

Sudden Changes to NSF's Graduate Fellowship Program

Emily Yu
News

In an abrupt move, the National Science Foundation (N.S.F.) has narrowed eligibility for its Graduate Research Fellowship Program (GRFP). With effectively no transition period and little advance notice, the change has caught thousands of prospective applicants by surprise.

Only senior undergraduates, first-year graduate students in their first graduate degree program, and bachelor's degree holders with no prior enrollment in any graduate degree program can apply. Previously, students could also apply during their second year of graduate school. Applicants beginning a new graduate program after up to a two-year hiatus were also eligible.

The solicitation was released on September 26, giving applicants only about six weeks to prepare before the November 10-14 application deadlines, compressing the window to submit an application. In previous years, the solicitation was typically released in July, allowing applicants at least 90 days to prepare per the policy on the NSF website.

Since 2016, students have been able to apply twice in total, typically once as a senior undergraduate and once as a first- or second-year graduate student. As only one application is allowed during graduate school, many were advised to wait until their applications were stronger in their second year. These changes have blindsided second-year students who have used their first year to develop research proposals, establish faculty relationships, and produce preliminary results prior to applying.

Critics note that by emphasizing undergraduate research experience and grades, the new policy may favor students from well-resourced institutions. The GRFP has often faced criticism for this bias. Students who lack early exposure to research opportunities are at a disadvantage. This year's shortened timeline exacerbates this issue, as elite universities are better equipped to support first-year applicants at such a quick turnaround.

The NSF states that the GRFP will "refocus on its original statutory and programmatic intent to affect students at the beginning of their STEM graduate training and to award fellowships 'to the applicants in such a manner as will tend to result in a wide distribution of scholarships and fellowships throughout the United States,' 42 USC §1869(a)."

The NSF's fiscal year 2026 budget request of \$127.3 million for the GRFP is a 55% drop from 2024 funding levels. The fallout remains to be seen.

Caltech Welcomes International Students Amid Immigration Uncertainties



Incoming international students with orientation leaders. (Photo: I.S.P.)

Jin Park
News

On September 17, international students arrived on Caltech's campus to attend a 3-day orientation meant to ease their transition to the United States. The group consisted of both undergraduate and graduate students, including exchange students from the U.K. and Denmark. An array of snacks and essential items were available for anyone to grab at the Center for Student Services

building, with orientation leaders aiding the move-in process.

The next day, vibrant conversations in multiple languages could be heard from Beckman Mall as the incoming internationals convened for breakfast. The welcome event started off with a bang, with award-winning drummer Danny Petersen performing in Ramo Auditorium. Born in apartheid South Africa, Petersen has played at three of Nelson Mandela's birthday parties. At the end of the performance, Petersen dis-

cussed his experience parenting his precocious son—who studied at the Manhattan School of Music—and the importance of keeping contact with family and community members back home.

EXPLiCIT, the theater club on campus, followed with a culture shock comedy sketch for both the entertainment and education of its viewers. The plot revolved around Ankan, a Sri Lankan student who recently arrived at Caltech, and his mis-

continued on page 2

David Baltimore, former Caltech President, Dies at 87



Photo: caltech.edu

Troy Zhang
News

David Baltimore, the Judge Shirley Hufstедler Professor of Biology and President Emeritus of the California Institute of Technology, passed away on September 6 at his home in Woods Hole, Massachusetts. He was 87.

Baltimore's career spanned over six decades, playing a crucial role in developing our current understanding of viral and cell biology. In 1975, at the age of 37 and a mere three years after being awarded tenure at the Massachusetts Institute of Technology (MIT), Baltimore was jointly awarded the Nobel Prize in Medicine or Physiology with Howard Temin and Renato Dulbecco for his work on discovering reverse transcriptase, overturning the then-prevailing view that genetic information flowed only from DNA to RNA. The discovery of reverse

transcriptase led to a flurry of scientific activity investigating retroviruses and cancer biology, which paved the way for research on HIV and gene therapy.

In 1982, Baltimore established the Whitehead Institute for Biomedical Research (WIBR) at MIT, where his team—alongside Dr. Ranjan Sen—discovered NF-κB, a critical family of transcription factors that regulates cellular responses to stress stimuli such as cytokines and antigens. Baltimore continued this work at Caltech, where he was appointed its sixth president in 1997, at a time when the Institute was expanding beyond its traditional strengths in physics and engineering. During his tenure, Baltimore expanded the scope of life sciences at Caltech and secured a \$100 million gift from Gordon and Betty Moore, the philanthropists and Caltech

alumni who co-founded Intel.

Seven years after his initial appointment as president, Baltimore stepped down and was succeeded by Jean-Lou Chameau. He continued serving on the faculty and maintained an active lab presence in the Division of Biology and Bioengineering until 2019, when he closed his lab and retired from academia. Beyond his scientific and administrative achievements, Baltimore is remembered at Caltech as a leader who sought to integrate biology more fully into the Institute's identity and as a mentor who inspired generations of researchers.

"David maintained that it was necessary to think of biology in the context of the human condition," writes Caltech president Thomas Rosenbaum. "He gave selflessly of his time to nurture individuals and institutions alike."

Integrated Core Launches with Energy at the Center

Damian R. Wilson
News

This fall, Caltech introduced its pilot Integrated Core curriculum, a new approach to the first-year experience designed by faculty members collaborating across all five divisions. The program emerged from two years of faculty discussions convened by the Provost and Vice Provost for Education, focused on how to improve retention of foundational material and rekindle the sense of excitement students bring to campus.

Rather than teaching physics, chemistry, biology, earth science, and math in isolation, Integrated Core organizes these disciplines around a unifying theme: namely, energy. The fall term uses space travel as a vehicle to connect mechanics, fuel chemistry, planetary science, and even the search for life. Winter shifts to cellular bioenergetics, and spring to carbon capture and climate. Along the way, labs, cross-disciplinary lectures, and multi-day field trips—visiting wind farms, geothermal plants, and Mono Lake—bring the material to life.



Integrated Core students at Mono Lake. Photo Credit: Paul Asimow

The program is resource-intensive, with ten faculty teaching just twenty students, and is not intended to replace the standard Core. Instead, faculty hope lessons from the experiment will eventually inform Core teaching more broadly. "We're not trying to break something that already works," says Prof. Asimow, who lends the program a G.P.S. perspective. "But to see whether an alternative model can help students hold onto their enthusiasm and carry it forward."

At the time of writing, Integrated Core is entering its second week of instruction. The curriculum is still in its early stages, but student response so far indicates the program is already making a positive impact.

Inside This Issue:

4	Philosophy Column: When Science Meets the Sacred	5	2025 Pasadena Coffee Report	7	What I Learned From a Summer of Organic Farming	8	Fall 2025 Athletics Recap	9	Caltech Campus Wildlife	12	The Inner Crack of Women in Science	15	Who's Who at Caltech
---	--	---	-----------------------------	---	---	---	---------------------------	---	-------------------------	----	-------------------------------------	----	----------------------

Tasting the Golden State at FoodFest

Camilla Fezzi
The Inside World

The email pops up on my screen: of course, today is FoodFest! Who knows what surprises Tom Mannion—the mastermind of it all—has planned for us. I was finishing my last physics problem when suddenly Californian tunes started whistling through the Fleming windows.

Now, I'll admit it—as a true Italian, I'm always a bit skeptical about foreign food. There will never be anything quite like ours, right? Still, with journalistic bravery (and mild hunger), I ventured down the shaky steps to begin my culinary inspection.

Mistake number one: I tried the pasta. I always tell myself not to, but temptation wins. And, well, disaster. Overcooked, bland, and—brace yourselves—cauliflower?! Please, someone explain your creative decisions. Next time, maybe call an Italian consultant first.

Thankfully, redemption arrived quickly with the burrito. Surprisingly good! Maybe it could've used a little more seasoning to bring the flavors alive, but compared to the pasta, it was nearly a relief. The atmosphere was lovely—a few more lights would've made it better, but the cheerful crowd made up for it.

Then came the true revelation: the Animal Fries and can I be honest in this? I have never heard this name before, what does it mean? Eventually they told me it is because they are so full of things, salsa, cheese and anything that ...it is an almost animal thing to do?! Sinfully delicious, drenched in cheese, thousand island sauce, onions, and pickles—a messy, glorious invention straight from In-N-Out.

The tofu burrito, on the other hand, symbolized the spirit of California itself: vegetarian, free-spirited, a testament to the state's enduring hippie soul. The brownie dessert was unforgettable, I think as every dessert is, but specifically with chocolate. Chocolate is simply the best in everything.

During our chat with Tom Mannion, we learned that FoodFest actually started as a Saturday carnival full of food and games, later moved to Friday to fit the campus rotation—a way to kick off the year and bring everyone together.

After yesteryear's focus on Asian fusion, today's event celebrated the Taste of California: tri tip, animal fries, burritos, and the iconic Ghirardelli. Tom even shared the backstory of a famous Santa Maria tri tip sandwich—created years ago by alumnus Andrew Hogue and his father Todd, who perfected their own “Hoagie” version.

“If anyone asked me what Californian cuisine is,” Tom said, “I'd probably just say: anything you add avocado to.” California, after all, is too vast for a single cuisine—it's a melting pot of cultures and flavors.

And as Tom reminds everyone, “Food brings people together. It's a fun way to teach science and connect cultures.”

In the end, with burritos, laughter, and a full stomach, FoodFest wasn't just about food—it was about community. And we Techers love our community—the beavers, who we are—but always staying together with good food is a great idea!

Damian R. Wilson
The Inside World

Damian, your Editor-in-Chief, also accompanied the ever-dependable Camilla on Friday's FoodFest, and as a born-and-raised Californian I feel obligated to supply my brooding two cents on the experience.

As I write, the seasons change in the only way they do here: not in the foliage, which refuses to turn, but in the seasonal menu at Starbucks. Pumpkin spice arrives, and so is it autumn in California. That's the usual joke, but it contains something serious: that this is not a place of seasons, not in the way understood elsewhere. Here, rather, is a place of invention and substitution.

A burrito takes the place of something older, an avocado slides into every dish until it becomes shorthand for the state itself. Santa Maria tri tip, Animal Fries, tofu burritos—all of them are less dishes than arguments about what California wants to be. They come from different histories—Mexican, fast-food, vegetarian counter-culture—and yet in the act of putting them together on a single table, we call it “California.”

This is the state's paradox: too big, too plural, to be captured by any one thing, and yet always in search of a unifying story. We call it “fusion,” but what we mean is more like improvisation—a refusal to admit that the pieces don't quite fit. “California cuisine” is a performance of identity, a way of stitching together a geography that runs from the beaches of Santa Monica to the almond orchards of the Central Valley.

Ever the literary subject, California has varying been cast as frontier (John Steinbeck), as playground (Eve Babitz), as mirage (Joan Didion). And I'd even say it's these synchronous paradigms that this food delivers to the sensory forefront: frontier in the tri tip, playground in the Animal Fries, mirage in the tofu burrito that insists on being healthier, freer, more Californian than it is.

We call this state a community, and perhaps it is. But it's also nostalgia for a community that never quite existed, a way of holding together fragments with seasoning and sauce. Food becomes the story we tell ourselves to justify the dream of California—that we belong here, that the contradictions can be made to taste good if we add enough avocado. But aren't these contradictions what define this country, so long as there's a country to be defined? As a physicist and a Californian, someone whose life is mired in paradoxes of every kind, I see no issue in embodying aporia.

Avocado never hurts, though.



Photos courtesy of Camilla Fezzi.

International Welcome

continued from page 1

haps regarding cultural norms in America. Topics included not knowing anyone at parties, eating and drinking in class, alcohol consumption in open containers, and more. It made for a relatable performance as the actors were international students themselves.

Another sketch about the basics of immigration was performed by orientation leaders and Laura Flower Kim, Associate Director of International Student Programs (I.S.P.). In one scene, an international student with health problems discussed taking time off from school and its visa implications. In another, a second-year graduate student expressed concerns about a friend receiving scam phone calls. The play also covered subjects such as employment, the Optional and Curricular Practical Training programs, and how to deal with visa expirations.

While the events prepared by I.S.P. were light-hearted in nature, the shadow of federal actions that continue to impact foreign national students in the U.S. remained. When asked about the efforts that Caltech is making to protect its international students, Ilana Smith, Director of International Offices, said her office worked closely with campus security and the Office of General Counsel over the summer to determine the best ways to support international students.

“Fall term is always exciting as it is a new beginning,” she noted. “But we have also had to prepare for legal changes that have occurred throughout the summer. As you may know, there was a pause on visa approvals, and we were very worried, but it seems everyone [at Caltech] has been resolved.”

Regarding the effect of recent immigration changes on enrollment, Smith stated that there was no noticeable difference from the past. According to statistics released by the undergraduate admissions office, the Class of 2029's enrollment percentage for international students was 14%, which was in line with previous years. In addition, Smith remarked that “scrutiny on social media had not led to any specific negative outcomes.”

With the Immigration and Customs Enforcement (I.C.E.) raids in L.A. that occurred during the summer, it can feel frightening to consider the prospects of an I.C.E. official on campus. If such an event happens, the International Offices have a concrete procedure for community members to follow: 1. Let security know the nature of the immigration officer's visit, and 2. Inform the officer that you are not authorized to grant access to private spaces. Smith noted that officers are able to access public spaces but not private ones, such as student housing, offices, and classrooms, unless the Office of General Counsel permits them to do so.

Although these changes can be frightening, evidence points towards the conclusion that Caltech students have largely been safe thus far. Concerned international students can check their inbox regularly for weekly emails from I.S.P. and keep up-to-date with relevant news. Smith underscored the importance of international students and what they each contribute to the Institute. “Even in these stressful and evolving times, we're really excited to welcome new international students to campus and our Caltech community.”

Documentary Review - The Rose: Come Back To Me

Emily Yu
Culture



(Image: Letterboxd)

The Rose is a South Korean band that unexpectedly had their big break in Europe after their 2017 single “Sorry” went viral on YouTube. Their documentary, “Come Back To Me,” chronicles the group's rise and struggles. It details the band's beginnings and the passion each member has for music. At the same time, it shows the challenges of staying together and the obstacles that nearly ended their careers.

One of the pivotal moments in The Rose's history was a lawsuit against their former management. The band fought for two years and eventually won, a rare outcome in an industry known for notoriously restrictive contracts. The documentary does not go into details, which would have been interesting, but it makes clear their legal victory was instrumental in their ability to continue as a band.

Their current label, Transparent Arts, also adds an interesting layer. Founded by the artists behind the 2010 hit “Like A G6,” the company was created from the founders' experience as an Asian American group navigating the music industry. They wanted to create a label that they themselves would have signed to, which makes The Rose's partnership with them particularly fitting.

“Come Back To Me” touches on broader issues, such as how the K-pop industry's machine-like production of artists often leaves them with little agency, and the conflicts that can arise within group dynamics. Beyond the industry conflicts, the film focuses on the band's persistence through difficult times. Between mandatory military service, the pandemic, and years of uncertainty, The Rose was extremely fragile. Instead, they returned to play sold-out shows at venues like the Kia Forum and eventually performed at Coachella.

I first heard about The Rose when a friend invited me to their concert at the YouTube Theater. A few days later, she asked if I wanted to see the documentary at a small independent theater in Glendale after she came across a TikTok about the screening. Even as a casual listener, the documentary was an engaging and thoughtful watch. “Come Back To Me” captures how The Rose found its own way in an industry that rarely allows that kind of freedom, which is a story that feels meaningful even to those outside the world of K-pop.

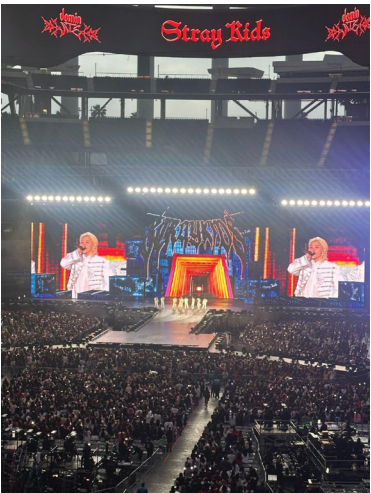


Danny Petersen plays the drum with audience members. (Photo: I.S.P.)

A Concert-Filled SoCal Summer

Kyra Phaychanpheng
The Outside World

From packed stadiums to sold-out arenas, 2025 is a landmark year for live music—and nowhere is the excitement more electric than in Los Angeles. As an Asian American raised in Southern California, although it may be typical, my musical interests heavily lie in K-Pop and Asian Artists. And this summer, the concert scene in SoCal is nothing less than POPPIN. So, I wanted to share a glimpse of my concert adventures this summer—just a little taste of what’s been filling my heart (and draining my wallet).



My view for the Stray Kids concert at Sofi stadium! (Photo: Kyra Phaychanpheng)

Stray Kids 5/31 at Sofi Stadium

The first time I saw Stray Kids was in 2022 at the Honda Center in Anaheim—super local for me, with a capacity of around 15,000. I remember my tickets were only \$70 back then (crazy right). I saw them again in 2023 at BMO Stadium, both for the Maniac and extended Maniac tour.

Since coming to college, I haven’t had the time to keep up with the K-pop stan lifestyle I maintained so religiously in high school. The reality shows, vlogs, and comeback content started to feel overwhelming—especially while trying to adjust to an entirely new environment and workload here. Going into the concert, I felt a little disappointed in myself for not being totally caught up with my “ults.” I’d only listened to their new mixtape, “Mixtape: dominATE” once all the way through. Regardless, I was beyond stoked. They’ve made it: SoFi Stadium!

The concert itself blew me away with its incredible live sound and grand theatrics. As expected, the live rap from Changbin and Han delivered. I also thought they struck a perfect balance between old songs and new ones on this tour. Personally, I was so glad they still performed “District 9” and “MIROH”, and “Back Door” took me back to my roots, when I first started stan-ning. Plus, their performance of “Giant” was absolutely unforgettable—especially with the massive blow-up figure towering on stage. The new songs on the aforementioned mixtape were so hype live, and it really showed me the consistency in BANGERS they are still spitting out. Additionally, I was especially surprised—and delighted—by the moving carts that carried the members around the stadium as they performed a couple songs, something I’d previously only seen in Asia tours.

My singular downside would be a double-edged sword; since this was my third time seeing the group, I noticed they have as much “ment” time. This would include the spoken segments where the idols interact with the audience, share stories behind songs, or engage in “fan service”. There were certainly little tid bits of interactions between the members, but it was disappointing that for my show, only Bang Chan and I.N. were able to share their full thanks and sentiment. I feel that these talking segments are such a big part of the K-pop experience, but I understand that they needed to *JJAM* pack their setlist with songs (real ones would get the pun). Still, maybe I am biased but I would still rate this a five star michelin experience!

Blackpink 7/12 at Sofi Stadium

Another monumental tour that shook the K-pop scene was Blackpink’s “Deadline” Tour. Now, I’m no conspiracist—but it honestly wouldn’t surprise me if this marked the end of their era as a group. Considering how the members have basically functioned as solo artists for the past two years, it kind of checks out.

To be honest, my expectations going into the concert weren’t super high. Knowing they weren’t even releasing a mini-album beforehand and just a single, “JUMP”, was already a letdown. On top of that, seeing concert clips from earlier tour stops on social media didn’t help either; people were constantly criticizing the idols for low energy and lackluster performances.

But with that said, as the hours counted down before the show, I still couldn’t help but get hyped as we prepped in the car listening to the projected setlist. They opened with “Kill This Love” and came out swinging—smoke machines, pyrotechnics, dramatic lighting—the whole deal. “JUMP” was super energetic, and “Ddu-Du Ddu-Du” completely lived up to my expectations. The solo performances were incredible as well! Jisoo actually looks ethereal and her performance actually got me enjoying “earthquake” after not liking it too much. Jennie’s aura was immaculate...the way she carries herself throughout her set was crazy and I have a new appreciation for her album. Rosé’s “3AM” was beautiful. And of course, “APT.” had the entire crowd hyped, there were so many baby Blinks! But my favorite moment of the night was Lisa’s performance of “Fxxk Up the World” with a splash of “Money”. Queen type beat.

However, I do have a few criticisms of the show. For a group with their level of success (and budget), it was a little disappointing that they didn’t use the SoFi infinity screen, the giant, oval-shaped 360-degree screen above the stadium. It would’ve made a big difference for those of us in the nosebleeds...and could’ve elevated the experience overall. Also, the interlude videos between songs were also a little odd to me. The storyline seemed clearly tailored to appeal to an “American” audience, with the Joshua Tree-style scenery and cowgirl fits. Additionally, the way they divided up the acts felt kind of random, but it could be due to my lack of pattern recognition.

Ateez 8/9 at BMO Stadium

My first time seeing Ateez live, and let me tell you... they did not disappoint! I was so happy to go to this concert with some hometown friends. They aren’t my ults, but I’ve listened to them a lot over the past couple of years, even if I haven’t kept up with their latest releases. After a couple days of solid setlist studying, I was ready. I thoroughly enjoyed the concert, it was packed with so many songs! The solo songs were really good (and spicy!), and I was honestly really shocked at how little downtime they took between songs. They still found time for some fun talking segments too, though admittedly it was hard to follow anyone besides Hongjoong.

Xikers opened for them, and they really set the tone. Their cover of “Bouncy” had the crowd hyped and perfectly primed for Ateez’s first stage.

Before the concert, I didn’t even have a bias, since I wasn’t super familiar with them—but by the end of the night, Mingi won me over with his killer live rap skills (and, let’s be real, his obvious good looks). Stand-out performances for me were “Shaboom,” “We Know,” and of course the high-energy anthem “Guerrilla.” Will definitely be listening to these on the regular.

If I had one complaint, it’d be the sound system at BMO. Something about it felt a little off—it didn’t sound THAT amazing in person. Still, it was good enough to enjoy their live vocals and rapping, and weirdly enough, the audio actually translated even better on my videos. So I’m not too mad about it, just slightly confused.

Overall, it was such a great show—and honestly refreshing not to see swarms of little kids everywhere (which is always the case with groups that have huge fandoms, or those that try to appease all age groups). The crowd vibe was perfect. Plus, Atinys are so generous and I came home with a ton of freebies to add to my photocard binder!



A magical \$40 can be so good in this economy! (Photo: Kyra Phaychanpheng)

Keshi 8/11 at Kia Forum

By the time this concert rolled around, I was exhausted—late nights, early mornings, and driving on top of it all. So, it had better be worth it. Luckily, it absolutely was.

The Forum is hands down, my favorite concert venue. I was a little disappointed they didn’t decorate the outside poles with tour quotes or logos (the perfect photo op missed!), though there was at least one central photo backdrop—unfortunately with a ridiculously long line. On the bright side, the merch line was surprisingly short. I grabbed a shirt that’s

way too big but still great quality and a design I love.

Starfall opened the night, and while I enjoy his music in general, his set didn’t land the way I expected. Maybe it was nerves or technical issues, but his vocals felt off. Still, his songs carried the vibe and warmed up the crowd. The second opener though, was more hype and had some crazy autotune. He was a vibe, but it was funny how his set was never ending and he would just be like “okay and one more!”.

Then came the main event—O M G. It was everything I could’ve imagined. His live vocals were insane, truly on another level. What surprised me most was how nonstop the show was. Unlike most concerts I’ve been to, where there are breaks for talking or resting, he dawgged it out two hours straight. Banger after banger after banger. Sure, some extended guitar sections gave him a breather, but still he is still putting in that performance effort. Early on, he performed with his hood up, totally aura-farming, and then the rest of the night? Shirt off. The crowd went wild. Like I said earlier, this is my favorite venue, and perfect for this show with the crisp sound and vertical big screens. The screens had some cool visual effects and graphics that were perfect!

I loved how he seamlessly switched between just singing, electric guitar, and acoustic guitar. His band also deserves serious credit—they elevated the whole concert by at least tenfold. Notable performances included Night, Limbo (with an incredible, drawn-out guitar intro that made me scream), and Forever (yes, I cried). Drunk was so cute with the whole crowd singing along, and War—my personal favorite song in the world—absolutely destroyed me. He closed with Id, which was an epic and fitting outro.

Honestly, he sounded so good that words barely do it justice. It was raw, powerful, and unforgettable.

Nocturnal 9/14

To further strengthen my ABG allegations, I decided it was finally time to fulfill my duty and attend a rave—at least once in my life. This summer gave me the perfect opportu-

nity. Four of my hometown friends were eager to drag me along, and the lineup looked good (or so I was told). Honestly, I only really knew Zedd before agreeing, but I was down for a good time with friends nonetheless. I was fortunate enough to have a playlist prepared for me to listen to in the weeks leading up to the event. The EDM genre isn’t usually my thing, my only exposure to it being those “experimental” K-pop groups. It took some adjusting to, but I discovered I lean toward the “melodic” side of the genre (whatever that means). By the end of the night, I’d found myself enjoying sets from Seven Lions, Galantis, and of course Zedd. His set was a highlight—he even threw in “Jump” by Blackpink before closing with “Clarity,” which was iconic!

The rave experience overall, though, felt a little underwhelming. In the moment it was fun, but I don’t think I’d go again. The music was loud enough that we wore earplugs the whole time, and while the lasers were cool, I couldn’t help comparing it to my concert experiences. For me, concerts just have more energy. You get the live singing, dancing, and crowd interaction that this could not quite replicate. The vibes were also different from what I’m used to; it was hype but also completely chill. Kind of makes sense though for such a long event, and with some smaller DJs performing leading up to the main shows. Side note, I think I also had a significant second hand smoke intake that was not super enjoyable.

I had originally hoped this summer concert diary would be even longer—I was planning to see d4vd and Laufey too. But as many of us know, recent news surrounding d4vd made me hesitant, and those ticket prices weren’t dropping anytime soon. So that will have to wait for another time.

Even so, looking back, it was a summer filled with incredible music and unforgettable memories. From K-pop stadiums to my first (and probably last) rave, I feel totally refreshed heading into sophomore year. Unfortunately, I’ll be going from screaming the songs I love, to playing them as lock-in music for organic chemistry study sessions.



My view from right in the center of the pit during Galantis! Apparently they came out of retirement to perform for this festival. (Photo: Kyra Phaychanpheng)

The science of thought: philosophical insights into scientific practice

Where Science Meets the Sacred: Reflections from a Journey to Houston

Camilla Fezzi
Inner Voices

The Houston heat wrapped around me like an invisible shield as I navigated the city with the strange feeling that I was not walking to a lab or a museum, but to something that provided silence. The Rothko Chapel is hostile to sound: black walls, enormous canvases, light that doesn't so much illuminate them as permeate through like some ancient sigh. There, in that weightless inner space, I found myself having a thought that does not frequently occur to me at Caltech, amidst equations and lab equipment: human beings have forever sought a face in the invisible.

Perhaps religion started in such moments—not so unlike the one I was having in that chapel. It is the effort to nail down what eludes our grasp, to render habitable the vast unknown. Rothko's deep paintings, hung between color and void, were a mirror of the same primal urgency that once led primitive cultures to visualize gods in thunder, in storm, in birth. The search for God was not science, not superstition; it was a movement of orientation, a first attempt to create an inner compass.

And yet, as I walked once more towards the airport, another thought occurred: almost contrary to what their history would suggest, science and religion are less enemies than they are offspring of questions that are beyond practical answer. Just as theoretical physics ponders particles no eye can see, religion evolved as a language for what cannot be directly known. Science collapses mystery into measurement, while sacred space opens it out to where it is inhabitable.

Inside the Rothko Chapel there is no pulpit, no scripture—only color and silence. And yet those void-filled panels vibrate with the same energy that makes an astronomer turn a radio telescope to the sky. Before the abyss of depth, science and religion appear twin manifestations of one human impulse: leaning out over our limits, reaching out to an ever-receding horizon.



Rothko Chapel interior and new skylight. (Photo: Texas Highways)

Philosophy and the Origin of Religious Thinking

The moment human beings began philosophizing about religion, ritual turned into discourse, myth into inquiry. Belief was no longer lived, but questioned.

Saint Augustine gave voice to this transformation. In the Confessions, God is not a distant monarch but the innermost space of the self: "You were within me, but I was outside." Sitting in the Rothko Chapel, Augustine's words echoed—the dark panels seemed less paintings than mirrors deflecting sight inward.

Thomas Aquinas, centuries later, pursued another path: to place faith in dialogue with reason. His "Five Ways" of proving God's existence—by causality, motion, order—are a testament to the conviction that faith does not need to retreat from rational inquiry. His project speaks to science: like a scientist who does not linger on observation but seeks causes, Aquinas did not linger on mystery but sought argument.

Spinoza framed the issue anew. God was not a transcendent person for Spinoza, but nature itself, infinite substance through all. It was a concept forbidden as heresy, but before Rothko's dissolving color fields I found myself remembering Spinoza's vision: no God-person backstage from the canvas, but immanence pulsating in every shade.

With Kant, the question had changed once again. He demanded that reason cannot

prove or disprove the existence of God. Yet, the divine is still necessary—not as a object of knowledge, but as a prerequisite for moral existence. I can perceive something of science here: scientists will accept unprovable assumptions—like the ultimate intelligibility of the universe—so research may begin.

Hegel incorporated religion into his grand system. Religion was not error for Hegel but stage: symbolic form through which Spirit arrives step by step to know itself. History, in this fashion, is God's path to self-knowledge. I pondered: perhaps the Rothko Chapel itself signifies this very movement—neither church nor museum, but one in which art assumes religion's ancient task of holding humanity's quaking before mystery.

Modern Radicalizations: Nietzsche, Heidegger, Levinas

Whereas Augustine found God in the heart and Aquinas in reason, modern philosophy addressed the question more radically in challenge. It no longer addressed only the divine; it overthrew or rephrased it at times.



Nietzsche & Heidegger, Joe Smith, 2019.

Nietzsche shattered Western conventions with the proclamation that "God is dead." Not nihilism's victory, but recognition: the new era could no longer depend on transcendent order. Meaning had to be upheld by shoulders of human alone.

Standing before Rothko's black fields—with no reassuring figures, no symbols of tradition—I felt that Nietzschean test: to stand before the void, not to crumble before it, but to find strength there.

Heidegger, in other words, restated the issue. He did not ask about God, but Being. Modernity, in his view, had reoriented man from his dwelling in Being, leading him off course through technology and clamor. The Rothko Chapel seems to set the scene for his call: a room drawn back from size, where Being breathes not as thinking but as existence.

Levinas placed ethics in the front. God for him was not a theorem of abstractions but the trace that shines on the face of the Other—the unlimited responsibility we owe the one sitting beside you. In a vacant chapel devoid of icons or divine imagery, this finds its haunting echo: transcendence not born of sight drawn on a wall, but of the neighbor sitting next to you who is occupying the space.

Modern and contemporary thinkers today don't turn their backs on the sacred—they reinterpret it. For centuries the challenge was to prove God or to defend mystery; today it is to ask what place is left for transcendence in a science-mapped world free to human freedom.

From Augustine to Nietzsche, from Aquinas to Heidegger, there is a strand to be followed: human beings never cease to philosophize religion because the questions—*Who are we? Where do we come from? To what do we strive?*—will not disappear. They transform shape—from theology to skepticism, from mysticism to criticism, from metaphysics to ethics—but they remain.

As I stepped out of the Rothko Chapel into the stifling Houston heat, I felt that continuity: the silence I had just enjoyed was religious, to be sure, but also philosophical, scientific, fundamentally human. A strand a millennium old that bound man's relentless fight against his own limits.

Editor's Note:
We want to
hear your
perspective!

We strive to represent every voice in the Caltech Community with fairness, accuracy, and impartiality in our news reporting.

Send submissions or contact the *Tech* editorial team at

tech@caltech.edu

Submissions are due at 12 p.m. on the Saturday before each biweekly Tuesday publication.

Philosophy

Questions that may never be answered.



Religion

Answers that must never be questioned.

Religion is regarded by the common people as true, by the wise as false, and by the rulers as useful.

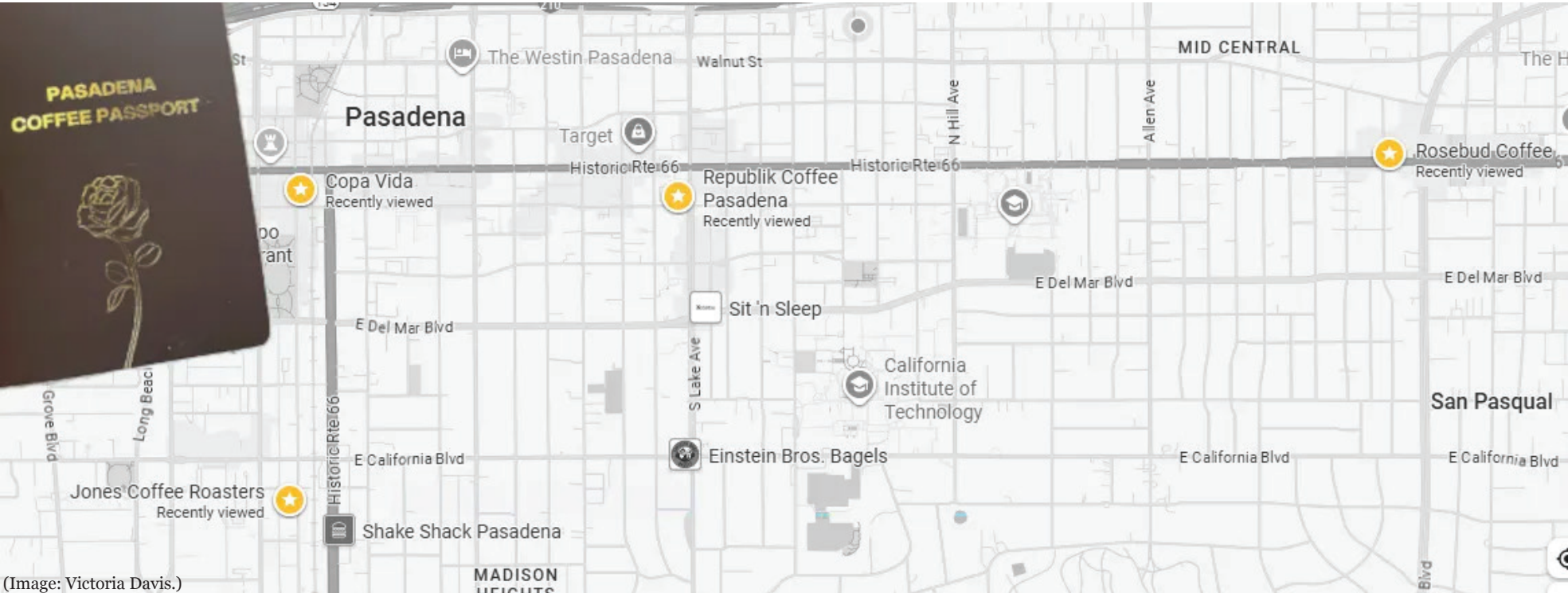
Seneca
4 BC – AD 65



2025 Pasadena Coffee Report

Victoria Davis

The Outside World



(Image: Victoria Davis.)

I bought the 2025 Pasadena Coffee Passport back in February so that I had something fun to look forward to this year and support local businesses. It is now September, and I have only been to four of the fourteen shops in the passport! I’m determined to visit them all before the end of the year, so stay tuned for my next round of reviews. For now, read about the drinks, locations, and interior descriptions of the four coffee shops I visited thus far.

Rosebud Coffee

Passport description: “As Pasadena’s first social enterprise café, Rosebud provides job training for at-risk youth. They roast their own coffee in-house and handmake their syrups with real ingredients.”

Passport benefit: 15% off one purchase

I ordered the Salted Rose Mocha, and loved it! The drink is described as “dark chocolate mocha with floral notes and a touch of pink salt.” I typically don’t like floral drinks, but I love mochas, so wanted to try this drink. The rose was subtle and the salt topped-foam was a pleasant surprise. Rosebud has very tasty coffee. The location is a bit further from where I usually shop and venture from Caltech, but I still think its worth trying! I was surprised to see a funky layout inside this coffee shop, complete with cartoon posters of Pasadena birds who escape their cages in 1959 and wind up at a bar. That’s because inside Rosebud is also a small brewery called Wild Parrot Brewing Company! The seating area was not my style for sitting and enjoying a cozy cup of coffee or studying, but the coffee was excellent. It looked like most people were there to enjoy breakfast, which I would love to do in the future with friends. I would definitely go again for the coffee alone too.

Copa Vida

Passport description: “Copa Vida is a specialty coffee and tea house in Old Pasadena that offers a curated food menu to complement their drinks. They roast all of their coffee at their roastery right here in Pasadena.”

Passport benefit: 15% off (food & drink)

I ordered the Iced Shakerato, and it was quite tasty! The drink is described as “two double shots of espresso sweetened with agave and shaken with iced milk.” Because the passport benefit was 15% off food and a drink, I also picked

up one of the advertised macrons on display. It was called a Fruity Pebble Buttercream macron, and it came in a cute little individual package! It was also delicious and a fun pairing with my coffee. The location is in Old Town, which was convenient because I also got to do some shopping after I grabbed my drink from Copa Vida. The inside of Copa Vida feels like an Apple Store, so it’s not my preferred atmosphere for hanging out or doing work. The exposed brick is a nice aesthetic, but beyond that the place doesn’t have much personality. Decent coffee, but about average as coffee shops go.

Republik Coffee

Passport description: “This café has it all: specialty coffee and drinks, a wide range of quality food items, and even a selection of cocktails. Grab a seat at one of their cozy tables or take your drink around South Lake.”

Passport benefit: 15% off one purchase

On my Republik Coffee journey, I decided to sit down for breakfast with my best friend Maria. She ordered the Black Mocha Latte and I ordered the Sea Salt Hazelnut Cappuccino. The Black Mocha Lattee is described as “mocha with two shots of espresso and house made vanilla syrup with activated coconut charcoal” and the Sea Salt Hazelnut Cappuccino is described as the name suggests: “espresso, hazelnut, sea salt, steamed milk.” For breakfast, Maria ordered the Eggs Benedict (two cage-free eggs poached medium, hollandaise sauce, black forrest ham, toasted brioche, hairloom tomato, and rosemary potatoes) and I ordered the Dulce De Leche French Toast (egg battered brioche topped with mixed berries, maple syrup, powdered sugar, cinnamon, banana, and whipped cream). The Eggs Benedict, was a classic and a hit. However, the Dulce De Leche French Toast was sad. The only berries that were sweet were two raspberries. The bananas were fine, but the strawberries were extremely sour. Thus, the French toast became a sad hunk of bread with some bananas on it for the majority of the meal. It was disappointing. The coffees were great, but the seating indoors is crowded and cramped. Smooth and shiny floors throughout make the place echoey and loud, making it difficult to have conversations over a meal. Since the coffee wasn’t exceptional and the food mid, it’s

definitely a place I’d pass on going to again.

Jones Coffee Roasters

Passport description: “Jones has been a cornerstone of coffee and community in Pasadena since 1994. They roast sustainably sourced coffee and serve a full range of coffee, tea, and other classic drinks.”

Passport benefit: 2 oz. of coffee beans with \$5 purchase

I had to return Amazon items to Whole Foods, and figured I’d check out Jones Coffee Roasters since it was nearby. This place was definitely my favorite so far! The interior is quirky, colorful, and fun. I was so surprised, too, that this is the place where Red Door gets its coffee beans! I’ve always seen the bags of coffee beans on display when you stand in line at Red Door, and was shocked to realize that this was the same company! I was delighted to get my free 2 oz. bag of coffee beans with my purchase of, yes, I did order an Iced Pumpkin Spice Late! Indeed, it is still 95 degrees out, but I am in denial and am ready for Fall! I’ve actually never had a pumpkin spice late before, but now I understand the obsession. I will definitely be making this my fall drink from now on! I also love, love, love the coffee beans that Jones Coffee Roasters sells. I’m so glad I can buy more soon, and conveniently, at Red Door! Highly recommend!



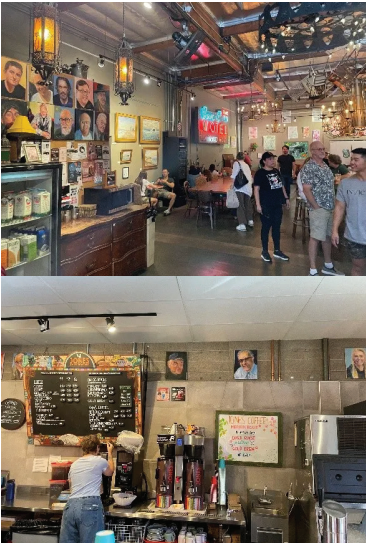
A Black Mocha Latte (top) and a Sea Salt Hazelnut Cappuccino (bottom) from Republik Coffee. (Photo: Victoria Davis)



Interior of Rosebud Coffee (Photo: Victoria Davis). Salted Rose Mocha by Rosebud Coffee (Photo: Victoria Davis).



Left: A Shakerato from Copa Vida. Right: A Fruity Pebble Buttercream Macaroon from that establishment. (Photos: Victoria Davis)

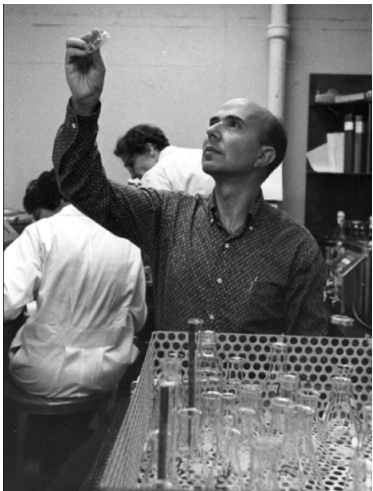


Interior shots of Jones Coffee Roasters. (Photos: Victoria Davis)
Bottom: An Iced Pumpkin Spice Latte from that establishment. (Photo: Colin Morrell)



Italian Heritage Month: Between Memory, Identity, and the Legacy of Renato Dulbecco

Camilla Fezzi
Inner Voices



Renato Dulbecco in a Caltech lab, December 1961. (Photo: James McClanahan)

One of the articles I have been featured in stated that the future Dulbecco is Camilla Fezzi, who is flying to Caltech, where he was. At that time, I did not know precisely who he was... I am honest, but today, after a year and numerous books, I really want to dedicate this article to one of my fonts of inspiration. As I lean over my desk, slumped biology books, scratched calculations, and lecture notes that seem to multiply as quickly as the viruses Renato Dulbecco once studied, I sometimes feel that strange conflict: the will to belong in this rarefied, demanding space and the tug of another, deeper heritage that lives in the folds of memory and blood. Being Italian at Caltech, surrounded by ambition and innovation, is both grounding and disorienting. I carry a history of voices, songs, and scars that belong to an old Europe—one of family kitchens filled with garlic and dialect, of resilience through centuries of political chaos and improvisation. However, I also occupy a lab, a library, and a classroom where the language is not Italian, but universal: mathematics, physics, and biology.

This month, Italian Heritage Month in the United States, prompts me to consider not just where I am, but also why. What does it mean to be Italian here, among chalkboards, DNA sequences, and Nobel medals? What truths can we find about our place in American life, not only as descendants of workers and sailors but as thinkers? The history of Italians in America is complex: it is hardship, insult, and labor—but also resilience, artistry, and discovery. And if there is one figure whose life embodies the arc from struggle to illumination, from Italian soil to American triumph, it is Renato Dulbecco.

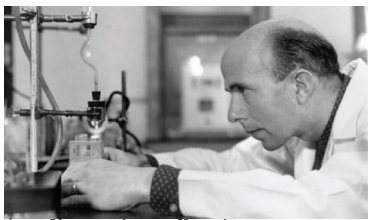
Dulbecco's story—recorded in his 1998 oral history at Caltech—is not simply a chronology of dates and discoveries. It is a mirror. In him, I see traces of myself: the stubborn boy tinkering with seismographs at age twelve, the weary student standing at a crossroad between medicine and physics, the quiet immigrant in an attic laboratory at Indiana University struggling with English but determined to decipher the hidden code of life. Reading his words, I feel the pulse of both Italy and America, intertwined, shaping not only his identity but the shape of modern biomedical science itself.

Italy in America: From Prejudice to Persistence

To understand the power of Dulbecco's achievements, I must step back into the broader story of Italians in the U.S. For most Americans, the image of the Italian immigrant conjures up old photographs: men in flat caps, women with shawls over their heads, and children selling newspapers in congested city blocks. Between the 1880s and World War I, millions of Italians—especially from the depressed south—crossed the Atlantic. They arrived broke, often illiterate, and were met with suspicion. “Dago,” “wop,” “greaseball”—the language was violent, the stereotypes unforgiving. Italians were accused of criminality, anarchism, and backwardness; even their Catholic faith inspired fear in a Protestant-majority nation.

In New Orleans in 1891, eleven Italians were lynched in one of the largest mass executions in U.S. history. In cities like Boston and New York, Italians packed into insalubrious tenements, laying bricks, digging subway tunnels, and cleaning sewers. They were needed for labor but rarely welcomed into the American imagination as equals.

Yet despite prejudice, Italians carved spaces for themselves. Children's accents softened; education opened doors; traditions—food, music, holidays—persisted. Out of this slow survival emerged a cultural influence that reshaped entire cities. And here lies the dual nature of being Italian in America: initially stigmatized as alien and dangerous, Italians eventually became artists, politicians, athletes, and intellectuals whose excellence could no longer be ignored. Italian Heritage Month exists today not just to romanticize pasta and opera, but to remind America how far Italians had to walk to belong and how much they gave along the way.



(Credit: Denise Gellene)

Renato Dulbecco: The Italian Spirit Amplified in Exile

Dulbecco, however, was not part of that early peasant wave. His journey unfolded later, after World War II, in the intellectual migration of European scientists to America. Yet in a deeper sense, he shared the same spirit of adaptation.

His oral history reveals the arc vividly: born in Porto Maurizio in 1914, his father's engineering influenced him to calculate and construct, while his mother instilled in him a passion for medicine. By sixteen, he had earned his diploma from a liceo classico, and by twenty-two, he held an M.D. Already, his instinct was to invent: he built radios, a seismograph, even a heart-measuring apparatus in medical school. For him, experimentation was not confined to professional labs—it was a personal habit.

But at the same time, fascism breathed down his young life. At university, he studied under Giuseppe Levi, alongside Rita Levi-Montalcini—another future Nobel laureate. Levi, a passionate anti-fascist, agonized over the regime's demands on intellectual allegiance. Mussolini's racial laws of 1938 soon expelled Jewish professors, including Levi, while forcing Levi-Montalcini into hiding. Dulbecco, meanwhile, was sent as a physician to the Russian front with Mussolini's army. In the midst of that frozen catastrophe, he witnessed annihilation. In his testimony, he recalls arriving at a station in occupied Poland and realizing for the first time, with horror, that Jews were being marked simply “kaput” after forced labor—that death awaited them (Cohen, 1998, pp. 8–9). That moment—his “turning point”—was when his loyalty turned firmly against fascism.

Back in Italy, he refused to rejoin the army. Instead, he became a doctor to partisans in the mountains near Torino, patching wounds, improvising dentistry, cycling to Turin for medical supplies while hiding from authorities, even sleeping above a morgue after Allied bombings. This image—an Italian physician with a bicycle, navigating bombs and fascist patrols with quiet defiance—is perhaps the most Italian portrait of all: stubborn, scrappy, resilient.

It prepares us for his later reinvention in science. Time and again, Dulbecco embodied this trait Italians know so well: *arrangiarsi*—the art of making do, of bending circumstances into opportunity. First in war, then in science.

From Italy's Ruins to Indiana's Attic Labs

In postwar Torino, laboratories were rubble. Equipment was scarce, and scientific support was nonexistent. Yet Italy's intellectual life had not died; it was searching for oxygen. In 1946, Dulbecco was visited by Luria, once his colleague at Levi's laboratory. Luria had escaped to the United States and was working on phages at Indiana. Seeing Dulbecco's talent and shared interest in genetics, he invited him across the ocean. By 1947, Dulbecco boarded a ship, leaving behind a secure appointment at the University of Turin to plunge into uncertainty in America.

He described his arrival in New York with humility: poor English, meager contacts, and nights spent in makeshift accommodations. At Indiana University, the laboratory space was primitive—an attic under the roof, just desks and a technician, until James Watson arrived to share the workspace. Yet out of this modest beginning, history turned. Dulbecco's work on multiplicity reactivation—showing that viruses could recombine genetic material and recover viability after ultraviolet damage—was one of his first American contributions (Cohen, 1998, pp. 19–21).

Caltech and the Quiet Revolution in Animal Viruses

But it was at Caltech, beginning in 1949, that Dulbecco truly innovated. Invited by Delbrück, he moved west—a scientific gamble made with the same daring as his earlier partisan defiance. Initially still focused on bacteriophages, he soon pivoted when offered the chance to use Division funds earmarked for virus research. Rather than continue with bacteria, he invented methods to



(Credit: Indiana University)

study animal viruses in a quantitative way.

At first, he was banished to a sub-basement laboratory in Kerckhoff...so exciting I am studying in the same building!!!!. There, with just one research assistant, he developed the plaque assay for animal viruses by dispersing tissues with trypsin and creating uniform cell cultures. Suddenly, researchers could measure animal viruses with the same accuracy as phages.

From those tiny plaques grew major applications: assays for polio (essential to vaccine development), systems to study tumor viruses, and an entire generation of molecular virology methods. What Caltech gave him—a space of interdisciplinary dialogue, freedom from the rigid departmental structures he had known in Italy—he seized fully. When he showed Max Delbrück the first visible plaques in an animal virus culture, Delbrück recognized its importance immediately. It was 1952. Biology had turned a corner.

Integration, Cancer, and Nobel Recognition

In the following decade, Dulbecco pressed deeper, moving from polio to polyomavirus and Rous sarcoma virus. With students like Howard Temin and postdoctoral fellows like Harry Rubin, he investigated the viral induction of cancer. His crucial insight was almost poetic: just as immigrant identity can merge with that of the host nation, viral DNA could integrate into the host's DNA. Cancer, he realized, stemmed not from transient infection but from a genetic marriage—permanent, transformative, dangerous.

This idea, now central to oncology, was initially speculative. He defended it through painstaking hybridization experiments, telegram-confirmed results, and collaborations. By the 1970s, the evidence was undeniable. In 1975, he received the Nobel Prize in Physiology or Medicine, an honor that recognized the persistence of an Italian American immigrant who had helped redefine cancer as a genetic disease. Thank you, Dr. Dulbecco. I know you can hear me. I will do my best to make America and you proud.

Being Italian at Caltech: My Reflections

When I read his oral history in my dorm room, with my lamp casting shadows over my textbooks, I feel suspended between two identities. There is the weary undergraduate grinding late into the night, sometimes uncertain, sometimes overwhelmed by equations and expectations. And then there is the other self: the Italian voice that whispers through celebration memories, through Catho-

lic festivals, through my grandmother's stories of survival.

This dualism—Italian and American, heritage and aspiration—is sometimes heavy, sometimes liberating. I wonder: did Dulbecco feel it too? He left Italy with its Fascist scars and intellectual poverty, yet carried Italy in his habits, in his willingness to improvise, to build from scraps, and to think not in straight lines but in leaps of creativity. This is the same for me. I wasn't leaving anything behind in Italy; that is my past. It was high school, fear, and obsessions that are better forgotten.

To be Italian here, now, is not to live in exile, but in continuity with that same spirit: making space out of difficulty, shaping life from fragments. We Italians know both beauty and ruin, opera and rubble, pasta and politics. We bring that awareness to Caltech's clean labs and ambitious syllabi. When I feel crushed under exams, I think: if Dulbecco could pedal through bombed-out Torino to buy dental supplies for partisans, I can pedal through a midterm week and keep a smile on my face!

Heritage as Horizon

Italian Heritage Month is not just an occasion for nostalgia or food fairs. It is an acknowledgment that immigration is never just about physical movement but about intellectual and cultural grafting. Italians did not only lay bricks and stir sauces—they stitched their improvisational genius into science, literature, and politics.

Renato Dulbecco's life is the perfect emblem for this: a man who carried fascism's scars but turned them into scientific courage; who embodied *arrangiarsi* in the lab as much as on the battlefield; who proved that Italians in America were not temporary laborers but permanent innovators.

As I sit here, my pen scratching across another page of notes, I remind myself that being Italian in America means belonging doubly: to the old resilience and to the new discoveries. Dulbecco's legacy at Caltech assures me that this is our space, too. Italians have been here, shaping quietly, profoundly. And we, the new generation, carry that lineage. Out of hardship, creativity. Out of exile, discovery. Out of heritage, hope.



Italian American
Heritage Month

Italian American Heritage Month, established in 1989, is celebrated around the country each October.

What I Learned From a Summer of Organic Farming

Michael Gutierrez
Inner Voices

This is going to be an exercise in writing, in word vomiting, for me. I don't have any clear idea of the scope of this piece, nor how much I'll revise it in between typing these words and you reading them, but we have to start somewhere.

The vaguely-uniformed "random inspection" officer gate-keeping the security checkpoint at the Venice airport asked me and Sarah what we did in Europe for—how long had we been traveling?—72 days.

Living in small, rural communities and learning organic farming techniques. In between our university semesters, we said.

Do you study agriculture, then? The officer asked us with what could have been genuine interest in her voice.

Ha, no... physics, actually.

Oh. Her dark eyes squinted a little. Then... why?



Hard work and juicy tomatoes at Le Petite Ferme Aufferville, a bit outside Paris

community garden plot near the Caltech grad student apartments between Wilson and Catalina Avenue. With all the staggering amounts of food and plant waste coming out of the Institute, I reckon we can make some stuff grow with that nice, rich compost, even under the scorching southern California sun.

priesthood who can afford to just move to more stable climates once the environmental effects of their industry catch up with them, leaving those with less means behind to drown?

Are your sunflowers in your little community garden enough for you?

Clearly, I brought back more than just literal seeds. My conscience been sown with metaphorical seeds of an ethos of permaculture — seeds that a foreseeable future in the city-bound academic grindset threatens to smother.

A word on permaculture — an umbrella term for various philosophies centered around nature-inspired design. After all, nature figured out the whole sustainability thing a long time ago, and it's still a lot better at it than we are! The idea is to use natural processes to our advantage, rather than fighting against them. The practice necessitates rethinking the (many) wasteful mindsets of our culture, but in doing so, renders it far more permanent than the purportedly unshakable foundations of the life-squandering, suffering-for-profit "powers that be".

Needless to say, the ideas of permaculture (Figure 1) really resonated with our youthful anarcho-curious sensibilities throughout the summer. In particular, it was really neat to see all the different WWOOF hosts' versions of it. Some had carved out self-sustaining niches out of practical, physical necessity; others lived out the principles voluntarily and/or selectively, in incremental effort to exist a good example; still others focused on the "fluffier" aspects of the People Care ethic, like nonviolent assertive communication. It all just makes sense — emotionally*and* scientifically.

So how do we keep those seeds alive? (Turns out it's hard enough to not kill even the healthiest-looking herb plants on display at Trader Joe's.) Do we religiously buy only organic products, even if they're shipped from halfway around the world? Do we become hardcore environmental vegans and resign ourselves to heavily processed meat substitutes even in lieu of locally-sourced fresh flesh from happy animals? Does any individual-level action even make a difference, short of reducing our consumption to zero, growing our own food and collecting our own water and electricity? Or is our only hope of having a positive impact on the future of humanity to abandon our scientific vocations and pursue some sort of political action to turn the tides of our own self-destruction?

Even 72 days of organic farming, turning soil and harvesting plants and feeding chickens and shoveling goat manure with my own two hands, didn't show me the answer. In fact, I



Figure 1: the core permaculture ethics (top) and the 12 permaculture principles (bottom). Credit: permacultureprinciples.com



think it's a highly non-trivial—and personal—question to begin with. We could (and Sarah and I have) debate(d) the moral opportunity cost of spending time and resources on this vs. that. Save water and power on an institutional scale, vs. refuse potential interruptions to ongoing research? Raise a few thousand bucks for some environmental charity or lobby or program, vs. put it toward keeping some beloved student tradition alive? Spend a few extra seconds putting your soda can in the right bin, vs. toss it in the landfill because I heard the recycling bins here maybe don't even get recycled? Pay a bunch of money to actually properly recycle used materials, vs. ship them to the coast of some lesser-developed country? Perhaps Camilla can weigh in with the classical thinkers' takes for her next Philosophy Column.

My take, without getting too much into it, is that we (Caltech) can (and should) do both. We're here, now, in this community in this location with these shortcomings and liabilities as well as those advantages and opportunities. Even though it might feel like it, reality here is no less real than at that goat farm in Italy (Figure 2). Our actions and inactions here have precisely the same global impact. (Actually, about the same acreage, too.) The difference is that at Caltech, what we do sets a strong example for other institutions with their own communities and locations, their own shortcomings and liabilities but also their own advantages and opportunities. If we wished it, we could be a world leader in not just environmental research, but also demonstration. Things to think about!



Figure 2: Feeding the baby goats at a goat farm in Caprile, Italy

Cats Community Compost Pilot Program

Participants must live in the Cats and opt-in.

Why Compost?

Reduce need for chemical fertilizers

Grow your own food

Reduce food waste

Reduce greenhouse gases

Keep resources local to your community

Compost together to build community

Build healthy soil

Improve water holding capacity in soil

LA COMPOST Caltech

Quick plug for the Catalina Apartments Community Compost Pilot Program!

And that's essentially the question still bouncing around in my brain, more than a month later. To zeroth order, it was because why not. To first order, for the experience; for the chance to disconnect from the grind for a bit and live life at a slower pace. (Also, the free room and board from the World Wide Opportunities in Organic Farming program was a big draw for these broke college students.)

But what was it all for? Like, are you going to bring any of that farming stuff back with you into your daily lives?

As Sarah put it, the point of the trip was to be in the places, rather than bringing stuff back. She meant it more in the sense of physical "stuff." But on second thought, we realized we did, in fact, bring something back with us: seeds. A literal jar of seeds, for giant sunflowers, a parting gift from our hosts Jonathan and Florence at Les Jardins de Maubert in France. Also some seed flyers from a Venice Biennale architecture exhibit — paper made from recycled fibers with actual seeds embedded. ("Plant it and you will pollinate this information," they read.) We thought it'd be fun to grow them in the little

Is that it? came the skeptical response. Or maybe that was just the echoes of anxiety slowly decaying in the resonant cavity of my cranium. After all that immersion in permaculture, fresh air, and natural harmony... you're just going right back to your cramped, choked, manicured, complicit metropolitan society, eyes trained on screens for a majority of your waking hours?

Yeah, alas, it's the less-than-glamorous reality of our theoretically human-kind-bettering passions for learning how the universe works and looks.

You're just going to continue to live in housing units that source water and electricity unsustainably, as you continue to buy your food from supermarkets with questionably-responsible supply chains because it's all you have time to shop at in between your gasoline-powered commutes and workaholic 16-plus-hour schedules of sequestering precious oxygen through your brains into arguably frivolous scientific pursuits that, from some perspectives, serve only to extract more minerals from the earth and further differentiate an elite technocratic

We Are SO Back: Fall ‘25 Athletics at Caltech

Kyra Phaychanpheng
Sports

With the academic year starting up, our Caltech fall athletes have been working at their craft since before everyone else arrived on campus. Volleyball, cross country, men’s and women’s soccer, and men’s water polo are all deep into their season so far. Let’s look at a few of our beavers’ early feats into the 2025-2026 season:

Cross Country

The cross country season has begun with major wins already. At the Redlands Invitational, the women’s runners averaged a time of 18:32 on a 4.5K race to take a collective first place as a team! We had three beavers amongst the top-five individual finishes, in second place Katelyn Sadorf, third place Camilla Power, and Raquel “Rocky” Lample finishing fifth. For the men’s team, we also had some top-five finishers and great success amongst runners Aiden Cope and Stephen Goehringer. They placed third and fourth respectively.

The XC beavers then took on the Masters University Invitational on September 20th, and came out highly successful from the meet. This invitational meet was huge in scale, with over 200 runners in each race, and brought out great competition—coming from DI, DII, and DIII levels. Three beavers on the men’s side broke top 40 for finishes, with a thirty-second faster personal best by Stephen Goehringer leading the pack. Once again, sophomores Katelyn Sadorf and Rocky Lample smashed their personal bests and led the way for Caltech women’s cross country.

After nearly two weeks of training, the Pomona Pitzer Invitational was next on the docket. This competition would be the best meet to prepare our

beavers for SCIAC Championships, with teams across our conference present.

Men’s Soccer

Our Caltech Men’s soccer team has started this season off with a bang—picking up exactly where they left off from last season’s successes. The 2024 season brought the team the most wins in the last 54 years, but 2025 might just be the one to beat that once again. The Beavers’ preseason began with a trip to Chicago and games against some tough competition, a 2-3 loss to Illinois Tech and a 3-0 win against Concordia Chicago. Rounding out the preseason matches was a huge dub on Life Pacific, 4-1.

Conference competition began with a hard fought match against Chapman, ultimately falling short 1-2. The beavers with a chip on their shoulder then took huge back-to-back SCIAC wins against Redlands (3-1) and Pomona-Pitzer (1-0). The game against the Bulldogs was historical, marking the first win over Redlands in 41 games. To make it even sweeter, two of the goals came in the first ten minutes of play, and continued to push forward, outshooting the Bulldogs in the first half. Goals against Redlands were scored by seniors Ishaan Mantripragada, Etienne Casanova, and Jack Myles. The following match against the Sagehens was a battle, our beavers outshooting Pomona-Pitzer. In the final ten minutes of play, senior Wilson Duan hit the game-winning goal.

Men’s Soccer just came off of a tough loss at home against cross-town rivals, Occidental College. This brings the season record to 5-4, on the way to a possible record this year.

Men’s Water Polo

The water polo season opened with some huge non-confer-

ence wins against Chaffey, Rio Hondo, El Camino, and Citrus Colleges. Each game was incredibly high scoring, with winning margins from 7-15 points.

Heading into SCIAC competition, the team would be faced up against nationally-ranked and projected SCIAC champion (via pre-season poll) Pomona-Pitzer Sagehens. Tough losses ensued with matches against Chapman and La Verne. Sophomore, Carl Crum, had three notable goals in the game against Chapman and senior, Bram Schork, also had three goals in the game against La Verne.

Men’s water polo is off to a double header on October 4th against Penn State Behrend and Wheaton College at home. Upcoming are several home games, including the Alumni game.

Women’s Soccer

The women’s soccer season started off with the welcoming of a new head coach, Scott Wilson. Following a few exhibition games in the pre-season, the beavers took on University of Providence at home, resulting in a tie (1-1). Despite a smaller squad this year, women’s soccer still trudged forward. Sophomore, Kassie Kristufek, was responsible for the first goal of the season.

The team buckled down after two tough losses against Westcliff and Chapman at the turn of pre-season into SCIAC competition. However, a remarkable game against Redlands (1-0) brought the program their first win against the Bulldogs in history. Junior goalkeeper, Haleigh Gardener, was responsible for the full shutout with 14 saves. The game winning ball sunk into the goal with seconds on the clock, made by freshman, Shyna Kashi. This amazing game boosted team morale and spirits of the Caltech bea-



All Photo Credit: gocaltech.com

vers.

WSOC will be coming off of losses against SCIAC teams Pomona Pitzer and Occidental to take on Cal Lutheran at their home turf.

Volleyball

Some big wins began the volleyball season, against West Coast Baptist (3-0) and Westcliff (3-1). These intense games had full team effort, with the match against Westcliff starting with a first set loss, to then a comeback of winning the following three sets. The Beavers totaled 46 kills and 44 assists, with main contributors Alize Bakker (19 kills) and Emma Berg (20 assists).

Heading into SCIAC competition, the team had picked up one more win against West Coast Baptist. Games against Pomona-Pitzer and CMS ended in 0-3 losses. Caltech put up a strong effort against CMS, with freshman Rena Zhang, and Bakker hitting ten kills each for the game.

The beavers fought hard in the last match against Cal Lu-

theran, winning a set 25-21, and playing very well against the Regals. Each following set was a battle, but ending with Cal Lutheran on top. However, notable performances include those of sophomore Ailsa Shen with a career-high 25 assists and senior Giulia Murgia with a match-high 20 digs.

Caltech volleyball takes on La Verne next to continue SCIAC conference play.

As the fall season continues, Caltech beavers are proving their resilience and teamwork throughout wins and losses. Each team is on the up as we get deeper into SCIAC competition. So, look out for some upcoming home games to cheer on your fall sport beavers. And before you know it, winter sports are going to be in full swing very soon, with pre-season practices and non-conference games coming up. Stay tuned for more coverage on Caltech athletics and the amazing student-athletes!

Feeding the Frosh: Orientation with CDS

Annie Zhao
News

For many frosh (your author included), Orientation Week provides the foremost introduction to Caltech Dining Services (C.D.S.). While the fall term meal plan activated on the fourth day of orientation (September 24), meals remained catered throughout the event.

“We wanted to create intentional opportunities for new students to build community,” explains Isabel Peng, the director of New Student Transition Programs and First Year Experience at Caltech, “and shared meals were one way to do that.” However, as different offices on campus are responsible for different portions of orientation, C.D.S. receives catering requests from multiple sources. For example, the lunch on Move-In Day (September 21st) was ordered by the office of Student and Family Engagement (SFE), while the Office of the President coordinated the dinner at the President’s Residence. C.D.S. collects requested meals from all the offices for all orientation events, then turns them into an exciting yet practical menu. “We like to start at the beginning of August,” says Jaime Reyes, director of C.D.S., “and lay [the menus] out so there are no repeats [of dishes].”

C.D.S. also provides meals for Graduate Student Orientation and the welcome for Caltech’s new postdocs, both of which occur concurrently with first-year undergraduate orientation. In order to plan for multiple meals at the same time, Jaime splits his staff into teams: “We ha[d] one group in charge of the brunch [after

Convocation]... one sous chef led a team of five cooks.” On top of the special events during the weeks before fall term, C.D.S. also keeps open Browne Dining Hall, Red Door, and Broad—though with limited hours and menus—for staff, faculty, and student athletes. “It is a lot of work,” says Jaime, “but as long as you do your homework, you’ll be successful.”

That homework? Planning. With some catered meals reaching over 700 hungry participants, C.D.S. tries to forecast how much food will be eaten to reduce waste. This prediction starts with the industry standard baseline of how much a typical person consumes and is adjusted based on the target audience using previously collected data. “A normal person would eat between 4-5 ounces [of pulled pork],” explains Jaime, “But the grad students are hungry... they always want a lot of food, so we have to make adjustments based on that.” Altogether, C.D.S. served around 160 pounds of pulled pork during the orientation.

Beyond logistics, C.D.S. regularly conducts taste tests as a form of quality control, trying every new dish before placing it on the menu. However, student feedback is always appreciated: Jaime encourages students to join the Food Service Committee as the representative for their House, complete C.D.S. surveys, or talk directly to kitchen staff.

Jaime acknowledges that responses are often contradictory, but his team tries their best to accommodate every student. With enough frosh alone to decimate forty pies in one sitting, there’s plenty of work on C.D.S.’s plate.



Caltech Wildlife: A Welcome Guide

Jieyu Zheng
The Inside World

To the new students at Caltech: welcome! And to returning readers of the Tech: you may have seen my occasional obscure (and sometimes nerdy) coverage of animal lives on campus. I realize I never made a proper introduction, so as the new academic year begins, here's a quick overview of what to expect if you decide to pay attention to the other living residents of Caltech.

Disclaimer: plants are foundational to life here, but I'm no botanist—so this column will stick to the animals.

Observing nature is a full-body, multimodal experience. It's not just about what you see; it's also about what you hear, and sometimes even what you smell in the air. Let the campus engage your senses as you move between classes—nature is always there, buzzy in the background just like angry hummingbirds in a territorial chase.

Dawn Chorus

The animals around us are far better at keeping circadian rhythms than students. Their daily choir starts at dawn, when birds greet each other in Buenos Dias. Two especially prominent (and loud) contributors are the northern mockingbird and the red-crowned Amazon parrot.

Mockingbirds are master local artists. They'll collect and remix community sounds into their repertoire, including the melodic siren from the fire station on Holliston Ave. The parrots, meanwhile, carry a legendary immigrant story that you can look up in our previous columns. As legit Pasadena locals, they are loud and unforgettable. Listen for their raucous calls at dawn and dusk and remember to look up: you'll see their short and powerful wingbeats against the pink sky and palm silhouettes.

Palms and Woodpeckers

Speaking of palms: Los Angeles thrives on unusual ecological mashups. The tall palms along campus paths are imports from Asia, while the acorn woodpecker is a true California native. Named for their acorn obsession, these woodpeckers discovered that our imported palms have softer bark than local oaks—perfect for drilling storage holes. If you're brave enough (and not prone to try-

pophobia), pause along South Michigan Avenue and admire the woodpeckers' carefully organized granaries. Soon, they'll be stocked with acorns for the fall.

Seasonal Visitors

As fall rolls in, the relentless heat eases up, and migration season kicks in. Caltech sits along the Pacific Flyway, a major migratory corridor, so the aviary orchestra changes its lineup accordingly. One of the first to arrive is the yellow-rumped warbler. They will soon start hopping around trees and lawns like they own the place. Keep your eyes open; more migrants will pass through as the season deepens. I already spotted my first Pasadena yellow-rumped warbler in September.

Year-Round Neighbors

And of course, we have a permanent presence of campus representatives. Our resident fox squirrels strut across campus without the slightest fear of humans—at one point, they sparked an infamous and fiery debate among grad students. The red-eared sliders in the turtle pond, often visited by meditative students, are less zen than they look. Coyotes, sometimes mistaken for off-leash dogs, patrol the campus like shepherds and occasionally make surprise appearances outside your office windows.

These consistent residents are important characters in our campus ecosystem, and you'll find past and future columns dedicated to them. Stay tuned for more stories in future issues!

Curious to learn more about Caltech's wildlife? Check out this page (QR code below) featuring my photos. Write to us and share your interests. I may organize campus nature walks and invite local naturalists to lead us.



A red-eared slider (left) and a mysterious snapping turtle (right).



A proud yellow-rumped warbler.



A curious fox squirrel. All photos courtesy of Jieyu Zheng.

EXPLICIT

Presents Wilde's



*The Importance of
Being Earnest*



Directed by

Miranda Stewart





Performances Nov 21-23
Auditions Oct 9 and Oct 11

Scan the QR code to sign up for auditions

TACIT

explore possible futures through performance
with futurist and designer Stuart Candy

IMMERSIVE
FUTURES
JAM

1



Oct 10-12 | **RSVP required**
Fri, 6-9pm | Sat, 10am-5pm | Sun, 10am-5pm
TACIT Scene Shop, 275 S Hill Ave

Every Game Shown at Day of the Devs

Clare Wu
News

Once again this will most likely be somewhat outdated, as Day of the Devs takes place immediately after the live Summer Games Fest presentation. However, I enjoy it a lot more than the live presentation as it gives a deeper look into the games, and it specifically focuses on games made by indie studios. I've rated them mostly on how likely I am to buy them when they come out.

Snap and Grab (2026) – 8/10

Amazing 80s aesthetics with high fashion and high class capers. The game centers around taking photos to plan out your heist, marking down treasures, guards, and distractions. With a fun cast of criminals, you must navigate through a variety of lavish maps while avoiding a determined detective. I thought the gameplay would be dull with just taking photos, but the puzzle aspect of then having the plan the heist according to the information gathered elevates the concept to what was advertised.

Big Walk (2026) – 6/10

From the creators of Untitled Goose Game, we get a simple game centered around talking and walking around a large open world with puzzles scattered around. It's a multiplayer experience that relies on proximity chat for communication so take care to not get lost. In contrast to the realistic environment, the player characters are goofy duck ant things which influences the shenanginan-y vibes of the trailer. If you liked Peak, you'll probably like this.

Sword of the Sea – 10/10

Same art direction as Journey and it shows! Skate through an absolutely magnificent and breath-taking world on a fabled sword of legend. Chain halfpipe tricks on the land surrounding an eroded river, grind on a chain floating in the sky, and ollie off of a sand ramp in this game inspired by the creator's own experiences with snowboarding. I cannot emphasize enough how beautiful this game looks. Additionally, it shares the same composer as Journey which means that it'll have a similarly banger soundtrack.

Escape Academy: Back 2 School – 7/10

Escape rooms are expensive, but now you can play through one from the comfort of your own home. The second Escape Academy game promises a satisfying open world co-op puzzle solving experience and that one puzzle with the marbles that I saw on reels. The entire campus being a giant escape room is a great concept to take advantage of the virtual space. The larger map and increased immersion also helps with the increased complexity as classes might contain hints to help stuck players. It's clear that the developers took the time to reflect on the first Escape Academy game, listen to feedback, and improve.

Mixtape – 9/10

Already covered in the Summer Games Fest article. Still excited.

Blighted – 8/10

Getting to see more has made me more interested, but it has also alerted me to the fact that the combat is slower than expected. Personally, I would like

something more fast-paced, but the concept of devouring others for their knowledge and memories is great lore.

Dosa Divas: One Last Meal (Early 2026) – 6/10

Turn based combat action RPG that explores the importance of food to culture and community, particularly in the face of corporate takeover. I greatly enjoy the retrofuturistic designs and South Asian influence.

Possessors – 6/10

Interdimensional demons invade a corporate tower, killing and sometimes possessing innocent civilians, including the main character Luka. From the creators of Hyperlight Drifters, we get a metroidvania investigating the dark secrets of a mysterious corporation in combination with mysterious devils. I predict that the major corporation was trying to somehow harvest the demons energy and were unable to contain them leading to the main character's deal with the devil. Probably a standard plot, but nice looking gameplay.

Moonlighter 2: The Endless Vault – 9/10

I love a combat based roguelite. Here the main source of upgrades comes from managing a shop where you sell the results of your dungeon-crawling outings. Even more exciting, it contains positioning based inventory management, where the position of items in your inventory can affect one another leading to boosts or debuffs. Even the shop management seems enjoyable when usually it would seem like an unfortunate necessity for progression. Unfortunately, I don't think it will be available on the Switch.

Neverlate – 6/10

Spooky but cute dungeon-crawler and farming simulator. The art direction is very well done and does a good job establishing intrigue around the nightmare dimension you seek to find. It combines the classic fears of paying off a mortgage and outer world monsters. Combat looks okay, nothing too special and nothing bad at all, but I think the main draw will be the story and characters.

Relooted – 8/10

Tackling the controversial topic of African relics being displayed in Western museums, Relooted suggests that the ultimate solution is to steal them back. Created by a team in South Africa, this game centers around pulling off heists to return real stolen artifacts back to where they came. In terms of actual gameplay, it looks quite well-made. There's a great setup of puzzle, stealth, and platforming which provides a nice variety of action. The platforming in particular stands out to me as it's a race against the security system to escape with the treasures in hand. I think it also stands out enough from Snap and Grab.

Ratatan – 9/10

From the creator of Patapon, we get another rhythm based music game centered around little guys. This time we have a more colorful world and tinier guys. It also incorporates roguelite elements as you create a build for your little army throughout your journey which is sure to help with replayability. I love roguelites.

Thick as Thieves – 9/10

We've got another heist stealth game, but this time it's multiplayer. The approach is a very nice reflection and improvement on the classic stealth formula. Where games like Hitman will rely completely on the challenge of understanding the level's layout, NPCs, and pre-determined obstacles, Thick as Thieves intends to add complexity with the unpredictability of real players. I think that is a logical next step and presents a fresh idea of a competitive game without direct combat. However, my one fear is that their promises of fresh environments made by different combinations of maps, quests, and weather could fall flat. This isn't to say that they won't have multiple of each element, but more that even with multiple maps, quests, etc. they might just feel the same.

Pocket Boss – 5/10

In this game about manipulating graphs, you play through various minigames, twisting the numbers and aiming for the boss's approval. As time goes on, the graphs get more and more wonky and the gameplay gets a little more tongue in cheek. Cute and casual.

Consume Me (September 25th, 2025) – 7/10

Cute autobiographical game that tackles the complexities and stress of being a high school girl. Balance a complex relationship with food, ever-present academic pressure, and walking the dog in a game that captures the feeling of "I want to do everything, but I can't" with minigames and a real story. While the cute and funny art style will charm you, I sense that there's more than meets the eye.

OFF (August 15th, 2025) – 8/10

The RPG that inspired the most famous indie game of all time, Undertale, is getting ported to Switch and Steam. Very unique visuals, and the port is not just the same game as the creator has added 6 new bosses and original music.

Tire Boy – 7/10

This is not relevant to my impression of the game, but the team is Canadian and they really do look it. Anyways, Tire Boy centers around a boy stuck in a tire. The world is cozy and a little bizarre. The platforming looks unique. The character interactions seem fun.

Toem 2 – 8/10

A pleasant and endearing exploration through the world of Toem a few years later. With similar mechanics as the first game, you walk around a black and white world in search of the phenomenon Toem. Interact with the world through your camera and build bonds with an adorable cast of characters.

Ball X Pit (October 15th, 2025) – 5/10

If you've ever played Vampire Survivors, you know the satisfaction of filling a screen with a lot of projectiles. Ball X Pit appeals to this instinctual desire by transforming the classic brick-breaker genre into a roguelike. Just watching the trailer and hearing the sound effects, I can already feel an addiction forming.



Image Credit: No Goblin

This Week in Tech History October 7, 1977

Ups Price Absurdly

Kissinger Deal With Caltech Y Falls Through

By Brett Stutz

Caltech very nearly had Dr. Henry Kissinger as a speaker for the fifteenth of November. In a very unusual situation, the cost was to be split among four campus agencies instead of a more normal one or two, but when one of the co-sponsors withdrew its pledge, it became impossible to fund this event.

About eighteen months ago, the Caltech Y made the first formal approach to Dr. Kissinger. After initial negotiations and an unprecedented cooperative effort, an unprecedented sum was raised, only to have Kissinger up the total package cost through an addendum to the contract. On June 22nd, one of the co-sponsors withdrew its support because of internal reorganization and a change of priorities. According to Walt Meader, director of the Y, it still would have been possible to obtain money to fund the addendum had this one group not dropped out. Even though the lecture could have been partially funded by selling tickets, the Caltech Y's long standing tradition of not charging admission to such events precluded this.

Dr. Kissinger had agreed to have a question and answer

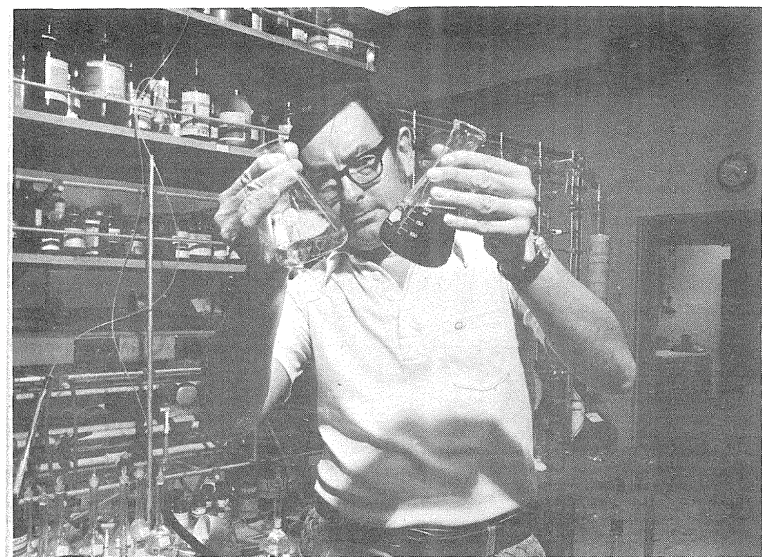
session with students and attend a dinner as well as making his evening presentation. At least this concession was made; usually he makes his appearance for the presentation and then leaves as soon as it is over. Many feel that it did little to ameliorate the high price asked by whom Meader called "one of the most exaggeratedly paid persons on the lecture circuit."

The lecture circuit is big business these days. The more desirable a speaker is, the less accessible he becomes because of agents and other staff. Initial contacts must be made one to two years in advance. For this reason, it is almost essential to have continuity of staff in the sponsoring organizations; this is one reason why Beckman Auditorium has a permanent staff.

The Y is the only agency on campus with staff that acts as a department of student activities. As such, it makes initial contacts and becomes the primary contractor. The Y Student Executive Committee has responsibility for deciding how to spend the Y's limited budget to please the most people, a fact to be considered by critics of the Y's programs as the going market prices for lecturers continue to increase.

Gray Discovers Rhodium Compound at Caltech

Caltech chemists have announced development of a chemical compound that can convert the energy of sunlight directly into chemical fuels. Although the compound is still in the experimental stages, its discovery raises the possibility of converting sunlight into fuel with much greater efficiency than schemes to convert either solar-powered electricity or plant material into fuels.



Professor Harry Gray displaying "Rhodium Bombshell," the latest rage at the Ath bar. But will it replace beer?
Photo-Floyd Clark

The Inner Crack of Women in Science

Camilla Fezzi
Inner Voices

There is an inner crack that runs through women’s journeys in science—a silent fissure, impossible to ignore. It’s the tremor before raising your hand in class, the hesitation before asking a question in a seminar, the sudden feeling of being out of place when surrounded by colleagues who seem so effortlessly confident. But as Leonard Cohen once wrote, “There is a crack in everything, that’s how the light gets in.” That crack does not represent failure—it is the place where beauty and resilience grow.

This tension echoes powerfully in the TV series *Geek Girl*, based on Holly Smale’s 2013 novel of the same name. Harriet, the awkward book-obsessed teen thrust unexpectedly into the fashion world, is not a scientist—but her story resonates with countless women who juggle intelligence and vulnerability. She is told, again and again, that she must be something else. Sound familiar? In science, too, women are often expected to fit a mold not designed for them.



From the Netflix original series *Geek Girl* (2024).

But here’s the question: **can we find beauty in these fractures? Can we, geek girls, embrace the truth that intelligence, awkwardness, and charm are not opposites at all—but different shades of the same beauty?** Spoiler alert: yes, we can or, this is what I usually think. And sometimes, we can even laugh about it.

The Inner Crack of Women in Science

Being a woman in science has historically meant living in contradiction. You can be brilliant, but you must constantly prove it. You can have insights, but someone else might take credit. The “inner crack” comes not from weakness, but from the friction between who you are and what institutions expect you to pretend to be.

Think of Rosalind Franklin, whose X-ray photographs revealed the double helix structure of DNA. Watson and Crick received the Nobel Prize. She didn’t (Maddox, 2002), although she has been one of the main contributors of the story. Franklin represents countless women who illuminated the path of discovery yet were denied recognition, or were given a partial medal. If Rosalind Franklin had been in a sitcom, she would’ve been the genius character who makes the plot twist possible—only to be left out of the end credits.

Even Nobel laureate Marie Curie faced suspicion and ostracism, as though two Nobel Prizes were still not enough

to “prove” her talent. Rita Levi-Montalcini, in Italy, improvised experiments in her bedroom during World War II, showing that science can bloom through determination even under oppressive conditions. Dr. Montalcini will always be in my heart, she is one of the reasons I got deeply inspired by science and medicine. One of my final exams was precisely on her and her thoughts on the importance of finding balance in life, passion and science as a woman.

Evelyn Fox Keller (1985) famously argued that science is not neutral, but shaped by personal stories and emotions. From my perspective as a geek girl, the so-called “fragility” is not a flaw—it is a lens. That little crack teaches us to see science in a more human, more creative way.

Do people underestimate us? Yes. But sometimes, it’s funny.

Geek Girls and Identity: Awkward, Brilliant, Beautiful

Enter *Geek Girl*. Harriet, our clumsy, too-honest, too-smart-for-her-own-good protagonist, is catapulted into the hyper-critical world of fashion. The parallel with science is striking. Both worlds have

able—it was beauty in its purest form, the beauty of logic breaking barriers.

And let’s be honest: sometimes being a geek girl is hilarious. Like me, talking to myself so many times!

Can Science Be Beautiful? (Spoiler: Yes, and Funny Too)

Science and beauty don’t always appear together in people’s minds. Mathematics? Sure. A dress pattern? Clearly. But beauty in equations or chemistry? At first, people hesitate. Yet if you have ever solved a complex problem, seen an experiment finally succeed, or looked at a nebula through a telescope, you know. Science is beautiful.

Primo Levi’s *The Periodic Table* (1975) showed that chemistry can be lyrical, transforming elements into characters. Janna Levin, in *A Madman Dreams of Turing Machines* (2006), wrote a novel where mathematics and existential questioning dance together. These works remind us that the precision of science can rise to the level of poetry. Cinema amplifies this truth. In *Contact* (1997), Ellie Arroway experiences scientific discovery as awe, almost a spiritual event. In *Interstellar* (2014), black holes and time dilation are not just equations but visions, feelings, even tears. Beauty pulses inside formulas and theories, waiting to be recognized.

As geek girls, we feel this daily. When an experiment finally works, the joy is indescribable—it’s almost comic. So yes, the world has long told us geek girls that brains cancel beauty. But here’s the truth: our laughter, our socks that don’t match, our intense focus, our awkwardness, our passion—they are beautiful because they are ours.

The inner crack of women in science is not a fatal flaw—it is the mark of resilience. Through that fissure, light enters: empathy, creativity, daring. It is the same crack that Harriet in *Geek Girl* struggles with, and the one all geek girls know—the struggle to remain our quirky selves while navigating systems that keep telling us to change.

And yet, the lesson is liberating: geek girls are beautiful. Beautiful precisely because we refuse to erase our love for knowledge. Beautiful because our laughter, our codes, our clumsy wins and late-night debates are part of the brilliance. Beauty is not in conforming—it is in embracing the crack, the vulnerability, the human side of science. So next time someone doubts whether geek girls can be beautiful, we shall smile, maybe laugh too, and say:

“Watch us light up the lab... in our mismatched socks.”



Left to right: Chien-Shiung Wu, Marie Curie, Rosalind Franklin.

Insomnia

Anna Cassanelli
Inner Voices

10:30 p.m. Heavy eyelids slowly closing, a reassuring lethargy gets hold of the body, tired after training. A comforting fog hugs the brain, readily shutting down consciousness to make space for confused fantastic stories.

11:30 p.m. An itch makes me twirl twice, a sudden jolt shakes the leg, a noise outside catches my attention. Comfort slips away as I lie in the twin sized bed; misleadingly labeled X.L. to convince us that’s big enough.

12:00 a.m. Nothing comforting about this darkness, my shut eyelids tremble and the sleepy retinas ache for light. A muffled noise of remote cars perturbs the air near the window. I shift my body by 90 degrees, think of dreams, dream of things, let go of myself, take deep breaths. The itch again shakes my leg. I shift again by 90 degrees.

1:00 a.m. Sleep eludes me. There’s no waking up in five hours for training, I think as I turn off the alarm, defeated. Anxiety creeps in, tiptoeing her way into an obnubilated mind. The rhythmic pounding of my heart upsets the mattress, the tick-tock of an imaginary clock. Tears of frustration flood the cheeks; the mind yearns for sharpness while a tired reflex of a streetlight draws a hypnotic pattern on the faraway desk. An atavistic thirst seizes the throat, the itch works its way up to the back and takes over an unreachable spot, safely guarded by the left scapula. A convulsive cough dictates awareness: There’s no sleeping right now.

1:30 a.m. I drag my body across the empty four-bedroom flat. The oddly silent surroundings stir up childish fears and the slow dancing of a spider casts a shadow on reality. The world reduces to a few breaths, the night mocks me with its silence. The false sense of safety crumbles and suffocates me—staring immobile at the edge of sanity. Eyes wide open longing for light, rationality rushes like a flooded river impinging on the fragile walls of an artificial dig. Rebellious air escapes me, lungs contract, the cough metamorphoses into sobs as the body slowly loses control. Thwarted, I find my way back to bed.

2:00 a.m. A switched off light casts a shadow that traps me underneath a lead cover. The linen sticks to my skin and the temperature rises to unbearable levels. The silken

swish of the A.C. grows to an insufferable, menacing whisper. Nails scratch the body craving peace, as skin slowly surrenders to the attack. Movement becomes impossible; the hermetically shut eyes fear invisible motion, while the ears deceive me, promising vengeful nightmares. I turn on the bedside lamp as a thin quilt of sweat interposes between the skin and the shirt. The spider dances convulsively while the retreating darkness smiles at me. Every eerie noise threatens my being; primordial fears take hold as the last strain of consciousness is lost—falling beyond the edge of sanity. The hum of the fridge rises to an undefeatable peril, and an unsettling energy resonates impossibly with the worn-out limbs. Swirls of words get lost in the pillow, sequences of letters devoid of meaning stain indelibly the bed as the fictitious ink diffuses in the wasted tears—crawling slowly back to the summit of sanity. I turn off the light, darkness slides on.

2:30 a.m. The whisper ceases speaking as the swish reacquires its innocuous nature. The fridge, tired of the incessant hum, shuts the noise down. Air submits to the craving lungs and the letters find their way back into a language, thoughts reassemble in an orderly manner, and the pillow dries up. Nothing is left as a witness, but disturbing awareness. The darkness won’t confess its faults, shielded by the silence of the inanimate accessories. Rationality fails in its trial against reality.

3:00 a.m. Pleasantly sitting at the edge of the bed I stare at the closed white door, that softly reflects some long-lost remembrance of light. The night went back to its inanimate nature, and the nonexistent alarm stopped pounding. Rationality squeezes its way in, while the spider dances to one last song—turning my back on the edge of sanity.

3:30 a.m. I slowly slip in the welcoming linen; unconsciousness hugs me, and a restful paralysis gets hold of my now laying body. Silence winks at me and I find comfort in the same absence that was the cause of panic. A reassuring unreality floods the emptiness; the eyelids greet darkness as an old friend and succumb to sleep as the world slips away.

6:30 a.m. My eyes suddenly thrust open. It is now acceptable to wake up, as life slowly awakes. Grey timid light salutes me from the window, and shivers run down through my body as my brain gains control.

I yield to the promise of the sun yet to rise.

It’s finally morning.

The Tech wants to hear from you!

LET YOUR VOICE BE HEARD!

Tell us your opinions about things going on at Caltech with this new survey form on our website! You can submit any time, multiple times, about anything.

Opposition

Kurt E. Poland

Inner Voices

Jupiter was getting brighter than I'd ever seen it, brighter in real terms, closer to the earth, than it had been since 1963. And not only was it getting closer than ever, the online forums said it would be in "opposition"—directly opposite the sun from the earth's perspective, like a full moon, only a full Jupiter—the on the same night that it would draw closest to the earth, the night of September 26, 2022. And as though that weren't perfect enough, my wife and I now had a working 8 inch reflector telescope, and my best friend in the city, Elijah, was coming over as well. Together we would make an evening of hanging out in the dark on our back patio in Eagle Rock, seeing what we could of Jupiter during its closest pass by the earth in nearly 60 years.

My mom's old astronomy textbook from college opens with a great line: "In astronomy one observes when one can, not when one wishes." And it looked like the window for us to observe was about to open wide. The scope we'd acquired was a family heirloom, a Schmidt-Cassgrain with an 8 inch mirror, manufactured by Celestron in 1981. With its burnt orange tube, gorgeous setting circles, and Byers gear powered by an analog drive module, it's an instrument from another era. This telescope lived in my parents' closet under a veil of crumpled plastic for most of my childhood. About three or four times in my life my dad got it out to show us globular clusters, star nurseries, and, what I remember most clearly from a camping trip under a dark sky, the ghostly-white annulus of the Ring Nebula. But for the most part the scope remained off limits, under plastic, in the closet.

Then, in early 2021, my wife and I found out we were pregnant. On a whim I asked my dad if I might be able to have the family telescope. Maybe I shouldn't have been surprised when he joyfully replied, "that's probably optimal."

After making the trek from Denver to L.A. the telescope sat untouched for months, like a holy artifact, in the corner of our home office. Every now and then I would unlock the declination and right ascension clamps and pivot the scope around. But the truth is that I was intimidated by it. Then, in late spring a friend invited us out to Johnson Valley for the summer solstice. How cool it would be to get the scope all cleaned up for a desert sky on the shortest night of the year! So I gloved up, grabbed some rubbing alcohol, and set to work. That's when I noticed corrosion on the secondary mirror, clusters of little black specs.

To get a better look, I would have to free the secondary mirror from its place in the middle of the corrector plate, the big glass lens at the front of the scope. I hadn't read the owner's manual with any thoroughness at all, but I was determined not to be intimidated. I set to work loosening the three declination screws that held the mirror in place. Astronomy people will cringe along with me now when I tell you that when I got the last screw free the secondary mirror dropped directly into the primary mirror. Horrified, I removed the lens at the front of the scope and attempted to reach down into the tube to retrieve the mirror. In doing this I accidentally slid the secondary mirror across the primary mirror, adding more scratches to both. I finally managed to retrieve the secondary mirror, but not before I'd done irreparable damage to the very heart of the instrument.

I was crushed. I called my dad straight away to tell him, and to beg for his forgiveness. To my great surprise and relief

he did not sound mad on the phone. He told me that while scratches weren't great, they wouldn't do all that much damage to the mirror's ability to gather light, and that dust and dirt, not scratches, were the great enemies of astronomy. Humbled and relieved, I sealed the secondary mirror and corrector plate in ziplock bags and bubble wrap and looked to see if Celestron was still in the business of telescope repair.

It took me six months to work up the courage to take the scope in for repairs. To my amazement and relief Celestron accepted it, cleaned it, and reassembled it like new. The scratches on the primary mirror and corrosion on the secondary remain, but as I would find out, an imperfect scope with well aligned mirrors and a solid mount can still pull signs and wonders out of the L.A. sky.

The solstice was now long past, but an even more special astronomical event was on the horizon, Jupiter in opposition and at perigee, historic perigee, on the same night. The weather forecast was good, the sky was clear, the scope was clean, the mirrors were aligned, the sun was setting, and the universe was coming out. That's when Elijah called to tell me that because of a forgotten commitment he was not going to be able to make it. His reasons were legitimate, but disappointing nonetheless. There we were, set up for ideal viewing of the greatest Jovan event in a half century, a rite of passage for me as a novice astronomer, thwarted at the last moment by a single calendrical snafu. One observes when one can, not when one wishes.

Still, my wife and I got to see mighty Jupiter that night in all its brilliant oppositional light, its storming belts contrasting its white teaming zones. That was the night I first understood the significance of opposition. Jupiter gleamed in the eyepiece. Its moons pierced the darkness of space. And ev-



"A Happy Sky Over Los Angeles," 2017. (Photo: Dave Jurasevich)

ery now and then a moment of clarity in the midnight air unconcealed the legendary storm on the southern band setting now over the planet's leading limb. The window was open, and the target, bright and livid, was vaulting high and clear over our meridian. And there we were, with gears, mirrors, and lenses, watching the miracle unfold.

On the phone that evening I invited Elijah over an encore session the following night. Sure, Jupiter would be a day past prime superposition, but the view would still be outstanding. He obliged, and after we'd waited for the sky to darken and the planet rise high in the sky, Elijah took his first look in the eyepiece. He exclaimed over the planet's supreme brightness, its bands, etc. But then he remarked that one of the Galilean moons seemed to be closing in on the planet's trailing limb. He was right. Within minutes the pinprick of that moon was encroaching on the edge of Jupiter's disk, appearing almost to warp the limb around itself as it moved inward. I had read about this—transit, a moon of Jupiter making transit across the apparent disk of the planet.

But I hadn't counted on witnessing such a thing. And it wasn't just the moon. Was there another moon starting a transit? No! It was the shadow

of the moon. Here we were, expecting a modestly faded re-run of the previous night's event, but now a whole new spectacle was unfolding. Ganymede, the queen of the Galilean moons, was racing its own shadow over Jupiter's very cloud tops. I do not know if the transit lasted an hour or longer, but to witness that silent event, a double initiation into the mysteries of Jovan ephemerides—I now know why some people dedicate their lives to astronomy.

Ancient and medieval philosophers speak of the "spectacle" of truth. The highest truth, they say, is not something given to us to understand. It is, rather, something that, on occasion, unconceals itself so that we might behold it momentarily before it conceals itself again. Something was unconcealed to me in those short hours when the window to Jupiter's bright brilliance was opened to us. That the sky is a world of events, some of which we may, in the short span of our lives, be granted to witness. That despite the oppositional forces of bad weather, amateur ineptitude, damaged instruments, and quotidian life's myriad obligations, there will still come spectacular solar, lunar, planetary, stellar and even cosmic events in which we are invited, by the simple virtue of our being a part of this universe, to participate.



QUESTION

THE QUAIL

Awoken from slumber, the QUAIL is hungry for your questions. Feed the poor aminal here:



Young Journalists Speak on the Impact of the Wildfires at USC Initiative

Gregory Miller
News

When the sky turned red from wildfire smoke and the acrid air stung the eyes of Southern Californians, a different kind of fire emerged—one lit by the pens, lenses, and voices of high school and college journalists. At the heart of this movement is the U.S.C. Wildfire Youth Media Initiative, a program that empowers emerging reporters to chronicle the impacts of climate-driven disasters through firsthand storytelling. The initiative not only documents the environmental crisis but positions young journalists as central agents of change.

Recently, the Initiative convened a listening session at the Pasadena Playhouse to document wildfire experiences from local students and community members, using student-led interviews to build a public digital archive of resilience and recovery. That gathering embodied the program's mission: empowering young reporters to transform lived experience into stories with social impact.

This vision draws inspiration from the work of Geoffrey Cowan, university professor at U.S.C. and former dean of the Annenberg School of Communications and Journalism. A member of the Council on Foreign Relations, a fellow of the American Academy of Arts and Sciences, and the Walter Lippmann Fellow of the Academy of Political and Social Science, Cowan's interdisciplinary approach and enduring advocacy of public service journalism are highly recognized. He has consistently advanced programs that connect student journalists to projects with tangible, real-world impact.

Cowan explained that in finding students for the initiative, a competition was held to select participants from the region who had been directly affected by the wildfires. Each student brought prior writing or journalism experience, enabling the project to blend lived experience with developing professional skill. Cowan often emphasizes that emerging journalists demonstrate a heightened attunement to the realities of the communities they inhabit—where they live, where they are educated, and where their social worlds unfold. Such proximity, he contends, provides an interpretive vantage point that enriches both reportage and public discourse. As he reflected, "We hope that if something really good came out of it, maybe it could serve as a model for what can happen in other communities where there are natural disasters."

At the operational helm of the Wildfire Youth Media Initiative stands Rebecca M. Haggerty, Associate Professor of Journalism at U.S.C. Annenberg. A seasoned broadcast journalist with more than two decades of experience—including assignments with CNN and Marketplace—Haggerty has traversed an ex-

pansive thematic terrain, from health policy to global economics. Her pedagogy is rooted in trauma-informed practices and uncompromising ethical standards, which she insists remain non-negotiable within the journalistic profession.

"The students we mentor aren't just writing articles," Haggerty explained. "They are engaging with people in crisis, many of whom have lost everything. How we teach them to listen is just as important as what they report." Here, the emphasis on empathetic listening reframes journalism as both a civic responsibility and a therapeutic act of witness.

Haggerty's work extends beyond the classroom, encompassing workshops and training sessions on disaster coverage and community-centered reporting. She has also been an unrelenting advocate for broadening access to journalistic training for underrepresented communities, thereby democratizing both the profession and the narratives it produces. "This isn't just about wildfire reporting," she underscored. "It's about building a national culture of resilience, starting with the storytellers of the next generation."

In concert with Haggerty's vision, Talia Abrahamson, program coordinator for the Wildfire Youth Media Initiative, contributes her academic foundation from Columbia University and extensive professional expertise in editorial logistics. With a deep respect for student autonomy, she characterizes her role as one of scaffolding rather than steering: "Facilitating their ideas, not directing them." This approach, she notes, creates an environment where students may not only exercise creativity but also learn through experimentation. "Students need the space to explore," she remarked. "But they also need support structures that hold space for their mistakes, their growth, and their voice."

Abrahamson sees interdisciplinary exchange as powerful, noting the potential of pairing scientists and student reporters: "Imagine climate researchers working alongside youth reporters," she mused. "That's the kind of interdisciplinary magic we're trying to spark."

Allison Agsten, Director of U.S.C. Annenberg's Center for Climate Journalism and Communication, brings a curatorial eye and civic commitment to the table. Formerly curator of public engagement at the Hammer Museum and a journalist at CNN, Agsten is fluent in translating complex environmental topics into accessible narratives.

Agsten, who was present at the Pasadena convening in her role as U.S.C.'s eco-chaplain, said, "This work doesn't exist in a vacuum. It's part of a broader struggle for justice—climate justice, housing justice, and media justice. Young journalists are critical to this fight."

Agsten sees youth-led media as inherently disruptive—in the best sense. "Their stories chal-

lenge dominant paradigms, not because they're contrarian, but because they're closer to the ground, to the fire, and to the truth."

Susan Goelz, Business Budget Analyst for U.S.C. Annenberg's Center on Communication Leadership and Policy, has played a key role in ensuring the financial and organizational infrastructure of the Wildfire Initiative remains resilient. Her capacity to synthesize financial coherence with logistical precision has been indispensable in operationalizing the program's journalistic mission, illustrating how strategic administration functions as the often-invisible architecture that enables large-scale youth media initiatives to thrive.

"We thought right away, why couldn't we get high school reporters to report on their community," said Goelz. "They're already writing for their school papers. Why not give them the chance to report on something real, like the fires that affected their own neighborhoods?"

Larry Wilson, former public editor and opinion editor at the Pasadena Star-News, now works closely with U.S.C.'s Annenberg program to offer editorial guidance. Wilson frames the initiative as both a journalistic imperative and a democratic necessity, underscoring the extent to which youth media functions not merely as reportage but as participatory citizenship.

During the Eaton Canyon fires, Wilson was forced to evacuate his home. As a member of the Athenaeum at Caltech and a frequent guest at UCLA's Luskin Conference Center, he was able to secure temporary lodging through those institutional affiliations. Wilson posits that combining empirical data with narrative storytelling is not optional but constitutive of journalism's future trajectory. "Data and storytelling need each other," he observed. "That's where the future lies."

The initiative also drew young journalists like Noah Haggerty, who recently received his B.S. in Applied Physics from Northeastern University and is a contributor to the U.S.C. initiative, complementing his role as an environment, health, and science reporter at the Los Angeles Times. At the Times, he integrates empirical inquiry with public communication at the intersection of science and society. He joined the paper in 2024 as an AAAS Mass Media Fellow. His work includes interviews with fire victims, responders, and policymakers.

"I've always been a very curious person," he stated, "and I think growing up through high school, and earlier in college, I've always naturally, like tried to seek out and identify conversations that I felt were subverting like, the typical flat, like, left-right conversations or traditional ways of thinking about things."

He continued, "I ended falling into journalism a little bit by chance, just the way that life took me. Starting with the experiences of young people



Larry Wilson (left) and Geoffrey Cowan (background) speak with student participants of the U.S.C. Wildfire Youth Media Initiative in the courtyard of the Pasadena Playhouse on El Molino Avenue. (Photo: Gregory Miller)

growing up in Southern California, in Pasadena, and in our communities, we need to tell their stories and then build the connection between these large and national issues, such as wildfires and other disasters that are happening."

Also in attendance was Nathan Wang, a news correspondent with Local News Pasadena, who just graduated high school and will be entering the University of Pennsylvania this fall. Though not formally part of the initiative, Wang underscored the importance of cultivating journalistic capacity around disaster coverage, recognizing the pedagogical significance of Rebecca and Talia's work.

The U.S.C. Wildfire Youth Media Initiative demonstrates how journalism can give voice to those most affected by disaster. Its model empowers

students—many of them still in high school—to turn lived experience into powerful public narratives. In doing so, it offers a template for how young people can document crises, foster resilience, and contribute to a more informed and empathetic society.

The bridge is not merely metaphorical; it is infrastructural. It forges connections between journalism and science, between trauma and healing, between youthful inquiry and institutional authority. It is not only a proposal but a directive.

A directive to institutions to listen. A directive to students to lead. Above all, a summons to society to affirm the voices of young America—the voices of young journalists who do more than chronicle the fire; they embody its urgency, its heat, and its transformative possibility.

THE

CALIFORNIA

TECH:

LLM-FREE SINCE 2023!

Hey Frosh! Here are some people you need to know:



Name: Jeff Mendez (Ch '99, Fleming)
Purpose: Ch 3 lab instructor
Special Talent: Glove removal
Tip: Do not trust him to operate ovens



Name: Vikram Ravi
Purpose: Ph 1a prof
Claim to Fame: Handwritten pi symbols look like the letter n
Trait: Australian



Name: David Conlon
Purpose: Ma 1a prof
Habitat: 3rd floor Linde
Fun Fact: Is not Nets Katz



Name: Kimberly See
Purpose: Ch 1a instructor
Weakness: Cannot pronounce the word "lattice"



Name: Adam Blank
Purpose: CS 1 prof
Pronouns: they/them
Habitat: Board game nights
Claim to Fame: Cute dog



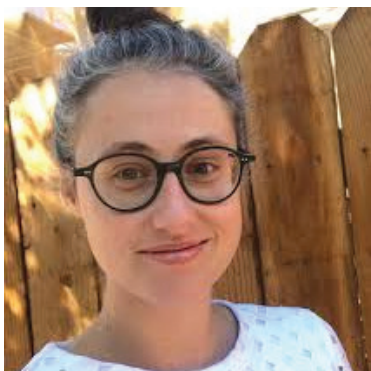
Name: Tom Mannion, Sr. Director of Campus Activities, Cooking Class prof
Purpose: Runs the fun parts of Caltech
Habitat: Office next to Lloyd entrance
Special Event: Free food every Wednesday night, and by request!



Name: Felicia Hunt, Assistant VP for Student Experience
Habitat: Yellow house at Hill/Del Mar
Tip: Visit the Yellow house for free snacks



Name: Sean Cutting, Accessibility Services
Habitat: CASS Office, 2nd floor of CSS
Purpose: Arbiter of Accommodations



Name: Claire Ralph, CALE Director
Habitat: 3rd floor of CSS
Purpose: Career Advising
Tip: Visit CALE for summer internships! There's more to summer than SURFs!



Name: Lee Coleman
Purpose: Student Wellness/Counseling
Pros: Very friendly and easy to talk to
Cons: Mandated reporter (all these people are)
Tip: Ask him about meditation!



Name: Emily Sanger, Bechtel RLC
Purpose: Queen of the Bechtelites
Special Event: **B**interhouse feat. Mechanical Bull
What does RLC stand for?: Residential Life Coordinator



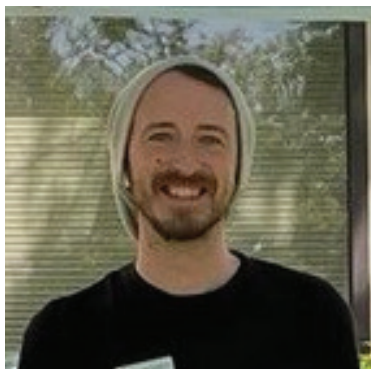
Name: Luciano Lemus, North RLC
Purpose: Inflatables & bouncy house wrangler
Best Known For: Golden doodle puppy



Name: Steve Metzmaker, Avery RLC
Purpose: Husky owner
Vice: E-sports
Special Event: Occasional OSE-funded free tickets to off-campus activities!



Name: David Tirrell, Provost
Research: Noncanonical amino acids
Fun fact: Earned his B.S. at Caltech East Campus



Name: Joe Bennethum
Purpose: Runs Housing
Pros: The only office which kept its doors locked after the pandemic
Trait: Beanie
Weaknesses: Interior design



Name: Nathan Rudibaugh
Purpose: Answers all your questions about financial aid and beyond
Habitat: 2nd floor Admissions House; finaid@caltech.edu
Trait: Iconic hairdo



Name: Jaime Reyes, Dining Services
Purpose: Feeds us
Habitat: Somehow present in all kitchens and dining spaces simultaneously
Special Event: Midnight Madness @ Browne during exam weeks!



Name: Jennifer Jahner, UG Dean
Claim To Fame: Exceptional Literature Hum Classes
Tip: Ask her about homoerotic medieval werewolves



Name: Lesley Nye, Sr. Associate Dean
Special Talent: Liability elimination
Tip: Ask her about being the Dean at an inferior school (Harvard)



Name: Alice Edel, Mail Services
Prized Possession: Shopping cart
Background: Witnessed the rise and fall of faxing in the printer industry
Quote: "PACKAGE TO PICK UP ASAP"



Name: Maura McDinger, Director of Conduct and Community Standards
Habitat: 2nd floor CSS



Name: Kristin Weyman, Assoc. Dean
Purpose: Delegating her 1,000,001 responsibilities to a staff they only recently realized they needed
Special Event: Once-a-term Deans 'n' Donuts outside the CSS building



Name: Kevin Gilmartin, VP Student Affairs
Purpose: Fire retardant
Tip: Ask him about old british literature



Name: Tom Rosenbaum, President
Purpose: Runs the place
Habitat: Alumni Fundraisers, Parsons -Gates, 415 S. Hill Ave.
Special Talent: Writing emails in flowery prose



Name: Joseph Greenwell, AVP for Student Life
Purpose: D3 athletics at a D1 price
Trait: Built-in megaphone
Special Talent: Winning medals at the Olympics

The California Tech Journalistic Principles

The News-Opinion divide

All articles shall be clearly and explicitly labeled as either News or Opinion/Editorial.

News articles report on topics that have been thoroughly researched by Tech staff writers, and should be impartial to any one point of view. In a News article, the writer shall not insert their own personal feelings on the matter; the purpose is to let the facts speak for themselves. The Tech assumes full responsibility for all content published as News.

In contrast, Opinion articles (including Letters to the Editor) may be written and submitted by anyone on any topic; while the Tech will edit all published Opinions to ensure no wrong or misleading information, we do not otherwise interfere. Again, the role of the Tech here is to help the whole campus communicate their ideas and share their stories, not promote specific ones. Content published as Opinions do not necessarily represent the values of the Tech or our staff.

An exception to this is Editorials, which are written by Tech staff and represent official opinions of the Tech. Any information and sources in Editorials shall be held to the same standard as News reports, but there is no promise or expectation of impartial coverage.

Fair Reporting

All facts of major significance and relevance to an article shall be sought out and included.

If an assertion is made by a source about a specific person or organization, they shall be contacted and given a reasonable amount of time to respond before publication. In other words, no second-hand information or hearsay shall stand on its own.

Quotes and Attribution of Information

Facts and quotes that were not collected directly by Tech reporters shall be attributed. Articles shall clearly differentiate between what a reporter saw and heard first-hand vs. what a reporter obtained from other sources.

Sources' opinions are just that — opinions. Expert opinions are certainly given more weight, as are witness opinions. But whenever possible, the Tech shall report facts, or at least corroborate the opinions. A reporter's observations at a scene are considered facts for the purposes of a story.

Sources

All sources shall be treated with respect and integrity. When speaking with sources, we shall identify ourselves as Tech reporters and clarify why we would like to hold an interview. Sources for the Tech will never be surprised to see their name published.

In published content, we shall put our sources' quotes into context, and — as appropriate — clarify what question was being answered.

We always ask that a source speak with us on the record for the sake of journalistic integrity. We want our audience to receive information that is credible and useful to them. Named sources are more trustworthy than unnamed sources because, by definition, unnamed sources will not publicly stand by their statements.

That being said, we realize that some sources are unwilling to reveal their identities publicly when it could jeopardize their safety or livelihood. Even in those cases, it is essential that the Tech Editor-in-Chief knows the identity of the source in question. Otherwise, there can be no certainty about whether the source and their quotes were falsified. This also applies for Letters to the Editor and Opinion submissions to the Tech. If the author requests that their piece is published anonymously, they must provide a reason, and we shall consider it in appropriate circumstances. No truly anonymous submissions shall be published. Conversely, no submissions shall be published with the author's name without their consent. When we choose not to identify a source by their full name, the article shall explain to readers why.

Corrections Policy

We strive for promptness in correcting all errors in all published content. We shall tell readers, as clearly and quickly as possible, what was wrong and what is correct.

Corrections to articles will be immediately updated on the online version of the Tech at tech.caltech.edu. If appropriate, corrections will also be published in the following Tech print issue.

Honor Code Applies

In any remaining absence of clarity, the Honor Code is the guiding principle.

The California Tech

EDITORS-IN-CHIEF

Damian R. Wilson

MANAGING EDITORS

Victoria Davis

PRODUCTION

Alanna Yelland

Michael Gutierrez

STAFF WRITERS

Camilla Fezzi

Kyra Phaychanpheng

Clare Wu

Gregory Miller

Jieyu Zhang

Troy Zhang

Jin Park

Emily Yu

Michael Gutierrez

BUSINESS MANAGER

Jack Myles

Nora Xiao

Victoria Davis

ADVISOR

Richard Kipling

The California Tech aims to publish biweekly except during vacation and examination periods by the Associated Students of the California Institute of Technology, Inc. The opinions expressed herein are strictly those of the authors and advertisers. Letters and submissions are welcome; email submissions to tech@caltech.edu, or submit them on our Discord server (<https://discord.gg/Zaah8749s2>). The editors reserve the right to edit and abridge all submissions for any reason. All written work remains property of its author. The advertising deadline is 12 PM on Friday; all advertising should be submitted electronically or as camera ready art, but *The Tech* can also do simple typesetting and arrangement. All advertising inquiries should be directed to the business manager at tech@caltech.edu.

The California Tech #27 CalGuesser



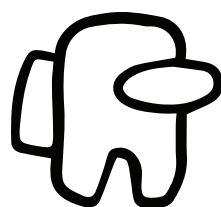
Every issue we'll show you a different location on campus. Find the place and find the QR code hidden there to sign the log book and **win a fabulous prize, actually this time! Gift cards sponsored by CalGuesser Benefactor Kevin Kan, but only if you find it before he does!!!**

“On campus” is defined as the convex hull of the buildings shown on caltech.edu/map/campus.

The QR code will be hidden somewhere within the pictured area.

TECH EDITOR'S CORNER

A lovely little poem not remotely relevant to any current events. From your favorite *Tech* editors <3



An Ode to the Red Door Quesadilla

Kyra Phaychanpheng
Inner Voices

Oh dearest Red Door quesadilla,
Longing for you at a quarter til eleven
Summer means lights off
Missing a taste of heaven

Reminiscing you sometimes being burnt to a crisp
Yet enjoyed with and guac
Sometimes my extra Taco Bell mild sauce
Accompanied by friends as we munch and talk

You were often shared between two
So one is not such a big back
But summer nights, not even.
Awaiting the return of the midnight snack

Oh dearest Red Door quesadilla,
You've finally came back as it is fall
Introduced to the frosh, we mustn't gatekeep
You warmly answer our call.