

# Stephen Cohen

## Curriculum vitae

Colorado State University  
1177 Campus Delivery  
Fort Collins, CO 80523-1177

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### EDUCATION

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<b>Colorado State University</b> <i>Ph.D., Cell and Molecular Biology Graduate Program</i>	Fort Collins, CO Aug. 2013 – Present
<b>Lock Haven University of Pennsylvania</b> <i>B.Sc., Cellular and Organismal Biology, Summa Cum Laude</i>	Lock Haven, PA Aug. 2009 – Jul. 2013

### RESEARCH AND LABORATORY EXPERIENCE

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<b>Colorado State University</b> <i>Department of Bioagricultural Sciences and Pest Management</i> <i>Graduate Research Assistant; Advisor: Jan E. Leach</i> <ul style="list-style-type: none"><li>- Characterizing the rice response to simultaneous disease and heat stress using computational, molecular, greenhouse, and growth chamber techniques</li><li>- Characterized rice resistance locus <i>Xo1</i> using molecular cloning, greenhouse, and growth chamber techniques</li></ul>	Fort Collins, CO Jan. 2014 – Present
<b>Colorado State University</b> <i>Department of Biology</i> <i>Rotation Student; Provisional Advisor: June I. Medford</i> <ul style="list-style-type: none"><li>- Cloned and tested nanoluciferase-based reporter for Arabidopsis protoplasts</li></ul>	Fort Collins, CO Aug. – Dec. 2013
<b>Pennsylvania Department of Agriculture</b> <i>Plant Pathology Department</i> <i>Laboratory Technician; Program Manager: Ruth A. Welliver</i> <ul style="list-style-type: none"><li>- Monitored crop orchards for plum pox virus using ELISA and qRT-PCR</li></ul>	Harrisburg, PA May – Aug. 2012
<b>North Carolina State University</b> <i>Department of Microbiology</i> <i>REU Student in Synthetic Biology; Faculty Mentor: Amy M. Grunden</i> <ul style="list-style-type: none"><li>- Characterized an archaeal lipase using molecular cloning and <i>in vitro</i> recombinant expression techniques</li></ul>	Raleigh, NC Jun. – Aug. 2011

### REFEREED PUBLICATIONS

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- Cohen SP**, JM Jacobs, JE Leach. 2018. Spotlight: *In planta* bacterial transcriptomics predict plant disease outcomes. Trends in Plant Science. Accepted.
- Cohen SP**, H Liu, CT Argueso, A Pereira, C Vera Cruz, V Verdier, JE Leach. 2017. RNA-Seq analysis reveals insight into enhanced rice *Xa7*-mediated bacterial blight resistance at high temperature. PLOS ONE. 12(11): e0187625. doi: 10.1371/journal.pone.0187625.
- Triplett LR, **SP Cohen\***, C Heffelfinger, CL Schmidt, C Tekete, V Verdier, AJ Bogdanove, JE Leach. 2016. A resistance locus in the American heirloom rice variety Carolina Gold Select is triggered by diverse TAL effectors and is effective against African strains of *Xanthomonas oryzae* pv. *oryzicola*. Plant J. 87(5): 472-83. doi: 10.1111/tpj.13212. \*co-first author

## HONORS AND AWARDS

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<b>William M. Brown Professional Development Award Recipient</b> <i>Department of Bioagricultural Sciences and Pest Management</i>	May 2018
<b>Exploring Career Opportunities Initiative Grant Recipient</b> <i>CSU Graduate School</i>	Feb. 2018
<b>Frank Hawksworth Memorial Scholarship Recipient</b> <i>Department of Bioagricultural Sciences and Pest Management</i>	Dec. 2017
<b>Sustainability Leadership Fellow</b> <i>CSU School of Global Environmental Sustainability</i>	Aug. 2017– May 2018
<b>Phytobiomes Poster Award Recipient</b> <i>Phytobiomes Journal, APS Annual Meeting 2017</i>	Aug. 2017
<b>J. Artie and Arra Browning Student Travel Award Recipient</b> <i>APS Foundation, APS Annual Meeting 2017</i>	Aug. 2017
<b>NSF Travel Award Recipient for Rice: Research to Production Course</b> <i>International Rice Research Institute, Los Baños, Philippines</i>	Aug. 2015
<b>College of Arts and Sciences Highest QPA Award Recipient</b> <i>Lock Haven University of Pennsylvania</i>	Jun. 2013
<b>NSF Research Experience for Undergraduates Student</b> <i>North Carolina State University</i>	Jun. – Aug. 2011
<b>CRC Press Chemistry Achievement Award Recipient</b> <i>Taylor &amp; Francis Group</i>	Oct. 2010

## CONFERENCE PRESENTATIONS

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- Cohen SP**, H Liu, CT Argueso, C Vera Cruz, V Verdier, JE Leach. 2017. Rice plants exhibiting bacterial blight resistance at high temperature suppress abiotic response. APS Annual Meeting, San Antonio, TX. [Poster Presentation]
- Cohen SP**, H Liu, V Verdier, CT Argueso, JE Leach. 2016. Transcriptomic analysis reveals key genetic responses involved in the rice response to simultaneous abiotic (high temperature) and biotic (bacterial blight) stresses. Keystone Symposium: Phytobiomes: From Microbiomes to Ecosystems, Santa Fe, NM. [Invited Talk]
- Huerta A, L Triplett, **S Cohen**, C Heffelfinger, C Schmidt, V Verdier, A Bogdanove, JE Leach. 2016. Exception to the norm: Resistance locus *Xo1* is triggered by inactive TAL effectors. Keystone Symposium: Phytobiomes: From Microbiomes to Ecosystems, Santa Fe, NM. [Poster Presentation]
- Cohen SP**, LR Triplett, JE Leach. 2016. A resistance mechanism from the American heirloom rice variety Carolina Gold Select is dependent on TAL effector central repeat region composition, but not the repeat variable diresidues. IS-MPMI XVII Congress, Portland, OR. [Poster Presentation]
- Triplett L, V Verdier, M Alexander, **S Cohen**, J Craven, A Bogdanove, J Leach. 2014. A novel rice resistance phenotype to *Xanthomonas oryzae* TAL effectors does not require the effector transcriptional activation domain. APS-CPS Joint Meeting, Minneapolis, MN. [Poster Presentation]

## CONFERENCE PRESENTATIONS (CONTINUED)

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**Cohen S**, R Killens, A Grunden. 2011. Recombinant Expression of a Thermostable Lipase from *Sulfolobus solfataricus* P2 to Augment Production of Microalgal-derived Biofuel. Summer NC State Undergraduate Research Symposium, Raleigh, N.C. [Poster Presentation]

## TEACHING AND MENTORING

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<b>Teaching Assistant Mentor</b> , Colorado State University <i>Peer mentor to new GTAs in the Biology Department</i>	Aug. – Dec. 2014
<b>Student Research Mentor</b> , Colorado State University <i>Mentored 4 undergraduate and 2 high-school students in the lab</i>	Jul. 2014 – Present
<b>Graduate Teaching Assistant Lab Instructor</b> , Colorado State University <i>Lab Instructor, Attributes of Living Systems, 3 semesters</i> <i>Lab Instructor, Cell Biology, 1 semester</i> <i>Recitation Instructor, Molecular Genetics, 1 semester</i>	Aug. 2013 – Jul. 2015

## PROFESSIONAL MEMBERSHIPS AND ACTIVITIES

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<b>Big Data Workshop</b> , Participant <i>CSU College of Agricultural Sciences</i>	Oct. 2017
<b>Graduate Student Liaison Committee</b> , Elected member <i>CSU Department of Bioagricultural Sciences and Pest Management</i>	2017 – Present
<b>APS Annual Meeting</b> , Participant <i>American Phytopathological Society</i>	Aug. 2017
<b>American Phytopathological Society</b> , Member	2017 – Present
<b>Phytobiomes: From Microbes to Plant Ecosystems</b> , Speaker <i>Keystone Symposia on Molecular and Cellular Biology</i>	Nov. 2016
<b>IS-MPMI XVII Congress</b> , Participant <i>International Society for Molecular-Plant Microbe Interactions</i>	Jul. 2016
<b>International Society for Molecular Plant-Microbe Interactions</b> , Member	2016 – Present
<b>Rice: Research to Production Course</b> , Participant <i>International Rice Research Institute</i>	Aug. 2015
<b>NSF GAUSSI</b> , Inaugural Participant <i>Transdisciplinary Training Program in Biosensing and Computational Biology</i>	2015 – 2016
<b>Cell and Molecular Biology Peer Mentor Club</b> , Co-founder and Member <i>Colorado State University, Cell and Molecular Biology Graduate Program</i>	2014 – Present

## ADDITIONAL QUALIFICATIONS

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<b>Communicating Science to Journalists Training</b> <i>COMPASS Science Communication Workshop</i>	Aug. 2017
<b>Rice: Research to Production Certificate</b> <i>International Rice Research Institute</i>	Aug. 2015
<b>Object Oriented Programming Certificate</b> <i>Villa Julie College, Baltimore, MD</i>	2003
<b>Network+ and A+ Certification</b> <i>CompTIA, Baltimore, MD</i>	2001 – 2002

## PUBLIC ENGAGEMENTS

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**Member of “Plants Get Sick Too” plant pathology outreach group:** starting in 2017, I have participated with a group that gives interactive presentations with K-12 students to educate about plant diseases.

**Blogger for the CSU School of Global Environmental Sustainability:** Cohen SP. 2018. “Is the glass of orange juice half empty?” Human Nature: Human Views on the Natural World.  
<http://blog.sustainability.colostate.edu/?q=cohen>

**Active Twitter user:** I use my professional Twitter account to tweet about science and agriculture.

## OTHER ACTIVITIES

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**Linux Server Administrator for CSU Department of Bioagricultural Sciences and Pest Management:** As administrator for our departmental Linux server, I assist the department’s students and post-docs with accessing and using our available technology resources.

**Department Representative in Bioinformatics Job Searches:** In 2018, I assisted with interviews in job searches for bioinformatics positions in the CSU College of Agricultural Sciences, including Bioinformatics Consultant and IT Coordinator positions.

**Organizer of Plant Pathology Journal Club:** since 2015, I have helped organize and participated in a scientific paper discussion group with student and post-doc members that meets weekly or bi-weekly to discuss and critique newly published scientific literature.

**Social Chair of the BSPM Graduate Student Liaison Committee:** Since 2017 to current day, I am the organizer of social events and professional development workshops for BSPM graduate students.

**Judge for CSU ERHS450 “Introduction to Radiation Biology” Poster Session:** In 2017, I evaluated and gave feedback for student posters for an upper level undergraduate course at CSU.

**Co-founder of the CSU Cell and Molecular Biology Peer Mentor Club:** In 2014, I co-founded a multi-disciplinary graduate student organization that brings together graduate students from different backgrounds and stages of academic development for support, career development advice, and the exchange of scientific ideas. I have acted as an organizer and participated in club events. In Spring 2018, I assisted with a proposal to the CSU Graduate School for the “Exploring Career Opportunities Initiative” which earned \$1000 to fund student training/career development events.