

# News in focus



SAUL LOEB/AFP/GETTY

Israeli Prime Minister Benjamin Netanyahu, UAE foreign minister Abdullah bin Zayed Al Nahyan and his Bahraini counterpart Abdullatif Al Zayani.

## ISRAEL–ARAB PEACE ACCORD FUELS HOPE FOR SURGE IN SCIENTIFIC COLLABORATION

Space, water, food security and archaeology present opportunities for joint research as the United Arab Emirates and Bahrain end boycott of Israel.

By Elizabeth Gibney

**A** peace accord between Israel and the United Arab Emirates (UAE) is expected to lead to a surge in scientific collaboration between the countries – with the promise of joint research in space exploration, water and food security, along with exploration of the region's shared archaeological heritage.

For the first time since the UAE's founding in 1971, Emiratis will be able to work and travel in Israel, and Israelis the same in the UAE. Previously, this was possible only in exceptional circumstances. Researchers, moreover, will be free to exchange materials, including biological samples and scientific equipment. The agreement to normalize diplomatic relations, called

the Abraham Accords – which also includes the Gulf state of Bahrain – was signed at the White House in Washington DC on 15 September.

Experts told *Nature* that Emirati scientists could benefit from Israel's well-established research base and collaborations with its technology firms, and Israeli scientists could gain from tapping into the UAE's growing investment in research, diverse population and technological infrastructure.

"What excites me, personally, is the UAE beginning to look at Israel as a potential friend, rather than a risk," says Mohammed Baharoon, director-general of b'huth, a public-policy research centre in Dubai, UAE. But change will not happen overnight, he cautions.

Shai-Lee Spigelman, director-general of the Israeli Ministry of Science and Technology, was

part of a US–Israeli delegation to the UAE on 31 August, which included a working group on space and science. "The meetings were really impressive and interesting and open. It really felt like both sides want to cooperate, want to find mutual ways to work together," she says.

Two universities have already signed an agreement to work together, the first of its kind between the countries. The Mohamed bin Zayed University of Artificial Intelligence in Abu Dhabi and the Weizmann Institute of Science in Rehovot, Israel, plan to create a joint virtual institute for artificial intelligence.

Since Israel was founded in 1948, nations in the Arab League have been opposed to the Jewish state over the issue of Palestinian independence. Most have refused to deal with the country ever since: Bahrain and the UAE

are only the third and fourth Arab countries to establish formal diplomatic relations with Israel, following Egypt in 1979 and Jordan in 1994. Until now, Israeli citizens had generally been barred from entering the UAE, and although Israel had no law banning UAE citizens, entry required explicit permission from the Ministry of Foreign Affairs.

But a new generation of Gulf leaders, backed by the administration of US President Donald Trump, is challenging that narrative. Between the UAE and Israel, scientific cooperation is a high priority, says Spigelman.

The 31 August meeting included early discussions about potential cooperation on satellites and experiments in low Earth orbit, as well as coordinating astronaut visits to the International Space Station, she says. “They didn’t sound like they were new in this neighbourhood, even though they are. So it was very impressive,” she adds. Israeli firm SpaceIL in Tel Aviv launched a government-backed mission to the Moon in 2019, although the lander crashed. The UAE has a human space-flight programme and was one of three nations to launch a Mars mission in July.

Future collaborations are also likely to focus on artificial intelligence and quantum science, as well as agriculture, desert studies and water security, says Spigelman. Both countries are also carrying out extensive research in cybersecurity, energy and desalination technology.

A UAE-based researcher who studies ancient civilization in the Middle East, and who asked not to be named because of the sensitivities surrounding the accords, says archaeology should also benefit. The UAE’s boycott of Israel meant that exchanging artefacts and samples had until now been a problem, she says. “There were some civilizations that lived in the Gulf region and also moved into the territories of Israel today, so I don’t really know how those civilizations are currently studied.”

### Running start

Collaboration will not start from scratch. Researchers from the UAE and Israel co-authored 248 papers between 2017 and 2019, according to the Scopus database (including co-authorship as part of mega collaborations, such as experiments at Europe’s particle-physics laboratory, CERN). This compares with 183 papers co-authored by scientists in Israel and Egypt during the same period, and 98 between Israel and Jordan. UAE universities awarded their first PhDs only in 2010, and many senior academics there come from other countries, which do have diplomatic ties to Israel.

Moreover, technology businesses in the UAE – as well as Qatar and Saudi Arabia – already have informal relationships with counterparts in Israel to procure what are viewed as crucial technologies, such as those used in protecting oil and gas infrastructure, says Robert Mogielnicki, a researcher in political

economy at the Arab Gulf States Institute in Washington DC. Both countries already have extensive links with China, he adds.

But now, researchers are looking forward to forming more and deeper connections. Not only can Israeli collaborators now visit, but UAE institutions can begin student exchanges, says Andrea Macciò, an Italian astrophysicist at New York University Abu Dhabi, who frequently collaborates with Israeli colleagues. Israel is “one of the closest countries in the area with a substantial research programme”, says Macciò, who hopes the accord will lead to institutional-level collaborations, as well as research calls for joint programmes and regional scientific summits.

Spigelman says that the countries could indeed sign a bilateral scientific agreement under which they release joint funding calls.

### Criticisms and concerns

But sensitivities remain. *Nature* had difficulty finding Emirati scientists willing to speak about collaboration with Israel (people in the UAE can be jailed for speaking against government policy). And Palestinian academics are angry about the accords, says philosopher Sari Nusseibeh, former president of Al-Quds University in East Jerusalem. But Nusseibeh is confident that the agreement will boost Palestinian involvement in research collaboration. “Can the UAE use its new partner to help Palestinians? I am sure it can,” says Nusseibeh. “Given the Palestinian suffering under occupation, the sky is the limit as to what it can do. Let us hope it does.”

At present, Palestinian scientists have restrictions on where they can travel, and on the materials they can import, says Mario

Martone, a particle physicist at the University of Texas at Austin and co-founder of the advocacy group Scientists for Palestine.

Baharoon says that Emirati researchers are unlikely to let politics influence their business or life decisions, and that that attitude bodes well for future research collaborations. “From a number of people I spoke to, I think there is an admiration of Israel as the start-up nation, and one that has done a lot when it comes to science and technology,” he says.

But Mogielnicki cautions that although governments are excited about the prospects for research and development, relationships between individual Israeli and Emirati academics will be key to success. “How will researchers in both countries navigate potentially awkward relations with colleagues, that are a bit more conservative and do not feel as optimistic about this normalization? That’s a big question that remains to be seen,” he says.

Nonetheless, Baharoon hopes the accord will prove to be a ‘proof of concept’ for other Gulf countries. Bahrain publicized its intention to normalize relations with Israel just weeks after the UAE’s own announcement, and there is speculation that others will follow.

Spigelman also hopes that the accord will inspire similar deals between Israel and other nations. “There are other very advanced countries in the Gulf with strong universities and resources in science and technology, and we would love to cooperate with them,” she says.

*Nature* asked a representative of the UAE Ministry of Foreign Affairs and International Cooperation for comment, but the ministry did not respond by the time this article went to press.

## STILLBIRTH RATE RISES DURING CORONAVIRUS PANDEMIC

Emerging data link disrupted antenatal services to a rise in pregnancy complications in several countries.

By Clare Watson

**D**isruptions brought about by the COVID-19 pandemic have had a profound effect on health care worldwide, contributing to an increase in deaths from chronic conditions such as heart disease. Now, a slew of studies has reported a significant rise in the proportion of pregnancies ending in stillbirth, in which babies die in the womb. Researchers say that, in some countries, pregnant women have received less care

than they need because of lockdown restrictions and disruptions to health care. As a result, complications that can lead to stillbirths were probably missed, they say.

“What we’ve done is cause an unintended spike in stillbirth while trying to protect [pregnant women] from COVID-19,” says Jane Warland, a specialist in midwifery at the University of South Australia in Adelaide.

The largest study to report a rise in the stillbirth rate, based on data from more than 20,000 women who gave birth in 9 hospitals