Sabine Petry, PhD

Associate Professor (with tenure), Department of Molecular Biology
Associated Faculty Member in the Departments of Chemical & Biological Engineering and Chemistry
Washington Road, Princeton, NJ 08544
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DEGREES

2003 - 2007 **Ph.D. Biochemistry, MRC Laboratory of Molecular Biology / University of Cambridge***, UK*

2000 - 2003 Diplom (M.Sc.) Biochemistry, summa cum laude
J.W. von Goethe Universität and Max Planck Institute of Biophysics *Frankfurt am Main, Germany*

Feb. - July 2001 Licence (French third year degree) candidate in Cell Biology and Physiology
Université d'Evry Val d'Essonne *Evry, France*

1998 - 2000 Vordiplom (B.S.) Biochemistry and Business Administration, summa cum laude
J.W. von Goethe Universität *Frankfurt am Main, Germany*

RESEARCH POSITIONS & PROFESSIONAL EXPERIENCE

2020 Associate Professor (with tenure), Department of Molecular Biology / Princeton University *NJ*

2013 - 2020 Assistant Professor, Department of Molecular Biology/ Princeton University *NJ*

since 2013 Associated Faculty Member, Department of Chemical & Biological Engineering
Associated Faculty Member, Department of Chemistry
Graduate program member: Molecular Biology; Chemical & Biological Engineering;
Quantitative and Computational Biology; Chemistry

2019 (& 2020) **Physiology Course Faculty**, Marine Biology Laboratory *Woods Hole MA*

Dec. 2017 – Dec. 2018 Maternity Leave followed by work-load relief semester

Summer 2016 **Whitman Center Investigator**, Marine Biological Laboratory *Woods Hole MA*

2008 - 2013 **Postdoctoral Fellow, HHMI / University of California at San Francisco** *CA*
Mentor: Prof. Ronald D. Vale, Topic: Microtubule Nucleation within the Mitotic Spindle

Summers Marine Biological Laboratory *Woods Hole MA USA*
2009 - 2012 Collaborators: Prof. Timothy Mitchison (Harvard Medical School), Dr. Francois Nedelec (EMBL)
Topic: Functional Studies of the Augmin Complex in Xenopus Egg Extracts

2003 - 2007 **Ph.D. Student, MRC Laboratory of Molecular Biology** *Cambridge, UK*
Advisor: Dr. Venki Ramakrishnan, Ph.D. Thesis: Structural Studies of the Termination of Translation

Summer 2003 **World Health Organization** *Geneva, Switzerland* Department for the Protection of the Human Environment: Associate solely responsible for *Ultraviolet Radiation and the INTERSUN Programme*

2002 - 2003 **Diploma (M.Sc.) Student, Max Planck Institute of Biophysics** *Frankfurt am Main, Germany*
Advisors: Prof. Carola Hunte and Prof. Hartmut Michel. Diploma Thesis: Generation and Characterization of Single-Chain-Fv Fragments specific for the Cytochrome bc1 Complex

Summer 2001 **Genoscope, the National Sequencing Center** *Evry, France*
Research Associate involved in high-throughput sequencing and genome analysis

2000 Undergraduate Student, Max Planck Institute of Biophysics *Frankfurt am Main, Germany*
Advisors: Dr. Guenter Frisch and Prof. Hartmut Michel
Topic: Biochemical and X-Ray Crystallographic Studies of the Bacterial Reaction Center

Summer 1999 **Merck KGaA** *Darmstadt, Germany*
Summer Associate in the Environmental Protection Department

HONORS & AWARDS

2020 **Schmidt Fund Transformative Technology Award**, co-PI, Princeton University *NJ*
Princeton's largest internal competitive award for disruptive technology
Topic: Microtubule-enabled Nanotechnology

2019 **Women in Cell Biology Junior Award for Excellence in Research**
by the American Society of Cell Biology (ASCB)
awarded once a year to one female Assistant Professor within seven years of starting her lab

2018 named as Early Career Scientist in the "Future of Biochemistry" Special Issue (2018) Biochemistry 57, 1-8

2016 - 2021 **NIH New Innovator Award (DP2)**

2016 **Cell scientist to watch** – **Sabine Petry** (2016) J Cell Sci. Nov 15;129(22):4155-4157

2016 **Whitman Center Scientist, Marine Biological Laboratory**, *Woods Hole MA USA*

2016 **Schmidt Fund Transformative Technology Award**, co-PI, Princeton University *NJ*
Princeton's largest internal competitive award for disruptive technology
Topic: Revolutionizing Cell Biology with a Combined 3D Imaging and Force Microscope

2014 - 2019 **Packard Fellowship for Science and Engineering**

2014 - 2018 **Pew Scholar in the Biomedical Sciences**

2014 - 2016 **Kimmel Scholar for Cancer Research**

2013 - 2016 **NIH Pathway to Independence Award R00**
2012 - 2013 **NIH Pathway to Independence Award K99**

2009 - 2011 **Postdoctoral HHMI Fellow of the Life Science Research Foundation**
2009 Postdoctoral Fellowship of the Helen Hay Whitney Foundation (declined)
2009 Postdoctoral Fellowship of the Human Science Frontier Program (declined)

2008 **EMBO Long-term Fellowship for Postdoctoral Research**

2007 **FEBS Young Scientist Prize**, 7th FEBS Young Scientist Forum *Vienna, Austria*
for best presentation

2006 Young Investigator Award, 40th Anniversary Meeting *Spetses, Greece*
for best poster and best lecture

2005 **Max Perutz Student Price for Outstanding Research**, MRC Lab. of Molecular Biology *Cambridge, UK*

2003 - 2006 **Ph.D. Scholarship by Boehringer Ingelheim Fonds**

2003 - 2006 College Scholarship for University of Cambridge from Medical Research Council, *UK*

2003 World Health Organization Scholarship, Bureau for Leaders in International Organizations, *Germany*

2001 - 2003 **German National Merit Foundation / Studienstiftung des Deutschen Volkes**
awarded to the top 0.5% of German University students, with financial support and courses

PUBLICATIONS

Since moving to Princeton

30. Gouveia B*, Kim Y*, Shaevitz JW, **Petry S**, Stone HA and Brangwynne CP. Capillary forces in living cells. Nature (in review).

29. Safari M*, King MR*, Brangwynne CP and Petry S. Interaction of spindle assembly factor TPX2 with importins-α/β inhibits protein phase separation. J Biol Chem. (2021) 297(3):100998

28. Thawani A and **Petry S**. Molecular insight into how g-TuRC makes microtubules. J Cell Sci. (2021) Jul 15; 134(14):jcs245464.

27. Gai Y, Cook B, Stone HA and **Petry S.** Confinement size determines the architecture of Ran-induced microtubule networks. Soft Matter (2021) Jun 28; 17(24):5921-5931j.

26. Setru SU, Gouveia B, Alfaro-Aco R, Shaevitz JW, Stone HA and Petry S. A hydrodynamic instability drives protein droplet formation on microtubules to nucleate branches. ARxiv and **Nature Physics** (2021)

25. Thawani A, Rale MJ, Coudrey N, Bhaba G, Stone HA, Shaevitz JW and **Petry S**. The transition state and regulation of γ-TuRC-mediated microtubule nucleation revealed by single molecule microscopy. BioRxiv 2019 and **Elife** (2020) 9:e5423. PMCID: 32538784

24. Amin JM, **Petry S**, Yang H, and Shaevitz JW. Uniform intensity in multifocal microscopy using a spatial light modulator. **PLOS ONE** (2020) March 11 https://doi.org/10.1371/journal.pone.0230217 / ArXiv 29 Jul 2019

23. Alfaro-Aco R, Thawani A and **Petry S**. Biochemical reconstitution of branching microtubule nucleation. BioRxiv Jul. 11, 2019 / **Elife** (2020) Jan 14; 9.

22. King MR and **Petry S**. Phase separation of TPX2 enhances and spatially coordinates microtubule nucleation. BioRxiv June 12, 2019 / **Nature Communications** (2020) Jan 14; 11(1):270.

21. Thawani A, Stone H.A, Shaevitz J.W and **Petry S** (2019) Spatiotemporal organization of branched microtubule networks bioRxiv April 12 / **Elife** May 8,8.

20. Song J, King MR, Zhang R, Kadzik R, Thawani A and **Petry S** (2018) Mechanism of how Augmin directly targets the γ-tubulin ring complex to microtubules. **J Cell Biol** 217(7):2417-2428.

19. Thawani A, Kadzik R and **Petry S** (2018) XMAP215 is a microtubule nucleation factor that acts synergistically with the gamma tubulin ring complex. **Nat Cell Biol** 20(5):575-585.

    - Cover
    - News & Views: Luders J (2018) XMAP215 joins microtubule nucleation team. Nat Cell Biol 20, 506-510.
    - Recommended by Faculty F1000

18. Dixit R and **Petry S** (2018) The life of a microtubule. **Mol Biol Cell.** Mar 15;29(6):689.

17. Song J and **Petry S** (2018) Dissecting Protein Complexes in Branching Microtubule Nucleation using Meiotic Xenopus Egg Extracts. **Cold Spring Harbor Protoc.** Jan 10 [Epub ahead of print] **The Frog Book**

16. Rale M and **Petry S** (2018) Phase Transitioning the Centrosome into a Microtubule Nucleator. **Biochemistry** Jan 9; 57(1):30-37.

    - Invited contribution to special issue "The Future of Biochemistry"

15. Alfaro-Aco A and **Petry S**. (2017) How TPX2 helps microtubules branch out. **Cell Cycle** 16(17):1560-1561.

14. Alfaro-Aco A, Thawani A and **Petry S** (2017) Structural analysis of the role of TPX2 in branching microtubule nucleation. **J Cell Biol** 216(4):983-997.

    - Cover

13. **Petry S** (2016) Mechanisms of Mitotic Spindle Assembly. **Annual Rev Biochem** Jun 2; 85:659-83.

12. King M and **Petry S** (2016) Visualizing and analyzing branching microtubule nucleation using meiotic Xenopus egg extracts and TIRF microscopy. **Methods Mol Biol** 1413:77-85.

11. **Petry S** and Vale RD (2015) Microtubule nucleation at the centrosome and beyond. **Nat Cell Biol** 17(9):1089-93.

10. Alfraco-Aco R and **Petry S** (2015) Building the microtubule cytoskeleton piece by piece. **J Biol Chem** 290(28):17154-62. Epub 2015 May 8.

Prior to Princeton

9. **Petry S**, Groen AC, Ishihara K, Mitchison TJ, Vale RD (2013) Branching microtubule nucleation in Xenopus egg extract mediated by augmin and TPX2. **Cell** 152, 768-777.

- Commentary: Zheng Y, Iglesias PA (2013) Nucleating New Branches from Old. Cell 152, 669-670.
- Commentary: Minton K (2013) Microtubule nucleation branches out. Nat Rev Mol Cell Biology 14, 192-193.
- Recommended by Faculty F1000

8. **Petry S**, Vale RD (2011) A new cap for kinetochore fibre minus ends. **Nat Cell Biol** 13(12):1389-91.

7. **Petry S**, Pugieux C, Nedelec F, Vale RD (2011) Augmin promotes meiotic spindle formation and bipolarity in Xenopus egg extracts. **Proc Natl Acad Sci** USA 108(35):14473-8.

6. Uehara R, Nozawa RS, Tomioka A, **Petry S**, Vale RD, Obuse C, Goshima G (2008) The augmin complex plays a critical role in spindle microtubule generation for mitotic progression and cytokinesis in human cells. **Proc Natl Acad Sci** USA 106(17):6998-7003.

5. Weixlbaumer A, Jin H, Neubauer C, Voorhees RM, **Petry S**, Kelley AC, Ramakrishnan V (2009) Insights into translational termination from the structure of RF2 bound to the ribosome. **Science** 322, 953-6.

- Commentary: Liljas A (2008) Getting close to termination. Science 322, 863-865.
- Recommended by Faculty F1000

4. **Petry S**, Weixlbaumer A, Ramakrishnan V (2008) The termination of translation. **Curr Opin Struct Biol** 18, 70-77.

3. Weixlbaumer A, **Petry S***, Dunham CM*, Selmer M*, Kelley AC, Ramakrishnan V (2007) Crystal structure of the ribosome recycling factor bound to the ribosome. **Nat Struct Mol Biol** 14, 733-737 (* equal contribution).

2. Selmer M, Dunham CM, Murphy FV IV, Weixlbaumer A, **Petry S**, Kelley AC, Weir JR, Ramakrishnan V (2006) Structure of the 70S ribosome complexed with mRNA and tRNA. **Science** 313, 1935-1942.

- Recommended by Faculty F1000

1. **Petry S**, Brodersen DE, Murphy FV IV, Dunham CM, Selmer M, Tarry MJ, Kelley AC, Ramakrishnan V (2005) Crystal structures of the ribosome in complex with release factors RF1 and RF2 bound to a cognate stop codon. **Cell** 123, 1255-1266.

- Recommended by Faculty F1000

OTHER PUBLICATIONS & PRESS

- Petry S & Radiation and Environmental Health Unit, Protection of the Human Environment, **World Health Organization**, Geneva (2003) **INTERSUN. The Global UV Project. A Guide and Compendium.** ISBN 92 4 159105 6.
- **Petry S** (2017) Learning the Art of Leading a Lab. **ASCB Newsletter / WICB Column** Nov 13.
- A Biological Fireworks Display (2017) **NIH Director's Blog** by Dr. Francis Collins. July 4 2017.
- Fireworks under a Microscope (2016) **NIH Director's Blog** by Dr. Francis Collins. July 4 2016.
- Cell scientists to watch – Sabine Petry (2016) Journal of Cell Science 129:4155-4157.
- Petry S (2019) How to turn an academic lab based on a basketball strategy (ASCB Award Assay). MBoC Vol. 30 No. 23

INVITED SEMINARS & CONFERENCE PRESENTATIONS

2022 Graduate School of Quantitative Biosciences Munich (QBM) *Munich Germany*

Carnegie Institution at Johns Hopkins University *Baltimore MD*

Stanford Univeristy *Palo Alto CA*

American Society for Biochemistry and Molecular Biology (ASBMB) Annual Meeting *Philadelphia PA*

6th Seattle Cell Science Symposium, Allen Institute for Cell Science *Seattle WA*

2021 Condensate Colloquium Series *virtual*

NIH High Risk High Reward Symposium *Washington DC*

University of Toronto *Toronto Canada*

University of Oregon *Eugene OR*

UCLA *Los Angeles CA*

Mitotic spindle: from living and synthetic systems to theory *Split Croatia*

Purdue University *West Lafayette IN*

UC Berkeley Department of Molecular and Cell Biology *Berkeley CA*

University of Virginia *Carlottsville VA*

2020 ASCB GLBTQ+ Keynote Speaker

University of Wyoming *Laramie, WY*

North Carolina Triangle Cytoskeleton Meeting Keynote Speaker *Chapel Hill, NC*

Flatiron Institute *New York City NY*

University of Massachusetts Medical School *Worcester MA*

John Hopkins School of Medicine *Baltimore MD*

Ecole polytechnique fédérale de Lausanne School of Life Sciences *Lausanne Switzerland* (postponed)

Marine Biological Laboratory Cytoskeleton Club *Woods Hole MA*

University of Connecticut Health Center *Farmington CT* (cancelled due to COVID-19)

New York University School of Medicine *New York City NY*

EMBO/EMBL Symposium: Microtubules *Heidelberg Germany*

Yale University, *New Haven CT* (cancelled due to COVID-19)

MRC Laboratory of Molecular Biology *Cambridge UK*

UCSF Biochemistry & Biophysics Department *San Francisco CA*

2019 American Society of Cell Biology Washington DC

University of Wisconsin *Madison WI*

Universität Heidelberg, Biochemie Zentrum Heidelberg *Germany*

New York Academy of Sciences Genome Integrity Discussion Group *New York NY*

31st Packard Fellows Meeting *Monterey CA*

Max Planck Institute for Biophysical Chemistry *Goettingen Germany*

Marine Biological Laboratory *Woods Hole MA*

Protein Structure, Function and Malfunction Meeting, Keynote Speaker University of Saskatchewan *Canada*

Biophysical Society Meeting *Baltimore MD*

2018 PI-only and invite-only meeting: Phase Separated Assemblies - Banbury Center of CSHL *Lloyd Harbor NY*
to review current knowledge and to identify strategies for future work on phase separated assemblies in biology

Harvard Medical School Department of Cell Biology *Boston MA*

EMBO Fellowship, Keynote Speaker *New York City NY*

CUNY Institute for Macromolecular Assemblies *New York NY*

UCSD Division of Biological Sciences *San Diego CA*

MRC Laboratory of Molecular Biology *Cambridge UK*

Rutgers University Cancer Institute *New Brunswick NJ*

Albert Einstein University, Department of Anatomy and Structural Biology *New York NY*

University of Washington, Department of Biochemistry *Seattle WA*

Pew Biomedical Program Annual Meeting *Marana AZ*

2017 Annual Meeting of the American Society of Cell Biology *San Francisco CA*

New York University, Department of Biology *New York NY*

Max Planck Institute of Biochemistry *Munich Germany*

J.W. von Goethe University Cluster of Excellence "Macromolecular Complexes" *Frankfurt Germany*

EMBO Cell Biology Course *Heidelberg Germany* (cancelled)

Gordon Research Conference "Motile and Contractile Systems" *New London NH*

Jacques Monod Conference "Actin and microtubule cytoskeleton" *Roscoff France* (cancelled)

2016 Annual Meeting of the American Society of Cell Biology *San Francisco CA*

Boehringer Ingelheim Fonds Bi-annual North America Meeting: Keynote Speaker *Woods Hole MA*

Gordon Research Conference "Muscle & Molecular Motors" *West Dover VT*

National Institutes of Health NHLBI *Bethesda MD*

Brandeis University, Department of Biochemistry *Waltham MA*

Dartmouth University *Hanover NH*

2015 Annual Meeting of the American Society of Cell Biology *San Diego CA*

University of Pennsylvania, Distinguished Seminar Series of Life Sciences Departments *Philadelphia PA*

2nd EMBO|EMBL Symposium "Seeing is Believing – Imaging the Processes of Life"

26th Packard Fellows Meeting *Monterey CA*

Physiology Course at the Marine Biological Laboratory *Woods Hole MA*

Pew Biomedical Program Annual Meeting *Vieques PR*

40th Anniversary Meeting of the Lorne Proteins Conference *Lorne Australia*

2014 Annual Meeting of the American Society of Cell Biology *Philadelphia PA*

3rd EMBO Practical Course on Microscopy, Modeling and Biophysical Methods, EMBL *Heidelberg, Germany*

Max F. Perutz Laboratories and University of Vienna *Austria*

15th International Xenopus Conference *Pacific Grove CA*

2013 Rowan University, Graduate School of Biomedical Sciences retreat: Keynote Speaker, *Stratford NJ*

Caltech, Division of Chemistry *Pasadena CA*

UC Berkeley, Department of Molecular and Cell Biology *Berkeley CA*

MIT, Whitehead Institute and Department of Biology *Boston MA*

UTSW Medical Center, Department of Structural Biology *Dallas TX*

Prior to 2013

2012 Stanford University, Department of Biochemistry *Palo Alto CA*

Research in Progress Seminar *UCSF CA*

National Institutes of Health *Bethesda MD*

Princeton University, Department of Molecular Biology *Princeton NJ*

Max Planck Institute of Molecular Physiology *Dortmund Germany*

2nd EMBO Conference on Microtubules, EMBL *Heidelberg Germany*

2007 Biochemical Society of Kenya, University of Nairobi, *Kenya*

Madurai University, *India*

Indian Institute of Technology Delhi, *India*

32nd FEBS Congress "Molecular Machines" *Vienna, Austria*: Award lecture (FEBS Young Scientist Prize best talk)

7th FEBS Young Scientist Forum *Vienna Austria*

12th Annual Meeting of the RNA Society *Madison WI*

2006 40th Anniversary Meeting of Spetses Summer School *Greece*: Young Investigator Award lecture

2005 Annual Lab Talks MRC Laboratory of Molecular Biology *Cambridge, UK*

EMBO Conference on Protein Synthesis and Translational Control *Heidelberg, Germany*

FUNDING ($4,832,500 Direct Costs cumulative since starting my lab at Princeton)

Current Research Support

NIH R01 Investigating Regulation and Mechanisms of Microtubule Nucleation in Acentrosomal Spindle Assembly
(grant confirmation)

Schmidt Fund Transformative Technology Award (Petry, Stone) 2021 - ongoing
Microtubule-enabled Nanotechnology

Catalysis Initiative (Petry, Shaevitz) 2020 - 2022
Using optical tweezers to perform chromosome segregation

DP2 New Innovator Award 1DP2GM123493-01 (Petry PI) 2016 - 2021
Source: NIH, NIGMS
Building the Chromosome Segregation Machinery from Scratch

Catalysis Initiative (Petry, Stone) 2019 - 2021
Engineering the chromosome segregation machinery to catalyze life

Schmidt Fund Transformative Technology Award (Petry, Shaevitz, Yang) 2016 - ongoing
Revolutionizing Cell Biology with a Combined 3D Imaging and Force Microscope

The Lucile & David Packard Foundation 2014 – 2019
Building the Microtubule Cytoskeleton via Microtubule Nucleation (NCE – 2021)

Completed Research Support

2017 Princeton-Humboldt Strategic Partnership Initiative 2017 - 2019
How to Shape Living Structures – Factors Controlling Spindle Geometry

2014 Pew Scholars Program in the Biomedical Sciences 2014 - 2019
Building the Microtubule Cytoskeleton via Microtubule Nucleation

Princeton University-Humboldt Universität Strategic Partnership 2015 - 2017
Mesoscale Self-Organization of Non-Membrane Bound Cellular Structures

2014 Sidney Kimmel Foundation Scholars Award 2014 - 2016
Molecular Basis of the Chromosome Segregation Machinery and its Malfunction

R00 5R00 GM100013-05 (Petry PI) 2013 - 2016
Source: NIH, NIGMS
Role and Mechanism of Microtubule Nucleation within the Mitotic Spindle

Molecular Biology Innovation Award (Petry, Shaevitz) 2015
Segregating Chromosomes in vitro using Optical Tweezers

MENTORING

Years	Name * Fellowship	Current Position
Undergraduate thesis students		
2014-15	David Octeau ‘15	NYU Medical School
2015-16	Marina Nogueria ‘16	Researcher at Harvard’s Broad Institute
2016-17	Elbegduuren Erdenee ‘17	Graduate student at Stanford University
2017-18	Aparna Raghu ‘18	Master Program in Public Health
2018-19	Jakob Atkins ‘19	Application for Medical School

2019 - 20	Sarah Jun '20	Application for Medical School
2019 - 20	Natalia Brokate '20	To be determined
2020 - 21	Fairuz Nawar '21	To be determined
2021 - present	Taraje Whitfield `22	To be determined
Summer undergraduate visiting students		
2018	Phoebe Nelson, Florida International University	Undergraduate student
Graduate students		
2013 - 2019	Matthew King (Molecular Biology Ph.D. Program)	Postdoctoral fellow with Prof. Rohit Papu at WU St. Louis
2013 - 2019	Raymundo Alfaro-Aco (Molecular Biology Ph.D. Program) ** NSF Predoctoral Fellow* ** HHMI Gilliam Fellow*	Career transition
2014 - 2020	Akanksha Thawani (Chemical and Biological Engineering Ph.D. Program), co-mentor Prof. Howard Stone ** Francis Upton Graduate Fellow in School of Engineering* * *American Heart Association Predoctoral Fellow* ** Honorific Fellowship Princeton University*	Postdoctoral fellow with Prof. Eva Nogales at UC Berkeley
2015 - 2020	Sagar Setru (Quantitative and Computational Biology Ph.D. Program), co-mentor Prof. Joshua Shaevitz * *NIH Predoctoral Fellow*	Bristol Myers Squibb
2016 - present	Michael Rale (Molecular Biology Ph.D. Program) * *NSF Predoctoral Fellow* ** HHMI Gilliam Fellow*	Current
2018 - present	Brianna Romer (Molecular Biology Ph.D. Program)	Current
2018 - present	Bernardo d. Gouveia (Chemical and Biological Engineering Ph.D. Program), co-mentor Prof. Howard Stone	Current
2019 - present	Venecia Valdez (Molecular Biology Ph.D. Program)	Current

Postdoctoral Scholars		
2014 - 2017	Jae-Gung Song (Ph.D., University of Vienna)	Group leader at Novartis
2014 - 2017	Rachel Kadzick (Ph.D., University of Pennsylvania) ** NIH postdoctoral fellow*	Research associate at University of Chicago and Northwestern University
2018 - 2020	Xi Chen (Ph.D., Ulm University)	Assistant Professor, Harbin Institute of Technology, China
2018 - 2020	Mohammad Safari (Ph.D., University of Houston)	Research Specialist in Start-Up
2018 - 2020	Ya Gai (Ph.D. Stanford University), co-mentor Prof. Howard Stone	Boston Consulting Group
2019 - 2020	Brian Cook (Ph.D. UC Davis)	Post-doctoral fellow at UCSD
2020	Raymundo Alfaro-Aco (Princeton University)	Jansen
2018 - present	Brian Mahon (Ph.D., University of Florida)	Current
2020 - present	Sophie Travis (Ph.D. Princeton University)	Current
2021 – present	Jodi Kraus (Ph.D., Univeristy of Delaware)	Damon Runyon Fellow

UNIVERSITY SERVICE

2019 – 2021 - Committee on the Course of Study

2019 - 2020 - Initiator and organizer of the Biochemistry & Structure Colloquium that unites biochemists, biophysicists and structural biologists across departments at Princeton University

2016 - present - Initiator and executive committee member of the Biophysics Core Facility of Princeton University a joint venture between CHEM and MOL, supported by 33 labs across departments

2018 - Panel Discussion Chair "Liberating the Doctorate", She Roars, Princeton University *NJ*

2015 - 2019 - Faculty Advisor, Women's Basketball Team, Princeton University

2014 - present - Initiator and co-leader of Out in STEM lunch, Princeton University

2013 - 14 - Princeton University weekly lunch for Assistant Professors in the natural sciences, organizer

DEPARTMENTAL SERVICE

Committees

2019 – present - Graduate Admissions Committee

2018 - present - Committee member of the cryo-Electron Microscopy Facility

2017 - 18 - MOL/QCB Summer Undergraduate Research Program, Faculty director

2015 - 16 - Princeton Department of Molecular Biology: Annual Retreat, chair

2014 - 15 - Princeton Department of Molecular Biology: Funding solutions committee

2014 - 15 - Princeton Department of Molecular Biology: Annual Retreat, co-chair

2013 - 15 - Princeton Department of Molecular Biology: graduate program admissions committee

2013 - 14 - Princeton Department of Molecular Biology: Host of Carter Wallace Lectures

Faculty Search Committees

2020 - Princeton Department of Molecular Biology: chair of faculty search committee "EM", the firth EM search that for the first time resulted in a successful hire (Dr. John Jimah)

2019 - Princeton Department of Molecular Biology: staff search committee "cryoEM facility manager"

2017 - 18 - Princeton Department of Molecular Biology: faculty search committee "EM"

2016 - 17 - Princeton Department of Molecular Biology: faculty search committee "broad, EM, immunology"

2014 - 15 - Princeton Department of Molecular Biology: faculty search committee "Multiscale Dynamics"

Dissertation, thesis proposal and examination graduate committees

Gregory Shimamura – Hughson Lab	2014 - 2018
Irene Raitman Khutorskoy – Schwarzbauer Lab	2014 - 2018
Alan Furtran – Link Lab	2014 - 2016
Sophie Travis – Hughson Lab	2015 - 2019

Carly Garrison – Schwarzbauer Lab	2016 - 2020
Benjamin Lovett – Schwarzbauer Lab	2019 – present
Kevin D'Amivo – Hughson Lab	2020 – present
Amari Tankard – Yan Lab	2021 - present

OUTSIDE SERVICE & ACTIVITIES

2019, '20, '21 - Reviewer for the HHMI Gilliam Predoctoral Fellowship Program

2019 - Session Chair "Modes and Mechanisms of Transport", Gordon Research Conference on 'Motile and Contractile Systems' *NH*

2019 - Session Chair "Cytoskeleton", Annual Meeting of the Biophysical Society *Baltimore MD*

2018 - Session Chair "Microtubule nucleation", 5th EMBO Conference on Microtubules, EMBL *Heidelberg Germany*

2017 - Session Organizer and Chair of the Minisymposium "The Life of a Microtubule: Birth, Dynamics and Function", Annual Meeting of the American Society of Cell Biology *San Francisco CA*

2016 - Panel Discussion Organizer and Chair: How to start & lead a lab, Physiology Course *MBL Woods Hole MA*

2014 - 2016 - Women in Cell Biology (WICB) Associate of the American Society of Cell Biology (ASCB)

2015 - Panel Discussion Organizer and Chair: How to start & lead a lab, Physiology Course *MBL Woods Hole MA*

2006 - 2007 - Seminar committee to invite and host external speakers, MRC LMB *Cambridge, UK*
2003 - 2006 - Graduate student association, MRC Laboratory of Molecular Biology *Cambridge, UK*
2001 - 2002 - Student committee for the advancement of the Biochemistry Master Program, Goethe Universität *Germany*

Peer Reviewer in research journals

Cell Reports
Elife
Journal of Cell Science
Journal of Cell Biology
Journal of Molecular Biology
Molecular Biology of the Cell
Nature Cell Biology
Nature Communcations
PLOS One
Science

PROFESSIONAL AFFILIATIONS

2008 - present Member, American Society of Cell Biology
2017 - present Member, Biophysical Society
2015 - present Member, American Association for the Advancement of Science
2014 - 2015 Member, American Genetics Society
2006 - 2007 RNA Society

PROFESSIONAL COURSES

2018 Electron Microscopy Boot Camp Rutgers University *New Brunswick NJ*
2017 Kugee Womens' Leadership Course *Princeton NJ*
2016 HHMI Gilliam URM Mentoring Workshop, HHMI *Chevy Chase MD*
2013 EMBO Laboratory Management Course for Group Leaders *Leimen Germany*
2011 Scientific Leadership and Management, UCSF Office of Career and Professional Development *CA*
2009 Analytical and Quantitative Light Microscopy, Marine Biological Laboratory *Woods Hole MA*

ADDITIONAL EXPERIENCE

1995 - 1996 **Year abroad** during German 11th grade in an American host family
American High School Diploma, National Honor Society
Gladstone High School *Oregon, USA*

Basketball

Professional basketball player in Germany's highest league (while in High School):

1996 - 1998 1st Federal League of Germany (1. Bundesliga), Aschaffenburg Wild Cats *Germany*
1998 **2nd at the German Championships** and participation in the **2nd European League**
1997 **2nd at the German Championships** and participation in the **1st European League**

1996 Oregon State Championships, Gladstone Glad Gals,
1st All Tourney Team and 2nd All State Team of Oregon *USA*

1994 - 1995 **German Youth National Team:**
1995 7th place at European Basketball Championships *Gdansk, Poland*
1994 Qualification for the European Basketball Championships *Espoo, Finland*

Track and Field

1996 **Oregon State Champion (High School), Shot Put** *USA*

1992 - 1993 Member of the German Youth National Team, Pentathlon

1992 **German Youth Champion, Pentathlon** *Germany*