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WORLD MALARIA Report 2021

World Health Organization (WHO) publishes a comprehensive and current trend used in malaria control and elimination across the globe.

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World malaria report 2021



MALARIA REPORT: WORLD MALARIA REPORT 2021

Every year, the World Health Organization (WHO) publishes a comprehensive and current trend used in malaria control and elimination across the globe.

The report tracks investments in malaria programs and research as well as progress across all intervention areas: prevention, diagnosis, treatment, elimination and surveillance. It is noteworthy that the report is based on information received from malaria-endemic countries in all WHO regions.

In the 2021 report, there was a closer look at the impact of disruptions to malaria prevention, diagnosis and treatment during the COVID-19 pandemic. The latest data show that the worst-case scenario projected by WHO – a doubling of malaria deaths in sub-Saharan Africa – did not come to pass. However, moderate disruptions to malaria services led to a marked increase in cases and deaths in 2020 over the previous year.

According to WHO's latest World malaria report, there were an estimated 241 million malaria cases and 627,000 malaria deaths worldwide in 2020. This represents about 14 million more cases in 2020 compared to 2019, and 69,000 more deaths. Approximately two thirds of these additional deaths (47,000) were linked to disruptions in the provision of malaria prevention, diagnosis and treatment during the pandemic.

Nevertheless, the circumstances could have been far worse. In the early days of pandemic, WHO had projected that – with severe service disruptions – malaria deaths in sub-Saharan Africa could potentially double in 2020. But many countries took urgent action to shore up their malaria programs, averting this worst-case scenario. Sub-Saharan Africa continues to carry the heaviest malaria burden, accounting for about 95% of all malaria cases and 96% of all deaths in 2020. About 80% of deaths in the region are among children under 5 years of age.

The pandemic struck at a point when global progress against malaria had already plateaued. By around 2017, there were signs that the phenomenal gains made since 2000 including a 27% reduction in global malaria case incidence and a nearly 51% reduction in the malaria mortality rate were stalling. To get back on track, WHO and its partners recognize the need to ensure better and more equitable access to all health services including malaria prevention, diagnosis and treatment by strengthening primary health care and stepping up both domestic and international investments.

The African Genetic Biocontrol Consortium is well aligned with malaria elimination program through creation of awareness on the use of gene drives. 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. Decision making about the benefits and risks of gene drive approaches must be led by those who would be most directly impacted by their use. Because gene drive approaches would make changes to wild populations of disease-carrying mosquitoes, their potential use is relevant to a wide range of stakeholders.

2021 GENE DRIVE RESEARCH FORUM:

BRIDGING GAPS IN STAKEHOLDER ENGAGEMENT

Monday, December 13, 2021 – Wednesday, December 15, 2021

African Stakeholder Engagement in Genetic Biocontrol Research — The Role of African Genetic Biocontrol Consortium (GenBio-Africa)

Dr. Willy Tonui EBS, Kimberley Terik & Willy Kibet. African Genetic Biocontrol Consortium Email: qenbiogenbioconsortium.africa | Website: cienbioconsortium.africa

What is Genetic Biocontrol

Genetic biocontrol approaches use genetic engineering to 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 insects in the wild and raise insects that do not acquire or transmit a disease. In the area of public health, genetic biocontrol approaches can reduce populations of disease-carrying mosquitoes.

Purpose of GenBio-Africa

The Consortium is established as an agreement among member organizations committed to contribute and expand Africa's selfdetermination through research, development, and use of genetic biocontrol approaches.

Vision

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The Consortium aims to expand Africa self-determination of the course of research, development, and use of genetic biocontrol approaches for animal, public health and for conservation of wildlife and the environment in Africa.

Consortium's Goals

- 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.
- 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.
- To strengthen stakeholder mapping and a communication strategy to disseminate information, address misinformation, promote effective engagement, and increase transparency about genetic biocontrol technologies.

Member Organizations

- Africa One Health Network (AfOHNet) aohn.net
- Africa Biological Safety Association (AfBSA) afbsa.africa
- The Multilateral Initiative on Malaria (MIM) mim.su.se
- Network of African Science Academies (NASAC) nasaconlinc.org
- Pan-African Mosquito Control Association (PAMCA) pamca.org/en
- GeneConvene Global Collaborative (GeneConvene)
 geneconvenevi.org



Stakeholder Engagement Initiatives of the Consortium

- Awareness Webinars genbioconsortium.africa/events/
- Monthly Newsletters genbioconsortium.africa/monthly-newsletters/
- Weekly Newsletters genbioconsortium.africa/weekly-newsletters/
- Social Media twitter.com/AfricaGeneBio





The GenBio Weekly Trends in African Genetic Bioc

Value of Stakeholder Engagement

- Effective assessment and identification of risks and benefits of genetic biocontrol research.
- Enhances mutual learning and exchange of information.
 Promotes collaborative efforts in research and decisionmaking.
- Increases perspectives and opinions that positively inform development of genetic biocontrol research.



The African Genetic Biocontrol Consortium made a poster presentation titled "Stakeholder Engagement in Genetic Biocontrol Research – The Role of African Genetic Biocontrol Consortium (GenBio-Africa)."

For emerging technologies such as gene drives, stakeholder engagement is increasingly an integral component of research. A stakeholder is one who is involved in or affected by a course of action whereas engagement is seeking and facilitating the sharing and exchange of knowledge perspectives, and preferences between, or among, groups who often have differences in expertise, power, and values.

Values of stakeholder engagement:

- Effective assessment and identification of risks and benefits of genetic biocontrol research.
- Enhances mutual learning and exchange of information.

- Promotes collaborative efforts in research and decision-making.
- Increases perspectives and opinions that positively inform development of genetic biocontrol research.

The African Genetic Biocontrol Consortium is established as an agreement among member organizations committed to contribute and expand Africa's self-determination through research, development, and use of genetic biocontrol approaches. This poster describes the role of the Consortium in providing 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.

Image source: https://www.pnas.org/content/117/49/30864



GORDON RESEARCH CONFERENCE:

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NEW BIOLOGICAL PLATFORMS FOR AFFECTING PHENOTYPE CHANGES FOR CONTROL



Biological Platforms GC Gordon Research Conference

New Biological Platforms For Affecting Phenotype Changes For Control

June 26 - July 1, 2022

Chairs: David O'Brochta and Alfred Handler Vice Chair: Omar Akbari

Four Points Sheraton/Holiday Inn Express

1050 Schooner Drive | Ventura, CA, United States

Conference Description

Genetic biocontrol is an approach for controlling or eliminating specific organisms that threaten public health, food security and biodiversity that uses genetic variants (natural, induced or transgenic) of the target species as the controlling agents to affect the target species in ways that reduce its undesirable impacts. Robust transgenic and genome editing technologies are fueling expanding research and development of genetic platforms and systems for combating pathogen and parasite-transmitting mosquitoes, plants and insects that reduce food security, and invasive species that are destroying biodiversity.

This unique convening will focus exclusively on the topic of genetic biocontrol and will serve to foster community-building and consequently encourage cooperation, collaboration, communication, and new and exciting science at a time when new technologies such as gene drive and Wolbachia-induced cytoplasmic incompatibility are being developed. This meeting will bring together researchers investigating

genetic systems with potential applications to genetic biocontrol with technology developers and those implementing genetic biocontrol strategies to share knowledge, foster new research, compare lessonslearned and develop best practices. This conference will feature discovery research along with technology development and ongoing operational experiences of those moving existing technologies to the field. The meeting will be biological system-agnostic and will bring those working on insects, plants, fish, mammals, and other organisms together. This is an opportune time to bring researchers, developers, and practitioners together so that future genetic biocontrol activities will take place within a community with shared interests and values.

Conference Program

The conference chair is currently developing their detailed program, which will include the complete meeting schedule, as well as the talk titles for all speakers. The detailed program will be available by February 26, 2022.



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