

# AGeS-Grad information session

December 1, 2022



*Let's take a selfie!*



# Agenda

- Overview (Becky Flowers)
- Financials (Ramon Arrowsmith)
- Cohorts and cohort-building (Jacky Baughman)
- Grad experiences (Haley Thoreson, Nicolas Perez)
- Questions?

# AGeS-Grad Overview

[agesgeochronology.org](https://agesgeochronology.org)



**Advancing Geochronology  
Science Spaces Systems**

## AGeS-Grad

(Graduate Student Research)

*110 Awards total*

*\$8500 Average*

*5 proposal cycles*

*Years: 2023, 2024, 2025, 2026, 2027*

## AGeS-DiG

(Diversity in Geochronology)

*30 Awards total*

*\$13,500 Average*

*3 proposal cycles*

*Years: 2023, 2025, 2027*

## AGeS-TRaCE

(TRaining and  
Community Engagement)

*20 Awards total*

*\$10,000 Average*

*2 proposal cycles*

*Years: 2024, 2026*

# AGeS-Grad: Goals and Program Structure

[agesgeochronology.org](http://agesgeochronology.org)

## What are the AGeS-Grad Program Goals?

- Broaden access to geochronology data
- Educate users of data
- Promote synergistic science
- Produce valuable data for projects in which both data users and producers are intellectually engaged

**How does the program work?** AGeS-Grad is a competitive, proposal-driven, micro-funding program that offers up to \$10k in support for graduate students to obtain hands-on experience acquiring geochronology data in labs, while being mentored by geochronologists on a project of joint interest.

# **AGeS-Grad: Program Information**

[agesgeochronology.org](https://agesgeochronology.org)

**What can AGeS-Grad funding be used for?** Awards can be used for analytical costs, sample preparation, travel to the host lab, lodging, and related expenses.

**Who can apply?** Graduate students in the U.S. or its territories

**Do I need to have geochronology experience to be competitive for support?** No. AGeS specifically seeks to develop and promote new collaborations and new experiences in geochronology.

**When is the proposal deadline?** **Feb 1, 2023**

# **AGeS-Grad: Proposal Process**

[agesgeochronology.org](http://agesgeochronology.org)

## **How do I find a geochronology lab to work with?**

- AGeS currently includes a consortium of 64 geochronology labs and >100 affiliated geochronologists.
- Visit the AGeS website to view the profiles of all 64 AGeS labs
- Each lab can support up to 4 proposals in a given AGeS-Grad cycle

## **How do I initiate an AGeS proposal?**

- Initiate contact with a lab to propose a project
- If the lab is interested in the project, the lab will help the student refine and clarify their proposed research and ultimately will submit a support letter for the project

# **AGeS-Grad Overview: Proposal Process**

[agesgeochronology.org](http://agesgeochronology.org)

## **How do I apply?**

- Through the submission portal on the AGeS website
- Complete the project description for your proposal, including intellectual merit and broader impact components
- Following proposal submission, your home institution supervisor and the host lab will be asked to submit letters of support

## **Who will review my proposal?**

- Review by 10-member committee
- At least two reviewers provide feedback on each proposal
- Unanimous committee support of final rankings and awards
- The committee may partially fund proposals

# AGeS-Grad Overview: Review Criteria

[agesgeochronology.org](http://agesgeochronology.org)

## Intellectual merit: Proposal Quality (70 points total)

### 1. Overall significance (35 points)

General quality of the proposed research, including its scope, importance, and relevance to NSF-EAR science goals. Clarity of the proposal's central question or hypothesis.

### 2. Project design (25 points)

General likelihood that the research will be able to answer the central question or hypothesis of the proposal and produce useful results. Considerations can include the choice of technique, sampling strategy, and whether the proposed methods are well-established or experimental. AGeS is willing to fund well-designed, higher-risk projects.

### 3. Coordination, timeline, and budget (10 points)

Assessment of the proposed timeline and budget, specifically considering the time required for sample acquisition and preparation, training, analysis, and interpretation. This criterion relies partially on good coordination between the proponent and the hosting facility, evaluated based on the student proposal, the clarity of the lab plan, and the support letters. Budgetary considerations can include the availability of other sources of funding.



# **AGeS-Grad Overview: Review Criteria**

[agesgeochronology.org](http://agesgeochronology.org)

## **Broader Impacts: Expanding access and building networks (30 pts total)**

### **1. Expanding Access: Potential for fostering the acquisition of new geochronology skills by the student (15 points)**

The extent to which this research provides a new and otherwise unavailable opportunity for the student to obtain experience with and training in analytical work and geochronology.

### **2. Building networks: Potential for fostering new research collaborations (15 points)**

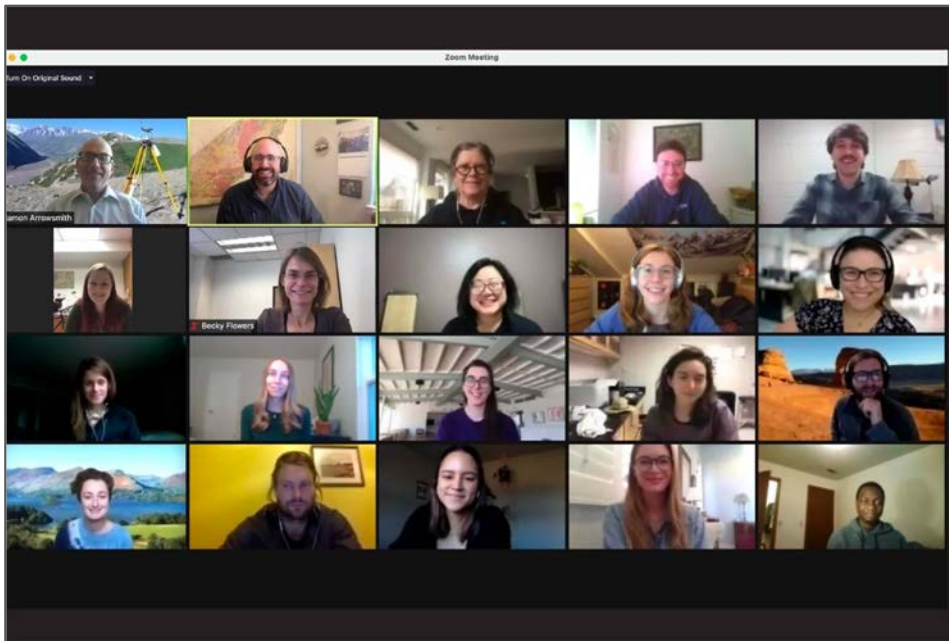
The degree to which this research will create new partnerships and opportunities, including collaborations between different institutions and/or research groups.

## AGeS awards do not go directly to the students nor to their institutions

- Travel is generally reimbursed, although we also work with students for airfare purchased in advance, etc. to ease your financial burden.
- Lab and other processing costs are invoiced directly to ASU upon analysis completion.

Awardees can spend up to their award amount until the date specified in their award documents (typically within one year of the award).

# AGeS-Grad Community and Cohort Building Activities



Zoom Call in Feb. 2021 with AGeS-Grad  
Awardee 2020 Cohort

## Virtual Support as an AGeS Awardee

- **Jacky Baughman - Cohort Lead**
  - [jacky.baughman@humboldt.edu](mailto:jacky.baughman@humboldt.edu)
  - [gradcontact@agesgeochronology.org](mailto:gradcontact@agesgeochronology.org)
- **Cohort Zoom check in**
  - Lab visit planning
  - Share project progress
- **Slack channel**
  - Full AGeS-Grad community
  - Channels by tool
  - Channels by cohort
  - Ask questions and share successes

# AGeS-Grad Community and Cohort Building Activities

## Building Geochronology Community

- **AGeS-Grad Virtual Symposium**
  - Share your science!
  - Breakout sessions
    - Networking practices
    - Successful collaborations
    - Academic and other careers
- **AGeS Awardee Spotlights**
  - Monthly spotlight planned
  - Project Profiles for all awardees posted at end of project

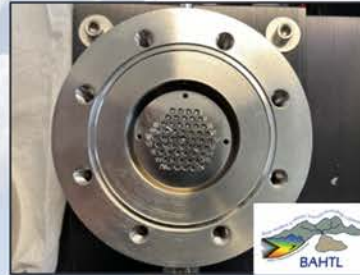
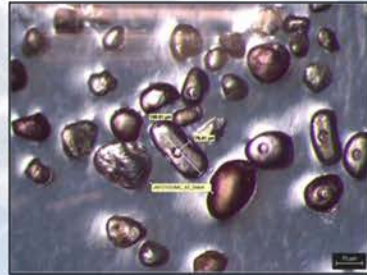


AGeS Workshop prior to GSA Annual Meeting, Boulder, CO, October 2022

- **Opportunity for in-person meetups during conferences**

# Eocene Basin Record of Metamorphic Core Complex Exhumation in the Western United States Cordillera

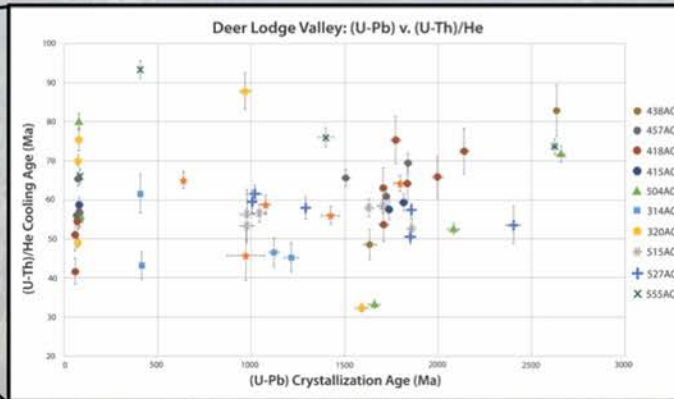
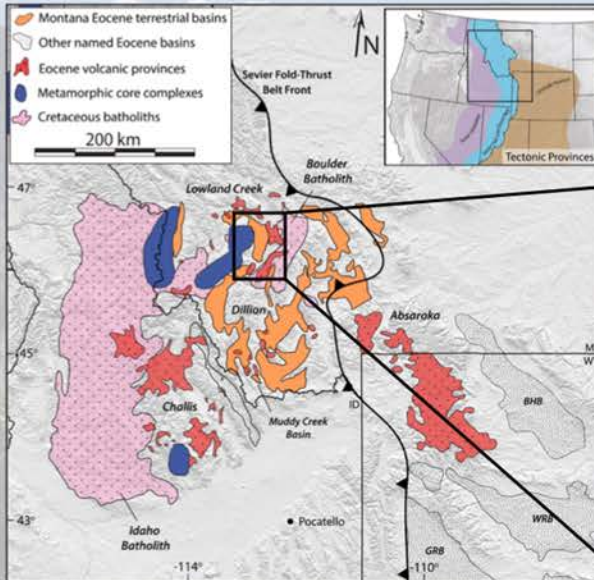
Haley E. Thoresen



## Successes

- ✓ Large Detrital Zircon (U-Th)/He Dataset  
*n = 89 dates*
- ✓ Very positive + informative lab experience
- ✓ High impact preliminary results

**Goal:** Determine the timing of exhumation and extension, and what controls the distribution.



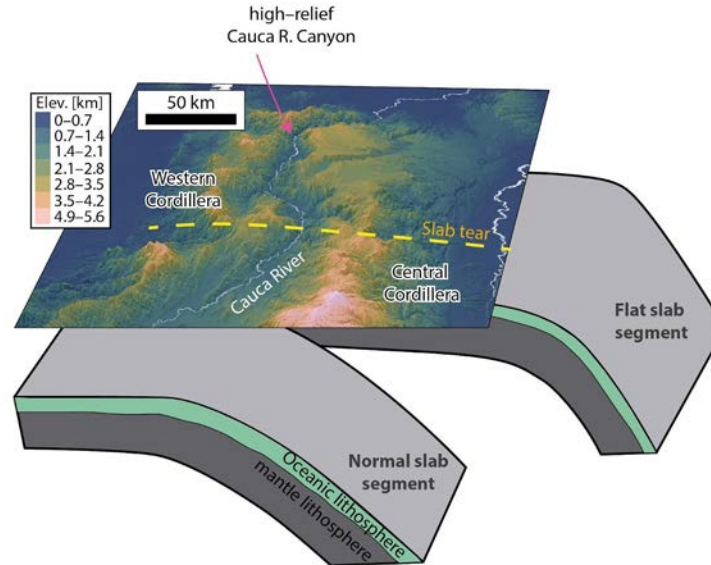
## Advice

Start your grant early and don't be afraid to ask for help from your collaborating lab... especially with budget, timeline & sampling plan!

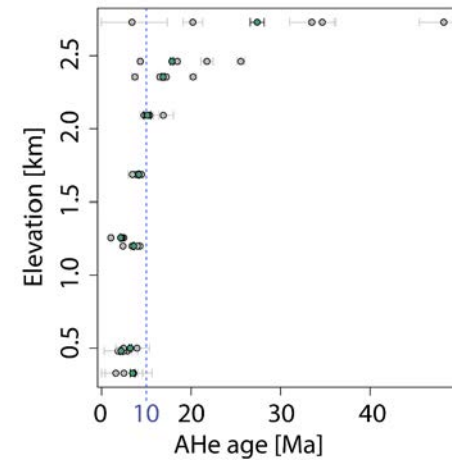
# Unraveling the incision of the Cauca River Canyon of the Northern Andes using AHe thermochronology

Nicolás Pérez-Consuegra **Syracuse University (now at MIT)**

Lab: CUTrail Boulder, CO



## Vertical profile of AHe ages



Cauca Canyon, Colombia



Boulder, CO

1. Successes
  - Preliminary results useful to test hypotheses
  - Efficient lab. Experience
  - Learn new technique
  - Opportunity to network
1. Advice
  - Write the proposal using the rubric
  - Don't be afraid to ask questions

# Questions?

From the Google Form:

- Can I apply to cover two different dating techniques in two different labs that are partners of the program?
- When should I contact a lab?
- How long will I be at a lab?
- Is this grant meant to supplement my research or should it be its own science question?

You are welcome to put questions in the chat or raise your (Zoom) hand and ask a question.