the landing team at the DLR. "It's more than enough to communicate and to do science activities." And the lander's reported operating temperature of –35 °C should be warm enough for the team to attempt turning on the battery. "Then we are not relying on the short window when the lander is illuminated," he adds. "We can do more things."

HOMING IN

Assuming that the instruments have survived the cold, the first experiments will measure the comet's magnetic and electric fields and temperature, says Ulamec. Next, Philae will start up its cameras, which were last deployed when Philae landed. "The surface might have changed, and we might see different features due to changing illumination," says Ulamec.

The CONSERT radar instrument, which is designed to probe the comet's interior, will be used to pinpoint Philae's exact location: although scientists knew that Philae had landed in November, they do not know exactly where it ended up, because it bounced twice.

Eventually, Philae should deploy its drill to get samples from the comet's crust, says Meierhenrich, who is a co-investigator on Philae's chemical analyser, COSAC.

With enough sunlight to recharge its battery, Philae has potentially more power and more operating time than before hibernation, meaning that it should now be able to do more-complex experiments. For example, it could use an infrared microscope to examine samples before they are chemically analysed, to verify that its drill did scoop something up. "We couldn't do this in the first science phase; we had to run the most simple system we could," says Meierhenrich.

The comet is now a very different environment from when Philae landed, with a much stronger outpouring of gas and dust. For Philae, the change of seasons is double-edged: there will be more particles in the atmosphere for the lander to 'sniff', says Ulamec, but the particles pose a danger to Rosetta's navigation systems, and will continue to intensify until August, when the comet will be closest to the Sun. To avoid damage, Rosetta might need to retreat to such a distance that it would no longer be able to communicate with Philae on the surface. But once the comet rounds the Sun in September, Rosetta could come back in closer and let Philae phone home again. ■

Recep Tayyip Erdoğan meets students days after the party he co-founded lost its parliamentary majority.

UMIT BEKTAS/REUTERS/CORBIS

TURKEY

Election results delight scientists

Turkish researchers hope that a more pluralistic parliament will put an end to interference and slipping standards.

BY ALISON ABBOTT

Scientists in Turkey are euphoric after a 7 June election that stripped the mildly Islamic and increasingly repressive Justice and Development Party (AKP) of its absolute parliamentary majority.

They hope that Turkey's next parliament will reverse the creeping restrictions on academic freedom and the seeping away of scientific standards that have been a feature of the AKP's 12 years of political domination. These include stripping public science organizations of their autonomy; allowing the teaching of creationism and astrology; and, most recently, a ban on social scientists interviewing political refugees.

Many of the policies that scientists object to were pushed by Recep Tayyip Erdoğan, who was prime minister between 2003 and 2014 and is now president. Although the AKP remains the largest party in parliament, it now needs a coalition partner to form a government.

"With more pluralism in the parliament there are more prospects that some of the new rules imposed during the last years could be unpicked," says Ali Alpar, an astrophysicist from Sabancı University in Istanbul.

Turkish academics have never been entirely free, but the AKP has escalated government interference. For example, as in many European countries, university faculty members in Turkey vote for their rectors. However, the centralized higher-education council YÖK then compiles a final shortlist, from which Turkey's president selects the winner. The AKP had promised to abolish the unpopular council but ended up using YÖK to promote its own ideology: most Turkish rectors are now AKP sympathizers.

In the latest round of appointments in April, Erdoğan caused consternation at Istanbul University by selecting historian Mahmut Ak as rector, instead of the left-leaning psychiatrist Raşit Tükel, who won most of the faculty's votes and the favour of almost 14,500 people who petitioned Erdoğan to pick Tükel.

The People's Democratic Party (HDP), a coalition of anti-nationalist, environmentalist and other leftist movements, won 13% of the vote in the election. It will use its influence in parliament to prioritize the freeing of academia from state control and to push for the abolition of YÖK, says Gençay Gürsoy, a neurologist who is a member of the HDP assembly.

"I can't tell you how we will celebrate if YÖK is finally abolished," says Esra Mungan, a psychologist at Boğaziçi University in Istanbul and a member of the HDP advisory council.

"We are going to dance in the streets."

The AKP's grip on science extends beyond YÖK. In 2005, Erdoğan began to place political loyalists in top posts at Turkey's research-funding agency TÜBİTAK, which had previously enjoyed a degree of autonomy. Many of them were from the Gülen movement — a transnational religious and social organization. Scientists say that research funds were no longer distributed according to merit and that the agency has seemed to be anti-evolution. In 2009, TÜBİTAK removed a portrait of Charles Darwin from a cover of a government-backed science magazine and sacked the editor (see *Nature* **458,** 259; 2009). Under the AKP, which turned Turkey from a constitutionally secular nation to one where religion is state-sponsored, creationism is often taught in schools and debated in universities. (The AKP fell out with the Gülenists in 2013 and purged them from TÜBİTAK, leaving it in chaos.)

In 2011, the science ministry assumed control of the Turkish Academy of Sciences, TÜBA. It decreed that TÜBİTAK and YÖK would appoint two-thirds of TÜBA's members, who would then elect the remaining one-third. Most of TÜBA's original members resigned in protest and launched another national academy, Bilim Akademisi, which has regularly challenged science standards.

Earlier this month, the academy, of which Alpar is president, identified two universities that had approved theses and certificates in astrology, and called on YÖK not to allow such unscientific practices. It also contested a government order forbidding university researchers from interviewing refugees without government supervision. The academy argued that the government's claim that the interviews would infringe data-protection laws was invalid.

Until a new government forms, the AKP remains in charge. It irked scientists further on 11 June by appointing Ahmet Arif Ergin as head of TÜBİTAK. "It is extremely undemocratic and inappropriate for a caretaker government to make such an important political appointment," says Mungan.

But the election results have brought hope. "You can't imagine what a relief it has been in scientific circles — the one-man rule had looked unstoppable, but now it is over," says Şevket Ruacan, a pathologist at Koç University in Istanbul and a former TÜBİTAK board member. Change will take time, he says, "but conservative religious influences may now be reduced in education and it may become possible to reduce the political influences in scientific matters".

At least Turkish scientists have not wanted for funding. Research spending has more than trebled since Erdoğan came to power — a result of his now-stalled endeavour for Turkey to be admitted to the European Union. Some major infrastructures have been developed, including the ambitious €60-million (US$68-million) Izmir Biomedicine & Genome Center, due to open in September. ■

IRA T. NICOLAI/GETTY

Researchers hope to find drugs that extend a person's healthy years.

CLINICAL RESEARCH

Ageing pushed as treatable condition

Regulators asked to consider innovative trial design.

BY ERIKA CHECK HAYDEN

Doctors and scientists want drug regulators and research funding agencies to consider medicines that delay ageing-related disease as legitimate drugs. Such treatments have a physiological basis, researchers say, and could extend a person's healthy years by slowing down the processes that underlie common diseases of ageing — making them worthy of government approval. On 24 June, researchers will meet with regulators from the US Food and Drug Administration (FDA) to make the case for a clinical trial designed to show the validity of the approach.

Current treatments for diseases related to ageing "just exchange one disease for another", says physician Nir Barzilai of the Albert Einstein College of Medicine in New York. That is because people treated for one age-related disease often go on to die from another relatively soon thereafter. "What we want to show is that if we delay ageing, that's the best way to delay disease."

Barzilai and other researchers plan to test that notion in a clinical trial called Targeting Aging with Metformin, or TAME. They will give the drug metformin to thousands of people who already have one or two of three conditions — cancer, heart disease or cognitive impairment — or are at risk of them. People with type 2 diabetes cannot be enrolled because metformin is already used to treat that disease. The participants will then be monitored to see whether the medication forestalls the illnesses they do not already have, as well as diabetes and death.

On 24 June, researchers will try to convince FDA officials that if the trial succeeds, they will have proved that a drug can delay ageing. That would set a precedent that ageing is a disorder that can be treated with medicines, and perhaps spur progress and funding for ageing research.

"What we're trying to do is increase health span, not look for eternal life."

During a meeting on 27 May at the US National Institute on Aging (NIA) in Bethesda, Maryland, Robert Temple, deputy director for clinical science at the FDA's Center for Drug Evaluation and Research, indicated that the agency is open to the idea.

Barzilai and his colleagues eschew claims of a quest for immortality, because they think that such assertions have led to a perception that the field is frivolous and irresponsible. "The perception is that we are all looking for a fountain of youth," says Stephanie Lederman, executive director of the American Federation for Aging Research in New York. "We want to avoid that; what we're trying to do is increase health span, not look for eternal life." ▶