Special Issue

Next Generation Gene Drive for Population Modification of Mosquitoes

Message from the Guest Editors

More than 80% of the global population lives in areas at risk of major vector-borne diseases that account for about 17% of all infectious diseases. The most efficient measure to fight arboviral diseases is to limit pathogen transmission. Failure of traditional vector control methods such as insecticides due to the emergence and spread of resistance has triggered the development of alternative entomological interventions such as genetic-based strategies to alter mosquito vector competence, thus making mosquitoes incapable of carrying pathogens. This Special Issue aims to focus on the advances achieved in gene drive-based strategies to control mosquito populations. Gene-drive-based technologies can spread, modify, or suppress genetic traits to control mosquito populations or limit the transmission of mosquito-borne diseases without eradicating natural populations. Research papers that describe gene-drive-related aspects in mosquitoes such as specific gene modulation and effect of gene drive techniques on mosquito–pathogen interactions will be considered; Original reviews that review the state of the art in this field are welcome.

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Deadline for manuscript submissions

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Message from the Editor-in-Chief

Editor-in-Chief

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