

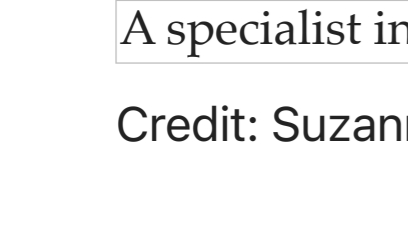
nature > career column > article

CAREER COLUMN | 17 November 2022

How to protect research ideas as a junior scientist

Ijeoma Opara learnt some hard lessons after getting scooped in a grant application.

Ijeoma Opara



A specialist in mechanical music at Christie's holds one of the light bulbs which was used as evidence during the 2001 trial of ...
Credit: Suzanne Plunkett/Bloomberg/Getty

I use community-based participatory research methods to work with youth Black children and their families on issues such as substance use and HIV prevention. When I was applying for my first grant in 2019, I spoke to many mentors, community members and non-academic friends — and basically anyone else who would listen to my ideas. I took two months to write the proposal, much improved by their advice and feedback, and received funding the following year.

In 2020, I planned to apply for another grant, in response to a request from a federal funding agency for proposals investigating protective factors against substance use in young people in minority ethnic groups. As in my previous grant-writing journey, I shared my idea with anyone who would listen, but after realizing that I didn't have the capacity to take on the project, I had decided to wait a couple of months before applying. I thought I had time because the closing date for grant applications was a few years later.

To my surprise, earlier this year, I saw a multimillion-dollar grant awarded to someone whom I didn't know professionally, for aims that looked almost identical to mine. I was shocked and upset — but felt it might have been partly my fault for sharing my ideas too early. I had sent my project to many people, including senior scholars whom I didn't really know, after colleagues had suggested that I contact them. Of course, it is possible that this person came up with the idea on their own — although, personally, I doubt it.

Why stealing ideas does not advance science

Scientists can and should be inspired by the work of others. Our overall goal should be to make an impact. But there is a big, definable difference between being inspired and treating someone's ideas as your own.

Your work and ideas should be informed by your experiences, expertise, intelligence and passion. Scientists receive promotions, grants and tenure on the basis of proof that their work is innovative and that their ideas have contributed to change in their field. So it is important that established scientists understand the concern that junior scientists have when sharing their ideas. We have a legitimate reason to fear that our ideas will be stolen.

Collection: [How to grow a healthy lab](#)

In my line of research, the ethical damage of running with others' ideas is even worse: there are possible risks to the target populations of the work. One example is cultural appropriation, which can lead to flawed research designs and contribute to further mistrust of researchers. I am not a specialist on Native Americans and disparities in substance use in Indigenous youth — so if I write a grant proposal using the framework and research aims of someone whose body of work is focused on substance-use disparities in this group, I might get the grant, but I'll start the work without the knowledge and cultural expertise needed to avoid harming this community. I might not be aware of cultural norms and areas of sensitivity. A scientist who is immersed in the culture would have a better understanding and should have been prioritized for such a project, or, at minimum, invited in as a subject expert.

The same holds true for my study area. I am a Black female scientist and do community-engaged work with youth of colour. It takes time to build meaningful relationships with these young people, and to collect meaningful community input — which is necessary to execute thoughtful research ideas that truly focus on community needs. I spend a lot of time in the communities I work with, meeting with the leaders and members, joining already-established coalitions and volunteering with organizations to truly immerse myself. Although these aren't requirements for every research project, I find that immersion humbles me, shows me gaps that I could have missed and provides me with context. It helps me to remember that my data actually represent real people. And I become attached to the community, and want to make sure that my work has clear, positive impacts.

One reason scientists get scooped is because we do not instantaneously get our ideas into the world and get credit for them. It takes time to write grant applications, get decisions on whether they have been approved, publish manuscripts and prepare talks, alongside other commitments. It's a perfect opportunity for someone with more time, power and bandwidth to take your idea and run with it.

Here's some advice to minimize the risk of being scooped.

Prioritize disseminating and publishing your research

Open-science frameworks, such as preprint servers, are a great way to not only share your work with the world, but also receive feedback before your work is formally published — and to ensure that you receive appropriate credit for any eventual publication. Although I have heard that this practice might lead to being scooped, in my opinion the benefits outweigh the risk. Preprints can quickly establish you as the initial person who presented the work.

Getting a citable publication out to the broader research community sooner rather than later gives you a 'parking space' for your ideas — a record of your expertise and a solid, unquestionable mark for others to give due credit. It's a way to stake a claim on research ideas that you can come back to and elaborate on later. It also gives others the opportunity to reach out to you for collaboration opportunities if they are inspired by you or share similar research interests.

Have verbal and written contracts in place

Consider developing a manual for your research group or laboratory that includes standard operating procedures around the sharing of ideas. This process is very common in industry, and it transfers well into academia.

I created a manual for my lab that provides clear instructions around limitations related to sharing information linked to articles and presentations, and what can and cannot be discussed or written. What is shared must have my approval as the principal investigator (PI). This is because the grants in my lab are awarded to me, and how our data are presented is therefore mostly my responsibility. I give my lab members a detailed explanation of what PIs do, what counts as co-authorship and what they can do to achieve co-authorship status.

I also provide a space for any lab members who would like to lead projects, using data gathered in the lab, to meet with me and further discuss the opportunity to lead. This is partly because I want to make sure that all work is properly credited to the members involved.

PIs should always explicitly explain to their lab members what contributions warrant authorship, what a PI's role is on a specific project and for the lab in general, what constitutes a PI's idea and what is considered a trainee's independent idea, and which research products belong to the lab as a whole. A PI's role is to conceptualize ideas, train and mentor lab members and help lab members to execute the science of the projects while fostering independence in their trainees.

I feel that PIs should give their lab members the freedom to pursue their own research ideas in and outside the lab, but should have firm expectations and explicit boundaries about what intellectual property belongs to the lab and ultimately to the PI. I've seen PIs 'steal' their trainee's ideas. I have seen trainees 'steal' their PI's ideas. Both parties are hurt by these actions. To avoid this, there should be contracts in place to protect everyone.

Create a trusted circle

I belong to several professional-development networks that support early-career scholars. In these groups, I can bounce ideas around without fear of theft — although, of course, there are never any guarantees. The programmes I belong to are designed to foster trust and support. We do not see each other as competitors, but as supporters of the bigger work: improving health outcomes for Black people.

Members of my trusted circles have pushed me to apply for grants and to publish articles that I was too scared to write because I assumed my projects weren't innovative enough. They have given me confidence to execute ideas. These groups also are safe places for me to receive critiques and feedback to ensure my work is ready to launch.

To create these circles of trust, consider joining a professional-development programme to connect with peers and others with the same interests. For example, I have founded such circles by becoming affiliates of centres that focus on my research areas, at my university and others as well. I am a faculty affiliate of the Center for Interdisciplinary Research on AIDS at Yale University in New Haven, Connecticut, funded by the US National Institutes of Health. This centre operates as a consortium of scholars, community leaders and specialists who conduct research on HIV/AIDS. Scientists at funded, university-affiliated centres seek to foster a sense of support for their affiliates, encouraging them to share ideas and to publish an article or apply for a grant as fast as possible.

I am also an affiliate of the Center for Drug Use and HIV Research at New York University in New York City, and have participated in grant-review sessions with senior scholars who carve out time to review and provide constructive feedback on grant proposals.

These scholars not only are dedicated to providing feedback on grant ideas, but also have proven themselves to be trustworthy people who do not steal ideas or ruin professional relationships.

Until launching a Twitter thread on the topic, I hadn't realized how common idea theft is. Scholars from all over the world shared examples of their ideas being taken without any credit — and more continue to chime in. For example, an assistant professor said he had shared his idea for a publication with colleagues in his department; later that year, he found out that what he had planned to write was published by someone else in his department whom he had spoken to. He says he was most hurt that the person didn't give him the opportunity to be a co-author — or any credit at all.

Other scientists have told me that their innovative ideas for grants have been presented by their mentors as their own, and the mentors have subsequently received funding without telling the trainees or inviting them to be co-investigators.

I have even had PhD students tell me of advisers who used their ideas as a basis for grant applications, without giving them credit. My heart goes out to wronged scientists, including those in training — but I would remind them to not lose faith in the work that they want to do. Their ideas and their execution are needed to advance science.

Until processes are put in place to protect people's ideas, theft will continue to happen. Do not let anyone tell you that you do not deserve to get credit for your ideas and contributions. Your expertise, creativity and innovative ideas are what will make a true impact on the world.

doi: <https://doi.org/10.1038/d41586-022-03750-0>

This is an article from the Nature Careers Community, a place for *Nature* readers to share their professional experiences and advice. [Guest posts are encouraged.](#)

Latest on:

Careers
Lab life
Intellectual-property rights

[Jobs >](#)

- [Research Associate/ Postdoc \(m/f/s\)](#)
Technische Universität Dresden (TU Dresden)
01069 Dresden, Germany
- [Post-Doctoral Fellowship Position in Biomolecular Spectroscopy.](#)
The University of British Columbia (UBC)
Vancouver, Canada
- [PhD Position - Potential of a green hydrogen market in Europe](#)
Jülich Research Centre (FZJ)
Jülich, Germany
- [Teamassistenz \(d/m/w\), HIM](#)
Helmholtz Centre for Heavy Ion Research GmbH (GSI)
Darmstadt, Germany

Explore content

Research articles News Opinion Research Analysis Careers Books & Culture Podcasts Videos Current issue Browse issues Collections Subjects

Follow us on Facebook Follow us on Twitter

About the journal

Journal Staff About the Editors Journal Information Our publishing models Editorial Values Statement Journal Metrics Awards Contact Editorial policies

History of Nature Send a news tip

Publish with us

For Authors For Referees Language editing services Submit manuscript

Search articles by subject, keyword or author

All journals

Advanced search

Quick links

Explore articles by subject Find a job Guide to authors Editorial policies

Nature (*Nature*) | ISSN 1476-4687 (online) | ISSN 0028-0836 (print)

About Nature Portfolio

- [About us](#)
- [Press releases](#)
- [Press office](#)
- [Contact us](#)

Discover content

- [Journals A-Z](#)
- [Articles by subject](#)
- [Nano](#)
- [Protocol Exchange](#)
- [Nature Index](#)

Publishing policies

- [Nature portfolio policies](#)
- [Open access](#)

Author & Researcher services

- [Reprints & permissions](#)
- [Research data](#)
- [Language editing](#)
- [Scientific editing](#)
- [Nature Masterclasses](#)
- [Nature Research Academies](#)
- [Research Solutions](#)

Libraries & institutions

- [Librarian service & tools](#)
- [Librarian portal](#)
- [Open research](#)
- [Recommend to library](#)

Advertising & partnerships

- [Advertising](#)
- [Partnerships & Services](#)
- [Media kits](#)
- [Branded content](#)

Career development

- [Nature Careers](#)
- [Nature Conferences](#)
- [Nature events](#)

Regional websites

- [Nature Africa](#)
- [Nature China](#)
- [Nature India](#)
- [Nature Italy](#)
- [Nature Japan](#)
- [Nature Korea](#)
- [Nature Middle East](#)

- [Privacy Policy](#)
- [Use of cookies](#)
- [Manage cookies](#)Do not sell my data
- [Legal notice](#)
- [Accessibility statement](#)
- [Terms & Conditions](#)
- [California Privacy Statement](#)

© 2023 Springer Nature Limited