

Berkeley Bioengineering

July 2021

Dear Friends and Colleagues,

This summer, we find ourselves with a welcome sense of hope and optimism. While the COVID-19 pandemic continues to require our close attention, campus life is finally beginning to resemble what it looked like in early 2020. On-campus research activities have returned to full capacity, and we are excited to return to in-person instruction in the Fall.



We must never forget that bioengineering innovations produced the vaccines leading us out of these dark times, and we have enormous potential as a field to change the world for the better. We also owe so much of our progress to the care and discipline of our students, staff, and faculty, who have forged ahead under remarkably challenging conditions. Like good engineers, they have struck just the right balance between function and safety.

And what an exciting time it has been! In this newsletter, you'll read about advances from our department ranging from technologies for understanding mammalian navigation to CRISPR-based microchips that diagnose disease from a droplet of patient material. You'll also read about the new Bakar BioEngenuity Hub, a world-class incubator space directed by Professor Amy Herr that will support and nurture biotechnology entrepreneurs and startups. And as always, you'll read about the recognition and accomplishments of our community members here at Berkeley and around the world.

Your support and generosity help us excel in research and education, so please consider [contributing to the department](#). Very best wishes for a safe and relaxing summer, and looking forward to an incredible fall back on campus! Go Bears!

Sanjay Kumar
Chair, Department of Bioengineering



Amy Herr leads Berkeley's bold new home for innovation & entrepreneurship

Professor Amy Herr is the Executive Director of the Bakar BioEngenuity Hub (BBH), a new campus initiative to launch world-changing startups to solve pressing technical problems. BBH and its associated Bakar Labs incubator will open this fall in a renovated Woo Hon Fai Hall, the former art museum.

Research News

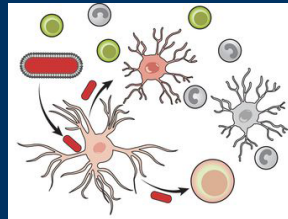
From brain waves to words: Neuroprosthesis breakthrough from our graduate program



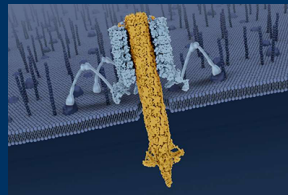
A peek inside a flying bat's brain uncovers clues to mammalian navigation



Clark Lab's technique IDs new therapeutic targets for inflammatory autoimmunity



Arkin Lab harnesses incredible bacterial 'Homing Missiles'



CRISPR-Chip advance streamlines genetic testing for medical diagnostics and research



TotalVI: A transformative algorithm for the Human Cell Atlas



New Graduate Student Fellowships

Kwasi Amofa was named to the 2021 class of [Gilliam Fellows](#) by the Howard Hughes Medical Institute, in partnership with his advisor, Prof. Sanjay Kumar. Fellowships are awarded to pairs who are conducting outstanding research and are committed to building a more inclusive scientific ecosystem.

Anjali Gopal has been awarded a 2021-22 [Fellowship for Ending Bioweapons Programs](#) by the Council on Strategic Risks. Gopal is a member of Professor Amy Herr's lab and aims to leverage her scientific training for pandemic preparedness and bioweapons prevention initiatives.

Recent graduate Nicolas Altemose, of Professor Aaron Streets' lab, has been named a [Hanna Gray Fellow](#) by the Howard Hughes Medical Institute. This postdoctoral fellowship grants eight full years of funding for exceptional early career scientists.



Thank you to the many alumni who participated in our online Alumni Career Chats this spring!

Syed Abdul Aziz, Nikita Bhatia, Darya Fadavi, Tatiana Jansen, Geonyoung Kim, Anisha Kumar, Zane Liu, Sivan Marcus, Homayun Mehrabani, Christina Ngo, Sasha Rassoli, Sneha Thatipelli, Jonathan Tsang, and Andy Zhang.

We plan to continue this virtual series, [let us know](#) if you'd like to share your wisdom.

Alumni News

[*Becoming a bioengineer, both at home and on campus*](#)

Lukasz Bugaj, now faculty in Bioengineering at UPenn, talks about converting a hands-on undergraduate design course to remote and hybrid learning during COVID.

Synthetic biology textile company Bolt Threads was named one of the [10 most innovative fashion and style companies of 2021](#) by Fast Company.



[Alumna Tammy Hsu named to Tech Review 35](#)

A two-year collaboration between [the Agile BioFoundry](#) and [Lygos](#), an alumni startup focused on environmentally-friendly industrial products, resulted in a 20-fold increase in production of bio-based isobutyric acid, which is used as a building block of plexiglass.



FDA authorizes [Lucira](#) home COVID-19 test

We missed you!



The Department of Bioengineering will be back in person this fall!
**Please save the date for our Fall Welcome event,
4:00 - 5:00 pm, September 17.**
See you soon!

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.



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