**Subject:** Re: JASON Gene Drive study **From:** Gerald Joyce <gjoyce@salk.edu>

Date: 6/14/2017 11:41 AM

**To:** Kevin Esvelt <esvelt@mit.edu>, James Collins <jcollins@asu.edu>, "Joseph Ecker" <ecker@salk.edu>, Greg Gocal <ggocal@cibus.com>, Tom H Adams <tom.h.adams@monsanto.com>, Dan Voytas <voytas@umn.edu>, Ethan Bier <ebier@ucsd.edu>, Fred Gould <fgould@ncsu.edu>, "Bruce A. Hay" <haybruce@caltech.edu>, Anthony James <aajames@uci.edu>, "Dr. James J. Bull" <bull@mail.utexas.edu>, Philipp Messer <messer@cornell.edu>

CC: "Dr. David R. Liu" <drliu@fas.harvard.edu>

Dear Colleagues,

On behalf of David and myself, many thanks for your participation in the JASON study on "Gene Drive". The presentations were uniformly excellent and I thought we had insightful discussions throughout the two days. I know that the sponsor was very pleased with what transpired. A couple of you remarked to me that you'd never participated in such a roll-up-your sleeves discussion with most of the thought leaders in the field, so I trust you got something out of it too.

The JASONs will now do their thing over the next several weeks, culminating in a white-paper style report. Distribution of that report is under control of the sponsor and I think it is unlikely that it will be publicly disclosed. However, as was the case with last year's report, I expect that it will be widely circulated within the U.S. intelligence and broader national security community.

Best wishes,

Jerry

On May 30, 2017, at 7:46 AM, Gerald Joyce <gioyce@salk.edu> wrote:

Dear Gene Drivers,

Thank you for agreeing to participate in the 2017 JASON study on "CRISPR Gene Drive". The schedule of briefings is attached, all of which will take place on Monday, June 12 and Tuesday, June 13. Due to scheduling conflicts, some of you requested to participate on a particular day and others can only participate by videoconference, but all are welcome to attend any of the briefings for which you are available.

You should have received logistical information from the JASON Program Office, with directions to the MITRE facility on the General Atomics campus in La Jolla and information about

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reimbursement of travel expenses. If you have not received this information, please contact Neil Commerce (<a href="mailto:ncommerce@mitre.org">ncommerce@mitre.org</a>) in the JASON Program Office.

This study is a follow-up to a study that JASON conducted last summer on "Genome Editing". The 2016 study report received considerable attention among various agencies of the U.S. government and prompted a call for a study focusing exclusively on gene drive. Of particular concern are potential threats this technology might pose in the hands of an adversary, technical obstacles that must be overcome to develop gene drive technology and employ it "in the wild", and understanding of the expertise and resources that would be required to advance the technology. The study will focus on what might be realizable in the next 3-10 years, especially with regard to agricultural applications. It also will touch on methods for detecting covert activities involving gene drive and for mitigating the potential deleterious effects of an intentional or accidental release.

You are being asked to provide a "briefing", not a lecture. This means that we want to hear your views regarding where gene drive technology stands now and where it is headed in the near future, with reference to your particular area of expertise. Each briefing is allocated one hour, with roughly half the time for your presentation and half for discussion. Everything you say will be "off the record" to encourage a frank discussion and to help JASON formulate its findings and recommendations. The briefings all will be unclassified, although there will be a classified discussion at the end of each day involving only the JASONs and the study sponsors.

As you can see from the agenda, this will be an interesting and lively two days. Please feel free to contact me or my study co-lead David Liu (<a href="mailto:drliu@fas.harvard.edu">drliu@fas.harvard.edu</a>) if you have any questions regarding your presentation.

We look forward to seeing you in La Jolla in two weeks.

Best regards,

Jerry

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