

# Correspondence

## Call to join the decentralized science movement

The decentralized science (DeSci) movement aims to harness new technologies such as blockchain and 'Web3' to address some important research pain points, silos and bottlenecks. However, it is happening with little input from established academic communities.

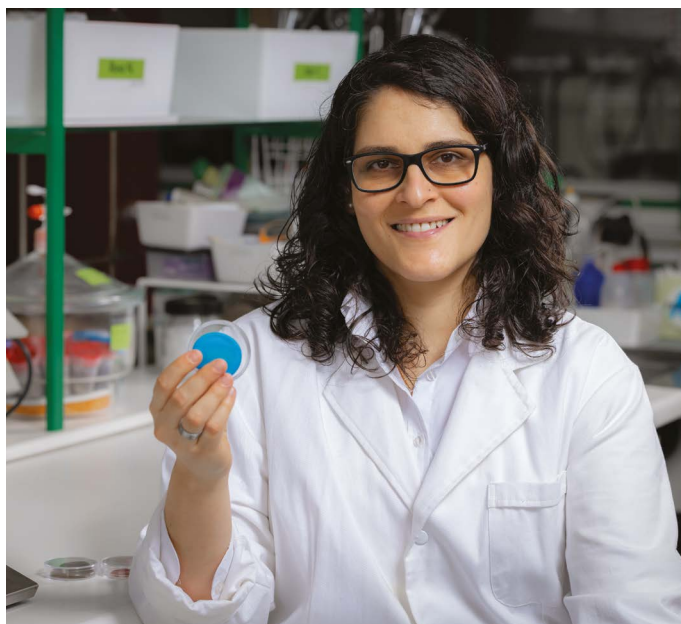
Example projects include efficient peer-to-peer data storage (using file systems such as IPFS; <https://ipfs.io>), token-based incentive mechanisms for peer review (B. Trovò and N. Massari *Euro-Par 2020* <https://doi.org/g73f>; 2021), and improved mechanisms for funding research (<https://sciencefund.io>) and replicating studies ([go.nature.com/3rjph3](https://go.nature.com/3rjph3)).

This work is spearheaded by online communities in a loose network of science-focused decentralized autonomous organizations (DAOs) such as Ants-Review, Blockchain for Science, DeSciDAO, Opscientia, Planetary Resilience DAO, ResearchHub and VitaDAO. In October 2021, the community-led Web3 conference LisCon featured DeSci speakers.

The movement is not dominated by any one field, but it will benefit greatly at this early stage from the participation of scientists from diverse disciplines. Those interested can join or initiate a DAO. A thorough review of the DeSci landscape and its implications would promote open discussion on the impact of these new technologies on scientific research.

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S.H. declares competing interests.  
See [go.nature.com/3rfzfsq](https://go.nature.com/3rfzfsq)



**Materials scientist Liliana Tomé, winner of a 2021 L'Oréal Portugal Medal of Honor for Women in Science.**

## Portugal: female science leaders could speed up change

Faculty members at Portuguese universities have not unanimously welcomed the government's programmes to attract young researchers and provide them with more stable employment opportunities. These funding schemes, including the Foundation for Science and Technology's investigator programme and its Individual Call to Scientific Employment Stimulus, are allowing early-career scientists to build strong research teams and to acquire international funding.

In my experience, opposition stems mainly from university professors who consider that the programmes give their junior colleagues an unfair advantage. The researchers who benefit from the schemes have no compulsory teaching duties. And the incomes of those who achieve senior research positions can rapidly equal or even surpass the earnings of

established professors.

Most university professors in Portugal are men, whereas the majority of the junior researchers hired under these schemes happen to be women. Such employment stimuli are important because they help to provide young women with the support they need to reach senior positions, encouraging more of them into scientific careers. This could enable Portuguese universities to achieve gender equality at last.

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## Are female science leaders judged more harshly than men? Study it.

The open letter from 145 leading female scientists calling on Germany's Max Planck Society to identify and address issues that might have contributed to the sanctioning or downgrading of highly successful female directors (see *Nature* **600**, 20; 2021) raises an important question. Are there systemic biases at play in many such institutions that affect even those women who make it to the end of the leaky pipeline?

We have a good understanding of the obstacles women face early in their scientific careers. Much less is known about what happens to the women who reach the highest ranks of research (see [go.nature.com/3i4hjn](https://go.nature.com/3i4hjn)). One of the few existing studies suggests that women foresee spending shorter periods in such roles than men (P. O'Connor *Gender Educ.* **27**, 3, 304–319; 2015). Another shows that female and male workers experience much larger negative effects from criticism delivered by a female manager than by a male one (see [go.nature.com/3e8ib9v](https://go.nature.com/3e8ib9v)).

Are senior female scientists judged more harshly than men? Do they fear allegations of leadership shortcomings and threats of sanctions more than men do? In our view, every institution (including *Nature*) should survey women and men in top science positions about such issues urgently.

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