

### Employment history:

- 2025 – pres. Reader in Biochemistry, Queen Mary University of London, UK
- 2024 – 2025 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:

- 2025 – 2032 Wellcome Trust Career Development Award (PI, £2,044K)
- 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 programme

### 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. Radhakrishnan RM, Stokes L, Day M, Huis in 't Veld PJ, **Volkov VA#**. Microtubule end stabilisation by cooperative oligomers of Ska and Ndc80 complexes (2025) *bioRxiv* DOI: 10.1101/2025.07.06.663352
2. Amini Hounejani R, **Volkov VA** & Dogterom M. Dynamic instability of force-generating bacterial microtubules (2023) *bioRxiv* DOI: 10.1101/2023.08.02.551647

#### Peer-reviewed publications:

3. Liang R, Khurshheed A, Tahirbegi B, Torres-Flores AP, Qi S, Tian Y, Zhang H, Szwedziak P, Baker MD, **Volkov VA**, Darbari VC, Viles JH. Amyloid- $\beta$  oligomers, curvilinear and annular assemblies, imaged by cryo-ET, cryo-EM, and AFM (2025) *Science Advances* 11, eadx9030. doi: 10.1126/sciadv.adx9030
4. Kalutskii M, Grubmueller H, **Volkov VA#**, Igaev M#. Microtubule dynamics are defined by conformations and stability of clustered protofilaments (2025) *Proc Natl Acad Sci U S A*. 122 (22) e2424263122. doi: 10.1073/pnas.2424263122
5. Iyer S\*, Chen F\*, Ogunmolu F\*, Moradi S\*, **Volkov VA\***, van Grinsven E\*, et al. Centriolar cap proteins CP110 and CPAP control slow elongation of microtubule plus ends (2025) *J Cell Biol*, 224 (3): e202406061
6. **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
7. 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.
8. van den Berg CM, **Volkov VA**, et al. (2023) *J Cell Biol* 222 (4), e202208062

9. 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
10. 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
11. Schwietert F, **Volkov VA**, et al. Strain stiffening of the Ndc80 complex attached to microtubule plus ends (2022) *Biophys J* 121(21) 4048-4062
12. 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.
13. **Volkov VA#**. Microtubules pull the strings: disordered sequences as efficient couplers of microtubule-generated force. (2020) *Essays in Biochemistry*, 64(2), 371–382.
14. Rodriguez-Garcia R, **Volkov VA**, et al. Mechanisms of motor-independent membrane remodeling driven by dynamic microtubules. (2020) *Current Biology* 30(6), 972–987.

Full publication list at Google Scholar:

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

#### Invited presentations:

Apr 2025	Keynote speaker, Single-Molecule Network, London UK
Mar 2025	Seminar speaker, Institute of Cancer Research, London UK
Feb 2025	Seminar speaker, Institute Curie, France
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
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 Kinetochores Workshop, Oslo, Norway
Jun 2022	EMBO Symp. “Microtubules: From Atoms to Complex Systems”, Germany
May 2022	UK Microtubule Meeting, Edinburgh, UK

#### Teaching activities

2024 – 2025	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

2025 – pres.	Lead for Research Innovation & Impact, Centre for Mol. Cell. Biol., QMUL
2022 – pres.	co-organiser of SBBS Thursday seminars, SBBS QMUL
2023 – 2025	organiser of research project allocations for SBBS BSc students (BIO600)
2023 – 2024	co-organiser of the 8 <sup>th</sup> EMBO Dynamic Kinetochores Workshop
	Ad-hoc grant reviewer, BBSRC Responsive Mode, Le Studium Fellowships (France)
	Ad-hoc reviewer for <i>Nature</i> , <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>