Berkeley BIOENGINEERING

The future of biology. The future of engineering.

We're pleased to welcome our *newest Department Chair, Professor Sanjay Kumar,* taking the reins from Dan Fletcher! Dan will be returning to his research and teaching duties with our sincere thanks for his outstanding service.



Dear BioE Community,

It has been my great honor to serve as Department Chair for the last four years. This is a very exciting time for Berkeley BioE. Together we've hired three (soon to be four) new faculty, reached gender parity in our undergraduate class, celebrated BioE's 20th birthday as a department, and climbed up the national rankings, among other successes.

Berkeley, with its unmatched breadth and depth, is an amazing place for Bioengineering to continue to grow, and I'm excited about the plans of our incoming Department

Chair, Sanjay Kumar.

My sincere thank you to the BioE community for all you do, all you have taught me, all you give back to campus, and the examples of success you set for our students. Keep it up.

Sincerely, Dan

Dear Friends and Colleagues.

It is an honor to succeed Dan as the Chair of our Department. Berkeley Bioengineering has been my home for my entire 14-year faculty career, and I've benefited immensely from the culture of collegiality, innovation, and scholarship my predecessors have helped create.

As Chair, I'm excited to build on these great traditions while expanding our department's impact through new academic, industrial, and philanthropic partnerships. As always, we remain committed to ensuring that our students have a rewarding educational experience and that all members of our community feel included and valued.

I look forward to working with you all! Sanjay



Diving Deep



Intensive and team projects prepare undergraduates for real-world work. By the end of their undergraduate years, *90% of bioengineers* have done research outside of a Berkeley course. Many volunteer in a faculty laboratory, while others do summer programs at another university or an industry internship. Still more benefit from our capstone and project-based courses.

Why are we so hot on research? Because an immersive experience boosts students' confidence, perspective, and career preparation.

Our annual climate survey of BioE undergrads shows that, compared to other students, those who have done undergraduate research are:

22% more likely to know what skills they can offer an employer, 10% more likely to feel confident they'll be able to get a job they want, and 8% more likely to feel that they belong in BioE!

86% of researching seniors said it helped them make career plans.

However, 1/3 of students said it was difficult to find their research opportunity. One of our goals is to **expand opportunities** for students to participate in capstone projects, laboratory classes, and independent research.

We're happy to accept the help of our bioengineering community with internship and job shadowing opportunities, equipment and lab supplies, and assistance funding stipends for summer research.

Below, enjoy the personal stories of some of our students, and *contact us* if you'd like to help!



Leslie, Junior

1 year in Sanjay Kumar's lab through Berkeley's BioEngineering Scholars Program

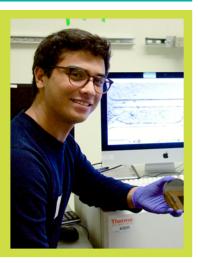
"BioESP gave me a stipend for the summer. Most importantly, they paired me with an amazing mentor who was kind and patient. I had no prior research experience so formal mentorship was a huge part of my success."

"Thanks to this experience I learned to be patient with myself and to believe in myself; I do belong in science and I am capable of doing great things."

Nikko, 2018 graduate 3 years in Kevin Healy's lab

"Research helped me decide I want a career in science! I'm going to pursue a Ph.D. in Engineering Sciences at Harvard University."

"I learned that real science needs persistence, trial and error, and constant optimization. I learned that failure is normal and expected in science (and in life in general!). Just because an experiment failed, doesn't mean an individual is a failure."



Cameron, 2019 graduate 3 years in Irina Conboy's lab

"My mentors Mike and Irina Conboy helped me decide what I want to do after college and gave me the guidance to get there. The other students I met in my lab were also incredibly helpful and supportive, and we were able to work through so many challenges together."

"I think it's impossible to become a successful scientist by shutting out the rest of world. I'm constantly helping or asking for help in the lab, and things wouldn't get done if we didn't work well with each other. There's something to be gained by being friends with anyone, whether it be your fellow students, professor, or janitor in your lab."

Natali, Junior

Summer+ in Richard Ivry's lab through Berkeley's BioEngineering Scholars Program

"From running experiments to making a research poster, I was able to get a feel about what impact I want to make with my interest in helping those who have suffered from motor-impairing disease or injury."

"I learned from everyone in the lab, including my fellow RAs. They told me about their personal projects, gave me advice, and let me know of great opportunities including scholarships and conferences."

"I've learned about industry and graduate school from company visits and seminars. Also, participating in research-prep workshops with my peers made joining a lab for the first time exciting rather than intimidating."



Department News

Congratulations to Prof Aaron Streets, one of 22 early-career researchers <u>named a 2019 Pew</u> <u>Scholar</u> in Biomedical Sciences!

Student and Alumni News

Congratulations to BioE & MSE major Tyler Chen, <u>2019 University Medalist</u>, Berkeley's highest honor for a graduating senior!

Professor Michael Yartsev's lab has shown that <u>bats' brain activity is</u> <u>literally in sync</u> when bats engage in social behaviors like grooming, fighting or sniffing each other.

With great sadness we share that Professor Sarah Nelson, long-time leader of the Bioengineering Graduate Program, <u>has passed away after a struggle with cancer</u>. She will be greatly missed.

Tejal Desai, BioE alumna and Chair of the Department of Bioengineering and Therapeutic Sciences at UCSF, was <u>announced president-elect</u> at the 2019 annual meeting of AIMBE.

Alumna Amina Qutub, now Associate Professor at the University of Texas, created an online atlas to identify and classify protein signatures present at acute myelogenous leukemia diagnosis.

There's always so much going on at Berkeley BioE!
Check out the latest news on RESEARCH, ALUMNI, and more on our website.

Ready to give back? Give to BioE, and help us keep offering outstanding opportunities for the next generation of bioengineers.









BioEng.Berkeley.Edu | Email Us

Copyright © 2021 UC Regents. All rights reserved.

Update Preferences

This email was sent by: UC Berkeley College of Engineering | 320 McLaughlin Hall | Berkeley, CA 94720-1700 USA