

Shepherding Students to Become Doctors: The Bridges Coaching Program

The UCSF School of Medicine Bridges Curriculum educates medical students to excel in areas essential to becoming successful physicians and leaders. These include traditional competencies such as patient care, medical knowledge, and professionalism, as well as newer domains such as communication skills, professionalism, health systems improvement, the ability to work effectively with teams of other health professionals, giving and receiving feedback, identifying one's own strengths, and addressing areas for growth. The Bridges Curriculum includes a longitudinal coaching program that helps medical students develop these skills.

In this issue we feature three ZSFG Department of Medicine faculty who serve as Bridges coaches, training and mentoring medical students on their journey to becoming doctors.

Since 2016, the Bridges program has engaged clinician-educators who spend a full day each week with six medical students for their first year and a half of medical school, followed by periodic meetings during their clinical and research years. The coaching program provides a supportive environment to learn about complex, nuanced topics over time.

Coaches spend a half day each week teaching clinical skills, such as how to conduct a physical exam, take a medical history, and communicate effectively. In the Kanbar Center for Simulation and Clinical Skills, students gain hands-on practice working with "standardized patients" - actors who portray clinical patients. Coaches also teach and provide guidance as students begin working with actual patients



in the clinic or hospital. The second half of each Bridges coaching day is devoted to working on a quality improvement (QI) project.

"Because the Bridges curriculum provides such frequent touch points with students through our weekly sessions, we're able to build really strong relationships with them," explained Rebeccah (Becky) Brusca, MD, MPH, Associate Professor

in the ZSFG Division of Hospital Medicine, who has been a Bridges coach since 2021.

"It's really fun and exciting to see medicine through the students' eyes," said Mary (Mimi) Margaretten, MD, MAS, Professor in the ZSFG Division of Rheumatology, who has been a Bridges coach since the program began in 2016. She is now coaching

Rebecca Brusca, MD, MPH her fifth cohort, and has mentored 35

medical students so far, 17 of whom have graduated and are in residency programs or are practicing physicians. "The first time students hear a heart murmur, their eyes light up with that 'Aha!' moment," she added. "Being in these clinical environments



from their first week of medical school opens up new worlds and helps them rule in or rule out future career specialties."

Effective Communication

With traditional clinical rotations, students usually only work with a preceptor for a few

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weeks or months. One advantage of Bridges is that coaches work with the same six students throughout their entire medical school experience, allowing them to provide deeper feedback and help students develop competencies that take time to learn.

Communication skills are a key focus of the Bridges experience. One example is learning how to give Jamie Yao, MD an effective oral presentation, the

standard method for presenting a patient's case to the attending physician and other trainees.

"It's how we communicate our clinical reasoning and management to the rest of the team, but it's not necessarily something that students have already honed throughout their schooling," said Jamie Yao, MD, Assistant Professor in the Division of Hospital Medicine, who became a Bridges coach in 2023. "The goal is to organize all the information in a succinct, clear presentation. They learn how to put things in the correct section and order, what information to include or leave out, and how to save their opinion for the end when they present their assessment and plan. Having extra practice with someone giving feedback helps them improve."

Because she works so closely with her Bridges cohort, Dr. Yao also learns how to best support each student's growth. "Some students prefer to be corrected in the moment so they can practice doing a physical exam correctly, whereas



other students prefer to receive all feedback at once after they complete the encounter," she noted. "There are different ways of learning, and I try to tailor my feedback to be most helpful for each person."

"When we first meet, I ask each learner what they hope to learn," said Dr. Brusca. "I also note other opportunities for growth as we create a shared understanding of goals.

That's allowed me to have tougher conversations that have allowed them to grow.... The Bridges coaching program integrates a feedback culture really seamlessly, and our sessions always include time for feedback from the coach and the other students, as well as self-reflection."

Students also learn how to communicate effectively with patients. "Sometimes it's difficult for students to get the words out when discussing delicate matters, such as taking a sexual history or asking about alcohol or drug use," said Dr. Margaretten. "I coach them to be direct. I'm a rheumatologist, and if a patient comes in with a red, swollen knee, it could be gonorrhea. I show them how to normalize the conversation, saving, 'This may seem strange that you came in for arthritis and I'm asking you about your sexual history, but I ask all my patients these questions. Sexually transmitted infections cause some forms of rheumatologic disease, and I want to make sure I give you the right medication.' I have the students practice, so by the end of their first or



second year they won't feel awkward when asking about sensitive information."

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Improving Systems of Care

In addition to learning clinical skills and diagnostic reasoning, students spend the second half of each Bridges coaching day working together on a health systems improvement project. "Beyond caring for individual patients, there's lots of ways we can improve patient care, quality and safety," said Dr. Yao. "Helping students develop these skills early helps them change the health care system as a whole. It's also a great chance for students to learn how to work in an interprofessional team."

Her cohort worked to improve sleep quality in the Acute Care for Elders (ACE) Unit. They did a literature search, analyzed clinical data, and surveyed patients, nurses, physicians, and staff to identify contributing factors to poor sleep quality in the hospital. "It's important to talk with stakeholders to understand the current state of things and decide what to target before jumping into creating an intervention," noted Dr. Yao. "We want to make sure we don't do something that's ineffective or even detrimental." Among these stakeholders were nurses who carried out doctors' orders to take vital signs or administer acetaminophen during the night. "We found patients often had trouble getting back to sleep, and that these things often were not necessary if they were clinically stable," said Dr. Yao.

Students then worked with doctors, nurses, nurse leadership, pharmacists, pharmacy technicians, data analysts, and the team that oversees Epic the electronic health record – to add clickable buttons in Epic to support better patient sleep quality. These included new options for hospital doctors, such as instructing nursing staff to administer vital signs every six hours, or to refrain from waking patients between 11 p.m. and 5 a.m. if patients are asleep and medically stable.

"A lot of providers asked for an option to administer vital signs every six hours," explained Dr. Yao. "If a patient had been receiving them every four hours, they weren't ready to space out the intervals to every eight hours just yet. Every six hours was a nice intermediary, and if patients became more clinically stable, providers could space it out even further." Incorporating this feedback also helped support uptake of the

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intervention; in one data set, 20 to 30 percent of providers used the new vital signs button.

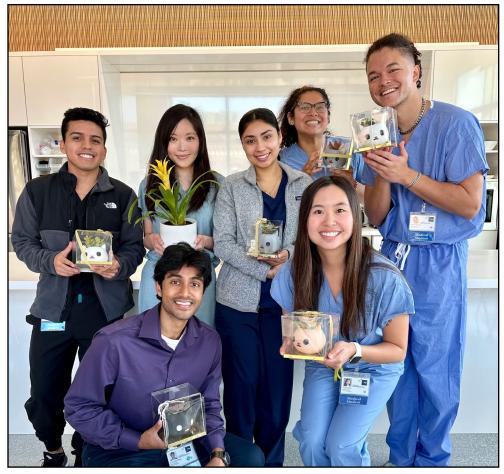
Students also partnered with internal medicine resident Arvind Suresh, MD, who led a project to provide "sleep kits" to ACE Unit patients. These kits include non-pharmaceutical sleep aids such as eye masks, ear plugs, white noise machines and chamomile tea to help improve patient sleep. The Bridges students collaborated with Dr. Suresh to roll out the sleep quality measures on the same day to maximize the collective impact of these interventions.

In addition to the hands-on learning opportunity for students, this work also led to an invitation for ZSFG to participate in a grant application to the Patient-Centered Outcomes Research Institute (PCORI) for a multicenter study to promote sleep for hospitalized patients. Dr. Yao and Anil Makam, MD, MAS, Associate Professor and Director of Analytics and Research in the Division of Hospital Medicine, applied as site leads. "This all stemmed from the Bridges project, so I'm very grateful to the students," said Dr. Yao.

She also appreciates help from other areas of the Bridges curriculum. "The teaching materials they provide are really comprehensive, and there's great built-in support," acknowledged Dr. Yao. "As a newer coach, if I emailed them about a QI question, I'd usually get an email back within a few minutes asking if I had time for a phone call right then. If my students faced any struggles, there are people I could talk to for help."

Working with Interprofessional Teams

Dr. Brusca found a new passion through her work as a Bridges coach. "I didn't have much previous experience with QI, so it was a big



From left to right: Chris Pineda, Amartya Dave, Jamie Yao, Maria Gonzalez, Maithily Diaz, Alythia Vo, Ryan Wilson.

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learning curve," she said. "But there's so much mentorship of coaches within the Bridges curriculum. It's really helped me grow as a faculty member and integrate QI projects into my operational roles and my work as site director for the Internal Medicine Residency Program." One Bridges QI project she led was improving medication reconciliation for hospitalized patients. "Patients are often on lots of medications at home or in a nursing home, and it's critical that we understand what those medications are so we can appropriately continue, stop, or hold them," said Dr. Brusca.

When her group delved into this process, they found a lack of clear communication among physicians, nurses, pharmacy technicians, and pharmacists. "A lot of work was duplicated, which was inefficient and could lead to patient safety errors," explained Dr. Brusca. She and the students worked with the Department of Pharmacy to improve communication among stakeholders.

"It was really valuable for students to interface with so many members of the health system," said Dr. Brusca. "They are exposed to this wider ecosystem of healthcare. Later, on their clinical rotations and residency, they will have a better understanding of the roles of a pharmacist or nurse." For their QI project, students interviewed and partnered with pharmacy techs, pharmacists, and nurses. They created and distributed surveys to pharmacy and physician groups, and started creating changes within Epic to support better communication.

One challenge was that the project was not completed before students began their clinical rotations. However, they will analyze postimplementation survey data after the project goes live. "Like all QI projects, it's challenging, really rewarding, and also takes time," said Dr. Brusca. "It's not until you actually work through a project that you understand how complex and timeintensive these can be. That can inform future practice." She is now working with other Bridges coaching leads to appropriately scope a project for the next student cohort, which will start later this year. She wants to develop an idea that is both compelling and can be completed within the allotted timeframe.

Dr. Yao had a similar experience. "A few times the QI project was a bit stressful as we tried to meet the deadlines," she said. "We needed to go through a few iterations of meeting with

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From left to right: Isabelle Vu, Margaret Akey, Rebeccah Brusca, Audrey Lopez, Sebastian Castillo Cario, and Grecia Ortiz Flores.

pharmacy and inpatient leaders to finalize our changes to Epic. For the next project, I might leave a little more buffer time to implement the intervention."

Improving Health Equity

Dr. Margaretten has led a wide range of QI projects over nearly a decade as a Bridges coach, including implementing depression screenings in the ZSFG Rheumatology Clinic for patients with autoimmune diseases and providing immunizations to immunocompromised patients.

Her Bridges students have also invited ZSFG Rheumatology Clinic patients to include their medical stories in the EHR. Their work was based on the "My Life, My Story" narrative medicine curriculum for medical students co-developed by Evan Walker, MD, Assistant Professor in the San Francisco Veterans Affairs Medical Center, Division of Hematology and Oncology. "Each student interviewed a patient, not just about their medical information, but about the history of their lives and health," said Dr. Margaretten. "These are patients whose voices and stories are often left out, because most were not native English speakers. The students transcribed each patient's interview and put it in their charts, providing their caregivers, doctors, and nurses a fuller sense of who they were beyond their diagnosis."

During the pandemic, her cohort worked on a QI project to offer health coaching to Black patients with rheumatoid arthritis to help address health inequities in this population. Students called patients at home to screen them for interest in participating in a professional health coaching program provided by an independent consulting firm.

When Dr. Margaretten first became a Bridges coach in 2016, her students each worked on their own QI project. "Now we just do one QI project as a group, which is much more feasible," she explained. "Students also prefer it because they can connect with others in the group.... Over the years, some students have gone on to present their QI projects at national meetings, symposiums, and to the broader medical community, which has been wonderful."

The Power of Longitudinal Relationships

Bridges coaches also mentor students as they navigate challenges and find their career paths. "One time our group went to the hospital basement, where radiology attendings and residents were looking at images on their computers," said Dr. Margaretten. "One of my students said, 'I didn't know places like this existed! I love this technology – this is what I want to do!' Sure enough, he went into radiology, became chief resident of his program, and is now a practicing radiologist. It was really fun to see that moment when he figured out what he wanted to do."

"I encourage students to keep an open mind and lean into each experience," said Dr. Brusca. "Even if they never enter an operating room again, there's a lot of value in learning what it means to scrub into a surgery, and how surgeons approach their work. Careers are really fluid, and part of medical school is about exposure to leaders in the field and different aspects of healthcare systems. You don't know until you try something, and integrating aspects that you find interesting and valuable into your career is a lifelong skill."

Bridges coaches support students throughout their journey. "One student came in interested in one specialty, and through her rotations discovered her love for another specialty," said Dr. Brusca. "We had a lot of conversations about the research she'd done, the interest groups she'd been involved with, her application and interviews, and allowing herself to pivot, which can be really hard to do. She used each rotation to better understand what she valued, and what she did and didn't like. She ended up choosing the perfect specialty for her. As a coach, I really enjoy helping students navigate this substantial professional development phase in their careers."

"We have this longitudinal relationship that starts from the first week of medical school," explained Dr. Yao. "In addition to talking about clinical and skills-based topics, we discuss things like physicians as learners and advocates, as well as other aspects of professional identity."

"As a Bridges coach, students see me in different clinical situations, as well as in a small group for

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Back row, from left to right: Mimi Margaretten, Connie Zhou, and Kelsey Ogomori. Front row, from left to right: Ciaran Murphy, Emmanuel Agu, and Thomas Ituarte.

a lecture or discussion," said Dr. Margaretten. "I have them over to my house for dinner, and they meet my children. Because we grow to know each other so well, when I give corrective feedback, it lands well because they know I genuinely care about them. As coaches, we give lots of feedback, but we don't grade them, which is very deliberate – we're completely in advisory mentoring roles. There's also a piece that goes beyond medicine. Over time they often come to me if a family member is ill or they're having challenges with their roommate or partner."

"Having a coach is crucial for when students go through tough times," said Dr. Yao. "Whether it's related to their personal lives or they had an issue with passing an exam, their mental health and self-esteem can take a hit. As their coach, I'm always rooting for them and am there to support them, whether it's providing encouragement or working with them to craft a study plan."

'It's Amazing to See Their Growth'

Coaches feel enriched through their participation in the program. "The students bring fresh perspectives and a joy that is infectious," said Dr. Margaretten. "The coaching program facilitates a special relationship between faculty and students, and allows me to share all the things I love about San Francisco General. Students are thrilled to be at this site in particular, and love what it represents in terms of access to care and serving this patient population."

"UCSF medical students are so wonderful," said Dr. Brusca. "They are smart, interested and driven. If you are interested in medical education and mentoring, being a Bridges coach is an incredibly rewarding experience. You develop strong relationships with your student cohort and get to know them really well. There's an energy and excitement about working with students so early in their career, and walking beside them as they develop their clinical skills, learn about quality improvement, and craft their careers."

Dr. Yao is inspired by being part of her students' journey. "One of our first sessions is an intro to communication skills, where students practice things like having small talk before big talk, and addressing barriers to communication," said Yao. "One of the last sessions we have before they go off to their clinical rotations is about how to deliver a difficult diagnosis. It's amazing to see their growth in such a short timeframe. The coaching is certainly beneficial to students, but it's incredible for me as well – it's honestly been a joy."

-Elizabeth Chur Editors: Neil Powe, Leonard Telesca, Ali Cunningham

SPOTLIGHT



Binh An Phan, MD delivered the UCSF 13th annual Last Lecture voted by hundreds of UCSF Graduate & Professional students. Visit <u>Gpsa.ucsf.</u> edu/last-lecture to view the recording.



Jeff Critchfield, MD, Division of Hospital Medicine, assumed the permanent role of Vice Dean of the UCSF School of Medicine at ZSFG on April 15, 2025.



Elysia Roberts will join the ZSFG DOM central administration team as Senior Administrative and Project Coordinator in May.

The **Cardiology Division** and **Medicine Central Administration** will soon be moving to a temporary home in Building 10 (Ward 13) as Building 5, 5th floor is renovated into a primary care center.

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