Sara Kenkare-Mitra, PhD ’94, leads the group that is responsible for the successful translation of every drug developed in Genentech’s Research and Early Development organization from discovery to launch. It’s a role 20 years in the making, and she brings to it a laser focus on cutting-edge and exemplary science.

As senior vice president of development sciences at the pioneering biotechnology company, Kenkare-Mitra was part of the team that discovered the breast cancer drug Kadcyla in 2013. It was a one-of-a-kind molecule—an antibody conjugated to a small-molecule drug—designed to deliver a fatal payload to the tumor. She counts this discovery among the proudest moments of her career, not only because of what it did for patients, but because of the efforts that went into optimizing to find the right molecule.

Getting where she is today took more than just exemplary science; it required extraordinary dedication and leadership skills. In 2011 alone, Kenkare-Mitra, who currently oversees more than 550 employees, won the Women’s Professionals Leadership Excellence Award from Genentech and was named one of the Most Influential Women in Bay Area Business by the San Francisco Business Times.

Kenkare-Mitra’s ties to UCSF have been deep and lasting—she has taught the Pharmacokinetics for Pharmaceutical Scientists course offered by UCSF for 27 years, starting...
as a tutor when she was in graduate school and later joining the faculty. She credits her teaching and leadership style in part to cherished mentors at UCSF. In particular, she tries to emulate Bioengineering faculty member Les Benet, PhD?65, by giving her students and trainees both constructive criticism and nurturing support in equal measures. She spent four years in Benet?ís lab as a graduate student. ?His lessons have stayed with me, and I have become known as a strong team-builder and people developer.? Kenkare-Mitra remembers learning about Benet?ís remarkable work at UCSF in a textbook when she was studying pharmacy at the Bombay College of Pharmacy in 1984. ?The book is right here on my shelf,? she says pointing to a 4-inch thick tome, Goodman and Gilman?ís Pharmacological Basis of Therapeutics. ?I packed it in my suitcase when I moved here from India.?

Kenkare-Mitra originally aspired to be a physician, but found that it was science, research, and math that she really loved. In fact, she was more fascinated by medicines than the practice of medicine. Her grandfather was among the first Western-educated physicians in the Indian state of Goa. ?He was a doctor of the masses,? Kenkare-Mitra remembers. Doing real scientific research in India was hard at that time, and she realized that she would have to go to the United States to further advance her knowledge and skills. She set her sights on going to America to earn a PhD, despite the fact that her parents were not thrilled by their young daughter going half way around the world. ?They knew I was bright and had potential. I was always top of my class at school,? she says. ?They told me that if I found a university that gave me a scholarship, they would allow me to go. I don?t think they thought it would happen.?

She borrowed money from her parents to take the TOEFL and the GRE and applied to five universities. While UCSF was of interest, it was not accepting international students at the time. The University of Texas, Austin offered her a full scholarship. Her parents had mixed feelings, but she left with their blessing. ?It was so brave of them,? she recalls. ?I see that now that I am a parent.?

It wasn?t long before Kenkare-Mitra realized that the computational modeling emphasis of the program wasn?t the best fit for her. She was looking for a more basic experimental experience. While in Austin, she also met the man who would become her husband. After he finished his PhD, he got a job in the Bay Area and prodded her to apply to UCSF, a school she had spoken about often. Believing that her chances were slim, she submitted an application on the day of the deadline. When she got a call for an interview two weeks later, she was astonished.

?I got to UCSF and was in love with what I saw and the atmosphere of the place,? she recalls. ?I thought to myself, ?this is where I would love to be, but what are the chances?? Much to her own surprise, she was accepted and was also offered a scholarship. ?This is a true story,? says Kenkare-Mitra, as if to remind herself.

Kenkare-Mitra went on to earn a PhD in pharmaceutical chemistry at UCSF. Her first rotation was in Les Benet?ís lab. She chose him as her graduate advisor and joined his lab, where she studied how nitroglycerin, long an effective cardiac medication, worked in the body and the role of drug metabolism in its pharmacology. ?I revered him from day one,? she says. ?He is an amazing professor, teacher, and mentor ? someone who is not only scientifically excellent, but also imbibes in his students and postdocs other skills like collaboration, leadership, and curiosity. To this day, I consult him for professional advice, and he is always there to support his former students.?
After finishing her PhD, with her interest in clinical medicine, she decided to pursue a fellowship in clinical pharmacology at UCSF under the leadership of Neal Benowitz, MD, PhD. It was me and twelve MDs, she says. I loved the fact that I could couple a postdoctoral program with the didactic learnings of clinical pharmacology. As fellows, we would study together, have journal clubs and design clinical studies. As a postdoc, Kenkare-Mitra conducted her work under the joint mentorship of Dr. Benowitz and Dr. Lewis Shiner.

Neal was a terrific mentor and helped me learn how to design and analyze clinical pharmacology studies to ask key questions related to pharmacology, including pharmacokinetics and pharmacodynamics, she explains. Lewis was an amazing physician-scientist and one of the fathers of population analysis of pharmacokinetic and pharmacodynamic data. I had never done advanced statistical data analysis and did not have much programming skill. Kenkare-Mitra says Shiner too became a cherished mentor.

Around the mid-90's, Kenkare-Mitra took a leave of absence for two and half years after the birth of her daughter, who was diagnosed with cerebral palsy. A call came from Genentech around the time her daughter turned three. Kenkare-Mitra had no intention of going back to work, but decided to go in for the interview. They asked me to present my research, but I hadn?t seen my data in two years. It was challenging to interview, and I wasn?t playing my A-game, she recalls, but she got the job. Kenkare-Mitra did not make her daughter?s diagnosis known to her colleagues, and the only person she mentioned it to at the time was her manager. I did not feel comfortable sharing this - partly because I did not want people to make assumptions about my commitment, she says. Looking back, I think work places are much more inclusive and supportive now.

Kenkare-Mitra started at Genentech as a scientist and then over the years rose to various positions of leadership, including being an executive sponsor for the Genentech Women in Science and Engineering (gWISE), a board member for the Association for Women in Science (AWIS) and a board member for the Genentech Foundation in the FutureLab project, supporting South San Francisco high schools. In each capacity she has been a passionate advocate for women, young students, and underserved minorities in STEM fields. Diversity is important to ensuring we are bringing the best minds to solve really difficult problems, she says. Being a woman, a mother of a person with a disability, and someone who grew up in the developing world, my life experience and my current role make it imperative for me to show young people who may not imagine a career in science what is possible.

As an adjunct faculty member at UCSF, Kenkare-Mitra has myriad opportunities to relive her academic and career milestones and reflect on her path to success. Being on campus makes her memories of earlier experiences here all the more vivid. UCSF isn?t a place where you complete your training and walk away, comments Kenkare-Mitra. There have been many times when I have pinched myself and said, Really? Did all this really happen?

The Graduate Division will honor Sara Kenkare-Mitra at this year?s Graduate Division Gala Dinner [1], which will take place on Saturday, June 2 at the Hyatt Regency San Francisco Hotel as part of Alumni Weekend [1]. Tickets cost $100 and the entire UCSF community is invited to attend.

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