

Employment history:

- 2024 – pres. Senior Lecturer, Queen Mary University of London, UK
- 2022 – 2024 Lecturer, Queen Mary University of London, UK
- 2020 – 2022 PDRA, Utrecht University, Netherlands
- 2016 – 2020 PDRA, Delft University of Technology, Netherlands
- 2011 – 2015 PDRA, Russian Academy of Sciences, Russia
- 2007 – 2011 research assistant, University of Colorado at Boulder, USA

Education:

- 2022 – 2024 PGCAP (Distinction), Queen Mary University of London, UK
- 2005 – 2011 PhD, Nat. Center for Hematology then Russian Acad. of Sci, Russia
- 2000 – 2005 Pharmaceutical Chemist, Moscow Medical Sechenov Acad., Russia

Grants and awards:

- 2023 – 2026 BBSRC New Investigator Responsive mode Grant (PI with 1 Col, £717K)
- 2023 – 2026 BBSRC Responsive mode grant (Col with John Viles as PI, £485K)
- 2017 Seal of Excellence under the ERC Marie Skłodowska-Curie program

Membership in professional organisations:

- 2024 – pres. Fellow, Higher Education Academy, UK
- 2010 – pres. member, Biophysical Society
- 2008 – pres. member, American Society for Cell Biology (ASCB)

Publications within the last 5 years (#corresponding author, *co-first author):

Preprints:

1. Liang R, Torres-Flores AP, Qi S, Khursheed A, Tian Y, Szwedziak P, Baker MD, **Volkov VA**, Darbari VC, Viles JH. Structural architecture of amyloid- β oligomers, curvilinear protofibrils and annular assemblies, imaged by cryo-EM and cryo-ET (2024) *bioRxiv* doi: 10.1101/2024.03.01.582902
2. Amini Hounajani R, **Volkov VA** & Dogterom M. Dynamic instability of force-generating bacterial microtubules (2023) *bioRxiv* DOI: 10.1101/2023.08.02.551647
3. Ogunmolu FE*, Moradi S*, **Volkov VA***, et al. Microtubule plus-end regulation by centriolar cap proteins (2021) *bioRxiv* DOI: 10.1101/2021.12.29.474442

Peer-reviewed publications:

4. **Volkov VA#** & Akhmanova A#. Phase separation on microtubules: from droplet formation to cellular function? (2023) *Trends Cell Biol*, doi: 10.1016/j.tcb.2023.06.004
5. Polley S, Müschenborn H, Terbeck M, De Antoni A, Vetter IR, Dogterom M, Musacchio A#, **Volkov VA#**, Huis in 't Veld PJ#. Stable kinetochore-microtubule attachment requires loop-dependent Ndc80-Ndc80 binding. (2023) *EMBO J* e112504.
6. van den Berg CM, **Volkov VA**, et al. (2023) *J Cell Biol* 222 (4), e202208062
7. Maan R*, Reese L*, **Volkov VA***, et al. Multivalent interactions facilitate motor-dependent protein accumulation at growing microtubule plus ends. (2023) *Nature Cell Biology* 25, 68-78
8. Nick Maleki A, Huis in 't Veld PJ, Akhmanova A, Dogterom M, **Volkov VA#**. Estimation of microtubule-generated forces using a DNA origami nanospring (2023) *J Cell Sci*, 136(5) jcs261054
9. Schwieter F, **Volkov VA**, et al. Strain stiffening of the Ndc80 complex attached to microtubule plus ends (2022) *Biophys J* 121(21) 4048-4062
10. Alkemade C, Wierenga H, **Volkov VA**, et al. Cross-linkers at growing microtubule ends generate forces that drive actin transport. (2022) *Proc Natl Acad Sci U S A*. 119 (11) e2112799119.

11. **Volkov VA#**. Microtubules pull the strings: disordered sequences as efficient couplers of microtubule-generated force. (2020) *Essays in Biochemistry*, 64(2), 371–382.
12. Rodriguez-Garcia R, **Volkov VA**, et al. Mechanisms of motor-independent membrane remodeling driven by dynamic microtubules. (2020) *Current Biology* 30(6), 972–987.
13. Huis in 't Veld PJ*, **Volkov VA***, Stender I, Musacchio A, Dogterom M. Molecular determinants of the Ska-Ndc80 interaction and their influence on microtubule tracking and force-coupling. (2019) *eLife* 8:e49539
14. McHugh T, Zou J, **Volkov VA**, Bertin A, Talapatra SK, Rappsilber J, Dogterom M, Welburn JPI. The depolymerase activity of MCAK shows graded response to Aurora B kinase phosphorylation through allosteric regulation. (2019) *J Cell Sci* 132(4): jcs228353

Full publication list at Google Scholar:

<https://scholar.google.com/citations?hl=en&user=oXsndXUAAAAJ>

Invited presentations:

May 2024	Invited speaker, UK & Ireland Single-Molecule Biology Meeting, London UK
Oct 2023	Invited speaker, ENW-XL collaboration meeting, Utrecht, Netherlands
Sep 2023	Colloquium speaker, CMD30 FisMat, Milano, Italy
Dec 2022	Seminar speaker, Max-Planck Institute of Molecular Physiology, Germany
Feb 2020	Seminar speaker, Institute Curie, France
Nov 2019	Seminar speaker, Oxford University, UK
Jun 2019	Seminar speaker, Institute of Molecular Pathology, Austria
Jun 2018	Seminar speaker, Max Perutz Laboratories, Austria
Sep 2015	Seminar speaker, ETH Zurich, Switzerland
May 2015	Seminar speaker, Max-Planck Institute of Molecular Physiology, Germany

Selected conference talks:

Sep 2023	EMBO Workshop “Centrosomes in dev., disease and evol.”, Istanbul, Turkey
Jul 2022	EMBO Dynamic Kinetochore Workshop, Oslo, Norway
Jun 2022	EMBO Symp. “Microtubules: From Atoms to Complex Systems”, Germany
May 2022	UK Microtubule Meeting, Edinburgh, UK
Aug 2019	Dynamic Kinetochore Workshop, Paris, France
May 2019	Mitotic spindle: From living and synthetic systems to theory, Split, Croatia.
Dec 2018	Minisymposium speaker, ASCB-EMBO Annual Meeting, San Diego, CA USA.
Jun 2018	EMBO Symp. “Microtubules: From Atoms to Complex Systems”, Germany
Jun 2016	EMBO Symp. “Microtubules: From Atoms to Complex Systems”, Germany
May 2015	EMBO Dynamic Kinetochore Workshop, Copenhagen, Denmark.

Teaching activities

2024 – pres.	Module organiser, BIO600/BMD600 – undergraduate research projects
2022 – pres.	Lecturer, BMD121/BIO125 – Physiology, BIO116 – Cells, SBBS QMUL
2022 – pres.	Tutor, BMD100 – Essential skills for Biomedical Scientists, SBBS QMUL
2022 – pres.	BSc&MSc research project & dissertation supervisor SBBS QMUL
2017 – 2019	Lecturer, Optics and applications for Nanobiology students, TU Delft
2017 – 2019	Teaching assistant, Optical Tweezers practicals, TU Delft
2017	Research facilitator, Physiology course at MBL, Woods Hole, MA, USA

Service / outreach activities

2022 – pres.	co-organiser of SBBS Thursday seminars, SBBS QMUL
2023 – pres.	organiser of research project allocations for SBBS BSc students (BIO600)
2023 – 2024	co-organiser of the 8 th EMBO Dynamic Kinetochore Workshop
	Ad-hoc grant reviewer, BBSRC Responsive Mode, Le Studium Fellowships (France)
	Ad-hoc reviewer for <i>Nat Struct Mol Biol</i> , <i>J Cell Biol</i> , <i>J Cell Sci</i> , <i>Nat Commun</i> , <i>PNAS</i> , <i>eLife</i> , <i>Biophys J</i> , <i>Biophys Rev.</i> , <i>Mol Biol.</i> , <i>Heliyon</i>