ASDRP [NewsBytes]

Aspiring Scholars Directed Research Program

Week of August 2 - 8, 2025

Announcements, Shoutouts, and Accolades

Blitz Talks are coming soon! Please check your email for the registration link and the webpage for presenter information, schedules, timings, etc.

Blitz Talks is ASDRP's online version of the In Person Expo & Research Symposium. Blitz Talks consist of short, ten minute, online oral research presentations (via zoom) given by ASDRP student researcher teams. We typically have over 60 presentations separated into 10 breakout rooms on zoom.

Date: Tuesday, August 19, 2025
Time: 7:00 - 9:00 PM
Location: Zoom

Student Registration:
How do I register my team and abstract? Click here to learn more.

Deadline to Register: Friday, August 15, 2026 @ 11:59 PM

Do I need to attend if I am not presenting? Yes, all students are required to attend. This is ASDRP's research conference for all students and family members of ASDRP.

Presenter Registration Deadline: Friday, August 15, 2025 @ 11:59 PM PDT

Guests: Guests do not need to register in advance but must follow all online meeting guidelines in order to participate. More info will be sent to parents the week before the Blitz Talks.

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And the Next Month after that - September

Expo & Symposium @ Mission College

Saturday, Sept 13 @ 9:30 AM - 1:00 PM

A Few Notes about Attending and Participating in Conferences

1. Students should discuss plans with advisors *early* rather than *late.*
2. Science and continued progress is key…
3. Conference registrations and abstract submissions are typically submitted 5-8 months in advance.

Why conferences?

1. **It's part of the scientific process.** Scientists sharing science is how things move forward!
2. **It builds presentation skills.** Nothing like being able to talk about your science!
3. **It is great for networking.** Meeting others from the same or from different fields is part of our goal!

Advisors decide which projects are ready for conferences, poster, presentations, etc.

From time to time, faculty at ASDRP may bring their students to a conference outside of the organization to present their work. Typically, it is students who have been working on research for several months to a year who can generate data of sufficient quality to present at a conference, whose abstracts still undergo a review process by the

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conference, wherein a student's work is measured against the bar in that field of study.

Some conferences, such as IEEE conferences, the American Chemical Society National Meeting, Society for Neuroscience, or ASBMB, are conferences that are meant for industry professionals, postdocs, or postgraduate students. These are quite intense experiences for students to engage in, and every year we have a half dozen or so faculty who elect to bring their students to a conference of this caliber.

Some of these conferences are more student-friendly, and perhaps are catered for undergraduates. For example, each year, over a dozen faculty bring students to the Southern California Conferences for Undergraduate Research (SCCUR). Typically, conference submissions are due months in advance of the actual conference. For example, the ACS National Meeting, which students from some of our chemistry labs go to every year, is a big national level conference where abstracts must be submitted six to nine months in advance to be considered for the conference that year. This means that kids who go with their advisor to such a conference have been at ASDRP for a year or more.

As is true in publishing work, it is ultimately each advisor's prerogative to identify and decide when a project has reached a sufficient level to present at a conference, which conferences (if any) they will bring students to, etc.

Parent Volunteer Opportunities

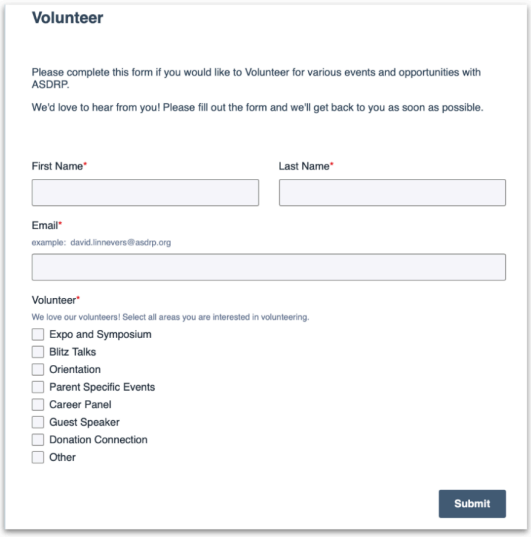
ASDRP
Aspiring Scholars Directed Research Program

Sept 13:

ASDRP Expo & Symposium

@ Mission College

8:30am - 1:30PM



Volunteer

Please complete this form if you would like to Volunteer for various events and opportunities with ASDRP.

We'd love to hear from you! Please fill out the form and we'll get back to you as soon as possible.

First Name* Last Name*

Email*
example: david.linnevers@asdrp.org

Volunteer*
We love our volunteers! Select all areas you are interested in volunteering.

- [ ] Expo and Symposium
- [ ] Blitz Talks
- [ ] Orientation
- [ ] Parent Specific Events
- [ ] Career Panel
- [ ] Guest Speaker
- [ ] Donation Connection
- [ ] Other

Submit

Parent Volunteers…sign up today! Parent Volunteer Form link - click here.

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In our 8/9 week of R101 and R201

Last week, both of our flagship research core courses launched officially for the summer semester. Research 101, which is our **"Introduction to Research"** Pre-Work course for first semester students, began with a blast at 9:30 AM with a packed room of our rising freshmen coming together for 101 and donuts. This summer, Dr. Edward Njoo and Prof. Clinton Cunha are our co-instructors for R101, and have spent much time redeveloping the course content with the aim of driving student engagement in connection to other aspects of ASDRP life.

[Research 101 Summary] *This week, Dr. Njoo introduced Module 9, with the aim of describing to new researchers the importance of scientific research writing. The course started with an exercise on reviewing google scholars, how to cite, and interpreting scientific research papers. Check out the resources on the Journal for Emerging Investigators (JEI) Website. JEI https://emerginginvestigators.org/ has a fantastic section on how to write scientifically. The class also went over several examples of publications in the public domain, including going into depth on how referencing is done rigorously in a joint paper in Artificial Intelligence Chemistry (2024) published between Dr. McMahan, Dr. Akl, and Dr. Njoo last year.*

This summer, Research 201, which is mandatory for all second-semester students, launched earlier this month, this time with Dr. Larry McMahan and Dr. Harrison Rahn at the helm. The intention of 201 is to continue the development of hard-core research skills, such as rigorous referencing, literature reviews, and preparing high quality figures, for our second semester students who are now deep in the thicket of research.

[Research 201 Summary] *This week, we launched our third practical - Project Planning and De-risking research strategies. This week, the instructional team discussed the importance of pre-planning resource and task-management in research, related to both identification of necessary capital resources, skill sets, and or capabilities to effectively conduct one's research. The team also discussed the importance of "proof of concept" / or "Go / No Go" experiments to determine initial feasibility plans on executing research. The team also discussed how to make effective figures, and went through Bourne, et al. PLOS Computational Biology, "Ten Simple Rules for Better Figures".*

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Our giving drive goal is $250,000.

Donate today @ www.asdrp.org/donate

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On the Horizon: Upcoming Events

Saturday, Aug 2

9:30 - 10:00 AM For our Summer 2025 Rising 9th Graders
Starting Fresh with Donuts at Dawn for Rising Freshmen. Be here an enjoy time learning about ASDRP, developing your confidence and skills, and becoming active members of the ADSRP community.

10:00 - 12:30 PM: Summer 2025 Research 101 week 7 (Led by Edward Njoo) held via zoom.
This week the course will be discussing Scientific Writing and sharing examples and practical work. All new student researchers are required to attend.

11:00 AM - 1:00 PM: Summer 2025 Mini Course: "Protein Folding, Structure and Function" (Dr. Zane Chen).
The structure type determines the function of a protein. A protein's shape is determined by its primary structure (the amino acid sequence). The amino acid sequence within a protein is determined by the encoding sequence of nucleotides in the gene (DNA).

Sunday, Aug 3

6:00 - 7:30 PM: Summer 2025 Mini Course: "Statistics and Probability for Data Science" (Prof. Clinton Cunha).
This course provides a rigorous yet practical foundation in probability theory and statistical inference, tailored for data science applications. Students will explore key topics such as random variables, distributions, conditional probability, Bayes theorem, expectation, estimation, A/B testing, bootstrapping, cross validation, hypothesis testing, regression, data variability and much more.

Monday, Aug 4

11:00 AM - 12:00 PM: Summer 2025 Mini-Course: "Hit Identification to Lead Optimization in Medicinal Chemistry" (Dr. Edward Njoo). *The success of synthetic chemistry in the identification and development of therapeutic leads is predicated on strategic design of target-driven small molecule programs in approaching molecular mechanisms of disease. In this series we will explore different strategies that have demonstrated clinical success.*

Tuesday, Aug 5

10:00 AM - 3:00 PM Material Science Laboratory Day & Blitz Talks Rehearsal (Dr. Nataliya Starostina)
The Starostina lab will be on campus in the engineering lab. Please check with Dr. Starostina for details and what to prep for the laboratory session.

2:00 - 4:00 PM: Tier 1 [Theory] Electrophoresis Training (ASDRP Faculty)
Prerequisites: *None. Mandatory for all students who wish to independently operate DNA or protein electrophoresis systems. Core trainings are offered once per semester in a tiered system. In order to participate in the next tier, students must first complete the previous tier in a previous semester. Sign-ups are available for eligible students on the Laboratory Practicum Canvas Course.*

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7:00 - 8:30 PM: Weekly Colloquia for all ASDRP Student Researchers via zoom. Visit the ASDRP Colloquia Webpage for details & zoom link.

- Department of Computer Science & Engineering
  "AVY - Aerial surveillance of power lines for vegetation"
  Nirupama Balaji, Lucas Su, McMahan Lab
- Department of Computer Science & Engineering
  "Using QNetGAN to computationally create small molecules"
  Leena Adwankar, Nitya Pisolkar, McMahan Lab
- Department of Biological, Human and Life Sciences
  "*Genome Variation Analysis between Different American Populations to Improve Precision Medicine"*
  Kanika Rawat, Nicki Yazdi, Richa Prasanna, Laasya Vavilapalli, Cunha Lab

Wednesday, Aug 6

10:00 AM - 12:00 PM: Tier 3 [Advanced] Mass Spectrometry Training (Akira Yamamoto)
Prerequisites: *3rd+ semester students with at minimum 2 semesters wet lab LCMS experience, at minimum 50+ hours of prior LCMS experience necessary. No first semester or second semester students permitted. In Person Only.*

Advanced Mass Spectrometry training *covers advanced techniques in LC-MS, including direct injection, method development, fragmentation studies, and biomolecular characterization and deconvolution on quadrupole, ion trap, and TOF instruments.*

Core trainings are offered once per semester in a tiered system. In order to participate in the next tier, students must first complete the previous tier in a previous semester. Sign-ups are available for eligible students on the Laboratory Practicum Canvas Course.

Thursday, Aug 7

12:30 PM - 2:30 PM: ASDRP Summer Soccer Cup @ Warm Springs Community Park

3:00 PM - 4:45 PM, Zoom: Research 201, Week 9, Module 3, Practical three.: (Dr. Larry McMahan / Dr. Harrison Rahn).
Final Submission of Research Synopsis is due
Final submission of research synopsis is due on August 7, 2025 @ 3:00PM

9:00 - 10:00 PM: Summer 2025 Mini-Course: "Hit Identification to Lead Optimization in Medicinal Chemistry" (Dr. Edward Njoo).
The success of synthetic chemistry in the identification and development of therapeutic leads is predicated on strategic design of target-driven small molecule programs in approaching molecular mechanisms of disease. In this series we will explore different strategies that have demonstrated clinical success.

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Friday, Aug 8

11:00 AM - 12:30 PM: Conference and SCCUR Information Session, In Person Only.
Mandatory meeting for students who are interested in presenting research at SCCUR (Southern California Conferences for Undergraduate Research) happening in November this year, who have not previously attended a conference. Primarily for 2nd+ semester students. https://www.sccur.org/.

11:00 AM - 12:30 PM: Tier 1 [Theory] Solid Phase Peptide Synthesis Training.
Prerequisites: *None. Mandatory for all students who wish to independently operate solid phase peptide synthesis instruments, and to be eligible to attend hands on training next semester.*

Core trainings are offered once per semester in a tiered system. In order to participate in the next tier, students must first complete the previous tier in a previous semester. Sign-ups are available for eligible students on the Laboratory Practicum Canvas Course.

Saturday, Aug 9

9:30 - 10:00 AM For our Summer 2025 Rising 9th Graders (Final day!)
Starting Fresh with Donuts at Dawn for Rising Freshmen. Be here an enjoy time learning about ASDRP, developing your confidence and skills, and becoming active members of the ADSRP community.

10:00 - 12:30 PM: Summer 2025 Research 101 week 9 (Led by Clinton Cunha/Edward Njoo) (Final class)
This week's R101 is on developing a research poster, the important elements required, how to ensure your poster represents your research and highlights your research. This is a very important session that will kick off your understanding of putting your research into a common and tricky scientific format. Dr. Njoo will be leading this module on how to develop a poster.

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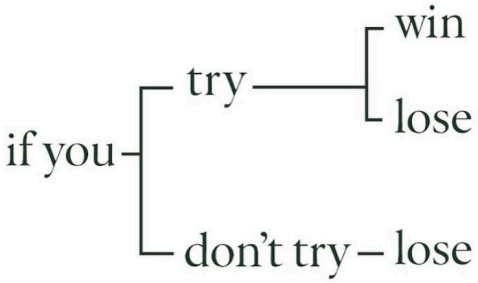
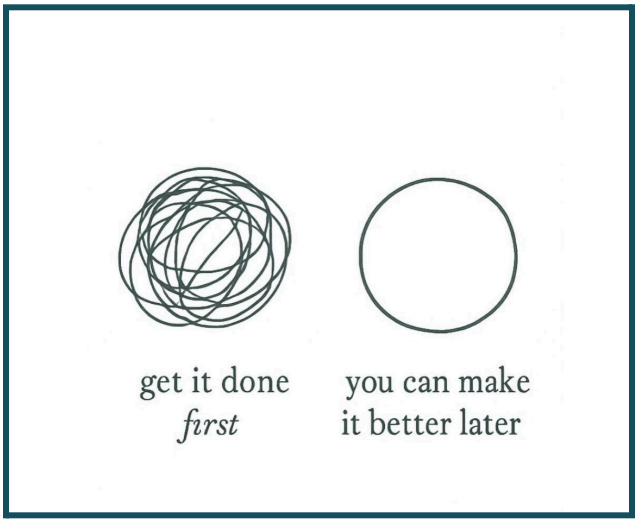
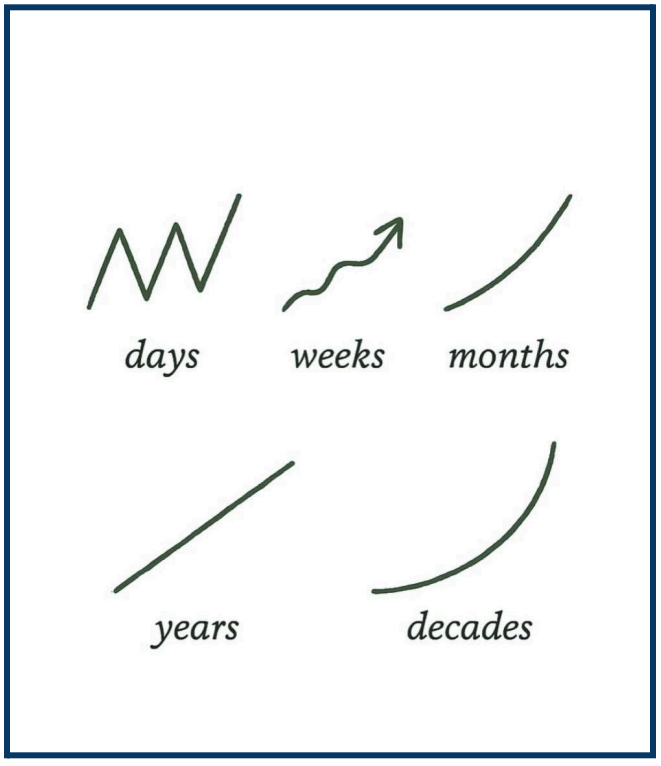
End Note

Part 2: Growth is about your willingness to identify and push through obstacles and limitations in our own understanding.







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