

## Scientific Consensus

National Academies of Sciences, Engineering and Medicine concludes that:

- it's far too soon to release any organisms altered... into the environment.
- Even so, scientists should continue conducting experiments... inside laboratories.
- And the panel endorsed the possibility of conducting very controlled studies... outside laboratories.

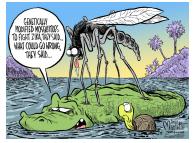
[Gene Drives on the Horizon: Advancing Science, Navigating Uncertainty, and Aligning Research with Public Values (2016)].



Sarah J. Greenwald - Appalachian State University Genetically Engineered Mosquitoes

## Scientific Consensus Continued

- Mosquitoes need to be controlled in some way
- Scientists are concerned about off-target mutations



- Anthony Fauci, Director of NIAID (part of NIH)
  - Everyone with whom I have spoken who knows a lot about mosquito biology says it would be technically impossible to eradicate mosquitoes... The focus is on methods to control them. Existing stringent efforts have worked (Brazil and Zanzibar), but the disease rebounded.
  - His opinion: Give birds bird feed and get rid of mosquitoes.

## Regulatory and Release Updates

- Food and Drug Administration (FDA) approved of release in Key West (2016) to flight Zika, but oversight will switch to the Environmental Protection Agency (EPA) (10/4/17)
- FDA Animals with Intentionally Altered Genomic DNA
- EPA's Regulation of Biotechnology for Use in Pest Management
- MosquitoMate CA, NY, KY releases of Wolbachia bacterium infected mosquitoes (not GM modified) to target Aedes aegypti and Aedes albopictus. "are an invasive species in the area, and thus, reducing their numbers is not expected to cause any problems for local bats, bees, or birds" (Debug Fresno, 2017)
- PEI approved salmon, but Canadian government says they need scientific assessment before commercial production at Rollo Bay, PEI (Jun 19, 2017)