



African Genetic  
Biocontrol  
Consortium

# GenBioNews

African Genetic Biocontrol News

A newsletter published by the African Genetic Biocontrol Consortium

B U I L D | I N F O R M | E X P A N D

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+ Plus ▶

## AFRICAN GENETIC BIOCONTROL CONSORTIUM LAUNCHED

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### Welcome to our inaugural newsletter

Welcome to the inaugural issue of the African Genetic Biocontrol Newsletter.

The main purpose of this newsletter is to provide our Consortium member organizations and sub-scribers with insights on our latest initiatives and information on opportunities to engage in Genetic Biocontrol efforts in Africa.

Our plan is that this new newsletter will highlight topics that interest the membership and also provide a look ahead to the coming events and activities hosted by the Consortium.

We hope you will enjoy reading our newsletter .

# African Genetic Biocontrol Consortium Launched

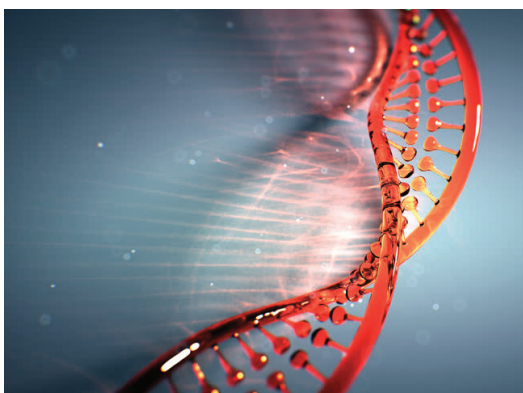
**W**e wish to announce the existence of African Genetic Biocontrol Consortium (The Consortium) which was officially launched on 30th November 2020 by six inaugural not-for-profit member organizations based in Africa.

The member organizations include the Africa One Health Network (AfOHNet), Africa Biological Safety Association (AfBSA), The Multilateral Initiative on Malaria (MIM), Network of African Science Academies (NASAC), Pan-African Mosquito Control

Association (PAMCA) and the Gene Convene Global Collaborative (Gene Convene).

The African Genetic Biocontrol Consortium is established as an agreement among member organizations committed to the mission and goals to contribute to expanding African self-determination of the course of research, development and use of genetic biocontrol approaches for controlling and eliminating malaria and other vector-borne diseases in Africa.

The main objective for establishment of the Consortium is to provide a platform for interaction among African experts and institutions to enhance opportunities for technical capacity strengthening, knowledge exchange and deliberation about the challenges and opportunities of genetic biocontrol technologies for the public good, which will strengthen African influence on their development and provide critical input for decision making by product developers, policy makers, and other stakeholders.



**The main objective for establishment of the Consortium is to provide a platform for interaction among African experts and institutions**

# What is Genetic Biocontrol?



## Public Health

By suppressing or eliminating insects responsible for causing vector-borne diseases such as malaria.



## Conservation

By removing non-native invasive species to prevent extinction.



## Agriculture

By reducing or eliminating invasive plant or insect species affecting agricultural productivity.

**G**enetic biocontrol approaches use genetic engineering to implement or supplement biocontrol. There are many possible applications of genetic biocontrol across public health, agriculture, and conservation. For example, genetic biocontrol can be used to reduce the reproductive capacity of undesirable insects in the wild. Genetic biocontrol also could potentially be used to prevent insects from acquiring or transmitting a disease, which could help to

protect human, livestock and wildlife health.

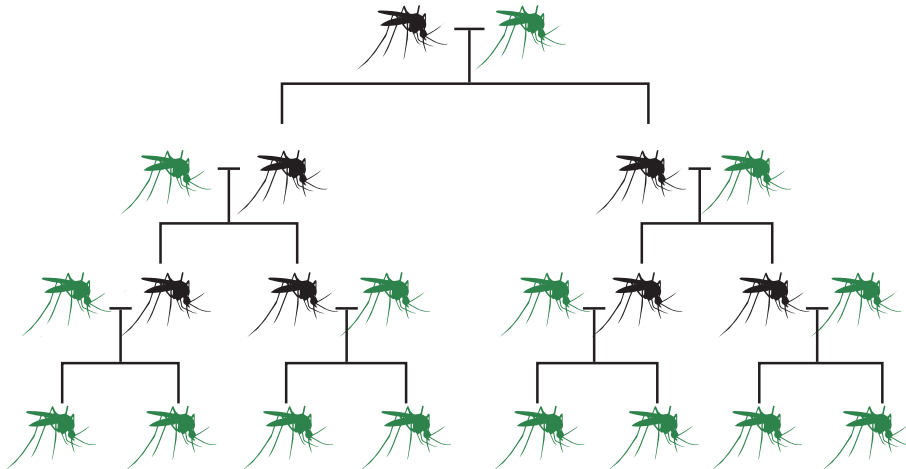
In the area of public health, there is evidence from laboratory experiments that genetic biocontrol approaches can reduce populations of disease carrying mosquitoes. Genetic biocontrol strategy is also applicable in removal of invasive species such as rodents on islands, which are responsible for extinctions, biodiversity loss, or transmission of dangerous diseases to humans such as plagues.

“

**Genetic Biocontrol can be used to reduce the reproductive capacity of undesirable insects in the wild.**

”

## What is Gene Drive?



Gene Drive is a natural phenomenon that promotes or favors the inheritance of certain genes from generation to generation. Synthetic, or engineered, forms of gene drive that mimic naturally occurring forms can be developed using techniques of molecular biology. For example, if there is a set of genes that prevents an insect from acquiring or spreading a disease, a gene drive approach may be able to spread those genes into

a wild population of that insect.

Gene drive approaches may also be able to spread genes that decrease the size of a wild population of an insect that spreads diseases. Gene drive could help to make genetic biocontrol more widely accessible and cost-effective.

Gene drive is being evaluated as a tool to modify disease carrying mosquitoes to reduce the transmission of malaria and other pathogens.

Given the current state of research, it is likely that the first potential use of gene drive approaches could be to support control and elimination of malaria in Africa.

The New South Wales government has recently announced a \$1.8 million package to deliver a gene drive technology for humane mice control. The funding will be used in research to produce more male offspring as well as making female mice infertile.

**“Gene Drive is a natural phenomenon that promotes or favors the inheritance of certain genes from generation to generation.”**

## Why a Consortium Matters

The main objective for establishment of the African Genetic Biocontrol Consortium is to provide a platform for interaction among African experts and institutions to enhance opportunities for technical capacity strengthening, knowledge exchange and deliberation

about the challenges and opportunities of genetic biocontrol technologies for the public good, which will strengthen African influence on their development and provide critical input for decision-making by product developers, policy makers, and other stakeholders

To provide a regular venue for informational opportunities and in depth discussion and debate of the needs and requirements for testing of genetic biocontrol technologies by experts from countries most likely to experience both the risks and the benefits.

### Objectives of the Consortium

- 01** To help its member organizations build and maintain acceptance for the importance, value and need to carry out research, development, and decision making processes on genetic biocontrol in order to enable a fair and well informed consideration of future genetic biocontrol based technologies by stakeholders, policy makers and regulators
- 02** To provide a regular venue for informational opportunities and in depth discussion and debate of the needs and requirements for testing of genetic biocontrol technologies by experts from countries most likely to experience both the risks and the benefits.
- 03** To provide a forum for sharing of planned activities by Member Organizations for awareness, co-ordination, and complementarity, and for identifying opportunities for collaborative activities.
- 04** To provide a platform for the Member Organizations to collectively advocate for shared interests and identify opportunities for joint funding or in kind support.
- 05** To offer technical and regulatory capacity strengthening Webinars/ Seminars/ Courses/ Workshops/Conferences in partnerships with consortium members, research institutions and oversight committees (Ethics Review Board, Institutional Biosafety Committee, Institutional Animal Care and Use Committee) to help prepare for effective governance of genetic biocontrol technologies in Africa.
- 06** To promote a consistent approach to research and development and improve operational effectiveness by raising awareness of and offering training to member organizations on applicable regulations and best practices guidance.
- 07** To provide a platform for review of guidelines, raise awareness, providing training and technical support to other key stakeholders, stakeholder engagement and creating public trust at the national, regional, and continental levels during research and field trials/release of genetic biocontrol agents and their products.

## Operational Motto

Building, Informing and Expanding opportunities for technical capacity strengthening, knowledge exchange and deliberation on the challenges and opportunities of genetic biocontrol technologies for the public good. This will amplify African influence on their development and provide critical input for decision-making by product developers, policy makers, and other stakeholders.

### Our Values

As a consortium, we believe in expanding Africa's self-determination towards research and development in the use of genetic biocontrol approaches. To achieve this, the consortium upholds core values:

- |                                                                                                                                                                                         |                                                                                                                                                                                                                                                 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>01 Teamwork:</b> The Consortium seeks to achieve an environment where all the member organizations work together as equals to create a strong, effective, and collegial team.</p> | <p><b>04 Complementarity and Strengths:</b> Different organizations have complementary strengths and relationships to contribute.</p>                                                                                                           |
| <p><b>02 Collaboration:</b> Coordination and joint action among the organizations will enable each organization to accomplish more than it would have on its own.</p>                   | <p><b>05 Continual Improvement:</b> The Consortium membership are committed to continued improvement and delivery of high quality shared-learning and opportunities for genetic biocontrol technologies</p>                                     |
| <p><b>03 Power of negotiation:</b> The consortium will negotiate more powerfully with other parties (e.g., funders, global organizations) for common interests of the participants.</p> | <p><b>06 Transparency &amp; Accountability:</b> Through set policies and procedures, and in all plans and actions, above board dealings will be upheld to ensure integrity in the interactions with partners, membership, and stakeholders.</p> |

“ **The Consortium seeks to achieve an environment where all the member organizations work together as equals to create a strong, effective, and collegial team.** ”



# Thematic Areas of The Consortium

## **01 Thematic Area 1: Forum for Inquiry and Deliberation**

Through this thematic area the Consortium seeks to increase capacity for governance and decision making on genetic biocontrol technology in Africa and promote effective multinational engagement by providing a regular avenue for in depth discussion and debate of the challenges, needs and requirements for testing and implementation of genetic biocontrol technologies by interdisciplinary experts from countries most likely to experience both the risks and the benefits.

## **02 Thematic Area 3: Integration of Genetic Biocontrol with Other Interventions**

Through this thematic area the Consortium seeks to raise awareness about the complementarity of genetic biocontrol approaches with other approaches to protect human and animal health such as vaccination, training on ethical issues to ERB) during testing, diagnosis, and treatment, using malaria as a specific case study, to build capacity to implement genetic biocontrol tools in the context of existing interventions.

## **03 Thematic area 4: Capacity Strengthening on Risk Assessment and Safety Evaluation**

Through this thematic area, the Consortium seeks to strengthen in country capacity for informed decision-making on the safety of genetic biocontrol technologies for human and animal health and the environment, by providing opportunities for international training, information sharing and discussion on genetic technologies as related to risk assessment and regulatory practices.

## **04 Thematic Area 5: Capacity Strengthening on Genetic Biocontrol Technologies**

Through this thematic area, the Consortium seeks to support broader understanding of the genetic biocontrol technologies and increasing transparency about gene drive technologies by providing technical training and opportunities to disseminate information and address misinformation to the general public.

## **05 Thematic area 6: Capacity Strengthening for Biosafety at Research and Field sites**

Through this thematic area, the Consortium seeks strengthen capacity for safe testing of genetic biocontrol products in the African region by providing training and guidance to those who will be involved in biosafety oversight (IBCs, ACUC) at research facilities and field sites, and promoting exchange of information on best practices.

## Strategic Priorities and Tasks 2021-2023

The Consortium will provide a source of neutral and scientifically credible information, advice, training, and coordination on genetic biocontrol technologies for animal, public health, and conservation that serves researchers, funders, policy

makers, disease control programs and the public..

Driven by the vision and the mission, the Consortium Strategy 2021-2023 has six primary strategic objectives to support an environment in which

biocontrol technology for animal, public health, and conservation can be safely, ethically, and rigorously studied, developed, tested, and, if warranted, responsibly implemented at appropriate in Africa.

### Strategic Priority 1

To provide a regular avenue for in depth discussion and debate of the needs and requirements for testing of genetic biocontrol technologies by experts from countries most likely to experience both the risks and the benefits.

### Strategic Priority 2

To provide forums that will expand regional research capacity and prepare for informed decision-making and effective governance of genetic biocontrol technologies in Africa.

### Strategic Priority 3

To promote a consistent approach to research and development and improve operational effectiveness by raising awareness and offering training on applicable regulations and best practices guidance for genetic biocontrol technologies in Africa.

### Strategic Priority 4

To provide a forum for awareness, coordination, complementarity, and for identifying opportunities for collaborative activities on genetic biocontrol technologies by member organizations.

### Strategic Priority 5

To provide a platform for disseminating information and addressing misinformation, promoting effective engagement, and increasing transparency to the stakeholders and the publics about genetic biocontrol technologies at national and the African region.

### Strategic Priority 6

To provide a platform for the member organizations to collectively advocate for shared interests and identify opportunities for joint funding or in kind support on genetic biocontrol technologies in Africa.



## The Consortium Governance: Steering Committee

The Steering Committee makes decisions on behalf of the Consortium and oversee consortium activities. Decisions of the Steering Committee include setting the agenda of consortium meetings, support of activities to be conducted under the auspices of the consortium, and information to be made publicly available by the Consortium.

Shared governance of the Consortium will be handled through a Steering Committee drawn from representatives of the Member Organizations.

The current Steering Committee consists of the following representatives:



**Mrs. Jacqueline Kado**

Member Representing  
NASAC



**Dr. Misheck Mulumba**

Member Representing  
AFOHNET



**Dr. Fayiz Abakar**

Member Representing  
AfBSA



**Mrs. Emma Orefuwa**

Member Representing  
PAMCA



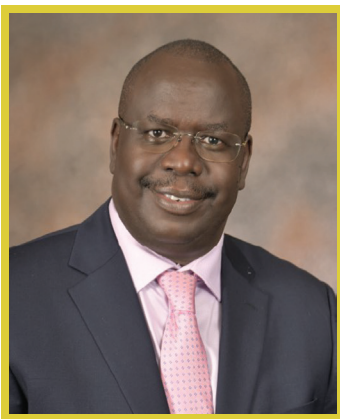
**Wilfred Mbacham**

Member Representing  
MIM

## The Consortium Governance: The Secretariat

The Secretariat works under the Steering Committee. The Secretariat runs the day-to-day operations of the Consortium and handles member liaison and engagement, including but not limited to reporting; supporting the Steering Committee; managing and distributing Consortium information; and to liaise with key groups outside the Consortium which are undertaking related work to facilitate information sharing and where appropriate, coordination (such as funders of research, civil society groups, academic institutions, etc.),

### The Current Secretariat



**Willy Kiprotich Tonui,**  
PhD, EBS  
Head of the Secretariat



**Willy Kibet**  
Scientific and Technical  
Coordinator



**Kimberley Terik**  
Communications  
Coordinator

## Consortium Membership: How to Join the Consortium

The Member Organizations of the Consortium are non-governmental organizations or similar organizations encompassing disciplines such as biomedical research, biotechnology, entomology, vector control, public health,

animal sciences, biosafety, ecology, environmental sciences, social sciences, and public engagement who are interested in genetic biocontrol technologies.

To be eligible to join the Consortium as a member, an organization must have:

- Alignment with the mission, vision, and objectives of the Consortium
- Not-for-profit and non-governmental organization status
- A presence in Africa

## Consortium Membership: Procedure for Consideration

The procedure for consideration into membership includes:

1. Organizations may send an application to or invited to join the Consortium only by the Secretariat on agreement by the Steering Committee.
2. An organization will only become a member of the Consortium after adoption and signing of the Charter.

# News and events from our members



## AOHN Events and Programs

The First Conference of the World Society for Virology Tackling Global Viral Epidemics  
Wed, Jun 16, 2021 1:00 AM Fri,  
Jun 18, 2021 5:15 PM

Check their website for additional details.  
<https://www.aohn.net/>



## AfBSA Events and Programs

AfBSA has updated their logo and is currently offering free new membership for a year.

Check their website for additional details.  
<https://www.afbsa.africa/#>



## NASAC Events and Programs

NASAC announce the release of The Science Networker volume 8 issue 2 of April 2021 a downloadable copy of their newsletter is available on their website  
<https://nasaonline.org/>



## PAMCA Events and Programs

2021 PAMCA Annual Conference to be held virtually on September the 20th to the 22nd.

Check their website for additional details.  
<https://pamca.org/>



## The Multilateral Initiative on Malaria Events and Programs

In a news release on 18th May 2021 MIM highlights that WHO issues new guidance for research on genetically modified mosquitoes to fight malaria and other vector-borne diseases.  
<https://www.who.int/news/item/19-05-2021-who-issues-new-guidance-for-research-on-genetically-modified-mosquitoes-to-fight-malaria-and-other-vector-borne-diseases>



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