



IN 1983, SALLY RIDE became the first US woman to go to space. (Photo from NASA.)

Q&A: Tam O'Shaughnessy honors Sally Ride's courage and character

In a new documentary, Ride's life partner of 27 years chronicles the astronaut's leadership, resilience, and dedication to science.

Physicist Sally Ride made history in 1983 as the first American woman to go to space. In the decades after, Ride devoted herself to teaching physics and advocating for women in STEM. Out of the public eye, Ride also built a happy life with her partner, Tam O'Shaughnessy. Ride's journey is told by O'Shaughnessy and others close to Ride in the National Geographic documentary film *SALLY*, which started streaming 17 June on Disney+ and Hulu.

A natural athlete, Ride grew up in Southern California and became a nationally ranked tennis player. She considered playing professionally but chose to attend Stanford University to study physics and English. She continued there for her master's and doctorate in physics, intent on being a physics professor, until she saw an article in the student newspaper saying that NASA was hiring astronauts. For the first time, women could apply.

Ride was one of six women chosen for NASA's 1978 class. She went twice to space, where she helped deploy satellites and conduct scientific observations of Earth. After her time at NASA, Ride worked as a physics professor for 18 years at the University of California, San Diego (UCSD), where she taught, mentored students, and studied free-electron lasers. During that time, O'Shaughnessy, Ride, and their friends launched the science education company Sally Ride Science. Ride passed away from pancreatic cancer in 2012 at age 61.

O'Shaughnessy is a writer and executive producer for *SALLY*, and she is the executive director of Sally Ride Science at UCSD. *PHYSICS TODAY* spoke with her about Ride's life and legacy.

PT: What do you want people to take away from watching *SALLY*?

O'SHAUGHNESSY: Most people think of Sally as the astronaut: the first American woman to go to space. She was so much more than that. She was an athlete, an excellent tennis player, a science writer, and an entrepreneur. But the thing that was most important to her was being a physicist. Sally was an astronaut for nine years, and she was a physicist for most of her life.

I think the other fuller picture of who Sally was includes our relationship. Because of the culture around being gay, we knew that we needed to stay quiet about being a couple. Sally Ride Science was dependent on corporate sponsorships, and we thought at that time there was no way that they would back us if they knew that Sally and I were leading the company and were a couple.

PT: How did you two meet?

O'SHAUGHNESSY: We met when we were young at a tennis tournament in Redlands, California, and we stayed friends throughout our junior tennis days. When Sally went to Stanford to study physics, and I went to play on the first-ever women's professional tennis tour, our paths diverged. Then, in 1983, she invited me to come to the space shuttle launch for her first mission.



TAM O'SHAUGHNESSY (LEFT) AND SALLY RIDE, pictured here in Sydney, Australia, in 2004, were life and business partners. Friends since childhood, they authored science books together and ran the company Sally Ride Science. (Photo courtesy of Tam O'Shaughnessy.)

On launch day, I remember very clearly hearing 10, 9, 8, ... I could barely breathe. Everyone in the stands was crying, shouting. It was a remarkable experience.

PT: What happened when Sally returned from her first space mission?

O'SHAUGHNESSY: She was so proud to be an astronaut and to be the first American woman to go to space. She was proud of the way she handled her first mission. She just looks so joyous in every image of her in space, so happy and relaxed.

As she started giving talks around the country following her flight, she started feeling anxious and unsettled, and so for the first time in her entire life, she thought, "I need help." She saw a psychologist, who said Sally was an introvert and that Sally should take time after each engagement to recover. She started doing that, and then it got better.

She started accepting speeches in cities where her friends were, and so she visited Atlanta, where I lived, more often. Our friendship felt like we'd never taken a break. We just enjoyed each other so much. In one second, you're best

friends, and the next second, it's something romantic. From the first kiss, it felt like this was important.

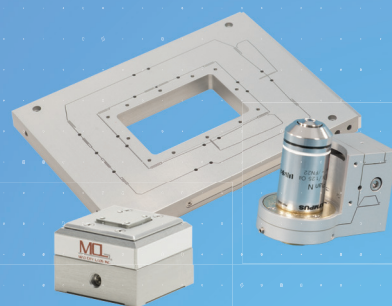
PT: How did Sally react to the 1986 explosion of the space shuttle *Challenger*?

O'SHAUGHNESSY: Sally was heartbroken. One of her best friends in her astronaut class was Judy Resnik, who was one of the seven crew who lost their lives. Sally was the only woman Ronald Reagan asked to be on the presidential commission investigating the disaster.

PT: How did Sally help uncover the cause of the disaster?

O'SHAUGHNESSY: During the investigation, Sally was passing a NASA engineer in the hall, and he handed her something. He said something like, "You're going to want to read this," and walked away. It was a spreadsheet showing the resilience of the *Challenger's* O-rings and how pliable they were versus temperature. Sally analyzed the spreadsheet and realized that it was the key to what had happened.

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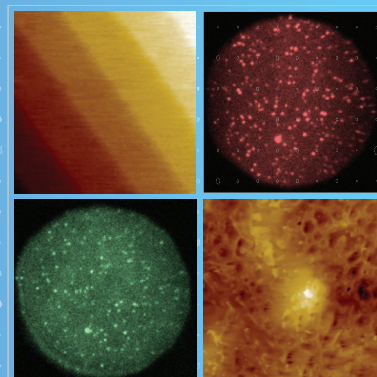


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▲ **SALLY RIDE** stands with fellow women astronauts in her 1978 class during a break from training. From left are Ride, Judith Resnik, Anna Fisher, Kathryn Sullivan, and Rhea Seddon. (Photo from NASA.)

Sally thought if she was the one to bring up the spreadsheet during the investigation that people might put together who the NASA engineer was. So she handed the spreadsheet to Major General Donald Kutyna, who was also on the investigation board.

Kutyna hinted about the temperature of the O-rings to fellow commission member and physicist Richard Feynman, who figured it out. Feynman was a showman. At an open commission meeting with the press, Feynman took a glass of very cold water, and put a rubber ring in it, and then pulled it out and it was all brittle. Which was exactly what happened on the *Challenger*.

PT: How did Sally Ride Science come about?

O'SHAUGHNESSY: In 1990, we decided to try our hand at writing children's science books together. Our first book, *Voyager: An Adventure to the Edge of the Solar System*, was very well received. At that same time, Sally and I both noticed articles in the newspaper about how American girls and boys weren't doing well in science or math. We just couldn't understand, because we loved science and math. We learned that the way science is presented across the board persuades kids to think science is boring, done by white men with crazy hair and alone in a lab.

▼ **RIDE** communicates with ground control aboard space shuttle *Challenger* during her first trip to space, in 1983. (Photo from NASA.)



PT: What did you do to challenge those stereotypes?

O'SHAUGHNESSY: We hosted Sally Ride Science festivals around the country at universities. They were one-day events, and kids, their parents, and their teachers could sign up online from a selection of three dozen or so workshops in all sorts of topics, like ocean robotics, photosynthesis, or genetics. The festival had street fairs with local astronomers, veterinarians, and scientists who would have booths with free handouts and activities, such as DNA bracelet making. We also did teacher training on how to engage boys and girls in STEM. And one of the key things was to show role models of contemporary women and men doing science.

PT: In 2013, you accepted the Presidential Medal of Freedom on Sally's behalf at the White House. Can you tell me about that day?

O'SHAUGHNESSY: During the award ceremony, I remember feeling free, honest love and acceptance. My country, the United States of America, was honoring all of whom Sally was and validating our relationship. It sent the message around the world that same-sex relationships are true relationships, worthy of all rights and protections. I only wished Sally could have experienced all of this.

PT: The film pays tribute to Sally's accomplishments but also shows some of her flaws. Can you talk about that editorial decision?

O'SHAUGHNESSY: I was an executive producer, but I didn't make editorial decisions about the film, though I spoke up and added my three cents. The folks at National Geographic didn't want the story to be "everything about Sally is perfect." They wanted the real story.

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PT: Along those lines, fellow astronaut Kathryn Sullivan says in the documentary that Sally may have tried to sabotage one of Sullivan's training exercises by switching off the circuit breakers. What do you think of that?

O'SHAUGHNESSY: I understand Kathryn's uncertainty about what happened. Maybe Sally flipped the switches. But that doesn't strike me as true to who Sally was. I don't know.

PT: What was it like seeing the archival NASA astronaut footage in *SALLY*?

O'SHAUGHNESSY: A lot of that footage is rare and pretty amazing. Seeing Sally's face when she's being dragged through the water in water survival training, that was new. I remember her telling me, "I felt like I was drowning." Members of the press were filming and waiting to ask her questions when she got out of the water.

PT: It's been nearly 50 years since NASA began actively recruiting women and people of color to be astronauts. This year, the Trump administration ended federal diversity, equity, and inclusion [DEI] programs. What do you say to that, and what do you think Sally would say?

O'SHAUGHNESSY: Sally would probably say something similar to what I would say, which is, How moronic. The history of the world and the history of our country are not perfect. Certain people have been second-class citizens—people of color, women, girls. Sally never would have flown to space if NASA hadn't started a DEI-type program. What's wrong with diversity? The world is diverse.

PT: What else can we learn from Sally's life?

O'SHAUGHNESSY: As a person, Sally was one of the most relaxed people I've ever met. She was totally comfortable in her own skin and sure of who she was. I think that's also part of why she didn't need to say, "I'm gay, I'm queer." She lived her life exactly the way she wanted to live it. I think that that is also a major message of the film: Don't let anyone ever tell you what to do with your life or who you should love. And Sally lived that.

Jenessa Duncombe

FYI SCIENCE POLICY BRIEFS

Trump seeks massive cuts to science

Congress is set to consider the steep cuts to science agencies that were proposed in President Trump's budget request for fiscal year 2026, which has drawn outcry from former agency leaders and professional societies. The budget would cut NSF by 56% to \$3.9 billion, NASA's science arm by 46% to roughly \$3.9 billion, and the National Institutes of Health by a third to around \$30 billion. The Department of Energy's Office of Science fared better relative to other science agencies, but it still faces a 14% cut to about \$7.1 billion.

Congress is unlikely to implement cuts of that magnitude and will develop its own spending proposals, which in the Senate will need bipartisan support to clear the 60-vote threshold for advancing legislation. During Trump's first presidency, Congress rejected proposed cuts to science agencies and in some cases provided substantial funding increases. In his second term, however, Trump has challenged Congress's spending prerogatives on multiple fronts. (See, for example, *PHYSICS TODAY*, May 2025, page 22.)

NSF estimates that the cuts in the budget request would result in its total number of competitive grant awards dropping from around 9600 to 2300 and the proposal acceptance rate dropping from 26% to 7%. The cuts would also squeeze the agency's facility operation budget to the point that NSF proposes downsizing actions, such as operating only one of two sites of the Laser Interferometer Gravitational-Wave Observatory. —MA

NSF adds DEI, Israel boycott restrictions to grant terms

In May, NSF updated its grant conditions to bar recipients from operating certain diversity, equity, and inclusion (DEI) pro-

grams or participating in boycotts of organizations with ties to Israel. The move follows a similar policy issued by the National Institutes of Health in April. The new conditions state that NSF reserves the right to terminate funding if it deems that recipients "operate any program in violation of federal anti-discriminatory laws or engage in a prohibited boycott."

The new conditions target programs that advance "discriminatory equity ideology," defined by an executive order from President Trump as "an ideology that treats individuals as members of preferred or disfavored groups, rather than as individuals, and minimizes agency, merit, and capability in favor of immoral generalizations." The restriction also applies to programs that "advance or promote DEI" but does not define the scope of that phrase. DEI restrictions implemented by other grant-making agencies have been challenged in court. —CZ

AGU, AMS plan climate collection after NCA upheaval

In response to the Trump administration's dismissal of authors working on the latest National Climate Assessment (NCA), the American Geophysical Union and American Meteorological Society plan to solicit submissions for a special collection of recent research on climate change in the US. In April, the administration said that the scope of the report is being reevaluated, and it cut contractor staff that helped coordinate the report writing. About 400 volunteer experts had been working for almost a year on the latest version, which was scheduled to be published near the end of 2027.

The American Geophysical Union and the American Meteorological Society noted in a May press release that the report is congressionally mandated and that the societies' collection of manuscripts "does not replace the NCA but instead creates a mechanism for this important work to continue." They said that their new collection will include more than 29 peer-reviewed journals on climate, and they invited other scholarly publishing organizations to join the effort. (The American Meteorological Society is a member society of the American Institute of Physics, which publishes *PHYSICS TODAY*.) —CZ **PT**

FYI (<https://aip.org/fyi>), the science policy news service of the American Institute of Physics, focuses on the intersection of policy and the physical sciences.

