

Research Funding Opportunities for Early-Career Physics Faculty

Richard Wiener
Program Director
Research Corporation for Science Advancement
Tucson, Arizona

rwiener@rescorp.org

www.rescorp.org

Research Corporation Mission

- The Mission of Research Corporation for Science Advancement is to advance early-stage, high-potential, basic scientific research.

RCSA Vision

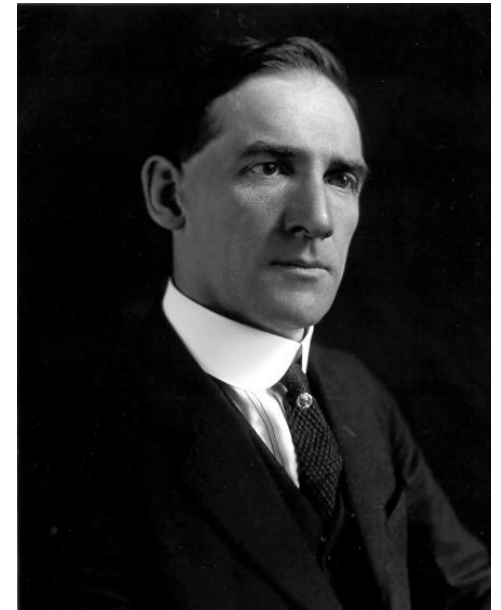
RCSA provides catalytic funding for grants, conferences and advocacy to support:

- Early career faculty
- Innovative ideas for transformative research
- Integration of research and science teaching
- Collaborative & multidisciplinary research
- Building tomorrow's academic cultures

Established 1912
by Frederick Gardner Cottrell
103 Years

Operates with private
endowment

Funds research projects
primarily from Chemistry,
Physics & Astronomy



Research Corporation for Science Advancement Focus

RCSA *partners* with Universities & Colleges to provide resources for early-career teacher-scholars to establish successful ongoing programs integrating cutting edge research & education.

Anacapa KITP Workshop Speakers

Funded by Research Corporation

- William Wootters: APS Prize for PUI Faculty*
- Jonas Mureika: CCSA
- Frederick Strauch: CCSA
- Trinanjan Datta: CCSA
- Nathan Harshman: CCSA
- Alex Small: CCSA
- Courtney Lannert: CCSA
- Sasha Dukan: 2 CCSAs
- Matthew Enjalran: CCSA

*Sponsored by Research Corporation

One Program to Rule Them All

(apologies to Tolkien)

- Cottrell College Science Award & Cottrell Scholar Award programs have been merged
- Research University and PUI faculty all apply to same program in third year
- Requires Research and Education Plans
- Cottrell Scholars are eligible for additional career advancement awards

Cottrell Scholar Award (CSA)

- Support innovative/transformational research
- Develop early career faculty committed to outstanding research & teaching
- Build/sustain a community of teacher-scholars – **the Cottrell Scholars Collaborative**
- Promote a culture of excellence in academic science research, education & leadership

www.rescorp.org

Teacher/Scholar Model

Resources

- ◇ Startup Package
- ◇ Reduced Loads
- ◇ Grant Matching
- ◇ Travel Support
- ◇ Equipment Funds
- ◇ Student stipends
- ◇ Pre-tenure Sabbatical

Expectations

- ◇ 2 or more proposals yr 1
- ◇ Set up research yr 1
- ◇ Involve students yr 1
- ◇ Revise proposals yr 2
- ◇ Present results yr 2 & on
- ◇ Publish results yr 2 & on
- ◇ Renew grants yr 3 & on
- ◇ Great teaching yr 1 & on
- ◇ Service yr 1 or 2 & on
- ◇ Fly over tenure bar yr 6

Big Picture Expectation

Establish & maintain a productive, exciting, well-funded research program that involves students & flourishes for decades while simultaneously being a great teacher!

3 Most Important Things to Do before Writing a Proposal

- Read the guidelines & FAQ
- Read the guidelines & FAQ
- Read the guidelines & FAQ

Then Talk with a Program Officer

www.rescorp.org

Core Idea

How do you select an idea to build a research proposal?

Successful Grant Writing

- Significance
- Originality
- Feasibility
- Address your audience

Statement of the Problem & Scientific Significance

- Put your science in context
- Show knowledge of the field with complete up-to-date references
- Include a clearly stated hypothesis or key idea
- Make a compelling case for significance and originality

Plan of Procedure

- Be specific! Provide details!
- Address feasibility issues and include alternative routes
- Quantitatively estimate expected improvement compared to previous work
- Show long-term goals and sustainability
- Make the case your research program will attract future funding
- Show how your research program involves students

Research Corporation for Science Advancement

www.rescorp.org

Program Directors:

Richard Wiener rw Wiener@rescorp.org

Silvia Ronco sronco@rescorp.org