Five questions for Jenny Knight[1]

Growing up, Jenny Knight's[2] mind concentrated on how things worked. Plants and animals were fascinations; by the time she was a college student, she zoomed in on the workings of the brain.

"I was a biology major with a concentration in neuroscience and then went on to get a Ph.D. in neuroscience," she said. "I just got fascinated by how this incredibly complex system, our brain, governs everything we do. I was particularly interested in the development of organisms and the development of the brain."

Even after she started down a path as a lab scientist, doing work as a molecular biologist and geneticist, her curiosity kept returning to the question of how the brain works.

"Why is it so difficult for us to process certain kinds of information and easier to process other kinds of information? Why do some people seem to be better at learning some things than other things?

"After many years of research, I realized I wanted to be more involved in helping students learn and become scientists."

That's what she does as a professor of Molecular, Cellular & Developmental Biology at CU Boulder. As a Discipline-Based Education Researcher, she and her lab[3] study how students learn to solve problems, and how they develop skills that support learning, such as reflection and regulation, all within the discipline of biology.

Last year, she was named a President's Teaching Scholar[4] at CU.

1. You have led work in trying to understand how undergraduate students learn biology, assessing areas where they might struggle and what educators could do to improve their learning. What have you learned from these assessments, and have they influenced changes in how you and others teach?

When I entered this field, there weren't many ways of assessing where the issues were with student learning. So, people might say, "Oh, you know, X number of people did well in my class, or did poorly in my class." But people cover lots of different kinds of things in their courses and you never really know whether one person's course is anything like another person's course. We realized we needed to figure out a more standardized way of looking at what people were learning.

The projects that I embarked on were all collaborations with other people who were either knowledgeable about assessment development, excited about teaching, or experts in the field. The goal was to develop some assessments that were more conceptual, to diagnose areas where students struggle – and especially areas where they struggle even after taking coursework on the topic.

The assessments have been useful for me teaching those courses myself, but also for other people across the U.S. who are teaching similar courses, because now we can talk about it. We can say, "OK, my students always seem to struggle with certain genetic concepts, such as the structure of a chromosome or how genes are inherited." And they can say, "Yeah, we have the same issues."

We've done a couple of research projects to tease out, all right, if we focus on this kind of a concept, do students end up performing better on it than they would if we don't focus on that concept? That seems really obvious: Of course, if you spend time on it, students should get better at it. But that doesn't always seem to be the case. You can spend the whole semester talking about something and thinking that it's all crystal clear, but then the students end up still confused about it at the end.

2. Is biology something that, perhaps more than many subjects, is taught best in classroom and lab settings? Or is technology making that less so?

I really believe in the power of one-on-one communication, in-person communication. I feel like it really is a lot better

than anything that you can sit and watch or listen to on your own.

I taught lab courses earlier in my career. There's nothing like helping a student see something for the first time: learn how to use a microscope, learn how to handle an organism, learn how to operate machinery. There's no replacement for really doing it.

Non-laboratory learning is maybe not as dependent on procedures as lab courses are, but nonetheless there's something about walking through things with people, showing them how to think about it, giving them alternative explanations, reacting to how somebody is struggling with something. That all happens in the classroom. I'm sure it could be facilitated by AI, but I'm one of those people who feels that personal connection, that personal experience and storytelling, is important – professor-to-student, in person.

3. One of your journal articles is titled, "Teaching more by lecturing less." Have you seen the benefits of this approach play out during your teaching?

Oh yeah, absolutely. First of all, I was taught in a very didactic way. When I was a student, and when I first started teaching at CU, it was all very much delivery from the professor to the students. I really feel like we've changed in the last 20 years.

I know I've worked very hard with my colleagues around the nation and with people at CU to elevate the value of letting people think and practice while they're in the classroom. If students are talking to each other, using the information, asking questions and answering questions, they're learning. If the students are just hearing something, it may or may not be really getting into their brains. So I'm a big proponent of letting students grapple with things while they've got a person there to ask questions of, as opposed to doing the grappling at home by themselves when maybe they don't have the same kind of resources.

A classroom that's full of conversation is actually a great classroom to be in. When I was a student, that's the kind of treatment you got if you were in a language classroom or maybe a creative writing seminar. But there was very little discussion in the science classes. And now I go to my colleagues' science classes and people are talking to each other, grappling with, "How do you do this? What's the correct experiment here? How do we analyze this data?" That's what scientists do all the time.

It's really great to see that changing and becoming more commonplace. There's quite a lot of research that's been published, my own and lots of other people's work as well, that shows it does produce a higher learning outcome almost every time.

4. Over the years, you have served as a member of the Boulder Faculty Assembly[5] (BFA). Why is shared governance important to you?

It's important that everybody be represented, that we all kind of know what's going on. You have to pay attention to things that are happening at the university. You have to know what kinds of rules are being made or not made.

Participating in shared governance, being part of the Boulder Faculty Assembly, was very eye-opening to me. It gave me a chance to talk to people from different departments and to understand a little bit more about how the university operated.

It takes a lot of time. But as faculty, we need to make sure our voices are heard. Otherwise, decisions get made that don't reflect the things that we care about.

5. What does it mean to you to be named a President's Teaching Scholar at CU?

It's an honor, of course. It's such a great opportunity to be part of a group of people who care about things that you care about.

The thing I really like, which I also liked about being part of the BFA, is that these are people whose scholarship and expertise are all over the map. And there's people from the other campuses, not just Boulder. It's really interesting to hear how things work at other campuses. It's exciting to hear what people do to help elevate teaching and how deeply people care about their students and all the cool programs that people have designed and implemented. It's a great group of people who are passionate about their teaching, but also giving back to the community.

Maybe the biggest strength of this group is that we all have the students' best interests at heart. We really want to talk about how we can do the best things for them.

CU names Michele Ames vice president for communication[6]

The University of Colorado has named Michele Ames vice president for communication in system administration. In that role, she will manage communications for the Office of the President and support the Board of Regents. In addition, she will partner with communications leaders across the four campuses and the University of Colorado Foundation. She will begin her duties on April 14.

"Michele has a long history with Colorado, the university and Colorado media," said CU President Todd Saliman. "We're excited to put her skills to work as we continue to advance the message that our university is Colorado's university and everyone can find a path to success with us."

For the last 10 years, Ames has worked as an independent consultant on a variety of issues, including elections, health care, food access and affordable housing. She has worked for national organizations, Colorado-based groups as well as statewide issue campaigns.

She served the University of Colorado by founding the first communications office at CU Denver as well as serving as special assistant to Chancellor Roy Wilson at both CU Denver and the CU Anschutz Medical Campus. Both inside and outside the university, she has provided issues management support to the Office of the President as well as the Boulder and Anschutz campuses over the years.

Ames began her career in Colorado as a Capitol bureau reporter for the Colorado Springs Gazette. She also served as a Capitol reporter for the Rocky Mountain News.

"Coming back to the University of Colorado feels like coming home," Ames said. "I'm deeply honored to be able to serve the university's faculty, staff and students as well as families across Colorado who believe the route to their successful future runs through one of CU's outstanding campuses."

As part of her work, Ames will provide communications support to CU's external relations team, including the offices of Government Relations, Outreach and Engagement and Advancement. She also will oversee CU system communication operations in media relations, internal communications and web development.

"I'm thrilled Michele will be joining our team," said Danielle Radovich Piper, CU's senior vice president for external relations and strategy. "Michele brings an extraordinary level of expertise to the job and her history with the university is coming at an important point in time for CU and higher education in our state and nation."

Ames was selected after a search process. She replaces Jeff Howard, who left the university in January 2025. For more information about Ames, read her biography online[7].

UCCS announces Civil Engineering Pathway to CU Denver and CU Boulder [8]

Chancellor Christensen meets students, faculty and staff[9]

New CAR-T cell therapy shows promise for hard-to-treat cancers[10]

Advancing real-time data compression for supercomputer research[11]

Staff Council announces Virtual Bingo games[12]

The University of Colorado Staff Council (UCSC)[13] has announced two sessions of Virtual Bingo, opportunities for coworkers to connect with one another while competing for prizes.

Please plan to attend only one of the two available times:
11:30 a.m.-1 p.m. Thursday, April 3 3-4:30 p.m. Wednesday, April 9

Participation is free, and players may take part in an entire session or just drop in. Whether you're a Bingo newbie or a seasoned pro, you're in for a treat. All CU staff members are invited to join for some friendly competition, laughs and, of course, prizes you won't want to miss.

Be sure to RSVP no later than 5 p.m. Monday, March 31**.**Click here to RSVP.[14]

Those who RSVP will be sent a Zoom link in advance of the event.

For any questions or to adjust your RSVP, please contact ucsc@cu.edu[15]

Daniels named regional program manager for Denver metro area[16]

The University of Colorado has named Nigel Daniels as regional program manager in CU's Office of Outreach and Engagement. Daniels' primary focus will be on the Denver metro area, but he also will add capacity to CU's outreach and engagement work in northern Colorado. He joined the university March 17.

"Our outreach and engagement team is very excited to welcome Nigel to CU," said Tony Salazar, vice president for outreach and engagement. "Nigel brings valuable relationships and community engagement experience that will deepen the university's statewide impact and strengthen the team's existing reach in the Denver metro area and northern Colorado."

Before joining CU, Daniels – a Denver native – served as a judicial law clerk in Denver District Court, where he worked

in the domestic relations and criminal court divisions. Previously, he worked as a policy adviser and law clerk at Denver's Brownstein Hyatt Farber Schreck. He also has experience as a senior adviser to former Denver Mayor Michael Hancock, and as a campaign staffer to U.S. Sen. Michael Bennet.

"Nigel's experience in the private and public sectors, including in policy advocacy, organizing and community engagement, allows him to bring beneficial relationships and connections to CU from across Colorado," Salazar said. "With the addition of Nigel to our outreach and engagement team, we now have a full staff of regional program managers embedded in communities statewide, including in western and southern Colorado. This helps solidify CU's commitment to serving all Coloradans."

Daniels holds a bachelor's in political science from Colorado State University, and a Juris Doctorate from the University of Denver. He is a member of the New Mexico and Washington, D.C., bar associations.

Liu named to National Academy of Inventors [17]

Bagenal appointed to NASA advisory committee [18]

Hundreds march through downtown Denver to tell immigrants "that they are not alone"[19]

CU Boulder's Radio 1190 is back — and it has the power to reach 3.5 million listeners[20]

Long COVID casts lingering shadow 5 years after the pandemic[21]

Links
[1] https://connections.cu.edu/spotlights/five-questions-jenny-knight[2] https://www.colorado.edu/mcdb/jenny-knight[3] https://www.colorado.edu/lab/knight/[4] https://www.cu.edu/ptsp[5] https://www.colorado.edu/bfa/[6] https://connections.cu.edu/stories/cu-names-michele-ames-vice-president-communication[7] https://nam02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fpresident.cu.edu%2Funiversity-leadership%2Fmichele-ames&data=05%7C02%7Cemily.davies%40cu.edu%7Cb4738bffbe144c3f877908dd6255d763%7Ce889e28f74d447f287e853732cbbe7ec%7C0%7C0%7C638774843016594123%7CUnknown%7CTWFpbGZsb3d8eyJFbXB0eU1hcGkiOnRydWUsIlYiOiIwLjAuMDAwMCIsIlAiOiJXaW4zMiIsIkFOIjoiTWFpbCIsIldUIjoyfQ%3D%3D%7C0%7C%7C%7C%7C&sdata=9O7Pu05rR3c7zZLSqndvlptIQjSkhpJzgsJBrUp0yAM%3D&reserved=0[8] https://connections.cu.edu/stories/uccs-announces-civil-engineering-pathway-cu-denver-and-cu-boulder[9] https://connections.cu.edu/stories/chancellor-christensen-meets-students-faculty-and-staff[10] https://connections.cu.edu/stories/new-car-t-cell-therapy-shows-promise-hard-treat-cancers[11] https://connections.cu.edu/stories/advancing-real-time-data-compression-

supercomputer-research[12] https://connections.cu.edu/stories/staff-council-announces-virtual-bingo-games[13]
https://www.cu.edu/ucsc[14] https://ucdenver.co1.qualtrics.com/jfe/form/SV_enyj8UiPksBO56K[15]
mailto:ucsc@cu.edu[16] https://connections.cu.edu/people/daniels-named-regional-program-manager-denver-metro-area[17] https://connections.cu.edu/people/liu-named-national-academy-inventors[18]
https://connections.cu.edu/people/bagenal-appointed-nasa-advisory-committee[19]
https://connections.cu.edu/itn/hundreds-march-through-downtown-denver-tell-immigrants-they-are-not-alone[20]
https://connections.cu.edu/itn/cu-boulder-s-radio-1190-back-and-it-has-power-reach-35-million-listeners[21]
https://connections.cu.edu/itn/long-covid-casts-lingering-shadow-5-years-after-pandemic