

Surgery Interest Group at California University of Science and Medicine School of Medicine
(CUSM-SOM)

Bringing Surgical Insight from the OR to the Virtual Platform

In the wake of the COVID-19 pandemic, medical school instruction has converted to a virtual format for the safety of students, staff, and patients. Such conditions have offered benefits and drawbacks. Students can enjoy the convenience of a virtual classroom from home, avoid traffic, and have more flexible breaks and schedules. Conversely, students are unable to see classmates and lose in-person training on patient interaction. Interest groups similarly are unable to engage students via in-person workshops and talks. As student leaders of our surgery interest group, this year we had to ask ourselves, how do we meet this challenge?

The mission of the Surgery Interest Group at California University of Science and Medicine School of Medicine (SIG at CUSM) is to facilitate the educational and professional development of medical students interested in pursuing a career in surgery. We strive to do this by helping students discover and experience mentorship, shadowing, research, skills workshops, case discussions, and other opportunities. To meet this mission, we used our virtual platform to our advantage, bringing surgical insight to an online platform. While shadowing, skills workshops, and other in-person opportunities were put on hold, we were still able to gather mentors and educators in the field to promote interest and increase exposure for our classmates.

One of our first adaptations to the virtual environment was our surgical anatomy sessions. In our first meeting, students learned about the anatomy of access points and placement of central lines and chemotherapy ports. These procedures are performed all the time in the hospital, making this a valuable primer for our member's approaching clerkship education. Furthermore, the emphasis on *functional* anatomy in surgery made this event engaging and beneficial for our student members.



Anatomy-Surgery Session #1: *Anatomy of Access Points and Chemo Port/Central Line Applications*

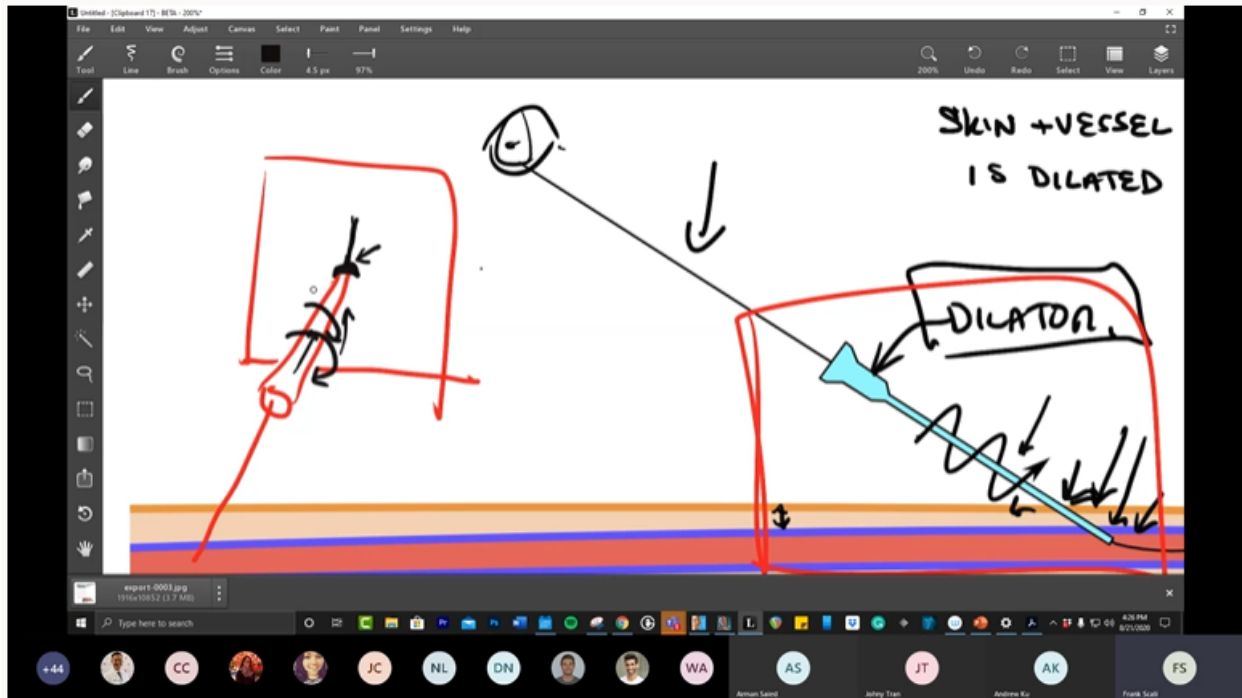
Frank Scali, M.D., D.C.

Assistant Professor of Medical Education & Anatomy

Course Director - 5200 MSK & Derm

Director of USMLE Board Prep.





This year, SIG at CUSM also introduced a careers-in-surgery series called “Surgical Insight,” where students can learn about the difficulties and triumphs associated with the surgical career pathway. At our first meeting, Dr. Matthew Whealon, a colorectal surgeon and member of the ACS, spoke candidly about a day in the life of a colorectal surgeon. He explained the difficulties of balancing family life in residency and assured us that surgeons can achieve a flexible schedule that accommodates family life.



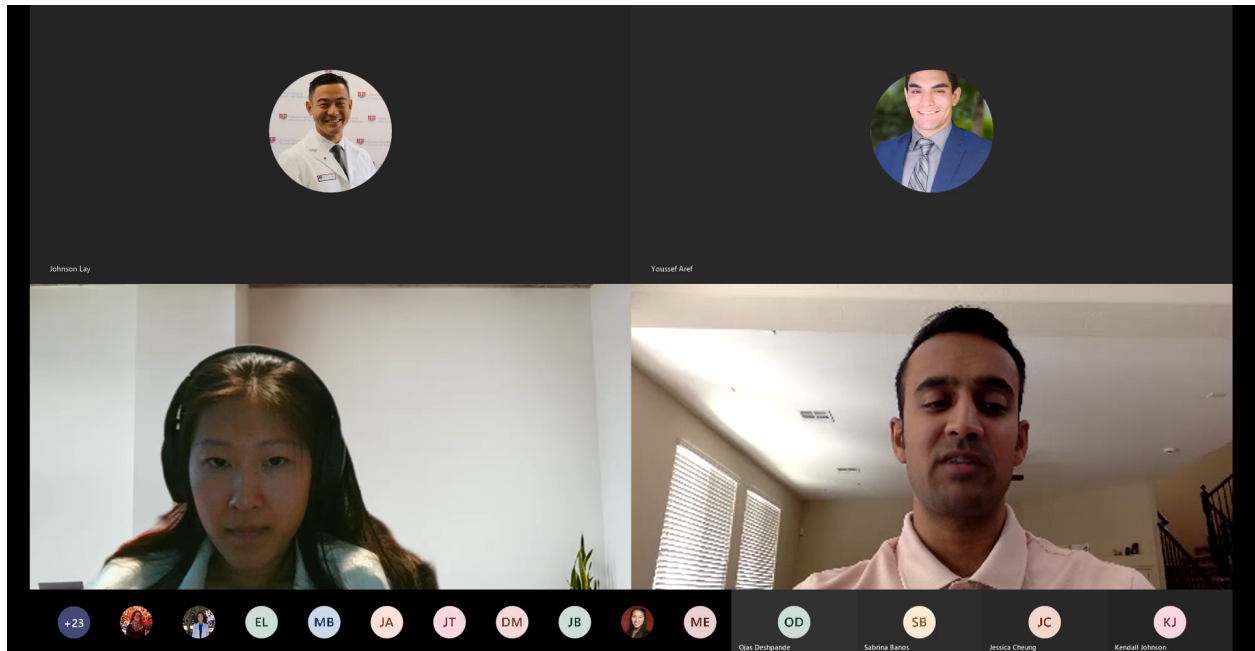
Surgical Insight: Surgery and What It Means to Be a Surgeon

Matt Whealon, M.D.

Colorectal Surgery
ARMC/Kaiser General Surgery Associate Program
Director
CUSM Surgical Clerkship Director
SIG at CUSM Faculty Advisor



Our second Surgical Insight session was with Dr. Chanu Dasari, a researcher and surgeon from Nevada who focuses on minimally invasive surgeries for hernias, cysts, and cancer. In this session, we learned about the timeline from medical school to residency and beyond. Since CUSM is a relatively new medical school, we focused in this session on the pathway to residency and fellowship, and how to demonstrate interest in surgery as a medical student.



Despite the bounds of a virtual platform, we have continued to consistently hold surgical anatomy and insight sessions. Events have included a vascular surgery panel from Loma Linda, and a general surgery resident panel from our affiliated hospital, ARMC. These collaborations have shown us that we can thrive, not just survive, in this ongoing pandemic.

Osteology & Arthrology

Articulation: Glenohumeral joint

Coracohumeral ligament
Fibrous capsule
Middle Glenohumeral ligament
Coracohumeral ligament
Inferior Glenohumeral ligament

The fibrous joint capsule is strengthened superiorly and anteriorly. The capsule is lax, unprotected and redundant inferiorly.

3D4Medical app


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Zoom Meeting

What is Vascular Surgery?

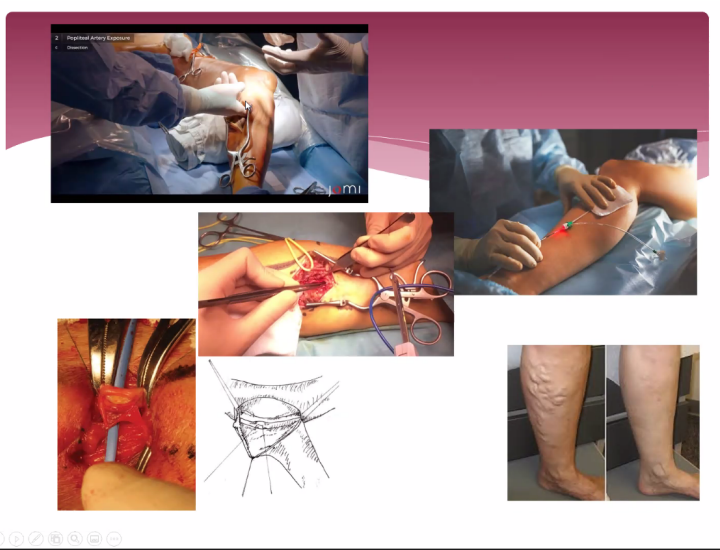
- A surgical subspecialty – diagnose and treat the circulatory system and much more!
- Provides both primary and specialty care aspects
- Employs surgical and interventional techniques to fix problems
- Follows patients long-term and longitudinally
- “Firemen” of the hospital


 LOMA LINDA UNIVERSITY
HEALTH

Johnny Tran Johnson Lay
 ANDREW SON S-Phone
 Kristyn Mann... Krista Thompson
 Elizabeth Lee Beatriz's iPhone
 Hans KRISTIN MANN...
 James's iPad Natalie Liu
 Brandon Chao MarfredMunoz...
 Danielle Nguyen Cassie Krause

Zoom Meeting You are viewing ANDREW SON's screen View Options

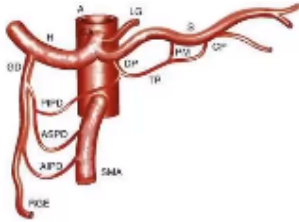
Zoom Meeting Speaker View



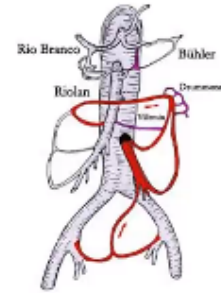
Johnny Tran Johnson Lay
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 Kristyn Mann... Krista Thompson
 Elizabeth Lee Beatriz's iPhone
 Hans James's iPad
 Natalie Liu Brandon Chao
 MarfredMunoz... Danielle Nguyen
 Cassie Krause Andrew Ku

Unmute Start Video 2/4 Participants Chat Share Screen Record Reactions Leave

“Below the Diaphragm” Arterial & Venous Systems



Frank Scali, M.D., D.C.



27:17 Request control

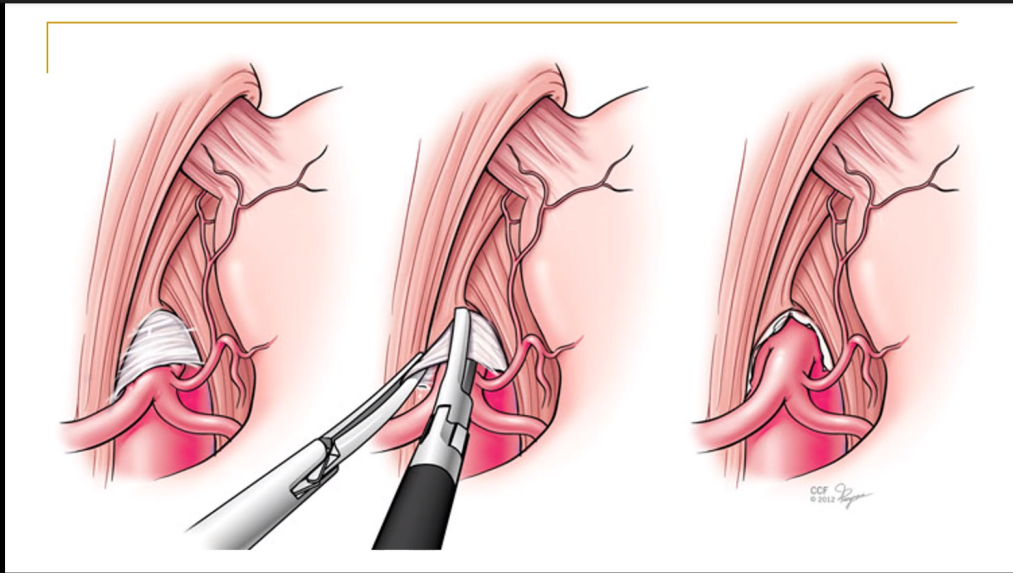
Collateralization of arteries

- Within Vessel Collaterals
 - Between the left and right gastric arteries - Celiac
 - Inferior pancreaticoduodenal and jejunal vessels - SMA
 - Sigmoid rectosigmoid and superior rectal arteries – IMA
- Between Mesenteric Vessels
 - Arch of Buhler – Celiac to SMA
 - Marginal Artery of Drummond – SMA to IMA
 - Arc of Riolan – SMA to IMA

Labels in diagram: R. & L. gastroepiploic arteries, Arc of Buhler, Gastrooduodenal artery, Pancreaticoduodenal artery, Arc of Riolan, Marginal artery of Drummond, Middle rectal artery, Superior rectal artery, R. & L. gastroepiploic arteries.

Frank Scali

TV JS KP Andrew K. CW MB FS DN



Frank Scall






ARMC Resident Panel

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SURGERY INTEREST GROUP
AT CALIFORNIA UNIVERSITY OF SCIENCE AND MEDICINE

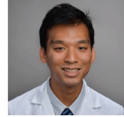


Surgical Insight: ARMC Surgery Resident Panel

Amira Barmanwalla, M.D.
General Surgery Resident at ARMC

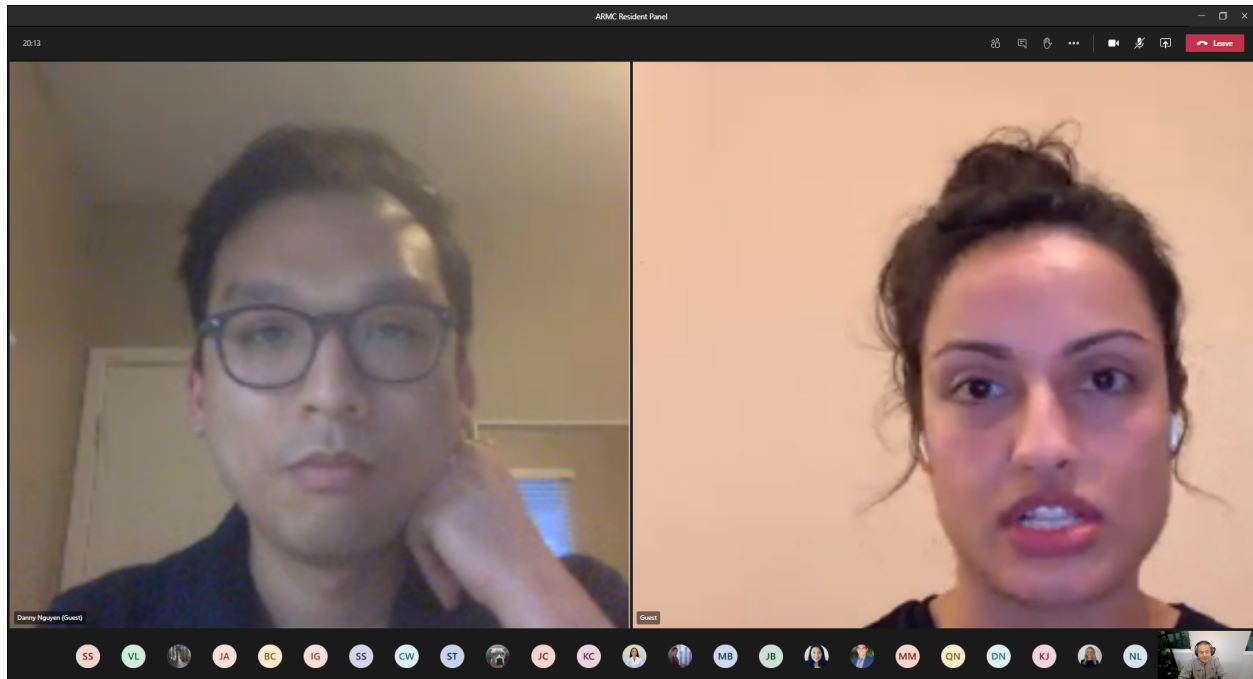


Danny Nguyen, M.D.
General Surgery Resident at ARMC



Johnson Lay





Overall, despite the difficulties that have come with the pandemic, we will continue to do our best in providing opportunities to our members, even if only virtually for now. The pandemic continues to demonstrate how we can pursue medical excellence even when some doors are temporarily closed. With the rollout of vaccines, continued social distancing, hand hygiene, and masks, we are cautiously optimistic about where we can go once in-person instruction resumes! The construction of our new medical school building just finished last summer, so stay tuned! Here at SIG at CUSM, we will continue to prove to ourselves and future medical students that a pandemic shall not, cannot, and will not stop us from becoming the best physicians (and hopefully surgeons) that we can strive to become.

For more information on SIG at CUSM, please visit <https://sigcusm.wixsite.com/sigcusm> or email us at SIG@cusm.org.

SIG at CUSM Executive Leadership 2020-2021



From Left to Right: Johnson Lay (President), Jessica Cheung (Vice-President), Natalie Liu (Secretary), and Danielle Nguyen (Treasurer)

To compare to last year (2019-2020), we attended and conducted events throughout the year, which included:



Southern California Chapter American College of Surgeons (SCACS) 2019 Conference

Purpose: to connect with the Southern California chapter of the American College of Surgeons and expand/explore the field of surgery



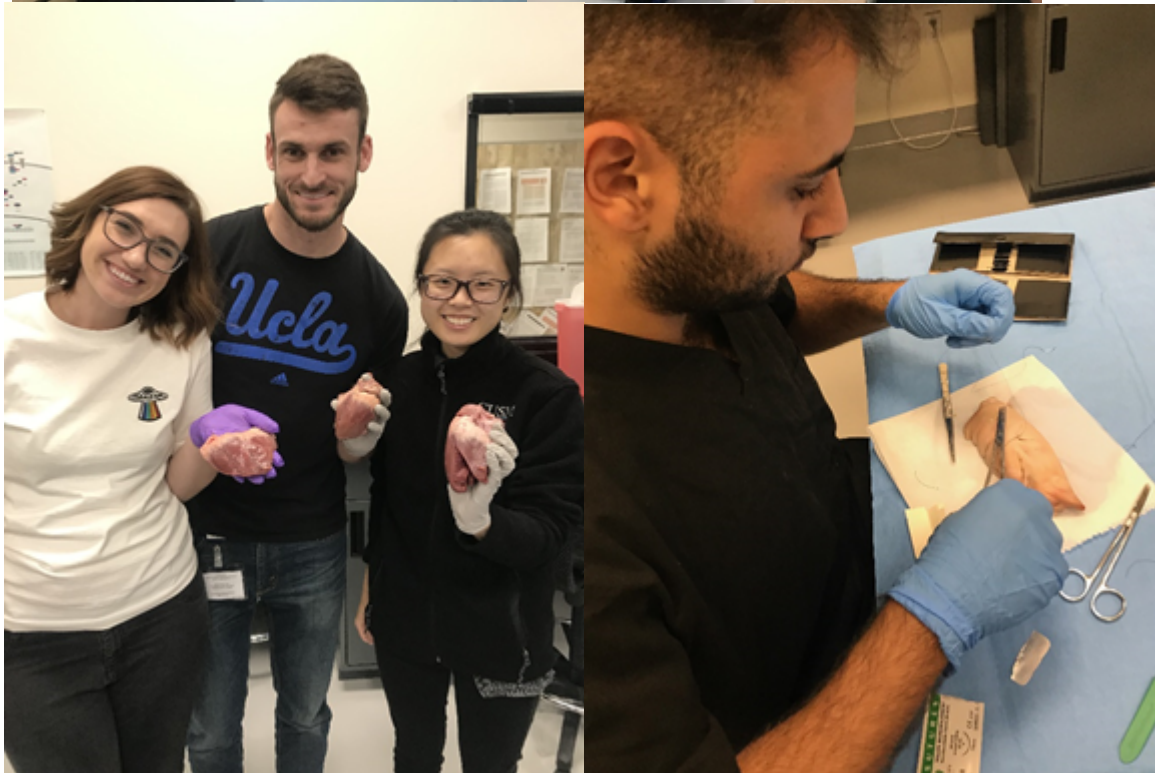
Stop the Bleed 2019

Purpose: to gain the ability to recognize life-threatening bleeding and intervene effectively



Chest Tubes Workshop

Purpose: to gain experience in the indications, placement, and removal of chest tubes by the surgical residents and physicians at ARMC



Suturing and Knot-Tying Workshops

Purpose: To become more competent in the skills of suturing and knot-tying (which are essential in the field of surgery)



Surgery Panel

Purpose: to learn insight from the surgical residents and physicians at ARMC about the everyday life of surgery



Surgery Roundtable

Purpose: to go through and understand surgical cases with the surgical residents and physicians at ARMC