

CURRICULUM VITAE  
ANASTASIIA NEGANOVA  
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**Personal data**

Full name: Anastasiia Yurievna Neganova

Date of birth: 15-03-1990

**Education**

**10/2013 – present** – Ph.D Student, Marie Curie Early Stage Researcher, Faculty of Health and Medical Sciences, The Department of Biomedical Sciences, University of Copenhagen, Copenhagen, Denmark

**09/2007- 07/2012** B.Sc., M.Sc. in Medical Physics, Diploma on *Mathematical modelling of endotheliun-mediated conduction vasodilation*, Department of Physics, Saratov State University, Saratov, Russia

**06/2007** - High School Diploma, Lyceum No.3 named after A.S.Pushkin, Saratov, Russia

**Awards and Stipends**

2013 – The REVAMMAD Marie Curie Initial Training Network (Oct 2013 – Sept 2016)

2012 – Young researcher award at annual conference of Saratov State University

**Main competences**

Computational Physiology/Biology, Biophysics, Nonlinear Dynamics

**Programming skills**

1. C (excellent)
2. C with CUDA extensions (basics)
3. Labview (advanced)
4. Fortran (basics)
5. LATEX (advanced)

**Teaching experience**

2013 Lectures on cardiovascular system for third-year students and developing programs in Labview for second-year students.

2010-2012 Tutor in physics and mathematics for middle and high school students.

**Conferences organization**

Member of the organizing committee: International School for Junior Scientists and Students on Optics, Laser Physics and Biophysics «Saratov Fall Meeting - 2012»

### Internships

01.03.2012-30.03.2012 – Ltd. “Trima” (technology, development, manufacture of medical devices).  
Thematic – developing of specifications for medical devices.

### Software Patents

1. D.D. Postnov, D.E. Postnov, **A.Y. Neganova**, Patent for educational software « Quantitative modeling of the dynamics of blood flow and interaction modes in a system of two coupled nephrons in the kidney of a mammal "CoupledNephrons"» ( *Valid for Russian Federation*. Accepted may 2013)
2. D.D. Postnov, **A.Y. Neganova**, D.E. Postnov, Patent for educational software « Quantitative mathematical modeling of the electrophysiology of the cell membrane and calcium dynamics of blood vessels endothelial cells "EndoSilva10\_20"» ( *Valid for Russian Federation*. Accepted may 2013)
3. D.D. Postnov, D.E. Postnov, **A.Y. Neganova**, Patent for educational software « Quantitative modeling basic properties of generation of action potentials in neurons "Neuron\_-60"» ( *Valid for Russian Federation*. Accepted may 2013)
4. D.D. Postnov, **A.Y. Neganova**, D.E. Postnov, Patent for educational software « Quantitative modeling of the electrical activity and the calcium dynamic in smooth muscle cells of blood vessel "SMCell27"» ( *Valid for Russian Federation*. Accepted may 2013)

### Publications

#### **Peer-reviewed papers**

1. D.E. Postnov, **A.Y. Neganova**, J.C. Brings Jacobsen, N.-H. Holstein-Rathlou, O. Sosnovtseva, Functional modeling of smooth muscle cell synchronization in the arterial wall, European Physical Journal - Special Topics (EPJ-ST) "Nonlinear Dynamics of Deterministic and Stochastic Systems: Unraveling complexity" (accepted,2013)
2. **A.Y. Neganova**, D.E. Postnov, Mathematical modeling endothelium-induced relaxation of endothelial cell, Proceedings of the Saratov University «Series Physics», vol. 12, 37-42 (2012) (in Russian)
3. D.E. Postnov, **A.Y. Neganova**, D.D. Postnov, A. Brazhe, Monitoring of rhythms in laser speckle data, Journal of Innovative Optical Health Sciences (submitted)
4. D.E. Postnov, **A.Y. Neganova**, O.V. Sosnovtseva, N.-H. Holstein-Rathlou, J.C. Brings Jacobsen, Conducted vasoreactivity: The dynamical point of view, Bull Math Biol, (submitted)

### Conferences contributions

#### **Conferences proceedings**

- 1 **A.Y. Neganova**, D.E. Postnov, «Quantitative modeling of stimu-induced response of blood vessel endothelial cell», proceeding of All-Russia Workshop «Computer Diagnostic Methods in Biology and Medicine - 2012», Saratov, Russia, 24-26 (2012)
- 2 E. Styukhina, **A.Y. Neganova**, D.E. Postnov, «Investigation of the mechanism of regenerative impulse transmission by vascular wall endothelial cells», proceeding of All-Russia Workshop «Computer Diagnostic Methods in Biology and Medicine - 2012», Saratov, Russia, 42-44 (2012)
- 3 **A.Y. Neganova**, D.E. Postnov, «Mathematical modeling of mechanism of endothelium-dependent conducted vasodilation», proceeding of I International Internet-Conference «Mathematical and computer modeling in biology and chemistry. Development prospects», Kazan, 113-114 (2012)
- 4 **A.Y. Neganova**, D.E. Postnov, «Model of NO- cGMP- operated calcium dynamics in smooth muscle cell», proceeding of All-Russia Workshop «Computer Diagnostic Methods in Biology and Medicine - 2011», Saratov, 215-217 (2011)

### Oral Presentations

- 1 **A.Y. Neganova**, D.E. Postnov, «Quantitative mathematical modeling of stimu-induced response of blood vessel endothelial cell», All-Russia Workshop «Computer Diagnostic Methods in Biology and Medicine - 2012», Saratov, Russia, September 19-21, 2012
- 2 E. Styukhina, **A.Y. Neganova**, D.E. Postnov, «Investigation of the mechanism of regenerative impulse transmission by vascular wall endothelial cells», All-Russia Workshop «Computer Diagnostic Methods in Biology and Medicine - 2012», Saratov, Russia, September 19-21, 2012

### Poster contributions

- 1 **A. Neganova**, D.E. Postnov, « Mathematical modeling of endothelium-mediated spreading regenerative vasodilation», International School for Junior Scientists and Students on Optics, Laser Physics and Biophysics «Saratov Fall Meeting - 2012», Saratov, September 25-28, 2012
- 2 E. Styukhina, **A. Neganova**, D.E. Postnov, «Phenomenological mathematical model of regenerative pulse transmission by endothelial cells», International School for Junior Scientists and Students on Optics, Laser Physics and Biophysics «Saratov Fall Meeting - 2012», Saratov, September 25-28, 2012
- 3 **A.Y. Neganova**, D.E. Postnov, «Mathematical modeling of mechanism of endothelium-dependent conducted vasodilation», International Internet-Conference «Mathematical and computer modeling in biology and chemistry. Development prospects», Kazan, May 28-30, 2012
- 4 **A.Y. Neganova**, D.E. Postnov, «Mathematical simulation of endothelia-dependent relaxation of smooth muscle cells», Saratov Local Cluster Meeting: Clinical Studies in Biophotonics: Problems and Ethical Issues, Saratov, October 28, 2011
- 5 **A.Y. Neganova**, D.E. Postnov, «Model of NO- cGMP- operated calcium dynamics in smooth muscle cell», All-Russia Workshop «Computer Diagnostic Methods in Biology and Medicine - 2011», Saratov, October 25-27, 2011

- 6 **A.Y. Neganova**, D.E. Postnov, «Mathematical modeling of NO- and cGMP-mediated regulation in smooth muscle cells», International School for Junior Scientists and Students on Optics, Laser Physics and Biophysics «Saratov Fall Meeting - 2011», Saratov, September 27-30, 2011