

Speech

Commencement Speech – Harvard Medical School PhD Hooding Ceremony - Ya'el Courtney

“Beyond the Paywall: Making Science a Public Good Again”

Thank you, Roz, for that generous welcome.

Good afternoon faculty, families, friends, and—above all—my fellow graduates.

Standing here today is surreal. We all climbed a mountain to wear these robes. For our class, that climb spanned a tumultuous era. We navigated not only the inherent rigors of doctoral research but also the profound disruptions, isolation, and pervasive uncertainty of a world reshaped by a pandemic.

And somehow... none of that prepared me for how hard it was to format my dissertation.

But that was just the final step in a climb that started long before grad school.

My road here wasn't smooth. I left home young, moved through guardians and courtrooms, and never earned a high school diploma. I came out of that time with complex PTSD and a set of survival strategies that did real harm—to myself, and to people around me. More than one therapist admitted they didn't know how to help me.

So when a guardian looked me in the eye and said, “your two options are enlisting in the military or dying as a heroin-addicted prostitute,” it was just the bluntest version of the dead end that really everyone already envisioned for me.

I saw those same dead ends handed to others I knew battling eating disorders, trauma, depression—treated like healing just wasn't in the cards for people like them.

It became clear that the experts either didn't believe the brain could heal—or didn't care to find out. I decided if they weren't going to ask how the brain could heal, I would.

I turned to the one place I've always gone for answers: books. I was working sixty hours a week at Wendy's—long shifts to build a financial safety net, no clear plan for what came next. I considered everything: wedding planning, musical theatre, maybe something corporate. Off the clock, I read everything I could carry home from the library—psychology, behavioral economics, genetics, memoirs of survival—searching for a crack in the story that the brain can't change.

Then I found this book on neuroplasticity—story after story of people who weren't supposed to get better, but did. I cried through every chapter, then rushed to tell my Wendy's coworkers that maybe the brain could heal. If it could truly change, then maybe depression, PTSD, even chronic pain weren't life sentences.

It was the first time the possibility of repair felt within reach.
And that was it. I had to become a neuroscientist.

I got my GED, and Kent State University took a chance on me. They gave me a lab bench, some trust, and the space to figure out what I was capable of. Pell Grants made it possible, and programs like BP-ENDURE—an NINDS diversity initiative—helped me grow. My two funded summers researching at WashU were my first chance to just do science full-time, and I was in love.

The rest of college was a grind—late-night bartending shifts, closing the bar and heading straight to the lab to stain mouse brains, crashing for a few hours, then reviewing notes for organic chemistry at 4:30 a.m. over Dunkin' coffee.

I kept going because I believed science could bring hope to some of life's darkest corners.

That belief eventually led me here—to Harvard's Program in Neuroscience—where foundational discoveries were made, and where I had the chance to build on that legacy by pursuing my own big questions.

Support from an NIH training grant, the NSF, and a HHMI Gilliam Fellowship—a program focused on inclusive excellence—let me teach undergraduates, exchange ideas with brilliant peers, and study how maternal exposures can alter brain development at the molecular level.

To PiN leadership—thank you for listening, advocating, and ensuring we had what we needed.

To my PiN cohort—and to every student in Harvard's Division of Medical Sciences—you were the Zoom squares that reminded me I wasn't alone, even in the thick of a pandemic. You never made me feel foolish for being completely lost in electrophysiology, and you always showed up with curiosity, humor, and heart. DMS programs teach us to tackle complexity, question dogma, and keep people at the center of every experiment—traits the world needs in its next generation of scientists.

Before we look ahead, it's worth taking a moment to recognize what it took to get here—not just the breakthroughs, but the failures, the long hours, and the conversations that turned confusion into clarity.

We leaned on each other through fellowship deadlines, troubleshooting calls, and late-night Slack messages. Everyone here earned this moment—and the persistence, creativity, and grit behind it deserve to be seen.

Yet even as we toiled in our labs, a concerning shift was happening beyond these walls: public trust in the science we dedicate our lives to was starting to erode.

Pew surveys show trust in scientists has dropped sharply since 2020—and now, only about half of Americans see science as a mostly positive force.

We can't ignore this. If we want science to remain a public good, we have to treat public trust as something we earn.

And as much as misinformation and political polarization have contributed to this divide, **institutions like Harvard share some of the blame.** When science is only ever communicated in paywalled journals or behind university gates, people feel locked out of the systems they fund.

Much of what we do is funded by the public. From grants to core facilities to the stipends many of us relied on, taxpayer dollars make this work possible. We therefore owe not just good science—but clear, honest communication.

Science isn't partisan. We chose this work to heal, to discover, and to serve. We're here because knowledge can save lives—and because someone, somewhere, is waiting on the answers we're working to find.

So here's my call to action: how can we, as newly minted PhDs, help restore public trust in science?

First, grassroots science communication. You don't need a podcast or a huge platform to make an impact. Just talk about your work.

I study maternal-fetal drug transmission, and over the past year I've had dozens of conversations about it—in local bars, at airports, even in Ubers. When people learn that substances like psychedelics and opioids can cross the placenta or be passed through breast milk, they listen. They ask questions. Some have even asked for my paper when it's out, wanting to share it with someone they care about.

People *want* to understand—if we're willing to meet them where they are, the same way someone once met me back when I hadn't yet held a pipette.

Second, be transparent with the press. When journalists reach out, make accuracy the priority. Share your caveats. Say “I don't know” when appropriate. Research shows that acknowledging uncertainty builds credibility. Ask to review the article before it goes live, and make sure it doesn't exaggerate.

Lastly, connect—and stay connected—with the people who write the rules. Invite legislators and local officials to tour your lab, translate your work into kitchen-table language, testify when bills are drafted. Some of us will go further: run for office, shape policy from the inside, organize our workplaces. Whether you stay in academia, teach, build a start-up, or work in policy, you carry science with you—and every one of those roles is critical for community building.

We can't only act when science is under threat. We need to be building support networks *even when things aren't bad*—so that science can reach farther, help more people, and have lasting impact.

Policy is shaped by the voices that show up—and scientists have to start showing up more.

These steps won't fix everything overnight, but we don't have to cede the conversation to misinformation.

Imagine if every graduate here had a single science chat each week with someone outside academia—that's eight thousand conversations a year. **Imagine a generation of Harvard PhDs who count impact not in citations, but in how many communities we reach.**

We're already experts in perseverance. We've handled lab shutdowns, tough reviews, failed experiments, and the slow uncertainty that comes with long-term research. We can take on the challenge of rebuilding public trust too—because people deserve to understand the science their lives depend on.

So, Class of 2025, let's carry the wonder of discovery beyond this quad—into living rooms, classrooms, bars, and city halls. Let's do the science—and make sure everyone sees *why* it matters.

Congratulations, thank you, and let's get to work.