UCSF Benioff Children's Hospitals

Summer Student Research Program

45th Annual Summer Student Research Program Symposium

Finding Your Path into STEM

Thursday, July 30, 2026
12:00-5:00 pm
MLK Research Building

Finding Your Path into **STEM**

"Finding Your Path into STEM" is our theme celebrating the journey toward a future in scientific research for our high school and undergraduate students. Like the winding path in our logo, every STEM journey begins from a different starting point and follows a unique course – sometimes with unexpected turns – but always offering opportunities for exploration, growth, and discovery. There is no single route into science, as each student's experiences, challenges, and aspirations help shape their own path. Through this internship, we illuminate new possibilities, provide meaningful mentorship, and build confidence to pursue opportunities that may have once seemed out of reach. Together, we foster an inclusive community where curiosity is celebrated, barriers become bridges, and every participant is empowered to find their own path toward leadership and a rewarding future in STEM.

July 30, 2026

Welcome to the 45th Annual UCSF Summer Student Research Program (SSRP) Symposium!

More than four decades ago, SSRP welcomed its first group of summer research interns. Since then, the program has grown, modernized and expanded to provide opportunities for students across multiple UCSF campuses. What has remained constant is our mission: to provide a transformative, hands-on biomedical research experience that inspires students—particularly those historically underrepresentedin science—to pursue careers in research and health care.

This summer brought significant challenges for the scientific community. Changes in federal research funding affected many of our mentors and colleagues, placing valuable research and clinical programs under strain. Yet, despite these obstacles, our mentors, staff, and administration remained committed to providing the best opportunity for discovery and learning.

That commitment matters because the students you see today represent the future of biomedical research. This year, SSRP received nearly 750 applications—the largest applicant pool in our history—underscoring both the demand for meaningful research opportunities and the extraordinary talent of the next generation. The students selected for this year's program bring curiosity, creativity, resilience, and diverse perspectives that will strengthen the future of science.

Over the past seven weeks, these trainees have conducted original research under the guidance of dedicated mentors while exploring scientific, clinical, public health, and ethical questions. Today's presentations showcase the results of their hard work. We encourage you to engage with our students, as well as the researchers and physicians who mentored them, and celebrate their accomplishments.

Our deepest thanks go to the mentors and supervisors whose generosity, expertise, and commitment make SSRP possible. We are especially grateful to David Killilea and Erica Riray, whose leadership and dedication have been instrumental in creating another exceptional program. We also thank our selection committee for their thoughtful work in selecting this year's interns from an exceptionally talented pool of applicants. Additionally, Jennifer Joe, Tanya Shunney, Alison Killilea, Raquel Manzo, our guest speakers, the Kanbar Preceptors and staff at the GMP Research Facility, and the many friends of SSRP whose time and support contributed to this summer's success. Finally, we gratefully acknowledge the generous support of CIRM, the Bert Lubin Scholarship Fund, and the Bakar Foundation.

To our trainees: congratulations on all you have accomplished. We wish you every success in your future scientific journeys and hope you will stay connected with the SSRP community. We look forward to seeing where your curiosity and passion take you next.

Ellen B Fung

Ellen Fung, PhD RD
Director, SSRP
Adjunct Professor, UCSF
Department of Pediatrics (Hematology)

Moved by what you experienced today?
Please consider donating to the future of SSRP

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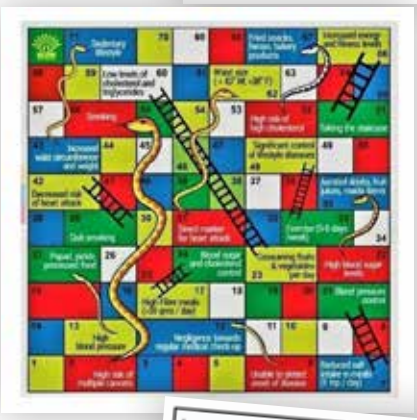

Support for the 2026 Summer Student Research Program was generously funded by the following programs and foundations

California Institute for Regenerative Medicine
SUSTAIN-A-SPARK: Supporting Underrepresented STEM Adapting to Change: Summer Program to Accelerate Regenerative Medicine Knowledge
EDUC3-13114
Co-PI: Fung EB, Killilea DW

The Bertram Lubin Scholarship Fund

Barbara and Gerson Bakar Foundation

Edward Low, PharmD, OD, and Ida Gong Low Family

The Dao Family

Anonymous Donors & Supporters of SSRP

Program Leadership Team

Ellen Fung, PhD RD CCD
Adjunct Professor, Division of Hematology
Department of Pediatrics | University of California, San Francisco
Director, Summer Student Research Program
UCSF Benioff Children's Hospital Oakland

David Killilea, PhD
Program Manager, Summer Student Research Program
UCSF Benioff Children's Hospital Oakland

Erica Riray
Program Coordinator, Summer Student Research Program
UCSF Benioff Children's Hospital Oakland

SSRP 2026 Selection Committees

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SSRP Alumni
Assistant Specialist/PROPEL Scholar at UCSF

Lisa Calvelli
Bone Density Clinic Program Coordinator, Emeritus
UCSF Benioff's Children's Hospital, Oakland

Alina Chen
SSRP Alumni
Staff Research Associate,
Department of Pediatrics, UCSF

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Amaan Mohammed
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Undergraduate Student, UC Riverside

Yuanyuan Qin, PhD
Researcher
University of California, San Francisco

Erica Riray
Program Coordinator, Summer Student
Research Program
University of California, San Francisco

Sheila Sela Teker
SSRP Alumni
Incoming MD PhD Candidate,
Johns Hopkins University

Jason Tesfa
SSRP Alumni
UCSF Aspiring Physicians Scholar

June Tester, MD
Adjunct Professor, Pediatric Endocrinology
University of California, San Francisco

Thiri Than
SSRP Alumni
Medical Assistant, Pacific Women's OBGYN

Summer Student Research Program Curriculum

UCSF Summer Student Research Program Curriculum

Program Objectives:

- Develop a basic understanding of research design and methodology
- Learn to read and critically evaluate scientific literature
- Present scientific topics effectively and succinctly
- Develop a professional relationship with a scientific mentor
- Create a detailed scientific proposal under the guidance of your mentor
- Connect with other like-minded and motivated students
- Gain a deeper understanding of careers in the biomedical sciences

Overview

The curriculum provided during the UCSF Summer Student Research Program (SSRP) will consist of required and elective content available through the UCSF learning management system known as the Collaborative Learning Environment (CLE). You will receive access to the CLE at the beginning of the program. Refer to the CLE for all links, document turn-ins, and deadlines.

The required curriculum consists of synchronous and asynchronous programmatic lectures and trainings in addition to the research project with your mentor. It is expected that these items combined will take approximately 20-30 hours per week. Required curriculum will be provided on Wednesdays from 1:00-5:00 pm. You are expected to be present and interactive for all sessions. The other required content, including your research development and training modules will happen outside of the synchronous sessions at a convenient time for you and your mentor. It is important to organize your time to complete these assignments so you don't fall behind. The required curriculum cannot be substituted, and all aspects must be attended for program completion.

The elective curriculum consists of a wide range of optional content that we have curated and believe to have value for your educational enrichment and career development. The elective curriculum will consist of both synchronous and asynchronous options, including UCSF Grand Rounds (hospital-wide presentations from clinical staff) and previously recorded seminars from past summers. The individual events, including their dates and applicable times, will be posted on the CLE.

Required Items to be Completed During First Week of the Program

- Safety training through UC Learning – 4 modules
- Collaborative Institutional Training Initiative (CITI) courses – 2 modules

Required Items for Weekly Curriculum

- Participation in every Wednesday lecture from 1:00-5:00pm
- Participation in journal clubs offered during the weekly curriculum
- Participation in flash talks during the weekly small group time
- Participation in occasional curricular special events

Programmatic Requirements for all students

- Attend Program Orientation on **Monday, June 15th at 1:15-5:00 pm**
- Fill out pre- and post-program online evaluations
- Turn in Personal Statement and Headshots by **Wednesday, July 1st by 5:00 pm**
- Turn in Research Proposal by **Wednesday, June 25th by 5:00 pm**
- Turn in Research Abstract by **Wednesday, July 22nd by 5:00 pm**
- Attend & present talk by Zoom on **Wed & Thurs, July 30 & 31 (1:00 – 5:00 pm)**
- Attend & present poster at Symposium on **Thursday, July 30th** (12:00 – 4:00 pm)

Social Networking Opportunities

- Small group discussions led by returning students to discuss lectures & related topics
- Social events with your SSRP colleagues

Applications Used in Virtual Programming

- Synchronous Presentations: In-person in the MLK Theater, Room 2319)
- Learning Management System: CLE (Moodle platform)

Program Contact Information

Program Director:	Ellen Fung, PhD	ellen.fung@ucsf.edu
Program Manager:	David Killilea, PhD	david.killilea@ucsf.edu
Program Coordinator:	Erica Riray	erica.riray@ucsf.edu

Summer Student Research Program
Lecture Series 2026

Date	Event	Event Title	Speaker/Leader
	Pre-Program Activities		
6/10/26	Wednesday	SSRP Mentors Orientation	SSRP Leadership
1			
6/15/26	SSRP Orientation	Lunch, Photos, & Games	SSRP Leadership
		Introduction	Ellen & David
		Curriculum Details	Ellen & David
		Logisitics - paychecks, badges, access	Erica
		Searching for Scientific Literature	David
		Understanding Scientific Literature	David
		CIRM student meeting	Ellen
6/16/26	SSRP Check In	Private Zoom Group Session	Karen Daley & Roi Jennings
6/17/26	SSRP Programming	Research Laboratory Open House	David
	SSRP Surveys & Trainings Due	Lunch	SSRP Leadership
		Understanding Scientific Study Design	Ellen
		Journal Club – Clinical and Laboratory	Ellen & David
		Day in the Life	Mikail Alejandro (UCSF)
		Small Group Time & SSRP Office Hours	Small Group Leaders
2			
6/24/26	Kanbar Workshop	Clinical Simulation Experience	Danielle Sharp, MD & Hannah Gu, MD (UCSF)
		Lunch	SSRP Leadership
3			
7/1/26	SSRP Programming	Research Laboratory Open House	David
	Personal Statement & Photo Due	Lunch	SSRP Leadership
		Flash Talks - Group 1	AJ, Sierra, Amaan, Heidi
		Day in the Life	Sheila Teker (Johns Hopkins)
		Scientific Presentation	Sarah King, PhD (UCSF)
		Small Group Time & SSRP Office Hours	Small Group Leaders
4			
7/8/26	SSRP Programming	Research Laboratory Open House	David
	Research Proposals Due	Lunch	SSRP Leadership
		Flash Talks - Group 2	Alexa, Emily, Henry, Melissa, & Nahom
		Day in the Life	Gabby Montenegro (UCSF)
		Scientific Presentation	Steve Mack, PhD (UCSF)
		Small Group Time & SSRP Office Hours	Small Group Leaders

Summer Student Research Program
Lecture Series 2026

Date	Event	Event Title	Speaker/Leader
5			
7/15/26	SSRP Programming	Research Laboratory Open House	David
		Lunch	SSRP Leadership
		Flash Talks - Group 3	Ishaan, Lucas, Daniela, Cadyn, & Ernesto
		Bioethics Workshop	Ellen & David
		Scientific Presentation	Mark Walters, MD (UCSF)
		Small Group Time & SSRP Office Hours	Small Group Leaders
6			
7/22/26	Stem Cell Facility Tour	Clinical Research Facility Tour	Brian Shy, MD PhD (UCSF)
	Abstracts Due	Lunch	SSRP Leadership
		Keys to Successful Presentations – talks	David & Ellen
7			
7/27/26	SSRP Check Out	Private Zoom Group Session	Karen Daley & Roi Jennings
	Posters Due		
7/29/26	SSRP Student Presentations	Oral Presentations	SSRP Leadership
	& SSRP Programming	Keys to Successful Presentations – Posters	David
		How to make the most of your SSRP experience	Ellen
7/30/26	SSRP Symposium	Lunch	SSRP Leadership
		Poster Session 1	SSRP Leadership
		Poster Session 2	SSRP Leadership
		Certificates & Group Photo	SSRP Leadership

Mentor Monday


Mentor Monday

SSRP Week 4

Finding Your Path into STEM

Upcoming Deadlines

Wednesday, July 8: Your student's **research proposal** is due.

Templates are available in CLE and Mentor Box Drive.

View Your Students Curriculum

Students will be using UCSF's Collaborative Learning Experience (CLE) to access modules pertaining to our weekly themed lectures. Additionally, this is where students abstracts, proposals, and personal statements will be submitted as well as have access to elective information such as grand rounds.
Here is the information for guest access https://courses.ucsf.edu/course/view.php?id=12836
Password: SSRP26

Please feel free to log in and view what else your students will be involved with this summer.

Mentor Resources

We have created a folder in the Box Drive for all SSRP Mentors. This box file will contain all the 'Mentor Monday' emails in case you miss any, also includes copies of workshop slides, orientation slides and other relevant material.

- Link to Box: **SSRP Mentor Resources**

Mentor Reimbursements

All mentors may be reimbursed up to $500.

For UCSF Faculty/Staff Mentors: Please order supplies directly through the BearBuy system. The "cart" should then be assigned to Erica Reay: erica.reay@ucsf.edu who will submit the purchase on your behalf with the SSRP charstring account. Please notify Erica once the cart is assigned.

For Non-UCSF Mentors (this includes BCH-Oakland): Send list of supplies to Erica Reay in an email: erica.reay@ucsf.edu, and she will place the order in BearBuy. We will try to order the exact item or its equivalent. If items cannot be found in BearBuy, Erica will coordinate with you.


Finding Your Path into STEM

SSRP Mentor Monday

This is our weekly newsletter for 2026 Summer Student Research Program mentors. Every Monday, this will be your source for upcoming activities and general program information. Thank you all for agreeing to mentor these talented youth!

SSRP Mentor Orientation

Wednesday, June 10, 12:00 - 1:00 pm.
Offered by Zoom and recorded, optional for mentors.
Here is the zoom link:

Topics: Program Objectives & Logistics, Curriculum Details, Supply Reimbursement, & Mentoring Tips

Mentor Resource Materials

Mentor materials are available in Box. The folder is a great resource for mentoring tips, previously recorded workshops, slide decks, templates for student abstracts, and previous correspondences.

When: Are currently available for your review
Where: BOX drive, at this Link

View Your Students Curriculum

Students will be using UCSF's Collaborative Learning Experience (CLE) to access modules pertaining to our weekly themed lectures. Additionally, this is where students abstracts, proposals, and personal statements will be submitted as well as have access to elective information such as grand rounds lectures. Please feel free to log in and view what else your students will be involved with this summer. You can view CLE using your UCSF my access credentials.

Guest access for non-UCSF credentials

Here is the link
https://courses.ucsf.edu/course/view.php?id=12009

Password:
ssrp2026

Student Welcome & Orientation

When: Monday, June 15
1:00pm - 5:00 pm
Where: Little Theater, MLK Research Building

This is focused for students, but mentors are welcome to stop by at lunch to say, "Hi."

Field trips

Wednesday, June 24
Kanbar Clinical Simulation Training
10:00 - 2:00 pm

Wednesday, July 22
UCSF/Thermo stem cell facility tour
11:30 - 3:00 pm

Research Ethics Training for Students

All students are asked to complete two modules of the CITI ethics training: Basic Human Subjects Research and Responsible Conduct of Research (RCR).

APeX Access for Students

If your student will need APeX access, please contact Liz Garnett, Director of Clinical Research Administration, Department of Pediatrics. Liz will submit the access. Please provide this information with your request to Liz:

1. Why does this project require access to PHI?
2. Have you considered alternatives to data management by others?
3. Who will supervise this person's access to APeX?
4. Does the project already have IRB approval? If so, please provide a copy of the approved application.
5. When will the person have completed HIPAA, CITI and/or other relevant UCSF trainings?

California Child Abuse and Neglect Reporting Act (CANRA)

Reminder to complete the online training course, California Child Abuse and Neglect Reporting Act (CANRA). It is required for mentors who will be working with minors.

Onboarding & Communication

Your student has received their UCSF student ID and email.

SSRP is submitting the badge request and access to UCSF drives/library etc. This will be completed at orientation, June 15.

We have asked students to check their email regularly, but good to check in with your student about best way for the two of you to communicate, including how frequently to meet during summer training.

Mentor Monday

Volume 1 | Issue 2 | June 15, 2026

45th Annual Summer Student Research Program

Finding Your Path into STEM

SSRP Mentor Monday

This newsletter provides a summary of the week prior as well as a look ahead for the coming week.

The students completed their SSRP orientation today. We were delighted to meet them. They were especially excited to meeting you. It was great to see their curiosity, enthusiasm, and eagerness to meet their peers.

What is happening?

- Thank you to those that joined last week's session. For those of you unable to attend, the session was recorded and uploaded onto the SSRP Mentors Resource folder in Box.
- Primary mentors should have received a book from SSRP entitled, "Adviser, Teacher, Role Model, Friend: On Being a Mentor to Students in Science and Engineering." It is our thanks to you for being a mentor to these students.
- All students attended orientation; badging is still being worked out for most.

What Students Have Been Up To

- Apex access. In addition to completing CITI modules, students should complete HIPAA Training in UC Learning.
- All students are required to complete CITI modules: Human Subjects Research and Responsible Conduct of Research (RCR)
- In-Person Orientation...Community Building Activities

Week 1 at a glance, Theme: Orientation

- Monday, 6/15, 1-5pm. Headshots and group photos were taken. Introduction and Orientation
- Tuesday, 6/16, 4-5pm. Student check-in with Karen Daley, LMFT (Zoom session, recommended for students)
- Wednesday, 6/17, 1-5pm. SSRP Programming at MLK.
- Friday, 6/19. NO Programming for Juneteenth Holiday

UCSF Trainings

Student interns are required to complete general UCSF required trainings.

1. Gender Discrimination & Sexual Harassment
2. Cyber Security
3. Blood Borne Pathogens Safety
4. Biosafety

CITI research training modules are also required.

View Your Students Curriculum

Students will be using UCSF's Collaborative Learning Experience (CLE) to access modules pertaining to our weekly themed lectures. Additionally, this is where students abstracts, proposals, and personal statements will be submitted as well as have access to elective information such as grand rounds.
We are still working on website access for students and mentors.

Kanbar Simulation for UG Students

When: Wednesday, June 24
10:00 am - 3:00 pm
Where: UCSF Parnassus Campus
San Francisco, CA

The Kanbar Simulation Center is a medical training facility that offers clinical simulations for learners. Simulation labs will be followed by a physician resident panel and career discussion.

World Sickle Cell Day is happening on June 19, with local celebrations on **Saturday, June 20, 2026.** The UCSF Sickle Cell Center of Excellence will have an outreach table. If you are interested in volunteering check out the link below.

This information was shared with students who might be interested in participating.

https://doodle.com/sign-up-sheet/participate/97f63dfd-755a-453c-b65b-45a760a2bf23/select

Event Title: World Sickle Cell Day
Date – Saturday, June 20, 2026
Time – 12:00pm – 4.00pm
Location – De Fremery Park, 1651 Adeline St., Oakland, CA 94607

Mentor Monday

Volume 3 | June 22, 2026

SSRP Week 2: Visit to Kanbar

Week 1 In Review: Orientation

- Students were introduced to the SSRP curriculum and expectations. Professional headshots and group photos were taken.
- Students were treated to an interesting Day in the Life presentation by 2021 SSRP alum Mikey Alejando who works in a UCSF CAR-T lab and now planning his entry into medical school while balancing a side job as a musician.
- Students had training modules to complete depending on their research project
- Students learned understanding of scientific literature for clinical and lab-based research
- Students participated in their first SSRP Journal club. Ellen reviewed a clinical paper on intermittent fasting regimens and David reviewed a paper on the microbial contribution to fecal flotation (really).
- There were some mentor re-assignments, but everyone should now be settled into their research project

Logistics

Does your student have the access they need? Badge, computer, other. Contact Erica and Ellen.
Any specific department network access should go through your departmental admin.

Preview of Week 2

Kanbar Center for Simulation and Clinical Skills
When: Wednesday, June 24
10:00 am - 3:00 pm
Where: UCSF Parnassus Campus
San Francisco, CA

The **Kanbar Simulation Center** is a medical training facility that offers clinical simulations for learners. Simulation labs will be followed by a physician resident panel and career discussion.

View Your Students Curriculum

Students will be using UCSF's Collaborative Learning Experience (CLE) to access modules pertaining to our weekly themed lectures. Additionally, this is where students abstracts, proposals, and personal statements will be submitted as well as have access to elective information such as grand rounds.
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Please feel free to log in and view what else your students will be involved with this summer.

Mentor Resources

We have created a folder in the Box Drive for all SSRP Mentors. This box file will contain all the 'Mentor Monday' emails in case you miss any, also includes copies of workshop slides, orientation slides and other relevant material.

- Link to box: **SSRP Mentor Resources**

REMINDER! RESEARCH PROPOSALS DUE

Wednesday, July 8: 3-page Research Proposals due – students can find templates & examples in CLE

Mentor Reimbursements

All mentors may be reimbursed up to $500.

For UCSF Faculty/Staff Mentors: Please order supplies directly through the BearBuy system. The "cart" should then be assigned to Erica Rinay: erica.rinay@ucsf.edu who will submit the purchase on your behalf with the SSRP chartering account. Please notify Erica once the cart is assigned.

For Non-UCSF Mentors (this includes BCH-Oakland): Send list of supplies to Erica Rinay in an email: erica.rinay@ucsf.edu, and she will place the order in BearBuy. We will try to order the exact item or its equivalent. If items cannot be found in BearBuy, Erica will coordinate with you.

Fun-g Friday

Fun-g Friday Weekly Newsletter

Finding Your Path into STEM

SSRP starts in 3 days!!!

Upcoming schedule for week of June 15

Monday, June 15, 1:00 - 5:00 pm
Orientation
MLK
Lunch is provided

Tuesday, June 16, 4:00 pm
Check-in session with Karen Daley, LMFT
Zoom session

Wednesday, June 17, 1:00 - 5:00 pm
Wednesday Programming
MLK
Lunch is provided

Friday, June 19
Juneteenth Holiday
no program

Orientation

We cannot wait to see you in person!
Bring your curiosity, willingness to learn, and bright minds. It's going to be a fun summer!
If you have any outstanding onboarding questions, please come 15-20 minutes prior to start of orientation.

CITI Ethics Training

This link will walk you thru how to set up a CITI account. You can use your personal email for this account, and change it later. The 2 courses you need to complete are: (1) Human Subjects Protection and (2) Responsible Conduct of Research. Set aside time for this, these courses are very interesting but time consuming. Both courses must be completed prior to accessing UCSF's electronic health record system, Apex, and any protected health information (PHI).

https://irb.ucsf.edu/citi-human-subjects-training

World Sickle Cell Day is June 19. The Sickle Cell Center of Excellence at UCSF Benioff Children's Hospitals is partnering with the Sickle Cell Anemia Awareness Organization to participate in the World Sickle Cell Day community event on **Saturday, June 20, 2026**. This is a good opportunity to raise awareness of sickle cell disease (SCD), connect with the community, and show your interest and commitment to improving the lives of individuals and families affected by SCD.
If you are interested in volunteering, please register, check out on the link below. Other BCH-Oakland staff will be there or ask your small group if they want to go together?!
Sign up here: Register to volunteer

Event: World Sickle Cell Day
Date: Saturday, June 20, 2026
Time: 9:30am – 3:00pm
Location: De Fremery Park, 1651 Adeline St., Oakland, CA 94607

By now...

- You have connected with your mentor.
- You have logged into your UCSF email.
- You have completed HR onboarding requirements including immunizations documentation.
  - HR will send the employment summary once everyone is onboarded!
- You received an email from GraphPad.com and downloaded the program, Prism. Dr. Kibbie will explain this more at orientation.

Got Questions?

Program-Specific Questions:
erica.riley@ucsf.edu

Day-to-Day Questions:
Your small group leader

Technology issues:
(415) 514-4100
or
it.ucsf.edu

David's Data

SEE YOU MONDAY!

-Ellen, David, and Erica

Fun-g Friday Weekly Newsletter

Finding Your Path into STEM

SSRP is underway!

Recap of this week's events

Monday, June 15
Orientation
It was delightful and exciting to meet you all and get to know each other. Everyone had their headshots taken which we will be sending you for the SSRP abstract book and personal use (e.g. LinkedIn). Then we learned about the history of the SSRP program, discussed the curriculum, listed the major deadlines, and talked about ways to success. Finally, we talked about how to search for scientific literature.

Tuesday, June 16
Check-in session with Karen Daley, LMFT and Roi Jennings, MA
Hope you benefited from this session. We will have another at the close of the program.

Wednesday, June 17
Wednesday Programming
We learned about the structure of clinical studies and then reviewed the elements and findings of a real clinical paper and a laboratory-based paper. Then we heard a "Day in the life" talk from 2021 SSRP alum, Mikey Alejandro. Our picture with him is at CLE.

Friday, June 19
Juneteenth Holiday
No program activity as this is a UCSF holiday in honor Juneteenth.

BADGES

Everyone has authorized access to the MLK building. Make an appointment with the Badging Office or drop-in to get your BCH-Oakland badge. You will now be able to badge in at the gate.
To schedule an appointment: BCH-Oakland Badging Office (office365.com)
To go during Drop-in times: Badging Office Hours

Please check with your mentor if you will be needing additional access - OPC, Classroom Clinic, or other.

CITI Ethics Training

This link will walk you thru how to set up a CITI account. You can use your personal email for this account, and change it later. The 2 courses you need to complete are: (1) Human Subjects Protection and (2) Responsible Conduct of Research. Set aside time for this, these courses are very interesting but time consuming. Both courses must be completed prior to accessing UCSF's electronic health record system, Apex, and any protected health information (PHI).

https://irb.ucsf.edu/citi-human-subjects-training

HIPAA 101 - Privacy and Security for New UCSF Students and Volunteers

The Director of Clinical Research Administration, Pediatrics is also recommending completing HIPAA training for all interns accessing Apex. This training is found in UC Learning.

Please send your certificates of completion to Erica.

A Look Ahead

SSRP Simulation Day at Kanbar Center
Wednesday, June 24, 10:00 - 3:00 pm
Permission Kalmanovitz Library
530 Parnassus Avenue 2nd Floor, Suite CL250
San Francisco, CA 94143

Students should be in front of the Library (on Parnassus Ave) by **9:45AM** to meet as a group and go inside.

There will be NO curriculum at MLK on Wednesday; the KANBAN simulation is taking the place of the curriculum.

Directions

Traffic is always unpredictable, so it is best to arrive early – there is a Starbucks close by if the commute goes faster than expected. If coming from the East Bay by public trans, it is recommended to take BART to SF and switch to MUNI using N-Judah line. Get off at Irving St. & 2nd Ave, then follow the crowd into building, up elevators, and on to Parnassus Ave.

If you're uncomfortable traveling alone or would like to arrange to go with another student, please contact your Small Group Leader.

Lunch sign up

Please sign up for a bag lunch for the Kanbar trip. We will distribute lunches at Kanbar. Deadline to order is Monday, June 22. Send your order to Erica.

SSRP To-Do List

- Complete or start CITI training
- HIPAA 101
- Go to the Badging Office to get your badge
- Complete Pre-Program Survey. Take the survey here.

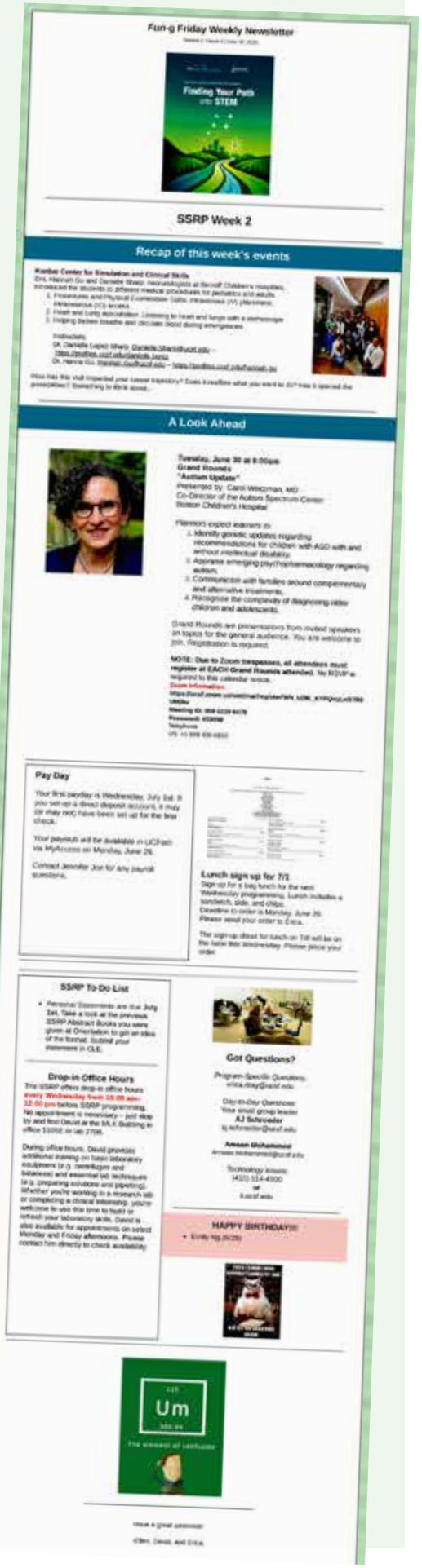
Got Questions?

Program-Specific Questions:
erica.riley@ucsf.edu

Day-to-Day Questions:
Your small group leader
AJ Schroeder
aj.schroeder@ucsf.edu

Amaan Mohammed
Amaan.Mohammed@ucsf.edu

Technology issues:
(415) 514-4100
or
it.ucsf.edu



Fun-g Friday Weekly Newsletter

Finding Your Path into STEM

SSRP Week 2

Recap of this week's events

Kanbar Center for Simulation and Clinical Skills
Drs. Hannah Gu and Danielle Sharp, neonatologists at Benioff Children's Hospitals, introduced the students to different medical procedures for pediatrics and adults:
1. Procedures and Physical Examination (saline, intubation (IV) placement, intraosseous (IO) access)
2. Heart and Lung auscultation: Listening to heart and lungs with a stethoscope
3. Helping Babies breathe and circulate blood during emergencies

Instructors:
Dr. Danielle Lopez Sharp, Danielle.Sharp@ucsf.edu –
https://profiles.ucsf.edu/danielle.lopez
Dr. Hannah Gu, Hannah.Gu@ucsf.edu – https://profiles.ucsf.edu/hannah.gu

How has this visit impacted your career trajectory? Does it reaffirm what you want to do? How it opened the possibilities? Something to think about...

A Look Ahead

Tuesday, June 30 at 8:00am
Grand Rounds
"Autism Update"
Presented by: Carol Wiezman, MD
Co-Director of the Autism Spectrum Center
Boston Children's Hospital

Planners expect learners to:
1. Identify genetic updates regarding recommendations for children with ASD with and without intellectual disability.
2. Appraise emerging psychopharmacology regarding autism.
3. Communicate with families around complementary and alternative treatments.
4. Recognize the complexity of diagnosing older children and adolescents.

Grand Rounds are presentations from invited speakers on topics for the general audience. You are welcome to join. Registration is required.

NOTE: Due to Zoom trespasses, all attendees must register at EACH Grand Rounds attended. No RSVP is required to this calendar notice.
Zoom Information

Pay Day

Your first payday is Wednesday, July 1st. If you set up a direct deposit account, it may (or may not) have been set up for the first check.

Your paystub will be available in UCPath via MyAccess on Monday, June 29.

Contact Jennifer Jue for any payroll questions.

Lunch sign up for 7/1

Sign up for a bag lunch for the next Wednesday programming. Lunch includes a sandwich, side, and chips.
Deadline to order is Monday, June 29.
Please send your order to Erica.

The sign-up sheet for lunch on 7/8 will be on the table this Wednesday. Please place your order.

SSRP To-Do List

- Personal Statements are due July 1st. Take a look at the previous SSRP Abstract Books you were given at Orientation to get an idea of the format. Submit your statement in CLE.

Drop-in Office Hours

The SSRP offers drop-in office hours **every Wednesday from 12:00 am-12:00 pm** before SSRP programming. No appointment is necessary – just stop by and find David at the MLK Building in office 1105E in lab 2706.

During office hours, David provides additional training on basic laboratory equipment (e.g. centrifuges and balances) and essential lab techniques (e.g. preparing solutions and pipetting). Whether you're working in a research lab or completing a clinical internship, you're welcome to use this time to build or refresh your laboratory skills. David is also available for appointments on select Monday and Friday afternoons. Please contact him directly to check availability.

Got Questions?

Program-Specific Questions:
erica.riley@ucsf.edu

Day-to-Day Questions:
Your small group leader
AJ Schroeder
aj.schroeder@ucsf.edu

Amaan Mohammed
Amaan.Mohammed@ucsf.edu

Technology issues:
(415) 514-4100
or
it.ucsf.edu

HAPPY BIRTHDAY!!!

- Emily (6/25)

Um

The element of confusion

-Ellen, David, and Erica

Fun-g Friday


Fun-g Friday Weekly Newsletter
Finding Your Path into STEM
Pre-Programming Details
Welcome to Summer Student Research Program
Getting to SSRP: Parking and transportation
CITI Ethics Training
By now...
SSRP Team
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Other Information
Drop-in Office Hours
Got Questions?
We need your help!
UCSF Bolt by the Bay

Journal Clubs

Intermittent fasting strategies and their effects on body weight and other cardiometabolic risk factors: systematic review and network meta-analysis of randomised clinical trials

European Journal of Clinical Nutrition

ARTICLE OPEN

The impact of intermittent fasting during weight reduction in people living with type 2 diabetes mellitus: a randomized clinical trial

Sources of dietary gluten in the first 2 years of life and associations with celiac disease autoimmunity and celiac disease in Swedish genetically predisposed children: The Environmental Determinants of Diabetes in the Young (TEDDY) study

medicina

MDPI

Article

Effectiveness of Warm-Up Routine on the Ankle Injuries Prevention in Young Female Basketball Players: A Randomized Controlled Trial

BMC Women's Health

RESEARCH

Open Access

The effect of vitamin D on the severity of dysmenorrhea and menstrual blood loss: a randomized clinical trial

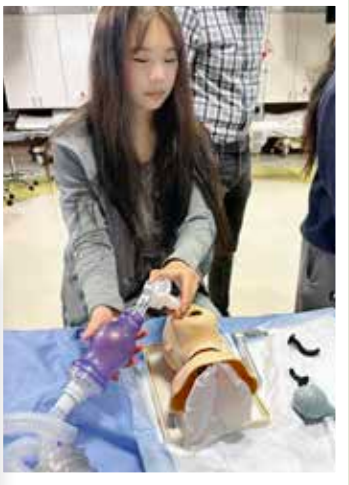
Class of 2026

MLK Research Building

Orientation

Clinical Simulation

Clinical Simulation



GMP Research Facility Tour

Alexa Adutwum

Investigating the Relationship Between iPSC-Hepatocyte Morphology and Albumin Secretion

Mentor: Marisa Medina, PhD
Contributing Author: Yuanyuan Qin, PhD

Hello! My name is Alexa Adutwum, and I will be starting my first year at Stanford University in the fall. My drive to be involved in medical research stems from the constant disparities I have witnessed both within the underrepresented groups of the United States, and within the Ghanaian healthcare system. As I grew older, I became very fond of dermatology, pediatrics, and exploring the differences in global healthcare systems. Now, I aspire to find the intersection between the three, intending to pursue a degree in Human Biology on the pre-medical track. This summer, I have the honor of working in the Medina Lab on regenerative stem cell research with a focus related to the liver, so I am quite excited to delve into an area of medicine unfamiliar to me. I would like to give great appreciation to my mentor Dr. Marisa Medina and the staff of the Medina Lab, alongside Dr. Ellen Fung, Dr. David Killilea, and the SSRP coordinators, for allowing me to continue exploring research in such a supportive and encouraging environment.

INTRODUCTION

Researchers deriving hepatocyte-like cells diGerentiated from induced pluripotent stem cells (iHep) is an established tool for studying liver disease. One way of authenticating hepatocyte diGerentiation is through the quantification of albumin secretion, a known property of hepatocytes. However, because this is expensive and time consuming, a more streamlined approach for identifying well-diGerentiated cells would be a valuable research tool. Mature hepatocytes are polygonal cells with well-defined borders.

HYPOTHESIS/OBJECTIVE

Our objective is to test whether cell morphology tracks with albumin secretion, to enable the usage of bright field imaging for iHep identification.

METHODS

The iPSC-iHeps from 8 donors were diGerentiated and cultured at 37 °C and 5% CO2 in Lonza Hepatocyte Culture Medium. Bright-field images were obtained using the EVOS XL Core microscope on 20X magnification from Day 17 to Day 26 of the diGerentiation. Cell culture media was collected on Day 25, and media albumin levels were quantified by ELISA and normalized to cell count. Bright field images of cell lines will be compared to their media albumin to see whether there is any relationship between cell morphology and albumin secretion.

ANTICIPATED RESULTS

From the eight diGerent cell lines, 201 bright-field images were collected. While all iHeps had detectable media albumin, the concentrations varied widely (0.4 to >525,000 ng/mL). We anticipate that cultures with more polygonal characteristics will have higher levels of albumin secretion.

SIGNIFICANCE OF PROJECT

Improving our ability to quickly and easily identify iHeps will streamline their use to better enable individual level modeling of liver disease in research.

Ishaan Bhaduri

Establishing Measures of Essential Trace Minerals and Anxiety Screening Practices in Pediatric Celiac Disease Patients on a Gluten-Free Diet

Mentors: Mala Setty, MD and David Killilea, PhD

Hello, my name is Ishaan Bhaduri, and I am going into my senior year of high school at BASIS Independent Fremont in Fremont. My current career goal is to enter the medical field as a physician-researcher, though I am not set on a specific field of medicine yet. The UCSF SSRP Program has allowed me to explore research in the perspective of science affecting real patients, which is a very different and fun experience. It is rewarding to get results in the lab that have a direct, tangible impact on patients. The guidance and support of both my fellow researchers and mentors have further solidified my desire to become a researcher in addition to being a doctor. I now see being a researcher and being a doctor very differently than when I entered this program, and realize there is much more harmony between the two professions than I originally thought. I am thankful to the organizers of UCSF SSRP and my mentors, Dr. Mala Setty and Dr. David Killilea, for being terrific and invaluable mentors in this journey.

INTRODUCTION

A strict, lifelong gluten-free diet (GFD) is the primary treatment for pediatric Celiac Disease (CeD). While effective at resolving intestinal inflammation, GFD adherence introduces overlooked physical and psychological risks. Gluten-free grain substitutes rely heavily on rice, potato starch and tapioca which may have reduced essential nutrients and accumulate toxic elements from soil. Alteration of essential mineral levels such as phosphorus, zinc, and copper may impair gut recovery and systemic health. Simultaneously, navigating strict dietary restrictions, constant fear of cross-contamination, and social isolation places a psychological burden on pediatric patients, triggering hypervigilance and heightened anxiety.

HYPOTHESIS/OBJECTIVE

We hypothesize that pediatric CeD patients adhering to a GFD will exhibit altered essential nutrient and trace element levels as measured in nail samples and higher clinical anxiety scores compared to reference standards, correlated with diet duration. Our objective is to measure these dual chemical and psychological factors in patients seen in UCSF Benioff Children's Hospital Celiac Clinic.

METHODS

This study utilizes a parallel, mixed-methods clinical design. Biologically, we non-invasively collect fingernail clippings from pediatric CeD patients (ages 2–20) to capture long-term elemental exposure. To evaluate sample reliability, intra-individual biological variance was assessed across 2–6 nail fragments per subject. Samples are washed, acid-digested, and analyzed using ICP-OES for essential minerals (e.g. zinc and copper). Psychologically, we are executing a quality improvement initiative to integrate standardized physical anxiety screeners (GAD-7) into routine gastroenterology clinical workflows.

ANTICIPATED RESULTS

Biomarker precision analysis revealed low biological variance and high measurement reproducibility for phosphorus, zinc, and copper in nail tissue, whereas calcium, iron, magnesium, and silicon were highly variable. We anticipate finding associations between altered essential trace minerals and GFD duration. With improved clinic screening compliance, we will also hope to better identify those at risk for clinical anxiety.

SIGNIFICANCE OF PROJECT

By describing the potential biological and psychological impacts of a GFD, this work provides the rationale for expanded studies in minerals and mental health assessments as a comprehensive standard of care for CeD patients.

Melissa Distancia

Assessment and Management of Thrombotic Microangiopathy Following AAV Gene Therapy for Pediatric CNS Diseases

Mentors: Alexander Fay, MD, PhD and Marissa Evans

Hello! My name is Melissa Distancia. I am an incoming transfer student at UC Davis majoring in Molecular and Medical Microbiology. My passion for science first sparked in junior high when I was introduced to genetics. From then on, I began to ask more questions about the human body. This curiosity evolved into a deep fascination with the biological complexities and cellular mechanisms that naturally regulate human health. Driven by a desire to save lives on a global scale, I aspire to pursue a career in medical science specializing in the study of pathogens and viruses. Participating in the UCSF SSRP has been a pivotal milestone in this journey. I extend my sincere gratitude to the MESA program at Hartnell College for creating the pathway to this opportunity. Additionally, I am deeply grateful to the SSRP leadership and staff for their dedication to fostering the future of medicine. Finally, a special thank you to Dr. Fay and Marissa Evans, whose continued guidance provided me with an enriching experience that I will proudly carry forward into my next chapter at UC Davis.

INTRODUCTION

Thrombotic Microangiopathy (TMA) is a life-threatening disorder that can develop as a complication of adeno-associated virus (AAV) gene therapy. This is a result of the inappropriate activation of the complement system, a component of the innate immune system. In this context, a high viral vector load triggers an overactivation of this innate immune defense, causing it to mistakenly target and lyse host cells. AAV-induced TMA is characterized by microangiopathic hemolytic anemia, thrombocytopenia and ischemic end-organ injury, particularly in the kidney. While the science behind this phenomenon is known, one critical question remains unaddressed. How can physicians effectively manage and monitor the treatment course of patients with TMA? To resolve the knowledge gap, this study aims to describe the laboratory abnormalities most predictive of TMA onset and severity, the management of TMA, and the key laboratory improvements that signal recovery.

HYPOTHESIS/OBJECTIVE

We will be able to define a time course of lab changes and response to treatment in a cohort of four pediatric patients with TMA following CNS-directed AAV gene therapy.

METHODS

This retrospective project analyzes the electronic health records (EHR) of four pediatric patients with TMA, utilizing the APeX interface. By structuring longitudinal clinical test and intervention data in Google Sheets, the study uses R to run trajectory analysis of hematologic and immunologic markers. The study tracks biomarker changes over time to describe TMA onset, progression, treatment response, and recovery.

ANTICIPATED RESULTS

We will be able to characterize the laboratory features and treatment responses of gene therapy-associated TMA. Using these findings, we will propose a treatment and monitoring algorithm to guide physicians managing this condition.

SIGNIFICANCE OF PROJECT

Although TMA is a well understood disorder, the lack of laboratory parameters leaves physicians without definite treatment guidance. We intend to identify these critical diagnostic predictors that will provide physicians with a clear framework for treating TMA.

Daniela Galindo

Respiratory Infections and Antibiotic Use in Children

Mentor: Prachi Singh, DO, FAAP

My name is Daniela Galindo, and I am a sophomore at Holy Names High School. For me, being a part of SSRP means having the opportunity to understand myself when it comes to my interests. Since even if I know I want to participate in the medical field, I am yet to understand what it is that I want to do, or how I want to do it. SSRP is allowing me to test the waters, so that I can understand if this kind of work that we are being put up to is something that I want to commit myself to. Being in this program means that I am given the opportunity to explore multiple possibilities and experience so that I can challenge myself and see if I can handle the devotion and assertion that it requires. I plan to take on every opportunity gifted to me and participate in them to the best of my abilities. Since I am allowed to speak freely, I would like to talk about the SSRP community. I am surrounded by around 30 amazing people, give or take. There are people from different backgrounds, different passions, and different ages. At first, it was intimidating being surrounded by what I consider such high-class people. I've learned a few things from them already; no matter if the topic is related to our projects, I am quite grateful for the talks some people have given me. These people have inspired me and given me motivation on what to do career-wise. Even if I've only talked to so many throughout our given time, I still appreciate all the people around me, as there is nothing better than peers who not only impress you but also guide you. At the end of the day, I want to thank the program for allowing me and my peers to have an environment where we can grow in our preferred ways. Even if by the end of the program I am still not sure what it is I want to do career-wise, I can already tell that it will help me fortify my ideas and cut down the list by a lot. And for that, I am very grateful.

INTRODUCTION

Acute respiratory tract infections (RTIs) are among the most common reasons children receive outpatient medical care and account for millions of antibiotic prescriptions annually in the United States. Although most RTIs are viral, bacterial infections such as acute otitis media, acute bacterial sinusitis, and group A streptococcal pharyngitis remain leading indications for outpatient antibiotic use. National guidelines from Centers for Disease Control and Prevention (CDC) support shorter antibiotic courses for many uncomplicated pediatric infections. Shorter courses have demonstrated equivalent clinical efficacy while reducing adverse drug events, antimicrobial resistance, and disruption of the intestinal microbiome. The CDC Core Elements of Outpatient Antibiotic Stewardship recommend monitoring prescribing practices and implementing quality improvement initiatives to optimize antibiotic selection, dosing, and duration.

HYPOTHESIS/OBJECTIVE

Assess antimicrobial prescribing patterns in ambulatory care setting for children seen for upper respiratory tract infections for guidance concordance and duration of therapy.

METHODS

Retrospective review study for ambulatory care setting within a single institution, from June 2025 through June 2026. Electronic health record data were reviewed to obtain demographic characteristics, insurance type, diagnosis, antibiotic prescribed, and duration of therapy. Descriptive statistics were used to summarize prescribing patterns.

ANTICIPATED RESULTS

Preliminary result analysis reveals that out of 3,038 outpatient encounters, antibiotics were prescribed in 1,199 encounters (39.5%), while 1,839 encounters (60.5%) did not result in an antibiotic prescription. Additional analysis will be done on encounters that received antibiotic therapy if there was guidance concordance.

SIGNIFICANCE OF PROJECT

The findings will inform pediatric outpatient antimicrobial stewardship initiatives to reduce unnecessary antibiotic exposure while maintaining high-quality, evidence-based care.

Henry Huynh

Addictive Social Media Use Partially Mediates the Prospective Association Between Social Media Time and Eating Disorder Symptoms in Early Adolescents

Mentor: Jason Nagata, MD, MSc

My name is Henry Huynh. I just graduated from Hartnell Community College and will be transferring to UC Berkeley to study molecular and cell biology on the premed track. I'm a first-generation student, both my parents came from Vietnam. I dropped out of college once and nearly did again. It took four years at community college, and jobs and service work at every level, both medical and personal, to get here. That work taught me to understand hardship firsthand and to see the health disparities, inequalities, and gaps in our healthcare system that affect underserved communities. Direct patient care, and being part of someone's health journey, is what really cemented my commitment to STEM and healthcare knowing that one day I can change the trajectory of someone's life and help bring them back home to their family. I'm also motivated to mentor others who haven't found a sense of direction or feel they need guidance. I want to encourage and be a positive influence for first-generation students like me. With that in mind, I want to work hard enough to become a pediatrician in family medicine, because I believe the most important diagnosis starts with understanding the person in front of you. I'm deeply grateful to work alongside Dr. Jason Nagata and the Nagata Lab for their mentorship and for giving me space to grow, both professionally and personally, throughout my academic journey. I had a lot of fun. I'd also like to thank Hartnell MESA and the SSRP team for their continued support in giving students like me a chance at opportunities I never thought I'd have.

INTRODUCTION

Eating disorders (EDs) are a major public health concern, especially during adolescence, a developmental period characterized by heightened body image concerns and disordered eating. As social media becomes increasingly embedded in adolescents' daily lives, concerns have emerged regarding its potential influence on ED risk. Prior research has linked greater social media use and problematic screen use with subsequent ED symptoms, yet few studies have examined the mechanism underlying the relationship. Addictive social media use is characterized by compulsive engagement, emotional dependence, and difficulty disengaging that may serve as a key mediator linking social media to ED symptoms.

HYPOTHESIS/OBJECTIVE

The objective was to examine the prospective association between time spent on social media and eating disorder symptoms in early adolescents, and the extent to which addictive social media use mediates the association. We hypothesized that addictive social media use would partially mediate the prospective association between time spent on social media and ED symptoms in early adolescents.

METHODS

We analyzed prospective data from the Adolescent Brain Cognitive Development (ABCD) Study. Generalized structural equation modeling was used to assess the mediating role of addictive social media use (Year 3) in the association between social media time (Year 2) and ED symptoms (Year 4), adjusting for potential covariates. ED symptoms included: binge eating symptoms, distress about binge eating, worry about weight gain, self-worth tied to weight, and inappropriate compensatory behaviors to prevent weight gain.

ANTICIPATED RESULTS

We expect that greater social media time will be associated with higher levels of addictive social media use, which in turn will predict greater odds of ED symptoms. We further anticipate that addictive social media use will mediate approximately 50% of the association between social media time and ED symptoms.

SIGNIFICANCE OF PROJECT

Understanding the mechanisms linking addictive social media use to ED symptoms is essential for informing prevention strategies. Identifying addictive social media use as a mediating factor highlights the need for interventions that promote healthier digital engagement, parental monitoring, and family media plans. These findings may guide public health efforts aimed at reducing ED risk among adolescents.

Ernesto Leon Ortiz

Depressive Symptoms, Psychosocial Factors, and Suicide Risk in Adolescents

Mentors: Lela Bachrach, MD, MS and Kat Young, MD

Hello! My Name is Ernesto Leon-Ortiz and I am a rising senior at Archbishop Riordan High School. My interest in the medical field particularly came to be because of personal medical experiences. As a child, I was struggling heavily with anxiety to the point it was affecting my everyday life. I began talking to therapists, and thanks to them, I gradually learned how to manage my anxiety myself. This part of my life sparked a deep interest in psychology and the science behind mental health, as well as a desire to understand how research is used to study, explain, and improve mental health. Outside of my medical interests, I also heavily enjoy listening to music, going to concerts, and hanging out with my friends whenever I can. As I have an interest in psychology, pediatrics, and law, the SSRP program looked like the perfect opportunity to guide me and help me decide what I want to study specifically in college. I am incredibly grateful for the opportunity to work alongside Dr. Lela Bachrach this summer, and I'm excited to see where this experience takes me ahead in life.

INTRODUCTION

Suicide is the second leading cause of death among adolescents in the United States, and rates of depression and suicidal ideation are continuing to rise. Primary care clinics are important settings for early identification of youth at risk. While depression is a well known risk factor for suicide, it remains unclear which individual symptoms or psychosocial factors are most strongly associated with suicide. Digital social screening can be used to identify adolescents experiencing depression, suicidality, substance use, and other psychosocial stressors.

HYPOTHESIS/OBJECTIVE

We hypothesize that specific depression symptoms, particularly hopelessness and anhedonia, together with substance use will identify adolescents at greatest risk for suicidal ideation. The objective of our study is to determine which depressive symptoms and/or psychosocial factors are most strongly associated with suicide risk in adolescents.

METHODS

We conducted a retrospective analysis of 3,344 digital behavioral health screenings completed by adolescents from November 2024 - July 2026. Screening measures included the PHQ-9, supports, substance use screening, and suicidality and safety questions. Using statistical analysis, we identified the symptoms most associated with suicidal ideation.

ANTICIPATED RESULTS

We anticipated that the depressive symptoms most correlated with suicidal ideation would be loss of interest, hopelessness, and self doubt. As depressive symptoms reflect negative views of one›s self, it is more likely to be a cause of suicidal ideation. Even though anxiety symptoms such as panic or worry and substance use will likely have an association with suicidal ideation, we believe that depression symptoms will have the strongest correlation.

SIGNIFICANCE OF PROJECT

By identifying the specific depressive symptoms and psychosocial factors most strongly associated with suicide risk, clinicians may be able to improve risk stratification during routine primary care visits, identify adolescents requiring immediate mental health evaluation or enhanced safety planning, and allocate behavioral health resources more effectively. The findings from this study may also inform refinement of digital screening algorithms and clinical decision support tools, ultimately improving early identification and intervention for adolescents at risk of suicide.

Heidi Mendez Mejia

Evaluation of TB Patient Care and Education at the Berkeley Free Clinic

Mentor: Mai Baalbaki MD, MSc.
Contributing Author: Crithel Temoxtle

Hello! My name is Heidi Mendez Mejia, and I am a rising freshman at Washington University in St. Louis. I have a strong interest in pursuing a career in public health and eventually going to medical school. My interest in healthcare grew after I had the opportunity to volunteer at the Berkeley Free Clinic during SSRP last summer. Seeing the different challenges people face when trying to access healthcare made me understand the inequalities that exist and how research has the power to help improve these gaps. I hope to continue learning more about these issues while gaining research experience that will help me make a positive impact in the future. I'm excited to continue this journey with Dr. Mai Baalbaki and grateful for the opportunity to participate in this program!

INTRODUCTION

Tuberculosis (TB), caused by the bacterium *Mycobacterium tuberculosis*, remains a significant public health concern within the U.S. California consistently reports among the highest TB cases nationally, with San Francisco being an epicenter. TB is categorized as latent TB infection (LTBI) or active TB disease; those with LTBI are asymptomatic and non-infectious, whereas active TB is symptomatic and transmissible via aerosolized droplets. TB disproportionately impacts at-risk populations, including immigrants, the uninsured, and those experiencing homelessness. Limited public awareness and constrained public health infrastructure often contribute to delayed TB diagnosis and treatment.

HYPOTHESIS/OBJECTIVE

Evaluating the Berkeley Free Clinic's (BFC) progress in facilitating patient access to LTBI testing and treatment by analyzing three years of quality-of-care survey data can inform targeted quality improvement initiatives.

METHODS

A retrospective cross-sectional analysis of existing survey data collected from adult patients (aged ≥18) accessing care at the BFC from July 2023 to July 2025. Interviewer-assessed questionnaires evaluated patient concerns about healthcare access, barriers to TB treatment using multiple-choice, Likert-scale ratings, and open-ended questions. Quantitative data were analyzed using descriptive statistics in Microsoft Excel; qualitative responses from open-ended questions were analyzed using Dedoose. Google Forms was used for data collection. Data were evaluated using Google Forms to assess the clinic's effectiveness in TB education, the accessibility of LTBI testing and treatment, and remaining knowledge gaps.

ANTICIPATED RESULTS

Participants identified the BFC as a trusted and accessible healthcare source. Approximately 74% of participants reported barriers to accessing care, with financial constraints including lack of insurance coverage and affordability cited as a primary obstacle. Significant TB knowledge gaps were identified, with approximately 86% of participants reporting little or no confidence in distinguishing between LTBI and active TB disease.

SIGNIFICANCE OF PROJECT

This project highlights persistent barriers to TB care and significant knowledge gaps among patients at the BFC. Findings will inform several clinic-wide initiatives: development of patient educational materials, the establishment of a patient advocacy group to support individuals undergoing treatment, and a medical follow-up protocol to guide patients after an LTBI diagnosis. Together, these efforts aim to improve continuity of care and strengthen TB literacy.

Amaan Mohammed

Are Nighttime Stretching AFOs Effective for Treatment of Achilles Contractures in Children and Adolescents?

Mentor: Coleen Sabatini, MD, MPH
Contributing Author: Ryan Bowen

Hello! My name is Amaan Mohammed. I'm an incoming 2nd year at UC Riverside, majoring in Cellular, Molecular, and Developmental Biology. My interest in orthopedics was sparked by shadowing orthopedic surgeons at UCSF Benioff Children's Hospital. For the first time, I saw how surgery directly shapes a patient's quality of life, and that connection between the operating room and a patient's overall lifestyle deepened my interest in the field. Outside of research, I enjoy video production and its ability to produce impactful messages while allowing for creative expression. In the future, I hope to combine my curiosity, creativity, and passion for science as an MD working for underserved communities. SSRP has immersed me in orthopedic research in ways I hadn't anticipated, and I'm deeply grateful to Dr. Sabatini for their mentorship and for introducing me to orthopedic surgery.

INTRODUCTION

Achilles tendon contractures, characterized by tightness of the Achilles tendon that restricts ankle dorsiflexion, are a common orthopedic condition in the pediatric population. This condition can significantly impair a child›s gait, mobility, and overall quality of life. Achilles contractures occur in children with a history of idiopathic clubfoot, a common congenital deformity affecting approximately 1 in 1,000 live births, as well as in children with autism spectrum disorder (ASD) and in otherwise healthy children who present with habitual toe-walking. Ankle-Foot Orthotics (AFOs) are widely prescribed to hold the ankle in a dorsiflexed position during sleep, applying a prolonged stretch to the Achilles tendon to gradually improve flexibility and prevent contracture recurrence.

HYPOTHESIS/OBJECTIVE

This study aims to evaluate the effectiveness of nighttime stretching AFOs in pediatric populations with non-neuromuscular Achilles contractures.

METHODS

This retrospective chart review will identify patients through the EPIC electronic health record system under IRB-approved protocols. Extracted data will include patient demographics, date of AFO prescription, ankle dorsiflexion measurements at baseline and follow-up visits, and documentation of contracture recurrence or additional interventions. Changes in dorsiflexion will be analyzed over a two-year follow-up window and compared across subgroups (clubfoot, ASD, and toe-walking) using appropriate statistical methods.

ANTICIPATED RESULTS

We hypothesize that patients who utilize the braces as instructed will demonstrate measurable improvements in ankle dorsiflexion over the two-year follow-up period. We expect improvements to vary across subgroups, with clubfoot patients potentially showing the most consistent gains, given the established role of bracing in clubfoot management. Consistent AFO use is also anticipated to be associated with lower contracture recurrence rates. Variations in follow-up timing and patient compliance with AFOs may affect the findings.

SIGNIFICANCE OF PROJECT

Despite their frequent use, there remains a notable gap in the literature regarding the objective effectiveness of nighttime stretching AFOs in non-neuromuscular pediatric populations. This study seeks to address that gap and provide data to meaningfully inform clinical decision-making and orthotic prescribing practices.

Emily Ng

Using Mitochondrial Partitioned Polygenic Risk Score to Study MASLD phenotypes in Response to Resmetirom in Human iPSC-Derived Hepatocyte-like Cells

Mentors: Yuanyuan Qin, PhD and Marisa Medina, PhD

Hi! My name is Emily Ng, and I'm an incoming freshman at Stanford University studying Management Science and Engineering and Biology. I'm interested in the intersection between medicine and finance and hope to work in finance within the healthcare sector, ensuring rare-disease projects receive the funding they deserve. Growing up in a low-income and first-generation immigrant family, my passion for Biology and finance stem from my fathers rare autoimmune kidney disease and cancer. While my family eventually received a diagnosis, we learned his condition had no cure, no next steps, and very little hope. Seeing how demoralizing this was, I'm driven to research rare-diseases. Because I believe, everyone deserves to understand what's happening to their own bodies. As a result, I've continued to study healthcare access for immigrant communities like mine, receiving associate degrees in Sociology and Psychology and interning for Biotech companies, where I began to learn how pivotal finance was in scientific development. I'm thankful for the SSRP program and staff, especially to the Medina lab and Dr. Yuanyuan for welcoming me this summer, broadening my horizons and giving me memories I will cherish forever. They have made my decision between finance and research all the more meaningful.

INTRODUCTION

Metabolic dysfunction-associated steatotic liver disease (MASLD), the buildup of excess fat in the liver, is the most common chronic liver disease, affecting over 30% of the population. In 2024, Resmetirom became the first-ever drug approved by the FDA for the treatment of metabolic dysfunction-associated steatohepatitis (MASH) at stage F3. However, only ~30% of patients were responsive. Given the heterogeneity of MASLD, precision medicine approaches are needed for personalized treatments. Major genes/SNPs (e.g., PNPLA3 and TM6SF2) contribute to MASLD; however, overall genetic factors contributing to MASLD progression or resmetirom response are largely unknown. Mitochondrial dysfunction is a hallmark of MASLD, contributing to impaired fatty acid β-oxidation. Hence, we focus on a mitochondria partitioned Polygenic Risk Score (mtPRS) which captures inherited mitochondrial genetic risks that may influence Resmetirom response.

HYPOTHESIS/OBJECTIVE

Human induced Pluripotent Stem Cells (iPSC) derived hepatocyte-like cells (iHep) with high mitochondria partitioned Polygenic Risk Score (mtPRS) of MASLD will be less responsive to Resmetirom compared to the ones with low mtPRS.

METHODS

In this study, we calculated a mitochondria partitioned polygenic risk score (mtPRS) of MASLD from 15 loci in our POST cohort. iPSCs from high (n=5) vs. low (n=5) mtPRS donors were differentiated into iPSC-iHeps. Mitochondrial activity, Mitochondrial oxidative stress, and Intracellular lipid accumulation in response to Resmetirom were measured and compared between high and low mtPRS lines. Mitochondrial activity was measured by determining the oxygen consumption rate (OCR) on a Seahorse Bioscience XFe96 extracellular flux analyzer. Mitochondrial oxidative stress was detected by MitoSox Red staining and live-cell imaging. Intracellular lipid accumulation was quantified with Bodipy 493/503 staining and live cell imaging.

ANTICIPATED RESULTS

Based on preliminary analysis, we anticipate iHeps with high mtPRS will be less responsive to Resmetirom. We expect that after the treatment of Resmetirom in these iHeps, those with baseline higher mtPRS scores will exhibit impaired mitochondrial fatty acid beta-oxidation, increased oxidative stress and lipid accumulation compared to the low mtPRS ones.

SIGNIFICANCE OF PROJECT

Our study will identify genetic factors that impact resmetirom response and provide better screening for which patients who benefit from the drug, resulting in improved precision medicine approaches.

Lucas Panis

Liver Injury in Children with Transfusion Dependent Thalassemia on Chelation

Mentor: Madhav Vissa, MD

Hello, my name is Lucas Panis and I am going into my senior year at Archbishop Riordan High School. My passion for healthcare and medicine started when I was diagnosed with Myasthenia Gravis, a chronic autoimmune disorder. I underwent a series of neurology checks and other tests, including MRIs, EKGs, and even a muscle biopsy. Though it was a difficult process, my experience with the hospital staff, nurses, nurse practitioners, doctors, and other healthcare professionals inspired me. Their dedication and the quality of care they provided fueled my interest in helping others with similar conditions like mine. In the future I would like to work in medicine and clinical research to help improve the lives of patients. Thank you to Dr. Fung, Dr. Killiliea, and Dr. Madhav Vissa for allowing me to take part in this meaningful research opportunity.

INTRODUCTION

Pediatric patients with transfusion dependent thalassemia (TDT) often require chelation therapy to treat iron overload. Deferasirox is the primary oral iron chelator; however, transaminitis frequently interrupts chelation treatment. We aimed to characterize the longitudinal correlation between liver function; chelator pauses and evaluations for alternative causes of liver dysfunction.

HYPOTHESIS/OBJECTIVE

We hypothesize that many children with transfusion dependent beta thalassemia will have frequent transaminitis that will interrupt optimal chelation in pediatric patients with TDT.

METHODS

We performed an observational, retrospective study of pediatric patients aged 1-25 with transfusion dependent thalassemia who have been on chelation treatment. We automatedly and manually chart reviewed to extract laboratory, clinical, and medication data. We evaluated how many patients had alanine aminotransferase (ALT) elevations and how often chelation doses were held or reduced. We calculated how often alternative causes for liver disease were evaluated. Descriptive statistics were used to summarize data.

ANTICIPATED RESULTS

Thirty-one patients met the inclusion criteria, including 28 with evaluable longitudinal liver enzyme data. Four had no ALT elevations, 12 had 1-5 elevations, 4 had 5-10 elevations, and 7 experienced more than 10 ALT elevations. Deferasirox was held in 17 patients, and doses were reduced in 23 patients. Reductions were not always directly related toxicities; some were made in response to decreasing iron burden. Respiratory viral panels were obtained 33 times in 20 patients and were positive in 31 of 33 evaluations. Among the 7 patients with more than 10 ALT elevations, 5 had liver ultrasounds, 3 had RVPs, 4 underwent autoimmune evaluation, and 4 were referred to gastroenterology. Aside from positive RVPs, there were no alternatives causes of ALT elevation identified.

SIGNIFICANCE OF PROJECT

Transaminitis regularly affected deferasirox treatment, but alternative causes of liver injury were rarely evaluated. Respiratory viral infections may contribute to ALT elevations and should be considered when evaluating transaminitis.

Sierra Park

Jumping Toward Stronger Bones: Relative Peak Power as a Predictor of Femoral Neck Strength in Thalassemia

Mentor: Ellen Fung, PhD, RD
Contributing Author: Raquel Manzo

Hello! My name is Sierra Park, and I am a Master of Nutritional Science and Dietetics student at UC Berkeley. I was always curious about scientific research and hoped to be a part of a clinical research project that involves patients and improving their quality of life. I am incredibly grateful for this amazing opportunity to work with Dr. Ellen Fung to explore bone health in thalassemia. This experience has shaped how I analyze and appreciate research, and as I continue on my path to become a dietitian, I hope to participate in research to provide up-to-date evidence-based practices. I would like to thank Dr. Fung for supporting me throughout this learning experience, providing me with invaluable exposure to human subjects research, from clinical health exam observations to the complexities of analyzing bone architecture from DXA scans. I am deeply thankful for this opportunity and her mentorship!

INTRODUCTION

Thalassemia causes bone complications and deformities that distort traditional bone mineral density (BMD) measurements, making standard dual-energy X-ray energy absorptiometry (DXA) measurements an incomplete assessment for this population. While composite indices of femoral neck strength and vertical jump tests were found to be correlated and have predicted fracture risk in other populations, their connection remains unexplored in thalassemia. This study aims to determine whether the vertical jump test can serve as a reliable, non-invasive tool for predicting hip strength and further understanding bone health in individuals with thalassemia.

HYPOTHESIS/OBJECTIVE

Relative peak jump power will be correlated with DXA-derived composite indices of femoral neck strength in individuals with thalassemia. Additionally, exercise intervention will improve these hip strength indices and jump power in this population.

METHODS

This study evaluated 18 patients with thalassemia who participated in a short term exercise intervention study. Each participant's hip scan was used to obtain femoral neck width (FNW) and hip axis length (HAL). Composite indices of femoral neck strength, which includes composite strength index (CSI), bending strength index (BSI), and impact strength index (ISI), were derived from body height and weight, femoral neck BMD, FNW, and HAL. Relative peak power was calculated using Sayer's countermovement jump equation from Sargen's jump test.

ANTICIPATED RESULTS

Our findings revealed a statistically significant positive correlation between relative peak jump power and both CSI ($\rho = 0.034$) and ISI ($\rho = 0.013$), even after adjustment for lean mass, and a marginally nonsignificant positive trend for BSI ($\rho = 0.052$). However, relative peak power and these structural bone parameters remained relatively stable throughout short-term (<1 year) exercise intervention, with nonsignificant minor fluctuations over time ($\rho > 0.5$).

SIGNIFICANCE OF PROJECT

The observed correlation suggests that relative peak jumping power may serve as a cost-efficient, quick, and accessible clinical predictor of femoral neck strength in patients with thalassemia. However, evaluating significant longitudinal changes in the functional or bone metrics following an exercise intervention proved unfeasible primarily due to low participant adherence to exercise protocol and the static nature of adult bone remodeling.

AJ Schroeder

Synthesis and Assessment of KDM5A Proteolysis-Targeting Chimeras (PROTACs)

Mentors: David Byun and Danica Fujimori, PhD

Hello, my name is Aj Schroeder. I am a recent graduate and will be starting my Master's in Chemistry at the University of Washington this fall. My desire to apply chemical tools to human health is deeply rooted in a personal medical history that sparked a lifelong curiosity about molecular mechanisms. Over the course of my academic career, this has evolved into a specific fascination with how small molecule interactions influence physiological outcomes and symptom causation. This passion drives my current focus on targeted protein degradation methods for cancer treatment, bridging laboratory chemistry with clinical applications. I am deeply grateful for the opportunity to explore these intersections this summer through the UCSF SSRP under the guidance of David Byun and Dr. Danica Fujimori. I sincerely thank my mentors, as well as all members of the Fujimori lab and SSRP program, for preparing me for a future in research.

INTRODUCTION

Lysine-Specific Demethylase 5A (KDM5A) is an essential histone modifier involved in epigenetic gene regulation through catalytic demethylation of H3K4me3 and noncatalytic scaffolding. Overexpression of KDM5A and oncogenic fusion proteins incorporating its PHD3 domain are strongly implicated in tumorigenesis, growth, and drug resistance. While small molecule catalytic inhibitors exist, they fail to disrupt noncatalytic scaffolding functions or target noncatalytic fusion proteins. To target the PHD3 domain, inhibitors were previously identified through high throughput screening using a fluorescence polarization competitive binding assay. Targeted Protein Degradation (TPD) utilizes Proteolysis-Targeting Chimeras (PROTACs), which are heterobifunctional molecules that link a target protein to an E3 ubiquitin ligase. This offers an approach to eliminate KDM5A and PHD3 containing fusion proteins entirely, mimicking genetic knockout to suppress both enzymatic and structural oncogenic drivers.

HYPOTHESIS/OBJECTIVE

Develop and evaluate PHD3 targeting PROTACs to induce proteasomal degradation of KDM5A, suppressing both catalytic and scaffolding functions in KDM5A driven cancer cell lines.

METHODS

An array of KDM5A targeting PROTACs will be synthesized through multistep organic synthesis, generating core ligand intermediates via ester activation, Suzuki coupling, and cyclization. Core ligands will be modified using Buchwald-Hartwig cross coupling and conjugated to linkers and E3 ligase ligands (CRBN or VHL) via amide coupling. Biological efficacy will be determined by introducing PROTACs to KDM5A driven cancer cell lines and quantifying target protein degradation using Western blot.

ANTICIPATED RESULTS

In cell culture assays, PROTAC treatment is anticipated to induce proteasomal degradation, resulting in a significant reduction of KDM5A protein levels, effectively disrupting both catalytic and scaffolding capabilities.

SIGNIFICANCE OF PROJECT

Traditional catalytic inhibitors leave noncatalytic scaffolding functions and oncogenic PHD3 fusion proteins intact, rendering them effectively undruggable by conventional means. Developing viable PHD3 targeted PROTAC degraders provides an essential chemical tool, validating targeted protein degradation as an appropriate method to eliminate both KDM5A and oncogenic PHD3 fusion proteins.

Cadyn Woon

The Missing Mineral: Why Zinc Assessment Matters in Sickle Cell Disease and Thalassemia

Mentor: Ellen B. Fung, PhD RD CCD

My name is Cadyn Woon, and I'm a rising senior at Edina High School. Right now, I'm interested in chemistry and hoping to major in biochemistry when I go to college. As far back as I can remember, I've always been a STEM girl. My parents would always get me STEM related, building, coding, or other science related kits for Christmas or my birthday. I had a natural drive to explore and work with my hands to put parts together to find a solution or an outcome that satisfied me. I joined SSRP to get a taste of research, and apply the skills and knowledge I've picked up. I also want to connect and bond with like-minded people, especially those who are identified as underrepresented since my high school is predominantly white. A special thank you and acknowledgement to Dr. Ellen Fung, I am so grateful I had this opportunity to work under her. Her support and guidance has been so helpful throughout my research. I would also like to thank Dr. Killilia and the rest of the SSRP staff too, I am so honored to have the opportunity to work ad connect with all these people.

INTRODUCTION

Annual comprehensive care guidelines for patients with thalassemia (Thal) include measuring plasma zinc levels. Although zinc deficiency (ZD) is commonly reported in both Thal and sickle cell disease (SCD), similar screening guidelines have not been established for patients with SCD. It has been suggested that up to 70% of SCD adults and 85% of Thal patients may be ZD, which has been associated with short stature, increased infection, diabetes, pica, alopecia, hypogonadism, and osteoporosis. What remains unclear is how frequently zinc is assessed, and if similar prevalence of deficiencies and zinc-related morbidities occur in patients at UCSF.

HYPOTHESIS/OBJECTIVE

1. To assess the prevalence of zinc status assessment in patients with SCD and Thal receiving care at UCSF
2. To explore the relationship between ZD and zinc-related co-morbid conditions in patients with SCD and Thal receiving care at UCSF

METHODS

Data were abstracted from the medical records of patients with SCD and Thal between 2016-2026. All patients with at least 1 medical visit were included in the analysis of age, gender, diagnosis, plasma or serum zn and existence of clinically defined comorbid conditions. ZD was defined as plasma or serum zn < 70 ug/dL. Comorbid conditions in patients with or without ZD were compared for their prevalence in both SCD and Thal.

ANTICIPATED RESULTS

Only 5% of UCSF patients with SCD had zinc assessed compared to 29% of Thal. Interestingly, there was no difference in the prevalence of ZD between patients with SCD (59%) and Thal (70%), $p=0.37$. Analyses are pending on the prevalence of co-morbid conditions and their relationship to ZD in both SCD and Thal.

SIGNIFICANCE OF PROJECT

If a significant relationship exists between ZD and frequent zinc related co-morbid conditions in patients with SCD at UCSF, it could provide justification for clinicians to assess plasma zinc more frequently and encourage the development of clinical care guidelines to include annual zinc status assessment. Finally, uncovering deficiencies and fulfilling the 'missing mineral' for individual patients could open a unique treatment window — zinc supplementation. This overlooked mineral holds the power to improve the lives of these high risk populations by easing the burden of infection, growth failure, and osteoporosis— and possibly helping them thrive.

Nahom Worku

Investigating Soluble Low-Density Lipoprotein Receptor (sLDLR) in Cerebrospinal Fluid and Plasma to Better Understand Cholesterol Regulation

Mentor: Sarah King, PhD
Contributing Authors: Ronald Krauss, MD and Sarah King, PhD

Hello! My name is Nahom Worku, and I am a rising senior at Berkeley High School. Growing up, I was always interested in the science and building behind technology, which originated through my interest in playing video games. This interest merged into engineering in the medical field through my passion of wanting to aid people in my community who weren't always able to get the help that they deserve, but also wanting to still build things. I want to manufacture tools that assist medical professionals in their process of treating patients. With college applications approaching. I hope to continue my education in mechanical/electrical engineering or biomedical engineering. I am very grateful for the SSRP staff and my mentor, Dr. Sarah King, for allowing me and my peers the chance to experience the research process firsthand and explore our interests.

INTRODUCTION

Cholesterol regulation is essential for maintaining normal cellular function, and disruptions in cholesterol metabolism have been linked to cardiovascular and neurodegenerative diseases. The low-density lipoprotein receptor (LDLR) plays a critical role in regulating cholesterol by removing low-density lipoprotein (LDL) particles from circulation. A soluble form of LDLR (sLDLR), created through receptor cleavage, may provide insight into LDLR regulation and cholesterol metabolism.

HYPOTHESIS/OBJECTIVE

The objective of this study is to determine whether sLDLR can be detected in cerebrospinal fluid (CSF) and plasma and to evaluate its relative abundance in these biological samples.

METHODS

Western blot analysis is being used to detect sLDLR in CSF and plasma samples. Protein bands will be analyzed to determine the presence and relative abundance of sLDLR between sample types.

ANTICIPATED RESULTS

Data collection and analysis are currently in progress. We anticipate detecting measurable levels of sLDLR in CSF and plasma and identifying differences in its abundance that may provide insight into LDLR processing and cholesterol regulation.

SIGNIFICANCE OF PROJECT

Understanding the presence and abundance of sLDLR may improve knowledge of LDLR biology and cholesterol metabolism. These findings could support future research investigating the relationship between cholesterol regulation and diseases associated with altered lipid metabolism, including neurodegenerative disorders such as Alzheimer's disease.

45th Annual Summer Student Research Program Symposium

California Institute for Regenerative Medicine (CIRM) Scholars


Alexa Adutwum


Ishaan Bhaduri


Emily Ng


Lucas Panis


Nahom Worku

This group of students was funded by the California Institute for Regenerative Medicine (CIRM) Sustain-A-SPARK grant (Supporting Underrepresented STEM Adapting to Change: Summer Program to Accelerate Regenerative Medicine Knowledge). Their summer research projects focused primarily on stem cell, progenitor cell or stem cell translational research. In addition to their research, they presented a brief 'flash talk' about their work to their peers, they engaged in patient focused activities, blogged about their research activities, and attended numerous additional education activities regarding stem and bone marrow transplant. Students also had the opportunity to participate in the Kanbar Clinical Simulation Unit at UCSF as well as tour the Thermo Fisher GMP facility at the UCSF Mission Bay Campus, where gene therapy products for human clinical trials are produced. These students will have the opportunity to present their results twice, at the CIRM-SPARK annual conference at UC Berkeley in August with the other CIRM SPARK trainees from California, and again at our SSRP research symposium.

Hartnell Scholars


Melissa Distancia


Henry Huynh

These students were supported by a generous grant from Hartnell Community College. These gifted students have just completed their associates' degree and were accepted into a University of California Campus this fall. Both are interested in pursuing careers in bioscience and/or health care. Each student developed their own hypothesis driven project with the assistance of their mentor, carried out this project over our 7-week program, presented a brief 'flash talk' about their work to their peers, participated in weekly journal clubs, scientific and educational enrichment activities. Students also had the opportunity to participate in the Kanbar Clinical Simulation Unit at UCSF as well as tour the Thermo Fisher GMP facility at the UCSF Mission Bay Campus, where gene therapy products for human clinical trials are produced. Each student is presenting the results of the findings from their project in both oral and poster presentation formats during the SSRP symposium sessions.

45th Annual Summer Student Research Program Symposium

SSRP Scholars


Daniela Galindo


Ernesto Leon Ortiz


Heidi Mendez Mejia


AJ Schroeder


Amaan Mohammed

These students were funded by donors to the Summer Student Research Program. Both high school and returning SSRP Scholars are funded under this mechanism. All students are interested in pursuing careers in bioscience and/or health care. Each SSRP funded student developed their own hypothesis driven project with the assistance of their mentor, carried out this project over our 7-week program, presented a brief 'flash talk' about their work to their peers, participated in weekly journal clubs, scientific and educational enrichment activities. Students also had the opportunity to participate in the Kanbar Clinical Simulation Unit at UCSF as well as tour the Thermo Fisher GMP facility at the UCSF Mission Bay Campus, where gene therapy products for human clinical trials are produced. Each student is presenting the results of the findings from their project in both oral and poster presentation formats during the SSRP symposium sessions.

UCB Masters in Dietetics Intern


Sierra Park

For the 3rd year in a row, we collaborated with the administrators from the master's degree in Dietetics Program at the University of California, Berkeley. This 2-year Clinical Dietetics program requires each student to complete a summer research Cap Stone project. This student was selected from a competitive pool of applicants from all over the United States. With the guidance of her research mentor, she developed her own hypothesis driven project, carried out this project during the 9-week one-on-one mentored program, presented a brief 'flash talk' about her work to her peers, participated in weekly journal clubs, scientific and educational enrichment activities. She is presenting the results of the findings from her project to the UC Berkeley Nutrition Faculty at their research symposium, as well as part of the SSRP symposium sessions.

This Year's Mentors

MENTOR	DEPARTMENT, DIVISION	LOCATION
Lela Bachrach, MD MS	Pediatrics & Adolescent Medicine	UCSF Benioff Children's Hospital Oakland
Mai Balbaaki, MD	Berkeley Free Clinic	UC Berkeley
David Byun	Cellular and Molecular Pharmacology	UCSF Mission Bay
Jill Dwyer	Pediatrics, Gastroenterology	UCSF, MLK Research Building
Marissa Evans	Neurology, Child Neurology	UCSF, MLK Research Building
Alex Fay, MD	Neurology, Child Neurology	UCSF, MLK Research Building
Ellen Fung, PhD RD CCD	Pediatrics, Hematology	UCSF Benioff Children's Hospital Oakland
Danica Galonic Fujimori, PhD	Cellular and Molecular Pharmacology	UCSF Mission Bay
David Killilea, PhD	Pediatrics, Hematology	UCSF, MLK Research Building
Sarah King, PhD	Pediatrics, Cardiology	UCSF, MLK Research Building
Ron Krauss, MD	Pediatrics, Cardiology	UCSF, MLK Research Building
Marisa Medina, PhD	Pediatrics, Cardiology	UCSF, MLK Research Building
Jason Nagata, MD MSc	Adolescent & Young Adult Medicine	UCSF, Mission Bay Campus
Yuanyuan Qin, PhD	Pediatrics, Cardiology	UCSF, MLK Research Building
Coleen Sabatini, MD, MPH	Pediatrics, Orthopaedic Surgery	UCSF Benioff Children's Hospital Oakland
Mala Setty, MD	Pediatrics, Gastroenterology, Hepatology and Nutrition	UCSF Benioff Children's Hospital Oakland
Prachi Singh, DO FAAP	Pediatrics, Infectious Diseases	UCSF Benioff Children's Hospital Oakland
Madhav Vissa, MD	Pediatrics, Hematology	UCSF Benioff Children's Hospital Oakland

Notes

Summer Student Research Program

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