

# Mikkel Herholdt Jensen

mikkel.jensen@csus.edu

---

## EDUCATION

Ph.D., Physics. Boston University, Boston, MA. 2013.

M.A., Physics. Boston University, Boston, MA. 2009.

B.Sc., Physics and Mathematics. University of Southern Denmark, Odense. 2005.

## PROFESSIONAL SOCIETIES AND MEMBERSHIPS

Biophysical Society, member (since 2009)

Sigma Xi scientific research honor society, full member by invitation (since 2022)

## PROFESSIONAL INTERESTS

Biological physics

Tissue and cell mechanics

Biopolymer mechanics and regulation

Physics education

Soft condensed matter

## EXPERIENCE

### California State University, Sacramento. CA, USA

2021 – present *Associate Professor of Physics*

2015 – 2021 *Assistant Professor of Physics*

Teaching undergraduate physics (4/4 fall/spring base teaching assignment).

Research in biological physics & soft condensed matter.

Student mentoring and advising.

University and community service.

Courses taught and curricular developments:

Physics 11A – General Physics: Mechanics

Physics 11A – lab

Physics 11B – General Physics: Heat, Light, and Modern Physics

Physics 11B – lab

Physics 11C – General Physics: Electricity and Magnetism

Physics 11C – lab

Physics 106 – Introduction to Modern Physics

Physics 150 – Quantum Mechanics

Physics 151 – Advanced Modern Physics

Physics 172 – Biological Physics (new course developed for Fall 2022)

Developed new Department major concentration: Physics B.S. (Biophysics) for Fall 2023.

### Harvard University, Cambridge. MA, USA

2013 – 2015 *Postdoctoral Research Fellow*; advisor: Dr. David A. Weitz

Biopolymer network and cell mechanics research using rheology and optical microscopy.

### Boston University, Boston. MA, USA

2009 – 2013 *Graduate Student Research Assistant*; advisor: Dr. Jeffrey R. Moore

Mechanics and dynamics of the biopolymer actin and the biophysical function of actin-binding proteins, and vascular tissue mechanics using fluorescence, confocal, TIRF microscopy, and bulk rheology.

2006 – 2013 *Teaching Assistant*

Led undergraduate discussions, laboratory sessions, and lectures in general physics, introductory electromagnetism, and introductory modern physics (7 semesters total).

Boston Latin Academy high school, Boston, MA, USA

2008 – 2009

*National Science Foundation GK-12 Teaching Fellow*

Collaborated with local high schools in teaching 10<sup>th</sup> grade physics and 8<sup>th</sup> grade general science, and developed new physics modules for the classroom.

University of Southern Denmark, Odense, Denmark

2005 – 2006

*Research Assistant, MEMPHYS Center for Biomembrane Physics, with Dr. Adam Simonsen*

Research in phase behavior of ternary lipid membranes using fluorescence and atomic force microscopy.

2003 – 2006

*Teaching Assistant (6 semesters)*

Taught undergraduate discussion and laboratory sessions in general physics, biophysics, and functional biomedicine (6 semesters total), and developed a new optics and light laboratory exercise and lab manual used in the first-year physics curriculum.

## **MENTORSHIP**

### 10 undergraduate research students (as primary advisor)

1. Wesley Eby (B.S. Physics and B.S. Biochemistry, spring 2021 – present)
2. Xuan (Carly) Gip (B.S. Physics, summer 2021 – fall 2021)
  - 1 presentation as presenting author
  - CSUS NSM Summer Undergraduate Research Experience Scholarship (2021)
3. Christopher Carnahan (B.S. Physics, fall 2019 – fall 2020)
  - 4 presentations as presenting author
  - CSUS Physics & Astronomy Dept., Partovi Summer Undergraduate Research Experience Scholarship (2020)
  - Senior Project: Analyzing Structures in Artificial Biological Cells
4. Francisco Castaneda (B.S. Biomedical Science, spring 2019 – summer 2019)
  - 2 presentations as presenting author
  - CSUS NSM Summer Undergraduate Research Experience Scholarship (2019)
5. David Ruiz (B.A. Physics, spring 2019)
6. Nicholas Sanders (B.S. Applied Physics, spring 2018 – spring 2019)
  - 3 presentations as presenting author
  - CSUS Physics & Astronomy Dept., Partovi Summer Undergraduate Research Experience Scholarship (2018)
7. Alejandro Reyes (B.S. Physics, spring 2018)
8. Hai Tran (B.S. Biochemistry, spring 2017 – spring 2018)
  - 1 co-authored peer-reviewed publication
  - 1 presentation as presenting author
9. Ashley Luiz (B.S. Physics, spring 2016 – fall 2016)
  - 2 presentations as presenting author
  - Senior Project: Modeling of Tropomyosin Binding and Polymerization on Filamentous Actin
10. Hila Swindell (B.S. Biophysics, fall 2015 – fall 2017)
  - 3 presentations as presenting author
  - Presentation Award, Annual Biomedical Research Conference for Minority Students (2017)
  - Travel Award, Annual Biomedical Research Conference for Minority Students (2017)

## **SERVICE**

### CSU Sacramento, Department of Physics & Astronomy

Retention, Tenure, and Promotion Committee (fall 2022 – present)

- Reviewing all Department lecturer and tenure-track faculty Working Personnel Action Files
- Drafting committee letters of recommendation for College RTP committee

Safety Committee (fall 2021 – present ; chair fall 2021 – present)

- Setting, implementing, and overseeing Department safety protocols and policies
- Organizing and conducting biannual lab safety inspections for all Department laboratories
- Maintaining and updating all Department safety documents

Edwin Iloff Endowment Committee (fall 2021 – present)

- Overseeing and reviewing Edwin Iloff endowment and faculty applications for endowment programs

Curriculum Committee (spring 2016 – present)

- Review of proposed new and changed courses and programs in the Department
- Maintaining and updating catalog language and descriptions for Department courses and programs

Scholarship Committee (spring 2016 – spring 2021 ; chair spring 2018 – spring 2021)

- Review and award of the Department's scholarships
- Hosting the Department's annual awards and Sigma Pi Sigma induction celebration
- Facilitating nominations and support of faculty for the Outstanding Faculty Awards in the College
- Implemented and maintained all Department scholarships into Academic Works, a new University scholarship portal

Assessment Committee (spring 2016 – spring 2021)

- Development and maintenance of Department programmatic assessment plans and learning goals
- Administering and reporting on Department programmatic assessment

Physics 11A laboratory coordinator (6 semesters)

- Organizing and coordinating laboratory schedule for all lab sections
- Facilitating end-of-semester grade sharing for all lab and lecture instructors
- Writing the graphing and uncertainty lab exam for all lab sections
- Developed 7 videos ~1 hour each for all lab instructors for online instruction during the Covid-19 pandemic

### CSU Sacramento, College of Natural Sciences & Mathematics

Scholarships and Awards Committee (fall 2021 – present)

- Annual review and award selection of the Outstanding Faculty Awards for the six College Departments in the areas of teaching, scholarship, institution service, and community service
- Annual review and award selection of College student candidates for College student scholarships
- Annual review and recommendation to the Dean of the College's Dean's Award candidates

NSM Advising Center Faculty Fellow (fall 2020 – present)

- 8 hours/week advising meeting with majors from all six College Departments
- General education, graduation requirements, and student success resources advising

Curriculum Review Committee (spring 2018 – present; chair fall 2021 – present)

- Review of proposed new and changed courses and programs from all six College Departments
- Communicating with and aiding Departments in crafting course proposal and course change forms
- Review of College student candidates for College student scholarships (until summer 2021)

Dean's Award Committee (spring 2016 – spring 2021; chair spring 2019 – spring 2021)

- Annual review and recommendation to the Dean of the College's Dean's Award candidates
- Committee disbanded in summer 2021 to be merged with the Scholarship and Awards Committee

### CSU Sacramento, University

Faculty Senate, Department Representative Alternate (fall 2020 – present)

- Department alternate for University Faculty Senate, meetings every other week

Research and Creative Activity Award Program, peer reviewer (7 times: 2016, 2017, 2018, 2019, 2020, 2021, 2022)

- Annual review and scoring of ~4-6 faculty research proposals, ~10 pages each
- In-person 3-hour panel review meeting

Pedagogy Enhancement Award Program, peer reviewer (3 times: 2017, 2019, 2020)

- Annual review and scoring of ~4-6 faculty project applications, ~10 pages each

Dean Selection Advisory Committee (spring 2020)

- Job posting, candidate screening and interviewing
- Search committee was disbanded before completion of the search due to the Covid-19 pandemic

Associate Dean Selection Advisory Committee (2017)

- Job posting, candidate screening and interviewing, and final advising report to University Provost

### National Grant and Scholarship Program Review

National Science Foundation, NSF (2020)

### Journal Article Review

Beilstein Journal of Nanotechnology  
Biophysica et Biochimica Acta  
Biophysical Journal (2 times)  
Interdisciplinary Sciences: Computational Life Sciences  
Proceedings of the National Academy of Sciences

### Conference Abstract Review

Annual Biomedical Research Conference for Minority Students (3 times: 2018, 2019, 2021)  
CSU Annual Biotechnology Symposium (2 times: 2019, 2020)

### Other Service

2020 Soc. Phys. Students, Zone 18 Meeting faculty presentation, Sacramento, CA  
*Applying Physics to Questions in Biology*

2019 Soc. Phys. Students "Physics and Pizza" presenter, CSUS Physics Dept., Sacramento, CA  
*The Physics of Curling*

2018 Dinner with a Scientist, Sacramento Area High School Science Project, Sacramento, CA

2017 CSUS Physics Dept. presentation, Leroy Greene Academy high school, Sacramento, CA

2016 CSUS Physics Dept. presentation, Sierra College Physics & Engineering Club, Rocklin, CA

2016 Soc. Phys. Students "Physics and Pizza" presenter, CSUS Physics Dept., Sacramento, CA  
*Bottom-Up Approaches to Biological Physics*

2016 American Association of Physics Teachers meeting volunteer, CSUS, Sacramento, CA

2008 – 2013 TEAMS high school science competition co-organizer, Harvard University, Cambridge, MA

2010 – 2012 Holiday Science Lecture assistant, Harvard University, Cambridge, MA

2009 – 2011 NanoDays Outreach volunteer, Museum of Science, Boston, MA

2008 – 2009 Physics department biophysics seminar organizer, Boston University, Boston, MA

2008 Middle school summer camp teaching assistant, Boston University, Boston, MA

2004 – 2006 Physics student society president, University of Southern Denmark, Odense, Denmark

### **PROFESSIONAL DEVELOPMENT**

Assoc. of College and University Educators (ACUE), spring 2022

- *Microcredential in Designing Student-Centered Courses*
- Credentialing workshop on student-centered course design

CSUS Professional Learning Community, spring 2022

- *Designing Student Centered Courses: Physics intensive group*
- Workshop focusing on implementing active student-centered learning in physics classrooms

CSUS Teaching Professional Development, summer 2021

- *ASPIRE Faculty Summer Workshop*
- Faculty workshop on supporting student leadership development

CSUS Teaching Professional Development, summer 2020

- *STEM-Zone Side Car*
- Faculty workshop on effective and equitable strategies for online teaching specifically in STEM courses

CSUS Teaching Professional Development, summer 2020

- *Teach ON!-Line*
- Faculty workshop on student engagement, equity, and design of online courses.

CSUS Faculty Scholarship Community, 2019-2020

- *Interdisciplinary Writing Group*
- Writing community for scholarly writing and critique across disciplines.

CSUS Faculty Scholarship Community, 2018-2019

- *The Collaborative Organization for Research Planning and Sustainability (CORPS)*
- Scholarly community aimed at developing and launching a sustainable research agenda.

- *The Collaborative Organization for Research Planning and Sustainability (CORPS)*
- Scholarly community aimed at developing and launching a sustainable research agenda.

## JOURNAL PUBLICATIONS

\* equal author contributions; † corresponding author ; underline: CSUS undergraduate student ; double underline: CSUS graduate student.

1. *Kismet/CHD7/CHD8 Affects Gut Biomechanics, the Gut Microbiome, and Gut-Microbiome-Brain Axis in Drosophila Melanogaster.* [↻](#)  
Niosi A, Võ NH, Sundar P, Welch C, Penn A, Yuldasheva Y, Alfareh A, Rausch K, Rukhsar T, Cavanaugh J, Yadav P, Peterson S, Brown R, Hu A, Ardon-Castro A, Nguyen D, Crawford R, Lee W, **Jensen MH**, Morris EJ, Mulligan K†. PLoS one: submitted. (2021)
2. *In-class Hierarchical Team Model as a No-Cost Strategy to Improve Student Success: Integrated Peer Leadership Program.* [↻](#)  
Morris EJ†, **Jensen MH**, Ghosh Hajra S. Phys Rev Phys Ed Res 17:023104. (2021)
3. *Stochastic Ordering of Complexoform Protein Assembly by Genetic Circuits.* [↻](#)  
**Jensen MH**†, Morris EJ, Tran H, Nash MA, Tan C†. PLoS Computational Biology: 16(6): e1007997. (2020)
4. *Cell Volume Change Through Water Efflux Impacts Cell Stiffness and Stem Cell Fate.* [↻](#)  
Guo M, Pegoraro AF, Mao A, Zhou EH, Arany PR, Han Y, Burnette DT, **Jensen MH**, Kasza KE, Moore JR, Mackintosh FC, Fredberg JJ, Mooney DJ, Lippincott-Schwartz J†, Weitz DA†. Proceedings of the National Academy of Sciences: 114:E8618-8627. (2017)
5. *Mechanics and Dynamics of Reconstituted Cytoskeletal Systems.* [↻](#)  
**Jensen MH**†, Morris EJ, Weitz DA. Biochimica et Biophysica Acta – Molecular Cell Research 1853:3038-3042. (2015)
6. *Probing the Stochastic, Motor-Driven Properties of the Cytoplasm Using Force Spectrum Microscopy.* [↻](#)  
Guo M, Ehrlicher AJ, **Jensen MH**, Renz M, Moore JR, Goldman RD, Lippincott-Schwartz J, Mackintosh FC, Weitz DA†. Cell 158:822-832. (2014)
7. *Emergent Properties of Composite Semiflexible Biopolymer Networks.* [↻](#)  
**Jensen MH**\*, Morris EJ\*, Goldman RD, Weitz DA. BioArchitecture 4:138-143. (2014)
8. *Mechanism of Calponin Stabilization of Crosslinked Actin Networks.* [↻](#)  
**Jensen MH**\*, Morris EJ\*, Gallant CM, Morgan KG, Weitz DA, Moore JR†. Biophysical Journal 106:793-800. (2014)
9. *The Role of Vimentin Intermediate Filaments in Cortical and Cytoplasmic Mechanics.* [↻](#)  
**Editor's selection as "new and notable" article, and selected as journal cover article.**  
Guo M, Ehrlicher AJ, Mahammad S, Fabich H, **Jensen MH**, Moore JR, Fredberg JJ, Goldman RD, Weitz DA†. Biophysical Journal 105:1562-1568. (2013)
10. *The Focal Adhesion: a Regulated Component of Aortic Stiffness.* [↻](#)  
Saphirstein RJ, Gao YZ, **Jensen MH**, Gallant CM, Vetterkind S, Moore JR, Morgan KG†. PLoS one 8:e62461. (2013)
11. *The Conformational State of Actin Filaments Regulates Branching by Actin-Related Protein 2/3 (Arp2/3) Complex.* [↻](#)  
**Editor's selection as "paper of the week."**  
**Jensen MH**\*, Morris EJ\*, Huang R\*, Rebowski G, Dominguez R, Weitz DA, Moore JR, Wang C-LA†. Journal of Biological Chemistry 287:31447-31453. (2012)
12. *Effects of Basic Calponin on the Flexural Mechanics and Stability of F-actin.* [↻](#)  
**Jensen MH**, Watt J, Hodgkinson JL, Gallant C, Appel S, El-Mezgueldi M, Angelini TE, Morgan KG, Lehman W, Moore JR†. Cytoskeleton 69:49-58. (2012)

13. *Structural Studies on Maturing Actin Filaments.* [↪](#)  
Collins A, Huang R, **Jensen MH**, Moore JR, Lehman W, Wang C-LA<sup>†</sup>.  
BioArchitecture 1:127-133. (2011)
14. *Domain Shapes, Coarsening, and Random Patterns in Ternary Membranes.* [↪](#)  
**Jensen MH**, Morris EJ, Simonsen AC<sup>†</sup>.  
Langmuir 23:8135-8141. (2007)

### INVITED TALKS

1. Physics & Astronomy Dept. Colloquium Series, California State University, Sacramento, CA. (May 2022)  
*The Role of Mechanics in the Gut-Brain Axis.*
2. Physics & Astronomy Dept. Colloquium Series, California State University, Northridge, CA. (May 2019)  
*Life inside the cell: Probing the interior mechanics of living cells.*
3. Chemistry Dept. Seminar Series, California State University, Sacramento, CA. (Feb 2018)  
*Mechanics and Dynamics of Cytoskeletal Networks.*
4. Physics and Engineering Club, Sierra College, Rocklin, CA. (Apr 2017)  
*Physical Characterization of Living Cells and Engineered Biomimetic Materials.*
5. Chemistry Dept. Seminar Series, California State University, Sacramento, CA. (Mar 2016)  
*Force Spectroscopy in Biological Networks and Living Cells.*
6. Physics & Astronomy Dept. Colloquium Series, California State University, Sacramento, CA. (Mar 2015)  
*Probing Mechanics of Intracellular Networks using Model Systems.*
7. Physics & Astronomy Dept. Colloquium Series, California State University, Sacramento, CA. (Oct 2014)  
*Measuring Intracellular Mechanics with Laser Tweezers.*
8. Gordon Conference on Intermediate Filaments, Mount Snow, VT. (Jun 2014)  
*Mechanics of Composite Actin-Vimentin Networks.*
9. ESIFB: 8th European Conference on Intermediate Filaments in Health and Disease, Amsterdam. (Sep 2013)  
*Differential Effects of Vimentin on the Mechanics of Crosslinked Actin Networks.*
10. Physics Department journal club, University of Massachusetts, Amherst, MA. (Nov 2012)  
*Stiff or Compliant: Two Different Mechanisms for Actin Regulation.*
11. Holiday Colloquium Series at MEMPHYS, University of Southern Denmark, Odense. (Dec 2011)  
*Actin: From Single Filaments to the Cytoskeleton.*

### CONFERENCE AND MEETING ABSTRACTS

<sup>†</sup> presenting author ; underline: CSUS undergraduate student ; double underline: CSUS graduate student.

1. *An Autism Spectrum Disorder-Related Risk Gene Impacts Gut Tissue Mechanics and the Gut Microbiome in Drosophila Melanogaster.*  
**Jensen MH**<sup>†</sup>, Morris EJ, Cavanaugh J, Yadav P, Niosi A, Võ NH, Welch C, Penn A, Mulligan K.  
Biophysical Society, 66<sup>th</sup> annual meeting. (2022)
2. *Kismet Affects Gut Biomechanics, the Gut Microbiome, and Gut-Brain Axis in Drosophila Melanogaster.*  
Penn A<sup>†</sup>, Raghulan R, Niosi A, Johnson E, Nguyen H, Welch C, Lee W, **Jensen MH**, Morris EJ, Mulligan K.  
West Coast Developmental Biology Snapshot Meeting. (2021)
3. *Artificial Cell Image Analysis Project.*  
Gip X<sup>†</sup>, **Jensen MH**.  
California State University, Sacramento, NSM Student Research Symposium. (2021)
4. *Quantifying the Mechanics of Fruit Flies.*  
Yadav P<sup>†</sup>, **Jensen MH**, Morris EJ.  
California State University, Sacramento, NSM Student Research Symposium. (2021)
5. *Stochastic Ordering of Complexoform Protein Assembly by Genetic Circuits.*  
**Jensen MH**<sup>†</sup>, Morris EJ, Tran H, Nash MA, Tan C.  
Biophysical Society, 65<sup>th</sup> annual meeting. (2021)

6. *LabVIEW Programming for Micro-Tensile Testing Instrumentation.*  
Cavanaugh C<sup>†</sup>, **Jensen MH**, Morris EJ.  
California State University, Sacramento, Student Research & Creative Activity Fall Poster Forum. (2020)
7. *LabVIEW Programming for Micro-Tensile Testing Instrumentation.*  
Cavanaugh C<sup>†</sup>, **Jensen MH**, Morris EJ.  
California State University, Sacramento, NSM Student Research Symposium. (2020)
8. *Analyzing Structures in Artificial Biological Cells.*  
Carnahan C, Su W-C, Parikh A, Morris EJ, **Jensen MH**.  
California State University, Sacramento, NSM Student Research Symposium. (2020)
9. *It's All About the Mouthfeel - A Rheological Study of Complex Food Materials.*  
Carnahan C<sup>†</sup>, **Jensen MH**, Morris EJ.  
32<sup>nd</sup> Annual California State University Biotechnology Symposium. (2020)
10. *Construction of Optical Tweezers for Microrheological Study of Algae and Bacteria in the American River.*  
Cavanaugh J<sup>†</sup>, Castaneda F, Morris EJ, **Jensen MH**.  
32<sup>nd</sup> Annual California State University Biotechnology Symposium. (2020)
11. *Optical traps: using lasers to study the physics behind biology.*  
Castaneda F<sup>†</sup>, Cavanaugh J, Morris EJ, **Jensen MH**.  
California State University, Sacramento, NSM Student Research Symposium. (2019)
12. *Rheological methods in soft condensed matter.*  
Carnahan C<sup>†</sup>, **Jensen MH**, Morris EJ.  
California State University, Sacramento, Student Research & Creative Activity Fall Poster Forum. (2019)
13. *Rheological methods in soft condensed matter.*  
Carnahan C<sup>†</sup>, **Jensen MH**, Morris EJ.  
California State University, Sacramento, NSM Student Research Symposium. (2019)
14. *Developing Laser-tweezers and Software for Passive and Active Microrheology.*  
Cavanaugh J<sup>†</sup>, Castaneda F, **Jensen MH**, Morris EJ.  
California State University, Sacramento, Student Research & Creative Activity Fall Poster Forum. (2019)
15. *Developing Laser-tweezers and Software for Passive and Active Microrheology.*  
Cavanaugh J<sup>†</sup>, Castaneda F, **Jensen MH**, Morris EJ.  
California State University, Sacramento, NSM Student Research Symposium. (2019)
16. *Modeling Cells with Giant Vesicles Encapsulating Polymerized Actin Networks.*  
Sanders N<sup>†</sup>, Purushothaman S, Su W-C, Parikh A, Morris EJ, **Jensen MH**.  
31<sup>st</sup> Annual California State University Biotechnology Symposium. (2019)
17. *Modeling Cells with Giant Vesicles Encapsulating Polymerized Actin Networks.*  
Sanders N<sup>†</sup>, Morris EJ, **Jensen MH**.  
California State University, Sacramento, Student Research & Creative Activity Fall Poster Forum. (2018)
18. *Modeling Cells with Giant Vesicles Encapsulating Polymerized Actin Networks.*  
Sanders N<sup>†</sup>, Morris EJ, **Jensen MH**.  
California State University, Sacramento, NSM Student Research Symposium. (2018)
19. *Stochastic Simulations of Tropomyosin Binding and Diffusion on Filamentous Actin.*  
Luiz A, Tran H, **Jensen MH**<sup>†</sup>.  
Biophysical Society, 62<sup>nd</sup> annual meeting. (2018)
20. *The In Vitro Motility Assay Analysis: Manual vs. Automated Methodology.*  
Swindell H<sup>†</sup>, **Jensen MH**, Morris EJ.  
Annual Biomedical Research Conference for Minority Students. (2017)
21. *The In Vitro Motility Assay Analysis: Manual vs. Automated Methodology.*  
Swindell H<sup>†</sup>, **Jensen MH**, Morris EJ.  
California State University, Sacramento, Student Research & Creative Activity Fall Poster Forum. (2017)
22. *Case Studies of Self-Assembled Multi-Subunit Biological Structures.*  
Tran H<sup>†</sup>, **Jensen MH**, Morris EJ.  
California State University, Sacramento, NSM Student Research Symposium. (2017)

23. *The In Vitro Motility Assay Analysis: Manual vs. Automated Methodology.*  
Swindell H<sup>†</sup>, Jensen MH, Morris EJ.  
California State University, Sacramento, NSM Student Research Symposium. (2017)
24. *Non-Equilibrium Control of Protein Assembly by Genetic Circuits.*  
Morris EJ, Jensen MH, Nash M, Tan C<sup>†</sup>.  
Human Frontiers Science Program, 17<sup>th</sup> awardees meeting. (2017)
25. *Modeling of Tropomyosin Binding, Diffusion, and Polymerization on Filamentous Actin.*  
Luiz A<sup>†</sup>, Jensen MH.  
California State University, Sacramento, Student Research & Creative Activity Fall Poster Forum. (2016)
26. *Modeling of Tropomyosin Binding, Diffusion, and Polymerization on Filamentous Actin.*  
Luiz A<sup>†</sup>, Jensen MH.  
California State University, Sacramento, NSM Student Research Symposium. (2016)
27. *Novel Collective Mechanics of Active DNA Filament / Motor Assemblies.*  
Jensen MH<sup>†</sup>, Byrd H, Moore JR, Kilfoil ML.  
Biophysical Society, 60<sup>th</sup> annual meeting. (2016)
28. *Vimentin Intermediate Filament Mechanics in Cells under Shear Stress.*  
Wu H<sup>†</sup>, Jensen MH, Guo M, Weitz DA.  
Biophysical Society, 59<sup>th</sup> annual meeting. (2015)
29. *How Does the Interplay Between Semiflexible Polymers Determine Composite Network Mechanics?*  
Jensen MH<sup>†</sup>, Morris EJ, Goldman RD, Weitz DA.  
Biophysical Society, 59<sup>th</sup> annual meeting. (2015)
30. *Rheology of Composite Semiflexible Biopolymer Networks.*  
Jensen MH<sup>†</sup>, Morris EJ, Weitz DA.  
New England Complex Fluids, 61<sup>st</sup> workshop. (2014)
31. *Vimentin Affects Actin Network Percolation and Mechanics.*  
Jensen MH<sup>†</sup>, Morris EJ, Weitz DA.  
Biophysical Society, 58<sup>th</sup> annual meeting. (2014)
32. *Mechanical Properties of Vimentin Intermediate Filament Networks.*  
Wu H<sup>†</sup>, Jensen MH, Guo M, Weitz DA.  
Biophysical Society, 58<sup>th</sup> annual meeting. (2014)
33. *Mechanism of Actin Network Stabilization by Changes in Polymer Flexibility by Calponin.*  
Morris EJ<sup>†</sup>, Jensen MH, Gallant C, Morgan KG, Weitz DA, Moore JR.  
Biophysical Society, 58<sup>th</sup> annual meeting. (2014)
34. *Force Spectrum Microscopy Reveals Active Diffusive-Like Fluctuations in Living Cells.*  
Guo M<sup>†</sup>, Ehrlicher A, Jensen MH, Moore JR, Lippincott-Schwartz J, Mackintosh FC, Weitz DA.  
Biophysical Society, 58<sup>th</sup> annual meeting. (2014)
35. *Active Stresses Drive Random Fluctuations in the Cytoplasm of Cells.*  
Guo M<sup>†</sup>, Ehrlicher A, Jensen MH, Moore JR, Lippincott-Schwartz J, Mackintosh FC, Weitz DA.  
American Physical Society, march meeting. (2013)
36. *Compliant or Stiff: Two Differing Mechanisms of Actin Network Stabilization by Calponin and Tropomyosin.*  
Jensen MH<sup>†</sup>, Morris EJ, Gallant C, Graceffa P, Leavis P, Morgan KG, Weitz DA, Moore JR.  
Biophysical Society, 57<sup>th</sup> annual meeting. (2013)
37. *Caldesmon Stabilizes Nascent Actin Filaments and Promotes Branching by Arp2/3 Complex.*  
Jensen MH<sup>†</sup>, Morris EJ, Huang R, Rebowski G, Dominguez R, Weitz DA, Moore JR, Wang C-LA.  
Biophysical Society, 56<sup>th</sup> annual meeting. (2012)
38. *Dynamics and Material Properties in Living Cells.*  
Guo M<sup>†</sup>, Jensen MH, Moore JR, Mackintosh FC, Weitz DA.  
Biophysical Society, 56<sup>th</sup> annual meeting. (2012)
39. *The Focal Adhesion: A Regulator of Vascular Stiffness?*  
Saphirstein R<sup>†</sup>, Jensen MH, Vetterkind S, Moore JR, Morgan KG.  
American Society of Cell Biology, annual meeting. (2011)



40. *Basic Calponin Affects F-actin Mechanics and Stability.*  
**Jensen MH<sup>†</sup>**, Morgan KG, Lehman W, Moore JR.  
 New England Complex Fluids, 48<sup>th</sup> workshop. (2011)
41. *Basic Calponin Alters F-actin Structure and Mechanics.*  
**Jensen MH<sup>†</sup>**, Watt J, Gallant C, Appel S, Morgan KG, Lehman W, Moore JR.  
 Biophysical Society, 55<sup>th</sup> annual meeting. (2011)
42. *Effects of Basic Calponin on F-actin Bending Mechanics and Structure.*  
**Jensen MH<sup>†</sup>**, Watt J, Appel S, Morgan KG, Lehman W, Moore JR.  
 ESF / EMBO Symposium: Emergent Properties of the Cytoskeleton. (2010)
43. *TIRFM Optical Trapping for Single Molecule Molecular Motor Studies.*  
**Selected by conference organizers for 2<sup>nd</sup> place Poster Presentation Prize.**  
**Jensen MH<sup>†</sup>**, Greenberg MJ, Moore JR.  
 New England Society of Microscopy, 27<sup>th</sup> annual meeting. (2010)
44. *Effects of Sensory Rhodopsin II Complexation with its Cognate Transducer HTrII on the Local Environment of Internal Water Molecules.*  
**Jensen MH<sup>†</sup>**, Clair ECS, Bergo VB, Spudich EN, Spudich JL, Rothschild KJ.  
 Biophysical Society, 54<sup>th</sup> annual meeting. (2010)

## HONORS AND AWARDS

- 2021 Outstanding Faculty Award for Teaching for the 2020-21 Academic Year  
 College of Natural Sciences and Mathematics, California State University, Sacramento
- 2008 Teaching Fellow of the Year  
 Physics Department, Boston University, Massachusetts

## GRANTS AND FUNDING

\*: 30 Weighted Teaching Units (WTUs) = full-time load for 1 CSU Sacramento academic year. Current CSU buyout rate: \$2,018/unit.

### External Funding

- 2013 Company of Biologists travel award; ESIFB meeting  
 EUR €500. Individual award.
- 2010 European Science Foundation; EMBO symposium Travel award  
 US \$1,000. Individual award.
- 2008 National Science Foundation; GK-12 teaching fellowship, Boston University, Boston, MA  
 US \$30,000. Individual award over 1 year.

### CSU System-Wide Support

- 2022 CSU Program for Education & Research in Biotechnology; Faculty Travel Grant.  
 US \$1,460. Individual award.
- 2017 CSU Program for Education & Research in Biotechnology; Faculty Travel Grant.  
 US \$1,347. Individual award.

### Campus-Level Support

- 2023 Sabbatical Leave; CSU Sacramento, CA.  
*Gut Biomechanics and its Role in Neuronal Development.*  
**Recommended in “best of proposals submitted” category by Dean and Sabbatical Leave Committee.**  
 12 WTUs\*. Individual award.
- 2021 Curriculum Redesign Grant; CSU Sacramento, CA.  
*Expanding Successful In-Class Peer Leadership Format to Larger Class Sizes.*  
 US \$39,273.44. Co-PI with Dr. Eliza Morris and Dr. Bitia Rivas.
- 2021 Research and Creative Activity Faculty Award; CSU Sacramento, CA  
*Quantitative Analysis of Liquid-Liquid Phase Separation in Biological Cell Model Systems.*  
 US \$9,759 (3 WTUs\* + US \$3,705). Individual award.
- 2021 NSM Summer Undergraduate Research Experience Award; CSU Sacramento, CA

- Quantitative Analysis of Liquid-Liquid Phase Separation in Biological Cell Model Systems.*  
US \$7,850. Joint award with CSUS student Xuan (Carly) Gip.
- 2020 Research and Creative Activity Faculty Award; CSU Sacramento, CA  
*Determining the Reciprocal Impacts of an Autism-Risk Gene and the Gut Microbiome on Gut Tensile Strength in Drosophila.*  
US \$7,500. Co-PI with CSUS faculty Dr. Eliza Morris and Dr. Kimberly Mulligan.
- 2019 NSM Summer Undergraduate Research Experience Award; CSU Sacramento, CA  
*Developing Tools to Characterize Mechanical Artificial Cells.*  
US \$10,000. Joint award with CSUS student Francisco Castaneda.
- 2019 Associated Students Inc. External Grant; CSU Sacramento, CA  
*Integrated Physics Pilot Program.*  
US \$810. Co-PI with CSUS faculty Dr. Eliza Morris.
- 2019 Pedagogy Enhancement Award; CSU Sacramento, CA  
*Using Peer Leadership in an Integrated Class Structure to Improve Student Success.*  
6 WTUs\*. Co-PI with CSUS faculty Dr. Eliza Morris and Dr. Sayonita Hajra.
- 2019 Pedagogy Enhancement Award; CSU Sacramento, CA  
*Development of an Interdisciplinary Biological Physics Course at CSUS.*  
3 WTUs\*. Individual award.
- 2017 Probationary Faculty Development Grant; CSU Sacramento, CA  
*Biopolymer Encapsulation in Lipid Vesicles.*  
3 WTUs\* + US \$500. Individual award.
- 2015 Provost's Research Incentive Fund Award; CSU Sacramento, CA  
3 WTUs\*. Individual award.
- 2011 Graduate Student Research Achievement Fellowship; Boston University, MA  
US \$12,300. Individual award over 1 year.

#### Department Support

- 2021 Chien Hu Research Award; CSU Sacramento, CA  
*Quantitative Analysis of Liquid-Liquid Phase Separation in Cell Model Systems.*  
3 WTUs\*. Individual award.
- 2020 Partovi Summer Undergraduate Research Experience Scholarship; CSU Sacramento, CA  
*Quantitative Image Analysis of Fluorescence Confocal Images of Artificial Cell Model Systems.*  
\$3,500. Joint award with CSUS student Christopher Carnahan.
- 2019 Chien Hu Research Award; CSU Sacramento, CA  
*Cell Model Systems Using Biopolymer Networks in Lipid Vesicles.*  
3 WTUs\*. Individual award.
- 2018 Partovi Summer Undergraduate Research Experience Scholarship; CSU Sacramento, CA  
*Encapsulation of Biopolymers in Lipid Vesicles.*  
\$3,500. Joint award with CSUS student Nicholas Sanders.
- 2018 Chien Hu Research Award; CSU Sacramento, CA  
*Stochastic Simulations of Tropomyosin-Actin Interactions.*  
3 WTUs\*. Individual award.
- 2017 Chien Hu Research Award; CSU Sacramento, CA  
*Non-Equilibrium Thermodynamics and Dynamic Arrest during Protein Assembly.*  
US \$5,175. Individual award.
- 2016 – 2020 Edwin Iloff Student Mentorship Award; CSU Sacramento, CA  
6.00 WTUs\* + US \$1,000 across 6 awards. Individual award.