

Subject: RE: QUICK TURN DARPA REQUEST - Press Release

From: "Keirn, Gail M - APHIS" <Gail.M.Keirn@aphis.usda.gov>

Date: 7/13/2017 9:49 AM

To: "Piaggio, Antoinette J - APHIS" <Toni.J.Piaggio@aphis.usda.gov>, "John Godwin" <godwin@ncsu.edu>, Paul Thomas <paul.thomas@adelaide.edu.au>, "David Threadgill" <dwthreadgill@tamu.edu>, "<Keith.Hayes@data61.csiro.au>" <Keith.Hayes@data61.csiro.au>, Karl Campbell <karl.campbell@islandconservation.org>, Royden Saah <royden.saah@islandconservation.org>, Jason Delborne <jadelbor@ncsu.edu>, Alun Lloyd <alun_lloyd@ncsu.edu>, "Shiels, Aaron B - APHIS" <Aaron.B.Shiels@aphis.usda.gov>, "Eisemann, John D - APHIS" <John.D.Eisemann@aphis.usda.gov>, Heath Packard <heath.packard@islandconservation.org>

CC: "Clark, Larry - APHIS" <Larry.Clark@aphis.usda.gov>

Toni,

For your consideration...

"A **multi-institution and interdisciplinary team** led by Dr. John Godwin of **North Carolina State University** aims to develop and test mammalian gene drive systems in rodents. **The genetic technique targets population-specific alleles that work on "private alleles" in the target population-** that is, **the a unique forms of a gene that are specific to invasive populations.** If successful, the work will expand the tools available to manage invasive species that threaten biodiversity and serve as potential reservoirs of infectious diseases affecting native animal and human populations. The team plans to develop mathematical models of how drives would function in mice, and then perform live testing in **biosecure and contained** simulated natural environments that mimic real-world conditions to gauge the robustness, **spatial limitation, and reversibility** of the drives."

GAIL KEIRN

Legislative and Public Affairs

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From: Piaggio, Antoinette J - APHIS

Sent: Thursday, July 13, 2017 7:03 AM

To: 'John Godwin' <godwin@ncsu.edu>; Paul Thomas <paul.thomas@adelaide.edu.au>; David Threadgill <dwthreadgill@tamu.edu>; <Keith.Hayes@data61.csiro.au> <Keith.Hayes@data61.csiro.au>; Karl Campbell <karl.campbell@islandconservation.org>; Royden Saah <royden.saah@islandconservation.org>; Jason Delborne <jadelbor@ncsu.edu>; Alun Lloyd <alun_lloyd@ncsu.edu>; Shiels, Aaron B - APHIS <Aaron.B.Shiels@aphis.usda.gov>; Eisemann, John D - APHIS <John.D.Eisemann@aphis.usda.gov>; Heath Packard <heath.packard@islandconservation.org>

Cc: Keirn, Gail M - APHIS <Gail.M.Keirn@aphis.usda.gov>; Clark, Larry - APHIS <Larry.Clark@aphis.usda.gov>

Subject: RE: QUICK TURN DARPA REQUEST - Press Release

Hi John,

Your edits are much appreciated. I have three comments and have included our public affairs person, Gail Keirn for her expertise.

- 1) Should we change "private alleles" to "locally fixed alleles" or "local alleles" or "population specific alleles"
- 2) Yes to adding biosecure please
- 3) Do you want to be specific that the live testing is with target-island wild mice or no?

Thank you!

Toni Piaggio, Ph.D.
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From: John Godwin [<mailto:godwin@ncsu.edu>]

Sent: Thursday, July 13, 2017 5:22 AM

To: Paul Thomas <paul.thomas@adelaide.edu.au>; David Threadgill <dwthreadgill@tamu.edu>;
<Keith.Hayes@data61.csiro.au> <Keith.Hayes@data61.csiro.au>; Karl Campbell
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<John.D.Eisemann@aphis.usda.gov>; Heath Packard <heath.packard@islandconservation.org>

Subject: Fwd: QUICK TURN DARPA REQUEST - Press Release

Hi All,

Please see the message from the DARPA program officer Renee Wegrzyn I'm forwarding below here. This is a heads-up, but also wanted to hit on a couple of other important things here.

The first key point is her request to embargo any press releases until after the DARPA announcement (this point in all caps).

Second, I have had a first stab at edits from what Renee sent me and have included that below (my edits to this point in red) - will continue on that, but wanted to get it out to you folks. They would like this back to them by COB Thursday (EST), so please send me suggestions if you have them at your earliest convenience. It's a really short blurb and so difficult to pack too much into it, but will try to incorporate what I can.

One other note: As noted before, we have the signed, 'executed' agreement in hand and are working on the subcontracting now.

Thanks, John

"A **multi-institution and interdisciplinary team** led by Dr. John Godwin of **North Carolina State University** aims to develop and test mammalian gene drive systems in rodents that work on "private alleles" in the target **population** - that is, a unique forms of a gene specific to **invasive populations**. If successful, the work will expand the tools available to manage invasive species that threaten biodiversity and serve as potential

reservoirs of infectious diseases affecting native animal and human populations. The team plans to develop mathematical models of how drives would function in mice, and then perform live testing in (add 'biosecure' here?) simulated natural environments that mimic real-world conditions to gauge the robustness, spatial limitation, and reversibility of the drives."

On Wed, Jul 12, 2017 at 10:44 PM, Wegrzyn, Renee <renee.wegrzyn@darpa.mil> wrote:

Dear John,

We are getting close to public announcement of the teams that are funded under the Safe Genes program - hopefully within about a week. If you plan to send out a press release to coincide with that announcement, now is the time to start preparing. However, PLEASE EMBARGO ALL PRESS RELEASES UNTIL DARPA IS READY TO ANNOUNCE. We will send follow-on emails to coordinate shortly.

For now, it would be helpful if you would review the following blurb for accuracy and content. It is difficult to summarize a 4-year effort in a few sentences so we appreciate any feedback that you have (preferably by COB Thursday).

* A North Carolina State University (NCSU) team led by Dr. John Godwin aims to develop and test a mammalian gene drive system in rodents that works on "private alleles" in the target species-that is, a unique form of a gene specific to a species. If successful, the work will expand the tools available to manage invasive species that threaten biodiversity and serve as potential reservoirs of infectious diseases affecting native animal and human populations. The team plans to develop mathematical models of how drives would function in mice, and then perform live testing in simulated natural environments that mimic real-world conditions to gauge the robustness of the drives.

We are excited to announce the efforts more broadly and are glad to have you as a part of it. Please let me know if you have any questions or concerns.

Best regards,

Renee

Renee D Wegrzyn, PhD
Program Manager
DARPA Biological Technologies Office
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