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Доктор физико-математических наук, профессор, заслуженный деятель науки РФ, заведующий кафедрой оптики и биофотоники Саратовского национального исследовательского государственного университета им. Н.Г. Чернышевского (СГУ).

Образование

1966 – СГУ, 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

Места работы

1966 – 1970 – инженер НИИ 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 РАН (Саратов)

2014 – по настоящее время – научный руководитель междисциплинарной лаборатории биофотоники Национального исследовательского томского государственного университета (Томск)

2017 – по настоящее время – научный руководитель лаборатории фемтомедицины Национального исследовательского государственного университета ИТМО (Санкт-Петербург)

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 н. в. – директор Научно-образовательного института оптики и биофотоники при СГУ

2005-2011 – вице-президент Российского фотобиологического общества

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

Главный редактор журналов Journal of Biomedical Photonics & Engineering и The Open Biomedical Engineering Journal; **ассоциированный главный редактор** журнала Journal of Innovative Optical Health Sciences (JIOHS); **зам. главного редактора** журнала Известия Саратовского университета – Новая серия. Физика; **тематический редактор** журнала Journal of Biomedical Optics, **ассоциированный редактор** журнала Frontiers of Optoelectronics; **член редсовета** журналов Квантовая электроника и Лазерная медицина; **член редколлегии журналов:** Известия ВУЗов - Прикладная нелинейная динамика, J. of Biophotonics, J. of X-Ray Science and Technology, J. of Applied Scientific Reports, J. of Advanced Materials and Devices in Medicine, Current Pharmaceutical Biotechnology; **член международного совета журнала** Physics in Medicine and Biology (2013-2016).

Член международных научных обществ: SPIE, OSA, IEEE

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/Председатель комитета по премиям OSA Robert E. Hopkins Leadership Award (2017/2018)
Член комитета по премиям OSA/ SPIE Joseph W. Goodman Book Writing Award (2018-2019)
С 1987 организовал более 50 международных конференций в России, США, Европе, Китае и сделал более 100 приглашенных и пленарных докладов.

Индивидуальные гранты, почетные звания и награды

FiDiPro профессор университета Оулу (Finland Distinguished Professor, TEKES, 2011-2014)
Chime Bell Prize of Hubei Province, China (2014).

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.

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

Адьюнкт профессор университета Лимерика (University of Limerick) и Национального университета Ирландии (Голуэй) (National University of Ireland Galway)

Почетный член международных оптических обществ SPIE Fellow (2004) и OSA Fellow (2016)

Премия SPIE Educational Award (2007), OSA / SPIE премия Джозефа У. Гудмана за написание книги V.V. Tuchin, *Tissue Optics: Light Scattering Methods and Instruments for Medical Diagnostics*, 3rd edition, **PM 254**, SPIE Press, Bellingham, WA, 2015

В 2019 году был награжден премией OSA Майкла С. Фельда по биофотонике.

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

Учебная работа

В СГУ 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, 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 международной аудитории аспирантов, докторантов, инженеров, работников компаний и медицинских работников (1991-2019) (Россия, Украина, Латвия, Литва, США, Канада, Италия, Германия, Великобритания, Франция, Венгрия, Польша, Испания, Греция, Финляндия, Португалия, Республика Корея, Китай, Сингапур, Япония, Бразилия).

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 900 научных статей и аналитических обзоров.

Цитируемость

Google Scholar (15. 03. 2019)	All	Since 2013
Citations	22503	10658
h-индекс	67	46

Избранные наиболее цитируемые статьи в журналах

1. 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.
2. 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.
3. V.P.Zharov, E.I.Galanzha, V.V.Tuchin. Integrated photothermal flow cytometry in vivo. *J. Biomedical Optics*, vol. 10, 2005, pp. 51502-51510.
4. 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.
5. 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.
6. 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
7. 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).
8. 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).
9. 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 TiO₂ nanoparticles: effect of thermal annealing under various gaseous atmospheres, *Nanotechnology* **23**, 475711-1-8 (2012).
10. 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
11. M. Mohl, A. Dombvari, 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**.
12. 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**.
13. 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**.
14. 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.201400138 IF **4.447**.
15. 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**.
16. 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**.

17. 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**.
18. 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**.
19. 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**.
20. 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**.
21. 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**.
22. 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**.
23. Maciej S Wróbel, Alexey P Popov, Alexander V Bykov, Matti Kinnunen, Małgorzata Jędrzejewska-Szczerska, Valery V Tuchin, Measurements of fundamental properties of homogeneous tissue phantoms, *J. Biomed. Opt.*, **20**(4), 045004 (2015). IF **2.859**.
24. 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**
25. 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](https://doi.org/10.1364/BOE.7.002088) IF **3.648**.
26. 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](https://doi.org/10.1364/BOE.7.002082) IF **3.648**.
27. 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**.
28. 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. Sel. Topics. Quant. Electron.* **22**(3) 6802514 (2016); DOI: 10.1109/JSTQE.2016.2523982 IF **2.828**.
29. 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**.
30. 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**.
31. 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.
32. 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**
33. 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**
34. 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**
35. 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**.
 36. 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**
 37. Irina Yu. Yanina, Nikita A. Navolokin, Yulia I. Svenskaya, Alla B. Bucharskaya, Galina N. Maslyakova, Dmitry A. Gorin, Gleb B. Sukhorukov, Valery 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**
 38. 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 3.648**.
 39. 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**
 40. 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**
 41. 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**
 42. O. A. Smolyanskaya, I. J. Schelkanova, M. S. Kulya, E. L. Odlyanitskiy, I. S. Goryachev, A. N. Tcypkin, YA. V. Grachev, YA. G. Toropova, 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) **IF 3.648**.
 43. Oliveira L M., Carvalho MI, Nogueira EM, Tuchin VV. Skeletal muscle dispersion (400-1000 nm) and kinetics at optical clearing. *J. Biophotonics.* 2018; 11:e201700094. **IF 3.768**
 44. I. N. Dolganova, N. V. Chernomyrdin, P. V. Aleksandrova, S. I. T. Beshplav, A. A. Potapov, I. V. Reshetov, V. N. Kurlov, V. V. Tuchin, K. I. Zaytsev, “Nanoparticle-enabled experimentally trained wavelet-domain denoising method for optical coherence tomography,” *J. Biomed. Opt.* **23**(9), 091406-9 (2018) **IF 2.367**
 45. 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**
 46. 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**
 47. 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* 2018; e201800058. <https://doi.org/10.1002/jbio.201800058> **IF 3.768**
 48. Irina V. Vidiyasheva, Anatolii A. Abalymov, Maxim A. Kurochkin, Oksana A. Mayorova, Maria V. Lomova, Sergey V. German, Dmitry N. Khalkenkov, 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**
 49. 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>
 50. S. Masoumi, M. A. Ansari, E. Mohajerani, E. A. Genina, V. 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**
 51. 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**.
 52. 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**

53. 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**.
54. 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**
55. 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**
56. 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
57. 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**
58. 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); **IF 2.726**
59. 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) **IF 2.367**
60. 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* 2019 **IF 3.768**.
61. 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**.
62. 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**.

Наиболее цитируемые обзорные работы

1. В.В. Тучин, "Исследование биотканей методами светорассеяния", *Успехи физических наук*, **167**, с. 517-539, 1997.
2. V.V. Tuchin, "Coherent optical techniques for the analysis of tissue structure and dynamics," *J. Biomed. Opt.* **4**(1), pp. 100-125, 1999.
3. Зимняков Д.А., Тучин В.В. Оптическая томография тканей (обзор)// *Квантовая электроника*. 2002. Т.32. №4. С.849-867.
4. V.V. Tuchin, "Optical Clearing of Tissue and Blood Using Immersion Method," *J. Phys. D: Appl. Phys.*, vol. 38, 2005, pp. 2497-2518.
5. V.V. Tuchin, A clear vision for laser diagnostics, *IEEE J. Select. Topics on Quantum Electronics*, **13**, № 6, pp.1621-1628, 2007.
6. Elina A. Genina, Alexey N. Bashkatov, and Valery V. Tuchin, Tissue optical immersion clearing, *Expert Rev. Med. Devices* **7**(6), 825–842 (2010).
7. Alexey N. Bashkatov, Elina A. Genina, and Valery V. Tuchin, Optical properties of skin, subcutaneous, and muscle tissues: a review, *J. Innovative Optical Health Sciences*, **4**(1) pp. 9–38 (2011).
8. Ю.С. Скибина, В.В. Тучин, В.И. Белоглазов, Г. Штейнмаер, Й.Л. Бетге, Р. Ведель, Н. Лангхофф, Фотонно-кристаллические волноводы в биомедицинских исследованиях, *Квантовая электроника*, Т. 41, № 4, С. 284-301, 2011
9. 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.
10. Kirill V. Larin, Mohamad G. Ghosn, Alexey N. Bashkatov, Elina A. Genina, Natalia A. Trunina, and Valery 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).

11. 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. 1,610 downloads (21.06.2014).
12. 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**
13. V.V. Tuchin, Tissue Optics and Photonics: Biological Tissue Structures; Light-Tissue Interaction, *J. of Biomedical Photonics & Eng.*, 1(1), 3-21; 1(2), 98-134, 2015; Light-Tissue Interaction II, 2(3), 030201-1-31, 2016.
14. 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*, **1**(1), 22-58, 2015.
15. 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**.
16. 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 (2016); IF **3.687**.
17. 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, *Prog. Quantum Electr.* **55**, 112-128, 2017; IF **10.733**
18. 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), IF **4.328**
19. A.Yu. Sdobnov, M.E. Darwin, 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). IF **2.536**
20. A.N. Bashkatov, K. V. Berezin, K. N. Dvoretzkiy, 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). IF **2.367**
21. 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, *Prog. Quantum Electr.* **62**, 2018, 1-77 IF **10.733**
22. O. A. Smolyanskaya, E. N. Lazareva, S. S. Nalegaev, N. V. Petrov, K. I. Zaitsev, P. A. Timoshina, D. K. Tuchina, Ya. G. Toropova, O.V. Korniyushin, A.Yu. Babenko, J.-P. Guillet, V. V. Tuchin, Multimodal Optical Diagnostics of Glycated Biological Tissues, *Uspehi-Biologicheskoy-Himii*, vol. 59, 2019, p. 253–294. IF **1.724**
23. A. Yu. Sdobnov, J. Lademann, M. E. Darwin, V. V. Tuchin, Molecular Optical Imaging Techniques in Dermatology at Skin Optical Clearing, *Uspehi-Biologicheskoy-Himii*, vol. 59, 2019, p. 295–322). IF **1.724**

Избранные патенты

1. G. Altshuler and V.V. Tuchin, Light emitting toothbrush for oral phototherapy, US 7,223,270 B2, May 29, 2007.
2. G. Altshuler and V.V. Tuchin, Multidirectional oral phototherapy applicator, US 7,223,281 B2, May 29, 2007.
3. 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.
4. G. Altshuler, V.V. Tuchin, Tissue penetrating oral phototherapy applicator, US 7,329,273 B2, Feb. 12, 2008.
5. G. Altshuler, V.V. Tuchin, Conforming oral phototherapy applicator, US 7,329,274 B2, Feb. 12, 2008.

6. 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.
7. G. Altshuler, V.V. Tuchin, US20090132011A1, Multi-wavelength oral phototherapy applicator, 2009-05-21, 2008-09-04.
8. 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.
9. G. Altshuler, V.V. Tuchin, et al., US20080214988A1, Methods and devices for fractional ablation of tissue, 2008-09-04, 2007-12-28.
10. 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.
11. G. Altshuler, V.V. Tuchin, US20050107849A1, Tissue penetrating oral phototherapy applicator, 2005-05-19, 2004-02-10.
12. I.V. Yaroslavsky, G. Altshuler, V.V. Tuchin, US20040225339A1, Light treatments for acne and other disorders of follicles, 2004-11-11, 2003-12-19.
13. G. Altshuler, V.V. Tuchin, US20040210276A1, Multi-wavelength oral phototherapy applicator, 2004-10-21, 2004-02-10.
14. G. Altshuler, V.V. Tuchin, US20040204745A1, Conforming oral phototherapy applicator, 2004-10-14, 2004-02-10.
15. G. Altshuler, V.V. Tuchin, US20040199227A1, Biostimulation of the oral cavity, 2004-10-07, 2004-02-10.
16. G. Altshuler, V.V. Tuchin, US20040193236A1, Light emitting toothbrush for oral phototherapy, 2004-09-30, 2004-02-10.
17. G. Altshuler, V.V. Tuchin, US20040193235A1, Multi-directional oral phototherapy applicator, 2004-09-30, 2004-02-10.
18. G. Altshuler, V.V. Tuchin, US20040191729A1, Dental phototherapy methods and compositions, 2004-09-30, 2004-02-10.
19. G. Altshuler, V.V. Tuchin, US7422598, Multi-wavelength oral phototherapy applicator, 2008-09-09, 2004-02-10.
20. G. Altshuler, V.V. Tuchin, US7354448, Dental phototherapy methods and compositions, 2008-04-08, 2004-02-10.
21. 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) С1, 2007, по заявке, рег. номер 2006124701/13(026799), от 2006. Опубликовано 10.05.2008 Бюл. №13.
22. 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.
23. 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) С1 Заявка 2009147833/14, 22.12.2009. Опубликовано: 27.07.2011.
24. Тучина Е.С., Тучин В.В., "Способ уничтожения патогенных и условно-патогенных микроорганизмов", Патент РФ на изобретение RU 2 430 756, приоритет 31.03.2010, решение о выдаче 12.04.2011.
25. Тучина Е.С., Тучин В.В., "Способ подавления патогенных и условно-патогенных микроорганизмов", Патент РФ на изобретение RU 2 430 757, приоритет 31.03.2010, решение о выдаче 12.04.2011
26. 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 С1. Опубликовано: 10.12.2012 Бюл. № 34.
27. 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.

28. 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.
29. 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 - а 20110914 (ВУ), приоритет 30.06.2011.
30. 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 - а 20110915 (ВУ), приоритет 30.06.2011.
31. 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 А61В5, В82В1, G01N21. «Способ получения терагерцовых изображений раковых опухолей и патологий кожи» - Оpubл. 20.03.2015. - Бюл. № 8.
32. 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 RU 2 614 507, «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.
33. 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.
34. М.А.Бороздова, И. В. Федосов, В.В. Тучин, Способ измерения скорости течения крови, патент на изобретение RU 2 610 559 С1; опубл. 13.02.2017 Бюл. № 5 – 21 с.
35. Тучина Д.К., Башкатов А.Н., Генина Э.А., Тучин В.В. Биосенсор для неинвазивного оптического мониторинга патологии биологических тканей / Патент на изобретение РФ RU 2 633 494 от 12.10.2017
36. Свенская Ю.И., Генина Э.А., Гусякова 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 RU 2 633 928 от 19.10.2017
37. 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) С1. Дата начала отсчета срока действия патента: 29.03.2017, дата регистрации: 21.03.2018.

Избранные монографии

1. А.В. Приезжев, В.В. Тучин, Л.П. Шубочкин, Лазерная диагностика в биологии и медицине, Наука, Москва, 1989.
2. V.V. Tuchin, *Optical Clearing of Tissues and Blood*, **PM 154**, SPIE Press, Bellingham, WA, 2006.
3. V.V. Tuchin, L. Wang, and D.A. Zimnyakov, *Optical Polarization in Biomedical Applications*, Springer-Verlag, Berlin, Heidelberg, N.Y., 2006.
4. V.V. Tuchin (ed.), *Handbook of Optical Sensing of Glucose in Biological Fluids and Tissues*, CRC Press, Taylor & Francis Group, London, 2009.
5. Тучин В.В. Лазеры и волоконная оптика в биомедицинских исследованиях/2-е издание. — Москва: Физматлит, 2010, 488 с.
6. Valery V. Tuchin (ed.), *Handbook of Photonics for Biomedical Science*, CRC Press, Taylor & Francis Group, London, 2010.
7. Valery V. Tuchin (ed.), *Advanced Optical Flow Cytometry: Methods and Disease Diagnoses*, WILEY-VCH Verlag GmbH & Co. KGaA, Weinheim, 2011.
8. 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.
9. 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.

10. 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.
11. В.В. Тучин, *Оптика биологических тканей. Методы рассеяния света в медицинской диагностике*, 2-е издание, Физматлит, 2012, 811 с.
12. V.V. Tuchin, *Dictionary of Biomedical Optics and Biophotonics*, SPIE Press, Bellingham, WA, 2012, 576 p.
13. 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>
14. R.K. Wang and V.V. Tuchin, eds, *Advanced Biophotonics: Tissue Optical Sectioning*, CRC Press, Taylor & Francis Group, London, 2013 – 681p. ISBN 9781439895818
15. 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
16. 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.
17. V.V. Tuchin (Ed.), *Handbook of Optical Biomedical Diagnostics. Methods*, vol.2, 2nd ed., SPIE Press **PM263**, Bellingham, WA, USA, 2016 – 688 p.

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. *Haemostaseologie* 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.

Избранные приглашенные и пленарные лекции и доклады

1. V.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).
2. V. 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).
3. V. V. Tuchin, Tissue optics and skin optical clearing, Workshop on Biophotonics, June 18-19, 2014, Fujian Normal University, Fuzhou, China (invited).
4. V. V. Tuchin, Light propagation in optically cleared tissue and blood, LALS-2014, June 29th to July 2nd in Ulm, Germany (invited).
5. V. Tuchin, Noninvasive Optical Glucose Sensing, Corporate Research and Technology (CRT) of Carl Zeiss AG, July 3-4, Jena, Germany, 2014 (invited).
6. V. Tuchin, Diagnostics at Optical Clearing, 8th International Conference „Advanced Optical Materials and Devices”, Riga 25-27 August, 2014 (invited).
7. 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).
8. V. 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).
9. V. Tuchin, "Tissue optical clearing: New prospects in optical imaging and therapy," *IEEE International Conference BioPhotonics*, Florence, Italy, 20-22 May 2015 (invited).
10. 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).
11. V.V. Tuchin, Nano-optical probes for enhanced imaging, sensing and therapy, V International Symposium: Topical Problems of Biophotonics - 2015, 20-24 July, N.Novgorod, Russia, 2015 (invited).

12. 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).
13. V.V. Tuchin, Tissue Optics and Photonics, 3rd FAST-DOT Summer School «Photonics meets Biology», 28 Sept - 2 Oct 2015, Royal Mare Thalasso & Spa Hotel, Anissaras, Crete, Greece (invited).
14. V. Tuchin, Enhanced optical diagnostics and phototherapy at tissue optical clearing, Micro-Photonics, Preview Event, Berlin Exhibition Grounds: Messe-Berlin, 26-27 November, 2015 (invited).
15. V.V. Tuchin, Enhanced Imaging and Sensing in Biophotonics: from UV to Terahertz, 2nd Israeli Biophotonics Conference (IBPC-2), December 1-2, 2015, Bar-Ilan University, Israel (invited).
16. Valery V. Tuchin, "Advances in skin optical clearing", [9689-19] SPIE Photonics West, The Moscone Center, San Francisco, California, USA, 13–18 February 2016 (invited).
17. V. V. Tuchin, "Enhanced Microscopy and Imaging at Optical Clearing: from in Vitro to in Vivo," , Focus on Microscopy (FOM2016), Taipei, Taiwan, 20 - 23 March 2016 (invited).
18. V. V. Tuchin, "UV to THz Enhanced Tissue Imaging at Immersion Clearing: from in vitro to in vivo", 7th International Conference «Nanoparticles, nanostructured coatings and microcontainers: technology, properties, applications», Tomsk, 12-15 May 2016 (key-note).
19. V.V. Tuchin, Advances and perspectives for *in vivo* optical clearing of tissues, Launching Symposium of KI for Health Science and Technology, 2-3 June, Daejeon, Korea (invited).
20. V.V. Tuchin, "Enhanced optical imaging and laser treatment in medicine: from UV to terahertz," 4th International Symposium "Lasers in Medicine and Biophotonics", Laser Optics, St. Petersburg, June 27-July 2, 2016 (plenary).
21. V.V. Tuchin, "Tissue optical clearing as a novel modality to control laser tissue interaction", "Fundamentals of Laser Assisted Micro- and Nanotechnologies" (FLAMN-16) – International Symposium, June 27-July 1, 2016 (invited).
22. 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.
23. V.V. Tuchin, "Nanoparticle mediated photo-protection and – therapy", The 7th International Conference on Metamaterials, Photonic Crystals and Plasmonics, META'16 Malaga – Spain, June 25-28, 2016 (invited).
24. 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).
25. 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)
26. 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)
27. V.V. Tuchin, "Creation of new diagnostic/therapeutic windows in tissues: from UV to terahertz," Asia Communications and Photonics Conference, Nov. 2-5, 2016, Wuhan, China (invited).
28. 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).
29. V. 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).
30. V. 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).
31. V. Tuchin, "Tissue spectroscopy and imaging at optical clearing," 2nd School Advanced Fluorescence Imaging Methods (ADFLIM), July 26-28, 2017, Sant-Petersburg, Russia. (invited).
32. V. 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, Saint-Petersburg – Nizhny-Novgorod, Russia. <http://www.biophotonics.sci-nnov.ru/> (invited).
33. V. 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).
34. V. 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. (invited).

35. V. 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).
36. V. 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).
37. V. Tuchin, "Enhanced 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)
38. V.V. Tuchin, E.I. Galanzha, V.P. Zharov, "Optical amplification of *in vivo* photoacoustic flow cytometry," TuSMB-01, 5th Intern. A.M. Prokhorov Symp. on Lasers in Medicine and Biophotonics, the International Conference on Laser Optics ICLO 2018, St. Petersburg, June 4-8, 2018 (invited).
39. 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 Intern. A.M. Prokhorov Symposium on Lasers in Medicine and Biophotonics, Intern. Conference on Laser Optics ICLO 2018, St. Petersburg, June 4-8, 2018 (invited).
40. V. 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" Berlin-Adlershof, Max-Born-Institute, June 15 - 16, 2018 (invited).
41. V. V. Tuchin, "Optical clearing as a promising technology for *in vivo* laser diagnostics and treatment of hidden pathologies," Advanced Laser Technologies (ALT'18), Sept. 09-14, 2018, Tarragona, Spain (plenary).
42. V. Tuchin, Biological tissue optics and optical clearing, 22nd Intern. School for Junior Scientists and Students on Optics, Laser Physics & Biophotonics/3rd AD FLIM School, Saratov, 24-28 Sept., 2018 (plenary).
43. V.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).
44. V. 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).
45. V. 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).
46. V. Tuchin, "Optical clearing of tissues in a broad spectral range from UV to THz," International Conference on Bio Sensing and Imaging (ICBSI), December 17-19, 2018, Palazzo Affari Firenze Fiera (plenary).

Избранные образовательные лекции и краткие курсы лекций

1. 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.
2. V.V. Tuchin, Tissue Optics and Photonics, 3rd FAST-DOT Summer School «Photonics meets Biology», 28 Sept - 2 Oct 2015, Royal Mare Thalasso & Spa Hotel, Anissaras, Crete, Greece – two lectures.
3. V. V. Tuchin, "Tissue optics and nanomedicine," SPIE Short Course, SPIE Student Chapter of University of Houston, February 11-12, 2016, Houston, USA.
4. V. V. Tuchin, "Nanoparticle enhanced optical biomedical imaging, sensing and therapy," 2nd Intern. Young Scientists School "Nanostructured materials," 10-11 May 2016, Tomsk, Russia.
5. 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.
6. V. V. Tuchin, "Tissue optical clearing: new prospects in optical imaging," SPIE Short Course, Hamlyn Centre for Robotic Surgery, Imperial College London, Imperial Optical Society, 9 September, 2016, London, UK.
7. V. V. Tuchin, "Tissue optics and optical clearing technologies" NANQIANG life science series lectures of Xiamen University, October 24, 2016, Xiamen, China.
8. V.V. Tuchin, "Tissue optical clearing method," Chinese-Russian Workshop on Biophotonics, Nanjing University of Aeronautics & Astronautics, October 26, 2016, Nanjing, China.
9. В.В. Тучин, Оптика биологических тканей и оптическое просветление, 1st School on Advanced Fluorescence Imaging Methods (ADFLIM), Москва, 12-14 декабря 2016.

10. 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.
11. 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, Jan 25, 2017.
12. V.V. Tuchin, Biological tissue optics and optical clearing, 2nd School on ADFLIM, St. Petersburg, 26-28 July 2017.
13. 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.
14. 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).