

Ali O. Saber

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EDUCATION

[LinkedIn](#) | [Portfolio](#)

University of Pennsylvania, School of Arts and Sciences, Philadelphia, PA

May 2026

Bachelor of Arts majoring in Biochemistry and Chemistry

Vagelos Molecular Life Sciences Scholar | Penn World Scholar

HONORS/AWARDS

Distinction in Biochemistry

May 2026

Distinction in Chemistry

May 2026

Penn Global Citizenship Award

May 2026

Penn World Scholar of the Year Award

May 2026

PUBLICATIONS

Williams L*, Saber AO*, Awad S, Su X, Ansari A, Xu R, Jung H, Shahane A, Baker JF, Su LF. *Divergent effects of cytomegalovirus and rheumatoid arthritis on senescent CD4 T cells*. **European Journal of Immunology**. [2025;55:e70093](https://doi.org/10.1002/eji.70093). doi:10.1002/eji.70093. *Co-first authors.

YI-Hui Lai; Xi Su; Silina Awad; Asgar Ansari; Juneil Jang; **Ali O Saber**; Hung-Wen Chen; Hannah Jang; Annesha Sarkar; Elizabeth M Drapeau; Warren B Bilker; Scott E Hensley; Laura F Su. *Serial vaccination expands and refines human CD4+ T cell memory*. **Journal of Clinical Investigation**. <https://doi.org/10.64898/2026.04.11.716570>
Under Review

RESEARCH EXPERIENCE

Laura F. Su, Institute for Immunology and Immune Health, University of Pennsylvania, Philadelphia, PA

Research Specialist

July 2026 – Present

- Produce and purify recombinant proteins using baculovirus insect cell expression and Expi293 mammalian cell expression systems, while optimizing workflows for yield, quality, and reproducibility.
- Develop and optimize a splenocyte-based ex vivo organoid culture system for immune-cell studies.
- Generate peptide-MHC class II tetramers and evaluate measles-derived peptides to identify and characterize measles-specific CD4+ T-cell responses.

Undergraduate Researcher

June 2023 – May 2026

- Investigated how cytomegalovirus infection and rheumatoid arthritis differentially affect the phenotype and function of senescent CD4+ T cells.
- Conducted experiments and high-dimensional phenotypic analyses contributing to a co-first-author publication in the European Journal of Immunology.
- Contributed to data interpretation and manuscript preparation for the resulting peer-reviewed study.
- Initiated and systematically troubleshoot a recombinant protein expression and purification system by evaluating culture, expression, and purification conditions.

PRESENTATIONS

Saber, A. O. "Divergent effects of cytomegalovirus and rheumatoid arthritis on senescent CD4+ T cells."

Poster presented at the Penn Immunology Graduate Group (IGG) Retreat October 2025, Atlantic City, NJ.

TECHNICAL PROJECTS

Low-Cost 96-Well Plate Position Tracker (Independent Project)

- Identified the need for a visual well-position tracking system during multistep assays.
- Designed and built a microcontroller-based LED guidance system (ESP32) to highlight individual wells during plate workflow steps, reducing pipetting errors and improving experiment reproducibility.
- Created the full prototype using 3D design/printing, firmware development, and hardware assembly techniques.

Stirling Engine with Hall-Synchronized POV Display (Course Project)

- Designed a Stirling engine assembly in SolidWorks, machined its metal components, and recorded 672 RPM during testing; received the course's Audience Choice Award.
- Integrated an ESP32, Adafruit LEDs, and a Hall-effect sensor with an acrylic second flywheel and polyurethane belt to create a rotation-synchronized persistence-of-vision display.

LEADERSHIP & COMMUNITY ENGAGEMENT

TEDxKirkuk and TEDxTikrit, Kirkuk & Tikrit, Iraq

Co-Organizer

February 2025 – Present

- Helped establish two independently organized TEDx chapters, securing official licensing and building core organizing teams.
- Managing outreach efforts to potential sponsors and partners to secure funding for inaugural events.
- Coordinating early-stage planning, branding, and community engagement to lay the groundwork for future conferences.
- Successfully launched the first TEDxKirkuk event, hosting over 200 guests and featuring speakers across science, culture, and innovation.

Kurdish Students Worldwide

Founder and President

March 2025 – Present

- Built a platform for Kurdish students around the world to connect and provide peer mentorship.
- Organizing cultural and social events fostering visibility and community for students on University of Pennsylvania's campus.

International Students and Scholars Services, University of Pennsylvania, Philadelphia, PA.

Cohort Leader, Penn World Scholars Program

August 2022 – May 2026

- Leading a highly selective program (15 students a year) for exceptional international undergraduates with strong leadership profiles.
- Represent class in program activities, coordinate peer support, and serve as liaison between students and program leadership.
- Organize events and foster community engagement among a diverse, globally minded group of scholars.

Penn Arab Students Society, University of Pennsylvania

Vice President

February 2024 – February 2025

- Oversaw the Social Planning Committee and coordinated cultural and social events for over 150 members.
- Managed partnerships with off-campus venues and vendors to organize formal gatherings and community events.
- Collaborated with executive board members to expand engagement and promote cross-cultural dialogue on campus.

VOLUNTEERING

FIFA World Cup 2026

Guest Operations

May 2026 – July 2026

- Supported guest operations in VIP and VVIP hospitality lounges by answering questions and directing guests to designated areas.
- Escorted VVIP guests to assigned locations and coordinated with event staff to facilitate smooth guest movement.
- Provided professional, guest-focused assistance in a fast-paced international event environment.

FIFA Club World Cup 2025

Fan Operations

May 2025 – July 2025

- Directed fans to assigned seating, venue areas, activities, and event services while responding to questions about schedules and stadium operations.
- Assisted guests with disabilities by guiding them to accessible seating and designated facilities.
- Communicated with fans and event personnel to resolve questions and support safe, orderly movement throughout the venue.

SKILLS & INTERESTS

Lab Procedures: Flow cytometry, ELISA, protein purification, insect cell protein expression (baculovirus system), mammalian cell protein expression (Expi293) system, peptide MHC II tetramer making, SDS-PAGE, lymphocyte isolation and processing, gut processing, human organoid system set up.

Technical: Scientific protocol development; data visualization with R and Python; embedded systems prototyping using ESP32 (3D CAD design, firmware programming, hardware integration); 3D printing and laser cutting; Microsoft Office Suite.

Interests: Science communication, cultural diplomacy, embedded electronics projects, photography (work featured in a gallery).

Languages: English (fluent), Kurdish (native), Arabic (fluent), Azerbaijani (fluent), Turkish (advanced), Persian (intermediate)