

# SABRINA LEIGH SPENCER

## *Curriculum Vitae*

Department of Biochemistry, University of Colorado-Boulder

sabrina.spencer@colorado.edu

### **EDUCATION**

**Massachusetts Institute of Technology**, Cambridge, MA June 2009  
PhD in Computational and Systems Biology

**University of Michigan**, Ann Arbor, MI April 2003  
MS in Human Genetics

**The George Washington University**, Washington, DC May 2001  
BS in Biology (Honors); BA in French Language & Literature

### **EMPLOYMENT**

**University of Colorado – Boulder**, Boulder, CO 8/2021 – present  
Associate Professor, Department of Biochemistry

Member of the BioFrontiers Institute and University of Colorado Cancer Center  
Assistant Professor, Department of Biochemistry 8/2014 – 8/2021

### **RESEARCH EXPERIENCE**

**Stanford University**, Palo Alto, CA 3/2010 – 8/2014  
Damon Runyon Cancer Research Foundation Postdoctoral Fellow and  
American Cancer Society Postdoctoral Fellow, Advisor: Dr. Tobias Meyer

**Massachusetts Institute of Technology**, Cambridge, MA 9/2004 – 12/2009  
PhD student, Advisor: Dr. Peter K. Sorger.

**The Santa Fe Institute**, Santa Fe NM 7/2004 – 8/2004  
Steinmetz Fellow, Advisor: Dr. Stephanie Forrest & Dr. David Krakauer.

**University of Adelaide**, Adelaide Australia 1/2004 – 3/2004  
Visiting scholar, Advisor: Dr. Derek Abbott

### **HONORS AND AWARDS**

Mark Foundation for Cancer Research - Emerging Leader Award 2/2021 – 1/2024

Damon Runyon Cancer Research Foundation - Damon Runyon-Rachleff Innovation Award 1/2021 – 12/2022

Provost's Faculty Achievement Award 8/2020

Kavli Fellow, National Academy of Sciences/Kavli Frontiers of Science 2020

NIH Director's New Innovator Award 10/2018 – 9/2023

Maximizing Investigator's Research Award (MIRA), NIH – declined 10/2018

American Cancer Society – Research Scholar Grant 7/2018 – 6/2022

Pew-Stewart Scholar Award 8/2017 – 7/2021

Beckman Young Investigator Award 8/2016 – 7/2020

Searle Scholar Award 7/2016 – 6/2019

Kimmel Scholar Award 7/2016 – 6/2018

Boettcher Foundation Early Career Investigator Award	7/2016 – 6/2019
K22 Career Development Award, National Cancer Institute, NIH	9/2014 – 8/2017
Prize for Best 2013 Publication, Dept of Chemical and Systems Biology, Stanford University	9/2013
American Cancer Society - Robert and Mary Ann Forsland Postdoctoral Fellowship	4/2013 – 8/2014
Damon Runyon Cancer Research Foundation - Postdoctoral Fellowship	3/2010 – 3/2013
Henzl-Gabor Young Women in Science Fellowship, Stanford University	11/2010
Steinmetz Fellowship, Santa Fe Institute	7/2004 – 8/2004
The Queen Elizabeth Hospital Research Foundation Scholarship, Adelaide, Australia	1/2004 – 3/2004
Complex Systems Summer School Scholarship, Santa Fe Institute	6/2003
Phi Beta Kappa	5/2000
Graduated <i>Summa cum laude</i> , The George Washington University	5/2001
Presidential Recognition Award, The George Washington University	9/2000 – 5/2001
Presidential Academic Scholarship, The George Washington University	9/1996 – 5/2001

## **PUBLICATIONS**

\*marks co-first authorship; ♦ marks non-peer reviewed work (commentary or review article)

### **Publications since starting my own lab**

15. Rong Y, Darnell A, Sapp K, Vander Heiden M, Spencer SL. Control of proliferation by amino acid signaling. *Manuscript in preparation.*
14. Ashraf HM, Battula S, Spencer SL. Quiescent and senescent cell fates are conflated by overlapping biomarkers. *Manuscript in preparation.*
13. Arora M\*, Moser J\*, Hoffman TE, Watts L, Min M, Musteanu M, Schneider J, Rong Y, Sanclemente M, Dann S, Niessen S, Lapek J, Nguyen L, van Arnsdale T, Barbacid M, Miller N, **Spencer SL**. Rapid adaptation to CDK2 inhibition via CDK4/6-mediated phosphorylation. *In revision.* [collaboration with Pfizer Inc]
12. Armstrong C and **Spencer SL**. Replication-dependent histone biosynthesis is coupled to cell-cycle entry (2021). *PNAS*, 118(31) e2100178118.
11. Yang C\*, Tian C\*, Hoffman T\*, Jacobsen N, **Spencer SL**. Melanoma subpopulations that rapidly escape MAPK pathway inhibition incur DNA damage and rely on stress signalling (2021). *Nature Communications*, 12(1):1747.
10. Kohrman AQ\*, Adikes RC\*, Martinez MAQ, Palmisano NJ, Smith JJ, Medwig-Kinney TN, Min M, Sallee MD, Ahmed OB, Kim N, Liu S, Morabito RD, Weeks N, Zhang W, Feldman JL, Barkoulas M, Pani AM, **Spencer SL**, Martin BL, Matus DQ. Visualizing the metazoan proliferation-differentiation decision in vivo (2020). *eLife* 9:e63265.
9. Tian C\*, Yang C\*, **Spencer SL**. EllipTrack: A Global-Local Cell-Tracking Pipeline for 2D Fluorescence Time-Lapse Microscopy (2020). *Cell Reports*, 32(5):108984.  
- Covered in a preLight by Marian De Niz, April 2020.
8. Min M, Rong Y, Tian C, **Spencer SL**. Temporal integration of mitogen history in mother cells controls proliferation of daughter cells (2020). *Science*, 368(6496):1261-1265
7. Ashraf HM, Moser J, **Spencer SL**. Senescence Evasion in Chemotherapy: A Sweet Spot for p21 (2019). *Cell*, 178(2):267-269. (♦)
6. Min M and **Spencer SL**. Spontaneously slow-cycling subpopulations of human cells originate from activation of

- stress-response pathways (2019). *PLoS Biology*, 17(3):e3000178.
5. Moser J, Miller I, Carter D, **Spencer SL**. Control of the Restriction Point by Rb and p21 (2018). *PNAS*, 115(35):E8219-E8227.
  4. Miller I\*, Min M\*, Yang C, Tian C, Gookin S, Carter D, **Spencer SL**. Ki67 is a graded rather than a binary marker of proliferation vs. quiescence (2018). *Cell Reports*, 24(5):1105-1112.  
-Recommended in Faculty of 1000
  3. Arora M and **Spencer SL**. A cell-cycle “safe space” for surviving chemotherapy (2017). *Cell Systems*, 5(3):161-162. (♦)
  2. Gookin S\*, Min M\*, Phadke H, Chung M, Moser J, Miller I, Carter, D, **Spencer SL**. A map of protein dynamics during cell-cycle progression and cell-cycle exit (2017). *PLoS Biology*, 15(9):e2003268.
  1. Arora M, Moser J, Phadke H, Akbar-Basha A, **Spencer SL**. Endogenous replication stress in mother cells leads to quiescence of daughter cells (2017). *Cell Reports*, 19(7):1351-1364.  
- Covered in a News and Views by JE Purvis. (2017) *Nature*, 549:343-344.

#### **Publications from postdoctoral work**

4. Cappell SD, Chung M, Jaimovich A, **Spencer SL**, Meyer T (2016). Irreversible APC<sup>Cdh1</sup> inactivation underlies the point of no return for cell-cycle entry. *Cell*, 166:167-80.
3. Yang Z, Broz DK, Noderer W, Ferreira J, Overton KW, **Spencer SL**, Meyer T, Tapscott S, Attardi L, Wang CL (2015). p53 Suppresses Muscle Differentiation at the Myogenin Step in Response to Genotoxic Stress. *Cell Death and Differentiation*, 22(4):560-73.
2. Overton KW, **Spencer SL**, Noderer WL, Meyer T, Wang CL (2014). Basal p21 controls population heterogeneity in cycling and quiescent cell-cycle states. *PNAS*, 111(41):E4386-93.
1. **Spencer SL**, Cappell, SD, Tsai FC, Overton KW, Wang CL, Meyer T (2013). The proliferation-quiescence decision is controlled by a bifurcation in CDK2 activity at mitotic exit. *Cell*, 155(2):369-83.  
- Recommended in Faculty of 1000  
- Research Watch by E. McKenna. (2013) *Cancer Discovery*.  
- Research Highlight by K. Minton. (2013) *Nature Reviews Molecular Cell Biology*.  
- Perspective by T. Zhang. (2013) *Science Signaling*.

#### **Publications from PhD work**

7. Flusberg D, Roux J, **Spencer SL**, Sorger PK (2013). Cells surviving fractional killing by TRAIL exhibit transient but sustainable resistance and inflammatory phenotypes. *Molecular Biology of the Cell*, 24(14):2186-200.
6. Gaudet S\*, **Spencer SL\***, Chen W, Sorger PK (2012). Exploring the contextual sensitivity of factors that determine cell-to-cell variability in receptor-mediated apoptosis. *PLoS Computational Biology*, 8:e1002482.
5. **Spencer SL** and Sorger PK (2011). Measuring and modeling apoptosis in single cells. *Cell*, 144(6):926-39.
4. Kim, KA, **Spencer SL**, Albeck JG, Burke JM, Sorger PK, Gaudet S, Kim do H. (2010). Systematic calibration of a cell signaling network model. *BMC Bioinformatics*, 11:202.
3. Niepel M\*, **Spencer SL\***, Sorger PK (2009). Non-genetic cell-to-cell variability and the consequences for pharmacology. *Current Opinion in Chemical Biology* 13(5-6):556-61. (♦)

2. **Spencer SL\***, Gaudet S\*, Albeck JG, Burke JM, Sorger PK (2009). Non-genetic origins of cell-to-cell variability in TRAIL-induced apoptosis. *Nature*, 459(7245):428-32.
  - Recommended as "Exceptional" (8 out of 9 stars) in Faculty of 1000.
  - News and Views by P. Bastiaens. (2009) *Nature*, 459:334-5.
  - Preview by P. Loriaux & A. Hoffmann. (2009) *Molecular Cell*, 34:257-8.
  - Editor's Choice by L. B. Ray. (2009) *Science Signaling*, 2:ec178.
  - Front page article by David Cameron. *Harvard FOCUS*, May 15 2009.
1. Albeck JG, Burke JM, **Spencer SL**, Lauffenburger DA, Sorger PK (2008). Modeling a snap-action, variable-delay switch controlling extrinsic cell death. *PLoS Biology*, 6:e299.

### **Publications from work prior to PhD**

3. Pepper JW, Findlay CS, Kassen R., **Spencer SL**, Maley CC (2009). Cancer research meets evolutionary biology. *Evolutionary Applications* 2(1), 62-70. (♦)
2. **Spencer SL**, Gerety RA, Pienta KJ, Forrest S (2006). Modeling somatic evolution in tumorigenesis. *PLoS Computational Biology*, 2:e108.
1. **Spencer SL**, Berryman MJ, García JA, Abbott D (2004). An ordinary differential equation model for the multistep progression to cancer. *Journal of Theoretical Biology* 231(4), 515-524.

### **CONFERENCES**

Invited speaker, Society for Mathematical Biology, Session on cell state transitions in cancer, Virtual meeting	6/2021
Invited speaker, ASBMB meeting, Special session on signal transduction, Virtual meeting	4/2021
Invited speaker, Pew Biomedical Scholars Virtual Retreat	3/2020
Invited speaker, Keystone meeting on Single Cell Biology, Virtual meeting	3/2021
Invited speaker, FASEB Protein Phosphorylation Networks in Health and Disease, Snowmass, CO	Mtg Postponed
Invited speaker, FASEB Cell Signaling in Cancer, Virtual meeting	9/2020
Invited speaker, Arnold and Mabel Beckman Foundation Virtual retreat	8/2020
Invited participant as Kavli Fellow, Kavli Frontiers of Science program, National Academy of Sciences	7/2020
Invited participant, Aging in Single Cells meeting, Santa Fe Institute, Santa Fe, NM	2/2020
Invited speaker, qBio conference, San Francisco, CA	8/2019
Invited speaker, The Gordon Conference on Cell Growth and Proliferation, Mt Snow, VT	7/2019
Selected speaker, Countering the Evolution of Therapy Resistance in Cancer, UC Cancer Center, Aurora CO	5/2017
Invited speaker, The Gordon Conference on Cell Growth and Proliferation, Mt Snow, VT	7/2017
Invited speaker, Conference on Statistical Methods in Imaging, Aurora CO	6/2016
Selected talk, The Cancer Cell Cycle, American Association for Cancer Research, Orlando FL	2/2015
Invited speaker, Systems Microscopy Meets Single Cell 'Omics, Stockholm Sweden	9/2015
Selected talk, Gordon Research Conference on Cell Growth and Proliferation, West Dover VT	7/2015
Invited speaker, Cellular Heterogeneity: Role of Noise in Biological Decision-Making, Heidelberg Germany	4/2015
Invited speaker, Systems Biology of Human Disease Conference, Boston MA	6/2014
Selected talk, Retinoblastoma Meeting, Monterey CA	10/2013
Selected talk, Quantitative Biology Meeting (q-Bio), Santa Fe NM	8/2013
Selected talk, Gordon Research Conference on Cell Growth and Proliferation, West Dover VT	6/2013
Selected talk, The Salk Institute Cell Cycle Meeting, La Jolla CA	6/2013
Selected talk, Chemical & Systems Biology Meeting, American Association for Cancer Research, Boston MA	6/2012
Selected talk, Meeting on the Cell Cycle, Cold Spring Harbor Laboratory NY	5/2012
Invited speaker, Boston Area Systems and Synthetic Biology Meeting, Boston MA	12/2009
Selected talk, Meeting on Cell Death, Cold Spring Harbor Laboratory, NY	10/2009
Selected talk, Apoptosis and Cancer Conference: The Bcl-2 Family of Proteins, Hanover NH	6/2009

Selected talk, MIT Small Talks program, Cambridge MA	11/2008
Selected talk, International Conference on Systems Biology, Göteborg Sweden	8/2008
Invited speaker, Systems Biology of Human Disease Conference, Boston MA	6/2008
Invited participant, Integrating Evolutionary Theory into Cancer Biology meeting, Santa Fe NM	5/2008

### **INVITED SEMINARS**

Institute of Cell Biology and Immunology, University of Stuttgart, Germany (virtual)	6/2021
Harvard Program in Therapeutic Science, Harvard Medical School, Cambridge MA (virtual)	10/2020
Department of Pharmacology, University of Washington, Seattle WA (virtual)	10/2020
Fitzpatrick Institute for Photonics, Duke University, Durham NC (virtual)	10/2020
Molecular and Cellular Biology Seminar Series, University of Arizona, Tuscon, AZ	11/2019
Department of Genetics Seminar Series, Washington University School of Medicine, St. Louis, MO	11/2019
Cancer Center Symposium, Univ of Colorado Medical Center, Aurora CO	11/2019
Array BioPharma (acquired by Pfizer), Boulder, CO	8/2019
Department of Biological Chemistry, University of Michigan, Ann Arbor, MI	12/2018
Institute for Integrative Toxicology, Michigan State University, East Lansing, MI	12/2018
Translational Oncology Seminar, Mount Sinai Icahn School of Medicine, New York, NY	10/2018
Five Points Lecture, New York Genome Center / New York University, New York, NY	10/2018
Endocrine Research Seminar Series, Univ of Colorado Medical Center, Aurora CO	9/2018
Green Seminar, Technische Universität Dresden, Germany	5/2018
Cancer, Stem cells, and Developmental Biology seminar series at Hubrecht Institute, Utrecht, the Netherlands	5/2018
Cells, Development, and Cancer Seminar Series, Univ of Colorado Medical Center, Aurora CO	10/2017
Department of Pharmacology Seminar Series, Univ of Colorado Medical Center, Aurora CO	11/2016
Department of Biochemistry and Cell Biology Seminar Series, SUNY Stony Brook, Stony Brook NY	5/2016
Department of Pharmacology Seminar Series, University of Denver, Denver CO	4/2016
SomaLogic Inc, Boulder CO	1/2016
Department of Genetics Seminar Series, University of Cambridge, United Kingdom	4/2015
Institute of Cancer Research Seminar Series, London, United Kingdom	4/2015
Pfizer, Oncology Research Unit, La Jolla CA	2/2015
Bioinformatics and Systems Biology Seminar Series (selected by grad students), UCSD, San Diego CA	2/2015
Cellular & Molecular Biology Seminar Series, Colorado State Univ, Fort Collins CO	10/2014
Biochemistry & Molecular Genetics Seminar Series, Univ of Colorado Medical Center, Aurora CO	9/2014
M.D. Anderson Cancer Center, Houston TX	9/2013
Novartis Institutes for BioMedical Research, Emeryville CA	9/2013
Silver Creek Pharmaceuticals, San Francisco CA	2/2012
Graduation speaker, Woodland Country Day School, Bridgeton NJ	6/2010
Merrimack Pharmaceuticals, Cambridge MA	9/2008

### **FUNDING**

#### **Current support**

No grant number (Spencer)	07/2017 - 06/2021
Pew Charitable Trusts – Pew-Stewart Scholar Award	\$69,444 annual dc
Characterizing the origin and impact of a novel population of slow-cycling cells	
RSG CCG - 132001 (Spencer)	07/2018 - 06/2022
American Cancer Society – Research Scholar Grant	\$165,000 annual dc
Proliferation-Quiescence Control by Mitogen, Nutrient, and Stress Signaling	

1DP2OD025881-01 (Spencer) NIH – New Innovator Award Proliferation-quiescence control in single cells: Integration of mitogen, nutrient, and stress signaling	10/2018 - 09/2023 \$300,000 annual dc
W911NF1920024 (Bowman/Anseth as co-PI; Spencer as sub-PI) DARPA – Research Development and Engineering Command (DOD-Army-AMC) Photoswitchable Biostasis	12/2018 - 05/2022 \$35,000 annual dc
Damon Runyon Cancer Research Foundation Damon Runyon-Rachleff Innovation Award Causes and consequences of rapid cancer cell adaptation to MAPK pathway inhibitors	1/2021 – 12/2022 \$125,000 annual dc
Mark Foundation for Cancer Research Emerging Leader Award Mechanisms of rapid cancer cell adaptation to therapies targeting MAPK signaling	2/2021 – 1/2024 \$142,000 annual dc
<b><u>Completed support</u></b>	
No grant number (Spencer) Pfizer Inc. Pfizer-Spencer collaboration *No-cost extension through 3/2022	01/2016 – 04/2019* \$160,154 annual dc
No grant number (Spencer) Beckman Foundation – Beckman Young Investigator Award Single-cell approaches for <i>a priori</i> identification of drug-resistant cancer cells	10/2016 - 08/2020
SKF16-126 (Spencer) Sidney Kimmel Foundation – Kimmel Scholar Award Non-genetic heterogeneity and the emergence of drug-resistant cancer cells	07/2016 - 06/2018
SSP-2016-1533 (Spencer) Kinship Foundation – Searle Scholar Award How outlier cells emerge from genetically uniform populations	07/2016 - 06/2019
No grant number (Spencer) Boettcher Foundation Early Career Investigator Award Elucidating the causes and consequences of slow-cycling cells within isogenic populations	07/2016 - 06/2019
1 K22 CA188144-01 (Spencer) NIH / NCI – K22 Career Development Award Proliferation-quiescence control by integration of stress and mitogen signaling	09/2014 - 08/2017
PF-13-304-01-CCG (Spencer) American Cancer Society, Robert and Mary Ann Forsland Postdoctoral Fellowship Single cell dynamics of the proliferation-quiescence decision	04/2013 - 08/2014
DRG-[2043-10] (Spencer) Damon Runyon Cancer Research Foundation Postdoctoral Fellowship Protein expression dynamics and thresholds in cell cycle commitment	03/2010 - 03/2013

## **TEACHING EXPERIENCE**

### **Classroom teaching as an Assistant Professor**

- AY2014-2015    Advanced General Biochemistry I (CHEM 5771); Fall 2014; 5 credits  
Scientific Ethics and Responsible Conduct of Research (CHEM 5776); Fall 2014; 1 credit  
MCDB Core (MCDB 6400); Nov 2014; taught 1 lecture  
Foundations of Quantitative Biology (CHEM 6711); Dec 2014; taught 1 lecture  
Guest lecturer at q-Bio Summer School (Colorado State Univ.); July 2015; taught 1 day
- AY2015-2016    Advanced General Biochemistry I (CHEM 5771); Fall 2015; 5 credits  
Scientific Ethics and Responsible Conduct of Research (CHEM 5776); Fall 2015; 1 credit  
Signaling and Cellular Regulation, (CHEM 5801); Feb 2016; taught 2 lectures  
Guest lecturer at q-Bio Summer School (Colorado State Univ.); July 2016; taught 1 day
- AY2016-2017    On maternity leave; birth of twins November 2016  
Guest lecturer at q-Bio Summer School (Colorado State Univ.); July 2017 taught 1 day
- AY2017-2018    Biochemistry of Gene Transmission, Expression, Regulation (CHEM4740); Spring 2018; 4 credits  
Signaling and Cellular Regulation, (CHEM 5801); May 2018; taught 2 lectures
- AY2018-2019    Biochemistry of Gene Transmission, Expression, Regulation (BCHM4740); Spring 2019; 4 credits
- AY2019-2020    Biochemistry of Gene Transmission, Expression, Regulation (BCHM4740); Spring 2020; 4 credits  
Signaling and Cellular Regulation, (CHEM 5801); May 2020; taught 2 lectures
- AY2020-2021    Biochemistry of Gene Transmission, Expression, Regulation (BCHM4740); Spring 2021; 4 credits
- AY2021-2022    On maternity leave Fall 2021; on sabbatical Spring 2022

### **Teaching in the research setting**

#### **Postdoctoral Associates supervised**

Mansi Arora	2014-2019
Mingwei Min	2016-2020
Chengzhe Tian	2017-present
Timothy Hoffman	2019-present
Justin Moser	2020-2021
Chen Yang	2020-2021
Lotte Watts	2020-present

#### **PhD students supervised**

Justin Moser	2015-2020 (Thesis defense: April 17, 2020)
Chen Yan	2015-2020 (Thesis defense: July 8, 2020)
Yao Rong	2017-present
Humza Ashraf	2018-present
Claire Armstrong	2018-present
Victor Passanisi	2020-present
Brianna Fernandez	2021-present
Riley Ill	2021-present
Varuna Nangia	2021-present (MD/PhD student)

### Medical students supervised

Iain Miller 2017-2020

### Undergraduates supervised

Nicole Jacobsen 2018-2019

Sharonya Battula 2020-present

Megan Hupka Summer 2021

### High school students supervised

Tara Srinivas 2014-2015

### Rotation advisor for 26 PhD students

2014-2015: Megan Nakamoto, Justin Moser, Jonathan Rubin, Michal Matjasik, Georgiana Salant, Chen Yang

2015-2016: Nicholas Hill, Taisa Kushner, Steve Guard, Graycen Wheeler, Roman Iwasaki-Cordero

2016-2017: Suzannah Miller, Leah Damon, Eric Larson, Jocelyn Campos, Yao Rong

2017-2018: William Campodonico-Bennet, Dilara Batan, Humza Ashraf, Claire Armstrong

2018-2019: Jonathan Chambers, Shelby Lennon, Tricia Nguyen, Philip Benson

2019-2020: Victor Passanisi, Kaitlyn Walsh

2020-2021: Brianna Fernandez, Christopher (Riley) Ill, Paul Gendler, Zachary Maas, Varuna Nangia

2021-2022: Autumn Matthews, Haileigh Houser, Dakota Hunt

### Member of PhD thesis committee (other than principal advisor)

<u>Student's name</u>	<u>Lab</u>	<u>Department</u>	<u>Date of thesis defense</u>
Katherine Goldfarb	Cech	Biochemistry	6/2016
Erik Bunker	Liu	Biochemistry	6/2017
Russell Burke	Orth	MCDB	4/2018
Briana Van Treeck	Parker	Biochemistry	8/2018
Yu Han	Palmer	Biochemistry	8/2018
Deanna Langager	Leinwand	MCDB	5/2019
Cecilia Levandowski	Taatjes	Biochemistry	3/2020
Jonathan Rubin	Dowell	Biochemistry	5/2020
Allison Gilchrist	Sawyer	MCDB	9/2020
Steven Guard	Old	MCDB	5/2020
Nick Hill	Cameron	Biochemistry	11/2020
Kelsie Anson	Palmer	Biochemistry	12/2020
Andrew Kavran	Ahn	Biochemistry	8/2021
Jenna Rimel	Taatjes	Biochemistry	01/2022
Carmen Butler	Chuong	MCDB	not yet occurred

### Member of undergraduate honors thesis committee (other than principal advisor)

<u>Student's name</u>	<u>Lab</u>	<u>Department</u>	<u>Date of thesis defense</u>
Frances Li	Soyeon Park	MCDB	4/2015

### **Professional Development in Teaching Instruction:**

- Attended three FTEP classes in September 2018:
  - Flipping the class for the skeptic
  - Active learning and group work in classes of any size
  - Aligning course assignments with learning goals.



- FTEP Consultation in April 2019, where Professor Penina Axelrad observed my undergraduate teaching (BCHM4740) and provided feedback.
- Attended two FTEP classes in September 2019:
  - From arm's length to arm-in-arm: Building student rapport
  - Understanding and addressing student mental health concerns in the classroom
- Classroom Learning Interview Process (CLIP) in March 2020 where Associate Professor David Brain came to my undergraduate class BCHM4740 to interview the students to obtain feedback on my teaching.

## **SERVICE**

### National

Reviewer for scientific journals: 8/2020-present

*Molecular Cell (2), Cell Systems (2), Nature Communications (1), Open Biology (1), Nature (1)*

NIH Grant referee:

6/2018: National Cancer Institute R03 Small Grants Program for Cancer Research (PAR 18-021)

6/2021: U54 NIH grant: Cellular Senescence Network: Tissue Mapping Centers (RFA-RM-21-008)

Planning committee for the Pew Charitable Trusts Biomedical Scholar's retreat (2018, 2020)

### University level

Advisory Board, BioFrontiers Advanced Imaging Core Facility (2014 – 2020)

NIH Signaling and Cellular Regulation Training Grant Steering Committee (2014 – present)

Reviewer for Research Innovation Office for the Searle Scholars Program (2015 – present)

Member of BioFrontiers Institute task force (2016 – present)

Member of the University of Colorado Cancer Center (2017– present)

Organizer, BioFrontiers seminar series (2018 – 2020)

Academic advising committee for IQ Biology PhD students (2018 – present)

Organizer of Quantitative Optical Imaging / Single Cells and Single Molecules Supergroup (2018 – present)

NIH Biophysics Training Grant member (2018-present)

### Department level

Graduate student recruitment (2015 – present)

Faculty recruitment (2015 – present)

Participation in departmental grants to be reviewed (3 times, 2015-present)

Department of Biochemistry ARPAC (Fall 2016)

Organizer of the annual two-day Biochemistry retreat at Winter Park or virtually (2018 – 2020)

## **PROFESSIONAL AFFILIATIONS**

Member, American Association for Cancer Research

Member, American Society for Cell Biology