

Members of the virtual Ronin Institute also meet in person as part of its network of support.

the only members, at present, and Sandells plans to expand the group further. Ideally, she would like not only to manage grants and legal matters for members, but also to provide regular, stable salaries for independent researchers who may have fluctuations or gaps in their funding. Sandells is also reaching out to UK research councils in the hope that the rules can be relaxed to enable independent scientists to apply for grants.

TRIAL AND ERROR

Scientists do need not pursue science fulltime to be part of virtual institutes. Many independent researchers prefer to divide their time between science and other interests.

Gene Bunin, a Ronin Institute member who investigates decision-making in mathematics and engineering, left the Swiss Federal Institute of Technology in Lausanne (EPFL) in Switzerland in 2013, just a few months before he was due to complete his PhD studies. Now living in Kashgar, China, he is pursuing research on the Uyghur language as well as his science. Since leaving academia, he has published several papers. "The reviews were quite merit-based," Bunin says. "I had no real problem getting my work through to the journal and getting published." Of course, those who do science as a hobby usually require a day job to pay the bills. Bunin makes ends meet with translation work. He lives in a hostel and works in the lobby or in cafés, and can get by on US\$300 a month.

For some, the decision to do science on the side is less about personal preference and more about the reality of the job market. Ronin Institute member Vicenta Salvador Recatala from Valencia, Spain, trained in animal electrophysiology, then moved to studying plants. The switch made it hard to find a full-time position, she says. For now, she is working as a tutor and plans to

continue her science as a hobby.

The freelance-science gig does not always work out, cautions Pawel Szczesny, a biologist at the University of Warsaw and the Institute of Biochemistry and Biophysics of the Polish Academy of Sciences. With his PhD research completed and only the dissertation left to write, in 2008, he moved to the town of Pajęczno for a change of pace and to pursue life as an independent researcher. Although busy with bioinformatics analysis for clients, Szczesny was frustrated by a lack of involvement in the design of experiments and found it hard to grow as a scientist without regular interactions with colleagues. In 2009, he decided to return to academic life, finishing his PhD and applying for the university job that he now holds. His current work includes a collaborative project on sudden infant death syndrome. "I have never been as happy with my research as I am now," says Szczesny.

Nonetheless, his solo experiment taught him a lot and he notes that his scientific confidence grew more quickly while he was working on his own.

STEPPING STONE

A brief stint as an independent researcher can be a valuable way station, says Ethan Perlstein, chief executive officer of Perlara, a biotechnology company that hopes to develop personalized therapeutics in South San Francisco, California. He used the time between the end of his postdoc and founding Perlara to manage a crowdfunding campaign and perform initial experiments in rented space. Scientists who want to transition to a new career might find a short period of working independently to be a useful midway position, he suggests.

To get started as a freelancer, networking is crucial. "I just told everybody I got self-employed," says Floor Basten, a sociologist in Nijmegen, the Netherlands, who began to offer her academic services for a fee after 200 failed job applications. "They started looking at me like, 'Hmm, maybe we can hire you'."

And freelancers who are starting out should have some savings to fall back on or another source of income, because even successful solo scientists will find that their earnings come in waves. "It's great when there's work," says Rose, who is also a member of the Ronin Institute. "But when there's not, you sit around and worry." Wilkins makes sure to keep funds to cover gaps so that he can live comfortably, if not extravagantly.

Although some may scoff at the idea of an independent scientist, there is no shame in leaving the ivory tower or working as a free-lancer, says Basten. "The world is very big and there's lots of things to do," she says. "I'm enjoying this a lot."

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RRFXIT

Oxford researchers

The University of Oxford's research output will suffer "enormous damage" if faculty and staff members from European Union member states are forced to leave the United Kingdom after it withdraws from the EU, warns the university's vice-chancellor, Louise Richardson. In a joint letter published in *The Times* newspaper, she and the heads of 35 Oxford colleges and educational institutions call for guarantees that EU citizens living in Britain can stay. The letter says: "Our EU colleagues are not reassured by a government which tells them that deportation is not going to happen but declines to convert that assurance into law. Some are worried, some are already making plans to leave. Many of our staff do not know whether absences abroad on research contracts will count against them." Some Oxford researchers are already planning to leave Britain, the letter adds. It was published on 13 March, the day that the UK House of Lords backed the EU withdrawal bill, which enables UK Prime Minister Theresa May to trigger formal negotiations for the United Kingdom to quit the EU.

COMPETITION

Biomedical recruits

The Howard Hughes Medical Institute (HHMI) has launched a competition to recruit up to 20 new investigators as part of a US\$168-million investment over the next seven years. The competition is open to basic researchers and physicians at more than 200 eligible US institutions who bring innovative approaches to biomedical disciplines, plant biology, evolutionary biology, biophysics, chemical biology, biomedical engineering and computational biology. The philanthropic institute, based in Chevy Chase, Maryland, recently increased the standard term for its investigators from five to seven years. "Giving a scientist seven years of stable support allows them to take more risk and achieve more transformative advances," said HHMI president Erin O'Shea. The deadline for applications is 27 June 2017. Successful candidates will have their full salary and benefits paid by the HHMI, and will be given a research budget to cover their initial seven-year appointment. The institute will also cover other expenses, including the purchase of essential equipment. Finalists will be announced in spring 2018. More details are available at go.nature.com/2nagzff.