vasiliy A. Slezhkin, Vyacheslav I. Kochubey, Valery V. Tuchin, Refraction, fluorescence, and Raman spectroscopy of normal and glycated hemoglobin // Proc. SPIE 10685, Biophotonics: Photonic Solutions for Better Health Care VI, 1068540 (17 May 2018); doi: 10.1117/12.2307102; doi.org/10.1117/12.2307102.

167. L. Malinova, E. Lazareva, P. Dolotovskaya, N. Furman, N. Puchinyan, T. Denisova, V. Tuchin, Platelet derived microparticles in patients with st segment elevation myocardial infarction: kinetics, platelet production and temperature effects, Acute Cardiovascular Care 2019, 02-04 March 2019, Malaga, Spain.

168. Polina A. Timoshina, Alla B. Bucharskaya, Nikita A. Navolokin, Valery V. Tuchin, "Speckle-contrast imaging of pathological tissue microhemodynamics at optical clearing," Proc. SPIE 10877, Dynamics and Fluctuations in Biomedical Photonics XVI, 108770Z (1 March 2019); doi: 10.1117/12.2508794

169. Nikita V. Chernomyrdin, Anna S. Kucheryavenko, Gleb M. Katyba, Pavel A. Karalkin, Vladimir N. Kurlov, Valery E. Karasik, Valery V. Tuchin, Maksim Skorobogatiy, Kirill I. Zaytsev,

Sub-wavelength-resolution imaging of soft biological tissues: a review of modern methods and original results, Optical Sensing, Imaging, and Photon Counting: From X-Rays to THz 2019, SPIE Optics and Photonics [11088-17]

170. Sergey V. Zarkov, Alexander N. Yakunin, Yuri A. Avetisyan, Garif G. Akchurin,Georgy G. Akchurin, Elena S. Tuchina, Wei-Chuan Shih, Valery V. Tuchin, Thermal optics of ordered arrays of plasmon nanoparticles in context of SERS, cell optoporation, and pathogen destruction," Proc. SPIE 11065, Saratov Fall Meeting 2018: Optical and Nano-Technologies for Biology and Medicine, 110651L (3 June 2019); doi: 10.1117/12.2531109.

171. S. F. Salem, V. V. Tuchin, "Theoretical study of the blood stream in a tube in the presence of a steady-state magnetic field," Proc. SPIE 11067, Saratov Fall Meeting 2018: Computations and Data Analysis: from Nanoscale Tools to Brain Functions, 1106716 (3 June 2019); doi: 10.1117/12.2524580

172. A. A. Selifonov, O. G. Shapoval, S. A. Yuvchenko, D. A. Zimnyakov, A. N. Mikerov, V. V. Tuchin, "Clinical studies of the combined action of ultraviolet and laser (662 nm) radiation with methylene blue for local therapy of defects of oral mucosa in chronic recurrent aphthous stomatitis," Proc. SPIE 11065, Saratov Fall Meeting 2018: Optical and Nano-Technologies for Biology and Medicine, 1106519 (3 June 2019); doi: 10.1117/12.2531633

173. A. A. Selifonov, V. V. Tuchin, "Diffusion of methylene blue in human dentin in the presence of glucose: in vitro study," Proc. SPIE 11065, Saratov Fall Meeting 2018: Optical and Nano-Technologies for Biology and Medicine, 110651Y (3 June 2019); doi: 10.1117/12.2527992

174. A. Majumdar, I. Fedosov, A. Abdurashitov, O. Grishin, O. Sindeeva, K. Khaksari, V. Tuchin, S. J. Kirkpatrick, "Ellipticity imaging for visualizing and quantifying long and short range correlations in laser speckle data II: phantom and animal studies ," Proc. SPIE 10877, Dynamics and Fluctuations in Biomedical Photonics XVI, 1087705 (1 March 2019); doi: 10.1117/12.2507019

175. I. Yu Yanina, N. A. Navolokin, I. V. Vidyasheva, I. Yu. Goryacheva, V. I. Kochubey, and V. V. Tuchin, Functionalized upconversion luminescent nanoparticles for theranostics, Proc. SPIE 11074, Diffuse Optical Spectroscopy and Imaging VII, 1107419 (11 July 2019); https://doi.org/10.1117/12.2526930

176. A. G. Gyulkhandanyan, A. A. Zakoyana, A. G. Gyulkhandanyan, M. V. Parkhots, B. M. Dzhagarov, E. N. Lazareva, V. V. Tuchin, and G. V. Gyulkhandanyana "Ceruloplasmin: a potential carrier of photosensitizers for photodynamic therapy of tumors", Proc. SPIE 11079, Medical Laser Applications and Laser-Tissue Interactions IX, 110791T (22 July 2019); https://doi.org/10.1117/12.2527568

177. G. R. Musina, A. A. Gavdush, D. K. Tuchina, I. N. Dolganova, G. A. Komandin, S. V. Chuchupal, O. A. Smolyanskaya, O. P. Cherkasova, K. I. Zaytsev, V. V. Tuchin, A comparison of terahertz optical constants and diffusion coefficients of tissue immersion optical clearing agents, Proc. SPIE 11065, Saratov Fall Meeting 2018: Optical and Nano-Technologies for Biology and Medicine, 110651Z (3 June 2019); doi: 10.1117/12.2526168. SJR 0.24

178. Valery V. Tuchin, Elina A. Genina, Alexey N. Bashkatov, Ekaterina N. Lazareva, and Vladimir P. Zharov "In vivo optical clearing of human light and dark skin (Conference Presentation)", Proc. SPIE 11239, Dynamics and Fluctuations in Biomedical Photonics XVII, 1123902 (26 March 2020); https://doi.org/10.1117/12.2566932

179. I. Yu. Yanina, J. Schleusener, J. Lademann, V. V. Tuchin, and M. E. Darvin "Confocal Raman microspectroscopy for evaluation of optical clearing efficiency of the skin ex vivo", Proc. SPIE 11239, Dynamics and Fluctuations in Biomedical Photonics XVII, 112390W (21 February 2020); https://doi.org/10.1117/12.2550352; SJR 0.24

180. Alexei A. Bogdanov Jr., Valery V. Tuchin, Irina G. Meerovich, Natalia I. Kazachkina, Viktoria V. Zherdeva, Ilya D. Solovyev, Daria K. Tuchina, and Alexander P. Savitsky "Towards registration of optical and MR signal changes in subcutaneous tumor volume in vivo after optical skin clearing", Proc. SPIE 11239, Dynamics and Fluctuations in Biomedical Photonics XVII, 112390N (21 February 2020); https://doi.org/10.1117/12.2545312; SJR 0.24

181. Oxana V. Semyachkina-Glushkovskaya, Ekaterina Zinchenko, Maria Klimova, Andrey Terskov, Arkady Abdurashitov, Alexander Dubrovsky, Inna Blokhina, Alexander Khorovodov, Ilana Agranovich, Nikita Navolokin, Alexander Shirokov, Elena Saranceva, Aysel Mamedova, Valery Tuchin, and Juergen Kurths "Pilot study of transcranial photobiomodulation of lymphatic clearance of beta-amyloid from the mouse brain: breakthrough strategies for non-pharmacologic therapy of Alzheimer's disease (Conference Presentation)", Proc. SPIE 11241, Biophotonics and Immune Responses XV, 1124103 (6 March 2020); https://doi.org/10.1117/12.2541561; SJR 0.24

182. A. A. Selifonov, T. M. Zagorovskaya, O. V. Syrova, O. Yu. Aleshkina, D. A. Zimnyakov, and V. V. Tuchin "Optical properties of human gums after photodynamic therapy with methylene blue (in vitro)", Proc. SPIE 11223, Photonic Diagnosis, Monitoring, Prevention, and Treatment of Infections and Inflammatory Diseases 2020, 1122315 (19 February 2020); https://doi.org/10.1117/12.2547577; SJR 0.24

183. I. Carneiro, S. Carvalho, R. Henrique, L. Oliveira, V. V. Tuchin, "Measurement of optical properties of normal and pathological human liver tissue from deep UV to NIR," Proc. SPIE 11363, Tissue Optics and Photonics, 113630G (2 April 2020); doi: 10.1117/12.2554877

184. Elena N. Rimskaya, Irina A. Apollonova, Alexander P. Nikolaev, Konstantin G. Kudrin, Igor V. Reshetov, Valery V. Tuchin, Kirill I. Zaytsev, "Mobile system for early diagnosis of the parameters of pigmented skin lesions," Proc. SPIE 11363, Tissue Optics and Photonics, 1136306 (2 April 2020); doi: 10.1117/12.2555525

185. Yury V. Kistenev, Alexey V. Borisov, Anastasia I. Knyazkova, Viktor V. Nikolaev, Alica A. Samarinova, Nikita A. Navolokin, Daria K. Tuchina, Valery V. Tuchin, "Differential diagnostics of paraffin-embedded tissues by IR-THz spectroscopy and machine learning," Proc. SPIE 11363, Tissue Optics and Photonics, 113630J (2 April 2020); doi: 10.1117/12.2555632

186. Aram G. Gyulkhandanyan, Anna A. Zakoyan, Lusine V. Mkrtchyan, Anna G. Gyulkhandanyan, Marina V. Parkhats, Boris M. Dzhagarov, Marina A. Sheyranyan, Gegham M. Simonyan, Ekaterina N. Lazareva, Valery V. Tuchin, Grigor V. Gyulkhandanyan, "Binding of ceruloplasmin with cationic porphyrins: pH and salt composition of a medium," Proc. SPIE 11363, Tissue Optics and Photonics, 1136329 (2 April 2020); doi: 10.1117/12.2556021

187. Elina A. Genina, Alexey N. Bashkatov, Sergey M. Zaytsev, Marine Amouroux, Walter C. P. M. Blondel, and Valery V. Tuchin "Physical impacts on epidermal permeability in vivo for optical clearing agents (Conference Presentation)", Proc. SPIE 11363, Tissue Optics and Photonics, 113630P (2 April 2020); https://doi.org/10.1117/12.2555734

188. Sergey M. Zaytsev, Walter Blondel, Marine Amouroux, Grégoire Khairallah, Valery V. Tuchin, and Elina A. Genina "Optical spectroscopy as an effective tool for skin cancer features analysis: applicability investigation (Conference Presentation)", Proc. SPIE 11363, Tissue Optics and Photonics, 113631Z (2 April 2020); https://doi.org/10.1117/12.2555776

189. Daria K. Tuchina, Olga A. Sindeeva, Alexander P. Savitsky, Alexei A. Bogdanov, and Valery V. Tuchin "In vivo application of magnetic resonance imaging contrast agents for tissue optical clearing (Conference Presentation)", Proc. SPIE 11363, Tissue Optics and Photonics, 1136327 (8 April 2020); https://doi.org/10.1117/12.2557365

190. Polina A. Dyachenko Timoshina, Alla B. Bucharskaya, Valery V. Tuchin, and Aleksandr P. Shkurinov "Study tissue microhemodynamics in area of tumor at optical clearing by speckle-contrast imaging (Conference Presentation)", Proc. SPIE 11363, Tissue Optics and Photonics, 113631Q (8 April 2020); https://doi.org/10.1117/12.2554992

191. Ekaterina N. Lazareva, Maxim M. Nazarov, Alla B. Bucharskaya, Valery V. Tuchin, and Alexander P. Shkurinov "THz properties of rat skin and extracts at exposure to hyperosmotic solutions (Conference Presentation)", Proc. SPIE 11363, Tissue Optics and Photonics, 1136328 (8 April 2020); https://doi.org/10.1117/12.2560376

192. Alexei A. Bogdanov, Irina Meerovich, Natalia Kazachkina, Victoria Zherdeva, Ilya Solovyev, Daria K. Tuchina, Alexander P. Savitsky, and Valery V. Tuchin "Optical clearing effects in subcutaneous red-fluorescent tumors monitored by fluorescence and magnetic resonance imaging in

vivo (Conference Presentation)", Proc. SPIE 11363, Tissue Optics and Photonics, 113630S (6 April 2020); https://doi.org/10.1117/12.2560186

193. N. Dolganova, G. M. Katyba, I. A. Shikunova, A. K. Zotov, P. V.Aleksandrova, N. A. Naumova, M. A. Shchedrina, K. I. Zaytsev, V. V. Tuchin,V. N. Kurlov, "Sapphire-based medical instruments for diagnosis, surgery and therapy," Proc. SPIE 11363, Tissue Optics and Photonics, 1136318 (2 April 2020); doi: 10.1117/12.2555320

194. I. Yu. Yanina, V. V. Nikolaev, O. A. Zakharova, A. V. Borisov, K. N. Dvoretski, K. V. Berezin, V. I. Kochubey, Yu. V. Kistenev, V. V. Tuchin, "Measurement and modeling of optical properties of heated adipose tissue in the terahertz range," Proc. SPIE 11348, Terahertz Photonics, 1134817 (13 April 2020); doi: 10.1117/12.2555656

195. A. A. Selifonov and V. V. Tuchin "Determination of the diffusion coefficient of rivanol in dentin of a human tooth in vitro", Proc. SPIE 11359, Biomedical Spectroscopy, Microscopy, and Imaging, 113591S (8 May 2020); https://doi.org/10.1117/12.2556085

196. M. A. Ansari, A. Morovati, V. V. Tuchin, "Low-cost measurement of the dermal beta-carotene in the context of optical clearing," Proc. SPIE 11457, Saratov Fall Meeting 2019: Optical and Nano-Technologies for Biology and Medicine, 1145704 (9 April 2020); doi: 10.1117/12.2563961

197. Polina A. Dyachenko (Timoshina), Denis A. Alexandrov, Alla B. Bucharskaya, Valery V. Tuchin, "Speckle-contrast imaging of pathological tissue microhemodynamics in the development of various diabetes models," Proc. SPIE 11457, Saratov Fall Meeting 2019: Optical and Nano-Technologies for Biology and Medicine, 114570K (9 April 2020); doi: 10.1117/12.2564100

198. Irina Yu. Yanina, Viktor V. Nikolaev, Alexey V. Borisov, Anastasia I. Knyazkova, Evgeniy E. Buyko, Vyacheslav I. Kochubey, Vladimir V. Ivanov, Yury V. Kistenev, Valery V. Tuchin, "The study of spectral changes in THz range in normal and pathological skin in vivo depending on the dehydration methods used," Proc. SPIE 11457, Saratov Fall Meeting 2019: Optical and Nano-Technologies for Biology and Medicine, 114570Q (9 April 2020); doi: 10.1117/12.2563192

199. Sergey M. Zaytsev, Walter Blondel, Marine Amouroux, Grégoire Khairallah, Alexey N. Bashkatov, Valery V. Tuchin, Elina A. Genina, "Optical spectroscopy as an effective tool for skin cancer features analysis: applicability investigation," Proc. SPIE 11457, Saratov Fall Meeting 2019: Optical and Nano-Technologies for Biology and Medicine, 1145706 (9 April 2020); doi: 10.1117/12.2564201

200. Vitaly A. Khanadeev, Snezhana A. Kushneruk, Andrey V. Simonenko, Georgy G. Akchurin, Garif G. Akchurin, Valery V. Tuchin, Nikolai G. Khlebtsov, "Nanosecond laser-induced photomodification of gold nanostars of various sizes," Proc. SPIE 11458, Saratov Fall Meeting 2019: Laser Physics, Photonic Technologies, and Molecular Modeling, 1145809 (9 April 2020); doi: 10.1117/12.2563977

201. S. F. Salem, V. V. Tuchin, "Numerical simulation of magnetic nanoparticles in the blood stream," Proc. SPIE 11457, Saratov Fall Meeting 2019: Optical and Nano-Technologies for Biology and Medicine, 114571N (9 April 2020); doi: 10.1117/12.2565678

202. Walter Blondel, Sergey Zaytsev, Victor Colas, Grégoire Khairallah, Prisca Rakotomanga, et al.. Study of the impact of optical clearing on skin absorption, scattering and autofluorescence properties. *19th International Conference on Laser Optics, ICLO 2020 (6th International Symposium on Lasers in Medicine and Biophotonics)*, Nov 2020, St Petersburg, Russia. ⟨hal-03018569⟩

203. H. Zuhayri, A. I. Knyazkova, V. V. Nikolaev, A. V. Borisov, Yu. V. Kistenev, O. A. Zakharova, P. A. Dyachenko, and V. V. Tuchin "Study of wound healing by terahertz spectroscopy", Proc. SPIE 11582, Fourth International Conference on Terahertz and Microwave Radiation: Generation, Detection, and Applications, 115821E (17 November 2020); https://doi.org/10.1117/12.2581009

204. I. Yu. Yanina, V. V. Nikolaev, A. A. Markelov, M. B. Miroshnichenko, E. E. Buyko, V. V. Ivanov, V. I. Kochubey, and V. V. Tuchin "THz spectroscopy of skin pathologies associated with water migration and content", Proc. SPIE 11582, Fourth International Conference on Terahertz and

Microwave Radiation: Generation, Detection, and Applications, 115821L (17 November 2020); https://doi.org/10.1117/12.2581719

205. A. G. Gyulkhandanyan, A. A. Zakoyan, L. V. Mkrtchyan, A. G. Gyulkhandanyan, M. V. Parkhats, B. M. Dzhagarov, M. A. Sheyranyan, G. M. Simonyan, E. N. Lazareva, V. V. Tuchin, G. V. Gyulkhandanyan, Binding of ceruloplasmin with cationic porphyrins: pH and salt composition of a medium, *Proc. SPIE* **11363**, 1136329-9 p. (2020); doi: 10.1117/12.2556021

206. Daria K. Tuchina, Alexey N. Bashkatov, Nikita A. Navolokin, Valery V. Tuchin, "Ultrasonic modes to improve the optical clearing of the skin ex vivo," Proc. SPIE 11845, Saratov Fall Meeting 2020: Optical and Nanotechnologies for Biology and Medicine, 1184507 (4 May 2021); doi: 10.1117/12.2589230

207. Vadim D. Genin, Alla B. Bucharskaya, Elina A. Genina, Georgy S. Terentyuk, Nikolai G. Khlebtsov, Valery V. Tuchin, and Alexey N. Bashkatov "Optical properties of model cholangiocarcinoma tissues in the spectral range of 350-2250 nm in laser photothermolysis treatment", Proc. SPIE 11845, Saratov Fall Meeting 2020: Optical and Nanotechnologies for Biology and Medicine, 118450Z (4 May 2021); https://doi.org/10.1117/12.2590422

208. Sergey M. Zaytsev, Alexey N. Bashkatov, Walter Blondel, Marine Amouroux, Valery V. Tuchin, and Elina A. Genina, Impact of ex vivo skin dehydration on collimated transmittance spectra kinetics, Proc. SPIE 11845, Saratov Fall Meeting 2020: Optical and Nanotechnologies for Biology and Medicine, 118450M (4 May 2021); https://doi.org/10.1117/12.2589589

209. A. A. Selifonov, A. M. Zakharevich, and V. V. Tuchin "Determination of the binary diffusion coefficient of an iodine-glycerol preparation (Lugol) in the dentin of a human tooth", Proc. SPIE 11845, Saratov Fall Meeting 2020: Optical and Nanotechnologies for Biology and Medicine, 118450V (4 May 2021); https://doi.org/10.1117/12.2591155

210. Salem S. F., Tuchin V.V. A theoretical model for the delivery of magnetic nanoparticles through a blood vessel under the influence of a magnetic field // Proc. SPIE 11845, Saratov Fall Meeting 2020: Optical and Nanotechnologies for Biology and Medicine, 1184519(4May 2021), https://doi.org/10.1117/12.2590823.

211. A.A. Bogdanov Jr., N.I. Kazachkina, V.V. Zherdeva, I.G. Meerovich, DK. Tuchina, I.D. Solovyev, A.P. Savitsky, V.V. Tuchin, Optical clearing and multimodality fluorescence and magnetic resonance imaging in cancer models, Proc. SPIE 11641, Dynamics and Fluctuations in Biomedical Photonics XVIII, 116410C (9 March 2021); doi: 10.1117/12.2586113.

212. A.A. Selifonov, V.V. Tuchin, Optical properties of porcine oral mucosa at application of iodine preparation based on glycerol, *Proc. SPIE* **11626**, Photonic Diagnosis, Monitoring, Prevention, and Treatment of Infections and Inflammatory Diseases 2021, 116260X- 7 p. (15 March 2021); doi: 10.1117/12.2578793

213. D.K. Tuchina, A.Bashkatov, and V.V Tuchin, Application of high molecular PEG for optical clearing of skin, Proc. SPIE **11641**, Dynamics and Fluctuations in Biomedical Photonics XVIII, 116410Y (15 March 2021); https://doi.org/10.1117/12.2588339

214. I. Yu. Yanina, E. A. Sagaidachnaya, J. G. Konyukhova, A. A. Skaptsov, N. I. Kazadaeva, A. A. Doronkina, A. B. Pravdin, V. I. Kochubey, V. V. Tuchin, Experimental study of the dependence of the distortion of the luminescence spectra of upconversion nanoparticles on the depth of their location in biological tissue, Proc. SPIE 11641, Dynamics and Fluctuations in Biomedical Photonics XVIII, 116410W (5 March 2021); doi: 10.1117/12.2578075

215. Alla Bucharskaya, Galina Maslyakova, Marina Chekhonatskaya, Svetlana Pakhomy, Dmitry Mudrak, Nikita Navolokin, Georgy Terentyuk, Ekaterina Borisova, Vanya Mantareva, Ivan Angelov, Boris Khlebtsov, Nikolai Khlebtsov, Vadim Genin, Alexey Bashkatov, Elina Genina, Valery Tuchin, "The assessment of tumor vascularization degree for predicting the effectiveness of plasmonic photothermal and photodynamic therapy," Proc. SPIE 11845, Saratov Fall Meeting 2020: Optical and Nanotechnologies for Biology and Medicine, 1184508 (4 May 2021); doi: 10.1117/12.2590411

216. A. A. Selifonov, E. I. Selifonova, and V. V. Tuchin "E-cigarette smoking vape impact on optical properties of porcine gingival mucosa measured ex vivo in the range from 200 to 800 nm", Proc. SPIE 12192, Optical Technologies for Biology and Medicine, 1219211, 213-220 (29 April 2022); https://doi.org/10.1117/12.2632629

217. Alla Bucharskaya, Dmitry Mudrak, Irina Yanina, Nikita Navolokin, Alexandr Polozhenkov, Elina Genina, Yury Kistenev, and Valery Tuchin "Morphological changes in rat lung tissue during inhalation of e-cigarette liquid aerosol", Proc. SPIE 12192, Optical Technologies for Biology and Medicine, 1219210, 208-212 (29 April 2022); https://doi.org/10.1117/12.2627915

218. Alaa Shanshool, Ekaterina N. Lazareva, and Valery V. Tuchin "Measurement of the refractive index of the gray matter of the cow's brain at wavelengths of 480-1550 nm when exposed to different temperatures.", Proc. SPIE 12192, Optical Technologies for Biology and Medicine, 1219212, 221-235 (29 April 2022); https://doi.org/10.1117/12.2634156

219. A Bucharskaya, G Maslyakova, N Navolokin, G Terentyuk, V Mantareva, V. Genin, E. Genina, V Tuchin, The novel photosensitizer galactose: lutetium (Lu)-phthalocyanine for photodynamic therapy in tumor-bearing mice, Proc. SPIE: Optical Technologies for Biology and Medicine 12192, 204-207 (2022).

220. Alexei Bogdanov Jr., Valery Tuchin, Natalia Kazachkina, Victoria Zherdeva, Lilya Maloshenok, Daria Tuchina, Irina Meerovich, Ilya Solovyev, Alexander Savitsky, "Clinical MRI contrast agent improves fluorescent imaging of red fluorescent protein expression in-vivo due to the effect of tissue optical clearing," Proc. SPIE 12378, Dynamics and Fluctuations in Biomedical Photonics XX, 1237806-1-8 (7 March 2023); doi: 10.1117/12.2648493

Избранные патенты

1. Федосов И. В., Тучин В.В., Способ измерения скорости движения рассеивающих микрообъектов: патент на изобретение, RU №2223504 - приоритет от 06.05.02.
2. В.В. Тучин, О.В. Мареев, И.В. Федосов, Г.О. Мареев, Устройство для бесконтактного определения объемного кровотока: патент на изобретение, RU №2238671 C1 – заявка №2003113092; заявл. 05.05.2003; опубл. 27.10.2004. - Бюл. №30.
3. В.В. Тучин, О.В. Мареев, И.В. Федосов, Г.О. Мареев, Устройство для бесконтактного определения объемного кровотока: патент на полезную модель, RU №32680 U1 - заявка №2003112846; заявл. 05.05.2003; опубл. 27.09.2003. - Бюл. №27.
4. G. Altshuler and V.V. Tuchin, Light emitting toothbrush for oral phototherapy, US 7,223,270 B2, May 29, 2007.
5. G. Altshuler and V.V. Tuchin, Multidirectional oral phototherapy applicator, US 7,223,281 B2, May 29, 2007.
6. G. Altshuler, A. Belikov, F. Feldshtein, A. Vybornov, V. Tuchin, Method and apparatus for diagnostic and treatment using hard tissue or material microperforation, International Patent Application No.PCT/US2008/051241, January 16, 2008.
7. G. Altshuler, V.V. Tuchin, Tissue penetrating oral phototherapy applicator, US 7,329,273 B2, Feb. 12, 2008.
8. G. Altshuler, V.V. Tuchin, Conforming oral phototherapy applicator, US 7,329,274 B2, Feb. 12, 2008.
9. G.B. Altshuler, A.V. Belikov, F.I. Feldchtein, V.V. Tuchin, A.G. Vybornov, Method and apparatus for diagnostic and treatment using hard tissue or material microperforation, US Patent US20100015576A1, Published 21 Jan. 2010.
10. G. Altshuler, V.V. Tuchin, US20090132011A1, Multi-wavelength oral phototherapy applicator, 2009-05-21, 2008-09-04.
11. G. Altshuler, I.V. Yaroslavsky, V.V. Tuchin, et al., US20090069741A1, Methods and devices for fractional ablation of tissue for substance delivery, 2009-03-12, 2008-09-08.
12. G. Altshuler, V.V. Tuchin, et al., US20080214988A1, Methods and devices for fractional ablation of tissue, 2008-09-04, 2007-12-28.
13. G. Altshuler, I.V. Yaroslavsky, V.V. Tuchin, et al., US20080183162A1, Methods and devices for fractional ablation of tissue, 2008-07-31, 2007-12-28.
14. G. Altshuler, V.V. Tuchin, US20050107849A1, Tissue penetrating oral phototherapy applicator, 2005-05-19, 2004-02-10.

15. I.V. Yaroslavsky, G. Altshuler, V.V. Tuchin, US20040225339A1 (10/740,907), Light treatments for acne and other disorders of follicles, 2004-11-11, 2003-12-19.
16. G. Altshuler, V.V. Tuchin, US20040210276A1, Multi-wavelength oral phototherapy applicator, 2004-10-21, 2004-02-10.
17. G. Altshuler, V.V. Tuchin, US20040204745A1, Conforming oral phototherapy applicator, 2004-10-14, 2004-02-10.
18. G. Altshuler, V.V. Tuchin, US20040199227A1, Biostimulation of the oral cavity, 2004-10-07, 2004-02-10.
19. G. Altshuler, V.V. Tuchin, US20040193236A1, Light emitting toothbrush for oral phototherapy, 2004-09-30, 2004-02-10.
20. G. Altshuler, V.V. Tuchin, US20040193235A1, Multi-directional oral phototherapy applicator, 2004-09-30, 2004-02-10.
21. G. Altshuler, V.V. Tuchin, US20040191729A1, Dental phototherapy methods and compositions, 2004-09-30, 2004-02-10.
22. G. Altshuler, V.V. Tuchin, US7422598, Multi-wavelength oral phototherapy applicator, 2008-09-09, 2004-02-10.
23. G. Altshuler, V.V. Tuchin, US7354448, Dental phototherapy methods and compositions, 2008-04-08, 2004-02-10.
24. G.B. Altshuler, I. Y.aroslavsky, A.V. Erofeev, V.V. Tuchin, Methods and devices for fractional ablation of tissue, US Patent App. 11/966,625, 2008.
25. Лепилин А.В., Финохина О.А., Креницкий А.П., Майбородин А.В., Тупикин В.Д., Тучин В.В., Федосов И.В., Способ лечения пародонтита, Решение о выдаче патента на изобретение РСТ по заявке 2005106380/14(007814) от 3.05.2006 с приоритетом от 10.03.2005.
26. Белоглазов В.И., Скибина Н.Б., Тучин В.В., Скибина Ю.С., Устройство доставки и анализа биологических проб и способ его изготовления //Патент РФ RU(11) 2 323 978(13) C1, 2007, по заявке, рег. номер 2006124701/13(026799), от 2006. Опубликовано 10.05.2008 Бюл. №13.
27. С.В.Капралов, Ю.Г. Шапкин, С.Е. Урядов Р.Ю., Иванов, В.В. Лычагов, В.В.Тучин, Способ прогнозирования рецидива язвенного гастродуоденального кровотечения. Патент на изобретение № 2302235. МКИ А61К 31/045, А61Р 1/04, А61В 10/04 – ФИПС, 2007 год.
28. Акчурин Г.Г. Акчурин Г.Г. мл., Максимова И.Л., Терентюк Г.С., Хлебцов Б.Н., Хлебцов Н.Г. Тучин В.В. Способ лазерного фототермолиза раковых клеток. Патент РФ № 2424831 (13) C1 Заявка 2009147833/14, 22.12.2009. Опубликовано: 27.07.2011.
29. Тучина Е.С., Тучин В.В., "Способ уничтожения патогенных и условно-патогенных микроорганизмов", Патент РФ на изобретение № 2430756 (Заявка на изобретение RU №2010112579) приоритет 31.03.2010, решение о выдаче 12.04.2011.
30. Тучина Е.С., Тучин В.В., "Способ подавления патогенных и условно-патогенных микроорганизмов", Патент РФ на изобретение № 2430757 (Заявка на изобретение RU №2010112583) приоритет 31.03.2010, решение о выдаче 12.04.2011
31. Ковальчук М.В., Асадчиков В.Е., Андреев А.В., Коновко А.А., Белоглазов В.И., Скибина Ю.С., Тучин В.В., Якимчук И.В. Зонная пластина и способ ее изготовления, Патент на изобретение: RU2009139985, заявка: 2009139985/28, дата подачи заявки: 30.10.2009; дата публикации заявки: 10.05.2011.
32. Семячкина-Глушковская О.В., Фролов И.А., Семячкин-Глушковский И. А., Капралов С.В., Анищенко Т.Г., Синдеев С.С., Тучин В.В., Шапкин Ю. Г. Способ прогнозирования рецидива кровотечения из острой гастродуоденальной язвы, Патент на изобретение RU 2 469 330 C1. Дата начала отсчета срока действия патента: 01.06.2011. Опубликовано: 10.12.2012 Бюл. № 34.
33. Тучин В.В., Башкатов А.Н., Генина Э.А. Барун В.В., Иванов А.П. Решение о выдаче патента на ИЗ по заявке №2011131640 «Способ повышения концентрации молекулярного кислорода в дерме кожной ткани» от 11.01.2013 г.
34. Тучин В.В., Башкатов А.Н., Генина Э.А. Барун В.В., Иванов А.П. Решение о выдаче патента на ИЗ по заявке №2011131602 «Способ локального повышения концентрации молекулярного кислорода в дерме кожной ткани» от 11.01.2013 г.

35. В.В. Барун, А.П. Иванов, В.В.Тучин, А.Н. Башкатов, Э.А.Генина, Способ неинвазивной генерации молекулярного кислорода в дерме кожной ткани, рег. номер - a 20110914 (BY), приоритет 30.06.2011.

36. В.В. Барун, А.П. Иванов, В.В.Тучин, А.Н. Башкатов, Э.А.Генина, Способ неинвазивной локальной генерации молекулярного кислорода в дерме кожной ткани, рег. номер - a 20110915 (BY), приоритет 30.06.2011.

37. Г.Г.Акчурин, А.Н.Якунин, А.А.Ангелуц, Ю.А.Аветисян, А.П.Попов, Г.Г.Акчурин, Е.А.Колесникова, И.А.Ожередов, А.А.Скапцов, А.П.Шкуринов, А.С.Колесников, А.В.Балакин, Д.К.Тучина, В.А.Макаров, М.М.Стольниц, В.В.Тучин, С.Р.Утц, Е.М.Галкина, К.Н.Колесникова Патент 2013141495 РФ, МПК A61B5, B82B1, G01N21. «Способ получения терагерцовых изображений раковых опухолей и патологий кожи» - Опубл. 20.03.2015. - Бюл. № 8.

38. Курочкин М.А., Федосов И.В., Тучин В.В., Цифровой анализ динамики кровотока в нативных капиллярных сетях. Рег. номер.№2015615618, Дата регистрации 21 мая 2015.

39. Курочкин М.А., Федосов И.В., Тучин В.В. Velocity measurement, Программа для ЭВМ, Регистрационный номер: №2016611420, дата регистрации 02 февраля 2016.

40. Курочкин М.А., Федосов И.В., Тучин В.В., aCA2040, Программа для ЭВМ, Регистрационный номер: №2016610874, дата регистрации 21 января 2016.

41. Бучарская А. Б., Маслякова Г. Н., Дихт Н. И., Терентюк Г. С., Наволокин Н. А., Башкатов А. Н., Генина Э. А., Хлебцов Б. Н., Хлебцов Н. Г., Тучин В. В. Патент на изобретение РФ № 2614507, «Способ плазмонно-резонансной фототермической терапии опухолей в эксперименте». Приоритет 15 декабря 2015 г. Регистрация 28 марта 2017 г. Срок действия до 15 декабря 2035 г.

42. Таникава Й. (Олимпус, Япония), Ига Я. (Олимпус, Япония), Такимото С. (Олимпус, Япония), Тучин В. В. (СГУ), Генина Э. А. (СГУ), Башкатов А. Н. (СГУ), Янина И. Ю. (СГУ), Тараканчикова Я. В. (СГУ), Терентюк Г. С. (СГМУ), Тимошина П. А. (СГУ), Тучина Д.К. (СГУ). Способ наблюдения жировой ткани /Патент на изобретение РФ № 2015 122 756 от 10.01.2017.

43. М.А.Бороздова, И. В. Федосов, В.В. Тучин Способ измерения скорости течения крови, Патент на изобретение RU №2610559 C1; заявка № 2015136644, 28.08.2015; опубл. – 13.02.2017 Бюл. № 5 – 21 с.

44. Тучина Д.К., Башкатов А.Н., Генина Э.А., Тучин В.В. Биосенсор для неинвазивного оптического мониторинга патологии биологических тканей / Патент на изобретение РФ № 2633494 от 12.10.2017

45. Свенская Ю.И., Генина Э.А., Гуслякова О.И., Парахонский Б.В., Горин Д.А., Сухоруков Г.Б., Тучин В.В., Зайцев С.М., Башкатов А.Н., Тальникова Е.Е., Бучарская А.Б., Терентюк Г.С., Утц С.Р. Способ трансдермальной доставки биологически активных веществ / Патент на изобретение РФ № 2633928 от 19.10.2017

46. Тимошина П.А., Тучин В.В., Александров Д.А. Способ мониторинга нарушений микрогемодинамики в поджелудочной железе лабораторных крыс, Патент РФ RU (11) 2 648 037(13) C1. Дата начала отсчета срока действия патента: 29.03.2017, дата регистрации: 21.03.2018.

47. Урсзула Забарыло (U. Zabarylo, DE), Олаф Минет (O. Minet, DE), В. Г. Артюшенко, Д. К. Тучина, В. В. Тучин, Способ получения оптического изображения межфаланговых суставов и оптический сенсор для его реализации, Приоритет от 17.07.2018 Заявка на патент РФ 2018126357/14(041757) (положительное решение от 11.07.2019). Изобретение № 0002697594 от 15.08.2019.

48. Свенская Ю. И., Генина Э. А., Гуслякова О. И., Горин Д. А., Сухоруков Г. Б., Тучин В. В., Тальникова Е. Е., Утц С. Р. Способ фотохимиотерапии витилиго Патент РФ RU 2 698 871 C1, заявка: 14.08.2018, дата регистрации: 30.08.2019.

49. О.В. Семячкина-Глушковская, Ю.Г. Куртц, Э.У. Рафаилов, В.В. Тучин, Д.Е. Брагин, А.Б. Салмина, В.В. Салмин, А.А. Широков, Н.А. Наволокин, Е.Г. Борисова, М.В. Уланова, А.В. Моргун, А.А. Бодрова, А.П. Хороводов, А.А. Шушунова, А.Э. Шариф, М.М. Климова, А.В. Терсков, Дубровский А.А. Патент РФ 2 688 013 C1. Способ неинвазивного повышения проницаемости гематоэнцефалического барьера. Опубл. 17.05.2019. Бюл. №14.

50. Свенская Ю. И., Ленгерт Е. В., Савельева М. С. , Тучин В. В., Терентюк Г. С., Тальникова Е. Е., Бучарская А. Б., Васильева Н. В., Босак И. А., Выборнова И. В., Чилина Г. А., Крылова Е. В., Способ терапии поверхностных микозов, Заявка на патент на изобретение РФ №2020130545 от 17.09.20.

51. Якунин А. Н., Зарьков С. В., Аветисян Ю. А., Акчурин Г. Г., Акчурин Г. Г., Тучин В. В., Способ управляемой лазерной локальной гипертермии клеток или микроорганизмов, Патент на изобретение РФ: RU 2 731 813 C1, дата начала отсчета срока действия патента: 13.12.2019, опубликовано: 08.09.2020 Бюл. № 25.

52. В.В. Тучин, Д.К. Тучина, А.П. Савицкий, А.А. Богданов мл. Способ визуализации биологических тканей и/или органов. Патент на изобретение РФ: RU 2 735 463. Решение о выдаче патента на изобретение РФ по заявке № 2019118423 от 03.09.2020, дата начала отсчета срока действия патента: 14.06.2019.

53. Luís M. Oliveira, Valery V. Tuchin, Rui M. F. Henrique, Sónia I. D. De Carvalho, Isa C. S. Carneiro, Método De Criação De Janelas Óticas De Diagnóstico E Tratamento Em Materiais Biológicos Na Zona Do Ultravioleta, PT 115371 A, Data de pedido: 2019.03.14 Data de publicação do pedido: 2020.09.14. Луис М. К. Оливейра, Валерий В. Тучин, Руи М. Ф. Энрике, Сония И. Д. де Карвалью, Иса К. С. Карнейро, Метод создания оптических диагностических и терапевтических окон прозрачности в биологических материалах в ультрафиолетовой области, Патент на изобретение Португалии, PT 115371 A, дата заявки: 14.03.2019, дата публикации: 14.09.2020.

54. Тучин В. В., Башкатов А. Н., Тимошина П. А., Тучина Д. К., Генина Э. А., Кочубей В. И., Абдурашитов А. С., Семячкина-Глушковская О. В., Способ лазерной биомодуляции и повышения проницаемости гематоэнцефалического барьера, Решение о выдаче патента на изобретение РФ по заявке № 2019144502/14(086169) от 27.12.2019, дата начала отсчета срока действия патента: 27.12.2019. Патент на изобретение РФ: RU 2 740 123.

55. Тучин В. В., RU, Л. М. К. Оливейра, PT, Р. М. Ф. Хенрик, PT, С. И. Д. Де Карвалхо, PT, И. К. С. Карнейро, PT, Способ создания оптических окон прозрачности биологических тканей для диагностики и лечения в ультрафиолетовой области, Положительное решение по заявке № 2019144438/14(086061). Дата начала отсчета срока действия патента 27.12.2019. Патент на изобретение РФ: RU 2 745 614 C1

56. Tuchin V.V., Bashkatov A.N., Timoshina P.A., Tuchina D.K., Genina E.A., Kochubei V.I., Abdurashitov A.S., Semyachkina-Glushkovskaya O.V ., Method for laser biomodulation and increasing blood-brain barrier permeability, WO 2021/133233A1, PCT/RU2020/050395, 01.07.2021.

57. Свенская Ю.И., Ленгерт Е.В., Савельева М.С., Тучин В.В., Терентюк Г.С., Тальникова Е.Е., Бучарская А.Б., Васильева Н.В., Босак И.А., Выборнова И.В., Чилина Г.А., Крылова Е.В. Способ терапии поверхностных микозов, срок действия патента 2020. Патент на изобретение РФ: RU 2749481.

58. Тучин В.В., Селифонов А.А. Способ фототерапии хронического рецидивирующего афтозного стоматита, Патент на изобретение РФ № 2768593. Приоритет изобретения 04 февраля 2021 г. Срок действия исключительного права на изобретение истекает 04 февраля 2041 г. Дата государственной регистрации в Государственном реестре изобретений Российской Федерации 24 марта 2022 г.

59. Тучин В.В., Селифонов А.А. Способ оптического просветления слизистой полости рта, Патент на изобретение РФ № 2768584. Приоритет изобретения 12 июля 2021 г. Срок действия исключительного права на изобретение истекает 12 июля 2041 г. Дата государственной регистрации в Государственном реестре изобретений Российской Федерации 24 марта 2022 г.

60. Семячкина-Глушковская О.В. Курц Ю.Г., Широков А.А., Хороводов А.П., Терсков А.В., Дубровский А.И., Тучин В.В., Федосов И.В., Башкатов А.Н., Генина Э.А., Мамедова А.Т.К, Климова М.М., Блохина И.А., Лежнёв Н.Д., Способ стимуляции очистительной функции лимфатической системы мозга Патент на изобретение 2766527 C1, 15.03.2022. Заявка № 2020128025 от 24.08.2020.

61. Якунин А.Н., Акчурин Гар.Г., Акчурин Ге.Г., Аветисян Ю.А., Зарьков С.В., Абаньшин Н.П., Тучин В.В., Фотоэмиттерный матричный источник рентгеновского излучения. Патент РФ на изобретение №2774675 по заявке №2021 135 611/07(075125). Опубл. 21.06.2022.

Бюл. 18.

62.

Избранные специальные выпуски журналов

1. В.В.Тучин (ред.), Нелинейная динамика лазеров и оптических систем, *Изв. вузов. Прикладная нелинейная динамика*, т.3, №6,1995.
2. H. Podbielska, C.K. Hitzenberger, and V.V. Tuchin (Eds), Special Section on Interferometry in Biomedicine, *J. Biomed. Opt.* **3(**1), 1998, pp.5-79.
3. H. Podbielska, C.K. Hitzenberger, and V.V. Tuchin (Eds), Special Section on Interferometry in Biomedicine, *J. Biomed. Opt.* **3(**3), 1998, pp. 225-266.
4. V.V. Tuchin, H. Podbielska, and C.K. Hitzenberger (Eds), Special section on Coherence domain optical methods in biomedical science and clinics, *J. Biomed. Opt.* **4(**1), 1999, pp. 94-190.
5. W.R. Chen, V.V. Tuchin, Q. Luo, and S. Jacques, Special Issue on Biophotonics, *J. X-Ray Sci. and Technol*. **10**, 2002, pp. 139-243.
6. R.K. Wang, J.C. Hebden, and V.V. Tuchin (eds.), "Special issue on recent developments in biomedical optics," *Phys. Med. Biol*. **49**(7), pp.1083-1368, 2004.
7. V.V. Tuchin and N. Langhoff, eds., Special issue on Nanostructure glass technology for x-ray optics and biophotonics," *J. X-Ray Science and Technology*, Vol. 13, No 4, 2005.
8. Valery V. Tuchin, Ruikang K. Wang, and Alvin T. Yeh (Eds.), Special Section on Optical Clearing of Tissues and Cells, *Journal of Biomedical Optics*, vol. 13, March/April, 021101-1, 2008.
9. Tanev S., Wilson B.C., Tuchin V.V., and Matthews D. (Eds.), Special Issue on Biophotonics, *Adv. Opt. Technol.* 2008, doi: 10.1155/2008/134215, http://www.hindawi.com/journals/aot/csi.html
10. Башкатова А.Н., Приезжева А.В., Тучина В.В. (ред.), Спецвыпуск, посвященный использованию лазерных технологий в биофотонике и биомедицинских исследованиях / Квант. электрон. 2008. Т. 38, №6. С.503-611; №7. С. 634-654.
11. Valery V. Tuchin, Rebekah Drezek, Shuming Nie, and Vladimir P. Zharov (Guest Editors) Special section on Nanophotonics for Diagnostics, Protection and Treatment of Cancer and Inflammatory Diseases, *J. Biomed. Opt.*, March/April 2009, Vol. 14 (2), 020901; 021001-021017.
12. Башкатов А.Н., Любимов В.В., Тучин В.В. Специальный выпуск по оптике и спектроскопии в биомедицине// Оптика и спектроскопия, 2009, том 107, № 6 (ISSN: 0030-4034) – С. 883-884; 885-1000.
13. V. V. Tuchin, A. Tarnok, and V. P. Zharov (Guest Editors), Towards in vivo flow cytometry, *J. Biophoton.* 2, No. 8–9, 457–547 (2009) / DOI 10.1002/jbio.200910546.
14. Elina A. Genina, Kirill V. Larin, and Valery V. Tuchin (Guest Editors), Special Issue: Optical Technologies in the Study of Tissues and Biological Fluids, *Journal of Innovative Optical Health Sciences*, 2, No. 3, 2010 – 215-287
15. Valery V. Tuchin, Anna N. Yaroslavsky, Steven L. Jacques, and Rox Anderson (Guest Editors), Special issue on Biophotonics for Dermatology: Science and Applications, *J. Biophoton.* **3** (1-2), 9-10, 15-88 (2010).
16. Valery V. Tuchin, Martin Leahy, and Dan Zhu (Guest Editors), Special Issue: Optical Clearing for Biomedical Imaging in the Study of Tissues and Biological Fluids, *J. Innovative Optical Health Sciences*, 3, No. 3, 2010
17. А. Н. Башкатов, В. В. Любимов, В. В. Тучин (ред), Биомедицинская оптика и спектроскопия (Спецвыпуск), *Оптика и спектроскопия* 2010. Т. 109, № 2. С. 179-181.
18. Qingming Luo, Lihong V. Wang, and Valery V. Tuchin (Eds.) doi: 10.1088/1742-6596/277/1/011001The 9th International Conference on Photonics and Imaging in Biology and Medicine (PIBM 2010), 2–5 November 2010, Wuhan Science & Technology Convention and Exhibition Center, Wuhan, China, *Journal of Physics: Conference Series* **277**, 9 March 2011.
19. V.V. Tuchin, E.A. Genina, K.V. Larin (Eds.), Optical and laser technologies in biophotonics and medicine. Special section of *Journal of Innovative Optical Health Sciences*, 2011, vol. 4.
20. А.Н. Башкатов, М.А. Виленский, В.В. Тучин Локальный кластер г. Саратова, организованный в рамках 7-й рамочной программы Европейского консорциума «Фотоника для жизни» («PhotonicS4Life») Local Cluster Saratov Organized in Framework of the Seventh

Framework Programme of Commission of the European Communities «Photonics4Life», Известия Саратовского университета, Т. 11, Серия Физика, выпуск 2, С. 3-4, 2011

21. А.Н. Башкатов, А.В. Приезжев, В.В. Тучин, Оптические технологии в биофизике и медицине, *Квантовая электроника*, Т. 41, № 4-5, 2011.

22. V.V. Tuchin, A. Tárnok, and V.P. Zharov (eds.), "*Special Issue*: *In Vivo* Flow Cytometry," *Cytometry A*, vol. 79A, N10, 2011, pp. 737–883.

23. Башкатов А.Н., Приезжев А.В., Тучин В.В. Лазерные технологии в биофотонике // Квантовая электроника, Т. 42, № 5, С. 379-416, 2012.

24. Brian W. Pogue, Vadim Backman, Stanislav Emelianov, Christoph K. Hitzenberger, Peter So, and Valery Tuchin, Introduction to the BIOMED 2012 Feature Issue, *Biomedical Optics Express*, Vol. 3, No. 11, 2012, p. 2771.http://dx.doi.org/10.1364/BOE.3.002771

25. Dan Zhu, Valery V. Tuchin, Qingming Luo, Introduction: Special Issue on Advances in Biophotonics and Biomedical Optics — Part I, *J. Innovative Opt. Health Sci*. **6** (1), 1302001-1-2 (2013).

26. M. Fedorov and V.V. Tuchin, Medical Use of Lasers and Photonics in Russia I - Diagnostics, *Photon. Lasers Med*. 2(2), 81-157, 2013.

27. M. Fedorov and V.V. Tuchin, Medical Use of Lasers and Photonics in Russia II - Therapy, *Photon. Lasers Med*. 2(3), 161-240, 2013.

28. А.Н. Башкатов, В.В. Тучин, Биофотоника, *Оптика и спектроскопия*, Т. 115, №2, 2013.

29. Kirill V. Larin ; Valery V. Tuchin and Alex Vitkin (Eds.), "Special Section Guest Editorial: Optical Coherence Tomography and Interferometry: Advanced Engineering and Biomedical Applications", *J. Biomed. Opt.* **19**(2) (2014).

30. Ilko K. Ilev, Stephen A. Boppart, Stefan Andersson-Engels, Beop-Min Kim, Lev Perelman, Valery Tuchin (Eds.), Biophotonics, *IEEE J. Selected Topics in Quantum Electronics* **20**(2), 6800407-7100912 2014.

31. E.A. Genina, D. Zhu, and V.V. Tuchin, Special Issue on Optical Technologies in Biophysics and Medicine, *J. Innovative Opt. Health Sci*. **8** (3), 1502002 (2015).

32. D. Zhu, S. Zeng, V.V. Tuchin (Eds.), Special Issue on Biomedical Photonics, *Front. Optoelectron*. DOI 10.1007/s12200-015-0525-8, Higher Education Press and Springer-Verlag Berlin Heidelberg, 2015.

33. A.V. Priezzhev, H. Schneckenburger, V.V. Tuchin (Eds.), Special section on Laser Applications in Life Sciences, *J. Biomed. Opt.* 20(5), 051001-1, May 2015.

34. E. A. Genina, A. N. Bashkatov, and V. V. Tuchin (Eds.), "Special Issue: Optical Technologies for Biomedical Applications," *J. Biomed. Photon. & Eng.* 1(4), 208 (2016).

35. T. Novikova, I. Meglinski, J. C. Ramella-Roman, V. V. Tuchin, "Polarized Light for Biomedical Applications," *J. Biomed. Opt.* **21**(7), 071001 (2016), doi: 10.1117/1.JBO.21.7.071001. IF **2.859**.

36. D. Zhu, B. Choi, E. Genina, V. V. Tuchin, "Tissue and Blood Optical Clearing for Biomedical Applications," *J. Biomed. Opt.* **21**(8), 081201 (2016), doi: 10.1117/1.JBO.21.8.081201. IF **2.859**.

37. Башкатов А.Н., Генина Э.А., Приезжев А.В., Тучин В.В. Лазерная биофотоника// Квантовая электроника, Т. 46, № 6, С. 487-542, 2016; DOI: 10.1070/QEL00000. IF **0.897.**

38. Башкатов А.Н., Генина Э.А., Тучин В.В. Оптика и спектроскопия в биофизике и медицине // Оптика и спектроскопия, Т. 120, № 1, С. 3-5, 2016

39. Martin J. Leahy, Tia E. Keyes, Valery V. Tuchin, and Alexander V. Priezzhev, "Advanced Laser Technologies for Biophotonics," *J. Biomed. Opt.* **22**(9) (2017). IF **2.859**.

40. V. Tuchin, E. Borisova, M. Jędrzejewska-Szczerska, M. J. Leahy, F. S. Pavone, J. Popp, J. Pozo, V. "Special Issue on Biophotonics in Europe," *Frontiers of Optoelectronics***10** (2017).

41. M. Yu. Kirillin, J. Lademann, V. P. Zakharov, V. V. Tuchin, Years in Biophotonics: 70th Anniversary of Prof. A.V. Priezzhev, J of Biomedical Photonics & Eng 3(1) (2017).

42. E. I. Galanzha, V. P. Zharov, V. V. Tuchin, "Photonics meets Lymphatics," *J. Biophoton.* **10** (2018). IF **3.818**.

43. Mikhail Yu. Kirillin, Kirill V. Larin, Ilya V. Turchin, Valery V. Tuchin, “Topical Problems of Biophotonics: from Optical Bioimaging to Clinical Biophotonics,” *J. Biomed. Opt*. 23(9) (2018), doi: 10.1117/1.JBO.23.9.091401.

44. E. I. Galanzha, D. A. Gorin, V. V. Tuchin (Eds.), Years in Optoacoustics: 70-th Anniversary of Prof. Vladimir P. Zharov, *J of Biomedical Photonics & Eng* 5(1) (2019).

45. А.В.Приезжев, В.В.Тучин, А.Е. Луговцов, М.Ю. Кириллин, «Лазерная биофотоника», Квантовая электроника, 49, № 1 (2019). http://www.quantum-electron.ru

46. К.И. Зайцев, И.Н. Долганова, В.В. Тучин, Специальный выпуск секции «Биофотоника» The 22nd Annual Conference Saratov Fall Meeting 2018 (SFM'18): VI International Symposium "Optics and Biophotonics" and XXII International School for Junior Scientists and Students on Optics, Laser Physics & Biophotonics, *Оптика и спектроскопия*, 2019, 126 (5); https://journals.ioffe.ru/issues/1907.

47. К.И. Зайцев, И.Н. Долганова, В.В. Тучин, Специальный выпуск секции «Биофотоника» The 22nd Annual Conference Saratov Fall Meeting 2018 (SFM'18): VI International Symposium "Optics and Biophotonics" and XXII International School for Junior Scientists and Students on Optics, Laser Physics & Biophotonics, *Оптика и спектроскопия*, 2019, 126 (6); https://journals.ioffe.ru/issues/1912 .

48. А.В.Приезжев, А.Е.Луговцов, М.Ю.Кириллин, В.В.Тучин, Актуальные проблемы биофотоники, Квантовая электроника, **50**, № 1,1 (2020).

49. Н.В. Черномырдин, К.И. Зайцев, И.Н. Долганова, П.С. Тимашев и В.В. Тучин, Специальный выпуск секции «Биофотоника», *Оптика и спектроскопия*, 2020, 128 (6); https://journals.ioffe.ru/issues/1983

50. Н.В. Черномырдин, К.И. Зайцев, И.Н. Долганова, П.С. Тимашев и В.В. Тучин, Специальный выпуск секции «Биофотоника», *Оптика и спектроскопия*, 2020, 128 (7); https://journals.ioffe.ru/issues/1991

51. Kirill I. Zaytsev, Irina N. Dolganova, Valery V. Tuchin, Vladimir N. Kurlov (Eds.), Terahertz and Infrared Optics: Towards Biophotonics, *Optical Engineering* 2020, 59 (6); https://www.spiedigitallibrary.org/journals/optical-engineering/volume-59/issue-06?SSO=1

52. Irina N. Dolganova, Dmitry S. Ponomarev, Igor E. Spektor, Peter S. Timashev, Michael S. Shur, Valery V. Tuchin (Eds.), Advances in Terahertz and Infrared Optoelectronics, *Optical Engineering* 2021, 60 (8); https://www.spiedigitallibrary.org/journals/optical-engineering/call-for-papers

53. Kirill I. Zaytsev, Vladimir N. Kurlov, Maksim Skorobogatiy, Igor V. Reshetov, Valery V. Tuchin (Eds.), Advances in Terahertz Biomedical Science and Applications, *Journal of Biomedical Optics*, 2021; https://www.spiedigitallibrary.org/journals/journal-of-biomedical-optics/call-for-papers

54. Polina Dyachenko, Tingting Yu, Dan Zhu, and Valery V. Tuchin (Eds.), Special Issue on Advances in Biophotonics and Biomedical Optics, *J. Innov. Opt. Health Sci*. 14 (5), 2102003-1-2 (2021); DOI: 10.1142/S179354582102003X

55. Tuchin, V.V.; Szczerska, M. Special Issue "Advanced Materials for Biophotonics Applications" *Materials* **14**, (2021). https://www.mdpi.com/journal/materials/special_issues/advanced_biophotonics_applications

56. А. В. Приезжев, А. Е. Луговцов, М. Ю. Кириллин, В. В. Тучин, “Лазерная биофотоника”, *Квантовая электроника*, **51**:1 (2021), 1 [*Quantum Electron.* **51**(1), 1(2021)].

57. А. В. Приезжев, В. В. Тучин, А. Е. Луговцов, М. Ю. Кириллин, Специальный выпуск по лазерной биофотонике, Квантовая электроника, том 52 (1), 1 (2022); [Quantum Electronics, 2022, **52**:1, 1].

58. Walter Blondel, Dan Zhu, and Valery V. Tuchin (*Guest Editors),* Special Issue "Tissue Optics", MDPI Photonics, **8/9**, 2021/2022; https://www.mdpi.com/journal/photonics/special_issues/Tissue_Optics#published

59. P Xi, X Wei, J Qu, VV Tuchin (Eds.), Shedding Light on Biology and Healthcare, special issue on Biomedical Optics, *Light: Science & Applications* 11 (1), 1-3 (2022).

60. Biophysical Reviews 2022 Vol. 14 Issue 4 SI: 9 th Congress of the Russian Society for Photobiology Issue editors: A.A. Tsygankov, G.Y. Riznichenko, A.B. Rubin, A.E. Solovchenko, V.V.

Tuchin https://link.springer.com/journal/12551/volumes-and-issues/14-4 YouTube – https://youtu.be/nfoPoHgbiXA Twitter: @BiophysicalRev1 Biophysical Reviews - https://link.springer.com/journal/12551 IUPAB - http://iupab.org/ Twitter https://twitter.com/BiophysicalRev1/status/1585283337630818305?s=20&t=YhSKnqrLrDO07PKdOer7zQ

61. L.M. Oliveira, I. Meglinski, V.V. Tuchin, 1st Spring Biophotonics Conference in Porto, Journal of Biophotonics, e202380001(2022). https://onlinelibrary.wiley.com/doi/epdf/10.1002/jbio.202380001 **IF 3.207**, **Q1**

62. P. Dyachenko, T. Yu, D. Zhu, V.V. Tuchin, Introduction to the Special Issue on Advances in Biophotonics and Biomedical Optics: Part II, Journal of Innovative Optical Health Sciences 15 (1), 2202001(2022). DOI: 10.1142/S179354582102003X **IF 1.770, Q2**

63. Qingming Luo, Valery V. Tuchin, Lihong Wang (eds.), The special issue on celebrating the 15th anniversary of JIOHS and the 70th anniversary of HUST, Journal of Innovative Optical Health Sciences **16**(1), 2302001 (2023) DOI: 10.1142/S1793545823020017.

64. Jürgen Kurths, Thomas Penzel, Valery Tuchin, Teemu Myllylä, Ruikang Wang, Oxana Semyachkina-Glushkovskaya, Editorial on the focus point on breakthrough optics- and complex systems-based technologies of modulation of drainage and clearing functions of the brain, Eur. Phys. J. Plus (2023) 138:226; https://doi.org/10.1140/epjp/s13360-023-03777-w

Избранные труды конференций

1. V.V. Tuchin (Ed.), Optical Methods in Biomedical Diagnostics and Therapy, Proc. SPIE 1981, Bellingham, WA, USA, 1992.
2. B. Chance, D. Delpy, M. Ferrari, M. van Gemert, G. Mueller, and V.V. Tuchin, Quantification and localization using diffused photon in a highly scattering media, Proc. SPIE 2082, Bellingham, WA, USA,1993.
3. S. Avrillier, B. Chance, G.J. Mueller, A.V. Priezzhev, and V.V. Tuchin (Eds), Photon Transport in Highly Scattering Tissue, Proc. SPIE 2326, Bellingham, WA, USA, 1994.
4. V.V. Tuchin (Ed.), Cell and Biotissue Optics: Applications in Laser Diagnostics and Therapy, Proc. SPIE 2100, Bellingham, WA, USA, 1994.
5. V.V. Tuchin (Ed.), Coherence-Domain Methods in Biomedical Optics, SPIE, CIS Book of Selected Papers 2732, Bellingham, WA, USA, 1996.
6. V.V. Tuchin (Ed.), Nonlinear Dynamics and Structures in Biology and Medicine: Optical and laser Technologies, Proc. SPIE 3053, 1997.
7. V.V. Tuchin (Ed.), Nonlinear Dynamics of Laser and Optical Systems, SPIE CIS Book of Selected Papers 3177, Bellingham, WA, USA, 1997.
8. V.V. Tuchin, H. Podbielska, and B. Ovryn (Eds), Coherence-Domain Optical Methods in Biomedical Science and Clinical Applications, Proc. SPIE 2981, Bellingham, WA, USA, 1997.
9. V.V. Tuchin and J. Izatt (Eds), Coherence Domain Optical Methods in Biomedical Science and Clinical Applications II, Proc. SPIE 3251, Bellingham, WA, USA, 1998.
10. V.V. Tuchin and J. Izatt (Eds.), Coherence Domain Optical Methods in Biomedical Science and Clinical Applications III, Proc. SPIE 3598, Bellingham, WA, USA, 1999.
11. V.V. Tuchin, V.P. Ryabukho, and D.A. Zimnykov (Eds), Light Scattering Technologies for Mechanics, Biomedicine and Material Science, Proc. SPIE 3726, Bellingham, WA, USA, 1999.
12. V.V. Tuchin, D.A. Zimnykov, and A.B. Pravdin (Eds.), Optical Technologies in Biophysics and Medicine, Proc. SPIE 4001, Bellingham, WA, USA, 2000.
13. V.V. Tuchin, J. Izatt, and J. Fujimoto (Eds.), Coherence Domain Optical Methods in Biomedical Science and Clinical Applications IV, Proc. SPIE 3915, Bellingham, WA, USA, 2000.
14. V.V. Tuchin (Ed.), Controlling of Tissue Optical Properties: Applications in Clinical Study, Proc. SPIE 4162, Bellingham, WA, USA, 2000.
15. V.V. Tuchin (Ed.), Optical Technologies in Biophysics and Medicine II, Proc. SPIE 4241, Bellingham, WA, USA, 2001.
16. V.V. Tuchin, J. Izatt, and J. Fujimoto (Eds.), Coherence Domain Optical Methods in Biomedical Science and Clinical Applications V, Proc. SPIE 4251, Bellingham, WA, USA, 2001.

17. Valery Tuchin, Qingming Luo, and Sergey Ulyanov (Eds.), Tissue Structure and Function Imaging, Book of Selected Papes, Proc. SPIE 4427, Bellingham, WA, USA, 2001.

18. Qingming Luo, Britton Chance, and Valery Tuchin (Eds.), *Photonics and Imaging in Biology and Medicine*, Proc. SPIE **4536**, Bellingham, WA, USA, 2002.

19. V.V. Tuchin (Ed.), *Optical Technologies in Biophysics and Medicine III*, Proc. SPIE **4707**, Bellingham, WA, USA, 2002.

20. V.V. Tuchin, J.Izatt, and J. Fujimoto (Eds.), *Coherence Domain Optical Methods in Biomedical Science and Clinical Applications VI*, Proc. SPIE **4619**, Bellingham, WA, USA, 2002.

21. G. Mueller, V. V. Tuchin, G. G. Matvienko, C. Werner, V.Ya. Panchenko (Eds.), *Laser Applications in Medicine, Biology, and Environmental Science*, Proc. SPIE **5149**, Bellingham, WA, USA, 2003.

22. V.V. Tuchin, J.Izatt, and J. Fujimoto (Eds.), *Coherence Domain Optical Methods in Biomedical Science and Clinical Applications VII*, Proc. SPIE **4956**, Bellingham, WA, USA, 2003.

23. V.V. Tuchin (Ed.), *Optical Technologies in Biophysics and Medicine IV*, Proc. SPIE **5068**, Bellingham, WA, USA, 2003.

24. Q. Luo, V.V. Tuchin, M. Gu, L.V. Wang (eds.), *Photonics and Imaging in Biology and Medicine*, Proc. SPIE **5254**, Bellingham, WA, USA, 2003.

25. В.В. Тучин (ред.), Проблемы оптической физики. Саратов: Изд-во СГУ, 2005.

26. А.А. Красновский, В.В. Тучин, Фотобиологический съезд России, материалы съезда. Саратов, Ипполит, 2005.

27. V.V. Tuchin, J. Izatt, and J. Fujimoto (Eds.), *Coherence Domain Optical Methods and Optical Coherence Tomography in Biomedicine IX*, Proc. SPIE **5690**, Bellingham, WA, USA, 2005, 574 p.

28. V.V. Tuchin (Ed.), *Complex Dynamics and Fluctuations in Biomedical Photonics II*, Proc. SPIE **5696**, Bellingham, WA, USA, 2005.

29. V.V. Tuchin (Ed.), *Optical Technologies in Biophysics and Medicine V*, Proc. SPIE **5771**, Bellingham, WA, USA, 2005, 407 p.

30. Andrzej Kowalczyk, Adolf F. Fercher, Valery V. Tuchin, *Medical Imaging*, Proc. SPIE **5959,** Bellingham, WA, USA, 2005, 248 p.

31. V.V. Tuchin, J. Izatt, and J. Fujimoto (Eds.), *Coherence Domain Optical Methods and Optical Coherence Tomography in Biomedicine X*, Proc. SPIE **6079**, Bellingham, WA, USA, 2006, 540 p.

32. V.V. Tuchin (Ed.), *Complex Dynamics and Fluctuations in Biomedical Photonics II*, Proc. SPIE **6085**, Bellingham, WA, USA, 2006, 250 p.

33. V.V. Tuchin (Ed.), *Optical Technologies in Biophysics and Medicine VI*, Proc. SPIE **6163**, Bellingham, WA, USA, 2006, 500p.

34. Kexin Xu, Qingming Luo, Da Xing, Alexander V. Priezzhev, and Valery V. Tuchin (Eds.), *Photonics and Imaging in Biology and Medicine*, Part 1, Proc. SPIE **6047**, Bellingham, WA, USA, 2006, 510p, ISSN 1605-7422.

35. Kexin Xu, Qingming Luo, Da Xing, Alexander V. Priezzhev, and Valery V. Tuchin (Eds.), *Photonics and Imaging in Biology and Medicine*, Part 2, Proc. SPIE **6047**, Bellingham, WA, USA, 2006, 570p, ISSN 1605-7422.

36. В.В. Тучин (ред.), Проблемы оптической физики, Материалы 9-й Международной молодежн. научн. школы по оптике, лазерной физике и биофиз. Саратов: “ Сателлит ”, 2006.

37. В.В. Тучин (ред.), Проблемы оптической физики, Материалы 10-й Международной молодежн. научн. школы по оптике, лазерной физике и биофиз. Саратов: “Новый ветер”, 2007.

38. J. Fujimoto, J. Izatt, and V.V. Tuchin, (Eds.), *Coherence Domain Optical Methods and Optical Coherence Tomography in Biomedicine XI*, Proc. SPIE **6429**, Bellingham, WA, USA, 2007, 600 p.

39. V.V. Tuchin (Ed.), *Complex Dynamics and Fluctuations in Biomedical Photonics IV*, Proc. SPIE **6436**, Bellingham, WA, USA, 2007, 300 p.

40. V.V. Tuchin (Ed.), *Optical Technologies in Biophysics and Medicine VIII*, Proc. SPIE **6535**, Bellingham, WA, USA, 2007, 500p.

41. Q. Luo, L.V. Wang, V.V. Tuchin, and M. Gu (Eds.), *5th International Conference on Photonics and Imaging in Biology and Medicine*, Proc. SPIE **6534**, Bellingham, WA, USA, 2007, 700p.

42. В.В. Тучин (ред.), Проблемы оптической физики, Материалы 11-ой Международной молодежной научной школы по оптике, лазерной физике и биофизике. // Саратов. Из – во «Новый ветер», 2008.

43. V.V. Tuchin and L.V. Wang (Eds.) *Complex Dynamics and Fluctuations in Biomedical Photonics V*, *Proc. SPIE*, Vol.6855 (2008) // ISBN: 9780819470300

44. J. Popp, W. Drexler, V.V. Tuchin, D.L. Matthews (Eds.) *Biophotonics: Photonic Solutions for Better Health Care*, Proc. SPIE, Vol.6991 (2008) // ISBN: 9780819471895

45. J. Izatt, J. Fujimoto, and V.V. Tuchin, (Eds.), *Coherence Domain Optical Methods and Optical Coherence Tomography in Biomedicine XII*, Proc. SPIE **6847**, Bellingham, WA, USA, 2008.

46. Q. Luo, L. Wang, V.V. Tuchin (Eds), Advances in Biomedical Photonics and Imaging, World Scientific: New Jersey, London, Singapore et al., 2008, 376 p., ISBN-13 978-981-283-233-7, ISBN-10 981-283-233-5.

47. Qingming Luo, Lihong V. Wang, Valery V. Tuchin (Eds.), *Seventh International Conference on Photonics and Imaging in Biology and Medicine*, Proc SPIE, **7280**, Bellingham, WA, USA, 2009.

48. James G. Fujimoto, Joseph A. Izatt, Valery V. Tuchin (Eds.), *Optical Coherence Tomography and Coherence Domain Optical Methods in Biomedicine XIII*, Proc SPIE, **7168**, Bellingham, WA, USA, 2009.

49. Valery V. Tuchin, Lihong V. Wang, Donald D. Duncan (Eds.), *Dynamics and Fluctuations in Biomedical Photonics VI*, Proc SPIE, **7176**, Bellingham, WA, USA, 2009.

50. Qingming Luo, Lihong V. Wang, Valery V. Tuchin, Pengcheng Li, Ling Fu (Eds.), *Eighth International Conference on Photonics and Imaging in Biology and Medicine* (PIBM 2009), Proc SPIE, **7519**, Bellingham, WA, USA, 2009.

51. В.В. Тучин (ред.), Проблемы оптической физики и биофотоники, Материалы 12-ой Международной молодежной научной школы по оптике, лазерной физике и биофотонике // Саратов. Изд-во «Новый ветер». 2009.-234с.

52. В.В. Тучин, Г.В. Симоненко (ред.), Проблемы оптической физики и биофотоники, Материалы 13-ой Международной молодежной научной школы по оптике, лазерной физике и биофотонике // Саратов. Изд-во «Новый ветер». 2009.-224с.

53. Joseph A. Izatt, James G. Fujimoto, and Valery V. Tuchin (Chairs/Eds.), *Optical Coherence Tomography and Coherence Domain Optical Methods in Biomedicine XIV*, Conference **7554,** Monday-Wednesday 25-27 January 2010, Proc SPIE, **7554**, Bellingham, WA, USA, 2010.

54. Valery V. Tuchin, Donald D. Duncan, Kirill V. Larin (Chairs/Eds.), *Dynamics and Fluctuations in Biomedical Photonics VII*, Conference **7563**, Saturday-Sunday 23-24 January 2010, Proc SPIE, **7563**, Bellingham, WA, USA, 2010.

55. Valery V. Tuchin, Elina A. Genina (Eds.), *Saratov Fall Meeting 2009: International School for Junior Scientists and Students on Optics, Laser Physics, and Biophotonics*, Proc SPIE **7547**, Bellingham, WA, USA, 2010.

56. J. Popp, W. Drexler, V.V. Tuchin, D.L. Matthews (Chairs/Eds.) *Biophotonics: Photonic Solutions for Better Health Care*, Proc SPIE **7715**, Bellingham, WA, USA, 2010.

57. Тучин В.В., Симоненко Г.В. (ред.), Проблемы оптической физики и биофотоники: Материалы 14-й Международной молодежной научной школы по оптике, лазерной физике и биофотонике. Саратов, Изд-во "Новый ветер", С. 9-13, 2010 (ISBN 978-5-98116-125-4).

58. V.V. Tuchin, E.A. Genina (eds.), *Saratov Fall Meeting 2010: Optical Technologies in Biophysics and Medicine XII*, Proc. SPIE on CD-ROM **7999**, 2011.

59. James G. Fujimoto, Joseph A. Izatt, and Valery V. Tuchin (Editors), *Optical Coherence Tomography and Coherence Domain Optical Methods in Biomedicine XV*, Proc SPIE, **7889**, Bellingham, WA, USA, 2011.

60. Valery V. Tuchin, Donald D. Duncan, Kirill V. Larin, Martin J. Leahy, Ruikang K. Wang (Eds.), *Dynamics and Fluctuations in Biomedical Photonics VIII*, Proc SPIE, **7898**, Bellingham, WA, USA, 2011.

61. Тучин В.В., Симоненко Г.В. (ред.), Проблемы оптической физики и биофотоники: Материалы 15-й Международной молодежной научной школы по оптике, лазерной физике и биофотонике. Саратов, Изд-во "Новый ветер", 2012.

62. V.V. Tuchin, E.A. Genina, I.V. Meglinski (eds.), *Saratov Fall Meeting 2011: Optical Technologies in Biophysics and Medicine XIII*, Proc. SPIE on CD-ROM **8337**, 2012. http://spie.org/x648.html?product_id=918635&origin_id=x4325&start_volume_number=8300&end_volume_number=8399&start_at=21

63. Joseph A. Izatt, James G. Fujimoto, and Valery V. Tuchin (Editors), *Optical Coherence Tomography and Coherence Domain Optical Methods in Biomedicine XV*, Proc SPIE, **8213**, Bellingham, WA, USA, 2012. http://spie.org/x648.html?product_id=897162

64. Valery V. Tuchin, Donald D. Duncan**,** Kirill V. Larin, Martin J. Leahy, Ruikang K. Wang (Eds.), *Dynamics and Fluctuations in Biomedical Photonics VIII*, Proc SPIE, **8222**, Bellingham, WA, USA, 2012.

65. Qingming Luo, Lihong V. Wang, Valery V. Tuchin (eds.) Tenth International Conference on Photonics and Imaging in Biology and Medicine (PIBM 2011), Proc SPIE **8329**, Bellingham, WA, USA, March 2012.

66. J.Popp, W. Drexler, V.V. Tuchin, and D.L. Matthews (Eds.), *Biophotonics: Photonic Solutions for Better Health Care*, Proc. SPIE **8427**, Bellingham, WA, USA, 2012.

67. Проблемы оптической физики и биофотоники. SFM-2012 / под ред. В. В. Тучина, Г. В. Симоненко. – Саратов : Изд - во «Новый ветер», 2012. – 152 с. ISBN 978-5-98116-150-6

68. V.V. Tuchin, E.A. Genina, V.L. Derbov, I.V. Meglinski (eds.), Saratov Fall Meeting 2012: Optical Technologies in Biophysics and Medicine XIV; and Laser Physics and Photonics XIV, Proc. SPIE **8699**, 869901 (February 26, 2013); doi: 10.1117/12.2022365.

69. James G. Fujimoto, Joseph A. Izatt, and Valery V. Tuchin (eds.), *Optical Coherence Tomography and Coherence Domain Optical Methods in Biomedicine XVI*, SPIE, **8571**, Photonics West 2013, Bellingham, WA, USA, 2013.

70. Valery V. Tuchin, Donald D. Duncan, Kirill V. Larin, Martin J. Leahy, Ruikang K. Wang (eds.), *Dynamics and Fluctuations in Biomedical Photonics VIII*, SPIE, **8580**, Photonics West 2013, Bellingham, WA, USA, 2013.

71. Elina A. Genina; Vladimir L. Derbov; Igor Meglinski; Valery V. Tuchin (eds.), Saratov Fall Meeting 2013: Optical Technologies in Biophysics and Medicine XV; and Laser Physics and Photonics XV, *Proc. SPIE* **9031**, Saratov, Russian Federation, 24-28 September 2013, 2014.

72. Valery V. Tuchin; Kirill V. Larin; Martin J. Leahy; Ruikang K. Wang (eds.), Dynamics and Fluctuations in Biomedical Photonics XI, *Proc. SPIE* **8942**. Photonics West 2014, The Moscone Center, San Francisco, California, USA, 1-2 February 2014, 2014.

73. Joseph A. Izatt; James G. Fujimoto; Valery V. Tuchin (eds.), Optical Coherence Tomography and Coherence Domain Optical Methods in Biomedicine XVIII, *Proc. SPIE* **8934**. Photonics West 2014, The Moscone Center, San Francisco, California, USA, 3-5 February 2014, 2014.

74. Jürgen Popp, Valery V. Tuchin, Dennis L. Matthews, Francesco S. Pavone (eds.), *Biophotonics: Photonic Solutions for Better Health Care*, *Proc. SPIE* **9129**, SPIE Photonics Europe Symposium, 14 - 17 April 2014.

75. V.V. Tuchin, K.V. Larin, M.J. Leahy, R.K. Wang (eds), *Dynamics and Fluctuations in Biomedical Photonics XII*, SPIE Photonics West, BiOS, San Francisco, CA, USA, 9322, February, 2015.

76. Joseph A. Izatt; James G. Fujimoto; Valery V. Tuchin (eds.), Optical Coherence Tomography and Coherence Domain Optical Methods in Biomedicine XIX, *Proc. SPIE* **9312**, SPIE Photonics West, BiOS, San Francisco, CA, USA, February, 2015.

77. EA Genina, VL Derbov, KV Larin, DE Postnov, VV Tuchin, Optical Technologies in Biophysics and Medicine XVI; Laser Physics and Photonics XVI; and Computational Biophysics, *Proc. SPIE* **9448** (2015).

78. E. A. Genina, V. L. Derbov, D. E. Postnov, A. B. Pravdin, K. V. Larin, I. V. Meglinski, and V. V. Tuchin (Eds.), *Saratov Fall Meeting 2015: Third International Symposium on Optics and Biophotonics; and Seventh Finnish-Russian Photonics and Laser Symposium (PALS), Progress in Biomedical Optics and Imaging*, vol. 17, No. 47, Proc. SPIE **9917** (2016), ISSN: 1605-7422; ISSN: 2410-9045 (electronic); ISBN: 9781510602267

79. V.V. Tuchin, K.V. Larin, M.J. Leahy, R.K. Wang (eds), *Dynamics and Fluctuations in Biomedical Photonics XIII*, SPIE Photonics West, BiOS, San Francisco, CA, USA, 9707, February 13, 2016.
http://proceedings.spiedigitallibrary.org/volume.aspx?conferenceid=3624&volumeid=17575

80. Joseph A. Izatt, James G. Fujimoto, Valery V. Tuchin (Eds.), Optical Coherence Tomography and Coherence Domain Optical Methods in Biomedicine XX, Progress in Biomedical Optics and Imaging, vol. 17, No. 9, Proc. SPIE **9697**; ISSN: 1605-7422, ISSN: 2410-9045 (electronic), ISBN: 9781628419313, 2016.

81. Jürgen Popp, Valery V. Tuchin, Dennis L. Matthews, Francesco S. Pavone (eds.), *Biophotonics: Photonic Solutions for Better Health Care*, Proc. SPIE **9887**, SPIE Photonics Europe Symposium, 3 - 7 April 2016.

82. Q. Luo. L. Wang, V. Tuchin (eds.) 14th International Conference on Photonics and Imaging in Biology and Medicine (PIBM), OSA 2017.

83. V.V. Tuchin, K.V. Larin, M. Leahy, R. Wang (eds.), Proceedings SPIE 10063, Dynamics and Fluctuations in Biomedical Photonics XIV; 1006301 (2017) https://doi.org/10.1117/12.2275996, SPIE BiOS, 2017, San Francisco, California, United States

84. Joseph A. Izatt; James G. Fujimoto; Valery V. Tuchin (eds.), Optical Coherence Tomography and Coherence Domain Optical Methods in Biomedicine XXI, Proc. SPIE. 10053, 2017.

85. V.V. Tuchin, K.V. Larin, M. Leahy, R. Wang (eds.), Proceedings SPIE 10493, Dynamics and Fluctuations in Biomedical Photonics XV; 1049301(2018) https://doi.org/10.1117/12.2322675, SPIE BiOS, 2018, San Francisco, California, United States

86. Joseph A. Izatt; James G. Fujimoto; Valery V. Tuchin (eds.), Optical Coherence Tomography and Coherence Domain Optical Methods in Biomedicine XXII, Proc. SPIE. 10483, 2018

87. Jürgen Popp; Valery V. Tuchin; Francesco Saverio Pavone (eds), Biophotonics: Photonic Solutions for Better Health Care VI, Proceedings SPIE **10685**: (2018).

88. E.A. Genina, I. Yu. Goryacheva, VV Tuchin (eds.), Proceedings SPIE 10716, Saratov Fall Meeting 2017: Optical Technologies in Biophysics and Medicine XIX; **10716-01** (2018) https://doi.org/10.1117/12.2325786, Saratov Fall Meeting 2017, Saratov, Russian Federation

89. E.A. Genina, VV Tuchin (eds.), Proceedings SPIE **11065**, Saratov Fall Meeting 2018: Optical Technologies in Biophysics and Medicine XX, 2019.

90. V.V. Tuchin, M. Leahy, R. Wang (eds.), Dynamics and Fluctuations in Biomedical Photonics XVI Proc. SPIE **10877** (2019).

91. Valery V. Tuchin, Martin J. Leahy, Ruikang K. Wang (eds.), Dynamics and Fluctuations in Biomedical Photonics XVII, Proc. of SPIE Vol. **11239**, 1123901 (4 March 2020); doi: 10.1117/12.2569915 https://spie.org/Publications/Proceedings/Volume/11239?SSO=1 ISBN: 9781510632417, 68 p.

92. V.V. Tuchin, W. C. P. M. Blondel, Z. Zalevsky (eds.), Tissue Optics and Photonics, Proc. of SPIE Vol. **11363** (2020); **DOI:**10.1117/12.2571825; https://spie.org/Publications/Proceedings/Volume/11363 ISBN: 9781510634985, 324 p.

93. Valery V. Tuchin, Elina A. Genina (eds.), Proc. SPIE 11457, Saratov Fall Meeting 2019: Optical and Nano-Technologies for Biology and Medicine (9 April 2020); https://spie.org/Publications/Proceedings/Volume/11457?SSO=1

94. Проблемы оптической физики и биофотоники. SFM2019: материалы 7-го Международного симпозиума и 23-й Международной молодежной научной школы Saratov Fall Meeting–2019/ под ред. Г. В. Симоненко, В. В. Тучина. Саратов: Изд-во Сарат. ун-та, 2020. 106 с. : ил. ISBN 978-5-292-04638-7 (print); ISBN 978-5-292-04639-4 (online). https://www.sgu.ru/structure/fiz/problemy-opticheskoy-fiziki-i-biofotoniki.

95. Dyachenko Polina A., Zhu Dan, Tuchin Valery V. (Eds.), Chinese-Russian Workshop on Biophotonics and Biomedical Optics-2020, Saratov, 29-30 September 2020. Book of Abstracts, ISBN: 978-5-6045836-2-3, "Saratovskii istochnik", Saratov, 2020, 97 p. https://www.elibrary.ru/item.asp?id=44723968

96. V.V. Tuchin, M.J. Leahy, R.K. Wang (Eds.), Dynamics and Fluctuations in Biomedical Photonics XVII, SPIE BIOSm, 6-12 March 2021, SPIE Proc. **11641** (2021); doi: 10.1117/12.2596615; https://www.spiedigitallibrary.org/conference-proceedings-of-SPIE/11641.toc

97. V.V. Tuchin, E.A. Genina (Eds.), Saratov Fall Meeting 2020: Optical and Nanotechnologies for Biology and Medicine, Proc. SPIE 11845 (2021), 404 p. (1 Vol); http://www.proceedings.com/spie11845.html

98. V.V. Tuchin, M.J. Leahy, R.K. Wang (Eds.), Dynamics and Fluctuations in Biomedical Photonics XIX, SPIE Photonics West, 22 January – 28 February 2022, Proc. SPIE 11959 (2022); https://doi.org/10.1117/12.2616509; file:///G:/00-00-00-00-reprints/22-SPIE-Proc-1195901.pdf ISSN: 1605-7422, ISSN: 2410-9045 (electronic), ISBN: 9781510647893, ISBN: 9781510647909 (electronic), p. 56

99. P.A. Dyachenko, Q. Luo, V.S. Bagnato, S. Chidangil, H. Abrahamse, V.V. Tuchin (Eds.), BRICS Workshop on Biophotonics -2021. Book of Abstracts, ISBN 978-5-6048070-2-6; "Saratovskii istochnik," Saratov, 2022; https://cyberleninka.ru/journal/n/brics-workshop-on-biophotonics-2021-book-of-abstracts?i=1101545

100. VV Tuchin, WC Blondel, Z Zalevsky (Eds.), Tissue Optics and Photonics II, Proc. of SPIE Vol, 12147 (2022). https://spie.org/Publications/Proceedings/Volume/12147?&origin_id=x4323&end_year=2024&start_year=1963&num_results=20&SSO=1 **ISBN:**9781510651708 **Pages:**174 (1 Vol)

1.

Избранные учебно-методические работы

1. Специальный оптический практикум. Математическое моделирование в физической и биомедицинской оптике / Под ред. В.В. Тучина, Изд. СГУ, 1996, 100 с.

2. Л.И. Голубенцева, В.П. Рябухо, Специальный оптический практикум. Голография и голографические измерения / Под ред. В.В.Тучина, Изд. СГУ, 1996, 120 с.

3. Д.А. Зимняков, С.С. Ульянов, Специальный оптический практикум. Статистика динамических спекл-полей / Под ред. В.В. Тучина, Изд. СГУ, 1998, 87 с.

4. К.В. Березин, Г.В. Симоненко, Поляризационная оптика жидких кристаллов / Под ред. В.В. Тучина, Изд. СГУ, 1998, 55 с.

5. Д.А. Зимняков, В.И. Кочубей, Ю.П. Синичкин, Специальный оптический практикум. Компьютеризированные спектральные комплексы для биофизических исследований / Под ред. В.В. Тучина, Изд. СГУ, 1999, 56 с.

6. Г.В. Симоненко, Практикум по методам вычислительной физики для оптиков и биофизиков / Под ред. В.В. Тучина, Изд. СГУ, 2001, 56 с.

7. V.V. Tuchin, *Tissue Optics: Diagnostics and Dosimetry*, Moscow, 1995, 55 p.

8. V.V. Tuchin, *Coherence - domain methods in biomedical optics*, SPIE Short Course Notes (SC 39), San - Jose, SPIE, 1996, 119 p.

9. V.V. Tuchin, *Coherence-domain methods in biomedical optics*, Short Course Notes (SC07), SPIE, Bellingham (USA), 1997, 195 p.

10. К.В. Березин, Практикум по оптике. Основы фотометрии / Под ред. В.В. Тучина, Изд.Колледж 1997, 16 с.

11. V.V. Tuchin, *Coherence - Domain Methods in Biomedical Optics,* SPIE Short Course Notes (SC21), San-Jose, 1998, 185 p.

12. V.V. Tuchin, *Coherence - Domain Methods in Biomedical Optics,* SPIE Short Course Notes (SC33), San-Jose, 1999, 162 p.

13. V.V. Tuchin, *Coherence and Light Scattering Methods and Instruments for Medical Diagnosis* (SC032), San Jose, 178 p., 2000.

14. V.V. Tuchin, *Tissue optics: light scattering methods and instruments for medical diagnosis*, SPIE Tutorial Texts in Optical Engineering, Vol. TT38, 2000, 353 p.

15. V.V. Tuchin, *Structure of Tissues, and Optical Properties Control* (SC235), Amsterdam, 169 p., 2000.

16. V.V. Tuchin, *Coherence and Light Scattering Methods and Instruments for Medical Diagnosis* (SC032), San Jose, 175 p., 2001.

17. V.V. Tuchin, Short Course Notes, "Coherence and Light Scattering Methods and Instruments for Medical Diagnosis," SPIE, Bellingham. 2002, 170 p.

18. V.V. Tuchin, Short Course Notes, "Tissue Optics and Spectroscopy," OSA, Washington DC, 2002, 94 p.

19. В.П. Рябухо, В.В. Тучин. Лазерный интерференционный измеритель ретинальной остроты зрения (Лазерный ретинометр). Специальный Биофизический Практикум: Учебно-методическое руководство к выполнению лабораторной работы. Кафедра оптики СГУ. 2002. - 30 с.

20. V.V. Tuchin, *Coherence and Light Scattering Methods and Instruments for Medical Diagnosis*, Short Course Notes (SC032), San Jose, SPIE, Bellingham. 2003, 130 p.

21. V.V. Tuchin, *Tissue Optics and Spectroscopy*, Short Course Notes (SC191), OSA, Washington DC, 2003, 100 p.

22. Ю.П. Синичкин, Л.Е. Долотов, Д.А. Зимняков, В.В. Тучин, С.Р. Утц, Специальный практикум по оптической биофизике. *In vivo* отражательная и флуоресцентная спектроскопия кожи человека, учебное пособие с грифом Минвуза РФ, Изд-во Саратовск. ун-та, Саратов, 2003, с. 158.

23. Г.В. Симоненко, И.Л. Максимова, С.А. Татаркова, Практикум по компьютерному моделированию в оптике и биофизике, учебное пособие под ред. Проф. Тучина В.В., Изд-во Гос УНЦ «Колледж», Саратов, 2003, с. 61.

24. Башкатов А.Н., Генина Э.А., Тучин В.В., Исследование оптических и диффузионных явлений в биотканях при воздействии осмотически активных иммерсионных жидкостей, *Общий биофизический практикум*, http://optics.sgu.ru/info/edu/index.pht?s=biopract, 2005.

25. В.В. Тучин (ред), Оптическая биомедицинская диагностика, том 1, учебное пособие с грифом Минобразования РФ, Физматлит, Москва, 2007.

26. В.В. Тучин (ред), Оптическая биомедицинская диагностика, том 2, учебное пособие с грифом Минобразования РФ, Физматлит, Москва, 2007.

27. А.Л. Кальянов, В.В. Лычагов, О.А. Перепелицына, В.П. Рябухо, И.В. Федосов и др., Когерентно-оптические методы в измерительной технике и биофотонике. Под редакцией проф. В.П. Рябухо и В.В.Тучина / Учеб. пособие. - Саратов: “Сателлит”, 2009.- 128 с. ISBN 978-5-904395-06-3.

28. Симоненко Г.В., Тучин В.В. Динамика иммерсионного подавления рассеяния света в различных биотканях (учебно - исследовательская работа)// Электронное учебное пособие http://optics.sgu.ru/~simonenko.

29. Симоненко Г.В., Тучин В.В. Оптические свойства различных биотканей (учебно - исследовательская работа) // Электронное учебное пособие http://optics.sgu.ru/~simonenko

30. Краткий курс лекций: V.V. Tuchin, *Coherence-Domain and Polarization Methods in Biophotonics*,” 22nd Annual Meeting of the IEEE Photonics Society, Ela Quality Resort, Belek-Antalya, Turkey, IEEE, University of Cambridge, 2009, 50 p.

31. Башкатов А.Н., Генина Э.А., Долотов Л.Е., Правдин А.Б., Тучин В.В. Общий биофизический практикум. Саратов: Изд-во Саратовск. ун-та, 2011.

32. V.V. Tuchin, *Dictionary of Biomedical Optics and Biophotonics*, SPIE Press, Bellingham, WA, 2012, 576 p.

http://www.abebooks.com/servlet/BookDetailsPL?bi=7444965930&searchurl=an%3Dv%2Btuchin%2Bvalery

33. Г.В. Симоненко, В.В. Тучин Оптический практикум по физике живых систем // Саратов, "Новый ветер". 2014, 62 с. ISBN 978-5-98116-178-0 [Электронный ресурс] http://elibrary.sgu.ru/uch_lit/940.pdf

34. Valery V. Tuchin, Tissue Optics: Student Lab in the Kitchen with First Aid Kit and Smartphone, Teaching Methodologies and Paradigms in Field Guide to Optics Education, SPIE Press, Bellingham, 2022, pp. 29-32.

Избранные доклады (с 2019)

1. Malinova L., Lazareva E., Dolotovskaya P., Furman N., Puchnyan N., Portnov S., Tarakanchikova Y., Denisova T., Tuchin V., The kinetics of platelet-derived microparticles in patients with ST segment elevation acute myocardial infarction under pharmacological suppression of platelet

aggregation, 63rd Annual Meeting of the Society of Thrombosis and Haemostasis Research, GTH-2019, 27 февраля-02 марта 2019, Берлин, Германия. Hamostaseologie 2019; 39(S 01): S1-S92, SY02 Arterial Thrombosis, Georg Thieme Verlag KG Stuttgart · New York; DOI: 10.1055/s-0039-1680089. IF-1.345.

2. L. Malinova, E. Lazareva, P. Dolotovskaya, N. Furman, N. Puchinyan, T. Denisova, V. Tuchin, Platelet derived microparticles in patients with st segment elevation myocardial infarction: kinetics, platelet production and temperature effects, Acute Cardiovascular Care 2019, 02-04 March 2019, Malaga, Spain.

3. Polina A. Timoshina, Alla B. Bucharskaya, Nikita A. Navolokin, Valery V. Tuchin, "Speckle-contrast imaging of pathological tissue microhemodynamics at optical clearing," Proc. SPIE 10877, Dynamics and Fluctuations in Biomedical Photonics XVI, 108770Z (1 March 2019); doi: 10.1117/12.2508794; BiOS, Photonics West, San Francisco, 2–7 February 2019.

4. Anindya Majumdar, Ivan Fedosov, Arkady Abdurashitov, Oleg Grishin, Olga Sindeeva, Kosar Khaksari, Valery V. Tuchin, Sean J. Kirkpatrick, Ellipticity imaging for visualizing and quantifying long and short range correlations in laser speckle data I: Theory and simulations, paper #10877-2, Dynamics and Fluctuations in Biomedical Photonics XVI, BiOS, Photonics West, San Francisco, 2–7 February 2019.

5. Anindya Majumdar, Ivan Fedosov, Arkady Abdurashitov, Oleg Grishin, Olga Sindeeva, Kosar Khaksari, Valery V. Tuchin, Sean J. Kirkpatrick, Ellipticity imaging for visualizing and quantifying long and short range correlations in laser speckle data I: Phantom and animal studies, paper #10877-3, Dynamics and Fluctuations in Biomedical Photonics XVI, BiOS, Photonics West, San Francisco, 2–7 February 2019.

6. Daria K. Tuchina, Alexey Bashkatov, Alla B. Bucharskaya, Valery V. Tuchin, Exogenous agent diffusivity in tissues as a biomarker of diabetes mellitus pathology, paper #10877-31, Dynamics and Fluctuations in Biomedical Photonics XVI, BiOS, Photonics West, San Francisco, 2–7 February 2019.

7. Irina Yu. K. Yanina, Elena A. Sagaidachnaya, Irina V. Vidyasheva, Vyacheslav I. Kochubey, Valery V. Tuchin, Phototoxicity and luminescence of the upoconversion nanoparticles embedded in the cells, paper #10877-32, Dynamics and Fluctuations in Biomedical Photonics XVI, BiOS, Photonics West, San Francisco, 2–7 February 2019.

8. Marina Shvachkina, Dmitry Yakovlev, Daria K. Tuchina, Alexander Pravdin, Valery V. Tuchin, Modeling of fluorescence signal kinetics in multilayer tissues under optical clearing, paper # 10877-38, Dynamics and Fluctuations in Biomedical Photonics XVI, BiOS, Photonics West, San Francisco, 2–7 February 2019.

9. Anton Y. Sdobnov, Maxim Darvin, Johannes Schleusener, Jurgen Lademann,Valery V. Tuchin, Study of changes in skin hydrogen bound water types under opticalclearing using confocal Raman microscopy, paper # 10877-40, Dynamics and Fluctuations in Biomedical Photonics XVI, BiOS, Photonics West, San Francisco, 2–7 February 2019.

10. Nikolay S. Balbekin, Yaroslav V. Grachev, Kirill I. Zaytsev, Maksim S. Kulya, Nikolay V. Petrov, Olga A. Smolyanskaya, Valery V. Tuchin, Terahertz pulse time-domain holography for phase imaging of bioobjects and bio-like phantoms, paper # 10887-15, Quantitative Phase Imaging V, BiOS, Photonics West, San Francisco, 2–7 February 2019.

11. Alexey Selifonov, Olga G. Shapoval, Sergey Yuvchenko, Dmitriy A. Zimnyakov, Anatoliy N. Mikerov, Valeriy V. Tuchin, Oral cavity antimicrobial UVC/far red photonics mediated by Methylene Blue, paper # 10863-50, Photonic Diagnosis, Monitoring, Prevention, and Treatment of Infections and Inflammatory, BiOS, Photonics West, San Francisco, 2–7 February 2019.

12. Olga A. Smolyanskaya, Quentin Cassar, Anton A. Simonov, Yaroslav V. Grachev, Jean-Paul Guillet, Patrick Mounaix, Yana G. Toporova, Dmitry V. Korolev, Valery V. Tuchin, Features of the terahertz spectra of drug-laden magnetic nanoparticles, paper # 10892-19, Colloidal Nanoparticles for Biomedical Applications XIV, BiOS, Photonics West, San Francisco, 2–7 February 2019.

13. Nikita V. Chernomyrdin, Irina N. Dolganova, Sheyh-Islyam T. Beshplav, N.N. Burdenko, Gennady A. Komandin, Igor V. Reshetov, Aleksandr A. Potapov, Valery V. Tuchin, Kirill I. Zaytsev, Differentiation of healthy and malignant brain tissues using terahertz pulsed spectroscopy

and optical coherence tomography, paper # 10864-5, Clinical and Translational Neurophotonics, BiOS, Photonics West, San Francisco, 2–7 February 2019.

14. Oxana V. Semyachkina-Glushkovskaya, Arkady Abdurashitov, Alexander Shirokov, Anton Namykin, Ivan Fedosov, Nikita Navolokin, Natalia Shushunova, Maria Klimova, Aysel Mamedova, Maria Ulanova, Anastasiya Bodrova, Aleksandr Khorovodov, Andrey Terskov, Valery Tuchin, Edik Rafailov, Connective bridge between the lymphatic vascular system and bloodbrain barrier, paper # 10865-30, Neural Imaging and Sensing, BiOS, Photonics West, San Francisco, 2–7 February 2019.

15. Irina Yu K. Yanina, Nikita Navolokin, Irina Vidyasheva, Irina Goryacheva, Vyacheslav Kochubey, Valery Tuchin, Functionalized upconversion luminescent nanoparticles for theranostics, 11074-43, Diffuse Optical Spectroscopy and Imaging, The European Conferences on Biomedical Optics (ECBO), 23–27 June 2019, ICM — Internationales Congress Center, Munich, Germany.

16. Guzel R. Musina, Nikita V. Chernomyrdin, Arsenii A. Gavdush, Irina N. Dolganova, Kirill M. Malakhov, Natalya A. Naumova, Valery V. Tuchin, Kirill I. Zaytsev, Terahertz spectroscopy of malignant brain gliomas and the perspectives of optical clearing in neurosurgery, [11075-42], Novel Biophotonics Techniques and Applications, The European Conferences on Biomedical Optics (ECBO), 23–27 June 2019, ICM — Internationales Congress Center, Munich, Germany.

17. Irina Yanina, Viktor Nikolaev, Vyacheslav Kochubey, Valery Tuchin, Yury Kistenev, Phase transition monitoring in adipose tissue by multiphoton microscope, [11076-61] Advances in Microscopic Imaging, The European Conferences on Biomedical Optics (ECBO), 23–27 June 2019, ICM — Internationales Congress Center, Munich, Germany.

18. Polina V. Aleksandrova, Irina N. Dolganova, Nikita Chernomyrdin, Guzel Musina, Sheykh-Islyam Beshplav, Aleksandra Kosyrkova, Igor Reshetov, Valery Tuchin, Kirill Zaytsev, Optical coherence tomography of human brain glioma as a promising tool for intraoperative diagnostics in neurosurgery, [11078-80], Optical Coherence Imaging Techniques and Imaging in Scattering Media, The European Conferences on Biomedical Optics (ECBO), 23–27 June 2019, ICM — Internationales Congress Center, Munich, Germany.

19. Anna G. Gyulkhandanyan, Anna A. Zakoyana, Aram G. Gyulkhandanyan, Marina V. Parkhots, Boris M. Dzhagarov, Ekaterina N. Lazareva, Valery V. Tuchin, Grigor V. Gyulkhandanyana, Ceruloplasmin: a potential carrier of photosensitizers for photodynamic therapy of tumors, [11079-24], Translation of Lasers and Biophotonics Technologies and Procedures: Toward the Clinic, The European Conferences on Biomedical Optics (ECBO), 23–27 June 2019, ICM — Internationales Congress Center, Munich, Germany.

20. V.D. Genin, E.A. Genina, A.B. Bucharskaya, N.G. Khlebtsov, V.V. Tuchin, A.N. Bashkatov, International Symposium, Research of tumors tissue heating kinetics by radiation of the near IR spectral range at the introduction of gold nanoparticles in the tissue (C01), FLAMN-19 - Fundamentals of Laser Assisted Micro- & Nanotechnologies, June 30 - July 4, 2019, St. Petersburg, Russia.

21. I.Yu. Yanina, N.A. Navolokin, E.A. Sagaydachnaya, I.V. Vidyacheva, V.I. Kochubey, V.V. Tuchin, Determination of level of tissue denaturation at upconversion particles (C01), FLAMN-19 - Fundamentals of Laser Assisted Micro- & Nanotechnologies, June 30 - July 4, 2019, St. Petersburg, Russia.

22. S.F.Salem, V.V. Tuchin, Theoretical study of iron oxide nanoparticles for laser photothermal therapy, International Symposium, FLAMN-19 - Fundamentals of Laser Assisted Micro- & Nanotechnologies, June 30 - July 4, 2019, St. Petersburg, Russia.

23. A. A. Selifonov, V. V. Tuchin, Kinetics of optical properties on selected laser lines of human periodontal gingiva when exposed to glycerol-propylene glycol mixture, International Symposium, FLAMN-19 - Fundamentals of Laser Assisted Micro- & Nanotechnologies, June 30 - July 4, 2019, St. Petersburg, Russia.

24. Nikita V. Chernomyrdin, Anna S. Kucheryavenko, Gleb M. Katyba, Pavel A. Karalkin, Vladimir N. Kurlov, Valery E. Karasik, Valery V. Tuchin, Maksim Skorobogatiy, Kirill I. Zaytsev, Sub-wavelength-resolution imaging of soft biological tissues: a review of modern methods and original results, Optical Sensing, Imaging, and Photon Counting: From X-Rays to THz, paper # 11088-17, Optical Sensing, Imaging, and Photon Counting: From X-Rays to THz, SPIE Optics and Photonics, San Diego, California, United States, 11 - 15 August 2019.

25. I. Dolganova, G. Katyba, I. Shikunova, I. Reshetov, M. Schcedrina, K. Zaytsev, V. Tuchin, V. Kurlov, Sapphire shaped crystals as a prospcective material platform for novel modalities of medical diagnosis and therapy, International Conference, Advanced Laser Technologies, Prague, Czech Republic, 15-20 September 2019.

26. V. Kochubey, A. Pravdin, Y. Konukhova, A. Skaptsov, E. Sagaidachnaya, I. Yanina, N. Kazadaeva, A. Doronkina, V. Tuchin, E. Genina, Luminescent temperature control of up-conversion nanoparticles, International Conference, Advanced Laser Technologies, Prague, Czech Republic, 15-20 September 2019.

27. I. Yanina, V. Nikolaev, O. Zakharova, A. Borisov, V. Kochubey, Y. Kistenev, V. Tuchin, Determination of changes in the ratio of water / fat in adipose tissue when heated using terahertz technology, International Conference, Advanced Laser Technologies, Prague, Czech Republic, 15-20 September 2019.

28. A.A. Selifonov, V.V. Tuchin, Optical clearing of human gingival mucosa: in vitro studies, International Conference, Advanced Laser Technologies, Prague, Czech Republic, 15-20 September 2019.

29. E. Tuchina, V. Tuchin, Photothermal effect of gold nanoparticles in various modifications and infrared (808 nm) laser radiation on S. aureus, International Conference, Advanced Laser Technologies, Prague, Czech Republic, 15-20 September 2019.

30. Sergey Zaytsev, Walter Blondel, Marine Amouroux, Elina A. Genina, Valery V. Tuchin, The study of skin dehydration and compression impact on a change in spectroscopic signal, Saratov Fall Meeting SFM'19 – Symposium, September 23 - 27, 2019

31. I.Yu. Yanina,V.V. Nikolaev, A.V.Borisov, A. I. Knyazkova,E.E. Buyko,V.I. Kochubey,V.V. Ivanov,Yu.V. Kistenev,V.V. Tuchin, The study of spectral changes in THz range in normal and pathologal skin in vitro and in vivo depending on the used dehydration methods, Saratov Fall Meeting SFM'19 – Symposium, September 23 - 27, 2019 (интернет-доклад).

32. Е.Н. Лазарева, Л.И. Малинова, В.В. Тучин, Рефрактометрические свойства микрочастиц тромбоцитарного происхождения у больных с острым инфарктом миокарда с подъемом сегмента ST на фоне фармакологической супрессии агрегационной активности тромбоцитов, VI Съезд биохимиков России, Секция «Молекулярный имиджинг», 1 по 6 октября 2019, Сочи.

33. Alex A. Selifonov, Tatyana M. Zagorovskaya, Olga V. Syrova, Olga Y. Aleshkina, Valeriy V. Tuchin, Optical properties of human gums after photodynamic therapy with methylene blue (in vitro), Photonic Diagnosis, Monitoring, Prevention, and Treatment of Infections and Inflammatory Diseases 2020, Conference 11223, BiOS, Photonics West, San Francisco, 3–4 February 2020.

34. Irina Y. Yanina, Maxim E. Darvin, Valery V. Tuchin, Jürgen Lademann, Monitoring of effects induced by topically applied optical clearing agents to skin ex vivo and in vivo, Dynamics and Fluctuations in Biomedical Photonics XVII, Conference 11239, BiOS, Photonics West, San Francisco, 1–4 February 2020. https://www.spiedigitallibrary.org/conference-proceedings-of-spie/11239/112390W/Confocal-Raman-microspectroscopy-for-evaluation-of-optical-clearing-efficiency-of/10.1117/12.2550352.short

35. Alexandra O. Georgieva, Alexander P. Khurchak, Vladimir A. Kokljushkin, Sergei E. Putilin, Anton N. Tsypkin, Boris V. Popov, Olga A. Smolyanskaya, Nikolay V. Petrov, Valery V. Tuchin, 3D printed diffraction phase microscope with low-coherent radiation for quantitative phase imaging, Quantitative Phase Imaging VI, Conference 11249, BiOS, Photonics West, San Francisco, 1–4 February 2020.

36. Alexey Selifonov, Valery Tuchin, Determination of the diffusion coefficient of rivanol in dentin of a human tooth in vitro, Biomedical Spectroscopy, Microscopy, and Imaging, Conference 11359, SPIE Photonics Europe, 30 March–1 April 2020 (poster).

37. Daria K. Tuchina, Olga A. Sindeeva, Alexander P. Savitsky, Alexei A. Bogdanov, Valery V. Tuchin, In vivo application of magnetic resonance imaging contrast agents for tissue optical clearing, Tissue Optics and Photonics, Conference 11363, SPIE Photonics Europe, 30 March–2 April 2020 (poster). https://www.spiedigitallibrary.org/conference-proceedings-of-spie/11363/1136327/In-vivo-application-of-magnetic-resonance-imaging-contrast-agents-for/10.1117/12.2557365.short

38. Ekaterina N. Lazareva, Maxim M. Nazarov, Alla B. Bucharskaya, Valery V. Tuchin, Alexander P. Shkurinov, THz properties of rat skin and extracts at exposure to hyperosmotic solutions, Tissue Optics and Photonics, Conference 11363, SPIE Photonics Europe, 30 March–2 April 2020 (poster).

39. Aram G. Gyulkhandanyan, Anna A. Zakoyan, Lusine V. Mkrtchyan, Anna G. Gyulkhandanyan, Ekaterina N. Lazareva, Valery V. Tuchin, Grigor V. Gyulkhandanyan, Binding of ceruloplasmin with cationic porphyrins: pH dependence and salt composition of the medium, Tissue Optics and Photonics, Conference 11363, SPIE Photonics Europe, 30 March–2 April 2020 (poster).

40. Polina A. Dyachenko (Timoshina), Alla B. Bucharskaya, Valery V. Tuchin, Aleksandr P. Shkurinov, Study tissue microhemodynamics in area of tumor at optical clearing by speckle-contrast imaging, Tissue Optics and Photonics, Conference 11363, SPIE Photonics Europe, 30 March–2 April 2020 (poster).

41. Sergey M. Zaytsev, Walter Blondel, Marine Amouroux, Gregoire Khairallah, Valery V. Tuchin, Elina A. Genina, Optical spectroscopy as an effective tool for skin cancer features analysis: applicability investigation, Tissue Optics and Photonics, Conference 11363, SPIE Photonics Europe, 30 March–2 April 2020 (poster). https://www.spiedigitallibrary.org/conference-proceedings-of-spie/11363/113631Z/Optical-spectroscopy-as-an-effective-tool-for-skin-cancer-features/10.1117/12.2555776.short

42. Irina Yu Y. Yanina, Viktor Nikolaev, Olga A. Zakharova, Alexey Borisov, Konstantin N. Dvoretski, Kirill V. Berezin, Vyacheslav I. Kochubey, Yuri V. Kistenev, Valery V. Tuchin, Measurement and modeling of adipose tissue and its components with temperature changes in the terahertz range, Terahertz Photonics, Conference 11348, SPIE Photonics Europe, 31 March–2 April 2020 (poster).

43. Walter C.P. M. Blondel, Victor Colas, Christian Daul, Sergey M. Zaytsev, Elina A. Genina, Gregoire Khairallah, Prisca Rakotomanga, Valery V. Tuchin, Dan Zhu, Marine Amouroux, Experimental modelling of skin optical properties combining optical clearing and spatially resolved multimodal spectroscopy (diffuse reflectance and autofluorescence), 6th annual Sino-French "Photonics and Optoelectronics" PHOTONET International Research Network Workshop SPIE Photonics Europe, 2 April 2020 (poster).

44. Bogdanov AAJr, Kazachkina NI, Meerovich IG, Zherdeva VG, Tuchina DK, Solovyev IG, Tuchin VV, Savitsky AP. Magnetic resonance imaging enables tracking of tissue optical clearing effects during red fluorescent marker protein imaging, LB1010. Proceedings of World Molecular Imaging Congress Virtual 2020 (October 7-9, 2020).

45. S. Zarkov, Yu. Avetisyan, A. Yakunin, G. Akchurin, V. Tuchin Temperature kinetics of asymmetric nanostars under pulsed laser irradiation, ICLO, St. Petersburg, November 2-6, 2020; TuR9-p44, Tuesday, November 03, 2020.

46. A.B. Bucharskaya, G.N. Maslyakova, M.L. Chekhonatskaya, N.B. Zakharova, G.S. Terentyuk, N.A. Navolokin, B.N. Khlebtsov, N.G. Khlebtsov,V.D. Genin, A.N. Bashkatov, E.A. Genina, V.V. Tuchin, The evaluation of tumor vascularization as a prognostic factor of plasmonic phothothermal therapy efficiency, ICLO, St. Petersburg, November 2-6, 2020; TuSYC-p16, Tuesday, November 03, 2020.

47. T Ermatov, RE Noskov, JS Skibina, VV Tuchin, DA Gorin, Optical properties of functionalized microstructured fibers and their sensing capabilities, Conference on Advanced Laser Technologies (ALT)», ADVANCED LASER TECHNOLOGIES ALT`21 Book of abstracts, the 28th International Conference, ISBN: 978-5-6043721-9-7; 2021eLIBRARY ID: 46576532

48. M. Samani, M.A. Ansari, E. Genina, M. Grishaeva, S. Zaytsev, V. Tuchin, Investigation of Changes in Light Reflectance and Polarization through the Animal Skin Samples using Optical Clearing Method, The 28th Iranian Conference on Optics and Photonics (ICOP 2022), 12-14 February 2022, Shahid Chamrana University, Ahwaz, Iran.

49. S. Zaytsev, V. Tuchin, E. Genina, W. Blondel and M. Amouroux, Development of multimodal approaches for improvement of in vivo optical clearing effect in human skin, 16th International conference on Laser Applications in Life Sciences, 1st -2nd April 2022, Nancy (France), Abstracts Book, p. 84 (2022). https://lals.sciencesconf.org/

50. D.K. Tuchina, N.A. Shushunova, and V.V. Tuchin, Permeability of mice skin for propylene glycol, 16th International conference on Laser Applications in Life Sciences, 1st -2nd April 2022, Nancy (France), Abstracts Book, p. 85 (2022). https://lals.sciencesconf.org/

51. I. Yu. Yanina, N.A. Navolokin, Polukonova, Mylnikov, V.I. Kochubey, and V.V. Tuchin,
Effects of upconversion particles on human kidney carcinoma cells A498, 16th International conference on Laser Applications in Life Sciences, 1st -2nd April 2022, Nancy (France), Abstracts Book, p. 137 (2022). https://lals.sciencesconf.org/

52. M.R. Konnikova, O.P. Cherkasova, E.S. Dizer, A.A. Man'kova, I.S. Vasilievskii, A.A. Butylin, Yu.V. Kistenev, V.V. Tuchin, A.P. Shkurinov, The use of THz metamaterials for studying the adsorption of the SARS-CoV-2 virus spike protein by vibrational spectroscopy, # WeR9-p17, 7th International A. M. Prokhorov Symposium on Biophotonics, 20th International Conference Laser Optics ICLO 2022 St. Petersburg, Russia, 20—24 June, 2022.

53. Yu.I. Svenskaya, E.E. Talnikova, E.A. Genina, D.A. Gorin, G.B. Sukhorukov, V.V. Tuchin, Image-guided drug delivery to hair follicles in topical PUVA Therapy, # ThSYB-35, 7th International A. M. Prokhorov Symposium on Biophotonics, 20th International Conference Laser Optics ICLO 2022 St. Petersburg, Russia, 20—24 June, 2022.

54. E. N. Lazareva, N.A. Shushunova, V.V. Tuchin, E.A.Genina, Refractive properties of healthy and pathologically altered tissues of the kidney and breast, measured at selected laser wavelengths in the visible and near-IR ranges, # FT-S02-6, International Symposium Fundamentals of Laser Assisted Micro– & Nanotechnologies (FLAMN-22), June 27 - 30, 2022, St. Petersburg, Russia; https://flamn.itmo.ru/ .

55. G. Gyulkhandanyan, V. Tuchin, G. Shmavonyan, Nanocomposites of graphene-porphyrins for solar cells, The 29th International Conference on Advanced Laser Technologies, September 11-16, 2022, Moscow, Russia https://altconference.org/program-22

56. L. Mkrtchyan, A. Zakoyan, T. Seferyan, G. Gyulkhandanyan, V. Tuchin Photobleaching of cationic porphyrins and their complexes with folic acid in presence of L-histidine and D-mannitol as quenchers, The 29th International Conference on Advanced Laser Technologies, September 11-16, 2022, Moscow, Russia https://altconference.org/program-22

57. I.A. Serebryakova, Yu. I. Surkov, E. N. Lazareva, Y. K. Kuzinova, O. M. Konopatskova, V.V. Tuchin, E.A.Genina, Development of a multimodal approach to the diagnosis of human skin cancer in vivo, The 29th International Conference on Advanced Laser Technologies, September 11-16, 2022, Moscow, Russia https://altconference.org/program-22

58. A.Zakoyan, L. Mkrtchyan, N. Sarkisyan, R. Grigoryan, V. Tuchin, G. Gyulkhandanyan, Nanocomplexes for nanomaterial-based and enzyme-assisted photodynamic therapy, The 29th International Conference on Advanced Laser Technologies, September 11-16, 2022, Moscow, Russia https://altconference.org/program-22

59. В.В. Тучин, И.Г. Меерович, Д.К. Тучина, В.В. Жердева, Н.И. Казачкина, И.Д. Соловьев, А.П. Савицкий, А.А. Богданов мл., Новые перспективы мультимодальной *in vivo* визуализации опухолей с использованием МРТ и флуоресцентного анализа при оптическом просветлении, VII Съезд биохимиков, молекулярных биологов и физиологов России, Симпозиум «Молекулярный имиджинг», Сочи, 3-7 октября 2022. http://www.rusbiochem.org/vii_syezd_biohimikov_rossii_.html

60. В.В. Жердева, Н.И. Казачкина, М.Г. Меерович, Д.К. Тучина, И.Д. Соловьев, А.П. Савицкий, В.В. Тучин А.А. Богданов мл., Изучение воздействия оптически просветляющих композиций методами флуоресцентного и магнитно-резонансного имиджинга на ткани опухоли in vivo, VII Съезд биохимиков, молекулярных биологов и физиологов России, Симпозиум «Молекулярный имиджинг», Сочи, 3-7 октября 2022. http://www.rusbiochem.org/vii_syezd_biohimikov_rossii_.html

Избранные приглашенные и пленарные лекции и доклады

1. Valery Tuchin, Skin Optical Properties Control: Clear Vision through Skin, International Conference Biophotonics in Dermatology and Cardiology, Riga, Hotel Konventa Sēta, 30-31 March 2012.

2. N. Khlebtsov, B. Khlebtsov, E. Panfilova, V. Khanadeev, V. Bogatyrev, L. Dykman, G. Terentyuk, I. Maksimova, E.Tuchina, V. Tuchin, *J-2:Il04* Metallic And Composite Functionalized Plasmonic Nanoparticles for Biomedical Applications, 4th International Conference on Smart Materials, Structures and Systems of CIMTEC 2012, Montecatini Terme, Italy, 10-14 June, 2012.

3. Valery V. Tuchin, Laser-tissue interaction at tissue optical clearing: enhanced imaging and therapy, Laser Optics, St.-Petersburg, 25-29 June, 2012.

4. Vilensky M.A., Semyachkina-Glushkovskaya O.V., Alexandrov D.A., Tuchin V.V., Timoshina P.A., Kuleshov V. A, Semyachkin-Glushkovsky I.A. Full field speckle-correlation technique: Application for microcirculation imaging in neuro and abdominal surgery "Workshop on Optical Microscopy in Life Sciences", Wuhan, China, June 26-28, 2012 http://bmp.hust.edu.cn/workshop/index.html

5. Valery Tuchin, Laser-induced nanoparticle delivery and impact on cells and tissues, Advanced Laser Technologies, ALT-12, Thun, Switzerland, 2-6 September 2012. Book of Abstracts, p.

6. Valery V. Tuchin, Laser nanotechnologies for diagnosis and therapy of cancer and infections, Russian-Chinese Workshop on Biophotonics and Biomedical Optics, September 26-28, 2012, Saratov, Russia. Book of Abstracts, p. 15.

7. Valery V. Tuchin, Nanoparticle mediated cancer cell optical detection and photothermal killing, Aegean International Conference: Tumor Microenvironment and Cellular Stress: Signaling, Metabolism, Imaging and Therapeutic Targets, Minoa Palace Hotel in Platanias, Chania, Crete, Greece, 4-9-Oct. 2012. Book of Abstracts, p. 113.

8. Г.Г.Акчурин, Г.Г.Акчурин мл., А.Н.Башкатов, Д.Н.Браташов, Э.А. Генина, Д.А.Горин, Л.Е.Долотов, И.Л.Максимова, С.А.Портнов, Г.С., Терентюк, Б.Н. Хлебцов, Н.Г.Хлебцов, В.В.Тучин, Управляемый ИК лазерный фототермолиз раковых клеток, клеток крови и кожи на основе технологии золотых плазмонно-резонансных наночастиц, наночастиц диоксида титана и фотосенсибилизаторов, Международный научный семинар PHLPA-2012 (Россия - Китай) "Физика лазерных процессов и применения," 15-17 октября 2012, тезисы, С. 13.

9. Valery V. Tuchin, Tissue optical clearing: enhanced imaging and therapy, PA12-Photonics Asia, 8553 (PA103) - Optics in Health Care and Biomedical Optics V, 4-7 November 2012, Beijing, China.

10. Valery V. Tuchin, Tissue enhanced optical imaging and monitoring of drug delivery, Asia Communications and Photonics Conference, ACP2012, 7-10 November 2012, Guangzhou, China. Abstract (ID: 1455082).

11. Башкатов А.Н., Генина Э.А., Терентюк Г.С., Бучарская А.Б., Маслякова Г.Н., Тучина Д.К., Терентюк А.Г., Чумаков Д.А., Генин В.Д., Хлебцов Б.Н., Тучин В.В., Хлебцов Н.Г. Лазерно-индуцированные фототермический и фотодинамический эффекты на перевитых опухолях при использовании Au-SiO2-HP нанокомпозитов // X Всероссийская молодежная Самарская конкурс-конференция научных работ по оптике и лазерной физике, Самара, Россия, 7-11 ноября 2012.

12. Федосов И.В., Хлебцов Б.Н., Тучин В.В. Световая микроскопия в исследовании динамики коллоидных наночастиц, Ежегодная Всероссийская школа-семинар, Методы компьютерной диагностики в биологии и медицине – 2012, Саратов, 7-9 ноября 2012 года

13. V.V. Tuchin, Fundamentals and advances of tissue optical clearing, IV International Symposium, Topical Problems of Biophotonics – 2013, 21-27 July 2013, Nizhny Novgorod, Russia, Program and Abstracts, ИПФ РАН, Н. Новгород, p. 4.

14. Tuchin V.V. Advances in optical clearing, self-clearing and glucose impact on tissueues // BioPIC 2013, Chair: Martin Leahy, National University of Ireland, Galway, Castleknock Hotel & Country Club, Castleknock, Dublin, Ireland, 25-27 March, 2013.

15. Valery V. Tuchin, Tissue optical clearing: pathology, mechanics, and light impact, 11th International Conference on Photonics and Imaging in Biology and Medicine, May 26-29, 2013, Wuhan, China. Book of Abstracts, p.34.

16. Semyachkina-Glushkovskaya OV, Lychagov VV, Bibikova OA, Semyachkin-Glushkovskiy IA, Sindeev SS, Zinchenko EM, Kassim MM, Al-Fatle F, Al Hassani L, Ulanova M., and Tuchin VV. The experimental study of stress-related pathological changes in cerebral venous blood flow in newborn rats assessed by DOCT, 11th International Conference on Photonics and Imaging in Biology and Medicine, May 26-29, 2013, Wuhan, China. Book of Abstracts, p.47.

17. A.N. Pavlov, A.I. Nazimov, V.V. Lychagov, O.V. Semyachkina-Glushkovskaya, *Bibikova OA*, Sindeev SS, and Tuchin VV., Wavelet-based analysis of cerebrovascular dynamics in newborn rats with

intracranial hemorrhages, 11th International Conference on Photonics and Imaging in Biology and Medicine, May 26-29, 2013, Wuhan, China. Book of Abstracts, p.48.

18. V.V. Tuchin, Skin optics, enhanced imaging and drug delivery, International Photodynamic Medicine Forum, Shanghai, China, 1-3 June, 2013.

19. V.V. Tuchin, Nanobiophotonics: Skin Protection, Diagnostics and Therapy. 1st International Conference "Biophotonics – Riga 2013," 26-31 August, Programme, Abstract, Riga, Latvia, 2013. P. 16 .

20. V. Tuchin, Advances in tissue and blood optical clearing for laser diagnostics and treatment, The 21th annual International Conference on Advanced Laser Technologies ALT'13 Budva, Montenegro, September 16–20, 2013.

21. Elina A. Genina, Alexey N. Bashkatov, Leonid E. Dolotov, Vyacheslav I. Kochubey, Georgy S. Terentyuk, Boris N. Khlebtsov, Nikolai G. Khlebtsov, and Valery V. Tuchin, Enhaced OCT imaging using molecular and nanoparticle delivery, 6th Finnish-Russian Photonics and Laser Symposium PALS'13, 3-5 October 2013.

22. Georgy G. Akchurin, Garif G. Akchurin, Alexander N. Yakunin, Yuri A. Avetisyan, Vitaly A. Khanadeev, Boris N. Khlebtsov, Helen Rendall, Kishan Dholakia, Valery V. Tuchin, Features of 3d temperature fields of colloidal solution of composite nanoparticles exposed to a sequence of femtosecond laser pulses and CW resonant radiation, 6th Finnish-Russian Photonics and Laser Symposium PALS'13, 3-5 October 2013.

23. Dan Zhu and Valeriy V. Tuchin, Enhanced biosensing based on chemical or mechanical optical clearing, Asia Communications and Photonics Conference, Beijing China, November 12-15, 2013, ISBN: 978-1-55752-989-3, Scattering Techniques (AF4I) (invited).

24. Valery Tuchin, "Application of photocatalytic, plasmonic, and upcoversing nanoparticles in vitro and in vivo for biomedical imaging and therapy," BioNanoElectronics in iCT, Biomedicine and Development, Nov 5-6, 2013, FinGerDevNet Program, Biocenter Oulu Doctoral program, Infotech Oulu (invited).

25. Valery V. Tuchin, Tissue optics and innovations in tissue optical clearing, 12th International Conference on Photonics and Imaging in Biology and Medicine, June 14-17, 2014, Wuhan, China (Plenary).

26. Oxana Semyachkina-Glushkovskaya, Vladislav V. Lychagov, Alexander L. Kalyanov, Olga Bibikova, Sergey Sindeev, Zhang Yang,; Qin Huang, Dan Zhu, Qingming Luo, Valery V. Tuchin, Optical imaging of intracranial hemorrhage in newborns: modern strategies in diagnostics and direction for future research, *Biophotonics: Photonic Solutions for Better Health Care,* Chairs: J.Popp, V.V. Tuchin, D.L. Matthews, F.S. Pavone, Photonics Europe, 14 - 17 April 2014, paper # [9129-25] (invited).

27. Valery V. Tuchin,Tissue optics and in vivo optical clearing technologies, The 13th Conference of the International Society of Optics within Life Sciences, 10-12 June 2014, Ningbo, China (invited).

28. Valery V. Tuchin,Tissue optics and skin optical clearing, Workshop on Biophotonics, June 18-19, 2014, Fujian Normal University, Fuzhou, China (invited).

29. Valery V. Tuchin,Skin optical clearing, June 20-21, 2014, Med-X Research Institute, School of Biomedical Engineering, Shanghai Jiao Tong University, China (invited).

30. Valery V. Tuchin, Light propagation in optically cleared tissue and blood, LALS-2014, June 29th to July 2nd in Ulm, Germany (invited).

31. Valery V. Tuchin,Tissue optical clearing in a wide wavelength range from visible to terahertz, Sino-German Workshop on Biomedical Photonics-2014, July 1-4, 2014, Ulm, Germany (invited).

32. Valery Tuchin, Noninvasive Optical Glucose Sensing, Corporate Research and Technology (CRT) of Carl Zeiss AG, July 3-4, Jena, Germany, 2014 (invited).

33. Valery Tuchin, Controlling of tissue properties in THz-range at application of hyperosmotic agents, COST MB1205 Workshop "Optical methods and devices for cancer diagnostics" Riga 25-27 August, 2014(invited).

34. Valery Tuchin, Diagnostics at Optical Clearing, 8th International Conference „Advanced Optical Materials and Devices", Riga 25-27 August, 2014, (invited).

35. V. Tuchin, Tissue imaging and therapeutic effects at laser-induced nanoparticle luminescence, heating, and ROS-generation, ALT-14, Cassis, France, 6-10 October, 2014 (invited).

36. Valeriy Tuchin, Enhanced Sensing in Biophotonics: From Visible to Terahertz Range, ACP, Biophotonics and Optical Sensors. Asia Communications and Photonics Conference (ACP2014), 11-14 November, 2014, Shanghai, China (invited).

37. O.V. Semyachkina-Glushkovskaya, V. Lichagov, O. A. Bibikova, S. S. Sindeev, E. Zinchenko, A. Gekaluyk, M. V. Ulanova, Z. Yang, Q. Huang, P. Li, D. Zhu, V.V. Tuchin, Q. Luo, Stroke in newborns: important but poor understood problem, new experimental model, priority for optical diagnostics, mechanisms, *Neurophotonics,* 9 - 10 February 2015, SPIE 9305, SPIE Photonics West The Moscone Center, San Francisco, California, USA, 2015 (invited).

38. Tuchin, Valery V., "Tissue optical clearing: New prospects in optical imaging and therapy," *IEEE International Conference BioPhotonics,* Florence, Italy, 20-22 May 2015 (invited).

39. Valery Tuchin and Yu. Sinichkin, Fundamentals and curriculum for Master course in biophotonics*, International Congress on Biophotonics*, 18 – 20 May 2015, Florence, Italy (invited).

40. A. V. Bykov, T. Hautala, M. Kinnunen, A. P. Popov, S. Karhula, S. Saarakkala, M. T. Nieminen, V. V. Tuchin, Optical clearing of articular cartilage: a comparison of clearing agents, European Conferences on Biomedical Optics (ECBO), June 21 – 25, Munich, Germany. Subconference – Novel Biophotonics Techniques and Applications III [9540-11] (invited).

41. V.V. Tuchin, Blood perfusion and RBC velocity monitoring and control at tissue optical clearing, The 43rd Annual Meeting of the International Society on Oxygen Transport to Tissue "ISOTT-2015», 11-16.07. 2015, Wuhan, China (invited).

42. V.V. Tuchin, Nano-optical probes for enhanced imaging, sensing and therapy, V International Symposium: Topical Problems of Biophotonics - 2015, 20-24 July, Nizhny Novgorod, Russia, 2015 (invited).

43. Genina E.A., Bashkatov A.N., Volkova E.V., Yanina I.Yu., Navolokin N.A., Dolotov L.E., Timoshina P.A., Genin V.D., Terentyuk G.S., Svenskaya Yu.I., Bucharskaya A.B., Kochubey V.I., Popov A.P., Gorin D.A., Sukhorukov G.B., Tuchin V.V. Optical monitoring of transcutaneous particle delivery using fractional laser microablation, V International Symposium: Topical Problems of Biophotonics - 2015, 20-24 July, Nizhny Novgorod, Russia, 2015 (invited)

44. V.V. Tuchin, Intensified laser diagnostics and therapy at tissue optical clearing, 23th Annual International Conference on Advanced Laser Technologies (ALT'15), Faro, Portugal, September 7-11, 2015 (invited).

45. V.V. Tuchin, FiDiPro Project on Biophotonics: Finland-Russian Collaboration, 7-th Finnish-Russian Photonics and Laser Symposium PALS'15, September 22-25, 2015, Saratov, Russia (invited)

46. Genina E.A., Bashkatov A.N., Tuchin V.V. Mechanisms of tissue optical immersion clearing // 7-th Finnish-Russian Photonics and Laser Symposium PALS'15, September 22-25, 2015, Saratov, Russia (invited)

47. A. P. Popov, E. V. Khaydukov, A. V. Bykov, V. A. Semchishen, V. V. Tuchin, I. V. Meglinski, Improvement of upconversion deep-tissue imaging with optical clearing 7-th Finnish-Russian Photonics and Laser Symposium PALS'15, September 22-25, 2015, Saratov, Russia (invited)

48. A. N. Bashkatov, E. A. Genina, V. V. Tuchin, Optical properties of tissues in the visible– NIR spectral range, 7-th Finnish-Russian Photonics and Laser Symposium PALS'15, September 22-25, 2015, Saratov, Russia (invited).

49. A. N. Yakunin, Yu. A. Avetisyan, A.A. Bykov, V.V.Tuchin, About influence of nanoparticle size and laser pulse duration on biotissue's damage, Saratov Fall Meeting (SFM'15), International Symposium on Optics and Biophotonics III (Conference on Internet Biophotonics VIII), Saratov, Russia, September 22-25, 2015 (invited).

50. Yanina I.Yu., Tanikawa Y., Genina E.A., Tarakanchikova Y.V., Timoshina P.A., Tuchina D.K., Bashkatov A.N., Dolotov L.E., Terentyuk G.S., Navolokin N.A., Maslyakova G.N., Iga Y., Takimoto Sh., Tuchin V.V. In vitro and in vivo kinetics of optical clearing of fat tissue in rats // Saratov Fall Meeting (SFM'15), International Symposium on Optics and Biophotonics III (Conference on Internet Biophotonics VIII), Saratov, Russia, September 22-25, 2015 (invited)

51. V.V. Tuchin, Tissue Optics and Photonics, 3rd FAST-DOT Summer School «Photonics meets Biology», 28 September - 2 October 2015, Royal Mare Thalasso & Spa Hotel, Anissaras, Crete, Greece (invited).

52. Valery Tuchin, Enhanced optical diagnostics and phototherapy at tissue optical clearing, Micro-Photonics, Preview Event, Berlin Exhibition Grounds: Messe-Berlin, 26-27 November, 2015 (invited).

53. Valery V. Tuchin, Enhanced Imaging and Sensing in Biophotonics: from UV to Terahertz, The 2nd Israeli Biophotonics Conference (IBPC-2), December 1-2, 2015, Bar-Ilan University, Ramat-Gan, Israel (invited).

54. Tuchin V.V., World and European Consortia, Platforms and COST Projects on Biophotonics, Workshop, "THz Consortium: International concortium on terahertz photonics and optoelectronics"; Conference "Interdisciplinary Research Projects Organization in the Format of Multilateral Cooperation", December 16-17, 2015, Moscow State University, Russia (invited).

55. Valery V. Tuchin, "Advances in skin optical clearing (Invited)", [9689-19] SPIE Photonics West, The Moscone Center, San Francisco, California, USA, 13–18 February 2016.

56. V. V. Tuchin, "Enhanced Microscopy and Imaging at Optical Clearing: from in Vitro to in Vivo," [invited], Focus on Microscopy (FOM2016), Taipei, Taiwan, 20 - 23 March 2016.

57. O. Semyachkina-Glushkovskaya, A. Pavlova, N. Navolokin, V. Lychagov, A. Abdurashitov, E. Zinchenko, A. Gekaluk, D. Zhu, R. Shi, Q. Luo, and V. Tuchin, "Cerebral venous circulatory disturbance as an informative prognostic marker for neonatal hemorrhagic stroke (invited)," *Biophotonics: Photonic Solutions for Better Health Care*, SPIE Photonics Europe Symposium, 9887, Brussels, 3 - 7 April 2016.

58. V. V. Tuchin, "UV to THz Enhanced Tissue Imaging at Immersion Clearing: from in vitro to in vivo" (key-note), 7th International Conference «Nanoparticles, nanostructured coatings and microcontainers: technology, properties, applications», Tomsk, 12-15 May 2016.

59. V.V. Tuchin, Advances and perspectives for *in vivo* optical clearing of tissues (invited), Launching Symposium of KI for Health Science and Technology, 2-3 June, 2016, Daejeon, Korea.

60. V.V. Tuchin, "Enhanced optical imaging and laser treatment in medicine: from UV to terahertz," (Plenary), 4th International Symposium "Lasers in Medicine and Biophotonics", Laser Optics, St. Petersburg, June 27-July 2, 2016.

61. V.V. Tuchin, "Tissue optical clearing as a novel modality to control laser tissue interaction" (invited), "Fundamentals of Laser Assisted Micro– and Nanotechnologies" (FLAMN-16) – International Symposium (In frames of International Congress «Lasers & Photonics 2016»), June 27-July 1, 2016.

62. V.V. Tuchin, "Enhanced optical imaging: from UV to terahertz and from *in vitro* to *in vivo*," OPTO2016 and COST, Gdansk, July 6-9, 2016.

63. V.V. Tuchin, "Nanoparticle mediated photo-protection and – therapy" (invited), The 7th International Conference on Metamaterials, Photonic Crystals and Plasmonics, META'16 Malaga – Spain, June 25-28, 2016.

64. V.V. Tuchin, "Advances in Tissue Optics, Laser Medical Imaging and Treatment during Optical Clearing," 24th International conference on Advanced Laser Technologies, 12-16 September 2016, Galway, Ireland (invited).

65. V.V. Tuchin, "Tissue and cell optical clearing as a tool for enhanced microscopy and imaging: from in vitro to in vivo," International Conference on Advanced Fluorescence Imaging Methods, Sochi-Dagomys, Russia, October 3-9, 2016 (plenary) http://www.adflim.org/page58.html

66. V.V. Tuchin, O. Bibikova, U. Zabarylo, J. Haas, A. Lorente, O. Minet, B. Mizaikoff, V. Artyushenko "Enhanced Medical Optical Imaging Using Multimodality, Optical Clearing and Nanoparticle Labelling," Micro photonics 2016 International Congress Expo, October 11-13, 2016, Berlin Messe (invited) http://www.micro-photonics.de/media/lob/lob_media/lob_pdf/2016_3/kongress_4/Kongressprogramm_Congress_Program.pdf .

67. V.V. Tuchin, "Advances and mechanisms of tissue optical clearing," International Conferences on Laser Applications in Life Sciences (LALS2016), Shenzhen, China October 14-18, 2016 (invited) www.lals2016.org.

68. V.V. Tuchin, "Creation of new diagnostic/therapeutic windows in tissues: from UV to terahertz," Asia Communications and Photonics Conference, Nov. 2-5, 2016, Shangri-La Hotel, Wuhan, China (invited).

69. V.V. Tuchin, "Enhanced spectroscopy and imaging of tissues by immersion clearing: from UV to terahertz," Japan-Taiwan Medical Spectroscopy International Symposium (JTMSIS), December 4th-7th, 2016, Awaji Island, Japan (plenary).

70. L. Fu, J. Kurths, Y. Zhang, S. Xu, Z. Li, P. Hu, Yu. P. Sinichkin, V. V. Tuchin, Q. Luo, "Innovative curriculum for Optical Biomedical Engineering in China and Russia," The 14th International

Conference on Education and Training in Optics and Photonics (ETOP-2017), May 29-31, 2017, Zhejiang University, Hangzhou, China (invited).

71. Valery Tuchin, "Tissue optical clearing: new diagnostic/therapeutic windows," Workshop on Biomedical Optics, June 6-8, 2017, Center for Research in Medical Imaging (CERIMED), La Timone Hospital in Marseille, Aix-Marseille University and Institut Fresnel, France (invited).

72. Valery Tuchin, "The benefits of tissue optical clearing for cancer theranostics," The 3rd International Conference Current Trends in Cancer Theranostics (CTCT-2017), June 25-29, 2017, Pakruojis, Lithuania (key-note).

73. Valery Tuchin, "Tissue spectroscopy and imaging at optical clearing," 2nd School Advanced Fluorescence Imaging Methods (ADFLIM), July 26-28, 2017, Sant-Petersburg, Russia. http://www.adflim.org/Page52.html (invited).

74. Valery Tuchin, "Enhanced imaging of tissues by immersion clearing/contrasting: from x-ray to terahertz," IV International Symposium Topical Problems of Biophotonics (TPB-2017), July 26- August 3, 2017, Sant-Petersburg – Nizhny-Novgorod, Russia. http://www.biophotonics.sci-nnov.ru/ (invited).

75. Valery Tuchin, "Tissue Immersion Clearing for Enhanced Imaging within the Ultra-Broad Wavelength Range: from Free Electrons to Optical and Terahertz Waves," The 2nd International Conference "Biophotonics - Riga 2017", August 27–29, 2017, University of Latvia, Riga, Latvia (invited).

76. Valery Tuchin, "Creation and improvement of tissue optical windows for laser probing and treatment using immersion optical clearing," The 25th International Conference on Advanced Laser Technologies (ALT'17), September 10-15, 2017, Busan, Korea. http://altconference.org/alt17 (invited).

77. Valery Tuchin, "Tissue optical clearing as a tool for enhanced imaging and spectroscopy," "Photonics meets Biology," Summer School, September 18-22, 2017, Tarragona, Spain (key-note).

78. Тучин В.В., "Управление оптическими свойствами биологических тканей в широком диапазоне от УФ до миммлиметровых волн: новые окна прозрачности," XXX Школа-симпозиум по голографии, когерентной оптике и фотонике, 2– 6 октября 2017 г., Балтийский Федеральный Университет им. Иммануила Канта, Калининград. https://www.kantiana.ru/school-symposium/ (invited).

79. Valery Tuchin, "Tissue Optical Clearing/Contrasting for Image Enhancement in the Ultra-Broad Wavelength Range," Asia Communications and Photonics Conference (ACP), November 10-13, 2017, Guangzhou, China (invited).

80. Valery Tuchin,"Enchanced OCT imaging and monitoring of drug delivery," EPIC Biophotonics Workshop Towards in vivo imaging, 30 Nov. – 1 Dec. 2017, Amsterdam, The Netherlands, p.5, 2017 (key-note presentation)

81. Marina Novoselova, Sergey V. German, Ekaterina I. Galanzha, **Valery V. Tuchin**, Vladimir P. Zharov, Dmitry Gorin, Elina A. Genina, Imaging and navigation of remote controlled nanostructured carriers for theranostics [10479-14], Photonic Diagnosis and Treatment of Infections and Inflammatory Diseases, Photonics West Symposium, BiOS, San Francisco, 27 January–1 February 2018. **Invited**

82. Ekaterina I. Galanzha, Marina V. Novoselova, Dmitry A. Gorin, Alexandru S. Biris, Robert J. Griffin, **Valery V. Tuchin**, Boris N. Khlebtsov, Therapeutic targeting of circulating tumor cells in vivo [10495-9], Biophotonics and Immune Responses XIII, Photonics West Symposium, BiOS, San Francisco, 27 January–1 February 2018. **Invited**

83. Oxana V. Semyachkina-Glushkovskaya, Arkady Abdurashitov, Anton Namykin, Ivan Fedosov, Alexander Shirokov, Maria Ulanova, Natalia Shushunova, Alexander Khorovodov, Anastasiya Bodrova, Madina Sagatova, Elena Saranceva, Maria Dvoryatkina, **Valery V. Tuchin**, Optical technologies for in vivo monitoring of lymphatic system in the brain [10495-18], Biophotonics and Immune Responses XIII, Photonics West Symposium, BiOS, San Francisco, 27 January–1 February 2018. **Invited**

84. V.V. Tuchin, E.I. Galanzha, V.P. Zharov, "Optical amplification of in vivo photoacoustic flow cytometry," TuSMB-01, 5th International A.M. Prokhorov Symposium on Lasers in Medicine and Biophotonics, the International Conference on Laser Optics ICLO 2018, http://laseroptics.ru/ , St. Petersburg, June 4-8, 2018 (invited paper).

85. K.I. Zaytsev, N.V. Chernomyrdin, K.M. Malakhov, Sh.-I.T. Beshplav, S.A. Goryaynov, V.N. Kurlov, I.V. Reshetov, A.A. Potapov,V.V. Tuchin, "In vitro terahertz dielectric spectroscopy of human brain tumors," WeSMB-25, 5th International A.M. Prokhorov Symposium on Lasers in Medicine and

Biophotonics, the International Conference on Laser Optics ICLO 2018, http://laseroptics.ru/ , St. Petersburg, June 4-8, 2018 (invited paper).

86. O.V.Semyachkina-Glushkovskaya, E.U. Rafailov, S.G. Sokolovsky, E.G. Borisova, V. Mantareva, I. Angelov, A. Shirokov, N. Navolokin, N.A. Shushunova, A.P. Khorovodov, A.V. Terskov, A.A. Bodrova, M.V. Ulanova, E. Shrif, V.V. Tuchin, J. Kurths, "Laser technologies of targeted opening of blood-brain barrier for drug brain delivery," WeSMB-29, 5th International A.M. Prokhorov Symposium on Lasers in Medicine and Biophotonics, the International Conference on Laser Optics ICLO 2018, http://laseroptics.ru/ , St. Petersburg, June 4-8, 2018 (invited paper).

87. V. N. Kurlov, I.A. Shikunova, G.M. Katyba, K.I. Zaytsev, N.V. Chernomyrdin, I.N. Dolganova, V.V. Tuchin, I.V. Reshetov, "Biomedical applications of sapphire shaped crystals," WeSMB-31, 5th International A.M. Prokhorov Symposium on Lasers in Medicine and Biophotonics, the International Conference on Laser Optics ICLO 2018, http://laseroptics.ru/ , St. Petersburg, June 4-8, 2018 (invited paper).

88. L. Oliveira, I. Carneiro, S. Carvalho, R. Henrique, D. K. Tuchina, P. A. Timoshina, A. N. Bashkatov, E. A. Genina, V. V. Tuchin, "Tissue optical clearing as a diagnostic tool for tissue pathology differentiation," WeSMB-37, 5th International A.M. Prokhorov Symposium on Lasers in Medicine and Biophotonics, the International Conference on Laser Optics ICLO 2018, http://laseroptics.ru/ , St. Petersburg, June 4-8, 2018 (invited paper).

89. Valery Tuchin, "Optical clearing as a promising technique for in vivo optical imaging and treatment of hidden pathologies," 12th Workshop on Advanced Multiphoton and Fluorescence Lifetime Imaging Techniques FLIM2018" Conference in Berlin-Adlershof, Max-Born-Institute, June 15 - 16, 2018 (invited paper).

90. Valery V. Tuchin, "Optical clearing as a promising technology for *in vivo* laser diagnostics and treatment of hidden pathologies," Advanced Laser Technologies (ALT'18), September 09-14, 2018, Tarragona, Spain (plenary paper).

91. O.Semyachkina-Glushkovskaya, E. Vodovosova, E. Borisova, A. Khorovodov, A. Terskov, I. Agranovich, A. Mamedova, M. Klimova, C. Zhang, W. Feng, Yu. Li, T. Yu, D. Zhu, V. Tuchin, "Photodynamic opening of blood-brain barrier: non-invasive approaches and age differences," Advanced Laser Technologies (ALT'18), September 09-14, 2018, Tarragona, Spain (invited paper).

92. Kirill I. Zaytsev, I.N. Dolganova, N.V. Chernomyrdin, G.A. Komandin, M.A. Schcedrina3, S.-I.T. Beshplav, S.A. Goryaynov, I.V. Reshetov, A.A. Potapov, and V.V. Tuchin, "A potential of optical coherence tomography and terahertz pulsed spectroscopy for intraoperative diagnosis of brain tumors," Advanced Laser Technologies (ALT'18), September 09-14, 2018, Tarragona, Spain (invited paper).

93. I. Carneiro, S. Carvalho1, V. Silva, R. Henrique, L. Oliveira, **V. V. Tuchin**, "Kinetics of optical properties of human colorectal tissues during optical clearing – a comparative study between normal and pathological tissues," Advanced Laser Technologies (ALT'18), September 09-14, 2018, Tarragona, Spain (**invited**).

94. Elina A. Genina, Alexey N. Bashkatov, Daria K. Tuchina, Polina A. Timoshina, Oxana V. Semyachkina-Glushkovskaya, **Valery V. Tuchin**, "Optical properties of rat brain tissue in the normal state and at the different stages of glioma development," Advanced Laser Technologies (ALT'18), September 09-14, 2018, Tarragona, Spain (**invited**).

95. Valery Tuchin, Biological tissue optics and optical clearing, 22nd International School for Junior Scientists and Students on Optics, Laser Physics & Biophotonics/3rd AD FLIM School, Saratov, 24-28 September, 2018 (**plenary**).

96. Kirill I. Zaytsev, Valery E. Karasik, Vladimir N. Kurlov, **Valery V. Tuchin**, Igor V. Reshetov, Prospects for Malignancy Diagnosis by Using Terahertz Spectroscopy and Imaging, 6th International Symposium Optics and Biophotonics, Saratov, 24-28 September, 2018 (**plenary**).

97. Irina Dolganova, P. Aleksandrova, K. Zaytsev, A. Kosyrkova, S.-I. Beshplav, I. Reshetov, A. Potapov, **V. Tuchin**, Optical coherence tomography of malignant brain tumors ex vivo, 6th International Symposium Optics and Biophotonics, Saratov, 24-28 September, 2018 (**invited**).

98. Isa Carneiro, Sonia Carvalho, Rui Henrique, Luís Oliveira, **Valery V. Tuchin**, Optical properties of human liver from 400 to 1000 nm, 6th International Symposium Optics and Biophotonics, Saratov, 24-28 September, 2018 (**invited**).

99. Irina Yanina, Nikita A. Navolokin, Viktor V. Nikolaev, Daria K. Tuchina, Anastasia I. Knyazkova, Yuri V. Kistenev, **Valery V. Tuchin**, Spatial distribution of optical characteristics of paraffin

block embedded malignant tumor tissues, 6th International Symposium Optics and Biophotonics, Saratov, 24-28 September, 2018 (**invited**).

100. Anton Yu. Sdobnov, Maxim E. Darvin, Johannes Schleusener, Jürgen Lademann, **Valery V. Tuchin**, Investigation of changes in hydrogen bound water profiles of porcine skin under optical clearing, 6th International Symposium Optics and Biophotonics, Saratov, 24-28 September, 2018 (**invited**).

101. Anton Sdobnov, Ekaterina Lazareva, Alexey N. Bashkatov, Elina A. Genina, Vyacheslav I. Kochubey, Irina Yu. Yanina, Santhosh Chidangil, Srinivas Mutalik, Sathish Pai Ballambat, V.K Unnikrishnan, Aseefhali Bankapur, Jijo Lukose, **Valery V. Tuchin**, Maxim E. Darvin, Optical studies of topically delivered optical clearing agents and cosmetic preparations through the skin components: from ex vivo to in vivo, 6th International Symposium Optics and Biophotonics, Saratov, 24-28 September, 2018 (**invited**).

102. Elina Genina, Alexander Pravdin, Daria Tuchina, Viktor Nikolaev, Ekaterina Lazareva, Dmitry Yakovlev, Irina Yanina, Marine Amouroux, Alexey Bashkatov, Vyacheslav Kochubey, Walter Blondel, **Valery Tuchin**, Research and development of effective optical technologies for diagnostics in dermatology, 6th International Symposium Optics and Biophotonics, Saratov, 24-28 September, 2018 (**invited**).

103. Valery V. Tuchin "Biophotonics in Russia: main directions and development prospects" X International Conference "Basic Problems of Optics (BPO'18)", St. Petersburg October 15-19, 2018 (plenary paper).

104. Valery Tuchin,"Tissue optical clearing as a platform for *in vivo* optical imaging and treatment of hidden pathologies: from UV to terahertz," International Conference on Laser Applications in Life Sciences (LALS) in Israel, November 18-20, 2018, Bar-Ilan University, Israel (plenary paper).

105. Valery Tuchin, "Tissue optics and optical clearing for functional imaging," 30th International SAOT Workshop, Functional Optical Imaging in Medical Engineering, November 29 – 30, 2018, Friedrich-Alexander Universität Erlangen-Nürnberg, Germany (plenary paper).

106. Valery Tuchin, "Optical clearing of tissues in a broad spectral range from UV to THz," International Conference on Bio Sensing and Imaging (ICOBSI), December 17-19, 2018, Palazzo Affari Firenze Fiera (plenary paper).

107. Yury V. Kistenev, Valery V. Tuchin, Alexey V. Borisov, Ekaterina N. Lazareva, Viktor V. Nikolaev, Daria K. Tuchina, Denis A. Vrazhnov, Irina Yu K. Yanina, Medical diagnosis using IR and THz tissue imaging and machine learning methods *(Invited Paper)*, paper # 10877-18, Dynamics and Fluctuations in Biomedical Photonics XVI, BiOS, Photonics West, San Francisco, 2–7 February 2019.

108. V. V. Tuchin, Benefits of tissue optical clearing for intensive laser actions (invited) International Symposium, FLAMN-19 - Fundamentals of Laser Assisted Micro- & Nanotechnologies, June 30 - July 4, 2019, St. Petersburg, Russia.

109. O.A. Smolyanskaya, Q. Cassar, M.S. Kulya, N.V. Petrov, K.I. Zaytsev, V.N. Trukhin, A. Gorodetsky, J.-P. Guillet, P. Mounaix, V.V. Tuchin, Interaction of terahertz radiation with bio-like objects: theoretical and numerical modelling, real objects and phantom experiments (invited), International Symposium, FLAMN-19 - Fundamentals of Laser Assisted Micro- & Nanotechnologies, June 30 - July 4, 2019, St. Petersburg, Russia.

110. E.A. Genina, A.B. Bucharskaya, G.N. Maslyakova, M.L. Chekhonatskaya, G.S. Terentyuk, V.D. Genin, N.G. Khlebtsov, V.V. Tuchin, A.N. Bashkatov Advanced Strategy for Plasmonic Photothermal Therapy of Tumors (INVITED), International Symposium, FLAMN-19 - Fundamentals of Laser Assisted Micro- & Nanotechnologies, June 30 - July 4, 2019, St. Petersburg, Russia.

111. Valery Tuchin, Research and development of effective optical technologies for diagnostics in dermatology, International Research Network "Bright Far-Infrared Optoelectronic Sources to Field-Matter Interaction Studies, Life Sciences and Environmental Monitoring" 2nd Workshop, July 6, 2019, Nizhny Novgorod.

112. Valery Tuchin, Advances in tissue optical clearing: towards broadband multimodal imaging techniques and *in vivo* applications (invited), The VII International Symposium "Topical Problems of Biophotonics – 2019" (TPB-2019), July, 27 through July, 31 2019, Nizhny Novgorod.

113. E. Genina, A. Bashkatov, V. Tuchin, V. Zharov, Integrated effects on skin immersion optical clearing in vivo, International Conference, Advanced Laser Technologies, Prague, Czech Republic, 15-20 September 2019 (invited).

114. D.K. Tuchina, P.A. Timoshina, V.V. Tuchin, OCT and laser speckle imaging for quantification of diffusivity and impact on blood flow of diabetic tissues and organs, International Conference, Advanced Laser Technologies, Prague, Czech Republic, 15-20 September 2019 (invited).

115. I. Carneiro, S. Carvalho, R. Henrique, L. Oliveira, V. Tuchin, Optical properties of human normal and pathological colorectal tissues from 200 to 1000 nm, International Conference, Advanced Laser Technologies, Prague, Czech Republic, 15-20 September 2019 (invited).

116. В.В. Тучин, И.Г. Меерович, Д.К. Тучина, О.А. Синдеева, Н.И. Казачкина, В.В. Жердева, А.П. Савицкий, А.А. Богданов мл. Скрытая диффузия молекул оптических просветляющих агентов: достоинства и недостатки при оптической визуализации патологий, VI Съезд биохимиков России, Секция «Молекулярный имиджинг», 1 по 6 октября 2019, Сочи (приглашенный).

117. К.И. Зайцев, В.Е. Карасик, В.Н. Курлов, В.В. Тучин, И.В. Решетов, "Применение терагерцовых технологий в биофотонике," Фотоника. Мир лазеров и оптики 2019, 4–7 марта 2019, Москва, Россия, https://www.photonics-expo.ru/ru/list_of_exhibitors/ (пленарный).

118. K.I. Zaytsev, I.N. Dolganova, N.V. Chernomyrdin, Sh.–I.T. Beshplav, V.E. Karasik, V.N. Kurlov, D.S. Ponomarev, I.V. Reshetov, A.A. Potapov, V.V. Tuchin, "Prospect of THz technology in intraoperative diagnosis of human brain tumors," 2nd Photonic and OptoElectronic Materials Conference 2019 (POEM'19), April 9–12, 2019, University College London, London, UK, https://www.poem2019.com/ (приглашенный).

119. К.И. Зайцев, Н.В. Черномырдин, А.А. Гавдуш, Г.М. Катыба, И.Н. Долганова, В.Е. Карасик, Г.А. Командин, И.Е. Спектор, В.Н. Курлов, И.В. Решетов, А.А. Потапов, В.В. Тучин, "Терагерцовые технологии в биофотонике," 10-я Международная Научно-практическая конференция по физике и технологии наногетероструктурной СВЧ электроники «Мокеровские чтения», 15–16 мая 2019, Москва, Россия, https://mokerov.mephi.ru/ (пленарный).

120. К.И. Зайцев, Н.В. Черномырдин, А.А. Гавдуш, Г.М. Катыба, И.Н. Долганова, В.Е. Карасик, Г.А. Командин, И.Е. Спектор, В.Н. Курлов, И.В. Решетов, А.А. Потапов, В.В. Тучин, "Проблемы применения терагерцовых технологий в диагностике злокачественных новообразований," Восьмая Всероссийская научно-техническая конференция «Электроника и микроэлектроника СВЧ», 3–6 июня 2019, Санкт-Петербург, Россия, http://www.mwelectronics.ru/ (пленарный).

121. K.I. Zaytsev, I.N. Dolganova, V.E. Karasik, V.N. Kurlov, A.A. Potapov, I.V. Reshetov, V.V. Tuchin, "Prospects for human brain glioma diagnosis using terahertz spectroscopy and imaging," 8th Russia-Japan-USA-Europe Symposium on Fundamental & Applied Problems of Terahertz Devices & Technologies (RJUSE TeraTech 2019), July 6–7, 2019, Nizhniy-Novgorod, Russia, http://www.rjuse-2019.org/ (приглашенный).

122. K.I. Zaytsev, N.V. Chernomyrdin, A.S. Kucheryavenko, I.N. Dolganova, G.M. Katyba, V.N. Kurlov, V.E. Karasik, I.V. Reshetov, V.V. Tuchin, "Sub-wavelength-resolution terahertz imaging of soft biological tissues," Advanced Laser Technologies 2019 (ALT'19), September 15–20, 2019, Prague, Czech Republic, http://altconference.org/alt19 (приглашенный).

123. I.N. Dolganova, G.M. Katyba, I.N. Shikunova, I.V. Reshetov, M.A. Schcedrina, K.I. Zaytsev, V.V. Tuchin, V.N. Kurlov, "Sapphire shaped crystals as a prospective material platform for novel modalities of medical diagnosis and therapy," Advanced Laser Technologies 2019 (ALT'19), September 15–20, 2019, Prague, Czech Republic, http://altconference.org/alt19 (приглашенный).

124. O.P. Cherkasova, A.A. Gavdush, N.V. Chernomyrdin, K.M. Malakhov, S.-I.T. Beshplav, I.N. Dolganova, G.R. Musina, I.V. Reshetov, G.A. Komandin, V.E. Karasik, A.A. Potapov, V.V. Tuchin, K.I. Zaytsev, "Intraoperative diagnosis of human brain gliomas using THz spectroscopy and imaging: a pilot study," *Advanced Laser Technologies 2019 (ALT'19),* September 15–20, 2019, Prague, Czech Republic, http://altconference.org/alt19 (приглашенный).

125. P. Rakotomanga, S. Zaytsev, M. Amouroux, C. Soussen, G. Khairallah, E. Genina, V. Tuchin and W. Blondel, Analysis of skin intrinsic fluorophore contributions during optical clearing: source separation technique applied to spatially resolved multiply excited autofluorescence spectra, Saratov Fall Meeting SFM'19 – Symposium, September 23 - 27, 2019 (приглашенный интернет-доклад).

126. VV Tuchin, New optical transparency windows of biological tissues: from UV to THz, International Conference PhysicsA.SPb, Phys-Technical Institute named after A.F. Ioffe, St. Petersburg, October 22-24, 2019 (plenary).

127. Valery Tuchin, Tissue optical clearing for diagnostics and therapy: from deep-UV to THz, The 4th International Symposium and School for Young Scientists "Physics, Engineering and Technologies for Biomedicine," MEPhI, Moscow, October 28-30, 2019 (invited).

128. Valery V. Tuchin, Elina A. Genina, Alexey N. Bashkatov, Ekaterina N. Lazareva, and Vladimir P. Zharov "In vivo optical clearing of human light and dark skin, Dynamics and Fluctuations in Biomedical Photonics XVII, 1123902 (San-Francisco, 1-6 Feb. 2020); https://doi.org/10.1117/12.2566932 (приглашенный).

129. Alexei A. Bogdanov Jr., Valery V. Tuchin, Irina G. Meerovich, Natalia I. Kazachkina, Viktoria V. Zherdeva, Ilya D. Solovyev, Daria K. Tuchina, and Alexander P. Savitsky "Towards registration of optical and MR signal changes in subcutaneous tumor volume in vivo after optical skin clearing", Proc. SPIE 11239, Dynamics and Fluctuations in Biomedical Photonics XVII, 112390N (San-Francisco, 1-6 Feb. 2020); https://doi.org/10.1117/12.2545312 (приглашенный).

130. Oxana V. Semyachkina-Glushkovskaya, Ekaterina Zinchenko, Maria Klimova, Andrey Terskov, Arkady Abdurashitov, Alexander Dubrovsky, Inna Blokhina, Alexander Khorovodov, Ilana Agranovich, Nikita Navolokin, Alexander Shirokov, Elena Saranceva, Aysel Mamedova, Valery Tuchin, and Juergen Kurths "Pilot study of transcranial photobiomodulation of lymphatic clearance of beta-amyloid from the mouse brain: breakthrough strategies for non-pharmacologic therapy of Alzheimer's disease (San-Francisco, 1-6 Feb. 2020)", Biophotonics and Immune Responses XV, 1124103; https://doi.org/10.1117/12.2541561 (приглашенный).

131. Valery V. Tuchin, "Tissue optical clearing aiming multimodal imaging: moving from *in vitro* to *in vivo*", The VIII International Conference on Perspectives in Vibrational Spectroscopy (ICOPVS-2020) https://www.icopvs2020.org/), Bangalore, India, Feb.24-28, 2020 (plenary lecture).

132. Elina A. Genina, Alexey N. Bashkatov, Sergey M. Zaytsev, Marine Amouroux, Walter C. P. M. Blondel, Valery V. Tuchin, Physical impacts on epidermal permeability in vivo for optical clearing agents, Tissue Optics and Photonics, Conference 11363, SPIE Photonics Europe, Strasburg, 30 March–2 April 2020 (Invited Paper).

133. Yury V. Kistenev, Alexey V. Borisov, Polina A. Dyachenko, Ekaterina N. Lazareva, Viktor V. Nikolaev, Daria K. Tuchina, Denis A. Vrazhnov, Irina Yu K. Yanina, Valery V. Tuchin, Differential diagnostics of paraffin-embedded tissues by IR-THz spectroscopy and machine learning, Tissue Optics and Photonics, Conference 11363, SPIE Photonics Europe, Strasburg, 30 March–2 April 2020 (Invited Paper). https://www.spiedigitallibrary.org/conference-proceedings-of-spie/11363/113630P/Physical-impacts-on-epidermal-permeability-in-vivo-for-optical-clearing/10.1117/12.2555734.short?webSyncID=b6a0cbad-0593-29ad-883c-9d902bc9993c&sessionGUID=ed268bea-d49a-2853-1ab0-d3a6b03c97c0

134. Luis Oliveira, Isa Carneiro, Sonia Carvalho, Rui Henrique, Valery V. Tuchin, Measurement of optical properties of normal and pathological human liver from deep-UV to NIR, Tissue Optics and Photonics, Conference 11363, SPIE Photonics Europe, Strasburg, 30 March–2 April 2020 (Invited Paper). https://www.spiedigitallibrary.org/conference-proceedings-of-spie/11363/113630G/Measurement-of-optical-properties-of-normal-and-pathological-human-liver/10.1117/12.2554877.short

135. Alexei A. Bogdanov, Irina Meerovich, Natalia I. Kazachkina, Victoria Zherdeva, Ilya Solovyev, Alexander P. Savitsky, Valeriy V. Tuchin, Optical clearing effects in subcutaneous red-fluorescent tumors monitored by fluorescence and magnetic resonance imaging in vivo, Tissue Optics and Photonics, Conference 11363, SPIE Photonics Europe, Strasburg, 30 March–2 April 2020 (Invited paper).

https://www.spiedigitallibrary.org/conference-proceedings-of-spie/11363/113630S/Optical-clearing-effects-in-subcutaneous-red-fluorescent-tumors-monitored-by/10.1117/12.2560186.short

136. V. V. Tuchin, Improved biomedical imaging over a wide spectral range from UV to THz towards multimodality, The 3rd International Conference "Biophotonics Riga – 2020", 24-25 August, 2020, Riga, on-line meeting (Invited paper).

137. Yu. V. Kistenev and V. V. Tuchin, Optical clearing and machine learning concepts for THz spectroscopy of tissues, The 4-th International Conference Terahertz and Microwave Radiation: Generation, Detection and Applications (TERA), August 24-26, 2020, Tomsk. (Invited paper); on-line presentation. http://tera2020.tsu.ru/

138. V. V. Tuchin, Presentation of Russian projects on Biophotonics, 2nd Meeting of the BRICS Working Group on Photonics, October 13 – 15, 2020; Section "Photonics applications in bio-medicine. Photonics for agriculture and food industry", Skolkovo Institute of Science and Technology (Skoltech), RF Ministry of Science and Higher Education, on-line meeting (Invited paper). https://eng.brics-russia2020.ru/calendar/20201013/654480/2nd-Meeting-of-BRICS-Working-Group-on-Photonics.html

139. В.В. Тучин, Новая концепция мультимодальной медицинской визуализации на основе оптического просветления тканей в широком диапазоне длин волн, VII Троицкая конференция с международным участием "Медицинская физика" (ТКМФ-7), 19–21 октября 2020 г., Институт фотонных технологий, ФНИЦ «Кристаллография и фотоника» РАН (ИФТ РАН), Троицк (пленарная лекция). http://www.medphys.troitsk.ru/

140. I.V. Reshetov, K.I. Zaytsev, I.N. Dolganova, E.N. Rimskaya, K.G. Kudrin, M.A. Schedrina, D.S. Ponomarev, V.N. Kurlov, A.A. Potapov, and V.V. Tuchin, Label-free optical diagnosis of malignant and benign neoplasms with different nosologies and localizations, ICLO, St. Petersburg, November 2-6, 2020, MoSYP-03 Monday, November 02, 2020 (Plenary). https://laseroptics.ru/general-information.html

141. I.N. Dolganova, P.V. Aleksandrova, N.A. Naumova, P.V. Nikitin, K.I. Zaytsev, S.T. Beshplav, V.V. Tuchin, Optical coherence tomography of brains: ex vivo study of healthy and malignant tissues, ICLO, St. Petersburg, November 2-6, 2020, TuSYA-06, Tuesday, November 03, 2020; 11:30-12:00 (Invited paper). https://laseroptics.ru/general-information.html

142. W. Blondel, S. Zaytsev, V. Colas, G. Khairallah, P. Rakotomanga, C. Soussen, E. Genina, C. Daul, V. Tuchin, M. Amouroux, Study of the impact of optical clearing on skin absorption, scattering and autofluorescence properties, ICLO, St. Petersburg, November 2-6, 2020, TuSYB-01, Tuesday, November 03, 2020; 14:30-15:00 (Invited paper). https://laseroptics.ru/general-information.html

143. V. Tuchin, Advances in tissue optical clearing: new steps to clinics, ICLO, St. Petersburg, November 2-6, 2020, ThSYB-17, Thursday, November 05, 2020; 11:30-12:00 (Invited paper). https://laseroptics.ru/general-information.html

144. Valery Tuchin, Optical clearing of biological tissues in multimodal imaging: from in vitro to in vivo, 4th Sechenov International Biomedical SUMMIT (SIBS 2020), November 17-18, 2020, Sechenov University, Moscow, Russia, on-line meeting (Invited). https://sechenov-sibs.confreg.org/

145. В.В. Тучин, Научный медицинский центр СГУ им. Н.Г. Чернышевского, Круглый стол Комитета Государственной Думы по охране здоровья на тему «Развитие медицинской науки в Российской Федерации. Законодательное регулирование», 23 апреля 2021 года.

146. V. Tuchin, Towards multimodal tissue imaging with optical clearing, Frontiers in Photonics Science & Technology 2021, A Virtual Symposium hosted by the Fitzpatrick Institute for Photonics, May 16-18, 2021 (plenary) https://sites.duke.edu/2021fipsymposium/

147. V.V. Tuchin, S.V. Zar'kov, Yu.A. Avetisyan, A.N. Yakunin, I.G. Meerovich, D.Fixler, A.P. Savitsky, The fluorescent protein/plasmon nanoparticle complexes as multimodal optical sensors (invited), 7-9 June 2021, Photonics Days Israel, online event https://photonics.aeai.org.il/wp-content/uploads/sites/21/2021/06/final-of-day-2.pdf

148. V.V. Tuchin, Advances in tissue optical clearing for laser diagnostics and treatment, B-I-32 The 28th International Conference on Advanced Laser Technologies, September 06-10, 2021, Moscow, Russia (invited).

149. Valery V. Tuchin, Optical Clearing as a Tool for Multimodal Tissue Imaging, BRICS Workshop on Biophotonics -2021, September 27–29, 2021, Saratov, Russia (invited).

150. V.V. Tuchin, Optical Clearing of Tissues: Benefits and challenges, International School of Lasers and Biomedical Photonics, LBMP2021 Online, October 9-11, Tehran 2021(invited).

151. V.V. Tuchin, Multimodal tissue imaging supported by optical clearing, Asia Communications and Photonics Conference (ACP) 2021, 24-27 October 2021, Pudong Shangri-La Hotel, Shanghai, China (invited).

152. V.V. Tuchin, New perspectives in laser medicine Russian Science and Technology Innovation Matchmaking Meeting, Thursday, November 4, 2021, Dingxiang Hall, East Lake International Conference Center, Department of Science and Technology of Hubei Province (invited).

153. В. В. Тучин, Оптическое просветление тканей как новый подход в антимикробной и противогрибковой фототерапии, VIII Международный симпозиум по когерентному оптическому излучению полупроводниковых соединений и структур, ФИ РАН, Москва 23-25 ноября 2021 г. Приглашенный доклад

154. V.V. Tuchin, Analytical biophotonics based on optical clearing of tissues and instrumental multimodality, 15th International Conference on Photonics and Imaging in Biology and Medicine (PIBM 2021), December 2-4, 2021, Hainan University, Haikou, China (plenary) http://pibm.hust.edu.cn/English/Invited_Talks.htm

155. V.V. Tuchin, Advances and prospects of multimodal biomedical imaging and treatment based on tissue optical clearing, 6th West-Lake Photonics Symposium (WPS), Dec. 10, 2021, Zhejiang University, Hangzhou, P.R.China (keynote).

156. В.В. Тучин, «Окна прозрачности и оптическое просветление биологических тканей: вопросы медицинской диагностики и фототерапии», Научная сессия Общего собрания ОФН РАН, Москва, 13 декабря 2021года (приглашенный).

157. I. Carneiro, S. Carvalho, R. Enrique, A.R. Botelho, H. Silva, I. Martins, L. Oliveira, and V. Tuchin, Measurement of optical properties of human kidney from the deep-UV to NIR, 16th International conference on Laser Applications in Life Sciences, 1st -2nd April 2022, Nancy (France), Abstracts Book, p. 81 (2022). https://lals.sciencesconf.org/ (invited).

158. E.A. Genina, V.D. Genin, E.A. Kolesnikova, S.M. Zaytsev, Y.I. Surkov, I.A. Serebryakova, V.V. Tuchin, Advanced approaches to skin *in vivo* optical clearing, 16th International conference on Laser Applications in Life Sciences, 1st -2nd April 2022, Nancy (France), Scientific Program, p. 14 (2022). https://lals.sciencesconf.org/(invited).

159. Isa Carneiro, Sónia Carvalho, Rui Enrique, Ana Rita Botelho, Hugo Silva, Inês Martins, Luís Oliveira and Valery Tuchin, Measurement of optical properties of human kidney from the deep-UV to NIR, 16th International conference on Laser Applications in Life Sciences, 1st -2nd April 2022, Nancy (France), Scientific Program, p. 9 (2022). https://lals.sciencesconf.org/(invited)

160. Valery V. Tuchin, Optical clearing of tissues: Issues of diagnostics, phototherapy, and monitoring of implants, OPORTO 22 – 1st Spring Biophotonics Conference in Porto, April, 20-23, 2022 (keynote - online) https://stemm.tech/oporto22/

161. Valery V. Tuchin, Optical Clearing of Tissues for the Improvement of Laser Medical Technologies, 3rd International Conference on Light and Light-based Technologies (ICLLT-22), Ankara, Turkey, 25-27 May, 2022.

162. L.M. Oliveira, T.M. Gonçalves, A.R. Botelho, I.S. Martins, H.F. Silva, I. Carneiro, S. Carvalho, R. Henrique, V.V. Tuchin, Spectroscopic detection of pigments in tissues: correlation with tissue aging and cancer development (Invited paper), # TuSYB-12, 7th International A. M. Prokhorov Symposium on Biophotonics, 20th International Conference Laser Optics ICLO 2022, St. Petersburg, Russia, 20—24 June, 2022.

163. I.S. Martins, M.R. Pinheiro, H.F. Silva, V.V. Tuchin, L.M. Oliveira, Evaluation of OCA diffusivity in tissues through diffuse reflection spectroscopy (Invited paper), # WeSYB-22, 7th 7th International A. M. Prokhorov Symposium on Biophotonics, 20th International Conference Laser Optics ICLO 2022, St. Petersburg, Russia, 20—24 June, 2022.

164. H.F. Silva, D.S. Teixeira, I.S. Martins, V.V. Tuchin, L.M. Oliveira, Evaluation of optical clearing potential of natural oils and gels (Invited paper), #WeSYB-26, International A. M. Prokhorov Symposium on Biophotonics, 20th International Conference Laser Optics ICLO 2022, St. Petersburg, Russia, 20—24 June, 2022.

165. I.D. Solovyev, N.I. Kazachkina, V.V. Zherdeva, I.G. Meerovich, D.K. Tuchina, A.A. Bogdanov Jr., V.V. Tuchin, A.P. Savitsky, Simultaneous measurement of fluorescent and magnetic resonance 3D images (Invited paper), # WeSYB-21, International A. M. Prokhorov Symposium on

Biophotonics, 20th International Conference Laser Optics ICLO 2022, St. Petersburg, Russia, 20—24 June, 2022.

166. V.V. Tuchin, Tissue optical clearing opens new avenues for laser technologies in medicine, PL-3, International Symposium Fundamentals of Laser Assisted Micro– & Nanotechnologies (FLAMN-22), June 27 - 30, 2022, St. Petersburg, Russia (пленарная лекция); https://flamn.itmo.ru/ .

167. N.V. Chernomyrdin, M. Skorobogatiy, V.V. Tuchin,K.I. Zaytsev, Terahertz solid immersion microscopy: Recent achievements and challenges (Invited), # S02-13, International Symposium Fundamentals of Laser Assisted Micro– & Nanotechnologies (FLAMN-22), June 27 - 30, 2022, St. Petersburg, Russia; https://flamn.itmo.ru/

168. V.V. Tuchin, In vivo tissue optical clearing as a tool for laser diagnostics and therapeutics, The 29th International Conference on Advanced Laser Technologies, September 11-16, 2022, Moscow, Russia [Invited] https://altconference.org/program-22 .

169. E.A. Genina, V.D. Genin, A.B. Bucharskaya, N.A. Navolokin, G.S. Terentyuk, N.G. Khlebtsov, V.V. Tuchin, The study of laser-assisted skin optical clearing in vivo, The 29th International Conference on Advanced Laser Technologies, September 11-16, 2022, Moscow, Russia [Invited] https://altconference.org/program-22 .

170. M.A. Ansari, M. Samani, S. Ziaee, E.A. Lazareva, Yu.I. Surkov, I.A. Serebryakova, E.A. Genina, V.V.Tuchin, Refractive index measurement of the mouse skin in the visible wavelength range, The 29th International Conference on Advanced Laser Technologies, September 11-16, 2022, Moscow, Russia [Invited] https://altconference.org/program-22 .

171. В.В. Тучин, Новые оптические биомедицинские технологии на основе оптического просветления тканей (New optical biomedical technologies based on optical clearing of tissues), XIX Международной конференции по голографии и прикладным оптическим технологиям HOLOEXPO 2022, Санкт-Петербург, 20-23 сентября, 2022 (пленарный доклад).

172. Valery Tuchin, Tissue photonics: towards multimodal tissue imaging and therapy through optical clearing, 7th International Symposium «Physics Engineering and Technologies for Biomedicine» and School for Young Scientists, November 19-24 of 2022, Moscow, Russia (пленарный доклад).

173. В.В. Тучин, Визуализация и спектроскопия биологических тканей в широком диапазоне длин волн: от глубокого УФ до ТГц, Всероссийская конференция молодых ученых с международным участием «Фундаментальная и прикладная медицина “Biomeeting”», 29-30 ноября 2022г (пленарный доклад).

174. A.P. Savitsky, I.D. Soloviev, I.G. Meerovich, I.E. Granovsky, N.K. Marynich, D.K. Tuchina, A.B. Konovalov, V.V. Vlasov, VV. Tuchin, Multimodal MRI and life-time fluorescence sensors for theranostic applications, OASIS8 - International conference & Exhibition on Optics & Electro-Optics, 12-13 December 2022, David InterContinental Hotel, Tel Aviv, Israel [Invited]. https://www.oasis8.org.il/dab

175. Valery Tuchin, Optical clearing of tissues: multimodality and in vivo applications, International Conference on Nanoscience and Photonics for Medical Applications (ICNPMA-2022), Manipal Academy of Higher Education, Manipal, Karnataka, India, December 28-30, 2022. Plenary lecture. https://conference.manipal.edu/ICNPMA2022/

176. Alexei A. Bogdanov, Valery V. Tuchin, Natalia I. Kazachkina, Victoria V. Zherdeva, Lilya G. Maloshenok, Daria K. Tuchina, Irina G. Meerovich, Ilya D. Solovyev, Alexander P. Savitsky, Clinical MRI contrast agent improves fluorescent imaging of red fluorescent protein expression in-vivo due to the effect of tissue optical clearing (Invited Paper), Conference 12378, Dynamics and Fluctuations in Biomedical Photonics XX, 29 - 30 January 2023, 29 January 2023 • 3:50 PM - 4:20 PM PST, BiOS, SPIE Photonics West Symposia, 28 January - 2 February 2023, San Francisco, California, United States

177. Valery V. Tuchin, Modern trends in biomedical optoelectronics: to see deeper and treat more precisely, New Year Workshop, Frontiers of Optoelectronics, 9-10 January, 2023, Wuhan, China (invited).

178. Valery V. Tuchin, K.I. Zaitsev, I.V. Reshetov, Terahertz biophotonics, The 5th International Conference Terahertz and Microwave Radiation: Generation, Detection and Applications" (TERA-2023), 27 February – March 2, 2023, Moscow, MEPhI (Plenary lecture).

179. Valery Tuchin, Welcome speech, 16th International Conference on Photonics and Imaging in Biology and Medicine — PIBM-2023, Chairs: Q. Luo, V. Tuchin and L. Wang, March 29 - April 1, 2023, Haikou, Hainan, China.

180. Valery Tuchin, Recent advances in optical clearing of tissues: Towards in vivo applications, Chinese-Russian Workshop on Biophotonics and Biomedical Optics, Chairs: V. Tuchin and D. Zhu, March 29 - 31, 2023, Haikou, Hainan, China.

181. Valery Tuchin, Tissue optics and optical clearing modalities, Light Conference Week 2023, Track 3 Optical Imaging and Metrology, August 11-16, 2023, Changchun, China, p. 58. http://lightconference.cn/

182.

Избранные образовательные лекции и краткие курсы лекций

1. V.V. Tuchin, “Optical Clearing of Tissue and Blood,” Half-day short course, Photonics West Symposia, BiOS-2006, San Jose, California, USA, 21-26 January, 2006.
2. V.V. Tuchin, “Tissue Optics and Immersion Optical Clearing in Imaging, Spectroscopy, and Therapy,” One-day short course, World Congress on Medical Physics, 27 August – 1 September, 2006, Seoul, South Korea.
3. В.В. Тучин, Оптическое просветление биологических тканей и крови, однодневный курс лекций для студентов, аспирантов и научных сотрудников, Львовский Национальный университет, Львов, Украина, 5 декабря 2006.
4. V.V. Tuchin, *Fundamentals of Laser-Tissue Interaction*, Lecture for Medical Personal, Symposium on Laser Medical Applications, Moscow, July 5 - July 6, 2010.
5. V.V. Tuchin, *Coherence-Domain and Polarization Methods in Biophotonics*,” Huazhong University of Science and Technology, Wuhan, China, November 6, 2010.
6. V.V. Tuchin, *In vivo optical flow cytometry*, Beijing Institute of Technology, Beijing, November 8, 2010.
7. V.V. Tuchin, *In vivo image flow cytometry*, tutorial, Scientific Meeting of Photonics4Life, Institut d'Optique Graduate School, Campus Polytechnique, Palaiseau, France, 29 November - 1 December, 2010.
8. V.V. Tuchin, *In vivo* optical flow cytometry and cell imaging, 1- Image cytometry, 2 - Photothermal cytometry, 3 - Integrated photoacoustic cytometry, International School of Physics “Enrico Fermi” “Microscopy Applied to Biophotonics,” Varenna (Lake Como) - July 12-22, 2011.
9. Valery V. Tuchin, A clear vision through tissues: enhanced optical imaging and therapy (invited), ST-DOT Summer School "Photonics Meets Biology", Hersonissos, Crete, Greece, 15th - 18th September, 2011.
10. Valery V. Tuchin, Optical Clearing of Tissues and Blood, SPIE Short Course, HUST SPIE Student Chapter, PIBM-11, Short Courses Session, 4 November 2011, Wuhan, China.
11. Valery V. Tuchin, Tissue Photonics, HUST University Short Course, 6 November 2011, Wuhan, China.
12. V.V. Tuchin, Tissue Optics, Huazhong University of Science and Technology, 3 November, 2012.
13. V.V. Tuchin, Tissue Optics and Measurements in Biophotonics, University of Eastern Finland - Joensuu Summer School on Optics, June 10-14, 2013.
14. V.V. Tuchin, Tissue Optics and Optical Clearing, Research Training Course “Biophotonics – Riga 2013,” 26-28 August, Riga, Latvia, 2013.
15. V. Tuchin, Tissue Optics and Tissue Optical Clearing, 1st OILTEBIA European School organized by Universidad Carlos III de Madrid (UC3M), Leganés, Madrid (Spain), 15-19 September 2014.
16. V. V. Tuchin, Tissue Optical Clearing, Tzinghua University in Shenzhen, China, November 12, 2014, for PhD and MS students of Biomedical Engineering
17. V.V. Tuchin, Advanced tissue optical clearing, Huazhong University of Science and Technology, Wuhan, November 16, 2014. The inauguration lecture as a receiver of the Chimes Prize of Hubei Province, China

18. V.V. Tuchin, Tissue Optics and Photonics, 3rd FAST-DOT Summer School «Photonics meets Biology», 28 September - 2 October 2015, Royal Mare Thalasso & Spa Hotel, Anissaras, Crete, Greece – two lectures.

19. V. V. Tuchin, "Tissue optics and nanomedicine," SPIE Short Course, SPIE Student Chapter of University of Houston, February 11-12, 2016, Houston, USA.

20. V. V. Tuchin, "Tissue optical clearing: new prospects in optical imaging and therapy," Visiting Professor Lecture, Baylor College of Medicine, Texas Children's Hospital, February 12, 2016, Houston, USA.

21. V. V. Tuchin, "Nanoparticle enhanced optical biomedical imaging, sensing and therapy," 2nd International Young Scientists School "Nanostructured materials," 10-11 May 2016, Tomsk, Russia.

22. V.V. Tuchin, "Enhanced optical imaging: from UV to terahertz and from *in vitro* to *in vivo*," SPIE Short Course, OPTO2016 and COST, Gdansk, July 6-9, 2016.

23. V. V. Tuchin, "Tissue optical clearing: new prospects in optical imaging," SPIE Short Course, Hamyln Centre for Robotic Surgery, Imperial College London, Imperial Optical Society, 9 September, 2016, London, UK.

24. V.V. Tuchin, "Tissue optical clearing and delivery of agents and nanoparticles," Shenzhen University, October 19, 2016, Shenzhen, China.

25. V.V. Tuchin, "Fundamentals and advances of tissue and blood optical clearing," University of Macau, October 21, 2016, Macau, China

26. V. V. Tuchin, "Tissue optics and optical clearing technologies" NANQIANG life science series lectures of Xiamen University, October 24, 2016, Xiamen, China.

27. V.V. Tuchin, "Tissue optical clearing method," Chinese-Russian Workshop on Biophotonics, Nanjing University of Aeronautics & Astronautics, October 26, 2016, Nanjing, China.

28. V.V. Tuchin, "Tissue optics and mechanisms of tissue optical clearing," China Pharmaceutical University, October 27, 2016, Nanjing, China.

29. В.В. Тучин, Оптика биологических тканей и оптическое просветление, 1st School on Advanced Fluorescence Imaging Methods (ADFLIM), Москва, 12-14 декабря 2016.

30. V.V. Tuchin, "UV to THz enhanced tissue imaging at immersion clearing: from *in vitro* to *in vivo*," SPIE Short Course, SPIE Student Chapter of MIET, Moscow, December 12, 2016.

31. V.V. Tuchin, "Enhanced spectroscopy and imaging of tissues by immersion clearing: from UV to terahertz," SPIE Short Course, SPIE Student Chapter of Moscow Bauman University, Moscow, January 25, 2017.

32. V.V. Tuchin, Biological tissue optics and optical clearing, 2nd School on ADFLIM, St. Petersburg, 26-28 July 2017.

33. V.V. Tuchin, Tissue immersion optical clearing: from *in vitro* to *in vivo,* OSA Short Course, OSA Student Chapter of University of Houston, Houston, January 25, 2018.

34. V.V. Tuchin, "Tissue optics and tissue optical clearing," Research Center in Automatic Control in Nancy (CRAN) UMR 7039 CNRS, Université de Lorraine, Vandoeuvre-lès-Nancy, France, April 27, 2018 (invited lecture).

35. Valery Tuchin,"Tissue optical clearing as a platform for *in vivo* optical imaging and treatment of hidden pathologies: from UV to terahertz," Lecture for SPIE Student Chapter of Bar-Ilan University, Israel, November 18, 2018.

36. Valery Tuchin, "Tissue optics and optical clearing for functional imaging," Lecture on 30th International SAOT Workshop, Functional Optical Imaging in Medical Engineering, November 29 – 30, 2018, Friedrich-Alexander Universität Erlangen-Nürnberg, Germany.

37. Valery Tuchin, "Tissue optical clearing for multimodal imaging: from *in vitro* to *in vivo* Lecture for Students of University of Florence, Florence, Italy, December 20, 2018.

38. V.V. Tuchin, "Tissue optics and optical clearing of tissues and cells," São Paulo School of Advanced Science on Modern Topics in Biophotonics, São Carlos/SP, Brazil, 20-29 March, 2019 (Short Course - three lectures).

39. Valery Tuchin, Tissue optical clearing aiming multimodal imaging: from *in vitro* to *in vivo*, SPIE Lecture, Technical University of Munich, Minich, June 27, 2019.

40. В.В. Тучин, Оптическое просветление биологических тканей в задачах мультимодальной визуализации: от *in vitro* к *in vivo*, Публичная лекция в Первом МГМУ им. И.М. Сеченова, Москва, 4 декабря 2019.

41. Valery Tuchin, Tissue optical clearing towards multimodal imaging: from *in vitro* to *in vivo*, University of Massachusetts, Boston, January 29, 2020. OSA Short Course: https://sites.uml.edu/abl/news-and-events/

42. Valery Tuchin, Tissue optical clearing towards multimodal imaging: from *in vitro* to *in vivo*, OSA Fellow Lecture Program, Feb. 27, 2020, Manipal Academy of Higher Education, Manipal, India. https://www.osa.org/en-us/awards_and_grants/fellow_members/fellow_lecturer_program/fellow_lecturer_trips/

43. Valery Tuchin, Tissue optics and noninvasive optical clearing to look in depth, OSA Fellow Lecture Program, Feb. 29, 2020, Indian Institute of Science Education and Research Kolkata (IISER-K), India. https://www.osa.org/en-us/awards_and_grants/fellow_members/fellow_lecturer_program/fellow_lecturer_trips/

44. Valery Tuchin, Tissue optical clearing towards multimodal imaging: from *in vitro to in vivo*, OSA Fellow Lecture Program, March 2, 2020, Chaudhary Charan Singh University, Meerut (UP), India. https://www.osa.org/en-us/awards_and_grants/fellow_members/fellow_lecturer_program/fellow_lecturer_trips/

45. Valery Tuchin, A clear vision for laser diagnostics and therapy, PhD seminar series: Robotics, Lasers and beyond, The University of Basel, Switzerland, April 14, 2020, Internet Course.

46. Valery V. Tuchin, Tissue Optics and Tissue Optical Clearing for in-depth Imaging and Therapy, International summer school «Biophotonics», 20-26 July, 2020, MEPhI, Moscow, Russia 20-26 июля, 2020 г., Москва, Россия Международная летняя онлайн школа “Биофотоника”

47. Valery V. Tuchin, Tissue Optics and Photonics: Prospects for Multimodal Imaging and Treatment, Summer school on “Lasers and Biomedical Photonics (LBMP 2020), The National Lasers in Medicine Research Network, the Research Center of Laser Applications in Medical Sciences and the Medical Laser Research Center. 5-10 September 2020, Tehran, Iran. http://en.pam.isti.ir/news/-International-Summer-School-of-Lasers-and-Biomedical-Photonics

48. Valery Tuchin, JBO Webinar Series, Hot Topics in Biomedical Optics, https://my.demio.com/ref/vM8mTkrAVC2MnHAQ, Seeing Through Tissue II: Tissue Clearing Methods, Date/Time: October 19, 2020, 12-1:30 EDT, Speakers: Valery Tuchin (Saratov St U Russia), Jonathan Liu (U Washington USA), Dan Zhu (Huazhong U S&T China), Kwanghun Chung (MIT USA), Moderators: Brian Pogue & David Sampson. https://sfmconference.org/files/overview-slide-5.pdf

49. Valery Tuchin, Tissue Optics and Tissue Optical Clearing for in-depth Imaging, Центр квантовых технологий МГУ им. М.В. Ломоносова Seminars of Quantum Technology Centre, Moscow State University, March 9, 2021. https://www.youtube.com/watch?v=WKuaqUkXhWA

50. В.В. Тучин, Оптическое просветление биологических тканей: на пути к мультимодальной медицинской диагностике, XXII Зимняя Школа по механике сплошных сред, Пермь, 22-26 марта 2021, ПФИЦ УрО РАН. https://conf.icmm.ru/event/2/attachments/2/47/%D0%9A%D0%BD%D0%B8%D0%B3%D0%B0%20%D1%82%D0%B5%D0%B7%D0%B8%D1%81%D0%BE%D0%B2%20%D1%81%20%D0%BE%D0%B1%D0%BB%D0%BE%D0%B6%D0%BA%D0%BE%D0%B9.pdf

51. В.В. Тучин, Фотоника в биомедицинских исследованиях: современные возможности и перспективы, Вебинар, 30 марта 2021, Международный совет междисциплинарной научно-образовательной школы Московского университета «Фотонные и квантовые технологии. Цифровая медицина». Член международного совета Школы, https://www.youtube.com/watch?v=6vwvfSf75BY

52. Valery Tuchin, Towards multimodal tissue imaging with optical clearing, Iternational Day of Light, Symposium on Photonics Science and Technology 2021, Fitzpatrick Institute for Photonics (FIP) Annual Meeting, May 16-18, 2021, Duke University, Durham, NC (Plenary lecture). https://www.youtube.com/watch?v=OXXaK-G4-HM https://fitzpatrick.duke.edu/2021-fip-symposium-frontiers-photonics

53. Valery Tuchin, Multimodal MRT/CT/optical tissue imaging, AspectImaging Inc. The Pre-clinical Webinar Series Program, featured speaker, July 13, 2021. https://twitter.com/Aspect_imaging/status/1407820773688029187/photo/1

54. Valery Tuchin, Optical clearing methods in the Biophotonics field and its possibilities for translation into clinical application, LIFE-Seminar R&D to get a view beyond your horizon, University of Munich, July 26, 2021 uni-muenchen.de/LIFE-Zentrum

55. В.В. Тучин, Как Герберт Уэллс предвосхитил научные открытия, и как сделать человека-невидимку без магии? Фестиваль SMOGMARKET, Саратов, 29 августа 2021г. https://smog-mag.ru/home/lektsii-na-festivale-smogmarket (Популярная лекция).

56. L. M. Oliveira, T. M. Gonçalves, A. R. Botelho, L. R. Oliveira, I. S. Martins, H. F. Silva, I. Carneiro, S. Carvalho, R. Henrique, V. V. Tuchin, Spectroscopic evaluation of pigment content in tissues and its role in cancer detection, VI Photonics meets Biology, Summer School and Workshop, 27 July -1 August 2022, Spetses Island, Greece (приглашенная лекция). https://www.farsarilab.com/summerschool

57. V.V. Tuchin, Optical clearing as a tool for multimodal tissue imaging, Summer School on Lasers and Biomedical Photonics (LBMP 2022), The National Lasers in Medicine Research Network, September 18-22, 2022, Tehran, Iran.

58. V.V. Tuchin, Contribution of Hubei province and Saratov region to world achievements and training of young talents in the field of biophotonics, The Conference on Overseas Chinese Pioneering and Developing in China 2022—International Youth Talent Summit, Wuhan, China, Nov. 16, 2022 (invited lecture).

Подготовка кадров

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25. Черкасова Ольга Алексеевна – 2007
26. Акчурин Георгий Гарифович – 2009
27. Малинин Антон Владимирович – 2013
28. Янина Ирина Юрьевна – 2013
29. Ерохин Павел Сергеевич – 2015
30. Жерновая Ольга Сергеевна – 2015 (Ирландия)
31 Постнов Дмитрий Дмитриевич – 2015
32. Трунина Наталья Андреевна – 2016
33. Тимошина Полина Александровна – 2017
34. Селифонов Алексей Андреевич – 2021
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40. Зайцев Сергей – 2022 (Франция)

Научно-исследовательские проекты

1. «Оптические методы диагностики нано- и мезоскопических сред», Аналитическая ведомственная целевая программа «Развитие научного потенциала высшей школы (2009 – 2011 гг.)»; № 2.1.1/4989. Руководитель
2. «Развитие научно-образовательной структуры по когерентной оптике и биофотонике», Аналитическая ведомственная целевая программа «Развитие научного потенциала высшей школы (2009 – 2011 гг.)»; № 2.2.1.1/2950. Руководитель
3. «Исследование взаимодействия оптического излучения с биологическими тканями и разработка когерентно-оптических и спектральных методов медицинской диагностики и фототерапии», Тематический план научно-исследовательских работ СГУ по заданию Минобразнауки на 2005 – 2014 годы; № 1.4.09. Руководитель
4. 7-ая Рамочная Программа Евросоюза в области технических и естественных наук, грант № 224014 Network of Excellence for Biophotonics (Photonics4Life), 2008-2012. Руководитель
5. “Noninvasive assessment of topical drug delivery in ocular tissues” Grant RUB1-2932-SR-08 of U.S. Civilian Research and Development Foundation for the Independent States of the Former Soviet Union (CRDF) with University of Houston; Cooperative Grants Program-Biomedical Competition, 2009-2011. Руководитель
6. «Физические и физиологические механизмы оптического просветления», РФФИ, №08-02-92224-ГФЕН_а; российско-китайский проект, 2008 – 2010. Руководитель
7. «Организация и проведение XIII Ежегодной Международной Междисциплинарной Школы для молодых ученых и студентов по оптике, лазерной физике и биофотонике», РФФИ, №10-02-06824-моб_г, 2010. Руководитель
8. «Влияние структурно-морфологических особенностей биотканей на их оптические характеристики и световые поля в ближнем УФ - ближнем ИК спектральном диапазоне», РФФИ, №10-02-90039-Бел_а; российско-белорусский проект, 2010 – 2011. Руководитель

9. «Клинико-экспериментальное обоснование неинвазивной технологии экспресс диагностики развития острых кровоточащих гастродуоденальных язв», РФФИ, №11-02-00560-а 2011 – 2013. Руководитель

10. «Исследование терапевтических, токсических и термических воздействий комплексов наночастица-фотосенсибилизатор при лазерном воздействии», госконтракт № 02.740.11.0484; ФЦП «Научные и научно-педагогические кадры инновационной России» на 2009-2013 гг. Руководитель

11. «Разработка оптических методов исследования и мониторинга изменений параметров биологических тканей и цельной крови при изменении содержания глюкозы в тканях организма человека и животных», госконтракт № 02.740.11.0770; ФЦП «Научные и научно-педагогические кадры инновационной России» на 2009-2013 гг., Руководитель

12. «Разработка новых фотонных технологий анализа биофизических процессов в живых организмах на субклеточном, клеточном и тканевом уровнях для задач неинвазивной и минимально-инвазивной диагностики и терапии», госконтракт № 02.740.11.0879; ФЦП «Научные и научно-педагогические кадры инновационной России» на 2009-2013 гг. Руководитель

13. «Исследование оптических свойств биологических тканей и крови, направленное на создание фундаментальных основ оптической медицинской диагностики и лазерной терапии» (2012 – 2013 гг). Грант Президента Российской Федерации для государственной поддержки ведущих научных школ Российской Федерации НШ-1177.2012.2 Руководитель

14. “The developing of research infrastructure and approaches to optical point-of-care medical diagnostics,” Uzbek AS, Univ. Hospital Zurich, Switzerland, SCOPES EC, Swiss NSF, 2011/14. Design of POC medical instruments. Руководитель

15. Грант РФФИ: 11-02-06825-моб_г «Организация и проведение XV Ежегодной Международной Междисциплинарной Школы для молодых ученых и студентов по оптике, лазерной физике и биофотонике», 2011. Руководитель

16. Грант РФФИ: 11-02-07045-д Издание монографии "Оптика биологических тканей: Методы рассеяния света в медицинской диагностике", 2011. Руководитель

17. Грант РФФИ: 11-02-12248-офи-м-2011 «Развитие современных практических методов терагерцовой диагностики для целей применения в системах обнаружения опасных и наркотических веществ, системах биологический защиты», 2011-2012. Руководитель

18. Грант РФФИ: 12-04-91200-ГФЕН_г «Организация и проведение Российско-Китайского семинара по бифотонике и биомедицинской оптике», 2012. Руководитель

19. Разработка компьютерного диагностического комплекса для выявления ранних патологических изменений в кровотоке мозга, 2012 – 2013, ФЦП «Исследования и разработки по приоритетным направлениям развития научно-технического комплекса России на 2007-2013 годы», гос. контракт 11.519.11.2035. В рамках международного договора с Австралией. Руководитель

20. Развитие физических основ и приложений высокоразрешающей томографической и поляризационной микроскопии для субмикронного анализа объемной структуры объектов технического и биологического происхождения, 2012 – 2013, ФЦП "Научные и научно-педагогические кадры инновационной России" на 2009 - 2013 годы, гос. контракт 14.B37.21.0728. Руководитель

21. Разработка когерентно-оптических биосенсоров на генетическом, клеточном и организменном уровнях организации, 2012 – 2013, ФЦП "Научные и научно-педагогические кадры инновационной России" на 2009 - 2013 годы, гос. контракт 14.B37.21.0563. Руководитель

22. Лазерная трансфекция клеток и тканей, меченных золотыми нанооболочками, 2012 – 2013, РФФИ, грант 12-02-92610-КО_а. Руководитель

23. Biophotonic technologies for novel diagnostic and therapeutic applications, FiDiPro (Finland Distinguished Professor) Program, awarded by TEKES, №40111/1 (2011-2014), V.V. Tuchin – FiDiPro. Руководитель

24. Грант РФФИ: 13-02-91176-ГФЕН_а, Механизмы оптического просветления кожи в норме и патологии, количественная оценка, 2013-2014. Руководитель

25. Научный проект по организации Международного симпозиума по оптике и биофотонике "Saratov Fall Meeting 2013". Грант РФФИ, 13-02-06107Г_2013. 2013. Руководитель

26. Разработка научно-технических основ бесконтактной терагерцовой диагностики распространенных заболеваний человека (включая онкологические и эндокринные) на основе исследования спектральных характеристик кожной ткани и крови, 2013, ФЦП «Исследования и разработки по приоритетным направлениям развития научно-технического комплекса России на 2007-2013 годы», гос. контракт 14.512.11.0022. Руководитель

27. “Exploring for the technology in the field of in-vivo optical clearing for fat tissue” OLYMPUS CORPORATION (43-2, Hatagaya 2-Chome, Shibuya-ku, Tokyo, Japan) (2013-2015), 84,000 USD. Руководитель

28. «Исследование оптических и биофизических свойств биологических тканей и жидкостей, направленное на создание фундаментальных основ оптической медицинской диагностики и лазерной терапии, включая point-of-care медицину», грант Президента РФ для государственной поддержки ведущих научных школ Российской Федерации НШ-703.2014.2 (2014-2015). Руководитель

29. Грант РФФИ: № 14-02-00526а, Разработка чувствительных методов диагностики риска развития интракраниальных геморрагий в первые дни после рождения (2014-2016). Руководитель

30. «Дистанционно управляемые наноструктурированные системы для адресной доставки и диагностики», грант Правительства Российской Федерации 14. Z50.31.0004 для государственной поддержки научных исследований, проводимых под руководством ведущих ученых (Г.Б. Сухоруков) в российских образовательных учреждениях высшего профессионального образования, научных учреждениях государственных академий наук и государственных научных центрах Российской Федерации, (2014- 2018), руководитель научной группы.

31. Грант РНФ: 14-15-00186, Прецизионная метрология пространственно-временных оптических и тепловых процессов, индуцированных импульсным лазерным облучением биологических тканей и клеток, допированных наночастицами (2014-2016). Руководитель

32. Грант РНФ: 14-15-00128, Ворота гематоэнцефалического барьера: механизмы регуляции, их зависимость от состояния организма и возраста, способы коррекции с помощью супрамолекулярных транспортных систем (2014-2016) – исполнитель.

33. Научный проект по организации Международного симпозиума по оптике и биофотонике "Saratov Fall Meeting 2014". Грант РФФИ, 14-02-20101г_2014. 2014. Руководитель

34. Научный проект по организации Международного симпозиума по оптике и биофотонике "Saratov Fall Meeting 2015". Грант РФФИ,15-02-20633 г_2015. 2015. Руководитель

35. Грант Президента РФ для государственной поддержки ведущих научных школ Российской Федерации № 14.Z57.16.7898-НШ «Оптика и биофотоника биологических тканей: методы медицинской диагностики и терапии» (2016-2017). Руководитель

36. Грант РФФИ:16-02-20591 г_2016. Научный проект по организации Международного симпозиума по оптике и биофотонике "Saratov Fall Meeting 2016". 2016. Руководитель

37. Грант РФФИ: № 16-32-50128 мол_нр, «Влияние наночастиц, используемых для биомедицинских применений, на микрореологические свойства крови», 2016. Руководитель

38. Грант РФФИ: 17-02-20536 г_2017. Научный проект по организации Международного симпозиума по оптике и биофотонике "Saratov Fall Meeting 2017". 2017. Руководитель

39. Грант РФФИ: №17-02-00358, "Технология "открытия" гематоэнцефалического барьера с помощью лазерной генерации синглетного кислорода," 2017-2019, 2100 т.р., Руководитель

40. Государственное задание Министерства образования и науки Российской Федерации: 17.1223.2017/ПЧ, «Разработка технологий оптического «открытия» гематоэнцефалического барьера и персонифицированного лечения агрессивных форм глиальных опухолей», 2017-2019. Исполнитель

41. Грант РФФИ: № 17-00-00275 (17-00-00272) «Формирование изображений биологических тканей (биоимиджинга) с помощью использования магнитных наночастиц и гиперосмотических агентов», в рамках комплексного проекта 17-00-00275 (К) «Информативные признаки социально-значимых заболеваний в терагерцовом диапазоне

частот: мультиспектральные исследования биологических тканей, жидкостей и выдыхаемого воздуха», 2017-2020. Исполнитель

42. Грант РФФИ: 18-02-20120 г_2018. Научный проект по организации Международного симпозиума по оптике и биофотонике "Saratov Fall Meeting 2018". 2018. Руководитель

43. Грант РФФИ: № 18-52-16025 НЦНИЛ_а «Исследование и разработка эффективных оптических технологий для диагностики в дерматологии», 2018-2021. 3400 т.р., Руководитель

44. НИР «Лазерная фемтосекундная оптопорация клеток и биотканей для трансфекции клеток *in situ*». Программа фундаментальных исследований Президиума РАН № 32 «Наноструктуры: физика, химия, биология, основы технологий» подпрограмма «Нанобиотехнологии», 2018-2020. ИПТМУ РАН. Руководитель

45. Грант РФФИ: № 18-29-02060 мк, «Комбинированная термографическая и терагерцовая визуализация биологических тканей в диагностике новообразований кожи и слизистых», 2018-2021. Исполнитель

46. Грант РФФИ: № 19-32-50075 мол_нр, «Поиск оптимальных агентов для иммерсионного оптического просветления биологических тканей в терагерцовом диапазоне», 2019-2020. Аспирант МГТУ им. Баумана Черномырдин Н.В.- исполнитель, 720 т.р., Руководитель

47. «Фотоакустические технологии для ранней тераностики метастатических опухолей», грант Правительства Российской Федерации 14. Z50.31.0044 для государственной поддержки научных исследований, проводимых под руководством ведущих ученых (В.П. Жаров) в российских образовательных учреждениях высшего профессионального образования, научных учреждениях государственных академий наук и государственных научных центрах Российской Федерации (2018 - 2021), руководитель научной группы. №075-15-2021-617

48. «Визуализация и инженерия эукариотических геномов», грант Правительства Российской Федерации 14.W03.31.0023 для государственной поддержки научных исследований, проводимых под руководством ведущих ученых (А.А. Богданов) в российских образовательных учреждениях высшего профессионального образования, научных учреждениях государственных академий наук и государственных научных центрах Российской Федерации (2018 - 2021), руководитель научной группы.

49. “Открытие фундаментальных механизмов сна для прорывных технологий нейрореабилитационной медицины” грант Правительства Российской Федерации 075-15-2019-1885 для государственной поддержки научных исследований, проводимых под руководством ведущих ученых (Пензель Томас Уолтер Фридель) в российских образовательных учреждениях высшего профессионального образования, научных учреждениях государственных академий наук и государственных научных центрах Российской Федерации (2019 - 2022), исполнитель. Продолжение 075-15-2022-1094. V.V.T. was supported by the Government of the Russian Federation under grant no. 075-15-2022-1094.

50. Грант РФФИ: № 20-32-90058-аспиранты, «Исследование оптических свойств белков крови и их гликированных фракций рефрактометрическим и флуоресцентным методами в широком диапазоне длин волн и температур», Аспирант Лазарева Е.Н., научный руководитель – 2020-2022- 1200 т.р.

51. Грант РФФИ: № 20-02-22044 - Научные мероприятия, «Проект организации и проведения Международного симпозиума "Оптика и биофотоника - VIII" (Saratov Fall Meeting - SFM’20)», научный руководитель – 2020- 876 т.р.

52. Грант РФФИ: № 20-12-50328- экспансия, Методы исследования сверхслабого свечения биологических объектов (аналитический обзор) – исполнитель, 2020-2021- 300 т.р.

53. «Разработка методов скрининговой неинвазивной диагностики вирусных и бактериальных респираторных инфекций с использованием лазерной спектроскопии и методов искусственного интеллекта» грант Правительства Российской Федерации (№ 075-15-2021-615) для государственной поддержки научных исследований, проводимых под руководством ведущих ученых (Игорь К. Леднев) в российских образовательных учреждениях высшего профессионального образования, научных учреждениях государственных академий наук и государственных научных центрах Российской Федерации (2021 - 2023), руководитель научной

группы. Исследования выполнены при поддержке гранта по Постановлению Правительства Российской Федерации № 220 от 09 апреля 2010 г. (Соглашение № 075-15-2021-615 от 04.06.2021 г.). The research was carried out with the support of a grant under the Decree of the Government of the Russian Federation No. 220 of 09 April 2010 (Agreement No. 075-15-2021-615 of 04 June 2021).

54. “Interaction of light with tissues: A hyper-spectral approach,” ARC Projects DP210103342 The University of Queensland Investigators: Prof Aleksandar Rakic; Dr Karl Bertling; Dr Isaac Afara; Prof Dr Valery Tuchin, Funding: $473,712, 31/12/2020 - 31/12/2023; Final Report: 31/12/2024.

55. «Биорезорбируемые имплантируемые устройства на основе трибоэлектрических наногенераторов», Грант Министерства науки и высшего образования Российской Федерации № 13.2251.21.0009 в области науки в форме субсидии из федерального бюджета на обеспечение проведения научных исследований российскими научными организациями и (или) образовательными организациями высшего образования совместно с организациями из стран-членов ЕС в рамках многостороннего сотрудничества в программе «Горизонт 2020», включая инициативы ERA-NET, в рамках обеспечения реализации программы двух- и многостороннего научно-технологического взаимодействия. 2021-2023 – исполнитель; (30 + 43.5) млн руб. Работа выполнена при финансовой поддержке гранта Минобрнауки № 13.2251.21.0009 (соглашение № 075-15-2021-942).This work was carried out with the financial support of grant No. 13.2251.21.0009 of the Ministry of Science and Higher Education of the Russian Federation (agreement No. 075-15-2021-942). The work of VVT is supported by the Ministry of Science and Higher Education of the Russia Federation within the framework of the State Assignment of RC of Biotechnology of the RAS.

56. Программа развития Саратовского государственного университета (Приоритет-2030), научно-исследовательское направление «Технологии персонализированной медицины», руководитель

57. Лаборатория ТГУ Приоритет 2030. Исследование выполнено при поддержке Программы развития Национального исследовательского Томского государственного университета (Приоритет-2030); This study was supported by the Tomsk State University Development Programme (Priority-2030).

58. Advanced Research Grant Project No. 21AG-1C082 “Implementation of laser-optical techniques for development of medical diagnostic devices” (2021-2026) funded by the Committee of Science of the Republic of Armenia, Prof. Aram Papoyan from the Institute for Physical Research (IPR), NAS of Armenia (PI from the Russian side), 15000 USD (Russian mobility funding).

59. “Enhancement of optical monitoring of blood brain barrier opening and (g)lymphatic system” (2020-2023) funded by Academy of Finland (Mobility funding), University of Oulu (PI from the Russian side), 20000 Eur (Russian mobility funding).

60. «Диагностика и мониторинг патологических процессов в тканях и органах методами мультимодальной визуализации и их автоматизация с помощью машинного обучения» (01.02.2023 – 31.12.2025), Минобрнауки России в рамках выполнения государственного задания (проект № FSRR-2023-0007), руководитель. Работа выполнена при поддержке Минобрнауки России в рамках выполнения государственного задания (проект № FSRR-2023-0007). This work was supported by the Ministry of Science and Higher Education of Russian Federation within the framework of a state assignment (project No. FSRR-2023-0007).

61. «Разработка фундаментальных основ метода оптического просветления биологических тканей и его приложение к решению задач диагностики и терапии патологических процессов», РНФ грант № 23-14-00287 (2023-2025), руководитель.

Валерий Тучин,
Саратов, апрель 2023