

Nataliya Naumova

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Education

09/2020 – present

University of California Irvine, Irvine, CA, USA

M.S. and Ph.D. in Biomedical engineering

09/2016 – 07/2020

Bauman Moscow State Technical University, Moscow, Russia

B.S. in Biomedical engineering

Work Experience

10/2020 – present

Graduate research assistant

Gorodetsky Group, University of California Irvine, Irvine, CA, USA

Duties:

- Development of new bioinspired materials for applications in optics
- Studying of optical properties of living cells

10/2019 – 09/2020

Laboratory assistant

Laboratory of Shaped Crystals, Institute of Solid-State Physics of the Russian Academy of Sciences, Chernogolovka, Russia

Duties:

- Studying optical and electronic properties of living cells and tissues
- Studying optical and electronic properties of optical clearing agents

Research Experience

11/2020 – present
(UCI, Irvine, CA, USA)

Developing of infrared camouflage and conductive materials based on living cells

10/2018 – 06/2020
(BMSTU, Moscow, Russia)

Developing of hardware and software complex based on optical coherence tomography for differentiation of human brain glioma and intact tissue.

02/2019 – 05/2019
(BMSTU, Moscow, Russia)

Studying different methods of treating infected wounds using physical factors, mechanisms of therapeutic action of low-frequency ultrasound and methods of controlling parameters of ultrasonic cavitation, optical method in particular.

10/2017 – 05/2018
(BMSTU, Moscow, Russia)

Studying the basics about laser radiation and its effect on biological objects, red blood cells in particular.

Internships and conferences

Internship
(BMSTU, Moscow, Russia)
(06/2019 – 12/2019)

Developing a hardware and software system based on optical coherence tomography for differentiating brain glioma and intact tissue.

Conference
(Saratov, Russia)
(09/2019)

IMMERSION OPTICAL CLEARING OF TISSUES IN THE TERAHERTZ RANGE: CHOOSING THE OPTIMAL CLEARING AGENT // G.R. Musina, **N.A. Naumova**, A.A. Gavdush, N.V. Chernomyrdin, I.N. Dolganova, V.E. Ulitko, D.K. Tuchina, G.A. Komandin, K.I. Zaytsev, and V.V. Tuchin / *Saratov Fall Meeting 2019* / Poster

Internship
(Moscow City Clinical
Hospital №1 named after N.I.
Pirogov, Moscow, Russia)
(07/2018)

Studying equipment for gastroscopy and blood transfusion

Publications

– N. Dolganova, P. V. Aleksandrova, **N. A. Naumova**, P. V. Nikitin, K. I. Zaytsev, S. T. Beshplav, V. V. Tuchin (2020). Optical coherence tomography of brains: ex vivo study of healthy and malignant tissues. *2020 International Conference Laser Optics (ICLO), Saint Petersburg*, pp. 1-1. doi: 10.1109/ICLO48556.2020.9285444.

– N. Dolganova, G. M. Katyba, I. A. Shikunova, A. K. Zotov, P. V. Aleksandrova, **N. A. Naumova**, M. A. Shchedrina, K. I. Zaytsev, V. V. Tuchin, V. N. Kurlov (2020). Sapphire-based medical instruments for diagnosis, surgery and therapy. *Proc. SPIE 11363, Tissue Optics and Photonics*, 1136318. doi: 10.1117/12.2555320

Skills

- Computer skills:**
- LabVIEW, MATLAB, Mathcad, Micro-Cap
 - MS Office, Autodesk Inventor, SolidWorks
 - Adobe: Premiere Pro, Photoshop

- Languages:**
- Russian – native
- English – advanced

- Personal qualities and skills:**
- Responsibility
 - Determination
 - Open-mindedness
 - Willingness to learn
 - Optimism