

# AGeS-Grad information session

December 16, 2024

Next proposal deadline: **Feb 4, 2025**

AGeS Website: [www.agesgeochronology.org](http://www.agesgeochronology.org)

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# Agenda

- Overview (Becky Flowers)
- Financials (Ramon Arrowsmith)
- Cohorts and cohort-building (Jacky Baughman)
- Network committee and grad experience (Jonathan Anaya)
- Questions?

# AGeS-Grad Overview

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

2025 will be **9th** AGeS-Grad proposal cycle.

**121 AGeS-Grad awards** have been made across AGeS1-3



**Advancing Geochronology**  
**Science Spaces Systems**

## AGeS-Grad

(Graduate Student Research)

*110 Awards total*

*\$8500 Average*

*5 proposal cycles*

*Spring 2023, 2024, 2025, 2026, 2027*

## AGeS-DiG

(Diversity in Geochronology)

*24 Awards total*

*Up to \$18,000 each*

*3 proposal cycles*

*Fall 2023, 2025, 2027*

## AGeS-TRaCE

(TRaining and  
Community Engagement)

*20 Awards total*

*\$10,000 Average*

*2 proposal cycles*

*Fall 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 proposal-driven program that offers up to **\$10,000** for graduate students to acquire geochronology data for their research projects and provides hands-on experience in labs while being mentored by geochronologists.

# **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. AGeS seeks to fund broadly in terms of research, geochronologic technique, and participants.

**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.

# **AGeS-Grad: Program Information**

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

**How many awards will be made in 2025? 18-22**

**What was the proposal success rate last year? ~42%**

**When is the proposal deadline? Feb 4, 2025**

# **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 >60 geochronology labs and >100 affiliated geochronologists.
- Visit the AGeS website to view the profiles of all 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: 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: Review Criteria

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

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

### 1. Overall significance (30 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.

# **AGeS-Grad: Review Criteria**

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

## **Intellectual merit: Proposal Quality (70 points total) - Continued**

### **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.

### **3. Effectiveness of the figure (5 points)**

The figure contributes to explaining the overall project significance, project design, or sampling plan (4 points). The figure is referred to in the proposal text and includes a clearly written caption (1 point)

# **AGeS-Grad: Review Criteria**

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

## **Broader Impacts: Building networks and expanding access (30 pts total)**

- 1. Building networks: Potential for fostering new research collaborations and a greater sense of belonging in geoscience (15 points)**

The degree to which this experience will increase a sense of belonging in geoscience for the student by creating new partnerships and opportunities, including new collaborations between different institutions, research groups, and individuals.

- 2. Expand access: Potential for fostering the acquisition of new geochronology skills by the student (15 points)**

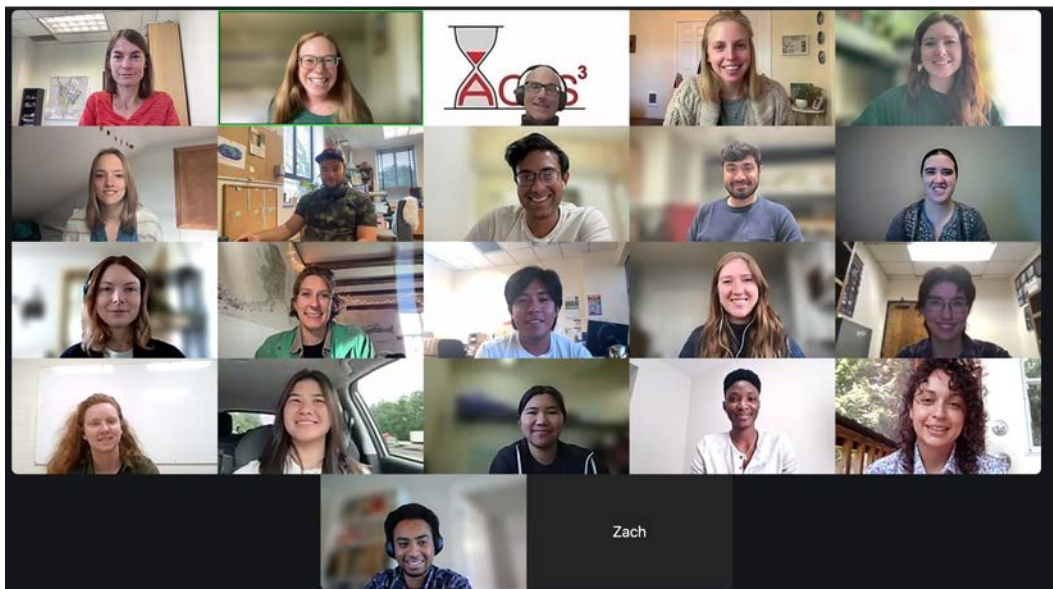
The extent to which this research provides a new and otherwise unavailable opportunity for the student to obtain experience with and training in analytical work and geochronology

## **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 May 2024 with AGeS-Grad  
Awardee 2024 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 Virtual Symposium**
  - Share your science!
  - Breakout sessions
    - Successful collaborations
    - Academic and other careers
- **AGeS Awardee Spotlights**
  - Bimonthly spotlight
  - Project Profiles for all awardees posted at end of project
- **Opportunity for in-person meetups during conferences**



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



# AGeS<sup>3</sup> Network Committee

## Community Spotlights

### What is the network committee?

We assist with building and maintaining the AGeS community through activities that bring together past and new AGeS awardees and that showcase the people side of AGeS.

### What do we do?

- Happy hour socials at conferences
- Virtual meetings
- AGeS Spotlights
- & more to come!

### Community Spotlight

Liz Aparicio, Jane Martinez, Dennis Lindelof, Emily Shiver, Jacob Aguilera, Lisa Elconin (Cal Poly Humboldt Undergrads) and Jacky Baughman, Melanie Michalak (Profs)



#### Q: Tell us about yourself.

We are cohort of 6 undergraduate students and 2 professors from Cal Poly Humboldt that conducted tectonics and thermochronology research over the '22-'23 academic year! We are now grad students, geologists, or continuing our undergrad education.

#### Q: How are you connected to the AGeS program?

Our research and experience was funded by the first round of the DIG (Diversity in Geochronology) award program.

#### Q: Describe your research.

We used low temperature thermochronology to investigate the thermo-tectonic response of the Northern Klamath Mountains to the Eocene Siletzia Collision. Turns out the major collision episode did not lead to a large amount of exhumation in the Klamaths - we're thinking that the collision was accommodated by strike-slip faults along the Siletzia-Klamath boundary.

#### Q: What geochronologic techniques do you use?

We used apatite and zircon (U-Th)/He. CU Trail at the University of Colorado Boulder provided our analyses and we got an awesome virtual tour of the lab.

#### Q: What excites you about your research?

Learning new skills and software that can be applied to research, piecing together geologic puzzles, and having the opportunity to present our work to other scientists at the GSA Cordilleran meeting - we even won an award!

#### Q: What are your hobbies outside work?

We all do different things like rock climb, knit, play video games, and enjoy the beautiful places we live, work, and travel to!

#### Q: What inspired you to get into the earth sciences?

Many of us were inspired by the natural environment around us and grew up wondering...how did those mountains get there. We like that geologists use a range of sciences (chemistry, physics, biology, computer science) to answer fundamental questions about Earth. And our science is really relevant.



University of Colorado Boulder



### Community Spotlight

Nicolas Perez-Consuegra  
(he/him)  
penico93@gmail.com



#### Q: Tell us about yourself.

I am a postdoc at MIT and will be starting as an Assistant Professor at Weber State University in Ogden, Utah in the Fall of 2023. I was born in Colombia and have been living in the states for the past 6 years.

#### Q: How are you connected to the AGeS program?

I obtained an AGeS2 award during my PhD at Syracuse University.

#### Q: Describe your research (Beyond AGeS).

I am a fluvial geomorphologist and conduct multidisciplinary research at the nexus between earth's surface processes, climate, and biodiversity. I am interested in questions such as how precipitation rates and tectonic uplift rates influence erosion in mountain ranges, how past changes in paleoclimate may have affected river incision and how dynamic reorganization of river basins can result in

#### Q: What geochronologic techniques do you use?

I used Apatite U-Th/He. I conducted my analyses at the CUTrail laboratory at the University of Colorado Boulder under the supervision of Dr. Becky Flowers.

#### Q: What excites you about your research?

I am a very curious person, and I am interested in understanding the processes and timescales that relate geological, biological, and climatic evolution.

#### Q: What are your hobbies outside work?

I love to run, bike, read and watch movies.

#### Q: What inspired you to get into the earth sciences?

I started studying Physics as an undergrad and it was by chance that I met a friend who was studying Geosciences and inspired me into taking some intro courses. After the first Intro to Geology class, I knew this was my passion. When I look back, I see that my family has always had a close relationship with nature. As a child we would often do fossil hunts during hikes in the mountains of Colombia.



University of Colorado Boulder



**Questions? Please reach out to  
[jonathan.anaya@student.nmt.edu](mailto:jonathan.anaya@student.nmt.edu)!**

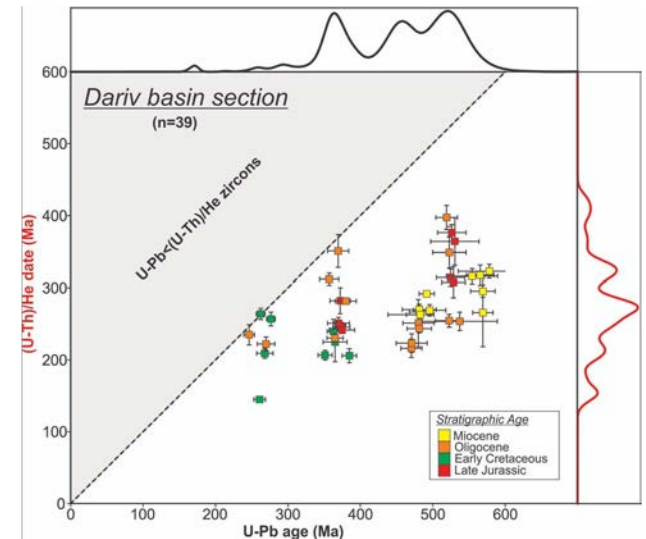
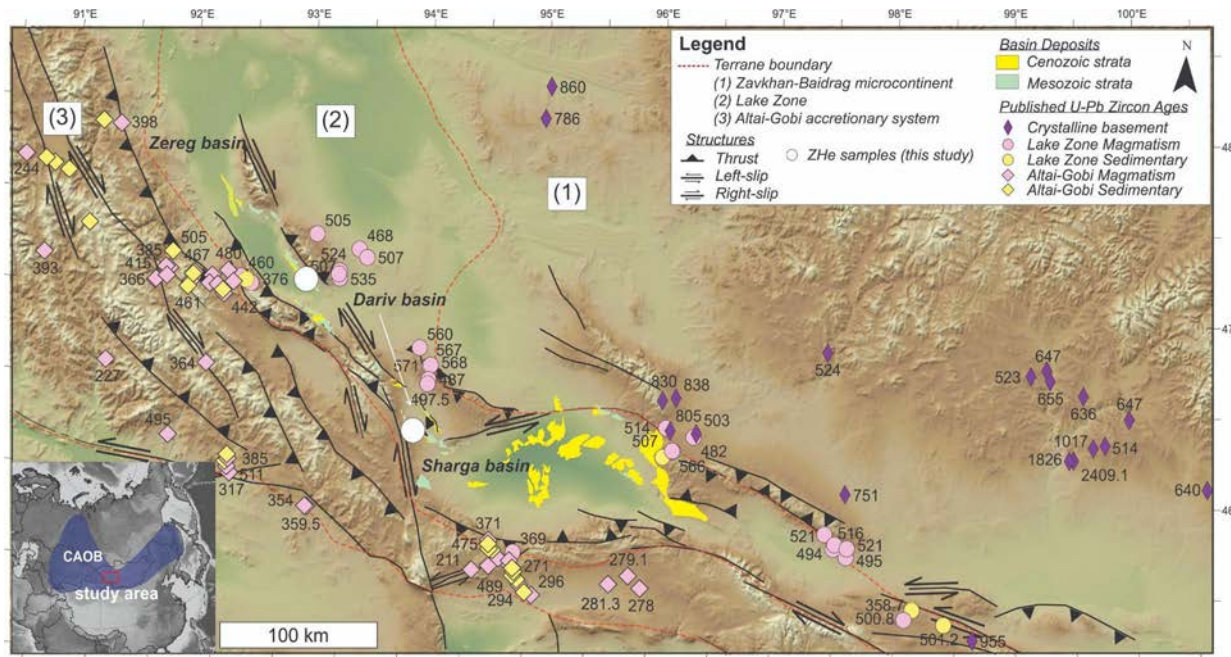


University of Colorado Boulder



# Investigating Cycles of Mountain Building Using Detrital Zircon Double Dating (U-P and (U-Th)/He) in the Mongolian Altai

*Jonathan A. Anaya, Ryan J. Leary (advisor), Julie C. Fosdick (Lab mentor)*



**Goal:** Using detrital zircon U-Th-He modes to model deep-time cooling episodes in the Mongolian Altai

**New ZHe dataset (~80 dates).**  
**New collaboration NMT-UConn.**  
**Positive lab experience.**  
**A chapter in my PhD thesis.**

Advice:

- Contact a potential host lab as soon as possible (even if your proposal is not completely written).
- Ask for help!



**Questions?**