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**THE EAST BAY CAN CLAIM AN ASTONISHING NUMBER OF TOP PRIZEWINNERS, AS THERE ARE MANY NOBELISTS, MACARTHUR “GENIUSES,” AND OTHER AWARDEES WITH ROOTS IN OUR OWN BACKYARD. MEET THREE OF THE MOST RECENT HONOREES—PHYSICIST ANDREA KRITCHER, LAWYER PRITI KRISHTEL, AND WRITER HUA HSU.**



# SUPER POWER

PHYSICIST ANDREA KRITCHER PLAYED A KEY ROLE IN LAWRENCE LIVERMORE NATIONAL LAB'S ATTAINMENT OF FUSION IGNITION—A BREAKTHROUGH WITH EPIC IMPLICATIONS.

**F**or 60 years, scientists and engineers have been on a quest to achieve controlled nuclear fusion ignition—a major step on the path to clean, limitless energy. When it finally happened on December 5 last year, most of the team behind the feat were asleep. “We were so excited, but individually from home,” says Andrea Kritcher, the principal designer of the experiment, who learned of its success at 1 a.m.

What happened that night at Lawrence Livermore National Laboratory? To put it in the simplest terms: 192 laser beams focused on a tiny hollow can made of gold and uranium that contained a BB-size carbon capsule of fuel (hydrogen isotopes: deuterium and tritium). The can, acting as an X-ray oven, was heated to 3 million degrees, causing an implosion of the spherical capsule, which compressed its contents into a 100-million-degree plasma. This created 3.15 megajoules of energy, 1.1 more than the experiment put in, exceeding breakeven.

While consumer applications are still decades away—fusion power plants would need more efficient lasers, more readily available fuel, and the ability to reproduce ignition many times over—this experiment “shows there’s nothing fundamentally limiting harnessing

fusion energy in a laboratory setting,” says Kritcher, who first came to the Livermore Lab in 2004 as a summer intern from Michigan State University and joined the staff in 2012 after receiving a Ph.D. in nuclear engineering and plasma physics from UC Berkeley. She says, “You can’t really describe how important achieving this result is to people, because so many have spent their entire careers on the idea that we could get there. And now we’re here.”

That humans can now ignite and control a plasma, like a small sun, was hailed by U.S. Secretary of Energy Jennifer Granholm as “one of the most impressive scientific feats of the 21st century,” and it landed Kritcher on the 2023 *Time* 100. The honor highlights the most influential people of the year and celebrates them at an event at New York’s Lincoln Center. It’s been a whirlwind, media-filled several months for Kritcher, a mother of three who normally leads a quiet life in Livermore. And she always credits the whole interdisciplinary team at the lab who contributed to this achievement. “You sort of pinch yourself when you’re standing next to Ali Wong or Katie Couric,” she says. “But I’m just trying to go with it and have fun and enjoy this time. I think it’s awesome that people care so much about what we’re doing.” —L.J.



# HEALTH JUSTICE GENIUS

IN THE WAR ON DRUG PRICING, MACARTHUR FELLOW PRITI KRISHTEL IS FIGHTING BIG PHARMA ON AN UNLIKELY FRONT.

One of the few issues on which voters across the political spectrum seem to agree is the need to address the skyrocketing price of prescription drugs. In a 2022 poll by the Kaiser Family Foundation, 83 percent of U.S. respondents called the price of prescriptions “unreasonable,” while nearly a third of those currently taking four or more drugs regularly have had trouble paying for their medication.

While many have struggled to make a dent in the problem, Oakland’s Priti Krishtel has notched significant wins against Big Pharma by attacking the problem at the molecular level. Rather than pursuing regulatory or policy reform, Krishtel, a health justice lawyer and cofounder of the Initiative for Medicines, Access, and Knowledge (I-MAK), interrogates the patents on drugs themselves. Drug companies have long exploited loopholes in the patent system in order to extend monopolies on existing drugs, keeping generics off the market and ensuring prices remain high. Drug patents are intended to incentivize innovation, but in many cases pharmaceutical companies retain their exclusive right to sell medication by filing extraneous patents on small changes to a drug—such as to dosing requirements—that

don’t actually benefit patients. That keeps prices out of reach for many.

“It’s a cultural problem,” Krishtel, a UC Berkeley graduate, says. “Granting as many patents as possible so they can say they’re promoting innovation; that’s not scientific progress if they don’t hold value for patients.”

Krishtel’s entrée into the world of pharma came after law school, while she was working in India with the Lawyers Collective NGO. There, she and others were able to challenge unjustified patents on HIV drugs and implement public health safeguards to increase access to lifesaving antiretrovirals. Upon her return, she helped launch I-MAK to take on the U.S. pharmaceutical patent system.

In 2022, Krishtel was awarded a MacArthur Foundation fellowship—a so-called “genius grant”—worth \$800,000. The attention it brought has advanced the work of her organization to the point that this summer Krishtel stepped away from her role as CEO to focus on writing and speaking engagements. “[The grant was] a powerful source of permission to say, I’ve done this and had the good fortune to be celebrated by my staff and community. Now I can let go and trust that this organization I built is going to continue to thrive,” she says. “I’m excited about it.” —I.A.S.





# EVOCATIVE AUTHOR

IN HIS AWARD-WINNING MEMOIR, HUA HSU REMEMBERS—AND MAKES SENSE OF— HIS FORMATIVE YEARS IN THE EAST BAY.

In *Stay True*, which won the Pulitzer Prize in the memoir category this year, Hua Hsu draws heavily on cultural artifacts to bring the past to life. Mixtapes, zines, books, songs—and the conversations they inspired—form the backdrop of the story, centered on the unlikely friendship that’s tragically cut short between Hsu and Ken, his roommate as a freshman at UC Berkeley in the mid-’90s.

That fixation with cultural ephemera makes sense. As a *New Yorker* staff writer and Bard College professor of literature, Hsu is among the most watchful cultural critics working today. But rather than trading in nostalgia, Hsu’s gift is in evoking a particular time and feeling through these objets d’art and curating them into a precise narrative.

*Stay True* hums with mentions of the East Bay countercultural institutions of yore, such as the Mod Lang record shop and Cody’s Books. The offhand references to songs and books lend Hsu and Ken’s relationship an

authentic intimacy. Writes Hsu, “We spent so much of our time in this mode—sifting through culture as evidence, projecting different versions of ourselves based on our allegiances and enthusiasms. ... We were in search of patterns that would bring the world into focus.” That spirit still animates Hsu’s work, whether it’s a profile of the Marxist historian Mike Davis or a commentary on the fashion of J. Crew.

*Stay True* was named by *The New York Times* as one of the 10 best books of 2022. Last year, Hsu also launched a series of zines called *Suspended in Time*. As Hsu said earlier this year, “I wanted to do something that wasn’t criticism but was about the power of music and culture and the critical impulses that we walk around with every day.” For someone being feted by the literary world, it is a surprisingly analog return to his scrappier pop cultural roots. But then it’s also a great way to stay true.

—I. A. S.

## THE EAST BAY BRAIN TRUST

A quick look at our region’s top honorees.

### NOBEL PRIZE WINNERS

The list of East Bay Nobelists is impressive, thanks in large part to the scientific and academic institutions in our area. Here are some of the most recent winners:

- > **JOHN F. CLAUSER**, Walnut Creek (physics, 2022)
- > **CAROLYN BERTOZZI**, Berkeley (chemistry, 2022)
- > **SVANTE PÄÄBO**, Berkeley (physiology or medicine, 2022)
- > **DAVID CARD**, Berkeley (economic sciences, 2021)
- > **JENNIFER A. DOUDNA**, Berkeley (chemistry, 2020)

### MACARTHUR FELLOWS

Dozens of East Bay-connected people have received MacArthur Fellowships. Recent recipients include:

- > **JOSHUA MIELE**, Berkeley (adaptive technology researcher, 2021)
- > **POLINA V. LISHKO**, Berkeley (cellular and developmental biologist, 2020)
- > **SUJATHA BALIGA**, Oakland (attorney and restorative justice practitioner, 2019)
- > **WALTER HOOD**, Oakland (landscape and public artist, 2019)

### PULITZER PRIZE WINNERS

The recipients are too many to list, but here are a few standouts:

- > **T. J. STILES**, Berkeley (history, 2016; biography, 2010)
- > **ROBERT HASS**, Berkeley (poetry, 2008; was also a MacArthur Fellow in 1984)
- > **JOHN ADAMS**, Berkeley (music, 2003)
- > **MICHAEL CHABON**, Berkeley (literature, 2001)