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A volatile political situation is intensifying the challenge of building a world-class research centre in Turkey.

BASIC RESEARCH

Turkish biomed hub spurs hope amid political strife

Centre in Izmir swims against the tide to produce world-class fundamental science.

BY ALISON ABBOTT

Rife with political tensions and notoriously unfriendly to basic research, Turkey may seem an unusual location to forge a hub of world-class biomedicine. But the Izmir Biomedicine and Genome Center (iBG), inaugurated last month in the ancient coastal city, has ambitions to be just that.

Based at the Dokuz Eylül University, the

iBG aspires to bridge a wide geographic gap in high-impact basic research that stretches from Europe to beyond India. At the same time, the centre intends to appease the Turkish government, which is keen for a return on its investments in science: at the inauguration ceremony for the iBG on 10 September, science minister Fikri Işık stated that he expected the centre to “start making money”.

If the institute succeeds, it will be thanks

in part to the deftness of its director, Mehmet Öztürk, at balancing the two demands. In particular, he has found ways to exploit the government's interest in applied science and funnel some of it towards basic research.

“It is a huge experiment,” says Hermann Bujard, a member of the iBG's scientific advisory board and a molecular biologist at the University of Heidelberg in Germany. “If it takes off, it could be a crystallization point ▶

that helps change the situation for science in Turkey — and also serve as a bridge to Middle Eastern countries.”

The experiment is taking place in a politically volatile environment. An election on 1 November — the second this year — will decide whether the ruling Justice and Development Party (AKP) can secure the absolute majority it needs to change the constitution in a way that some fear would move the country close to dictatorship. And a ceasefire between Turkey and Kurdish separatists broke down a few months ago, leading to outbreaks of violence that have killed hundreds.

At the same time, the government is trying to do something about its low investment in research as part of a general strategy to align its policies to those of the European Union, which it is still negotiating to join. Its research spending is creeping up, but, in relation to gross domestic product, the nation still spends less than half of the EU average. And the vast majority of that is devoted to applied science.

NEGOTIATING TACTICS

In early 2013, Dokuz Eylül University offered Öztürk a job leading a new institute that would be devoted to translational research — such as turning biomedical discoveries made elsewhere into drugs or diagnostics. Öztürk hesitated. A molecular biologist who has spent much of his career abroad, he believed that the centre needed to do fundamental research, too. “Basic research is generally considered a waste of time and money in Turkey,” he says. “But translation can’t be maintained long-term in an intellectual vacuum.”

It took him six months to convince the university’s rector, but that September, Öztürk took up the post under the agreement that the institute would incorporate both types of research. Even so, he knew that he was taking a risk. “I understood that to keep basic research going, we’d also have to give those investing in our institute what they really want: applications and services.”

He has since filled around 20 of the planned 32 positions for principal investigators,



Mehmet Öztürk has devised ways to create funding for basic research.

drawing from both within and outside Turkey. All are in the early stages of their careers and bring national and international grant money with them — an estimated 88 million lira (US\$29 million) for 2016.

Still, to ensure the centre’s long-term sustainability, Öztürk needs a more reliable source of support than competitive grants.

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low salaries.

Help with both problems may be close. Although not yet a member of the EU, Turkey would like to compete to host some parts of the international research infrastructures being coordinated by the European Commission. To increase the country’s chances of success, the government last year passed a law in which it agreed to pay for the construction, operation and staffing costs of research centres with the sophistication to host multimillion-euro collaborative projects.

The law also releases the centres from the

notorious bureaucracy that governs Turkish public institutions, giving them more freedom to manage themselves and set their own salaries.

In the next few months, the government will select 10–15 centres to fund; the iBG is considered a strong candidate.

Öztürk is also exploiting the government’s desire to develop an industry around production of the expensive biological medicines that it currently imports to treat cancer and other diseases. Since 2013, the national research agency TÜBİTAK has put out calls to fund research to develop such ‘biosimilars’. The iBG plans to offer a service to industries who want to try their hand at this, including facilities that can offer

manufacturing at international clinical-safety standards and access to university hospital beds for clinical trials. Eventually, this division would be spun off into a company owned by the iBG and the profits would subsidize basic research, says Öztürk.

Moreover, all iBG principal investigators will be asked to participate in translational projects in parallel with their own basic research, a policy that could bring in yet more funding. TÜBİTAK offers large innovation grants to support such translational work that include a generous 40% for overheads, which, Öztürk says, could be used to support basic research at the iBG.

Tim Hunt, a molecular biologist at the Crick Institute in London and a guest speaker at the inauguration of the iBG, says that the creation of the institute is “an astonishing thing in a country not known for its science”. He adds that it is a “fantastic opportunity” for talented Turkish scientists to return to their country — and to a well-equipped and well-funded lab.

But the precarious politics of Turkey are never completely absent. At the iBG inauguration, Dokuz Eylül University president Mehmet Füzün paid respect to tens of Turkish soldiers who had died in the previous days in roadside bombings related to the separatist struggles. Acute fears of civil war have faded since then, but scientists are always aware that politics could jeopardize the iBG dream. ■ **SEE EDITORIAL P.164**

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