


VALERY V. TUCHIN
CURRICULUM VITAE

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Valery V. Tuchin, PhD, Dr. Sc. DOB: Feb. 4, 1944	The corresponding member of the Russian Academy of Sciences; Professor, Head of Chair, Head of Laboratory, Director of Institute and Science Medical Center, Saratov State University (National Research University of Russia) (SSU); E-mail: tuchinvv@mail.ru		
EDUCATION			
Institution/ location	Degree	Year	Field of study
SSU	MS	1966	Radiophysics and Electronics
SSU	PhD	1974	Optics
SSU	Doctor of Science, Phys. & Math.	1982	Quantum Electronics

PROFESSIONAL EXPERIENCE

1966–1982 Engineer, Research Institute of Mechanics and Physics, Saratov State University (SSU), Assistant Professor, Senior Lecturer, Associate Professor, Chair of Optics, SSU
1982–1989 Dean of Faculty of Physics, SSU
1983–present Professor, Head of Chair of Optics and Biophotonics, SSU
1989–present Head of Laboratory of Laser Diagnostics of Technical and Living Systems, Institute of Precision Mechanics and Control, Russian Academy of Sciences
2000–2015 Director on International Links, CRDF Research-Education center REC-006, “Nonlinear Dynamics and Biophysics,” SSU
2003–present Director of Research-Educational Institute of Optics and Biophotonics, SSU
2007–present Director of International Research-Educational Center of Optical Technologies for Industry and Medicine “Photonics”, SSU
2011–2014 FiDiPro Professor (Finland Distinguished Professor), University of Oulu, Finland
2014–present Supervisor of Interdisciplinary Laboratory on Biophotonics of National Research Tomsk State University, Tomsk
2017–present Supervisor of Laboratory of FemtoMedicine of ITMO University, St.Petersburg
2020–present Director of Research Medical Center of SSU

PROFESSIONAL ACTIVITIES

Chairman of the Council Committee at SSU for the defense of doctoral dissertations in the field of optics and biophysics (physical and mathematical sciences).

Vice-President of the Russian Photobiological Society (2005-2011); Member of Council Committee of the Russian Photobiological Society (2005 to present).

Member of SPIE, OSA, and IEEE.

Editor-in-Chief of *J. Biomedical Photonics & Engineering*

Editor-in-Chief of *The Open Biomedical Engineering Journal*

Editor-in-Chief on *Optics and Photonics of MDPI Journal Materials*

Topical Editor/ Senior Advisory Editor of *Journal of Biomedical Optics*

Associated-Ed.-in-Chief/Member of Advisory Board of *J. Innovative Optical Health Sciences*

Deputy Editor-in-Chief of the *News of Saratov University. Ser. Physics*

Member of Advisory Board of *Quantum Electronics; Laser Medicine.*

International Advisory Board member of *Phys. Med. Biology* (2013-2016)

Member of Editorial Board of *J. of Biophotonics*; *Translational Biophotonics*; *Izvestiya VUZ “Applied Nonlinear Dynamics”*; *Optics and Spectroscopy*; *Letters to Journal of Technical Physics*; *J. of X-Ray Science and Technology – Clinical Applications of Diagnosis and Therapeutics*; *Journal of Applied Scientific Reports*; *Advanced Biomaterials and Devices in Medicine*; *Current Pharmaceutical Biotechnology*; *Frontiers of Optoelectronics.*

Guest or associated editor of *Phys. Med. Biol.*, *Medical Physics*, *Cytometry A*, *Biomed. Opt. Express.*, *JIOHS*, *J. of Applied Nonlinear Dynamics*, *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*, *Quantum Electronics*, *Optics and Spectroscopy*, *Photon. Lasers Med.*, *IEEE J. Selected Topics in Quantum Electronics*, *Materials*, *Optical Engineering*, *JBPE*, *Light: Applications and Science.*

Reviewer of peer-reviewed journals: *Science*, *Science Advances*, *Nature Communications*, *Science Translational Medicine*, *Nature Protocols*, *Nature Scientific Reports*, *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*, *Physics in Medicine and Biology*, *Optics and Spectroscopy*, *Quantum Electronics*, *J. of Applied Nonlinear Dynamics*, *Optics & Laser in Engineering (Singapore)*, *International Journal of Spectroscopy*, *Laser Photonics Rev.*, *Light: Applications and Science*, *PLoS ONE* etc.

Member of International Advisory and Executive Organizing Committees:

1. SPIE BIOS Symposium of Photonics West Symposia, USA (1997-2022);
2. SPIE Photonics Europe (2008-2022);
3. Member of Council Committee of SPIE Russian Chapter (1992-2004);
4. Has been a Member of SPIE Symposia Committee;
5. Has been a Member of SPIE Publication Committee;
6. Has been a Member of SPIE European President Appointed Advisory Committee;
7. Member/Chair of OSA Robert E. Hopkins Leadership Award Committee (2017/2018).
8. Member of OSA/SPIE Joseph W. Goodman Book Writing Award Committee (2018/2020)
9. Node Leader of Biophotonics4Life Worldwide Consortium (BP4L).
10. Member of the Board of Consortium Photonics4Life of the 7th Framework Programme
11. Member of Photonics21 – The European Technology Platform, Work Groups 3 and 7

12. Member of Russian Federation Technology Platform “Photonics”, Work Group on Biophotonics
13. Member of Russian Federation Technology Platform “Medicine of Future”, Work Group on International Links
14. Member of EPIC Biophotonics Committee, EPIC – European Photonics Industry Consortium
15. Member of the International Advisory Board, Britton Chance Center for Biomedical Photonics, Huazhong University of Science and Technology (HUST) (2013-2015).
16. Member of Advisory Board of School of Engineering Sciences, Wuhan National Laboratory for Optoelectronics, Huazhong University of Science and Technology (HUST) (2014-2019).
17. Member of the working group on Biological and Medical Sciences of Committee for Evaluation of Research Infrastructures for Inclusion in a National Roadmap of Germany (2016).
18. Expert of Israel Science Foundation (3 Projects).
19. Expert of European Union projects in the 7th Framework Programme and Horizon 2020
20. Expert of SFI Research Professorship Programme, Science Foundation of Ireland
21. Member of the Subcommittee “Thermal Medicine” of The American Society of Mechanical Engineers (since 2020).
22. The H2020 Project “(AMPLITUDE – Advanced Multimodal Photonics Laser Imaging Tool for Urothelial Diagnosis and Endoscopy [Grant Agreement: 871277] (2020-2023).

Founder and co-Founder, Chair and co-Chair of International conferences

1. SPIE/OSA supported Saratov Fall Meeting (chair: **Valery Tuchin**) (1996-2022)
2. Optical Coherence Tomography and Coherence Domain Optical Methods in Biomedicine, SPIE, Photonics West, USA (co-chairs: **Valery V. Tuchin**, James G. Fujimoto, Joseph A. Izatt) (1997-2019)
3. Dynamics and Fluctuations in Biomedical Photonics, SPIE, Photonics West, USA (co-chairs: **Valery V. Tuchin**, Martin J. Leahy, Ruikang K. Wang) (2005-2023)
4. International Conference on Photonics and Imaging in Biology and Medicine (PIBM), China (chairs: Qingming Luo, Lihong V. Wang, **Valery V. Tuchin**) (2001-2022).
5. Biophotonics: Photonic Solutions for Better Health Care, SPIE Photonics Europe (co-chairs: J.Popp, **V.V. Tuchin**, F. Pavone)(2008-2020).
6. Biophotonics, Programme track (Chairs: J.Popp, S. Gioux, **V.V. Tuchin**), SPIE Photonics Europe, Strasburg, France, 2020, 2022.
7. Tissue Optics and Photonics, SPIE Photonics Europe (co-chairs: **V. V. Tuchin**, W. C. P. M. Blondel, Z. Zalevsky) (2020-2022)
8. **Valery Tuchin** – Honorary co-chair of OPORTO 22 – 1st Spring Biophotonics Conference in Porto (Chair Luis Oliveira and Igor Meglinski) <https://stemm.tech/oporto22/>
9. International Symposium FLAMN-22, Fundamentals of Laser Assisted Micro– & Nanotechnologies, June 27 - 30, 2022, St. Petersburg, Russia, The 3rd International Scientific School “Biomedical Laser Technologies” (S02) (Chairmen: Andrey Belikov, **Valery Tuchin**, Vadim Veiko); <https://flamn.itmo.ru/>

Advisory Board and Program Committee member

1. BIOS Symposium of Photonics West Symposia, CIIA (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).
9. International Conference on Advanced Laser Technologies (2005-2022); 29th International Conference on Advanced Laser Technologies (ALT’22), Moscow, Russia, 11-16 September 2022.
10. International Conference on Nanoscience and Photonics for Medical Applications – ICNPMA”, Manipal Academy of Higher Education, Manipal, India (28-30th December, 2019, 2022); <https://conference.manipal.edu/icnpma2019/Default> .
11. 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>
12. 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>
13. **Moderator** of Seeing Through Tissue, JBO Webinar Series, Hot Topics in Biomedical Optics.
14. 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>
15. The 3rd International Conference “Biophotonics Riga – 2020”, 24-25 August, 2020, Riga.
16. The 4-th International Conference Terahertz and Microwave Radiation: Generation, Detection and Applications (TERA), August 24-26, 2020, Tomsk. <http://tera2020.tsu.ru/>
17. VII Троицкая конференция с международным участием "Медицинская физика" (ТКМФ-7), 19–21 октября 2020 г. <http://www.medphys.troitsk.ru/>
18. ICLO, St. Petersburg, November 2-6, 2020, <https://laseroptics.ru/general-information.html>
19. XII Международная конференция “Фундаментальные проблемы оптики” ФПО-2020, Санкт-Петербург, 19- 23 октября 2020 года.
20. SPIE Photonics Asia Conferences, Optics in Health Care and Biomedical Optics X (PA110), 11 - 13 October 2020, Beijing International Convention Center, Beijing, China
21. 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>
22. International Symposium Fundamentals of Laser Assisted Micro- & Nanotechnologies (FLAMN-22), June 27 - 30, 2022, St. Petersburg, Russia <https://flamn.itmo.ru/>
23. 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;

Since 1987 has organized more than 50 International Meetings in Russia, USA, China and Europe, and done more than 100 plenary and invited lectures.

TEACHING EXPERIENCE

Was a consultant and supervisor of 52 doctors of science and PhD.

Lecturing in University: General course of physics - Optics; special courses for undergraduate, MS and PhD students: Introduction to specialty - Biophotonics, Tissue Optics, Medical Lasers and Fiber Optics, Microstructured Optical Fibers for Medicine, Optical Measurements in Biomedicine, Optical Cytometry, Microspectral Analysis for Biomedicine.

Short-course instructor (more than 50 courses) on Optics and Spectroscopy of Tissues and Biophotonics for the Russian and International audience of PhD students, teachers, employees of companies and medical professionals (1991-2022) within the educational programs of SPIE, OSA, the most recent: Greece (2015), UK (2016), Lithuania (2017), Latvia (2017), Italy (2018), Germany (2015, 2018, 2019, 2021), USA (2015, 2016, 2018, 2020), Israel (2015, 2016, 2018), France (2017, 2018), Poland (2016), Spain (2017, 2018), Finland (2019), Republic of Korea (2016, 2017), Macau (2016), China (2016-2018), Japan (2016), Brazil (2019), India (2020), Switzerland (2020), Perm (Russia)(2021), Iran (2021, 2022), and Turkey (2022).

AWARDS

The recipient of the 2007 SPIE Educator Award in recognition of his unparalleled global contributions to education and dissemination of technical information in the field of biomedical optics and biophotonics, and his pioneering work for SPIE's biomedical optics educational programs. <http://spie.org/x15039.xml>

In 2016 was awarded by the biennial Joseph W. Goodman Book Writing Award, OSA/SPIE for *Tissue Optics: Light Scattering Methods and Instruments for Medical Diagnostics*, 3rd edition, PM 254, SPIE Press, Bellingham, WA, 2015, that recognizes a recent and outstanding book in the field of optics and photonics that has contributed significantly to research, teaching, and the optics and photonics industry. http://www.osa.org/en-us/awards_and_grants/awards/award_description/goodmanbookaward/ (2660 citations).

In 2019 was awarded by OSA Michael S. Feld Biophotonics Award for pioneering research in biophotonics, particularly in the field of tissue optics and tissue optical clearing, and for promoting biophotonics by educating future researchers through seminal monographs and reviews. https://www.osa.org/en-us/awards_and_grants/awards/award_description/michaelsfeld/

The recipient of the Russian Federation individual grants for the leading scientists, 1994-2003; the Russian Federation Presidential grants NN 25.2003.2, 208.2008.2, 1177.2012.2, 703.2014.2, and 7898.2016.2 “Supporting of Scientific Schools” (1996-2017); the Russian Ministry of Science and Education grant “Leading Research-Educational Teams” N 2.11.03 (2003-2014); George Soros Professor awards (1997-1999).

Professor **Tuchin** is the recipient of Award of International Academic Publishing Company “Nauka” for the best article: A collection of papers on Biomedical Optics published in “Optics and Spectroscopy” (2011); Chime Bell Prize of Hubei Province, China (2014), in appreciation of the positive contribution to the economic and social development in Hubei Province; and the NANQIANG Life Science Series Lectures Award of Xiamen University, China (2016).

In 2012, the book V.V. Tuchin, *Lasers and Fiber Optics in Biomedical Science*, 2nd edition, Fizmatlit, Moscow, 2010, was awarded by a certificate as the top publication on tutorials, handbooks and scientific-popular publications on laser topic by the Russian Laser Association and nominated by industrial enterprise.

HONORS

The corresponding member of the **Russian Academy of Sciences (2019)**; Honored Science Worker of the Russian Federation (1999); Honored Professor of SSU, The active member of the International Academy of Informatization (1994) and Academy of Natural Sciences (1996). Medal for Labor (1976); Order of the Red Banner of Labor (1986); Order of Friendship (2005).

SPIE Fellow (2004); OSA (OPTICA) Fellow (2016).

Finland Distinguished Professor (FiDiPro Professor), awarded by TEKES (2011-2014).

In 2018 was awarded by the Medal of D.S. Rozhdestvensky of the Optical Society named after D.S. Rozhdestvensky, in 2021 by the Medal of A.M. Prokhorov of the Academy of Engineering Sciences named after A.M. Prokhorov, and in 2022 by the Medal of S.I. Vavilov of the Optical Society named after D.S. Rozhdestvensky.

Guest Professor of HUST (Wuhan) and Tianjin Universities of China; Adjunct Professor of the Limerick University (Ireland) and National University of Ireland (Galway).

Special issue in honor of Professor **Valery V Tuchin's** contribution to the field of biomedical optics, Eds. R.K. Wang, A.V. Priezhev and S. Fantini, *J. Phys. D: Appl. Phys.*, vol. 38, 2005, pp. 2497-2747; Special issues on Laser Biophotonics, dedicated to the 70th anniversary of **V.V. Tuchin**, Eds. A.V. Priezhev, A.N. Bashkatov, E.A. Genina, *Quantum Electronics*, 44 (7 & 8), 2014; In Honor of **Valery V. Tuchin's** 70th Birthday, Ed. K. Larin, *J. Biophotonics*, 8 (4), 2015; Celebrating Prof. **Valery Tuchin's** 70th Birthday, Eds. K. V. Larin and D. Zhu, *J. Innovative Optical Health Sciences* 8 (4), 2015; Special issue (33 papers) dedicated to Prof. **Valery V. Tuchin**: Recent progress in optical probing and manipulation of tissue, Eds. K.V. Larin, D. Zhu, A. Priezhev, and D.D. Sampson, *Biomed. Opt. Express* (10(9), 2019): “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 Biophotonics dedicated to Prof. **Valery V. Tuchin**, Ed. N. Ghosh, *Asian Journal of Physics* 29 (1 & 2), 2020, pp.1-128.

RESEARCH INTERESTS

Biophotonics, biological and medical physics, tissue optics, tissue optical clearing, nanobiophotonics, speckle optics, OCT, polycapillary optics and photonic crystals, laser spectroscopy and imaging in biomedicine, nonlinear dynamics of optical and biological systems, optical and laser measurements, blood flow measurements.

PUBLICATIONS

Author or editor of more than **140** books, book chapters, special issues of journals, textbooks, tutorials, proceedings, booklets, and more than **1600** scientific papers and analytical reviews.

Google Sch. (20.10.2022) <https://scholar.google.com/citations?user=wkUfJAYAAAAJ&hl=en>

Number of publications (since 2017)	Number of citations (since 2017)	h-index (since 2017)	Mean number of citations per paper (since 2017)	Mean number of citations per year (since 2017)
1804 (502)	35410 (17089)	83 (56)	17.3 (29.0)	596.6 (2908.2)

Scopus (20.10.2022) <https://www.scopus.com/authid/detail.uri?authorId=36048347000>

Number of publications	Number of citations	h-index	Mean number of citations per paper	Mean number of citations per year
1292	18721	62	14.4	546.2

WoS (20.10.2022) <https://publons.com/researcher/1353614/valery-v-tuchin/metrics/>

Number of publications	Number of citations	h-index	Mean number of citations per paper	Mean number of citations per year
1117	14137	55	12.5	265.3

Most cited papers and books:

V.V. Tuchin, *Tissue Optics: Light Scattering Methods and Instruments for Medical Diagnostics*, 3rd ed., **PM 254**, SPIE Press, Bellingham, WA, 2015– 988 p. (**2660** citations).

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.* **38**, 2543-2555 (2005) (**1756** citations); in a shortlist of the 12 most important papers published in *J.Phys, D*, one of the most influential papers published last 50 years (IOP).

J.T. Alander, I. Kaartinen, A. Laakso, T. Pätilä, T. Spillmann, **V. V. Tuchin**, et al., A Review of Indocyanine Green Fluorescent Imaging in Surgery, *Int. J. Biomed. Imaging*, 2012, 940585, 26 p. (**65,315** views, **14,453** downloads, **1089** citations in Google Scholar). <https://doi.org/10.1155/2012/940585>

V.V. Tuchin (Ed.), *Handbook of Optical Biomedical Diagnostics*, SPIE Press, Bellingham, WA, USA **107**, 2002, 1093 p. (**843** citations).

A.N. Bashkatov, E.A. Genina, and **V.V. Tuchin**, Optical properties of skin, subcutaneous, and muscle tissues: a review, *J. Innov. Opt. Health Sci.* **4**(1), 9–38 (**2011**) (**772** citations).

V.V. Tuchin, et al., “Light propagation in tissues with controlled optical properties,” *J. Biomed. Opt.* **2**(4), 304-321, 1997 (**587** citations). One of the pioneering papers on tissue optical clearing.

SELECTED BOOKS

1. A.V. Priezzhev, V.V. Tuchin, and L.P. Shubochkin, *Laser Diagnostics in Biology and Medicine*, Moscow, Nauka, 1989. 238 p.
2. 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.
3. V.V. Tuchin, *Tissue Optics: Light Scattering Methods and Instruments for Medical Diagnosis*, SPIE Tutorial Texts in Optical Engineering **TT38**, Bellingham, WA, USA, 2000.

4. V.V. Tuchin (Ed.), *Handbook of Optical Biomedical Diagnostics*, SPIE Press **PM107**, Bellingham, WA, USA, 2002 – 1093 pp.
5. 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.
6. V.V. Tuchin, *Optical Clearing of Tissues and Blood*, **PM 154**, SPIE Press, Bellingham, WA, 2005 – 254 p.
7. V.V. Tuchin, L. Wang, and D.A. Zimnyakov, *Optical Polarization in Biomedical Applications*, Springer-Verlag, Berlin, Heidelberg, N.Y., 2006 - 275 p.
8. V.V. Tuchin (ed.), *Handbook of Optical Sensing of Glucose in Biological Fluids and Tissues*, CRC Press, Taylor & Francis Group, London, 2009 – 709 p.
9. V.V. Tuchin, *Lasers and Fiber Optics in Biomedical Science*, 2nd ed., Fizmatlit, Moscow, 2010 – 488 p.
10. Valery V. Tuchin (ed.), *Handbook of Photonics for Biomedical Science*, CRC Press, Taylor & Francis Group, London, 2010 – 815 p.
11. V.V. Tuchin (ed.), *Advanced Optical Flow Cytometry: Methods and Disease Diagnoses*, WILEY-VCH Verlag GmbH & Co. KGaA, Weinheim, 2011 – 701 p.
12. 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.
13. 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, 2013 – 1131 p.
14. J. Popp, V.V. Tuchin, A. Chiou, and S.H. Heinemann (Eds.), *Handbook of Biophotonics*, vol. 3: *Photonics in Pharmaceuticals, Bioanalysis and Environmental Research*, WILEY-VCH Verlag GmbH & Co. KGaA, Weinheim, 2012, 304 p.
15. V.V. Tuchin, *Dictionary of Biomedical Optics and Biophotonics*, SPIE Press, Bellingham, WA, 2012 – 576 p.
16. Tuchin, V.V. (Ed.) *Coherent-Domain Optical Methods: Biomedical Diagnostics, Environmental Monitoring and Material Science*. V. 1-2, 661+669 p., 2nd ed., Springer Reference, Science + Business Media, NY (2013), more than **60000** chapter downloads.
17. R.K. Wang and V.V. Tuchin, eds, *Advanced Biophotonics: Tissue Optical Sectioning*, CRC Press, Taylor & Francis Group, London, 2013 – 681p.
18. V.V. Tuchin, *Tissue Optics: Light Scattering Methods and Instruments for Medical Diagnostics*, 3rd ed., **PM 254**, SPIE Press, Bellingham, WA, 2015– 988 p. (**2630** citations)
19. 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.
20. V.V. Tuchin (Ed.), *Handbook of Optical Biomedical Diagnostics. Methods*, vol.2, 2nd ed., SPIE Press **PM263**, Bellingham, WA, USA, 2016 – 688 p.
21. L. Oliveira, V. V. Tuchin, *The Optical Clearing Method: A New Tool for Clinical Practice and Biomedical Engineering*, Basel: Springer Nature Switzerland AG, 2019 – 177 p.

22. V.V. Tuchin, J. Popp, and V.P. Zakharov (Eds.), *Multimodal optical diagnostics of cancer*, Basel: Springer Nature Switzerland AG, 2020, 600 p.
23. Dan Zhu, Elina Genina, and Valery Tuchin (Eds.), *Tissue optical clearing: new prospects in optical imaging*, CRC Press, Boca Raton, Florida, United States (2022), 688 p.
24. A.V. Dunaev, V.V. Tuchin (Eds.), *Biomedical Photonics for Diabetes Research*, Taylor & Francis Group LLC, CRC Press, Boca Raton, FL, September 29, 2022.

SELECTED BOOK CHAPTERS

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.
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6. V. Tuchin, Optical clearing of tissues in a broad spectral range from UV to THz, International Conference on Bio Sensing and Imaging (ICOBISI), Dec. 17-19, 2018, Florence (plenary).
7. V. Tuchin, Advances in tissue optical clearing: towards broadband multimodal imaging techniques and *in vivo* applications, The VII International Symposium "Topical Problems of Biophotonics – 2019" (TPB-2019), July, 27-31 2019, Nizhny Novgorod (invited).
8. V.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), Bangalore, India, Feb.24-28, 2020 (plenary).
9. 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)
10. 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, 7-9 June 2021, Photonics Days Israel, online event (invited).
11. 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).
12. Valery V. Tuchin, Optical Clearing as a Tool for Multimodal Tissue Imaging, BRICS Workshop on Biophotonics -2021, September 27–29, 2021, Saratov, Russia (invited).
13. 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).
14. 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).
15. 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).
16. V. V. Tuchin, Optical clearing of tissues as a new approach in antimicrobial and antifungal phototherapy, VIII International Symposium on Coherent Optical Radiation of Semiconductor Compounds and Structures, FI RAS, Moscow Nov. 23-25, 2021, Invited
17. 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)

18. 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).
19. V.V. Tuchin, “Transparency windows and optical clearing of biological tissues: issues of medical diagnostics and phototherapy”, Scientific session of the General Meeting of the Physical Sciences Department of the Russian Academy of Sciences, Moscow, December 13, 2021 (invited).
20. Valery Tuchin, Towards multimodal tissue imaging with optical clearing, International 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>
21. 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 (Invited lecture).
22. 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 (Invited lecture).
23. 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 (invited).
24. 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) (invited).
25. 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) (invited).
26. 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) (invited).
27. 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).
28. 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 (invited).
29. 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 International A. M. Prokhorov Symposium on Biophotonics, 20th International Conference Laser Optics ICLO 2022, St. Petersburg, Russia, 20—24 June, 2022 (invited).
30. 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 (invited).
 31. 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 (invited).
 32. 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 (plenary).
 33. 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 (invited).
 34. 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> .
 35. 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> .
 36. 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> .
 37. V.V. Tuchin, New optical biomedical technologies based on optical clearing of tissues), HOLOEXPO 2022, St. Petersburg, Russia, 20-23 September, 2022 (plenary).
 38. 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 (Invited lecture). <https://www.farsarilab.com/summerschool>
 39. 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 (Plenary lecture).
 - 40.

SUPERVISION AND DISSERTATION DEFENCE

Doctor of Science

1. Ulyanov Sergey Sergeevich
2. Dmitry Zimnyakov
3. Utz Sergey Rudolfovich
4. Tatyana Petrovna Denisova
5. Maksimova Irina Leonidovna

6. Avetisyan Yuri Artashesovich
7. Galanzha Ekaterina Ivanovna
8. Kochubey Vyacheslav Ivanovich
9. Berezin Kirill Valentinovich
10. Simonenko Georgy Valentinovich
11. Genina Elina Alekseevna - 2017

PhDs

1. Melnikov Leonid Arkadyevich
2. Akchurin Garif Gazizovich
3. Rabinovich Emmanuil Moiseevich
4. Chetverikov Vitaly Ivanovich
5. Shubochkin Lev Petrovich
6. Sinichkin Yury Petrovich
7. Gusev Valery Viktorovich
8. Maksimova Irina Leonidovna
9. Toronov Vladislav Yurievich
10. Tatarkova Svetlana Alekseevna
11. Yaroslavsky Ilya Vladimirovich
12. Izotova Vera Filippovna
13. Tatarintsev Sergey Nikolaevich
14. Kon Irina Lvovna
15. Alexander Sokolov
16. Meglinsky Igor Vladislavovich
17. Smolyakov Gennady Alexandrovich
18. Yaroslavskaya Anna Nikitichna
19. Radchenko Elena Yurievna
20. Peshkova Anna Yurievna
21. Genina Elina Alekseevna
22. Bashkatov Alexei Nikolaevich
23. Fedosov Ivan Vladlenovich
24. Surmenko Elena Lvovna - 2004
25. Cherkasova Olga Alekseevna - 2007
26. Akchurin Georgy Garifovich - 2009
27. Malinin Anton Vladimirovich - 2013
28. Yanina Irina Yurievna - 2013
29. Erokhin Pavel Sergeevich - 2015
30. Zhernovaya Olga Sergeevna - 2015
31. Postnov Dmitry Dmitrievich - 2015
32. Trunina Natalya Andreevna - 2016
33. Timoshina Polina Alexandrovna - 2017
34. Selifonov Alexey Andreevich - 2021
35. Sdobnov Anton Yurievich - 2021
36. Abdurashitov Arkady Sergeevich - 2022
37. Salem Samia Faruk Ibrahim - 2022
38. Yakovlev Dmitry Dmitrievich - 2022
39. Genin Vadim Dmitrievich - 2022
40. Semenova Nadezhda - 2022
41. Sergey Zaitsev - 2022

SELECTED PROJECTS (LAST 10 YEARS)

1. RFBR grant: 11-02-12248-ofi-m-2011 "Development of modern practical methods of terahertz diagnostics for the purposes of application in detection systems for hazardous and narcotic substances, biological protection systems", 2011-2012. PI
2. RFBR grant: 12-04-91200-GFEN_g "Organization and holding of the Russian-Chinese seminar on biophotonics and biomedical optics", 2012. PI
3. Development of a computer diagnostic complex for detecting early pathological changes in the blood flow of the brain, 2012 - 2013, Federal Target Program "Research and development in priority areas of development of the scientific and technical complex of Russia for 2007-2013", state. contract 11.519.11.2035. Under an international treaty with Australia. PI
4. Development of the physical foundations and applications of high-resolution tomographic and polarization microscopy for submicron analysis of the volumetric structure of objects of technical and biological origin, 2012 - 2013, Federal Target Program "Scientific and scientific-pedagogical personnel of innovative Russia" for 2009 - 2013, state. contract 14.B37.21.0728. PI
5. Development of coherent-optical biosensors at the genetic, cellular and organismal levels of organization, 2012 - 2013, Federal Target Program "Scientific and scientific-pedagogical personnel of innovative Russia" for 2009 - 2013, state. contract 14.B37.21.0563. PI
6. Laser transfection of cells and tissues labeled with gold nanoshells, 2012 – 2013, RFBR, grant 12-02-92610-KO_a. PI
7. Biophotonic technologies for novel diagnostic and therapeutic applications, FiDiPro (Finland Distinguished Professor) Program, awarded by TEKES, No. 40111/1 (2011-2014), V.V. Tuchin - FiDiPro. PI
8. RFBR grant: 13-02-91176-GFEN_a, Mechanisms of optical clearing of the skin in normal and pathological conditions, quantitative assessment, 2013-2014. PI
9. Scientific project for the organization of the International Symposium on Optics and Biophotonics "Saratov Fall Meeting 2013". RFBR grant, 13-02-06107Y_2013. 2013. PI
10. Development of scientific and technical foundations for non-contact terahertz diagnostics of common human diseases (including oncological and endocrine) based on the study of the spectral characteristics of skin tissue and blood, 2013, Federal Target Program "Research and development in priority areas of development of the scientific and technical complex of Russia for 2007-2013 ", contract 14.512.11.0022. PI
11. "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. PI
12. "Investigation of the optical and biophysical properties of biological tissues and fluids aimed at creating the fundamental foundations of optical medical diagnostics and laser therapy, including point-of-care medicine", grant of the President of the Russian Federation for state support of leading scientific schools of the Russian Federation NSh-703.2014.2 (2014-2015). PI
13. RFBR grant: No. 14-02-00526a, Development of sensitive methods for diagnosing the risk of developing intracranial hemorrhages in the first days after birth (2014-2016). PI
14. "Remotely controlled nanostructured systems for targeted delivery and diagnostics", grant of the Government of the Russian Federation 14. Z50.31.0004 for state support of scientific research conducted under the guidance of leading scientists (G.B. Sukhorukov) in Russian educational institutions of higher professional education, scientific institutions of state academies of sciences and state scientific centers of the Russian Federation, (2014-2018), head of the research group.

15. RSF grant: 14-15-00186, Precision metrology of space-time optical and thermal processes induced by pulsed laser irradiation of biological tissues and cells doped with nanoparticles (2014-2016). PI
16. RSF grant: 14-15-00128, Gates of the blood-brain barrier: regulatory mechanisms, their dependence on the state of the body and age, methods of correction using supramolecular transport systems (2014-2016) - researcher.
17. Scientific project for the organization of the International Symposium on Optics and Biophotonics "Saratov Fall Meeting 2014". RFBR grant, 14-02-20101_2014. 2014. PI
18. Scientific project for the organization of the International Symposium on Optics and Biophotonics "Saratov Fall Meeting 2015". RFBR grant, February 15, 20633, 2015. 2015. PI
19. Grant of the President of the Russian Federation for state support of leading scientific schools of the Russian Federation No. 14.Z57.16.7898-NSh "Optics and biophotonics of biological tissues: methods of medical diagnostics and therapy" (2016-2017). PI
20. RFBR grant: 16-02-20591_2016. Scientific project for the organization of the International Symposium on Optics and Biophotonics "Saratov Fall Meeting 2016". 2016. PI
21. RFBR grant: No. 16-32-50128 mol_nr, "The influence of nanoparticles used for biomedical applications on the microrheological properties of blood", 2016. PI
22. RFBR grant: 17-02-20536_2017. Scientific project to organize the International Symposium on Optics and Biophotonics "Saratov Fall Meeting 2017". 2017. PI
23. RFBR grant: No. 17-02-00358, "Technology for "opening" the blood-brain barrier using laser generation of singlet oxygen," 2017-2019, 2100 t.rub., PI
24. State task of the Ministry of Education and Science of the Russian Federation: 17.1223.2017/PC, "Development of technologies for optical "opening" of the blood-brain barrier and personalized treatment of aggressive forms of glial tumors", 2017-2019. Researcher.
25. RFBR grant: No. 17-00-00275 (17-00-00272) "Image formation of biological tissues (bioimaging) using magnetic nanoparticles and hyperosmotic agents", within the framework of the complex project 17-00-00275 (K) "Informative signs of socially significant diseases in the terahertz frequency range: multispectral studies of biological tissues, fluids and exhaled air", 2017-2020. Researcher
26. RFBR grant: 18-02-20120_2018. Scientific project to organize the International Symposium on Optics and Biophotonics "Saratov Fall Meeting 2018". 2018. PI
27. RFBR grant: No. 18-52-16025 NTsNIL_a "Research and development of effective optical technologies for diagnostics in dermatology", 2018-2021. 3400 t.rub. PI
28. Research work "Laser femtosecond optoporation of cells and biological tissues for in situ cell transfection". Fundamental research program of the Presidium of the Russian Academy of Sciences No. 32 "Nanostructures: physics, chemistry, biology, fundamentals of technology" subprogram "Nanobiotechnologies", 2018-2020. PI
29. RFBR grant: No. 18-29-02060 MK, "Combined thermographic and terahertz imaging of biological tissues in the diagnosis of neoplasms of the skin and mucous membranes", 2018-2021. Researcher.
30. RFBR grant: No. 19-32-50075 mol_nr, "Search for optimal agents for immersion optical clearing of biological tissues in the terahertz range", 2019-2020. Postgraduate student of Moscow State Technical University Bauman Chernomyrdin N.V., 720 t.rub., scientific adviser.
31. "Photoacoustic technologies for early theranostics of metastatic tumors", grant of the Government of the Russian Federation 14. Z50.31.0044 for state support of scientific research conducted under the guidance of leading scientists (V.P. Zharov) in Russian

- educational institutions of higher professional education, scientific institutions of state academies of sciences and state scientific centers of the Russian Federation (2018 - 2021), head of the research group. №075-15-2021-617
32. "Visualization and engineering of eukaryotic genomes", grant of the Government of the Russian Federation 14.W03.31.0023 for state support of scientific research conducted under the guidance of leading scientists (A.A. Bogdanov) in Russian educational institutions of higher professional education, scientific institutions of state academies of sciences and state scientific centers of the Russian Federation (2018 - 2021), head of the research group.
 33. "Discovery of the fundamental mechanisms of sleep for breakthrough technologies in neurorehabilitation medicine" grant of the Government of the Russian Federation 075-15-2019-1885 for state support of scientific research conducted under the guidance of leading scientists (Penzel Thomas Walter Friedel) in Russian educational institutions of higher professional education, scientific institutions of state academies of sciences and state scientific centers of the Russian Federation (2019 - 2022), researcher. Continued 075-15-2022-1094.
 34. RFBR grant: No. 20-32-90058-post-graduate students, "Investigation of the optical properties of blood proteins and their glycosylated fractions by refractometric and fluorescent methods in a wide range of wavelengths and temperatures", PhD student Lazareva E.N., scientific adviser – 2020-2021 - 1200 t.rub.
 35. RFBR grant: No. 20-02-22044 - Scientific events, "Project for organizing and holding the International Symposium "Optics and Biophotonics - VIII" (Saratov Fall Meeting - SFM'20)", 2020 - 876 t.rub. PI
 36. RFBR grant: No. 20-12-50328-expansion, Methods for studying the superweak glow of biological objects (analytical review) - researcher, 2020-2021 - 300 t.rub.
 37. "Development of methods for screening non-invasive diagnosis of viral and bacterial respiratory infections using laser spectroscopy and artificial intelligence methods" grant of the Government of the Russian Federation (No. 075-15-2021-615) for state support of scientific research conducted under the guidance of leading scientists (Igor K. Lednev) in Russian educational institutions of higher professional education, scientific institutions of state academies of sciences and state scientific centers of the Russian Federation (2021 - 2023), head of the research group.
 38. "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 Afar; Prof Dr Valery Tuchin, Funding: \$473,712, 12/31/2020 - 12/31/2023; Final Report: 31/12/2024.
 39. "Bioresorbable implantable devices based on triboelectric nanogenerators", Grant of the Ministry of Science and Higher Education of the Russian Federation No. 13.2251.21.0009 in the field of science in the form of a subsidy from the federal budget to ensure the conduct of scientific research by Russian scientific organizations and (or) educational organizations of higher education jointly with organizations from EU Member States in the framework of multilateral cooperation in the Horizon 2020 program, including ERA-NET initiatives, in the framework of ensuring the implementation of the program of bilateral and multilateral scientific and technological cooperation. 2021-2023 - researcher; (30 + 43.5) mln. rub. This work was carried out with the financial support of grant No. 13.2251.21.0009 (agreement No. 075-15-2021-942).
 40. Development Program of Saratov State University (Priority-2030), research direction "Technologies of personalized medicine", PI
 41. Development Program of Tomsk State University (Priority-2030), Laboratory of TSU Priority 2030, PI

Saratov, October 2022

A handwritten signature in blue ink, consisting of several fluid, overlapping strokes that form a stylized representation of the name.

Valery Tuchin, Prof., Ph.D., D.Sc.