

## CURRICULUM VITAE

### Ofer Rog

University of Utah  
School of Biological Sciences  
330 Aline W. Skaggs Biology Building  
Salt Lake City, UT 84112-0840  
Tel. (801) 581-3352  
ofer.rog@utah.edu

#### Professional Experience

---

- 2016-present **Assistant Professor**, School of Biological Sciences and the Center for Cell and Genome Science, University of Utah. Chromosome Dynamics in Meiosis.
- 2009 - 2016 **Postdoctoral Fellow**, University of California, Berkeley, Advisor: Dr. Abby F. Dernburg. Chromosome Dynamics during *C. elegans* Meiosis.
- 2008 - 2009 **Postdoctoral Fellow**, Cancer Research UK London Research Institute, Advisor: Dr. Julia P. Cooper. Telomere Replication in Fission Yeast.
- 2004 - 2008 **Graduate Student**, University College London and Cancer Research UK London Research Institute, Advisor: Dr. Julia P. Cooper. Telomere Replication in Fission Yeast.
- 2002 - 2004 **Graduate Student**, Tel-Aviv University, Advisor: Dr. Martin Kupiec and Dr. Anat Krauskopf. Genetic Analysis of Telomere Length Regulation in Budding Yeast.
- 2000 - 2002 **Computer Programmer**, SimiGon Ltd., Israel.

#### Education

---

- 2004-2008 University College London and Cancer Research UK London Research Institute, London, UK. Ph.D.
- 2002-2004 Tel-Aviv University, Tel-Aviv, Israel. Department of Molecular Microbiology and Biotechnology, M. Sc. Summa Cum Laude
- 1999-2004 Tel-Aviv University, Tel-Aviv, Israel. Interdisciplinary Program for Outstanding Students: a four year program, combining B.Sc. and M.Sc., allowing 15 students to attend graduate-level courses in all faculties

#### Current Funding

---

- 2018-2023 NIH NIGMS MIRA R35GM128804 (\$250,000 annual direct costs; \$2,156,250 total costs)  
“Structure and Dynamics of Meiotic Chromosomes”  
Maximizing Investigators' Research Award (MIRA) is meant to provide stable and flexible funding for the entire research program of the lab.  
\$250,000 Administrative Supplement was awarded in 2020 toward the purchase of a STED microscope.
- 2022 NSF-MCB Conference Grant 2213354 (\$25,000 direct costs; \$75,000 total conference budget; co-PI Janet Iwasa)  
“Re-imagining a cellular space occupied by condensates”

## **Pending Funding**

---

2022-2026 NSF-MCB Research Grant “Molecular Evolution of Cellular Condensates”  
(\$1,130,000 total requested funds)

## **Past Funding**

---

2017-2018 University of Utah, Pilot Project Award, ACS-IRG (\$30,000 in direct costs)

## **Trainee Funding**

---

2018-2020 David Almanzar, Genetics Training Grant (\$49,223 in direct costs)  
2019-2023 Lexy von Diezmann, Damon Runyon Fellow (\$231,000 in direct costs)  
2019-2021 Lisa Kursel, Developmental Biology Training Grant (\$103,080 in direct costs)

## **Community Organization**

---

### At the University of Utah:

2022 Co-organizer, Re-imagining a cellular space occupied by condensates  
2020-2021 Utah Pathways to STEM (UPSTEM) Faculty Learning Community  
2019-present Organizer, LGBTQ+STEM Interest Group, University of Utah

### As a trainee:

2015 Chair, Chromosome Dynamics Gordon Research Seminar  
2012 Co-chair, Meiosis Gordon Research Seminar  
2012 Co-organizer, Bay Area Meiosis Meeting  
2011-2015 Organizer, UC Berkeley MCB Career Development Postdoc Lunch Club

## **Awards**

---

2021 Taft-Nicholson Summer Fellow Residency  
2010-2012 EMBO Long-term Postdoctoral Fellowship  
2008-2009 London Research Institute Prize Scholarship for one year postdoc  
2004-2008 Overseas Research Students Awards Scheme (ORSAS) for PhD tuition

## **Professional Societies**

---

American Society for Cell Biology  
Genetics Society of America

## **Talks and Conferences attended**

---

### Invited talks:

Meiosis Gordon Research Conference, June 2022  
Evolution of Meiosis, La Fondation des Treilles, France, April 2022  
University of California, Davis, Molecular and Cellular Biology, October 2021  
Emerging Concepts in Chromosome Biology, Vienna, Austria, March 2019  
Chromosome Dynamics Gordon Research Seminar, June 2017

### Other talks:

University of Chicago, Biosciences Program, March 2022  
University of Iowa, Department of Biology, August 2020  
Johns Hopkins, Department of Biology, November 2019

### Conferences Attended:

Biological Assemblies: Phase Transitions and More, November 2021

Cell Bio Virtual 2020, ASCB/EMBO Meeting, December 2020  
Meiosis Gordon Research Conference, June 2018  
SACNAS Annual Conference, October 2017  
Chromosome Dynamics Gordon Research Conference, June 2017

### **Teaching (academic years)**

---

#### Full courses:

Spring 2022 BIOL5210, Cell Structure and Function (40hr)  
Fall 2021 BIOL7306, Grant Writing Course (with Dean Castillo; 25hr, graduate level)  
Spring 2021 BIOL5210, Cell Structure and Function (40hr)  
Fall 2020 BIOL7306, Grant Writing Course (with Dean Castillo; 25hr, graduate level)  
Spring 2020 BIOL5210, Cell Structure and Function (40hr)  
Fall 2019 BIOL7306, Grant Writing Course (with Jon Seger; 25hr, graduate level)  
Spring 2019 BIOL5210, Cell Structure and Function, (40hr)  
Summer 2018 BIOL7306, Grant Writing Workshop (25hr, graduate level)  
Spring 2018 BIOL5210, Cell Structure and Function, (40hr)

#### Other teaching:

Fall 2021 BIOL7961, Introduction to MCEB Research (1hr, graduate level)  
Fall 2020 BIOL7961, Introduction to MCEB Research (1hr, graduate level)  
Spring 2020 BIOL7962, Cell Biology & Biochemistry (2hr; graduate level)  
Fall 2019 BIOL7961, Faculty Research Seminar (1hr, graduate level)  
Fall 2019 BIOL7206, Introduction to MCEB Research (1hr)  
Spring 2019 BIOL7962, Seminal Papers (3hr; graduate level)  
Fall 2018 BIOL3960, Faculty Research Seminar (1hr, graduate level)  
Fall 2018 BIOL7206, Intro to MCEB Research (1hr)  
Fall 2017 BIOL3960, Faculty Research Seminar (1hr, graduate level)  
Fall 2017 BIOL7206, Intro to MCEB Research (1hr)  
Spring 2017 BIOL7962, Seminal Papers (4hr; graduate level)

### **Postdoctoral Training** **(2 Total)**

---

7/18-present Lexy von Diezmann, Cell Center Fellow associated with the Rog Lab (7/18-7/19); Starting 7/19 a postdoctoral researcher at the Rog Lab (PhD advisor: W. E. Moerner)  
Damon Runyon Fellow (2019-2023; co-sponsor: Erik Jorgensen)  
12/18-present Lisa Kursel, Postdoctoral Researcher (PhD advisor: Hermit Malik)  
Developmental Biology Training Grant Fellow (2019-2021)

### **Graduate Student Training** **(4 Total)**

---

4/21-present Antonia Hamrick, MCEB graduate student, thesis advisor  
8/19-present Spencer Gordon, MCEB graduate student (direct admit), thesis advisor  
4/19-present Kewei Xu, MCEB graduate student, thesis advisor  
6/17-present David Almanzar, MCEB graduate student, thesis advisor  
August 2018 - July 2020: Genetics Training Grant predoctoral trainee

### **Undergraduate Training** **(5 Total)**

---

11/21-present Jesus Aguayo, Honors student  
8/18-5/20 Parker Shea, undergraduate

5/18-12/21	Biology Research Scholar Award, Summer & Fall 2019 Bethany Madison, undergraduate UROP Awardee, Fall 2018 & Spring 2019
9/17-5/19	Biology Research Scholar Award, Summer & Fall 2020 Presley Azarcon, Honors student Currently Medical Student at the University of Utah, Fall 2019 Honors Thesis submitted May 2019; UROP Awardee, Fall 2018 & Spring 2019
3/17-5/18	Stuart Cai, undergraduate Currently in Pharmacy School at the University of Illinois, Chicago UROP Awardee, Fall 2017; Skolnick Foundation Fellowship, Spring 2018

**Other Training (technicians) (4 Total)**

3/21-present	Chloe Bristow, Laboratory Technician
2/21-present	Henry Cope, Laboratory Technician
9/18-7/21	Hanwenheng (Billy) Liu, Laboratory Technician (currently graduate student at Washington University St. Louis)
6/17-8/19	Spencer Gordon, Laboratory Technician (currently graduate student at the University of Utah)

**Other Training (high school students) (1 Total)**

9/16-3/17	Bella Lonado, Salt Lake Center for Science Education
-----------	--

**Other Training (rotations) (11 Total)**

8/21-10/21	Hyrum Diesen, MCEB graduate student
1/21-3/21	Antonia Hamrick, MCEB graduate student
8/20-10/20	Vincent Mays, MCEB graduate student
8/19-11/19	Shengzhou Wang, MCEB graduate student
3/19-4/19	Katie Hull, MCEB graduate student
12/18-2/19	Kewei Xu, MCEB graduate student
12/18-2/19	Katie Piscopo, MCEB graduate student
8/18-11/18	Supraja Ranganathan, Molecular Biology graduate student
8/18-11/18	Madison Smith, MCEB graduate student
1/18-3/18	Jennifer Madrigal, Biological Chemistry graduate student
4/17-5/17	David Almanzar, MCEB graduate student

**Dissertation Committees (not including Rog Lab) (6 Total)**

2021-present	Samuel Linde, Caron Lab, Biology
2019-present	Makenna Johnson, Golic Laboratory, Biology
2019-present	Andy Sposato, Gagnon Laboratory, Biology
2019-present	Supraja Ranganathan, Bass Laboratory, Biochemistry
2018-2022	Hunter Hill, Golic Laboratory, Biology
2018-2020	Zoe Praggastis, Hollien Laboratory, Biology

**Refereeship**

Grant Refereeships:

2022	American Cancer Society - Institutional Research Grant review committee
2018	European Research Council (ERC) Starting Grants
2017	University of Utah UROP

### Journal Refereeships:

2022	Current Topics in Developmental Biology (Special Issue on Meiosis) Cell Reports
2021	PLoS Genetics Molecular Biology of the Cell Cells (MDPI) Science Advances Genes (MDPI) Review Commons
2020	Communications Biology Genetics Chromosoma PLoS Genetics
2018	Journal of Cell Biology JoVE (2x) PeerJ
2017	Cell Chromosoma PLoS ONE (2x)

### **Committee Service (Academic years)**

---

2021-22	Graduate Program Committee
2021-22	Academic Senate
2021-22	Day of Collective Action Planning Committee
2021-22	<u>Benefits Advisory Committee (Academic Senate Representative)</u>
2021-21	Graduate Program Committee
2020-21	Academic Senate
2020-21	Molecular Biology Faculty Search Committee
2020-21	<u>Benefits Advisory Committee (Academic Senate Representative)</u>
2019-20	Academic Senate
2019-20	Graduate Program Committee
2019-20	<u>Benefits Advisory Committee (Academic Senate Representative)</u>
2018-19	Academic Senate (in lieu of Jon Seger; Fall only)
2018-19	Benefits Advisory Committee (Academic Senate Representative)
2018-19	MCEB Admissions/Recruitment Committee
2018-19	<u>Molecular Biology Faculty Search Committee</u>
2017-18	Biology Seminar Series
2017-18	Molecular Biology Faculty Search Committee
2017-18	MB Admissions Committee
2017-18	<u>MCEB Admissions/Recruitment Committee</u>
2016-17	MCEB Admissions/Recruitment Committee

### **Other Service (Academic years)**

---

2021-22	MCEB advising
2021	Facilitating session in Undergraduate Research Education Series
2020-21	MCEB advising

2019	Diversity Fellows Program (talk)
2019-20	ASB 220 renovation
<u>2019-20</u>	<u>MCEB advising</u>
2018-19	MCEB RIP co-organizer
<u>2018-19</u>	<u>MB advising</u>
2017-18	MB advising

## **Publications**

**Total Published: 17**

### Preprints and manuscripts under review:

Almanzar DE., Hamrick A., **Rog O.** “Single-sister labeling in the *C. elegans* germline using the nucleotide analog EdU” (under review in *STAR Protocols*)

### Published manuscripts at the University of Utah:

Kursel LE.\*, Cope HD., **Rog O.\*** “Unconventional conservation reveals structure-function relationships in the synaptonemal complex.” *eLife* 2021 10: e72061. [10.7554/eLife.72061](https://doi.org/10.7554/eLife.72061) (\*co-corresponding authors)

Liu H., Gordon SG., **Rog O.** “Heterologous synapsis in *C. elegans* is regulated by meiotic double-strand breaks and crossovers” *Chromosoma* 2021 130: 237–250. [10.1007/s00412-021-00763-y](https://doi.org/10.1007/s00412-021-00763-y)

von Diezmann L.\*, **Rog O.\*** “Single-Molecule Tracking of Chromatin-Associated Proteins in the *C. elegans* Gonad.” (\*co-corresponding authors) *Journal of Physical Chemistry B* 2021, 125, 23, 6162–6170.

von Diezmann L.\*, **Rog O.\*** “Let’s get physical: Mechanisms of crossover interference.” *Journal of Cell Science* 2021 134: jcs255745. (\*co-corresponding authors) (Review)

Gordon SG., Kursel LE., Xu K., **Rog O.** “Synaptonemal Complex dimerization regulates chromosome alignment and crossover patterning in meiosis.” *PLoS Genetics* 2021 17(3): e1009205.

Almanzar DE., Gordon SG., **Rog O.** “Meiotic sister chromatid exchanges are rare in *C. elegans*.” *Current Biology* 2021 31(7): 1499-1507.

Hurlock ME., Čavka I., Kursel LE., Haversat J., Wooten M., Nizami Z., Turniansky R., Hoess P., Ries J., Gall JG., **Rog O.**, Köhler S., Kim Y, “Identification of novel synaptonemal complex components in *C. elegans*.” *Journal of Cell Biol* 2020 219(5): e201910043.

### Published previously:

**Rog O.\***, Köhler S., Dernburg AF.\* “The synaptonemal complex has liquid crystalline properties and spatially regulates meiotic recombination factors.” *Elife* 2017 doi: 10.7554/eLife.21455 (\*co-corresponding authors)

**Rog O.**, Dernburg AF. “Direct visualization reveals kinetics of meiotic chromosome synapsis.” *Cell Reports* 2015 10(10): 1639-1645.

Kim Y., Rosenberg SC., Kugel CL., Kostow N., **Rog O.**, Davydov V., Su TY., Dernburg AF., Corbett KD. “The chromosome axis controls meiotic events through a hierarchical assembly of HORMA domain proteins.” *Developmental Cell* 2014 31(4): 487-502.

**Rog O.**, Dernburg AF. “Chromosome pairing and synapsis during *Caenorhabditis elegans* meiosis.” *Current Opinions in Cell Biology* 2013 25(3): 349-356. (Review)

Wynne DJ., **Rog O.**, Carlton PM., Dernburg AF. "Dynein-Dependent Processive Chromosome Motions Promote Homologous Pairing in *C. elegans* Meiosis." *Journal of Cell Biology* 2012 196(1): 47-64.

Dehe PM., **Rog O.**, Ferreira MG., Greenwood J., Cooper JP. "Taz1 enforces cell cycle regulation of telomere synthesis." *Molecular Cell* 2012 46(6): 797-808.

**Rog O.**, Miller KM., Ferreira MG., Cooper JP. "Sumoylation of RecQ helicase controls the fate of dysfunctional telomeres." *Molecular Cell* 2009 33(5): 559-69.

**Rog O.**, Cooper JP. "Telomeres in Drag: dressing as DNA damage to engage telomerase." *Current Opinions in Genetics and Development* 2008 18(2): 212-20. (Review)

Miller KM.\*, **Rog O.\***, Cooper JP. "Semi-conservative DNA replication through telomeres requires Taz1." *Nature* 2006 440(7085): 824-828. (\*equally contributing authors)

**Rog O.**, Smolikov S., Krauskopf A., Kupiec M. "The yeast VPS genes affect telomere length regulation." *Current Genetics* 2005 47(1): 18-28.