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Mr. Moore, Ms. Hurley, and Mr. Gold:

I have received Texas Open Records Letter Ruling OR2018-05574, which affirms your collective efforts to make secrecy claims over more than 2,000 pages of gene drive related e-mails held by Elizabeth Heitman, a UT Southwestern bioethicist who chairs the ethics committee of the Genetic Biocontrol of Invasive Rodents (GBIRd) project and who serves on the National Academies Board on Life Sciences.¹

The ruling impacts 85-90% of the e-mails that Heitman has recently exchanged with approximately 66 persons recruited by and/or affiliated with a pro-gene drive lobbying effort² aimed at the United Nations, and orchestrated by the for-profit public relations company Emerging Ag.³

By placing this correspondence behind a wall of secrecy, I believe that you have brought about an important moment for the future of proposals to develop and release gene drives, particularly for biological control purposes, and more specifically, for GBIRd's especially concerning US Department of Defense-funded efforts to develop and use population-targeted (private allele) gene drives to eradicate rodents and other mammals.

¹ "...only 307 pages are available for inspection at this time, many of the responsive records are presently under review by the Texas Attorney General's Office (2,000+ pages)." E-mail to the author from Christina Alvarado, UT Southwestern Legal Counsel, 23 January 2018.

² See Neslen A 2017. *US military agency invests \$100m in genetic extinction technologies*. The Guardian. 4 December, and Cohen J 2017. *Is there really a covert manipulation of U.N. discussions about regulating gene drives?* Science News. 11 December.

³ The request provided you with a spreadsheet, obtained under the North Carolina Open Records Law, compiling the names and e-mail addresses of participants and possible participants in Emerging Ag's gene drive lobbying effort. I requested that you provide all correspondence between Dr. Heitman and the individuals named on that spreadsheet.

Based on our correspondence, I have learned that it is Texas A&M University and the National Academies of Science (NAS) that have most widely argued for secrecy of the two thousand plus pages.

NAS claims⁴ that over 1000 pages of Heitman's gene drive / Emerging Ag related e-mails reflect Heitman acting in a personal capacity and therefore have nothing to do with UT Southwestern. Hence, NAS argues, even though Heitman is a public employee using a state computer, office, and server, the emails are not subject to release under Texas law because they are "personal." Notably, Heitman herself does not seem to make the same claim, nor does she appear to assert that her work with the Academies is unrelated to her job as a public servant in Texas.

Beggaring belief, NAS further argues that "The University was able to access electronic copies of the Academy committee and board records solely due to the incidental use of the University computer system by Dr. Heitman," as if the ethicist has never spent University time on her several NAS commitments. And as if her gene drive-related correspondence with the individuals identified by the Emerging Ag lobbying program, and with GBIRd, and on academic publications, is entirely distinct from NAS work on the same subject matter. NAS makes this dubious assertion even though NAS has convened a meeting with GBIRd leadership to discuss the possibility of forming a new NAS panel to more closely consider GBIRd, a panel that specifically follows on one co-chaired by Heitman.⁵

Stretching NAS credibility still further, Marc Gold claims "*The University has no interest in Academy records*", as if Heitman's name was randomly plucked from a lotto bin to serve on an NAS Board and committees, and despite the fact that Heitman's institutional affiliation is advertised on the Academies' website and in its publications.

NAS has shoved its considerable weight around here, but only a fool would believe that research universities do not seek to ensconce their employees on NAS Boards, that Heitman was not appointed specifically because of the overlap between her work and NAS interests, or that Universities seek to prevent their employees from using public time and resources furthering 'prestige' appointments at the Academies.

Texas A&M in turn argues that another one thousand or more pages of Heitman's gene drive related e-mails are Texas A&M intellectual property. According to Mr. Moore, these reams of records have "a potential for being sold, traded, or licensed for a fee," and "if released, would give advantage to a competitor or bidder."

Heitman, with degrees in Romance Languages and Religious Studies, is an ethicist, not a bench scientist, and is definitely not a genetics research collaborator with Texas A&M.

⁴ Gold M 2018. National Academies of Science brief to the Attorney General of Texas, on author's Texas Public Information Act Request, 19 January 2018.

⁵ Campbell K 2017 (Island Conservation). "Update - Engagements - and Other Important Items". E-mail to GBIRd Internal Listserver. Quoting: "there is a US National Academies scoping meeting in DC that Larry Clark, Owain Edwards, Dan Tompkins, and I will be attending on the 23 Feb. in DC titled "Scoping Meeting: Gene Editing and its Potential for Use in Vertebrate Management". This is being led by Larry and Jamie Reaser (National Invasive Species Council) in conjunction with NAS staff and is designed to be a complimentary effort to the "Gene Drives on the Horizon" report but specific to vertebrates. This is broader than GBIRd, but has high relevance. We'll update the list on how it goes after the meeting."

Heitman does not work for Texas A&M, nor do any relevant non-disclosure agreements appear to be in place. And Texas A&M does not offer any explanation for why huge amounts of its supposedly tightly-held biotechnology intellectual property were found in the inbox of a religion expert at different university.

The link between GBIRd, Heitman, and Texas A&M is David Threadgill, ⁶ an A&M geneticist who is using gene editing to make a GBIRd mouse meiotic drive. The mice express a male sex determination gene in offspring of both sexes ("T-Sry mice"), resulting in female mice (XX chromosome) that are infertile and physically develop more like males.

Both Threadgill and GBIRd very disingenuously describe this system, which would be catastrophic to mouse populations in the wild, as "naturally occurring." But even the most biologically uneducated of people know that 90+% of female mice are not "naturally" sterile owners of male gonads.

Despite Mr. Moore's determination to keep the alleged A&M secrets found in Heitman's inbox under wraps, Threadgill is adamant that he does not communicate with Heitman, and he is seemingly unaware that Heitman chairs the ethical committee ostensibly charged with reviewing his work.

It should be explicitly noted that Heitman's possession of 1000+ pages of so-called Texas A&M intellectual property that Threadgill denies having sent her suggests that uncontrolled dissemination of supposed A&M secrets long ago voided any viable proprietary claim. Like the dubious claims of Gold, this fact clearly raises questions about the veracity of Mr. Moore's brief.

The public image GBIRd cultivates is belied by returns from other open records requests, ¹⁰ but GBIRd purports to be a non-profit biodiversity conservation project focused on small island rodents, ¹¹ whose "values are central" statement claims that it will "Engage early and often with the research community, regulators, communities and other stakeholders", and

⁶ Though we note other relevant connections between A&M and other institutions developing gene drives, such as the communication between A&M's Zack Adelman and GBIRd affiliated persons at North Carolina State University.

⁷ DARPA 2017. Agreement HR00111720046, Exhibit B: Research Description Document.

^{8 &}quot;I'm not sure where you are getting your mis-information, but it is not only incorrect but reveals that you do not understand the science. 1) we are not developing genedrives. [sic] We are studying a naturally occurring segregation distortion system and how to adapt this natural phenomena for other uses. [meaning a meiotic drive linked to an allele causing population extinction by offspring sex manipulation] You might consider spending some time educating yourself on topics such as basic genetics that you appear to know very little. [sic] 2) as you will soon learn, I and Dr. Heitman [sic] have exchanged exactly zero (that is also 0 in case you would like the number) emails... Since I will not allow my students or staff to be put in danger, you have been reported to the [police] as someone that appears increasingly unstable and possibly dangerous... I would suggest using a more mature and collegial tone in your communications..." E-mail to the author from David Threadgill, 25 January 2018.

⁹ Pause to consider what this implies about GBIRd. Faced with a Texas Public Information Act request, a GBIRd Co-Principal Investigator, who is developing meiotic extinction drives, denies corresponding with his project's ethics chair, and further appears to even be unaware of her identity.

¹⁰ See the "FOIA Parking Lot" folder "gene drive files" at http://pricklyresearch.com and forthcoming releases, which will be noted via twitter (@pricklyresearch).

¹¹ GBIRd is almost entirely funded by DARPA, which also raises serious questions about the credibility of its values statement. Those issues, however, will not be discussed here.

that it will "be transparent with research, assessments, findings, and conclusions." GBIRd's "values" statement is, however, highly inconsistent with the aggressive IP and secrecy claims that Moore makes.

Clearly, only untrustworthy forms of "engagement" and heavily tinted "transparency" can emerge from a project that promises "values" but whose ethicist's pertinent records are 85-90% secret.

What shred of credibility can GBIRd's ethics and public outreach have under the circumstance? The subject is a matter of deep concern - development and release of gene drives that target mammals based on private alleles. Given the very serious dual-use and biosafety stakes, what fool would place confidence in the assertions of a GBIRd that claims transparency and engagement yet hides its primary documentation? Even of its ethicist.

Not to mention that Heitman's GBIRd ethics committee, while providing for good "optics" (which is why at least some GBIRd participants wanted it), 13 is officially impotent because the US Defense Advanced Research Projects Agency (DARPA), GBIRd's only major funder, declined pay for it because DARPA will use its own ethics committee to review GBIRd, or so it claims.

Amazingly, Heitman herself is unaware of even who is on the DOD ethics doppelganger, as opposed to her toothless committee, much less how it operates.¹⁴ If Heitman doesn't know who is on the DARPA ethics board, and the records of Heitman's "optics committee" are 85-90% secret, how could the public have any meaningful insight and participation?

You demonstrate GBIRd's public-facing activities to be contrived and parsimonious with the truth that is only found in primary documentation. You show that GBIRd and the affiliated Emerging Ag effort are accurately described as being engaged in greenwashing, a conscious manipulation of the public and through controlled provision of carefully shaped and censored information about the project's very dangerous technology. Of course it is easier to convince somebody to go along with a dangerous idea if you control the facts and deny unpleasant details to the curious and concerned.

In some respects, the situation is analogous to the bioprospector who promises that he won't seek enrichment from studying the traditional medicines that he wants indigenous people to share with him. He asks for plants and knowledge for "academic" purposes, all

¹³ Packard H 2017 (Island Conservation). Re: [gbird] March Update. E-mail on GBIRd internal listserver. 10 March 2017. Quote: "...it would be a mistake to move away from the Independent Ethics Advisory Committee. That is an important reflection of our values and a very important way for us to engender trust with our target audiences, stakeholders, and society. It's also important for optics". Packard is GBIRd's chief "messager", constantly focusing on shaping GBIRd's public image by manipulating the vocabulary and content of public statements by all GBIRd participants, even attacking a fellow GBIRd member who expressed less enthusiasm about DARPA funding than him. Any and all of Packard's statements must be viewed through the lens of his constant focus on manipulating and burnishing GBIRd's public image at the expense of candor, and often by insisting his colleague use language to obscure risks of the project when interacting with news media.

¹² GBIRd 2018. "Values are central". URL: http://www.geneticbiocontrol.org/

¹⁴ Heitman E 2017. E-mail to RS Saah, Island Conservation (GBIRd Coordinator). 22 May. "Do you know who DARPA's 'ethics lead' is? I went looking for names but could not find anything. There are not a lot of research ethics folks out there to start with, and the rarified work of DARPA narrows the pool even more."

the while not mentioning that he and his university are subject to Bayh-Dole Act-type requirements, bound by law and/or contract, to patent anything useful and "novel" that is found. The parallel here is that your GBIRd professors go out and shout transparency and engagement to the world, but behind the scenes, the institutional legal department (you) ensures that those pledges are meaningless.

Thus GBIRd is not to be believed because the institutions with which GBIRd's personnel are affiliated are ultimately controlling, and they certainly do not share GBIRd's purported transparency and accountability commitments (if those displays are earnest at all, something that is not the case with Threadgill, who admits he is party to the attempts at secrecy, or Packard, who is concerned with little more than obfuscatory "messaging").

You will reply, of course, that you are merely lawyers doing your job. Your jobs are one that your institutions, like many others, construct around reflexively opposing freedom of information requesters when they seek to "intrude" in the affairs of your *public* entities. Particularly when the subject matter is sensitive, and the (private allele) population-targeted gene drives that GBIRd is developing certainly fall into that category.

In fact, the subject is so sensitive that it is very likely to be discussed at the highest levels of government, and in intergovernmental security discussions, if GBIRd continues to exist.

But for the present, upon reading this letter, the leadership of GBIRd should understand the lack of credibility of their posturing about transparency and values that is epitomized by how UT Southwestern, Texas A&M, and the National Academies have reacted to freedom of information requests – declaring secret the vast majority of records of GBIRd's *ethicist*.

If the ethicist's papers are out of bounds, one can only imagine how you will react to requests that might reveal primary data on how GBIRd gene drives might run amuck and beyond their intended target, or testing accidents, or GBIRd failures to be forthcoming about its plans in places like Oahu and continental Australia, or perhaps most of concern, questions of dual-use, security, and potential weaponization of GBIRd technology.

Sincerely,

Edward Hammond

cc: Larry Clark, USDA APHIS

John Godwin, North Carolina State University

Fred Gould, North Carolina State University

Elizabeth Heitman, University of Texas Southwestern

Todd Kuiken, North Carolina State University

Toni J. Piaggio, USDA APHIS

Jamie Reaser, National Invasive Species Council

David Threadgill, Texas A&M University

Carrie D. Wolinetz, Associate Director for Science Policy, NIH (dual-use issues)