

## Picture a Scientist Director FAQ

### **Q: What inspired you to make this film?**

**Sharon and Ian:** Our journey began with the MIT story and biologist Nancy Hopkins, who we were connected to via the film's Executive Producer, Amy Brand. While immersed in exploring the story of the remarkable success of the 1999 MIT report, we also realized that the problems that women in science face are far from over. The #MeToo movement made that clear across all areas, but with our science backgrounds and interests, we really wanted to shine a light on this issue in science specifically. The data show that today only 33% of working scientists are women, so we began talking with many scientists to further understand the problem. Once we realized the vast extent of the challenge, we saw an opportunity to broaden the conversation toward change by putting the stories of women scientists front and center, and *Picture a Scientist* was born.

### **Q: How did you come to collaborate on this together?**

**Sharon:** Ian and I have collaborated on films for over 10 years. We both have backgrounds in the sciences. (I worked as a conservation botanist with the Smithsonian Tropical Research Institute and the Field Museum, and Ian got a master's degree at the Yale School of Forestry & Environmental Studies.) One of our primary goals as collaborators is to make visually stunning, story-driven films about science. When we first started working together, I had just switched to filmmaking from botany and was self-training as an animator, so I ended up doing the animations for several of Ian's films. After I directed my own feature film and a series of short science films for the *New York Times*, we began to co-direct. Ian was actually approached first about directing this film, and he brought me in as co-director.

I think the film has really benefited from having a mixed-gender directing team. Several of the more sensitive interviews I did alone, and I sometimes wonder if women would have talked so openly about the harassment they've experienced with a man, even a man as sympathetic as Ian. That said, Ian also is one of the most compassionate people I know, and he's able to establish rapport and trust with his subjects in a way that still blows me away. I also wonder whether Ian would have had a different experience interviewing the men in the film solo. We weren't able to try that during the making of this film, but it's definitely an experiment I want to do in the future!

The other wonderful thing here about having a co-collaborator is having a partner to decide (and debate!) which stories to highlight and how to build the narrative. Like in all things, having a diversity of perspectives in the edit room enriches the creative experience.

### **Q: How has the global pandemic affected the film's release?**

**Sharon:** Obviously, COVID-19 has thrown a massive wrench in the film's distribution plans. I have never premiered a film at the Tribeca Film Festival, so when we found out we'd be

premiering there in April, I was thrilled. There's nothing like the sound of a standing ovation at the end of your film's premiere; it's such a huge affirmation for the subjects of our films and for us as filmmakers. When we found out that the 2020 festival was cancelled, I was devastated. I especially feel for the women who've trusted us to tell their stories, who so far have only seen the film on a laptop screen, alone in their homes. I can only imagine how unnerving it would be to bare your soul to a camera and not know in the moment how the film is received by audiences.

**Q: Did you ever anticipate a virtual theatrical release? What has that been like?**

**Ian:** With Tribeca indefinitely postponed, we wanted a festive way to share the film with all the people involved in making the film: our generous funders, our talented crew, and of course the myriad people interviewed on camera over the past several years. While exploring options for a virtual showcase, we connected with the Coolidge Corner Theater in the Boston area and the Roxie Theater in San Francisco, who seemed like great event partners given their support for independent cinema and their innovative approach to programming. From these conversations, the idea of a virtual theatrical release was born, with the aim of giving our core audience a chance to see the film while supporting the independent theaters where we've shown so many of our past films. This virtual theatrical release will also help us launch our grassroots screening campaign, where we will partner with universities and other institutions around the world to share the film this summer and fall.

**Q: How did you identify the lead female scientists to feature?**

**Sharon and Ian** We knew we wanted to feature the idea of the "sexual harassment iceberg" -- an idea prominently featured in the [NAS report on sexual harassment in the sciences](#). Basically, the idea is that blatant harassment like sexual coercion, come-ons, and assault are only about 10% of the harassment that women face in the workplace; the other 90% are more subtle slights like insults and exclusion. But long-term, those subtler slights can be just as damaging to a woman's career. We thought the best way to highlight this idea was by structuring the film around three stories of women at different points in their career, facing different types of harassment.

The MIT story is one of a senior faculty member, Dr. Nancy Hopkins, working to create change within the system with very positive results. But we also wanted to show what happens when women are essentially left to cope with harassment on their own. That was the case for Dr. Jane Willenbring, who waited to file her Title IX lawsuit until she had tenure and was relatively safe from repercussions. Dr. Raychelle Burks' story viscerally shows how thousands of little slights can affect a scientist's psyche —but despite countless setbacks and demands on her time that her male and white peers have not experienced, she has managed to forge her own path and is now not only an accomplished chemist, but also a pop-culture chemistry star, inspiring younger scientists everywhere.

**Q: What was your approach for building out the narrative?**

**Sharon and Ian** We wanted the film to showcase these incredible women scientists and their research, while, in parallel, taking a deep dive into the science of gender bias. The personal stories of our scientists might on their own be seen as anecdotal, individual instances of bad luck—but by including pivotal research studies on gender bias, we’re backing up and underlining their stories with data, and showing how systemic and long-standing the problem of gender bias is.

**Q: The film deals with some difficult themes of harassment. How did you approach this challenge?**

**Sharon:** Harassment is a sensitive topic, but it’s also one that I believe pretty much EVERY woman has faced in some form in their careers, whether they admit it or not. As a filmmaker who’s also worked in television, I’m unfortunately very familiar with that feeling of being 99.9% sure you’re being discriminated against because of your gender, but knowing that you can’t say anything because no one in power would believe you. That fear of being labeled a “difficult woman” that Dr. Nancy Hopkins vocalized so well in the film is, unfortunately, still very real. So, when I talked with our scientists about the harassment they experienced, I felt both sympathy and raw indignation that women have had to deal with these same issues over and over. But I also found a lot of solace in the data on gender bias—it made me feel less alone to know that so many other women, even brilliant scientists at the pinnacle of their careers, have faced these issues.

Ultimately, we didn’t want to shy away from the difficulties our scientists faced, but their stories are also hopeful: These women successfully navigated less-than-ideal situations to forge careers that worked for them. Their experiences will undoubtedly serve as roadmaps to others—by being who they are and leading by example, they’re making science more open and accessible to a new generation of women.

**Q: How do you think scientists are changing in their overall approach to politics and activism?**

**Ian:** For a long time, in the popular imagination a brilliant scientist was thought to be a lone man who dedicated himself almost maniacally to science. Under this paradigm, it was possible to be a good scientist and also a bad human: Society will forgive your eccentricities, and perhaps even your transgressions, because of your contribution to human knowledge. Under this paradigm, the best science is thought to emerge from the most concentrated effort on science, and science alone. Under this paradigm, there is pressure to put aside concerns about the culture of science—how people are treated, whether resources are shared equitably, the diversity and inclusiveness of the community—because it might take away from time in the lab. Today this paradigm is shifting. Many scientists we spoke to are not only keenly aware of the importance of improving the culture of science, but they’re also aware that it’s likely better for

science as a whole. Perhaps the definition of a “good scientist” can evolve to include someone who not only excels in the lab or in the field, but who also actively advocates for their peers, contributes to their community, and mentors the next generation of scientists in an inclusive and supportive way. Advocacy, in this light, is not a liability for a scientist, it’s an asset: It builds a better culture of science. And here I’m hopeful that men in particular will step up to play a larger role. It’s time.

**Q: Why is diversity in science important?**

**Sharon and Ian** Science benefits from diversity. Not only is it the right thing to do; it’s the best thing for science. Science benefits from having a diversity of perspectives, from people with different economic and cultural backgrounds contributing. That makes science better for all. If women and minorities are shut out, we could miss out not only on their perspectives but also their actual contributions to important discoveries for society, like during the worldwide effort right now to fight COVID-19. Dr. Nancy Hopkins said it best: “If you believe that passion for science, ability for science, is evenly distributed among the sexes, if you don’t have women, you’ve lost half the best people. Can we really afford to lose those top scientists?”

**Q: What actions and conversations do you want to see stem from the film?**

**Sharon and Ian** So many things! We hope scientists globally will watch the film and then take actions in their own communities. Ultimately, the culture of science must be equitable for all, which means several things:

1) Mentorship in the sciences needs reinvention. The old system is set up so that one advisor has a lot of influence over a young scientist’s career. If something happens and you decide you have to speak out (or even if you don’t speak out, in the case of our anonymous interviewee), your career can be squashed. Furthermore, the women we talked to told us that as they moved up the career ladder and started competing for the same resources, *that’s* when their male peers really started trying to shut them out. Our hope is that the film can advance this conversation of mentorship and resource-distribution throughout academia.

2) Women and minorities shouldn’t have to carry the burden of making science more fair. The majority group —men —have the lion’s share of the power and resources. Therefore, we hope to see more men becoming advocates, and using their status to demand fair and equal treatment for their women and minority peers.

3) Implicit bias needs to be addressed head on. While this bias will continue, recognizing it as a problem is an important first step in taking interventions to mitigate the impacts. For example, some of the work we featured showed the potential benefits of a gender-blind application process for jobs.