

Grigory Tagiltsev

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research interests

biophysics, molecular biology, protein structure and dynamics, cryo-electron microscopy, cryo-electron tomography, atomic force microscopy, image processing for microscopy

education

Jan. 2017 — Jan. 2022	Weill Cornell Medical College/Cornell University New York, NY, USA PhD student
Oct. 2015 — Dec. 2016	LABEX INFORM/Aix-Marseille University Marseille, France PhD student (transferred to Cornell University)
Sept. 2010 — Jun. 2015	Lomonosov Moscow State University Department of Chemistry Moscow, Russia specialist of chemistry (equivalent to master's degree)

work experience

Jan. 2022 — present	Max Planck Institute of Biochemistry Department of Cell and Virus Structure Martinsried, Germany postdoc under the supervision of Dr. John Briggs
Jan. 2017 — Jan. 2022	Weill Cornell Medical College/Cornell University Bio-AFM-Lab New York, NY, USA research assistant under the supervision of Prof. Simon Scheuring
Apr. — Jun. 2019	Weill Cornell Medical College/Cornell University BioVenture eLab New York, NY, USA venture fellow under the supervision of Prof. Romulo Hurtado
Oct. 2015 — Dec. 2016	Aix-Marseille University Bio-AFM-Lab Marseille, France research assistant under the supervision of Prof. Simon Scheuring
Sept. 2011 — Jun. 2015	Lomonosov Moscow State University Department of Chemistry Moscow, Russia undergraduate research assistant under the supervision of Prof. Alexey M. Kopylov

Sept. 2012 — May 2013

Lomonosov Moscow State University
Department of Chemistry
Division of Organic Chemistry

Moscow, Russia
undergraduate research assistant
under the supervision of prof. Ludmila I. Livantsova

Sept. 2010 — May 2011

A.N. Bach Institute of Biochemistry

Moscow, Russia
undergraduate research assistant
under the supervision of Dr. Alexander S. Goryashchenko

Sept. 2010 — May 2011

Lomonosov Moscow State University
Department of Chemistry
Inorganic synthesis laboratory

Moscow, Russia
undergraduate research assistant
under the supervision of Prof. Elena V. Karpova

publications

1. Taylor R.J., Zubkov N., Ciazynska K.A., Kaufman J.G.G., **Tagiltsev G.**, Owen D.J., Briggs J.A.G., Munro S., "The mechanistic basis of cargo selection during Golgi maturation"
bioRxiv 2025.06. 26.661719 (2025)
2. Kelley R.†, Khavnekar S.†, Righetto R.D.†, Heebner J.†, Obr M.†, Zhang X.†, Chakraborty S.†, **Tagiltsev G.**†, Michael A.K.†, van Dorst S.†, Waltz F., McCafferty C.L., Lamm L., Zufferey S., Van der Stappen P., van den Hoek H., Wietrzynski W., Harar P., Wan W., Briggs J.A.G., Plitzko J.M., Engel B.D., Kotecha A., "Towards community-driven visual proteomics with large-scale cryo-electron tomography of *Chlamydomonas reinhardtii*"
bioRxiv 2024.12. 28.630444 (2024)
†: contributed equally
3. Sanganna Gari R.R., **Tagiltsev G.**, Pumroy R.A., Jiang Y., Blackledge M, Moiseenkova-Bell V.Y., Scheuring S., "Intrinsically disordered regions in TRPV2 mediate protein-protein interactions"
Communications Biology 6, 966 (2023)
4. Taylor R.J.†, **Tagiltsev G.**†, Briggs J.A.G.
†: contributed equally
5. **Tagiltsev G.**, Haselwandter C.A., Scheuring S., "Nanodissected elastically loaded clathrin lattices relax to increased curvature"
Science Advances, 7, eabg9934 (2021)
6. Zavyalova E., **Tagiltsev G.**, Reshetnikov R., Arutyunyan A., Kopylov A., "Cation coordination alters the conformation of a thrombin-binding G-quadruplex DNA aptamer that affects inhibition of thrombin"
Nucleic Acid Therapeutics, 26 (2016), pp. 299-308

skills

imaging skills

cryo-EM, cryo-tomography, cryo-FIB-milling, subtomogram averaging, atomic force microscopy, fluorescence microscopy

wet lab skills

cell culture

programming languages

matlab, python, bash

languages

English (fluent), Russian (native), German (beginner)

scientific conferences

Dec. 2021	Cell Bio Virtual 2021 Online «Flat clathrin lattices are elastically loaded» <i>Poster</i>
Feb. 2019	64st Annual Biophysical Society Meeting San Diego, CA, USA «Clathrin-Coated Pits Form from Elastically Loaded Clathrin Lattices» <i>Poster</i>
Feb. 2018	63st Annual Biophysical Society Meeting Baltimore, MD, USA «High-Speed Atomic Force Microscopy of Clathrin-Coated Pits» <i>Poster</i>
Apr. 2017	Du Vigneaud Symposium Weill Cornell Medical College/Cornell University New York, NY, USA «Structural Dynamics of Endocytosis by High-Speed AFM» <i>Poster</i>
Feb. 2017	61st Annual Biophysical Society Meeting New Orleans, LA, USA «Structural Dynamics of Endocytosis by High-Speed AFM» <i>Poster</i>
Apr. 2015	The XXII International Student, Postgraduate and Young Scientist Conference «Lomonosov» Moscow State University Moscow, Russia «Properties of G-quadruplex-bearing anti-thrombin aptamers in complexes with metal cations» <i>Oral presentation</i>

Awards and fellowships

July 2022 — June 2024	EMBO postdoctoral fellowship
Oct. 2015 — Dec. 2016	Labex INFORM fellowship

volunteer experience

Feb. 2022 — Dec. 2023	Tutoring children whose regular school education was disrupted by the war in Ukraine. Earthlings Hub: https://earthlingshub.org
Sept. 2020 — Jan. 2022	Mentoring undergraduate students Science Mentors: https://www.thesciencementors.com/en
Sept. 2018 — Dec. 2021	Organizing a student soccer club Weill Cornell Medical College, New York, NY, USA
May 2018, Apr. 2019	High school science projects evaluation King School, Stamford, CT, USA
May 2017 — Feb. 2019	Volunteer at science fairs for elementary and middle school students
Jan. 2014 — Jun. 2015	Organizing a club for international students Lomonosov Moscow State University, Moscow, Russia