

# Navigating Your Academic Career in Fast-Changing Times

The Second Annual RCSA Fellows Conference  
June 3-4, 2025

RESEARCH CORPORATION   
*for* SCIENCE ADVANCEMENT

# RCSA Fellows: Navigating Your Academic Career in Fast-Changing Times

## Objectives

1. Welcome the 2025 RCSA Fellows, returning 2024 RCSA Fellows, and facilitate their interactions with other members of the community.
2. Develop a vibrant, welcoming community of Fellows who will share experiences as they build a supportive, cross-disciplinary professional network they can rely on throughout and beyond the multi-year cycle of this initiative.
3. Maximize Fellows' competitiveness and agency as they shape their own plans for their upcoming faculty job searches, interviews, and preparations for the postdoc-to-faculty transition.

## Diversity, Inclusion and No Harassment

Research Corporation for Science Advancement fosters a welcoming and respectful environment for listening in which the different identities, backgrounds, and perspectives of all participants are valued, and in which everyone is empowered to share ideas as fellow scientists.

RCSA does not tolerate any form of harassment, which could include verbal or physical conduct that has the purpose or effect of substantially interfering with anyone else's participation or performance at this conference, or of creating an intimidating, hostile, or offensive environment; any such harassment may result in dismissal from the conference.

### [Read RCSA's Code of Conduct](#)



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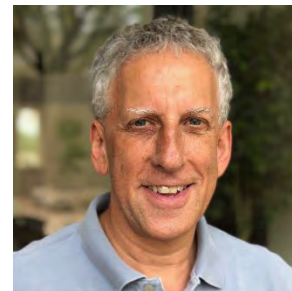
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# RCSA Fellows: Navigating Your Academic Career in Fast-Changing Times

## From the President

Welcome to the 2025 RCSA Fellows Conference. We are truly living in unprecedented times in terms of federal support of research, threats to universities, and the elimination of initiatives to broaden participation in the sciences. Even as we recognize these new challenges, we hold strong to our deeply held belief that scientific research and teaching are essential and that our scientific communities in chemistry, physics, astronomy, and overlapping fields will continue to thrive for many, many years to come.



At this moment, then, the RCSA Fellows program seems to us at the foundation even more important. Our primary goal is to help some of the most promising early career physical scientists prepare as effectively as possible to apply to, interview, and negotiate for faculty positions. Most importantly, we want you to launch your faculty careers with a trajectory leading to long-term success. We also aim to create a vibrant community of Fellows, who will continue to interact and support each other throughout their careers, even if taking positions at different institutions across the country.

At RCSA, we firmly believe that progress in the laboratory and in the classroom depends on welcoming to the sciences the brightest minds from all backgrounds. We need you to ask the big questions and tackle the toughest problems based on where your curiosity and passion take you. We are so excited to see what you accomplish in the future!

Many thanks to the RCSA Program Directors, the advisory committee for RCSA Fellows, to the facilitators at this conference, and to the many departments that have and will soon serve as hosts for mock interviews. Your dedication to maximizing the opportunities for the RCSA Fellows is greatly appreciated.

I wish you all an engaging and productive conference.

**Daniel Linzer**

President

Research Corporation for Science Advancement

# RCSA Fellows: Navigating Your Academic Career in Fast-Changing Times

## From the Program Director

Welcome to the 2025 RCSA Fellows Conference: *Navigating Your Academic Career in Fast-Changing Times*. In its second year, the RCSA Fellows Initiative seeks to advance the scientific enterprise in the United States and Canada by supporting faculty excellence in the physical sciences through a multi-year program of job search preparation and community building. This year's conference brings together two cohorts of outstanding early career physical scientists as they begin or continue their transition to the professoriate.



Experienced teacher-scholars and administrators from the RCSA community bring their expertise to this conference. Jen Heemstra will open the conference with a keynote address focused on tangible skills early career scientists can develop or hone to thrive during these uncertain times. To introduce Wednesday's sessions, Carmala Garzione will provide a dean's perspective on current academic affairs pertinent to the Fellows. Facilitators Daniel Apai, Penny Beuning, Maura McLaughlin, and Megan Núñez will engage the Fellows in cohort-specific activities to create plans and work products that will position them well for the next steps in their academic careers. Fellows will also engage with initiative Advisory Committee members Cyndi Atherton, Luis Colón, and Keivan Stassun, RCSA Board Director, Amy Landis, and RCSA's staff including my program director colleagues Silvia Ronco, Richard Wiener, and Andrew Feig.

As we convene to exchange ideas and experiences, we will also share our love of science, education, and thoughtful mentorship that develops talent from all backgrounds and segments of society. We hope all participants find value and inspiration at the conference.

**Eileen Spain**

Program Director

Research Corporation for Science Advancement

# RCSA Fellows: Navigating Your Academic Career in Fast-Changing Times

## Conference Agenda

June 3 - 4, 2025

### Tuesday, June 3

2:00 pm	<b>Registration Opens</b>	Grand Ballroom Foyer
2:00 – 3:30 pm	<b>Snacks &amp; Informal Discussions</b> {Poster set-up}	Santa Rita
3:30 – 5:00 pm	<b>Networking Reception with Poster Session</b>	Santa Rita
5:00 – 6:00 pm	<b>Welcome &amp; RCSA Fellows Initiative Introductions</b> Dan Linzer, President, RCSA Eric Isaacs, President-elect, RCSA Eileen Spain, Program Director, RCSA	Salon A
5:45 pm	<b>Group Photo</b>	TBD
6:00 – 7:00 pm	<b>Dinner</b>	Executive Boardroom
7:00 – 7:45 pm	<b>Keynote Presentation</b> Introduction – Silvia Ronco, Senior Program Director, RCSA Jen Heemstra, Washington University in St. Louis <i>“Maintaining Your Footing and Focus in the Midst of Uncertainty”</i>	Salon A
7:45 – 10:00 pm	<b>Networking continues</b>	Santa Rita

### Wednesday, June 4

7:00 – 8:00 am	<b>Breakfast</b>	Executive Boardroom
8:00 – 8:45 am	<b>Notes from the Dean for Early Career Scientists</b> Introduction – Dan Linzer, President, RCSA Carmala Garziona, Dean of the College of Science, University of Arizona <i>“Navigating the Fast-Changing Federal Funding Landscape: Strategies for Research Success”</i> (all participants)	Salon A
8:45 – 10:00 am	<b>Session 1</b> <b>Cohort 2025: Institutional Contexts &amp; Reflections for a 5-year Life Plan</b> <b>Cohort 2024: Time Management for Early Career Faculty</b>	Salon A Sabino
10:00 – 10:15 am	<b>Morning Break</b>	Santa Rita
10:15 – 12:00 pm	<b>Session 2</b> <b>Cohort 2025: Position Yourself Well with Your Job Documents: CV &amp; Cover Letter</b> <b>Cohort 2024: Prepare Your Course Syllabi</b>	Salon A Sabino
12:00 – 1:00 pm	<b>Lunch</b>	Executive Boardroom
1:00 – 2:45 pm	<b>Session 3</b> <b>Cohort 2025: Your Scholarly Teaching Statement</b> <b>Cohort 2024: Develop Your Research Strategy</b>	Salon A Sabino
2:45 – 3:00 pm	<b>Afternoon Break</b>	Santa Rita
3:00 – 4:45 pm	<b>Session 4</b> <b>Cohort 2025: Your Competitive Research Proposals &amp; Budget</b> <b>Cohort 2024: Execute Your Research Program</b>	Salon A Sabino
4:45 – 5:45 pm	<b>Session 5</b> <b>2024 Fellows Share Their Year 1 Experiences</b> (all participants)	Salon A
5:45 – 6:30 pm	<b>Networking Reception with Poster Session</b> <b>Fellows Initiative Advisory Committee Meeting</b>	Santa Rita Salon A
6:30 – 7:30 pm	<b>Dinner</b>	Executive Boardroom
7:30 – 10:00 pm	<b>Reception</b>	Santa Rita

## Keynote Presentation

### Maintaining Your Footing and Focus in the Midst of Uncertainty

**Jen Heemstra**

*Chair, Department of Chemistry  
Washington University in St. Louis*

**Abstract:**

Uncertainty is unavoidable. Whether it is relatively minor factors such as today's traffic and weather or potentially life-altering factors such as our health and employment, coping with an unknown future is part of our daily lives. At the same time, we are living in a moment of extraordinary uncertainty for both higher education and scientific research. Moreover, as you make the transition from postdoctoral researcher to faculty member, you will be stepping into a leadership role where you not only have to manage uncertainty for yourself but also have the responsibility of guiding your research group through uncertain terrain.



## Guest Speaker

### Navigating the Fast-Changing Federal Funding Landscape: Strategies for Research Success

**Carmala Garzione**

*Dean, College of Science  
University of Arizona*

**Abstract:**

This presentation will summarize emerging trends in federal funding priorities and how universities, such as the University of Arizona, are adapting to changing opportunities. We will discuss how shifting funding priorities may impact faculty hiring, preparation for tenure, and graduate student recruiting. The goal of this discussion is to provide you with insights and strategies that improve your success in building a research program that may differ from how you were supported as a graduate student and postdoctoral researcher.



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## 2025 RCSA Fellows

**George Agbaworvi** [gagbewor@tamu.edu](mailto:gagbewor@tamu.edu)

Chemistry, Texas A&M University

*My research involves the design of materials for electrochemical energy storage and neuromorphic computing. Mentor undergraduate and graduate students in innovative scientific research.*

**Kaley Brauer** [kaley.brauer@cfa.harvard.edu](mailto:kaley.brauer@cfa.harvard.edu)

Astronomy, Harvard University

*I study galaxy formation and the astrophysical origins of heavy elements using cosmological simulations.*

**Conrad Fihn** [cfihn@ucsc.edu](mailto:cfihn@ucsc.edu)

Chemistry and Biochemistry, University of California, Santa Cruz

*I look to harness the power of matrix-assisted laser desorption ionization mass spectrometry towards directed enzyme evolution screening. I aim for equitable teaching practices and CUREs.*

**Guadalupe Garcia Arellano** [guadalupe1314@gmail.com](mailto:guadalupe1314@gmail.com)

Physics, Research Foundation of the City University of New York

*Postdoctoral researcher in experimental physics at City College of New York, studying defects (rare earth ions in 2D materials). Interested in quantum technologies and teaching physics.*

**Tanveer Karim** [tanveer.karim@utoronto.ca](mailto:tanveer.karim@utoronto.ca)

Astronomy, University of Toronto

*I am an observational cosmologist focusing on constraining cosmological models using high-redshift galaxies from wide-field surveys.*

**Arturo León Sandoval** [aleonsandoval@sandiego.edu](mailto:aleonsandoval@sandiego.edu)

Chemistry and Biochemistry, University of San Diego

*I develop synthetic methods to access complex molecules, focusing on homologation reactions. I am passionate about mentoring students and fostering inclusivity in STEM through research and teaching.*

**Alex Malz** [aimalz@nyu.edu](mailto:aimalz@nyu.edu)

Physics, Carnegie Mellon University

*I am an astrostatistician focused on the use of large quantities of low-information-density, uncertainty-dominated data to infer the physics of the dark universe.*

**Justin Myles** [jmyles@astro.princeton.edu](mailto:jmyles@astro.princeton.edu)

Astrophysical Sciences, Princeton University

*I study observations of galaxies & clusters of galaxies to test models of the development of the Universe. I'm especially interested in weak gravitational lensing and galaxy cluster mass measurement.*

## RCSA Fellows: Navigating Your Academic Career in Fast-Changing Times

### 2025 RCSA Fellows Continued

**Melissa Quinnan** [mquinnan@ucsd.edu](mailto:mquinnan@ucsd.edu)

Physics, University of California, San Diego

*I am a postdoctoral researcher at UCSD working with Prof. Duarte and the CMS Collaboration at CERN interested in using AI to facilitate new physics discovery at the trigger and analysis level.*

**Sanaea Rose** [sanaea.rose@northwestern.edu](mailto:sanaea.rose@northwestern.edu)

Center for Interdisciplinary Exploration and Research in Astrophysics (CIERA), Northwestern University

*I explore how collisions in dense clusters shape stellar populations and drive extreme events like mergers and tidal disruptions. I enjoy making interdisciplinary connections across art and science.*

**Jenna Samuel** [jenna.samuel@austin.utexas.edu](mailto:jenna.samuel@austin.utexas.edu)

Astronomy, University of Texas at Austin

*I use computer simulations to study the evolution of galaxies from the smallest to the largest scales in the Universe.*

**Kunyu Wang** [kunyuwang95@gmail.com](mailto:kunyuwang95@gmail.com)

Chemistry, University of Pennsylvania

*My research focuses on self-assembly of nanoporous materials and their applications in chiral drug separation, luminescence sensing, and polyfluoroalkyl substance (PFAS) removal.*

**Eric Yang** [esy001@ucsd.edu](mailto:esy001@ucsd.edu)

Chemistry and Biochemistry, University of California, San Diego

*My interests are in using synthetic inorganic chemistry to develop and better understand complex materials.*

## RCSA Fellows: Navigating Your Academic Career in Fast-Changing Times

### 2024 RCSA Fellows

**Sarah Blunt** [sarah.blunt.3@gmail.com](mailto:sarah.blunt.3@gmail.com)

Astronomy & Astrophysics, University of California, Santa Cruz

*I am an astrophysicist interested in computational and statistical techniques. I focus on cataloguing the diversity of exoplanets in order to better understand how planets form.*

**Michelle Brann** [michellerbrann@gmail.com](mailto:michellerbrann@gmail.com)

Center for Astrophysics, Harvard University

*I am an astrochemist and conduct laboratory experiments to understand organic molecule abundances in interstellar ice analogs during planet formation.*

**Catherine Denning-Jannace** [catherine.denningjannace@duke.edu](mailto:catherine.denningjannace@duke.edu)

Chemistry, Duke University

*I will be studying the relationship between transition metals and virulence of fungal pathogens. Additionally, we will leverage these metal vulnerabilities to develop light-activated Ru prodrugs.*

**Philipp Gemmel** [philipp.gemmel@trincoll.edu](mailto:philipp.gemmel@trincoll.edu)

Chemistry, Trinity College

*I am interested in developing enzymes as tools to synthesize and modify small molecules. I want to establish inquiry-focused introductory science courses to increase student retention.*

**Said Jalife Jacobo** [sjalifej@central.uh.edu](mailto:sjalifej@central.uh.edu)

Chemistry, University of Houston

*My research focuses on developing computational models for the rational design of functional organic molecules for applications in organic electronics, spintronic devices and organic batteries.*

**William Ndugire** [wndugire@umass.edu](mailto:wndugire@umass.edu)

Chemistry, University of Massachusetts Amherst

*Interested in developing nanoparticle-based platforms to improve cancer therapy and diagnostics. Committed to inclusive and engaging chemistry education across diverse student populations.*

**Eugenia Vasileiadou** [evasileiadou@g.ucla.edu](mailto:evasileiadou@g.ucla.edu)

Chemistry and Biochemistry, University of California, Los Angeles

*My research interests focus on the rational synthetic design of functional inorganic (nano)materials. Educationally, I employ pedagogical processes in designing inclusive curricula in STEM. Unable to attend.*

## RCSA Fellows: Navigating Your Academic Career in Fast-Changing Times

### Participants

**Daniel Apai** [apai@arizona.edu](mailto:apai@arizona.edu)

Facilitator

Astronomy and Planetary Sciences, University of Arizona

*I am an astrophysicist and astrobiologist specializing in studies of extrasolar planets with the long-term goal of identifying planetary systems capable of supporting life.*

**Cyndi Atherton** [cynthia.atherton@gmail.com](mailto:cynthia.atherton@gmail.com)

Advisory Committee

Consultant

*I previously was a program director at two science philanthropies. I currently work as a consultant for science philanthropies.*

**Penny Beuning** [p.beuning@northeastern.edu](mailto:p.beuning@northeastern.edu)

Facilitator

Chemistry and Chemical Biology, Northeastern University

*DNA damage response, replication, and protein engineering, with applications in cancer and antibiotic resistance. Finding CUREs, active learning, graduate student and faculty professional development.*

**Luis Colón** [lacolon@buffalo.edu](mailto:lacolon@buffalo.edu)

Advisory Committee

Chemistry, University at Buffalo SUNY

*Synthesis, physicochemical characterization and application of new silica-based materials for chemical separations. A significant effort is devoted to advancing diversity in the chemical sciences.*

**Jackie Faherty** [jfaherty@amnh.org](mailto:jfaherty@amnh.org)

Advisory Committee

Astrophysics, American Museum of Natural History

*I work at the boundary of stars and planets as well as giant planets and brown dwarfs. I also work to create a more diverse STEM world than the one I entered through informal education at AMNH. Unable to attend.*

**Carmala Garziona** [garziona@arizona.edu](mailto:garziona@arizona.edu)

Guest Speaker

College of Science, University of Arizona

*Dean of the College of Science at the University of Arizona - I support student, faculty and staff success. I'm also a professor of geosciences and study interactions between mountains and climate.*

## RCSA Fellows: Navigating Your Academic Career in Fast-Changing Times

### Participants Continued

**Jennifer Heemstra** [heemstra@wustl.edu](mailto:heemstra@wustl.edu)

Keynote and Facilitator

Chemistry, Washington University in St. Louis

*Biomolecules do amazing things and I work with amazing people! We build technologies using DNA and proteins and leverage research to advance education and leadership for future science innovators.*

**Amy Landis** [amylandis@mines.edu](mailto:amylandis@mines.edu)

RCSA Board Member and Facilitator

Civil & Environmental Engineering, Colorado School of Mines

*My research focuses on sustainability of plastics and energy using LCA, TEA, and MFA.*

**Maura McLaughlin** [maura.mclaughlin@mail.wvu.edu](mailto:maura.mclaughlin@mail.wvu.edu)

Facilitator

Physics and Astronomy, West Virginia University

*I study neutron stars, the remnants of massive stars which have exploded in supernovae, and involve high-school and two-year college students in radio searches for these exotic objects.*

**Megan Núñez** [mnunez@wellesley.edu](mailto:mnunez@wellesley.edu)

Facilitator

Chemistry, Wellesley College

*My lab uses the tools of biochemistry and biophysics to explore the behavior of damaged DNA. Educationally, I am particularly interested in near-peer mentoring, both for faculty and students.*

**Keivan Stassun** [keivan.stassun@vanderbilt.edu](mailto:keivan.stassun@vanderbilt.edu)

Advisory Committee

Physics & Astronomy, Vanderbilt University

*Led the Cottrell Scholars Collaborative initiative that resulted in the RCSA Fellows program.*

# RCSA Fellows: Navigating Your Academic Career in Fast-Changing Times

## Research Corporation for Science Advancement

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