NEWSINFOCUS

Q&A Trump's science adviser on research ethics, immigration and tweets **p.169**

MEDICINE China's plan to sell experimental therapies prompts concern p.170

GENETICS How US research weed differs from the varieties people smoke **p.172**





The body farm in San Marcos, Texas, is one of a handful in the United States.

DECOMPOSITION

UK to open its first 'body farm' for forensic research

Sites that allow study of human remains have been established worldwide in recent years.

BY DAVID ADAM

Porensic scientists are working with the British military to open the United Kingdom's first body farm — a site where researchers will be able to study the decomposition of human remains. Details are not yet finalized, but project leaders hope to open the farm this year.

Such sites — also known as forensic

cemeteries or taphonomy facilities, after the discipline devoted to the study of decay and fossilization — have existed for decades in the United States, and more recently in other nations. They generate data on tissue and bone degradation under controlled conditions, along with chemical changes in the soil, air and water around a corpse, to help forensic investigators. Researchers argue that they provide information crucial to criminal investigations that can't

be obtained from equivalent animal studies, but critics say that they are gruesome and that their value to research is unproven.

In the United Kingdom, a site has been selected and work has started, according to documents obtained by *Nature* under the Freedom of Information Act. The documents don't reveal the exact location of the site, but suggest that the facility is being developed on land owned by the Ministry of Defence.

The farms take donated bodies and bury them or leave them on the surface to decompose. Researchers can also set up and study decomposition under specific circumstances, for example by placing bodies in water or in a vehicle on the farm. The world's first facility opened in 1981 in Knoxville, Tennessee; at least six more sites have since opened in the United States. In recent years, researchers have set up body farms in Australia and the Netherlands, and Canada will open one this year.

The UK project, which many forensic scientists say is overdue, is led by forensic anthropologist Anna Williams at the University of Huddersfield. She says that it is essential to stop British forensic and related research from being left behind. A report from a House of Lords science committee this week lamented the state of UK forensic science, and called for investment and a strategic approach to research.

Williams would not comment on the plans, which she says are at a sensitive stage. But forensic scientist Chris Rogers at the University of Wolverhampton, UK, says, "It's absolutely concrete that we do need a facility here in the UK. We are falling behind the rest of the world."

He says the lack of access to human remains hampers his research and affects how it can be used in court. "I am someone who will be interested in using" the facility, says Rogers, who noted that he does not know the specifics of the plans.

For years, experts in the United Kingdom have tried and failed to establish a taphonomy facility: a decade ago, a proposal from a funeral company was scrapped after it failed to win the support of academic researchers. Senior figures in medical research have also expressed concern that media attention on such a site could dissuade people from donating their bodies for uses such as teaching anatomy.

But Amy Rattenbury, a forensic scientist at Wrexham Glyndŵr University, UK, who

"I get calls and e-mails nearly every week from people asking if they can donate their bodies." studies ways of finding concealed human remains, says, "I get calls and e-mails nearly every week from people asking if they can donate their bodies"

Although the documents don't reveal where the UK facility will be, the defence ministry's most well-known scientific site is at Porton Down in southern England. The laboratory analyses chemical weapons, but also hosts research into training 'cadaver dogs' to find human corpses — work that would be another focus of the new body farm. The Ministry of Defence declined to comment on whether the facility was being built at Porton Down.

Documents released under the Freedom of Information Act show that officials are

wrestling with how the site should be licensed, ahead of its intended opening this year. British law allows people to donate their bodies for research. But the UK Human Tissue Authority (HTA) issues licences and monitors the use of remains for only specific functions, known as scheduled purposes. Human taphonomy is not currently listed as a scheduled purpose—although Williams is trying to convince the HTA to change that. An HTA spokesperson said: "We are aware and have been in discussion with other parties who are themselves interested in setting up such a facility in the UK, to provide advice and guidance where helpful."

'GRIM PURPOSE'

One prominent critic of body farms is Sue Black, a forensic anthropologist at Lancaster University, UK. Black did not respond to requests for comment for this story, but in her 2018 book *All that Remains*, she wrote: "I find the concept both gruesome and grim." She questions the value of research at body farms, which she says is undermined by small sample sizes and highly variable results.

But in the absence of human remains, Rogers says that he must use animals such as pigs to study decomposition, and that these findings would struggle to stand up in court. "I would have to say that I think [the processes] happen in humans but I don't actually know."

MISCONDUCT

Academy endorses plan to boot sexual harassers

US science group's members will soon vote on proposal.

BY SARA REARDON

he US National Academy of Sciences (NAS) is moving ahead with a policy that would allow it to expel members found guilty of sexual harassment.

The academy's governing council voted to proceed with the plan on 30 April at the NAS annual meeting in Washington DC. That clears the way for a final vote by the academy's 2,380 members. The NAS says that the vote will be completed by mid-June, and that a simple majority is needed to finalize the policy.

The proposal would amend the academy by-laws to "permit the NAS Council to rescind membership for the most egregious violations to a new Code of Conduct, including for proven cases of sexual harassment", the academy said. The amendment would allow the NAS to oust a member if two-thirds of its governing council approved the action.

But the NAS has not yet finalized the process by which it will evaluate allegations that a member has violated its code of conduct, said president Marcia McNutt. The amendment would give the academy's governing council the power to develop that process and to approve any changes to it over time.

Several academy members have told *Nature* that they support the amendment. "I think it sends a positive signal for accountability, and says to the community that even this very prestigious coveted membership is not for everybody," says Akiko Iwasaki, an immunobiologist at Yale University in New Haven, Connecticut. "It's only reserved for people who respect others."

The NAS has come under pressure in recent years to address sexual harassment by its members, following the revelations that several had been found guilty of such behaviour by their institutions. And last June, a report

released by the NAS, the National Academy of Engineering and the National Academy of Medicine found that sexual harassment is pervasive in US science.

An online petition launched last May by neuroscientist BethAnn McLaughlin at Vanderbilt University in Nashville, Tennessee, has garnered almost 6,000 signatures in favour of expelling NAS members who have been sanctioned for sexual harassment, retaliation or assault.

The academy elects its members for life. It does not currently have a procedure for removing members, although it approved a code of conduct last December that allows any NAS member to report allegations of misconduct — including discrimination, harassment and bullying — by other members. The results of the amendment vote, which will be conducted electronically, are expected by mid-June, says NAS spokesperson Molly Galvin.

NAS members present at the academy's business meeting on 30 April strongly supported the amendment in a preliminary procedural vote.

"I didn't write down the tally, but it was overwhelmingly passed," McNutt said. "The vote for the amendment was in the high 90's, against in single digits."

She noted, however, that many of the 600 or so NAS members who had attended the group's annual meeting left before the business meeting at which the amendment vote took place.