of her recent research refutes claims that glyphosate, a herbicide often used on GM crops, accumulates in breast milk; the work relied on an assay developed with assistance from Monsanto. Still, says McGuire, "I'm a milk-lactation researcher."

But Folta's e-mails show him to be a frequent contributor to GMO Answers. Ketchum employees repeatedly asked him to respond to common questions posed by biotechnology critics. In some cases, they even drafted answers for him. "We want your responses to be authentically yours," one Ketchum representative wrote in a message on 5 July 2013. "Please feel free to edit or draft all-new responses."

"They thought they could save me time by providing canned answers," Folta says of his "extremely annoying" Ketchum contacts. "And I don't know if I used them, modified them or what, but they stopped doing it at some point." He adds that the correspondence obtained by US Right to Know reveals only a fraction of his work as a scientist, and taken alone does not paint an accurate picture of his work.

Bruce Chassy, a toxicologist at the University of Illinois at Urbana-Champaign who is the subject of two freedom-of-information requests by US Right to Know, says that his e-mails would reveal a similar portrait of "people trying to defend the science against malicious attacks".

But Chassy acknowledges the ethical questions raised by close relationships between the biotech industry and the public sector. "Are we working for them, or are they working for us?" he asks. "Probably a little bit of both" — in part because universities and companies often have overlapping research interests. US Right to Know aims to reveal this overlap in full.

Michael Halpern, an expert on scientific integrity at the Union of Concerned Scientists in Washington DC, says that Folta's case suggests that universities should do more to educate researchers on what constitutes a conflict of interest and what types of financial relationship should be disclosed.

"It behooves scientists to disclose their funding sources so there's no perception of inappropriate influence," says Halpern. "But that doesn't mean all private money is tainted or suspect." ■

Samples from the Ebola epidemic in West Africa are held by public-health agencies in the region and abroad.

DANIEL BEREHULAK/NYT/REDUX/EYEVINE

INFECTIOUS DISEASE

Biobank planned for Ebola samples

International public-health officials discuss how to maximize research benefits of a widely dispersed collection.

BY ERIKA CHECK HAYDEN

As West Africa's Ebola outbreak winds down, an effort is under way to make the best use of the tens of thousands of patient samples collected by public-health agencies fighting the epidemic. On 6–7 August, the World Health Organization (WHO) convened a meeting in Freetown, Sierra Leone, to discuss how to establish a biobank for up to 100,000 samples of blood, semen, urine and breast milk from confirmed and suspected Ebola patients, as well as swabs taken from the bodies of people who died from the virus. Held by health agencies in both West Africa and the West, the samples could be valuable in understanding how the current Ebola crisis evolved, preparing for future outbreaks and developing public-health research capacity in a region that depends on outside experts.

"There are many, many ways that this resource could be precious," says Cathy Roth, an adviser to the WHO directorate in Geneva, Switzerland, which arranged the meeting as part of a series of international discussions about the creation of an Ebola biobank. One of the difficulties is that there is no blueprint for how such a biobank would work, so countries have not yet committed to joining it.

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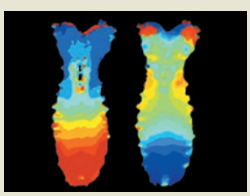

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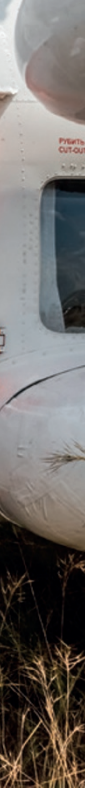

One proposal has been to link existing collections in an online biobank with a reference laboratory in Africa that would hold certain samples — for instance, collections taken from notable groups of patients, or from people who were followed especially closely throughout the course of their disease. Such a facility would be a first for the region; there is currently no high-containment lab in the Ebola zone that is suitable for studies of live, highly dangerous viruses.

Although the samples vastly outnumber those collected in previous outbreaks, they are still a finite resource. Ongoing discussions will need to grapple with who decides what the samples can be used for and what kinds of research should be emphasized.

"We want to have defined research priorities, because these samples do represent an exhaustible resource," says Ethan Guillen, project manager of the Ebola initiative at Médecins Sans Frontières (MSF) in Geneva, which is advocating for the biobanking project.

Assigning control over these decisions to the three countries where the majority of Ebola cases occurred — Guinea, Liberia and Sierra Leone — is a major priority for MSF. Historically, much research on viral haemorrhagic fevers such as Ebola has been done by scientists in developed countries using samples taken from developing countries. Guillen sees that as part of the reason why, 40 years after Ebola was first documented in Africa, there is not enough public-health capacity in some countries to contain the disease or effective tools to treat or prevent it.

Guillen says that affected countries need a system in which "their scientists have a say in what happens and can learn from the experiences, so there doesn't have to be such a reliance on outside actors".

Already, thousands of samples have been shipped out of Africa by foreign government agencies that stepped in to test patients for Ebola during the outbreak. Several, including the US Centers for Disease Control and Prevention (CDC) in Atlanta, Georgia, the European Mobile Laboratory Project and the Pasteur Institute in Paris have expressed cautious support for the biobanking idea.

"We want to have defined research priorities, because these samples do represent an exhaustible resource."

"CDC is supportive of the concept of Ebola biobanks for samples, particularly in the affected countries, which would offer organizations around the world access to samples from the largest Ebola outbreak in history," the agency told *Nature*.

Only the European mobile lab provided detailed information on how many samples it has — about 3,000 in a high-containment lab in Hamburg, Germany, says virologist Stephan Günther of the Bernhard Nocht Institute for Tropical Medicine in Hamburg, which implements the lab project. Günther says that the European mobile lab is acting as custodian of the samples, which are still owned by the countries in which they were collected. The project has signed agreements with Sierra Leone and Guinea that guarantee access for researchers from those countries, he adds.

Public Health Canada says that it has not yet shipped samples out of West Africa but would not reveal where it is holding them, citing "biosafety and biosecurity concerns".

The CDC says that it is keeping samples both in West Africa and the United States but would not state how many it holds. In December, it shipped 7,000 from Sierra Leone to the United States (see *Nature* http://doi.org/6jm; 2014). However, the agency has come under fire recently for major lapses in biosecurity (see *Nature* http://doi.org/6jn; 2015), and raised this among a number of potential hurdles to creating a biobank.

Guillen says that he is hopeful that these issues can be worked through. "We need better research tools," he says. "Hopefully we can move quickly to get these tools in place." ■