Биография Тучина Валерия Викторовича

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Публикации http://optics.sgu.ru/optics/staff/tuchin/publications

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

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

Карьера
1966 – 1970 – инженер Научно-исследовательского института механики и физики при СГУ (НИИМФ СГУ)
1971 – 1974 – ассистент и аспирант кафедры оптики СГУ
1974 – 1982 – старший преподаватель, доцент кафедры оптики СГУ

1982 – 1989 – профессор, заведующий кафедрой оптики, декан физического факультета СГУ
1989 – по настоящее время – профессор, заведующий кафедрой оптики и биофотоники, заведующий лабораторией лазерной диагностики технических и живых систем Института проблем точной механики и управления РАН,
2014 – по настоящее время – научный руководитель междисциплинарной лаборатории биофотоники Национального исследовательского Томского университета
2017 – по настоящее время – научный руководитель лаборатории фемтомедицины Национального исследовательского университета ИТМО

Профессиональная деятельность

2000-2015 – директор по внешним связям научно-образовательного центра Министерства образования и науки РФ и Американского фонда гражданских исследований «Нелинейная динамика и биофизика»
2003 – по настоящее время – директор Научно-образовательного института оптики и биофотоники при СГУ
2005-2011 – вице-президент Российского фотобиологического общества
2005 – по настоящее время – член совета Российского фотобиологического общества
2007 – по настоящее время – директор Международного научно-образовательного центра оптических технологий в промышленности и медицине (МНОЦ) «Фотоника» при СГУ
Председатель диссертационного совета при СГУ по защите докторских диссертаций по специальностям оптика и биофизика (физико-математические науки)
Член совета физического факультета и отделения механики и физики Института естественных наук СГУ
Член ученого совета Института точной механики и управления РАН

Главный редактор журнала Journal of Biomedical Photonics & Engineering http://jbpe.ssau.ru/index.php/JBPE
Главный редактор журнала The Open Biomedical Engineering Journal https://benthamopen.com/TOBEJ/editorial-board/
Главный редактор журнала **Materials** по направлению Optics and Photonics https://www.mdpi.com/journal/materials/sectioneditors/optics_photonics
Заместитель главного редактора журнала Известия Саратовского университета – Новая серия. Физика https://fizika.sgu.ru/en/editorial-board
Тематический редактор журнала Journal of Biomedical Optics, https://www.spiedigitallibrary.org/journals/journal-of-biomedical-optics/editorial-board?SSO=1#navBarAnchor
Член редакционного совета журналов

Journal of Innovative Optical Health Sciences (JIOHS) https://www.worldscientific.com/page/jiohs/editorial-board
Квантовая электроника https://iopscience.iop.org/journal/1063-7818

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

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

Член редколлегии журналов:
Известия ВУЗов - Прикладная нелинейная динамика, https://andjournal.sgu.ru/ru/content/redakcionnaya-kollegiya
Оптика и спектроскопия, https://journals.ioffe.ru/journals/5
Письма в журнал технической физики, http://journals.ioffe.ru/journals/editors/4
Journal of Biophotonics, https://onlinelibrary.wiley.com/journal/18640648

Translational Biophotonics, https://www.onlinelibrary.wiley.com/journal/26271850
Journal of X-Ray Science and Technology – Clinical Applications of Diagnosis and Therapeutics, https://www.iospress.nl/journal/journal-of-x-ray-science-and-technology/
Journal of Applied Scientific Reports, http://www.hoajonline.com/applscirep/editorialboard
Advanced Biomaterials and Devices in Medicine, http://journals.tsu.ru/abdm/&journal_page=edition&id=152
Frontiers of Optoelectronics по направлению Biomedical Photonics https://link.springer.com/journal/12200

Член международного совета журнала Physics in Medicine and Biology (2013-2016)

Приглашенный редактор журналов:

Оптика и спектроскопия, Квантовая электроника, Известия ВУЗов - Прикладная нелинейная динамика, Phys. Med. Biol., Medical Physics, Cytometry A, Biomed. Opt. Express., JIOHS, J. of Biomedical Optics, J. of Biophotonics, J. of X-Ray Science and Technology – Clinical Applications of Diagnosis and Therapeutics, Adv. Opt. Technol., Medical Laser Application., Journal of Physics: Conference Series, Photon. Lasers Med., IEEE J. Selected Topics in Quantum Electronics, International Journal of Spectroscopy, Materials, Light: Science & Applications (LSA), Optical Engineering и др.

Рецензент журналов: Science Translational Medicine, Nature Protocols, Nature Scientific Reports, Light: Science & Applications (LSA), Opt. Communications, Optics Letters, Optics Express, Biomed. Opt. Express, Applied Optics, JOSA, J. of Biomedical Optics, J. Biophotonics, Laser Surgery and Medicine, Applied Physics, IEEE J. of Selected Topics in Quantum Electronics, Phys. Med. Biol., Прикладная нелинейная динамика, Оптика и спектроскопия, Квантовая электроника, Optics & Laser in Engineering (Singapore), Cytometry A, PLoS ONE, Laser Photonics Rev. и др.

Член международных научных обществ: SPIE, OSA, IEEE
Член комитета по биофотонике международного научного общества IEEE
Узловой лидер по РФ Всемирного консорциума по биофотонике BP4L (Node Leader of Biophotonics4Life Worldwide Consortium)
Член международного совета Центра биомедицинской фотоники им. Бриттона Чанса Хуажонг научно-технологического университета г. Ухани (2013 – 2015).
Член совета факультета инженерных наук Национальной лаборатории по оптоэлектронике г. Ухани Хуажонг научно-технологического университета г. Ухани (2014 –2019).
Член рабочих групп 3 и 7 Европейской технологической платформы Photonics21
Член рабочей группы по биофотонике технологической платформы РФ «Фотоника»
Член рабочей группы по международным связям технологической платформы РФ «Медицина будущего»
Член комитета EPIC Biophotonics, EPIC - Европейский консорциум фотонной промышленности
Член рабочей группы по биологическим и медицинским наукам по оценке исследовательской инфраструктуры для включения в национальную дорожную карту Германии (2016).
Член Совета Российского отделения SPIE, член комитетов SPIE по организации научных конференций, по публикациям и советников президента SPIE по Европе (1990-2005).
Член/Председатель комитета по премиям OSA Robert E. Hopkins Leadership Award (2017/2018)
Член/Председатель комитета по премиям OSA/ SPIE Joseph W. Goodman Book Writing Award (2018-2022)
Эксперт научного фонда Израиля
Эксперт проектов Европейского союза 7-й Рамочной программы и Horizon 2020
Эксперт исследовательской программы профессоров SFI научного фонда Ирландии

Член подкомитета “Thermal Medicine” of The American Society of Mechanical Engineers (с 2020).

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

Основатель, председатель и сопредседатель международных конференций

1. Saratov Fall Meeting (chair: Valery Tuchin)(1996-2020)
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, Donald D. Duncan, Kirill V. Larin, Martin J. Leahy, Ruikang K. Wang) (2005-2021)
4. International Conference on Photonics and Imaging in Biology and Medicine (PIBM), China (chairs: Qingming Luo, Lihong V. Wang, Valery V. Tuchin) (2001-2017).
5. Biophotonics: Photonic Solutions for Better Health Care, SPIE Photonics Europe (co-chairs: J.Popp, W. Drexler, V.V. Tuchin, D.L. Matthews, F. Pavone) (2008-2020)
6. Tissue Optics and Photonics, Conference 11363, SPIE Photonics Europe, Strasburg, 30 March–2 April 2020

Член консультативного комитета международных конференций и проектов:
BIOS Symposium of Photonics West Symposia, США (1997-2021);
International Conference Laser Applications in Life Sciences (2010-2022);
International Photonics and OptoElectronics Meetings (POEM), Wuhan, China;
The Conference on Laser Surgery and Medicine 2012 (CLSM 2012), Yokohama, Japan, on April 25–27, 2012;
4th International Conference “Smart Materials, Structures and Systems” CIMTEC 2012, Montecatini Terme, Italy, June 10 to 15, 2012.
The H2020 Project “(AMPLITUDE – Advanced Multimodal Photonics Laser Imaging Tool for Urothelial Diagnosis and Endoscopy [Grant Agreement: 871277] (2020-2023).

Член программных комитетов научных школ и конференций

1. 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
2. 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
3. Moderator of Seeing Through Tissue, JBO Webinar Series, Hot Topics in Biomedical Optics.
4. Member of Organizing Committee of SPIE Poincaré Webinar Series on Optical Polarization and Related Phenomena. https://sfmconference.org/files/sfm-20-special-event-polarization.pdf
5. The 3rd International Conference “Biophotonics Riga – 2020”, 24-25 August, 2020, Riga.
6. The 4-th International Conference Terahertz and Microwave Radiation: Generation, Detection and Applications (TERA), August 24-26, 2020, Tomsk. http://tera2020.tsu.ru/
7. VII Троицкая конференция с международным участием "Медицинская физика" (ТКМФ-7), 19–21 октября 2020 г.http://www.medphys.troitsk.ru/
8. ICLO, St. Petersburg, November 2-6, 2020, https://laseroptics.ru/general-information.html

9. XII Международная конференция “Фундаментальные проблемы оптики” ФПО-2020, Санкт-Петербург, 19- 23 октября 2020 года.
10. SPIE Photonics Asia Conferences, Optics in Health Care and Biomedical Optics X (PA110), 11 - 13 October 2020, Beijing International Convention Center, Beijing, China

Индивидуальные гранты, почетные звания и награды

Медаль «За Трудовое Отличие» (1976)
Орден «Трудового Красного Знамени» (1986)
Орден «Дружбы» (2005)
Звание «Заслуженный деятель науки России» (1999 г.)
Звание «Почетный профессор Саратовского университета» (2014 г.)
Медаль оптического общества им. Д.С. Рождественского (2018)
Избран членом-корреспондентом РАН по специальности «медицинская физика» по отделению физических наук (2019).
Медаль имени Александра Михайловича Прохорова за разработку спектральных методов исследования биологических тканей для решения задач медицинской диагностики и дозиметрии в лазерной терапии и хирургии, присужденная Академией инженерных наук им. А.М. Прохорова (2021).

Гранты ведущего научного работника РФ, 1994 - 1996; 1997-2000; 2001-2003
Академик Международной Академии Информатизации (с 1994 г.) и Академии Естественных Наук РФ (с 1996 г.)
Соросовский профессор в 1997, 1998 и 1999 гг.
FiDiPro профессор университета Оулу (Finland Distinguished Professor, TEKES, 2011-2014)
Chime Bell Prize of Hubei Province, China (2014) - Премия за вклад в развитие провинции Хубей, а именно научных исследований, создание платформы и обучение талантов Национальной лаборатории по оптоэлектронике (Wuhan National Laboratory for Optoelectronics (WNLO)), а также за развитие двухсторонних связей провинции Хубей с ее зарубежными партнерами.
Гранты Президента РФ поддержки научных школ №№ 96-15-96389, 00-15-96667, 25.2003.2, НШ-208.2008.2, НШ-1177.2012.2, НШ-703.2014.2 и НШ-7898.2016.2.
Грант Министерства образования и науки РФ 1.4.06, РНП.2.1.1.4473 «Ведущие научно-педагогические коллективы» 2003-2014.
Краткосрочные гранты приглашенного профессора (1990–2020 годы) в университетах и компаниях США (36), Европы (21), Японии (4), Китая (15), Южной Кореи (4), Сингапура и Бразилии, включая Wellman Laboratories в 2002 году (серия лекций по фотомедицине MGH), Технологический институт Роуз-Халмана в 2007 году (Индиана, США), Университет науки и технологии (HUST), Ухань, Китай, 2012, 2016, 2017; Университет Оулу, Финляндия, 2011–2014 годы, 2019 год; Индия (4 университета) 2020.
Приглашенный профессор Хуажонг научно-технологического университета г. Ухани (Huazhong University of Science and Technology) (Китай).
Приглашенный профессор Тяньцзиньского университета (Tianjin University) (Китай).
Адъюнкт профессор университета Лимерика (University of Limerick) (Ирландия)
Адъюнкт профессор Национального университета Ирландии (Голуэй) (National University of Ireland Galway)
Почетный член международного общества по оптической технике (SPIE Fellow 2005)
Почетный член международного оптического общества (OSA Fellow 2016)

Премия международного общества по оптической технике (SPIE Educational Award, 2007) за выдающиеся достижения и в знак признания беспрецедентного вклада в мировое

образование и распространение технической информации в области биомедицинской оптики и биофотоники, а также новаторскую работу в рамках SPIE образовательных программ по биомедицинской оптике. http://spie.org/x15039.xml

В 2016 году награжден OSA / SPIE премией Джозефа У. Гудмана за написание книги V.V. Tuchin, *Tissue Optics: Light Scattering Methods and Instruments for Medical Diagnostics*, 3rd edition, **PM 254**, SPIE Press, Bellingham, WA, 2015, которая признана выдающейся монографией, внесшей значительный вклад в исследования, преподавание и развитие промышленности в области оптики и фотоники. http://www.osa.org/en-us/awards_and_grants/awards/award_description/goodmanbookaward/ (**2450** цитирований в Google Scholar)
В 2019 году был награжден премией OSA Майкла С. Фельда по биофотонике за новаторские исследования в биофотонике, особенно в области оптики и оптического просветления биологических тканей, а также за развитие биофотоники путем издания основополагающих монографий и обзоров для обучения будущих исследователей. https://www.osa.org/en-us/awards_and_grants/awards/award_description/michaelsfeld/
Лауреат конкурса на лучшую научную работу 2010 года, 12 мая 2010 года, Международная конференция CYTO 2010, Seattle, Washington (Galanzha EI, Shashkov EV, Tuchin VV, Zharov VP. In Vivo Multispectral Photoacoustic Lymph Flow Cytometry with Natural Cell Focusing and Multicolor Nanoparticle Probes. *Cytometry*, 2008; 73:884-894; **115** цитат в Google Scholar)

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

Премия издательства Tsinghua University Press “Nano Research Top Papers Award” (2016) за публикацию статьи Terentyuk, G; Panfilova, E; Khanadeev, V; Chumakov, D; Genina**,** E; Bashkatov, A; Tuchin, V; Bucharskaya, A; Maslyakova, G; Khlebtsov, N; Khlebtsov, B. Gold nanorods with a hematoporphyrin-loaded silica shell for dual-modality photodynamic and photothermal treatment of tumors in vivo, Nano Research, 7 (3), 325-337 (2014), DOI: 10.1007/S12274-013-0398-3. Citations Google Scholar: **133**, IF 8.515.

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

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

Благодарственные письма Министерства образования и науки РФ как эксперту и руководителю экспертной группы конкурса на получение гранта Правительства РФ для

государственной поддержки научных исследований, проводимых под руководством ведущих ученых в российских образовательных учреждениях высшего профессионального образования, научных учреждениях государственных академий наук и государственных научных центрах Российской Федерации (2013).

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

Наиболее цитируемые статьи:
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 (**1523** цитат в Google Scholar) вошла в список из 12 наиболее важных статей, опубликованных в журнале J. Physics D, и в 50 лучших публикаций серии журналов J.Phys за 50 лет существования.

J.T. Alander, I. Kaartinen, A. Laakso, T. Pätilä, T. Spillmann, V.V. Tuchin, ...A review of indocyanine green fluorescent imaging in surgery, International journal of biomedical imaging 2012 (**877** цитат в Google Scholar).
J. Innovative Optical Health Science, A.N. Bashkatov, E.A. Genina, and V.V. Tuchin, Optical properties of skin, subcutaneous, and muscle tissues: a review, J. Innovative Optical Health Sciences, 4(1) pp. 9–38 (2011) (**596** цитат в Google Scholar).
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По данным РИНЦ на 04.09.2017 В.В. Тучин входит в Топ-100 самых цитируемых (1 место) и продуктивных (1 место) российских учёных по направлению «Биотехнология», по направлению «Биология» (соответственно 9 и 18 места) и по направлению «Медицина и здравоохранение» (соответственно 18 и 28 места).

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

Учебная работа

В СГУ и ТГУ подготовил и читает для студентов биофизических специальностей курс введение в специальность, общий курс оптики и специальные курсы по оптике биотканей, медицинским лазерам и волоконным световодам, микроструктурным световодам для медицины, оптическим измерениям в биомедицине, оптической цитометрии и лазерному микроспектральному анализу.
Подготовил и прочитал более 50 кратких курсов по оптике и спектроскопии биотканей и биофотонике для российской и международной аудитории аспирантов, докторантов, инженеров, работников компаний и медицинских работников (1991-2020), том числе в рамках образовательных программ международных оптических обществ SPIE и OSA и Оптического общества имени Д. С. Рождественского. В России: МИЭТ, ТГУ, МГТУ им. Н.Э. Баумана, МГУ, Приволжский исследовательский медицинский университет Н. Новгород, университет ИТМО, ФГБУ «НМИЦ им. В. А. Алмазова» Минздрава России и др. За рубежом: Украина, Латвия, Литва, Канада, Италия, Германия, США, Великобритания, Франция, Венгрия, Польша, Испания, Греция, Финляндия, Португалия, Республика Корея, Китай, Сингапур, Япония, включая последние: Греция (2015), Великобритания (2016), Литва (2017), Латвия (2017), Италия (2018), Германия (2015, 2018, 2019), США (2015, 2016, 2018, 2020), Израиль (2015, 2016, 2018), Франция (2017, 2018), Польша (2016), Испания (2017, 2018), Финляндия (2019), Республика Корея (2016, 2017), Макао (2016), Китай (2016, 2017, 2018), Япония (2016), Бразилия (2019), Индия (2020), Швейцария (2020).

Область научной деятельности

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

Публикации

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

Цитируемость

Google Scholar (13.05.2021)

https://scholar.google.com/citations?user=wkUfJAYAAAAJ&hl=en

Число публикаций (с 2016)	Число цитир. (с 2016)	h-индекс (с 2016)	Среднее число цитир. на публ. (с 2016)	Среднее число цитир. в год (с 2016)
1605 (430)	**31122 (14478)**	**77 (54)**	**16.7 (29.9)**	**596.6 (2574.6)**

Scopus (13.05.2021) https://www.scopus.com/authid/detail.uri?authorId=36048347000

Число публикаций	Число цитир.	h-индекс	Среднее число	Среднее число

			цитир. на публ.	цитир. в год
1173	**15356**	**59**	**12.8**	**299.6**

Web of Science (27.07.2021)
https://publons.com/researcher/1353614/valery-v-tuchin/metrics/

Число публикаций	Число цитирований	h-индекс	Среднее число цитир. на публ.	Среднее число цитир. в год
1060	**12333**	**50**	**11.7**	**262.4**

РИНЦ (13.05.2021)
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Число публикаций (ядро РИНЦ)	Число цитирований (ядро РИНЦ)	h-индекс	Среднее число цитир. на публ.	Среднее число цитир. в год (ядро РИНЦ)
1557 (1124)	**20218 (16858)**	**58 (54)**	**12.0**	**422.8 (347.8)**

http://www.expertcorps.ru/science/whoiswho/ci86

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https://www.resurchify.com/all_ranking_2.php?query

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66. V.V. Tuchin, O. Bibikova, U. Zabarylo, J. Haas, A. Lorente, O. Minet, B. Mizaikoff, V. Artyushenko "Enhanced Medical Optical Imaging Using Multimodality, Optical Clearing and Nanoparticle Labelling," Micro photonics 2016 International Congress Expo, October 11-13, 2016, Berlin Messe (invited) http://www.micro-photonics.de/media/lob/lob_media/lob_pdf/2016_3/kongress_4/Kongressprogramm_Congress_Program.pdf .
67. V.V. Tuchin, "Advances and mechanisms of tissue optical clearing," International Conferences on Laser Applications in Life Sciences (LALS2016), Shenzhen, China October 14-18, 2016 (invited) www.lals2016.org.
68. V.V. Tuchin, "Creation of new diagnostic/therapeutic windows in tissues: from UV to terahertz," Asia Communications and Photonics Conference, Nov. 2-5, 2016, Shangri-La Hotel, Wuhan, China (invited).
69. V.V. Tuchin, "Enhanced spectroscopy and imaging of tissues by immersion clearing: from UV to terahertz," Japan-Taiwan Medical Spectroscopy International Symposium (JTMSIS), December 4th-7th, 2016, Awaji Island, Japan (plenary).
70. L. Fu, J. Kurths, Y. Zhang, S. Xu, Z. Li, P. Hu, Yu. P. Sinichkin, V. V. Tuchin, Q. Luo, "Innovative curriculum for Optical Biomedical Engineering in China and Russia," The 14th International Conference on Education and Training in Optics and Photonics (ETOP-2017), May 29-31, 2017, Zhejiang University, Hangzhou, China (invited).
71. Valery Tuchin, "Tissue optical clearing: new diagnostic/therapeutic windows," Workshop on Biomedical Optics, June 6-8, 2017, Center for Research in Medical Imaging (CERIMED), La Timone Hospital in Marseille, Aix-Marseille University and Institut Fresnel, France (invited).

72. Valery Tuchin, "The benefits of tissue optical clearing for cancer theranostics," The 3rd International Conference Current Trends in Cancer Theranostics (CTCT-2017), June 25-29, 2017, Pakruojis, Lithuania (key-note).
73. Valery Tuchin, "Tissue spectroscopy and imaging at optical clearing," 2nd School Advanced Fluorescence Imaging Methods (ADFLIM), July 26-28, 2017, Sant-Petersburg, Russia. http://www.adflim.org/Page52.html (invited).
74. Valery Tuchin, "Enhanced imaging of tissues by immersion clearing/contrasting: from x-ray to terahertz," IV International Symposium Topical Problems of Biophotonics (TPB-2017), July 26- August 3, 2017, Sant-Petersburg – Nizhny-Novgorod, Russia. http://www.biophotonics.sci-nnov.ru/ (invited).
75. Valery Tuchin, "Tissue Immersion Clearing for Enhanced Imaging within the Ultra-Broad Wavelength Range: from Free Electrons to Optical and Terahertz Waves," The 2nd International Conference "Biophotonics - Riga 2017", August 27–29, 2017, University of Latvia, Riga, Latvia (invited).
76. Valery Tuchin, "Creation and improvement of tissue optical windows for laser probing and treatment using immersion optical clearing," The 25th International Conference on Advanced Laser Technologies (ALT'17), September 10-15, 2017, Busan, Korea. http://altconference.org/alt17 (invited).
77. Valery Tuchin, "Tissue optical clearing as a tool for enhanced imaging and spectroscopy," "Photonics meets Biology," Summer School, September 18-22, 2017, Tarragona, Spain (key-note).
78. Тучин В.В., "Управление оптическими свойствами биологических тканей в широком диапазоне от УФ до миммлиметровых волн: новые окна прозрачности," XXX Школа-симпозиум по голографии, когерентной оптике и фотонике, 2– 6 октября 2017 г., Балтийский Федеральный Университет им. Иммануила Канта, Калининград. https://www.kantiana.ru/school-symposium/ (invited).
79. Valery Tuchin, "Tissue Optical Clearing/Contrasting for Image Enhancement in the Ultra-Broad Wavelength Range," Asia Communications and Photonics Conference (ACP), November 10-13, 2017, Guangzhou, China (invited).
80. Valery Tuchin,"Enchanced OCT imaging and monitoring of drug delivery," EPIC Biophotonics Workshop Towards in vivo imaging, 30 Nov. – 1 Dec. 2017, Amsterdam, The Netherlands, p.5, 2017 (key-note presentation)
81. Marina Novoselova, Sergey V. German, Ekaterina I. Galanzha, **Valery V. Tuchin**, Vladimir P. Zharov, Dmitry Gorin, Elina A. Genina, Imaging and navigation of remote controlled nanostructured carriers for theranostics [10479-14], Photonic Diagnosis and Treatment of Infections and Inflammatory Diseases, Photonics West Symposium, BiOS, San Francisco, 27 January–1 February 2018. **Invited**
82. Ekaterina I. Galanzha, Marina V. Novoselova, Dmitry A. Gorin, Alexandru S. Biris, Robert J. Griffin, **Valery V. Tuchin**, Boris N. Khlebtsov, Therapeutic targeting of circulating tumor cells in vivo [10495-9], Biophotonics and Immune Responses XIII, Photonics West Symposium, BiOS, San Francisco, 27 January–1 February 2018. **Invited**
83. Oxana V. Semyachkina-Glushkovskaya, Arkady Abdurashitov, Anton Namykin, Ivan Fedosov, Alexander Shirokov, Maria Ulanova, Natalia Shushunova, Alexander Khorovodov, Anastasiya Bodrova, Madina Sagatova, Elena Saranceva, Maria Dvoryatkina, **Valery V. Tuchin**, Optical technologies for in vivo monitoring of lymphatic system in the brain [10495-18], Biophotonics and Immune Responses XIII, Photonics West Symposium, BiOS, San Francisco, 27 January–1 February 2018. **Invited**
84. V.V. Tuchin, E.I. Galanzha, V.P. Zharov, "Optical amplification of in vivo photoacoustic flow cytometry," TuSMB-01, 5th International A.M. Prokhorov Symposium on Lasers in Medicine and Biophotonics, the International Conference on Laser Optics ICLO 2018, http://laseroptics.ru/ , St. Petersburg, June 4-8, 2018 (invited paper).

85. K.I. Zaytsev, N.V. Chernomyrdin, K.M. Malakhov, Sh.-I.T. Beshplav, S.A. Goryaynov, V.N. Kurlov, I.V. Reshetov, A.A. Potapov,V.V. Tuchin, "In vitro terahertz dielectric spectroscopy of human brain tumors," WeSMB-25, 5th International A.M. Prokhorov Symposium on Lasers in Medicine and Biophotonics, the International Conference on Laser Optics ICLO 2018, http://laseroptics.ru/ , St. Petersburg, June 4-8, 2018 (invited paper).
86. O.V.Semyachkina-Glushkovskaya, E.U. Rafailov, S.G. Sokolovsky, E.G. Borisova, V. Mantareva, I. Angelov, A. Shirokov, N. Navolokin, N.A. Shushunova, A.P. Khorovodov, A.V. Terskov, A.A. Bodrova, M.V. Ulanova, E. Shrif, V.V. Tuchin, J. Kurths, "Laser technologies of targeted opening of blood-brain barrier for drug brain delivery," WeSMB-29, 5th International A.M. Prokhorov Symposium on Lasers in Medicine and Biophotonics, the International Conference on Laser Optics ICLO 2018, http://laseroptics.ru/ , St. Petersburg, June 4-8, 2018 (invited paper).
87. V. N. Kurlov, I.A. Shikunova, G.M. Katyba, K.I. Zaytsev, N.V. Chernomyrdin, I.N. Dolganova, V.V. Tuchin, I.V. Reshetov, "Biomedical applications of sapphire shaped crystals," WeSMB-31, 5th International A.M. Prokhorov Symposium on Lasers in Medicine and Biophotonics, the International Conference on Laser Optics ICLO 2018, http://laseroptics.ru/ , St. Petersburg, June 4-8, 2018 (invited paper).
88. L. Oliveira, I. Carneiro, S. Carvalho, R. Henrique, D. K. Tuchina, P. A. Timoshina, A. N. Bashkatov, E. A. Genina, V. V. Tuchin, "Tissue optical clearing as a diagnostic tool for tissue pathology differentiation," WeSMB-37, 5th International A.M. Prokhorov Symposium on Lasers in Medicine and Biophotonics, the International Conference on Laser Optics ICLO 2018, http://laseroptics.ru/ , St. Petersburg, June 4-8, 2018 (invited paper).
89. Valery Tuchin, "Optical clearing as a promising technique for in vivo optical imaging and treatment of hidden pathologies," 12th Workshop on Advanced Multiphoton and Fluorescence Lifetime Imaging Techniques FLIM2018" Conference in Berlin-Adlershof, Max-Born-Institute, June 15 - 16, 2018 (invited paper).
90. Valery V. Tuchin, "Optical clearing as a promising technology for *in vivo* laser diagnostics and treatment of hidden pathologies," Advanced Laser Technologies (ALT'18), September 09-14, 2018, Tarragona, Spain (plenary paper).
91. O.Semyachkina-Glushkovskaya, E. Vodovosova, E. Borisova, A. Khorovodov, A. Terskov, I. Agranovich, A. Mamedova, M. Klimova, C. Zhang, W. Feng, Yu. Li, T. Yu, D. Zhu, V. Tuchin, "Photodynamic opening of blood-brain barrier: non-invasive approaches and age differences," Advanced Laser Technologies (ALT'18), September 09-14, 2018, Tarragona, Spain (invited paper).
92. Kirill I. Zaytsev, I.N. Dolganova, N.V. Chernomyrdin, G.A. Komandin, M.A. Schcedrina3, S.-I.T. Beshplav, S.A. Goryaynov, I.V. Reshetov, A.A. Potapov, and V.V. Tuchin, "A potential of optical coherence tomography and terahertz pulsed spectroscopy for intraoperative diagnosis of brain tumors," Advanced Laser Technologies (ALT'18), September 09-14, 2018, Tarragona, Spain (invited paper).
93. I. Carneiro, S. Carvalho1, V. Silva, R. Henrique, L. Oliveira, **V. V. Tuchin**, "Kinetics of optical properties of human colorectal tissues during optical clearing – a comparative study between normal and pathological tissues," Advanced Laser Technologies (ALT'18), September 09-14, 2018, Tarragona, Spain (**invited**).
94. Elina A. Genina, Alexey N. Bashkatov, Daria K. Tuchina, Polina A. Timoshina, Oxana V. Semyachkina-Glushkovskaya, **Valery V. Tuchin**, "Optical properties of rat brain tissue in the normal state and at the different stages of glioma development," Advanced Laser Technologies (ALT'18), September 09-14, 2018, Tarragona, Spain (**invited**).
95. Valery Tuchin, Biological tissue optics and optical clearing, 22nd International School for Junior Scientists and Students on Optics, Laser Physics & Biophotonics/3rd AD FLIM School, Saratov, 24-28 September, 2018 (**plenary**).
96. Kirill I. Zaytsev, Valery E. Karasik, Vladimir N. Kurlov, **Valery V. Tuchin**, Igor V. Reshetov, Prospects for Malignancy Diagnosis by Using Terahertz Spectroscopy and

Imaging, 6th International Symposium Optics and Biophotonics, Saratov, 24-28 September, 2018 (**plenary**).

97. Irina Dolganova, P. Aleksandrova, K. Zaytsev, A. Kosyrkova, S.-I. Beshplav, I. Reshetov, A. Potapov, **V. Tuchin**, Optical coherence tomography of malignant brain tumors ex vivo, 6th International Symposium Optics and Biophotonics, Saratov, 24-28 September, 2018 (**invited**).
98. Isa Carneiro, Sonia Carvalho, Rui Henrique, Luís Oliveira, **Valery V. Tuchin**, Optical properties of human liver from 400 to 1000 nm, 6th International Symposium Optics and Biophotonics, Saratov, 24-28 September, 2018 (**invited**).
99. Irina Yanina, Nikita A. Navolokin, Viktor V. Nikolaev, Daria K. Tuchina, Anastasia I. Knyazkova, Yuri V. Kistenev, **Valery V. Tuchin**, Spatial distribution of optical characteristics of paraffin block embedded malignant tumor tissues, 6th International Symposium Optics and Biophotonics, Saratov, 24-28 September, 2018 (**invited**).
100. Anton Yu. Sdobnov, Maxim E. Darvin, Johannes Schleusener, Jürgen Lademann, **Valery V. Tuchin**, Investigation of changes in hydrogen bound water profiles of porcine skin under optical clearing, 6th International Symposium Optics and Biophotonics, Saratov, 24-28 September, 2018 (**invited**).
101. Anton Sdobnov, Ekaterina Lazareva, Alexey N. Bashkatov, Elina A. Genina, Vyacheslav I. Kochubey, Irina Yu. Yanina, Santhosh Chidangil, Srinivas Mutalik, Sathish Pai Ballambat, V.K Unnikrishnan, Aseefhali Bankapur, Jijo Lukose, **Valery V. Tuchin**, Maxim E. Darvin, Optical studies of topically delivered optical clearing agents and cosmetic preparations through the skin components: from ex vivo to in vivo, 6th International Symposium Optics and Biophotonics, Saratov, 24-28 September, 2018 (**invited**).
102. Elina Genina, Alexander Pravdin, Daria Tuchina, Viktor Nikolaev, Ekaterina Lazareva, Dmitry Yakovlev, Irina Yanina, Marine Amouroux, Alexey Bashkatov, Vyacheslav Kochubey, Walter Blondel, **Valery Tuchin**, Research and development of effective optical technologies for diagnostics in dermatology, 6th International Symposium Optics and Biophotonics, Saratov, 24-28 September, 2018 (**invited**).
103. Valery V. Tuchin "Biophotonics in Russia: main directions and development prospects" X International Conference "Basic Problems of Optics (BPO'18)", St. Petersburg October 15-19, 2018 (plenary paper).
104. Valery Tuchin,"Tissue optical clearing as a platform for *in vivo* optical imaging and treatment of hidden pathologies: from UV to terahertz," International Conference on Laser Applications in Life Sciences (LALS) in Israel, November 18-20, 2018, Bar-Ilan University, Israel (plenary paper).
105. Valery Tuchin, "Tissue optics and optical clearing for functional imaging," 30th International SAOT Workshop, Functional Optical Imaging in Medical Engineering, November 29 – 30, 2018, Friedrich-Alexander Universität Erlangen-Nürnberg, Germany (plenary paper).
106. Valery Tuchin, "Optical clearing of tissues in a broad spectral range from UV to THz," International Conference on Bio Sensing and Imaging (ICOBSI), December 17-19, 2018, Palazzo Affari Firenze Fiera (plenary paper).
107. Yury V. Kistenev, Valery V. Tuchin, Alexey V. Borisov, Ekaterina N. Lazareva, Viktor V. Nikolaev, Daria K. Tuchina, Denis A. Vrazhnov, Irina Yu K. Yanina, Medical diagnosis using IR and THz tissue imaging and machine learning methods *(Invited Paper)*, paper # 10877-18, Dynamics and Fluctuations in Biomedical Photonics XVI, BiOS, Photonics West, San Francisco, 2–7 February 2019.
108. V. V. Tuchin, Benefits of tissue optical clearing for intensive laser actions (invited) International Symposium, FLAMN-19 - Fundamentals of Laser Assisted Micro- & Nanotechnologies, June 30 - July 4, 2019, St. Petersburg, Russia.
109. O.A. Smolyanskaya, Q. Cassar, M.S. Kulya, N.V. Petrov, K.I. Zaytsev, V.N. Trukhin, A. Gorodetsky, J.-P. Guillet, P. Mounaix, V.V. Tuchin, Interaction of terahertz radiation with

bio-like objects: theoretical and numerical modelling, real objects and phantom experiments (invited), International Symposium, FLAMN-19 - Fundamentals of Laser Assisted Micro- & Nanotechnologies, June 30 - July 4, 2019, St. Petersburg, Russia.

110. E.A. Genina, A.B. Bucharskaya, G.N. Maslyakova, M.L. Chekhonatskaya, G.S. Terentyuk, V.D. Genin, N.G. Khlebtsov, V.V. Tuchin, A.N. Bashkatov Advanced Strategy for Plasmonic Photothermal Therapy of Tumors (INVITED), International Symposium, FLAMN-19 - Fundamentals of Laser Assisted Micro- & Nanotechnologies, June 30 - July 4, 2019, St. Petersburg, Russia.
111. Valery Tuchin, Research and development of effective optical technologies for diagnostics in dermatology, International Research Network "Bright Far-Infrared Optoelectronic Sources to Field-Matter Interaction Studies, Life Sciences and Environmental Monitoring" 2nd Workshop, July 6, 2019, Nizhny Novgorod.
112. Valery Tuchin, Advances in tissue optical clearing: towards broadband multimodal imaging techniques and *in vivo* applications (invited), The VII International Symposium "Topical Problems of Biophotonics – 2019" (TPB-2019), July, 27 through July, 31 2019, Nizhny Novgorod.
113. E. Genina, A. Bashkatov, V. Tuchin, V. Zharov, Integrated effects on skin immersion optical clearing in vivo, International Conference, Advanced Laser Technologies, Prague, Czech Republic, 15-20 September 2019 (invited).
114. D.K. Tuchina, P.A. Timoshina, V.V. Tuchin, OCT and laser speckle imaging for quantification of diffusivity and impact on blood flow of diabetic tissues and organs, International Conference, Advanced Laser Technologies, Prague, Czech Republic, 15-20 September 2019 (invited).
115. I. Carneiro, S. Carvalho, R. Henrique, L. Oliveira, V. Tuchin, Optical properties of human normal and pathological colorectal tissues from 200 to 1000 nm, International Conference, Advanced Laser Technologies, Prague, Czech Republic, 15-20 September 2019 (invited).
116. В.В. Тучин, И.Г. Меерович, Д.К. Тучина, О.А. Синдеева, Н.И. Казачкина, В.В. Жердева, А.П. Савицкий, А.А. Богданов мл. Скрытая диффузия молекул оптических просветляющих агентов: достоинства и недостатки при оптической визуализации патологий, VI Съезд биохимиков России, Секция «Молекулярный имиджинг», 1 по 6 октября 2019, Сочи (приглашенный).
117. К.И. Зайцев, В.Е. Карасик, В.Н. Курлов, В.В. Тучин, И.В. Решетов, "Применение терагерцовых технологий в биофотонике," Фотоника. Мир лазеров и оптики 2019, 4–7 марта 2019, Москва, Россия, https://www.photonics-expo.ru/ru/list_of_exhibitors/ (пленарный).

118. K.I. Zaytsev, I.N. Dolganova, N.V. Chernomyrdin, Sh.–I.T. Beshplav, V.E. Karasik, V.N. Kurlov, D.S. Ponomarev, I.V. Reshetov, A.A. Potapov, V.V. Tuchin, "Prospect of THz technology in intraoperative diagnosis of human brain tumors," 2nd Photonic and OptoElectronic Materials Conference 2019 (POEM'19), April 9–12, 2019, University College London, London, UK, https://www.poem2019.com/ (приглашенный).

119. К.И. Зайцев, Н.В. Черномырдин, А.А. Гавдуш, Г.М. Катыба, И.Н. Долганова, В.Е. Карасик, Г.А. Командин, И.Е. Спектор, В.Н. Курлов, И.В. Решетов, А.А. Потапов, В.В. Тучин, "Терагерцовые технологии в биофотонике," 10-я Международная Научно-практическая конференция по физике и технологии наногетероструктурной СВЧ электроники «Мокеровские чтения», 15–16 мая 2019, Москва, Россия, https://mokerov.mephi.ru/ (пленарный).

120. К.И. Зайцев, Н.В. Черномырдин, А.А. Гавдуш, Г.М. Катыба, И.Н. Долганова, В.Е. Карасик, Г.А. Командин, И.Е. Спектор, В.Н. Курлов, И.В. Решетов, А.А. Потапов, В.В. Тучин, “Проблемы применения терагерцовых технологий в диагностике злокачественных новообразований,” Восьмая Всероссийская научно-техническая конференция «Электроника и микроэлектроника СВЧ», 3–6 июня 2019, Санкт-Петербург, Россия, http://www.mwelectronics.ru/ (пленарный).

121. K.I. Zaytsev, I.N. Dolganova, V.E. Karasik, V.N. Kurlov, A.A. Potapov, I.V. Reshetov, V.V. Tuchin, “Prospects for human brain glioma diagnosis using terahertz spectroscopy and imaging,” 8th Russia-Japan-USA-Europe Symposium on Fundamental & Applied Problems of Terahertz Devices & Technologies (RJUSE TeraTech 2019), July 6–7, 2019, Nizhniy-Novgorod, Russia, http://www.rjuse-2019.org/ (приглашенный).

122. K.I. Zaytsev, N.V. Chernomyrdin, A.S. Kucheryavenko, I.N. Dolganova, G.M. Katyba, V.N. Kurlov, V.E. Karasik, I.V. Reshetov, V.V. Tuchin, “Sub-wavelength-resolution terahertz imaging of soft biological tissues,” Advanced Laser Technologies 2019 (ALT’19), September 15–20, 2019, Prague, Czech Republic, http://altconference.org/alt19 (приглашенный).

123. I.N. Dolganova, G.M. Katyba, I.N. Shikunova, I.V. Reshetov, M.A. Schcedrina, K.I. Zaytsev, V.V. Tuchin, V.N. Kurlov, “Sapphire shaped crystals as a prospective material platform for novel modalities of medical diagnosis and therapy,” Advanced Laser Technologies 2019 (ALT’19), September 15–20, 2019, Prague, Czech Republic, http://altconference.org/alt19 (приглашенный).

124. O.P. Cherkasova, A.A. Gavdush, N.V. Chernomyrdin, K.M. Malakhov, S.-I.T. Beshplav, I.N. Dolganova, G.R. Musina, I.V. Reshetov, G.A. Komandin, V.E. Karasik, A.A. Potapov, V.V. Tuchin, K.I. Zaytsev, “Intraoperative diagnosis of human brain gliomas using THz spectroscopy and imaging: a pilot study,” *Advanced Laser Technologies 2019 (ALT’19),* September 15–20, 2019, Prague, Czech Republic, http://altconference.org/alt19 (приглашенный).

125. P. Rakotomanga, S. Zaytsev, M. Amouroux, C. Soussen, G. Khairallah, E. Genina, V. Tuchin and W. Blondel, Analysis of skin intrinsic fluorophore contributions during optical clearing: source separation technique applied to spatially resolved multiply excited autofluorescence spectra, Saratov Fall Meeting SFM'19 – Symposium, September 23 - 27, 2019 (приглашенный интернет-доклад).
126. VV Tuchin, New optical transparency windows of biological tissues: from UV to THz, International Conference PhysicsA.SPb, Phys-Technical Institute named after A.F. Ioffe, St. Petersburg, October 22-24, 2019 (plenary).
127. Valery Tuchin, Tissue optical clearing for diagnostics and therapy: from deep-UV to THz, The 4th International Symposium and School for Young Scientists "Physics, Engineering and Technologies for Biomedicine," MEPhI, Moscow, October 28-30, 2019 (invited).
128. Valery V. Tuchin, Elina A. Genina, Alexey N. Bashkatov, Ekaterina N. Lazareva, and Vladimir P. Zharov "In vivo optical clearing of human light and dark skin,

Dynamics and Fluctuations in Biomedical Photonics XVII, 1123902 (San-Francisco, 1-6 Feb. 2020); https://doi.org/10.1117/12.2566932 (приглашенный).

129. Alexei A. Bogdanov Jr., Valery V. Tuchin, Irina G. Meerovich, Natalia I. Kazachkina, Viktoria V. Zherdeva, Ilya D. Solovyev, Daria K. Tuchina, and Alexander P. Savitsky "Towards registration of optical and MR signal changes in subcutaneous tumor volume in vivo after optical skin clearing", Proc. SPIE 11239, Dynamics and Fluctuations in Biomedical Photonics XVII, 112390N (San-Francisco, 1-6 Feb. 2020); https://doi.org/10.1117/12.2545312 (приглашенный).

130. Oxana V. Semyachkina-Glushkovskaya, Ekaterina Zinchenko, Maria Klimova, Andrey Terskov, Arkady Abdurashitov, Alexander Dubrovsky, Inna Blokhina, Alexander Khorovodov, Ilana Agranovich, Nikita Navolokin, Alexander Shirokov, Elena Saranceva, Aysel Mamedova, Valery Tuchin, and Juergen Kurths "Pilot study of transcranial photobiomodulation of lymphatic clearance of beta-amyloid from the mouse brain: breakthrough strategies for non-pharmacologic therapy of Alzheimer's disease (San-Francisco, 1-6 Feb. 2020)", Biophotonics and Immune Responses XV, 1124103; https://doi.org/10.1117/12.2541561 (приглашенный).

131. Valery V. Tuchin, "Tissue optical clearing aiming multimodal imaging: moving from *in vitro* to *in vivo*", The VIII International Conference on Perspectives in Vibrational Spectroscopy (ICOPVS-2020) https://www.icopvs2020.org/), Bangalore, India, Feb.24-28, 2020 (plenary lecture).

132. Elina A. Genina, Alexey N. Bashkatov, Sergey M. Zaytsev, Marine Amouroux, Walter C. P. M. Blondel, Valery V. Tuchin, Physical impacts on epidermal permeability in vivo for optical clearing agents, Tissue Optics and Photonics, Conference 11363, SPIE Photonics Europe, Strasburg, 30 March–2 April 2020 (Invited Paper).

133. Yury V. Kistenev, Alexey V. Borisov, Polina A. Dyachenko, Ekaterina N. Lazareva, Viktor V. Nikolaev, Daria K. Tuchina, Denis A. Vrazhnov, Irina Yu K. Yanina, Valery V. Tuchin, Differential diagnostics of paraffin-embedded tissues by IR-THz spectroscopy and machine learning, Tissue Optics and Photonics, Conference 11363, SPIE Photonics Europe, Strasburg, 30 March–2 April 2020 (Invited Paper). https://www.spiedigitallibrary.org/conference-proceedings-of-spie/11363/113630P/Physical-impacts-on-epidermal-permeability-in-vivo-for-optical-clearing/10.1117/12.2555734.short?webSyncID=b6a0cbad-0593-29ad-883c-9d902bc9993c&sessionGUID=ed268bea-d49a-2853-1ab0-d3a6b03c97c0

134. Luis Oliveira, Isa Carneiro, Sonia Carvalho, Rui Henrique, Valery V. Tuchin, Measurement of optical properties of normal and pathological human liver from deep-UV to NIR, Tissue Optics and Photonics, Conference 11363, SPIE Photonics Europe, Strasburg, 30 March–2 April 2020 (Invited Paper). https://www.spiedigitallibrary.org/conference-proceedings-of-spie/11363/113630G/Measurement-of-optical-properties-of-normal-and-pathological-human-liver/10.1117/12.2554877.short

135. Alexei A. Bogdanov, Irina Meerovich, Natalia I. Kazachkina, Victoria Zherdeva, Ilya Solovyev, Alexander P. Savitsky, Valeriy V. Tuchin, Optical clearing effects in subcutaneous red-fluorescent tumors monitored by fluorescence and magnetic resonance imaging in vivo, Tissue Optics and Photonics, Conference 11363, SPIE Photonics Europe, Strasburg, 30 March–2 April 2020 (Invited paper). https://www.spiedigitallibrary.org/conference-proceedings-of-spie/11363/113630S/Optical-clearing-effects-in-subcutaneous-red-fluorescent-tumors-monitored-by/10.1117/12.2560186.short

136. V. V. Tuchin, Improved biomedical imaging over a wide spectral range from UV to THz towards multimodality, The 3rd International Conference "Biophotonics Riga – 2020", 24-25 August, 2020, Riga, on-line meeting (Invited paper).

137. Yu. V. Kistenev and V. V. Tuchin, Optical clearing and machine learning concepts for THz spectroscopy of tissues, The 4-th International Conference Terahertz and Microwave Radiation: Generation, Detection and Applications (TERA), August 24-26, 2020, Tomsk. (Invited paper); on-line presentation. http://tera2020.tsu.ru/
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150. 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).
151. 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).
152. В. В. Тучин, Оптическое просветление тканей как новый подход в антимикробной и противогрибковой фототерапии, VIII Международный симпозиум по когерентному оптическому излучению полупроводниковых соединений и структур, ФИ РАН, Москва 23-25 ноября 2021 г. Приглашенный доклад
153. V.V. Tuchin, Analytical biophotonics based on optical clearing of tissues and instrumental multimodality, 15th International Conference on Photonics and Imaging in Biology and Medicine (PIBM 2021), December 2-4, 2021, Hainan University, Haikou, China (plenary) http://pibm.hust.edu.cn/English/Invited_Talks.htm
154. 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).

Избранные образовательные лекции и краткие курсы лекций

1. V.V. Tuchin, "Optical Clearing of Tissue and Blood," Half-day short course, Photonics West Symposia, BiOS-2006, San Jose, California, USA, 21-26 January, 2006.
2. V.V. Tuchin, "Tissue Optics and Immersion Optical Clearing in Imaging, Spectroscopy, and Therapy," One-day short course, World Congress on Medical Physics, 27 August – 1 September, 2006, Seoul, South Korea.
3. В.В. Тучин, Оптическое просветление биологических тканей и крови, однодневный курс лекций для студентов, аспирантов и научных сотрудников, Львовский Национальный университет, Львов, Украина, 5 декабря 2006.
4. V.V. Tuchin, *Fundamentals of Laser-Tissue Interaction*, Lecture for Medical Personal, Symposium on Laser Medical Applications, Moscow, July 5 - July 6, 2010.
5. V.V. Tuchin, *Coherence-Domain and Polarization Methods in Biophotonics*," Huazhong University of Science and Technology, Wuhan, China, November 6, 2010.
6. V.V. Tuchin, *In vivo optical flow cytometry*, Beijing Institute of Technology, Beijing, November 8, 2010.
7. V.V. Tuchin, *In vivo image flow cytometry*, tutorial, Scientific Meeting of Photonics4Life, Institut d'Optique Graduate School, Campus Polytechnique, Palaiseau, France, 29 November - 1 December, 2010.
8. V.V. Tuchin, *In vivo* optical flow cytometry and cell imaging, 1- Image cytometry, 2 - Photothermal cytometry, 3 - Integrated photoacoustic cytometry, International School of Physics "Enrico Fermi" "Microscopy Applied to Biophotonics," Varenna (Lake Como) - July 12-22, 2011.
9. Valery V. Tuchin, A clear vision through tissues: enhanced optical imaging and therapy (invited), ST-DOT Summer School "Photonics Meets Biology", Hersonissos, Crete, Greece, 15th - 18th September, 2011.
10. Valery V. Tuchin, Optical Clearing of Tissues and Blood, SPIE Short Course, HUST SPIE Student Chapter, PIBM-11, Short Courses Session, 4 November 2011, Wuhan, China.
11. Valery V. Tuchin, Tissue Photonics, HUST University Short Course, 6 November 2011, Wuhan, China.
12. V.V. Tuchin, Tissue Optics, Huazhong University of Science and Technology, 3 November, 2012.

13. V.V. Tuchin, Tissue Optics and Measurements in Biophotonics, University of Eastern Finland - Joensuu Summer School on Optics, June 10-14, 2013.
14. V.V. Tuchin, Tissue Optics and Optical Clearing, Research Training Course "Biophotonics – Riga 2013," 26-28 August, Riga, Latvia, 2013.
15. V. Tuchin, Tissue Optics and Tissue Optical Clearing, 1st OILTEBIA European School organized by Universidad Carlos III de Madrid (UC3M), Leganés, Madrid (Spain), 15-19 September 2014.
16. V. V. Tuchin, Tissue Optical Clearing, Tzinghua University in Shenzhen, China, November 12, 2014, for PhD and MS students of Biomedical Engineering
17. V.V. Tuchin, Advanced tissue optical clearing, Huazhong University of Science and Technology, Wuhan, November 16, 2014. The inauguration lecture as a receiver of the Chimes Prize of Hubei Province, China
18. V.V. Tuchin, Tissue Optics and Photonics, 3rd FAST-DOT Summer School «Photonics meets Biology», 28 September - 2 October 2015, Royal Mare Thalasso & Spa Hotel, Anissaras, Crete, Greece – two lectures.
19. V. V. Tuchin, "Tissue optics and nanomedicine," SPIE Short Course, SPIE Student Chapter of University of Houston, February 11-12, 2016, Houston, USA.
20. V. V. Tuchin, "Tissue optical clearing: new prospects in optical imaging and therapy," Visiting Professor Lecture, Baylor College of Medicine, Texas Children's Hospital, February 12, 2016, Houston, USA.
21. V. V. Tuchin, "Nanoparticle enhanced optical biomedical imaging, sensing and therapy," 2nd International Young Scientists School "Nanostructured materials," 10-11 May 2016, Tomsk, Russia.
22. V.V. Tuchin, "Enhanced optical imaging: from UV to terahertz and from *in vitro* to *in vivo*," SPIE Short Course, OPTO2016 and COST, Gdansk, July 6-9, 2016.
23. V. V. Tuchin, "Tissue optical clearing: new prospects in optical imaging," SPIE Short Course, Hamyln Centre for Robotic Surgery, Imperial College London, Imperial Optical Society, 9 September, 2016, London, UK.
24. V.V. Tuchin, "Tissue optical clearing and delivery of agents and nanoparticles," Shenzhen University, October 19, 2016, Shenzhen, China.
25. V.V. Tuchin, "Fundamentals and advances of tissue and blood optical clearing," University of Macau, October 21, 2016, Macau, China
26. V. V. Tuchin, "Tissue optics and optical clearing technologies" NANQIANG life science series lectures of Xiamen University, October 24, 2016, Xiamen, China.
27. V.V. Tuchin, "Tissue optical clearing method," Chinese-Russian Workshop on Biophotonics, Nanjing University of Aeronautics & Astronautics, October 26, 2016, Nanjing, China.
28. V.V. Tuchin, "Tissue optics and mechanisms of tissue optical clearing," China Pharmaceutical University, October 27, 2016, Nanjing, China.
29. В.В. Тучин, Оптика биологических тканей и оптическое просветление, 1st School on Advanced Fluorescence Imaging Methods (ADFLIM), Москва, 12-14 декабря 2016.
30. V.V. Tuchin, "UV to THz enhanced tissue imaging at immersion clearing: from *in vitro* to *in vivo*," SPIE Short Course, SPIE Student Chapter of MIET, Moscow, December 12, 2016.
31. V.V. Tuchin, "Enhanced spectroscopy and imaging of tissues by immersion clearing: from UV to terahertz," SPIE Short Course, SPIE Student Chapter of Moscow Bauman University, Moscow, January 25, 2017.
32. V.V. Tuchin, Biological tissue optics and optical clearing, 2nd School on ADFLIM, St. Petersburg, 26-28 July 2017.
33. V.V. Tuchin, Tissue immersion optical clearing: from *in vitro* to *in vivo*, OSA Short Course, OSA Student Chapter of University of Houston, Houston, January 25, 2018.

34. V.V. Tuchin, “Tissue optics and tissue optical clearing,” Research Center in Automatic Control in Nancy (CRAN) UMR 7039 CNRS, Université de Lorraine, Vandoeuvre-lès-Nancy, France, April 27, 2018 (invited lecture).

35. Valery Tuchin,”Tissue optical clearing as a platform for *in vivo* optical imaging and treatment of hidden pathologies: from UV to terahertz,” Lecture for SPIE Student Chapter of Bar-Ilan University, Israel, November 18, 2018.
36. Valery Tuchin, ”Tissue optics and optical clearing for functional imaging,” Lecture on 30th International SAOT Workshop, Functional Optical Imaging in Medical Engineering, November 29 – 30, 2018, Friedrich-Alexander Universität Erlangen-Nürnberg, Germany.
37. Valery Tuchin, “Tissue optical clearing for multimodal imaging: from *in vitro* to *in vivo* Lecture for Students of University of Florence, Florence, Italy, December 20, 2018.
38. V.V. Tuchin, “Tissue optics and optical clearing of tissues and cells,” São Paulo School of Advanced Science on Modern Topics in Biophotonics, São Carlos/SP, Brazil, 20-29 March, 2019 (Short Course - three lectures).
39. Valery Tuchin, Tissue optical clearing aiming multimodal imaging: from *in vitro* to *in vivo*, SPIE Lecture, Technical University of Munich, Minich, June 27, 2019.

40. В.В. Тучин, Оптическое просветление биологических тканей в задачах мультимодальной визуализации: от *in vitro* к *in vivo*, Публичная лекция в Первом МГМУ им. И.М. Сеченова, Москва, 4 декабря 2019.

41. Valery Tuchin, Tissue optical clearing towards multimodal imaging: from *in vitro* to *in vivo*, University of Massachusetts, Boston, January 29, 2020. OSA Short Course: https://sites.uml.edu/abl/news-and-events/

42. Valery Tuchin, Tissue optical clearing towards multimodal imaging: from *in vitro* to *in vivo*, OSA Fellow Lecture Program, Feb. 27, 2020, Manipal Academy of Higher Education, Manipal, India. https://www.osa.org/en-us/awards_and_grants/fellow_members/fellow_lecturer_program/fellow_lecturer_trips/

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45. Valery Tuchin, A clear vision for laser diagnostics and therapy, PhD seminar series: Robotics, Lasers and beyond, The University of Basel, Switzerland, April 14, 2020, Internet Course.

46. Valery V. Tuchin, Tissue Optics and Tissue Optical Clearing for in-depth Imaging and Therapy, International summer school «Biophotonics», 20-26 July, 2020, MEPhI, Moscow, Russia 20-26 июля, 2020 г., Москва, Россия Международная летняя онлайн школа “Биофотоника”
47. Valery V. Tuchin, Tissue Optics and Photonics: Prospects for Multimodal Imaging and Treatment, Summer school on “Lasers and Biomedical Photonics (LBMP 2020), The National Lasers in Medicine Research Network, the Research Center of Laser Applications in Medical Sciences and the Medical Laser Research Center. 5-10 September 2020, Tehran, Iran. http://en.pam.isti.ir/news/-International-Summer-School-

of-Lasers-and-Biomedical-Photonics

48. Valery Tuchin, JBO Webinar Series, Hot Topics in Biomedical Optics, https://my.demio.com/ref/vM8mTkrAVC2MnHAQ, Seeing Through Tissue II: Tissue Clearing Methods, Date/Time: October 19, 12-1:30 EDT, Speakers: Valery Tuchin (Saratov St U Russia), Jonathan Liu (U Washington USA), Dan Zhu (Huazhong U S&T China), Kwanghun Chung (MIT USA), Moderators: Brian Pogue & David Sampson. https://sfmconference.org/files/overview-slide-5.pdf
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50. В.В. Тучин, Оптическое просветление биологических тканей: на пути к мультимодальной медицинской диагностике, XXII Зимняя Школа по механике сплошных сред, Пермь, 22-26 марта 2021, ПФИЦ УрО РАН. https://conf.icmm.ru/event/2/attachments/2/47/%D0%9A%D0%BD%D0%B8%D0%B3%D0%B0%20%D1%82%D0%B5%D0%B7%D0%B8%D1%81%D0%BE%D0%B2%20%D1%81%20%D0%BE%D0%B1%D0%BB%D0%BE%D0%B6%D0%BA%D0%BE%D0%B9.pdf
51. В.В. Тучин, Фотоника в биомедицинских исследованиях: современные возможности и перспективы, Вебинар, 30 марта 2021, Международный совет междисциплинарной научно-образовательной школы Московского университета «Фотонные и квантовые технологии. Цифровая медицина». Член наблюдательного совета Школы, https://www.youtube.com/watch?v=6vwvfSf75BY
52. Valery Tuchin, Towards multimodal tissue imaging with optical clearing, Iternational Day of Light, Symposium on Photonics Science and Technology 2021, Fitzpatrick Institute for Photonics (FIP) Annual Meeting, May 16-18, 2021, Duke University, Durham, NC (Plenary lecture). https://www.youtube.com/watch?v=OXXaK-G4-HM https://fitzpatrick.duke.edu/2021-fip-symposium-frontiers-photonics
53. Valery Tuchin, Multimodal MRT/CT/optical tissue imaging, AspectImaging Inc. The Pre-clinical Webinar Series Program, featured speaker, July 13, 2021. https://twitter.com/Aspect_imaging/status/1407820773688029187/photo/1
54. Valery Tuchin, Optical clearing methods in the Biophotonics field and its possibilities for translation into clinical application, LIFE-Seminar R&D to get a view beyond your horizon, University of Munich, July 26, 2021 uni-muenchen.de/LIFE-Zentrum
55. В.В. Тучин, Как Герберт Уэллс предвосхитил научные открытия, и как сделать человека-невидимку без магии? Фестиваль SMOGMARKET, Саратов, 29 августа 2021г. https://smog-mag.ru/home/lektsii-na-festivale-smogmarket (Популярная лекция).
56.

Подготовка кадров

Доктора наук

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24. Сурменко Елена Львовна – 2004
25. Черкасова Ольга Алексеевна – 2007
26. Акчурин Георгий Гарифович – 2009
27. Малинин Антон Владимирович – 2013
28. Янина Ирина Юрьевна – 2013
29. Ерохин Павел Сергеевич – 2015
30. Жерновая Ольга Сергеевна – 2015
31 Постнов Дмитрий Дмитриевич – 2015
32. Трунина Наталья Андреевна – 2016
33. Тимошина Полина Александровна – 2017
34. Селифонов Алексей Андреевич – 2021
35. Сдобнов Антон Юрьевич – 2021

Научно-исследовательские проекты

1. «Оптические методы диагностики нано- и мезоскопических сред», Аналитическая ведомственная целевая программа «Развитие научного потенциала высшей школы (2009 – 2011 гг.)»; № 2.1.1/4989. Руководитель
2. «Развитие научно-образовательной структуры по когерентной оптике и биофотонике», Аналитическая ведомственная целевая программа «Развитие научного потенциала высшей школы (2009 – 2011 гг.)»; № 2.2.1.1/2950. Руководитель

3. «Исследование взаимодействия оптического излучения с биологическими тканями и разработка когерентно-оптических и спектральных методов медицинской диагностики и фототерапии», Тематический план научно-исследовательских работ СГУ по заданию Минобразнауки на 2005 – 2014 годы; № 1.4.09. Руководитель
4. 7-ая Рамочная Программа Евросоюза в области технических и естественных наук, грант № 224014 Network of Excellence for Biophotonics (Photonics4Life), 2008-2012. Руководитель
5. "Noninvasive assessment of topical drug delivery in ocular tissues" Grant RUB1-2932-SR-08 of U.S. Civilian Research and Development Foundation for the Independent States of the Former Soviet Union (CRDF) with University of Houston; Cooperative Grants Program-Biomedical Competition, 2009-2011. Руководитель
6. «Физические и физиологические механизмы оптического просветления», РФФИ, №08-02-92224-ГФЕН_а; российско-китайский проект, 2008 – 2010. Руководитель
7. «Организация и проведение XIII Ежегодной Международной Междисциплинарной Школы для молодых ученых и студентов по оптике, лазерной физике и биофотонике», РФФИ, №10-02-06824-моб_г, 2010. Руководитель
8. «Влияние структурно-морфологических особенностей биотканей на их оптические характеристики и световые поля в ближнем УФ - ближнем ИК спектральном диапазоне», РФФИ, №10-02-90039-Бел_а; российско-белорусский проект, 2010 – 2011. Руководитель
9. «Клинико-экспериментальное обоснование неинвазивной технологии экспресс диагностики развития острых кровоточащих гастродуоденальных язв», РФФИ, №11-02-00560-а 2011 – 2013. Руководитель
10. «Исследование терапевтических, токсических и термических воздействий комплексов наночастица-фотосенсибилизатор при лазерном воздействии», госконтракт № 02.740.11.0484; ФЦП «Научные и научно-педагогические кадры инновационной России» на 2009-2013 гг. Руководитель
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12. «Разработка новых фотонных технологий анализа биофизических процессов в живых организмах на субклеточном, клеточном и тканевом уровнях для задач неинвазивной и минимально-инвазивной диагностики и терапии», госконтракт № 02.740.11.0879; ФЦП «Научные и научно-педагогические кадры инновационной России» на 2009-2013 гг. Руководитель
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30. «Дистанционно управляемые наноструктурированные системы для адресной доставки и диагностики», грант Правительства Российской Федерации 14. Z50.31.0004 для государственной поддержки научных исследований, проводимых под руководством ведущих ученых (Г.Б. Сухоруков) в российских образовательных учреждениях высшего профессионального образования, научных учреждениях государственных академий наук и государственных научных центрах Российской Федерации, (2014- 2018), руководитель научной группы.

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56.

Валерий Тучин,
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