

Anastasiia Gusach

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PERSONAL DATA

Birth date: November 22, 1992
Birth place: Azov, Rostov Region, Russian Federation
Nationality: Russian

EDUCATION

2016-present: MIPT, Faculty of general and applied physics, department of biophysics, PhD student
2014-2016: MIPT, Master of Science, Biophysics, Faculty of general and applied physics, graduated with honors. Thesis Topic: “Structural studies of human Cysteinyl leukotriene receptor 2”
2010-2014: MIPT, Bachelor of Science, Applied Physics and Mathematics, Faculty of General and Applied Physics, graduated with honors. Thesis Topic: “Expression and Purification of Cysteinyl leukotriene receptor 2 mutant constructions for structural studies”
1999 – 2010: School 1, Azov, finished with honors

RESEARCH EXPERIENCE

2014-Present: Laboratory of structural biology of G protein-coupled receptors, MIPT.
Research subject: Structure and function of cysteinyl leukotriene receptors.
Principal Investigators: Dr. Vadim Cherezov
2013-2014: Laboratory of advanced studies of membrane proteins, MIPT
Research subject: Structural studies of G-protein coupled receptors
2012-2013: Laboratory of advanced studies of membrane proteins, MIPT
Research subject: Small-angle X-ray scattering of proteins in solutions

USEFULL SKILLS

Molecular and structural biology: molecular cloning, recombinant protein expression in *Sf9*, *E. Coli* and purification, Sf9 cell line treatment, size-exclusion chromatography, flow cytometry, differential scanning fluorimetry, fluorescence recovery after photobleaching and crystallization in lipid cubic phase, diffraction data collection, enzyme expression and purification
Biophysics: analysis of small angle x-ray scattering in solutions

Computer skills: C, Pascal, VMD, Pymol, Photoshop

Languages: Russian (native), English (fluent), French (intermediate), Spanish (beginner)

ACHIEVEMENTS

- 2014: - Dynasty foundation award for young biologists
2010: - Silver medal in All-Russian Physics Olympiad
2009: - Gold medal in All-Russian Olympiad “Nanotechnology – the breakthrough to the future”, MSU

CONFERENCE POSTERS AND PRESENTATIONS:

- 1 Gusach A., Luginina A., Mishin A., Vartanyan N., Cherezov V. Structural Studies of Cysteinyl Leukotriene G Protein Coupled Receptors. *The 3rd Shanghai GPCR forum, Suzhou, China, 2015*
- 2 Gusach A., Luginina A., Mishin A., Ischenko A., Stauch B., Popov P., Borshchevskiy V., Katritch V., Cherezov V. Structural studies of human cysteinyl leukotriene receptor *The 4th iHuman forum, Shanghai, China, 2016*
- 3 R. Astashkin, N. Vartanyan, A. Gusach, A. Luginina, M. Ergasheva, M. Shevtsov, A. Mishin, V. Borshchevskiy, V. Cherezov. Pre-crystallization assays of an engineered human endothelin receptor type B. *The FEBS Congress 2016 - Ephesus / Kuşadası, Turkey*
- 4 Gusach A., Luginina A., Mishin A., Vartanyan N., Cherezov V. Expression, purification and precrystallization assays of human cysteinyl leukotriene receptor 2. *International Scientific Conference of Saint-Petersburg State University Research Park «Translational biomedicine: exploring modern techniques of interdisciplinary research in implication to applied medicine», Saint Petersburg, Russia, 2015*
- 5 Aleksandra Luginina, Mishin Alexey, Anastasia Gusach, Vadim Cherezov, Valentin Borshchevskiy Expression, purification and functional analyses of human CysLT1 and GPR17 proteins. *FEBS Congress, Paris, France, 2014.*
- 6 A.Yu. Gusach, A.P. Krivolapova. Mutagenesis of human cysteinyl leukotriene 2 receptor. *56th scientific conference of MIPT. Dolgoprudnyy, Russia. 2013.*

COURSES:

- 2016: EMBO course: “Protein Expression Purification and Characterization”, Hamburg, Germany
2014: FEBS Advanced Course “Ligand-binding Theory and Practice”, Novy Hrad, Czech Republic
2013: “Biophysical Methods of Research”, Kiev, Ukraine

