

# NEWS IN FOCUS

**AI ETHICS** Survey reveals global differences in moral principles **p.469**

**PUBLISHING** Chinese government proposes journal 'blacklist' **p.471**

**VIROLOGY** Scientists race to discover HIV's final hideouts **p.472**



**EXPLORATION** Researchers prepare to build a Moon base **p.474**

SIMON DAWSON/REUTERS



Could British universities maintain access to EU research funds even with a 'no-deal' Brexit?

RESEARCH COLLABORATION

## UK universities go for Brexit gambit to safeguard funds

*British institutions set up EU outposts with continental counterparts.*

BY QUIRIN SCHIERMEIER

Some of Britain's leading research institutions are establishing alliances with counterparts in other European countries — a move that might allow them to keep drawing on the European Union's science funds even in the case of a 'no-deal' divorce from the bloc, the most

extreme form that Brexit could take.

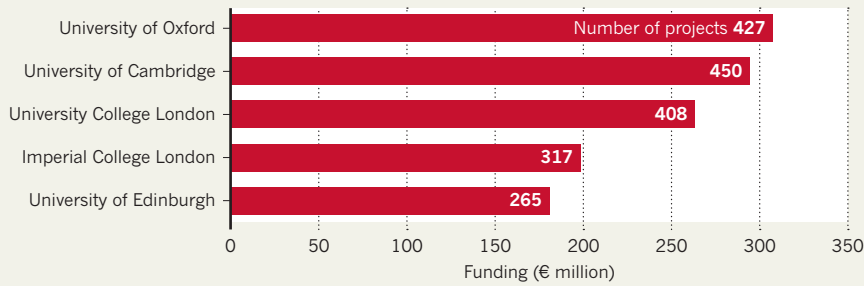
To access the €100 billion (US\$115 billion) in research funding that the EU proposes to make available for 2021–27, scientists must be based at host institutions that are legal entities in the EU or associated countries. That might soon cease to be the case for UK universities, many of which stand to lose tens of millions of euros that they get from EU funds at present

(see 'Brexit's high stakes'). The outcome depends on the terms of Brexit, which are the focus of intense negotiations.

"In principle, UK entities might remain eligible for funding under EU criteria if they have a legal presence in an EU member country," says Jan Palmowski, director of the Brussels-based Guild of European Research-Intensive Universities. For example, ▶

## BREXIT'S HIGH STAKES

Many UK universities stand to lose tens of millions of euros in research funding from EU framework programmes. These are the top five UK universities in terms of income from the Horizon 2020 programme.



► recipients of grants from the European Research Council must spend at least 50% of their time at a host institute in the EU or associated country. So, continental outposts could help UK researchers to continue to access those grants, even if their country ceases to officially receive them.

Palmowski says that stable alliances with continental partners might also help UK universities to safeguard EU-funded research collaborations and student exchanges. The idea that fruitful research relations built over decades might go to pieces is “dismaying and heartbreaking”, says James Conroy, vice-principal for internationalization at the University of Glasgow, which hopes to establish such partnerships.

## OXFORD AND BERLIN

Of several alliances launched in recent months, a partnership between the University of Oxford and four institutions in Berlin is so far the most comprehensive. Established at the end of 2017, the Oxford–Berlin Research Partnership is mainly financed by the Berlin state government and private sponsors. This year, the alliance launched a pilot call for

proposals and made €10,000–30,000 available in seed grants, with the intention of raising additional third-party funding. Any faculty members of the five institutes can apply. A second call is to be announced next month. Crucially, the partnership will serve as Oxford’s legal entity in Germany, and will provide an administrative office at the university clinic Charité in Berlin for visiting researchers. That means, at least in theory, that some Oxford-based researchers might be able to access EU funding. Berlin has also promised to provide space for visiting Oxford scholars in its Natural History Museum.

The likely cost of running the partnership will be around €800,000 a year, says Alastair Buchan, a pro-vice-chancellor and head of Brexit strategy at Oxford and director of the university’s Berlin office. And he estimates that this will further enable many millions of euros of research projects and activity. “We’re finally doing what we should have done since the day the UK joined the EU in 1973,” says Buchan. “We took the freedom to collaborate without restrictions for granted. It was only when the Brexit referendum came along that we began to realize

that we must insure against the future.”

Oxford and Berlin will both benefit from the partnership, says Steffen Krach, state secretary for higher education and research in the Berlin state government. “Obviously, future access to EU funding for joint research is part of the motivation for Oxford to set up shop here, and quite legitimately so,” he says. “But we can also learn a lot from Oxford and their success in scouting international talent. Science in Berlin will doubtless benefit in terms of research output and reputation from lively exchange with one of the best universities in the world.”

## ACADEMIC ALLIANCES

A host of other similar partnerships are at various stages of development. Institutions involved include the University of Warwick and Northumbria University in Newcastle, as well as the University of Glasgow. Last month, Imperial College London announced an expansion of its long-standing research-and-education partnership with the Technical University of Munich in Germany. “We’re naturally interested in any mechanism that allows us to continue fruitful collaborations we have established with European partners over the decades,” says Maggie Dallman, vice-president of Imperial College.

EU funding is one way of easing collaboration, but any mechanism to keep doors open in science must be transparent, says Dallman. “We are not seeking to find opaque backdoor routes to getting European funding,” she says. “It’s ultimately all about doing more research of a higher quality with an outstanding partner.”

Conroy says: “Brexit will not leave UK universities unaffected, but we managed to live through turmoil before.” He adds: “No matter how difficult the political crisis is, we will see to it that our faculty and students, and society at large, continue to get the best possible scholarship and science.” ■

## PLANETARY SCIENCE

# Mars scientists push for ‘mega-mission’

Experts want NASA’s next rover to harvest rock at two sites.

BY ALEXANDRA WITZE

NASA’s next Mars rover — the first to gather rock samples meant to come back to Earth — should dream big and visit as many places on the red planet as possible, scientists concluded on 18 October.

The rover’s stops would probably include some combination of Jezero crater, once home to river deltas and a lake; Northeast Syrtis,

which contains some of the most ancient rocks on Mars; and Midway, a compromise option located between the two (see ‘Road Trip’). Project scientists have proposed visiting both Jezero, for the river and lake sediments that might retain signs of past life, and Midway, for the ancient rocks. The two are about 28 kilometres apart — so visiting both would be ambitious but achievable.

“The community prefers a mega-mission,”

says Bethany Ehlmann, a planetary scientist at the California Institute of Technology in Pasadena. “If we’re going to do sample return, it has to be a sample cache for the ages.”

The Columbia Hills region, which NASA’s Spirit rover explored between 2004 and 2011, ranked much lower in the scientists’ poll despite having silica deposits similar to those formed by hot springs. “Everybody sort of thought we should go to a new place,” says Matthew Golombek, a Mars scientist at NASA’s Jet Propulsion Laboratory (JPL) in Pasadena.

The decision about where to send the 2020 rover ultimately rests with NASA’s science chief, Thomas Zurbuchen, who will choose in the coming months. “I would be excited about any sample back,” says Meenakshi Wadhwa, a planetary scientist at Arizona State University in Tempe. “But we have the luxury of being able to choose between good sites.”