

CURRICULUM VITAE

Pavel Agrba , Ph.D.

PERSONAL DATA

Last Name: Agrba

Fist Name: Pavel

Middle Name: Dmitrievich

Date of Birth: 23 April 1985

Citizenship: Russian Federation

Place of birth: Nizhny Novgorod

CONTACT INFORMATION

Institute of Applied Physics of the Russian Academy of Sciences (IAP RAS)

Ulyanov St., 46,

Nizhny Novgorod, 603950

Russia

Tel: +7 831 4164619

Fax: +7 831 4363792

E-mail: agrbapd@gmail.com,

<http://www.bioimaging.ru/>

PROFESSIONAL ACTIVITY

2008 - present: Junior researcher at the IAP RAS

2008 - present: Assistant at the Nizhny Novgorod State University, Radiophysics Faculty

EDUCATIONAL ACTIVITY

2008 - present: laboratory practice courses for graduates of the Radiophysics Faculty and Biology Faculty at the Nizhny Novgorod State University

EDUCATIONAL BACKGROUND

2011: PhD, Laser Physics

2008 – 2011: Ph.D. Student at the Nizhny Novgorod State University, Department of General Physics

2008: MS degree, Radiophysics. Department of General Physics, Nizhny Novgorod State University

2002–2008: Student at the Department of General Physics, Nizhny Novgorod State University

HONORS AND AWARDS

2009-2010: A.G. Razuvaev Scholarship winner

2010-2011: A.G. Razuvaev Scholarship winner

2010-2011: Scholarship of the President of Russian Federation

2009: Best poster prize at International Spring School “Biophysics & Bioelectrochemistry for medicine”

2010: Best poster prize at International Conference “Laser application in life sciences 2010” (LALS 2010)

MANAGING OF SCIENTIFIC PROJECTS

2009: Project of the Federal Target Program "Scientific and pedagogical personnel of innovative Russia" Development of optical methods for biotissue diagnostics and treatment using nanoparticles.

SOCIETY MEMBERSHIPS

2008 – present: The International Society for Optical Engineering (SPIE), Nizhny Novgorod

Student Chapter.

2010 – 2011: President of SPIE Nizhny Novgorod Student Chapter.

2011 – 2012: Treasurer of SPIE Nizhny Novgorod Student Chapter.

SCIENTIFIC INTERESTS

Optical Coherent Tomography (OCT)

- Noninvasive monitoring of tissue optical properties
- Monte Carlo simulation of OCT signals
- Optical properties control and contrasting of OCT images
- OCT controlled hypothermia using nanoparticles

Polarization Optical Spectroscopy (POS)

- Noninvasive monitoring of tissue morphological properties
- POS early diagnostics of cancer

Optical Diffuse Tomography

PUBLICATIONS

6 peer-reviewed journal publications, 18 abstracts in conference proceedings

Publications

1. P. D. Agrba, M. Yu. Kirillin, A. I. Abelevich, E. V. Zagaynova, and V. A. Kamensky, Compression As a Method for Increasing the Informativity of Optical Coherence Tomography of Biotissues.// Optics and Spectroscopy, Vol. 107, N 6, 853-858 (2009)

2. Zagaynova E.V., Shirmanova M.V., Kirillin M.Yu., Khlebtsov B.N., Orlova A.G., Balalaeva I.V., Sirotkina M.A., Bugrova M.L., Agrba P.D. and Kamensky V.A. Contrasting properties of gold nanoparticles for optical coherence tomography: phantom, in vivo studies and Monte Carlo simulation. // Phys. Med. Biol., Vol. 53, P. 4995 (2008).

3. M.Yu. Kirillin, P.D. Agrba, M.A. Sirotkina, M.V. Shiryamova, E.V. Zagaynova, V.A. Kamenskii, Nanoparticles as contrast-enhancing agents in optical coherence tomography imaging of the structural components of skin: Quantitative evaluation.//Quantum Electron, Vol. 40, N 6, 525–530 (2010).

4. M.Yu. Kirillin, P.D. Agrba and V.A. Kamensky In vivo study of the effect of mechanical compression on formation of OCT images of human skin. //Journal of Biophotonics, Vol. 3, N 12, 752-758 (2010).

5. V. A. Kamensky, A. N. Morozov, A. V. Mjakov, P. D. Agrba, and N. M. Shakhova, Endoscopic Cross-Polarization Spectrometer As an Instrument for Puncture Diagnostics. //Optics and Spectroscopy, Vol. 109, N 3, 392-396 (2010)

6. M.A. Sirotkina, M.V. Shirmanova, M.L.Bugrova, V.V. Elagin, .P.D. Agrba, M.Yu. Kirillin, V.A. Kamensky, E.V. Zagaynova, Continuous optical coherence tomography monitoring of nanoparticles accumulation in biological tissues. //Journal of Nanoparticles Research, Vol. 13, N 1, 283-291 (2011).