

► have very good platforms, such as GitHub, for developing software. Journals and institutions should partner with these companies. If we have a way to keep the software alive, it also makes it much easier to reproduce and continue the work.

This also implies that the software is open source, which I think is key for future science. Access to some software can cost €10,000 (US\$10,900) or more, which makes reproducing the research unattainable.

We have the technology to archive scientific software and link that software to papers. We just need the will.

## BOOST WOMEN'S CAREERS

**Planetary scientist Maria Cristina De Sanctis at the Institute for Space Astrophysics and Planetology in Rome was in charge of scanning the surface of the protoplanet Ceres using the orbiting Dawn spacecraft — the first time this asteroid-belt object has been examined up close.**

I would change the way in which women are viewed in science — especially in the areas of technology development and instrumentation, because very few women are involved in those fields.

In Italy, sometimes school teachers and parents think that women and men belong in separate careers. For instance, secondary education includes classical schools based on the humanities and scientific schools based on the sciences and information technology. Most of the young women are in the classical institutes, whereas most young men are in the technical and scientific classes.

All of us should encourage girls to study sciences and support their education. This should start when parents are choosing toys, books and games — we should have the same approach for both boys and girls. Also, there should be some money reserved in grant programmes to support early-career women. I don't like the idea of having different programmes specifically for women — it can have unintended effects. But for particular fields, it could make sense in order to increase the proportion of women.

Women have a key role in the family. We need a more relaxed approach for considering things outside work. A woman who needs a few months to focus on something not related to work should be able to take that time off and then come back and refocus on her research.

In my experience and observations, women are generally less aggressive and may not seek to promote only themselves. This can be a real advantage in planetary science, where a large number of scientists come together for global collaborations and are not operating alone or in small groups. Having more women in higher positions could advance the science in better ways for the next generation.



Planetary scientist Maria Cristina De Sanctis.

## TREAT SCIENTISTS AS HUMANS

**Evolutionary biologist Danielle Edwards made the news in her home country of Australia when she turned down the prestigious Discovery Early Career Researcher Award, citing poor job prospects. Instead, Edwards, who specializes in herpetology, took a position as an assistant professor at the University of California, Merced.**

I would change the way we gauge success in science from a quantitative approach to a more qualitative one. I think that would make science a safer place for people who have human needs. Time and time again, I've seen the shortcomings of the system play out in my life and in the lives of people who have decided to leave science.

We start out in a place where you have to work, work, work and your whole life is invested in your job. That really changes for some of us after we have children because we are forced to prioritize. Not having a safe place for those who value those non-work needs earlier on in their career results in less diversity in science. You get the drop out of women, the drop out of people who are first-generation college graduates, and the drop out of those from different backgrounds.

I don't think that working all the time equates to quality science. Some of the most productive researchers that I've ever met worked from 8 am until 5 pm, 5 days a week, and produced oodles of papers every year.

We need to change attitudes towards how we view success, the way we handle tenure, promotion and hiring, and the way we mentor students and postdocs. We need to recognize that scientists have basic needs for maintaining their family life, keeping healthy and not working long hours.

I say to my students, "Are you taking some time off?" I don't expect them to be in the lab late at night or on the weekends. I try to be as flexible and accepting of their human needs as I can be. A happy, healthy individual is going to produce quality work at the end of the day. It's a cost-benefit analysis: are you able to maintain that passion?

I come at this from multiple perspectives — I'm a first-generation college attendee, I grew up in a lower socio-economic area in Australia and I'm a woman in a relationship with a fellow scientist. I was told early in my career that as a woman, I was expected to work twice as hard. I know many colleagues whose trailing spouse, usually a woman, had to take a less-prestigious position than their partner, and their career was subsequently compromised. As a first-generation student, I've had people tell me that I didn't quite understand the academic life. And early on there was pressure from my family to stay close to home.

Sometimes that geographic pull is even stronger in people from different cultural backgrounds in which family is all important. That plays a huge part in siphoning out people from minority groups. We should be doing a better job in science to make sure people from different backgrounds are being encouraged. ■

*Interviews by Kendall Powell. Interviews have been edited for length and clarity.*

### CORRECTION

The Careers feature 'Courage of conviction' (*Nature* **526**, 463–465; 2015) gave the wrong date for the conviction of Bradley Waldroup: the verdict was passed in 2009. The article also mischaracterized the part in the defence proceedings played by William Bernet. Bernet — together with James Walker — performed a complete psychiatric and neuropsychological profile of Waldroup and as a result identified that the defendant had a high-risk gene variant that, when coupled with his abusive childhood, could arguably increase his risk of violent behaviour. Bernet did not undertake any of the research linking this genetic variant to antisocial behaviour, as suggested by our article, but only presented a summary of extant scientific knowledge to the jury. Comments in the article also inadvertently could have been read as directly criticizing Bernet's testimony; this was not the intention and the text has now been corrected online to resolve this issue (see [go.nature.com/xdi44d](http://go.nature.com/xdi44d)).