

COURTNEY SCHROEDER

Fred Hutchinson Cancer Research Center
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EDUCATION AND TRAINING

Postdoctoral Fellow	Fred Hutchinson Cancer Research Center	2016-Present
PhD	University of California, San Francisco, Biochemistry	2016
MPhil	University of Cambridge (Cambridge, England), Biochemistry	2010
BS	University of Virginia, Chemistry with a Specialization in Biochemistry	2009

RESEARCH EXPERIENCE

Fred Hutchinson Cancer Research Center 2016-Present
Advisor: Harmit Malik, Division of Basic Sciences

University of California, San Francisco 2010-2016
Advisor: Ron Vale, Department of Cellular and Molecular Pharmacology

Marine Biological Laboratory in Woods Hole, MA Summer 2015
Advisors: Ron Vale, University of California, San Francisco, and Gohta Goshima, Nagoya University

University of Cambridge 2009-2010
Advisors: Darerca Owen and Helen Mott, Biochemistry Department

University of Virginia 2006-2009
Advisor: P. Todd Stukenberg, Biochemistry and Molecular Genetics Department

Max Planck Institute of Immunobiology (Freiburg, Germany) Summer 2008
Advisor: Rudolf Grosschedl, Cellular and Molecular Immunology Department

Gerstner Sloan-Kettering Graduate School (New York, New York) Summer 2007
Advisor: Kenneth J. Marians, Molecular Biology Department

HONORS AND AWARDS

NIGMS K99 Pathway to Independence Award	2020
HHMI Hanna H. Gray Fellows Competition: Finalist	2017
Jane Coffin Childs Postdoctoral Fellow	2016
UCSF Discovery Fellow (awarded for excellence in research and leadership potential)	2014
Recognition as "Outstanding Teaching Assistant" at UCSF	2012
National Science Foundation Graduate Research Fellowship	2010
Churchill Scholar (a one-year scholarship to study at the University of Cambridge)	2009
Distinguished Biochemistry Majors Program at UVA, Awarded Highest Distinction	2009
American Chemical Society Virginia Section Award (for academic merit in UVA's Chemistry Dept.)	2009
Barry Goldwater Scholar (for research excellence)	2008
Rubin and Sarah Shaps Scholar (awarded by Gerstner Sloan-Kettering for research excellence)	2007

RESEARCH PUBLICATIONS

1. **Schroeder, C.M.**, Tomlin, S.A., Valenzuela, J.R., and Malik, H.S. A rapidly evolving actin mediates fertility and developmental tradeoffs in *Drosophila*. *BioRxiv* (2020). DOI: <https://doi.org/10.1101/2020.09.28.317503>.

2. **Schroeder, C.M.**, Valenzuela, J.R., Mejia Natividad, I., Hocky, G.M. and Malik, H.S. A burst of genetic innovation in *Drosophila* actin-related proteins for testis-specific function. *Molecular Biology and Evolution* (2019) vol. 37, 757-772.
3. Clayton, N.S., Fox, M., Vicente-Garcia, J.J., **Schroeder, C.M.**, Littlewood, T.D., Wilde, J.I., Corry, J., Krishnan, K., Zhang, Q., Wakelam, M.J.O, Brown, M.J.B., Crafter, C., Mott, H.R. and Owen, D. Assembly of novel, nuclear dimers of the PI3-Kinase regulatory subunits underpins the pro-proliferative activity of the Cdc42-Activated Tyrosine Kinase, ACK. *BioRxiv* (2019) DOI: <https://doi.org/10.1101/791277>.
4. **Schroeder, C.M.** and Vale, R.D. Assembly and activation of dynein-dynactin by the cargo adaptor protein Hook3. *Journal of Cell Biology* (2016) vol. 214, 309–318.
5. **Schroeder, C.M.**, Ostrem J.M.L., Hertz, N.T. and Vale, R.D. A Ras-like domain in the light intermediate chain bridges the dynein motor to a cargo-binding region. *eLife* (2014) vol. 3.
 - Recommended on F1000Prime (now known as Faculty Opinions)
 - Crystal structure featured in the textbook *Biochemistry*, 6th edition

REVIEWS AND PERSPECTIVES

1. **Schroeder, C.M.** and Malik, H.S. Meiosis: How Gambling Chromosomes Beat the Rules. *Current Biology* (2019) vol. 29, R1247-R1248.
2. **Schroeder, C. M.** and Malik, H.S. Kindr motors drive in meiosis. *Cell* (2018) vol. 173, 813-815. Invited preview.
3. Bhabha, G.* , Johnson, G. T.* , **Schroeder, C. M.** and Vale, R. D. How dynein moves along microtubules. *Trends in Biochemical Sciences* (2016) vol. 41, 94–105. Invited review. *Co-first Authors

Complete list of published work in My NCBI Bibliography:

<https://www.ncbi.nlm.nih.gov/myncbi/courtney.schroeder.1/bibliography/public/>

TEACHING AND MENTORING EXPERIENCE

University of Washington	2019	
Co-instructed BIOL 485, a seminar course that examined primary literature, as a fellow in the Science Teaching Experience for Postdocs Program. Developed and implemented the curriculum.		
Community College San Francisco	2015	
Invited Lecturer for a biotechnology class and taught recombinant protein expression		
University of San Francisco (USF)	2013, 2014	
Laboratory Instructor for Introductory Physics 100		
California Academy of Sciences	2012-2013	
Docent, engaged the public and taught visitors about the museum's exhibits.		
University of California, San Francisco	2015	
Selected for the course "Science Teaching Effectiveness Program for Upcoming Professors"		
Teaching Assistant for a National Science Foundation Fellowship (NSF) Writing Workshop		2012
Teaching Assistant for Structure of Macromolecules, BIOCHEM BC200A		2011

University of Virginia

Teaching Assistant for General Chemistry, CHEM 141/151 2007, 2008

Mentored Trainees:

- Sarah Tomlin (Fred Hutchinson Cancer Research Center, current Research Technician) 2019-Present
 Isabel Mejia Natividad (Fred Hutchinson Cancer Research Center, Summer Intern) 2019
- won the “best poster presentation” award in the internship program
- John Valenzuela (Fred Hutchinson Cancer Research Center, Research Technician) 2018-2019
- won the “best poster” award at the annual Basic Sciences Division’s retreat

LEADERSHIP, PROFESSIONAL DEVELOPMENT, AND SERVICE

Co-chair: Evolutionary Cell Biology session at the American Society for Cell Biology (ASCB) conference 2020

- conceptualized and co-organized with Dr. Holly Goodson; selected by ASCB

Postdoc Representative: Driving Institutional Change for Research Assessment Reform 2019

- Sole representative of postdocs invited by the American Society for Cell Biology and Howard Hughes Medical Institute to brainstorm ways to reform research assessment and the culture of academia

Reviewer on the Churchill Scholarship Selection Committee 2019

- One of 10 reviewers to select the next Churchill Scholars for a year of study at Cambridge

American Society for Cell Biology 2013-2018

- Co-chair of the Committee for Postdocs and Students (COMPASS, 2016-2018): Worked closely with ASCB executives, organized events for the annual conference, selected speakers for microsymbiosia, wrote articles for ASCB’s *Post*, and awarded biannual outreach grants
- Co-chair of COMPASS’s Career Development subcommittee (2014-2016): organized career development events (concerning academic and non-academic career paths) for the annual conference
- Liaison for the Women in Cell Biology Committee (2013-2015): represented COMPASS

APS Data collection workshop and CCP4 school: data collection to crystal structure refinement 2013

Co-Academic Officer in Churchill College at the University of Cambridge 2009-2010

- Organized regular research talks and a conference featuring graduate students’ work

Chair of the Undergraduate Research Network (URN) at the University of Virginia 2006-2009

- Offices included chair (2008) and the research symposium chair (2007), organized the biannual undergraduate research symposium

Member: American Society for Cell Biology, Genetics Society for America

Reviewer for: *eLife*, *Nature Communications*

SELECTED PRESENTATIONS AND POSTERS

- Presentation:** The Allied Genetics Conference, Virtual conference 2020
Presentation: Gordon Research Seminar on Motile and Contractile Systems 2019
Presentation: Annual Jane Coffin Childs Fellowship Symposium 2019
Presentation: Friday Night Seminar Series at the Fred Hutchinson Cancer Research Center 2019
Presentation: Society for Molecular Biology and Evolution Satellite Meeting: Molecular Evolution and the Cell 2018
Presentation: American Society for Cell Biology’s Annual Meeting 2016

Poster: Chilean Society for Cell Biology XXIX Annual Meeting (selected by UCSF to represent)	2015
Presentation: Marine Biological Laboratory Graduate Student and Postdoc Seminar Series	2015
Presentation: UCSF Discovery Fellows Inaugural Symposium	2015
Presentation: UCSF Graduate Program's Recruitment Symposium	2015
Poster: Gordon Research Conference on Muscle and Molecular Motors	2014
Poster: American Society for Cell Biology's Annual Meeting	2013
Presentation: UCSF PhD Retreat	2013

REFERENCES

Harmit S. Malik, Ph.D.

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Ronald D. Vale, Ph.D.

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Susan M. Parkhurst, Ph.D.

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