

Alexander T. Paulchell

University of Arizona - College of Education, Tucson, AZ 85712 • atpl@arizona.edu

EDUCATION

PhD Student - Teaching, Learning, & Sociocultural Studies University of Arizona, Tucson, AZ	In Progress Year 3
Master of Education John Carroll University, University Heights, OH	May 2015 Summa Cum Laude, 4.0 GPA
Bachelor of Science , Molecular Genetics The Ohio State University, Columbus, OH	June 2012 Magna Cum Laude, 3.75 GPA

PROFESSIONAL EXPERIENCE

Graduate Teaching Assistant

University of Arizona - College of Education, Tucson, AZ August 2023 - Present

- TLS 324 - Teaching Science in Elementary Schools
 - Methods of elementary school science instruction with emphasis on the knowledge and practices necessary to teach science in K-8 classrooms with diverse student populations.
- TLS 308 - Environmental Science for Elementary Teachers
 - Students learn physical, life, Earth and space science, and engineering concepts and scientific practices included in the elementary and middle school science curriculum.
- TLS 409 - Foundation of Education for Social Justice
 - Foundations of the legal, social, historical, cultural, and political contexts of public education with a focus on marginalized student populations and developing socially just systems.

Graduate Research Assistant

University of Arizona - College of Education, Tucson, AZ August 2023 - August 2025

- Learning Progressions in Science: Analyzing & Deconstructing the Multiple Dimensions in Assessment (LPS3)
 - Project Description: LPS3 is a continued investigation about how well the learning progressions for scientific argumentation, patterns, and the three disciplinary core ideas (physical science, life science, and earth science) can be measured. Additionally, teacher utility of learning progressions, assessments, and results is considered.
 - Role: created tasks to measure students' learning progressions through concepts including natural resources, human impacts, and patterns, conducted student think-aloud interviews, and analyzed student responses to revise task items

American Association of Immunologists Summer Teaching Intern

Ramakrishnan Immunology Lab: Case Western Reserve University June 2022 – July 2022

Science Teacher

Beachwood High School, Beachwood, OH August 2015 - August 2023

- Courses Taught: Honors Anatomy & Physiology, Honors Biology, Biology, Chemistry
- Extracurricular: GSA (Gender & Sexuality Alliance), Student Council, Trip Chaperone (Costa Rica)

Mentor Teacher - Resident Educator Program

Beachwood High School, Beachwood, OH August 2019 – August 2023

Molecular Genetics Research Team Member

Seeger Lab: The Ohio State University, Columbus, OH September 2011 – May 2012

PUBLICATIONS & MAJOR COURSE PAPERS

Paulchell, A. (2022) "Examining the Lymphatic System through the Lens of Type 1 Diabetes" published to the *American Association of Immunologists High School Science Curriculum Databank*.

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PRESENTATIONS

- Paulchell, A. (2025, May 14). *How queer theory informs scientific inquiry and the development of science identity*. [Remote Presentation/Discussion]. Seminar: Fostering Science Identity in Physics and Science Education, Freie University, Berlin, Germany.
- Paulchell, A., & Gunckel, K. L. (2025, March). Queering the Scientific Method: How Rosalind Franklin's DNA Work "Reveals" the Queer Nature of Inquiry. In Tan, E. (Presider), *Creating a rightful presence for LGBTQ+ people in STEM*. Paper presented at the NARST Annual International Conference, Washington, D.C.
- Paulchell, A., Hubbard, M., Xue, M., Gunckel, K. L., Morell, L., & Wilson, M. (2025, March). *Designing three-dimensional assessment tasks for classroom formative assessment*. Paper presented at the NARST Annual International Conference, Washington, D.C.
- Paulchell, A. (2024, October 3). *Growing a growth mindset: characterizing how and why undergraduate students' mindsets change* [Remote Presentation/Discussion]. STEM Education Research and Practice Faculty Learning Community, Academic Affairs, University of Arizona, Tucson, Arizona.

RELEVANT SERVICE

Professional Learning and Institutes Committee Member

NARST: National Association for Research in Science Teaching

March 2025 – Present

Board Member: Treasurer

STEMteachersCLE, Cleveland, OH

August 2018 – August 2023

Disability Advocacy Research Team Member

The Arc of Greater Cleveland, Cleveland, OH

August 2012 – May 2013

HONORS AND RECOGNITION

Everett L. and Marian G. Holden Memorial Scholarship

University of Arizona, Tucson, AZ

\$1500

Sally H. Wertheim Educational Leadership Award

John Carroll University, University Heights, OH

\$5000

May 2015

Golden Apple Award: Excellence in AYA Life Science Education

John Carroll University, University Heights, OH

May 2015

CERTIFICATIONS

CITI Certified

- Human Research (Curriculum Group)
- Behavioral Research Investigators (Course Learner Group)
- Responsible Conduct of Research

University of Arizona

- FERPA Training: For Instructors & Instructional Support Team

CONFERENCES

NARST (National Association of Research in Science Teaching) 2025 Annual Conference

March 2025

NARST (National Association of Research in Science Teaching) 2024 Annual Conference

March 2024

AAI (American Association of Immunologists) Introductory Course in Immunology

July 2022

PROFESSIONAL AFFILIATIONS

- **NARST**: National Association for Research in Science Teaching
- **NSTA**: National Science Teaching Association

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