

Developing a Consensus Pathway for Field Testing of Modified Mosquitoes with Driving Transgenes

July 11-13, 2017

Co-hosted in Geneva, Switzerland by the World Health Organization

Objective of Gene Drive Workshop III: The working group will consider the implications of low threshold gene drive, such as that mediated by CRISPR/Cas, on the phased testing pathway described in the WHO Guidance Framework for Testing of Genetically Modified Mosquitoes. The third workshop will address the final phase of the testing pathway encompassing surveillance and monitoring of field release of genetically modified *Anopheles gambiae* with driving transgenes (Phase 4 post implementation). The work will culminate in recommendations that extend and augment those published in the WHO Guidance Framework.

Workshop Co-Chairs: Charles Godfray and Yeya Toure

Meeting room: World Health Organization

UNAIDs building, 4th Floor, No. D – 46025

DRAFT Agenda

Day 1: Tuesday, July 11, 2017		
<i>Registration</i>		
9:00 – 9:30	Welcome and remarks	WHO
9:30 – 10:00	Welcome, overall project goals and introductions	Stephanie James
10:00 – 10:30	Review of the WHO Guidance Framework: Phases 1-4	Yeya Toure
10:30 – 11:00	<i>Coffee/tea break</i>	
11:00 – 11:45	Gene drive for malaria control: thoughts on moving from lab to field	Austin Burt
11:45 – 12:30	Mosquito population alteration, gene drive and the malaria eradication agenda	Anthony James (via teleconference)
12:30 – 13:30	<i>Lunch</i>	
13:30 – 14:30	Recommendations from Workshops I and II: Phase 1 (laboratory studies), Phase 2 (physically confined studies), Phase 2 (ecologically confined studies) and Phase 3 (staged open releases)	Brian Greenwood Charles Mbogo Fredros Okumu Hector Quemada
14:00 – 14:30	Recommendations from Workshop II:	
14:30 – 17:30	General discussion of Workshops I and II topics <i>Moderators: Fredros Okumu and Hector Quemada (Workshop I co-chairs) and Brian Greenwood and Charles Mbogo (Workshop II co-chairs)</i> (16:00 – 16:30 Coffee/tea break)	
18:30	<i>Group Dinner location TBD</i>	

Day 2: Wednesday, July 12, 2017		
9:00 – 9:45	The role of gene drive mosquitoes in malaria elimination	Philip Eckhoff
9:45 – 10:30	M&E for current vector control	Charles Mbogo
10:30 – 11:00	<i>Break</i>	
11:00 – 11:30	Surveillance considerations for GM crops	Hector Quemada and Moussa Savadogo
11:30 – 12:00	Potential efficacy scenarios	Charles Godfray
12:00 – 13:00	<i>Lunch</i>	
	Considerations for Phase 4 – Post implementation	
	<i>Moderator: Steve Lindsay</i>	
	1. What factors influence a decision to implement gene drive mosquitoes as a public health tool?	
	2. What level of ongoing monitoring and surveillance is required in Phase 4?	
	<i>Moderator: Fred Gould</i>	
	3. What level of monitoring for ecosystem changes is required in Phase 4?	
	4. How long is monitoring required and over what area?	
13:00 – 18:30	<i>Moderator: TBD</i>	
	5. What are the ongoing management requirements in Phase 4?	
	6. How can necessary monitoring be managed cost-effectively at a regional/multinational scale?	
	7. Who is responsible for the conduct and cost of ongoing monitoring and surveillance activities in Phase 4?	
	8. What management steps are feasible if issues arise?	
	9. What engagement activities are relevant in Phase 4?	
	<i>(15:00 – 15:30 Coffee/tea break)</i>	
	<i>Dinner on your own</i>	
Day 3: Thursday, July 13, 2017		
	Review outcomes of Phase 4 discussion	
9:00 – 10:00	Points of agreement, differences, and unresolved issues	
	<i>Moderators: Charles Godfray and Yeya Toure</i>	
10:00 – 10:30	FNHI Next steps – Report	Stephanie James
	Writing, reviews, submission	
10:30 – 11:00	<i>Break</i>	
11:00 – 12:00	WHO Next steps	WHO
	Adjourn	