

and the state and clerics have sought to keep the university and its scientists at a distance from domestic political or social issues. “It is always under a microscope from conservative elements,” says the researcher.

Scientists can do more for Saudi Arabia by working at KAUST than by criticizing it from outside, says Tester. “We are making a real contribution to the country through education, and through research advances.”

KAUST has attracted leading scientists from around the world to join its faculty of around 130, and has set up science centres to study regionally important issues such as desert agriculture, Red Sea research, desalination and solar energy. The campus now hosts 840 students from 69 countries, including 246 from Saudi Arabia and 302 women.

“My philosophy is that I don’t think I’m compromising, but modestly contributing to opening up things,” says another foreign researcher who requested anonymity.

Indeed, much of the international support that was crucial for KAUST’s development came with the understanding that Saudi Arabia would improve freedoms beyond the campus site. Yet, as the case of Badawi highlights, if anything, the kingdom seems to have stepped up its repression of freedoms since KAUST was founded.

There was a “spirit of hope” when KAUST

opened, says letter co-signatory John Polanyi, who won the 1986 Nobel Prize in Chemistry. But patience with the Saudi Arabian regime is now “wearing thin”. “I think the scholarly community has been slow to become aware that KAUST cannot be an island of freedom,” he says.

Tester argues that KAUST is educating a new generation of Saudi students, who will eventually help to transform

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the kingdom more generally. “KAUST’s existence is evidence of the kingdom’s desire to develop,” he says. “It will take time, and I ask that people give us time.” KAUST is not the only academic force for change in Saudi Arabia. A multibillion-dollar scholarship programme launched by King Abdullah in 2005, and set to continue until 2020, funds hundreds of thousands of Saudi undergraduates and postgraduates to study abroad. Scientists familiar with Saudi Arabia say that they suspect Abdullah’s plan was to produce a delayed benefit: after being exposed to alternative ideas and cultures, returning students would moderate Saudi society and ease the grip of conservative clerics. Education in the

kingdom is heavy on religion. “It’s more Koran than periodic table,” says one researcher.

Although large numbers of Saudi men have long had Western educations, one big difference that the programme provides is that it is open to women. “That is what will be transformative,” says another foreign scientist who has worked closely with KAUST. “But it’s not going to happen overnight.”

Still, scientists inside and outside KAUST agree that the establishment of a knowledge-based culture and economy will require reforms by the Saudi leadership too. “The whole idea behind KAUST was that King Abdullah wanted Saudi Arabia brought back into the mainstream of science,” says one anonymous scientist. But modern science requires free thinking and creativity, and cannot flourish in a repressive culture, adds the researcher. “If Saudi Arabia is to take its place on the modern science and technology scene it really has to pay attention to its human rights.” ■

#### CORRECTION

The News story ‘Rave drug tested against depression’ (*Nature* **517**, 130–131; 2015) stated that ketamine acts by blocking the signalling molecule NMDA. The drug actually acts on the NMDA receptor.