

RESURG

Research Experience in Surgery

Mission Statement

Our vision is to promote, develop, and train students to become competent research professionals, while mentoring them in their professional and educational goals.

Visit Our Website:

<http://health.ucdavis.edu/surgery/resurg.html>

Instagram:

<http://www.instagram.com/resurgatucdavis/>

Email Us: hs-resurg@ucdavis.edu

Highlighted Current Projects

Effect of Bariatric Surgery on Pregnancy

Research Classification: Retrospective

Co-PI: N/A

Research Assistants: Kanksha Koti, Charuthi Arul

Study description: This study is conducted to determine if the chronological sequencing of when bariatric surgery happens in relation to pregnancy has effects on the mother's body (during and after pregnancy) and the resulting child's development. The data gathered can be split into 2 main categories: patients who received bariatric surgery prior to pregnancy, and those who underwent bariatric surgery post-pregnancy. We will use the values indicated in their charts to identify how well patients responded to pregnancy post bariatric surgery as well as bariatric surgery post pregnancy. The data comparison will determine whether there is a significant impact on pregnancy pre- and post-bariatric surgery.

Principal Investigator: Dr. Victoria Lyo

Fellows: Miaoli Bloemhard

Anticipated Enrollment #: 3800

Improving Surveillance for Patients with known Aortic Aneurysms (ILLUMINATE)

Research Classification: Retrospective

Co-PI: Dr. Steven Maximus

Research Assistants: Emily Xu, Aida Mushell,
Dena Sayrafi

Study description: Racial, gender, and ethnic minority groups less frequently receive screening but more frequently have aneurysms and worse outcomes with rupture and repair. Our study aims to improve surveillance for aneurysmal disease in these groups that could improve their outcomes on a population level. Using Natural Language Processing (NLP) software in conjunction with Electronic Medical Records (EMR) presents a unique opportunity to identify new aneurysms and patients who were previously lost to follow-up. Additionally, this software allows for the identification and surveillance of aneurysmal disease in patients who may not meet traditional screening criteria.

Principal Investigator: Dr. Misty Humphries

Residents: Dr. Kathryn DiLosa, Dr. Lauren Cralle
Dr. Anders Davidson

Anticipated Enrollment #: 2122 subjects

Improving Access to Primary Care Resources for Trauma Patients (TAC)

Research Classification: Prospective

Co-PI: N/A

Research Assistants: Matthew Jue, Nithya Ganti,
Emily Xu

Study description: The goal of TAC is to increase access to primary care services and follow up treatment for trauma patients who are uninsured when initially seen in the emergency department. To compare current practices in the UCDCM emergency department with possible improvements to protocol, the TAC is split into three study groups. The Control Group will follow the current discharge process and will receive no referrals or advice beyond what has been discussed with the inpatient physician. Intervention Group 1 will receive advice on follow up care from qualified medical personnel. Intervention Group 2 will receive follow up care advice as well as a referral to the student-run clinics at UC Davis, where they will receive additional help on getting set up with MediCal. The patients will be surveyed before they are initially discharged from the emergency department, and followed via surveys at 30 and 60 days after.

Principal Investigator: Dr. Joseph Galante

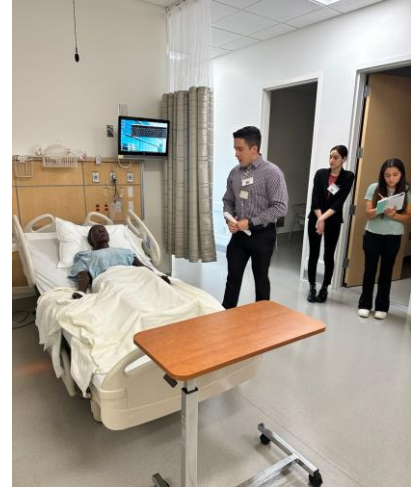
Residents: Dr. Jessica Guzman

Anticipated Enrollment #: 39

Have a study you need help with?

Request Assistance [HERE](#). To learn more about our program visit our website [HERE](#).

Fostering the Future



We recently had our third annual philanthropy event, Fostering the Future, on July 8 and July 9!

This was a two-day program for high school students in underserved communities in the greater Sacramento area. Additionally, in collaboration with Northstate Together, we were able to welcome students from Siskiyou, Tehama, and Glenncoie counties! Over the weekend, students had the opportunity to explore careers in the field of healthcare and learn valuable professional and life skills that will aid in fostering a successful future in healthcare careers. During this event, the students attended a number of workshops that promote professional development, build professional connections, and enhance education about careers in healthcare, medicine, and clinical research. Some of the activities included a suturing workshop, medical professions panel, and a resume/cover letter writing class.

This event has been a huge success and would not have been possible without the support of the healthcare professionals who came in and our RESURGers who led the students. We extend an extra special thank you to Julia, Emily, Elisa, and Alisa for organizing this year's event!

We look forward to future events!

Q&A with New Supervising Officer: Brian Luong

How long have you been in RESURG and what are some highlights from your experience in the program?

- I have been a part of RESURG since Summer 2021 and I recently became the Supervising Officer for RESURG. One significant highlight of my experience in the program was the amazing opportunity to present at the 47th annual meeting of the Vascular & Endovascular Surgery Society (VESS) in Whistler, Canada. Working closely with Dr. Mimmie Kwong, I presented her research on the significance of the toe-arm index (TAI) in predicting wound healing for vascular patients. This was the first time that any student in the RESURG program had presented at any national conference, and I am incredibly grateful for this chance to help represent the RESURG program nationally and contribute to the field of vascular medicine.

How does RESURG support the professional development of its members?

- The RESURG program helps members grow professionally through mentorship and training. New research assistants are matched with mentors who are experienced within the program. These mentors provide guidance and support to their students throughout their first year in RESURG. RESURG also hosts training classes every other quarter to teach new members about clinical research, which include IRB writing, REDCap database creation, and good clinical practice guidelines.

As the new SO, what innovative ideas do you plan to implement in the program to enhance the experience for its members?

- As the new Supervising Officer for RESURG, my primary focus is to cultivate an inclusive environment that allows all individuals to participate and engage in clinical research, regardless of background or prior knowledge. I want to emphasize that anyone can make meaningful contributions to the medical field, and it does not have to be at a patient's bedside. I am committed to fostering the next generation of inspired and empowered individuals who will shape the future landscape of healthcare through their dedication to research, innovation, and a holistic understanding of medicine.



What opportunities does the RESURG program offer for undergraduates to actively participate in medical research at UCDMC?

- The program serves as a bridge between UC Davis undergraduate students and faculty members at the UC Davis Medical Center. Students are afforded the chance to collaborate with surgeons and researchers, gaining insights into clinical research processes and medical knowledge. Students should actively engage in RESURG training classes, which are hosted every other quarter for our members. Applying the knowledge that they learn in these classes on their research projects within RESURG is key to a meaningful experience in our program.

What are you most looking forward to in your new position?

- In my new role, I look forward to continuing mentoring all of the research assistants within the program and helping them achieve their goals. I am thankful for all of the opportunities that RESURG has presented to me, and I want to ensure that other members also receive the same growth as I had done.

Q&A with New Senior Data Specialist: Charuthi Arul

What is your role/title in RESURG and how long have you been in the program?

- I've been recently promoted to Senior Data Specialist, and I've been a Data Specialist with RESURG since Fall 2022.

What are some of your future career goals?

- I plan to work in the medical device sector, specifically in product development. In addition, I hope to pursue a Master's degree, possibly in Robotics or Mechatronics, to supplement my future career plans and an ongoing degree in Biomedical Engineering.

Can you tell us about the studies you are currently working on and your current responsibilities?

- I'm working with Dr. Hirose on his Fetal Endoscopic Tracheal Occlusion (FETO) for Congenital Diaphragmatic Hernia (CDH) study. The FETO trial explores prenatal intervention involving tracheal occlusion to enhance lung growth and improve CDH outcomes. Within this study, I work to create and update forms through REDCap and maintain communication with the CRC to ensure forms remain HIPAA compliant.

Are you in other extracurriculars and how do you balance your RESURG responsibilities on top of these other activities and school?

- I am on the board for a biomedical devices club as well as an undergraduate research student in a lab! To manage my time, I regularly update my Google Calendar with meetings and tasks, while also keeping a Notion Dashboard up-to-date with school assignments.



Do you have any tips for future RESURG members?

- Ask questions! Having my mentor run down acronyms and technicalities within the role has saved me time and streamlined my learning process!

Is there anything else you'd like to say?

- RESURG has provided me with plenty of opportunities to grow both as a researcher and has given me a supportive space to work on my professionalism. I am grateful for the opportunities to shadow surgeries and work on groundbreaking studies. I can't wait to see what more we can accomplish!

How is RESURG currently doing?

Physicians RESURG is Currently Assisting: 17

RESURG RAs Assisting on Research Studies: 18

Research Studies RESURG is Assisting on: 35

Divisions RESURG Currently Supports: *Vascular, Pediatrics, Trauma, Plastic, Foregut, and General Surgery*

Farewell, Andrea, Anjani, Bryan, and Zilan!



Andrea Sommer

I joined RESURG 3.5 years ago. I was a Vascular Research Assistant, then served as the Regulatory & Compliance Officer before becoming the Supervising Officer. I hope to become a clinical nurse and potentially a nursing and/or anatomy professor in the future. In the Fall, I am starting UCLA's Master's Entry Clinical Nurse Program! My biggest takeaway is that there are an unlimited number of questions that we can ask in medicine. There's always another thing to look at, to improve upon, to increase safety or efficiency. Lastly, this program has impacted me the most by providing chance to work in teams, understand how work now will affect populations in the future and develop independently to develop as a person.



Anjani Patibandla

I was a Research Assistant for a little over two years. I recently graduated with a degree in Evolution, Ecology, and Biodiversity and now am working as a CRC at Stanford University within the Department of Cardiovascular Medicine. I never expected that RESURG would provide me with so many meaningful experiences and opportunities to advance my career in clinical research and medicine. I got to interact with PIs and physicians on a regular basis and even was given the opportunity to shadow in the operating room. My experiences within RESURG are what gave me the confidence to pursue clinical research as a full-time position after graduation. My biggest takeaway from this experience is the amazing people I met.



Bryan Kuo

I graduated in Spring 2023 with a degree in Global Disease Biology on the pre-med track and just wrapped up my 2.5 years of working as a Data Specialist in RESURG. I'm taking a gap year to get some more clinical/research experience before I apply to medical school. I also plan to take this time to give back to the community, pursue hobbies, and enjoy some time off. I am grateful for the opportunity to assist Dr. Donde and Dr. Humphries with the e-consults study because it showed me the power and importance of both telehealth and imaging and gave me a little taste of the world of medical technology and innovation, which I am now quite interested in. This program really opened my eyes to the importance and impact of clinical research, as well as the art, science, and human aspects of surgery.



Zilan Zheng

I was a Data Specialist then Senior Data Specialist in RESURG for the past 2.5 years! I also had the opportunity to serve as the Curriculum Coordinator for Fostering the Future 2022. I graduated with a major in Biochemistry and Molecular Biology and a minor in Quantitative Biology and Bioinformatics. RESURG has taught me the fundamentals of clinical research and led me to UCSF where I currently work as a CRC in the department of Pediatric Rheumatology. I hope to apply my passion for medicine in the realm of law where I look forward to advancing healthcare and clinical research. This program has granted me the opportunities to prepare me for this track through participating in clinical research, shadowing, and learning from current healthcare professionals.