

Target Malaria welcomes the independent risk assessment by CSIRO of proposed releases on the non gene drive genetically modified male bias (Ac(PMB)1) mosquito strain in Burkina Faso.

We welcome the publication by the Commonwealth Scientific and Industrial Research Organisation (CSIRO) of an <u>independent risk assessment</u> of simulated releases of our non gene drive genetically modified male bias strain of *Anopheles coluzzii* mosquitoes (Ac(PMB)1) in Burkina Faso. The risk assessment of CSIRO is broadly consistent with our own analyses indicating that any risks to human or animal health, or the environment from field releases of male bias mosquitoes would be negligible.

In particular, the CSIRO risk assessment:

- 1. indicates a lower risk of disease transmission by, and lower longevity and lower dispersal of male bias mosquitoes compared to wild type mosquitoes;
- 2. concludes that the risk for horizonal gene transfer (HGT) of the male bias transgene to non-target organisms is negligible;
- 3. calculates that the probability of vertical transfer of the male bias transgene (VGT) from *An. coluzzii* to sibling species *An. gambiae s.s.* or *An. arabiensis* is less than once in 50,000 genetically modified mosquitoes surviving to adulthood over a year. This is consistent with our own analyses, which indicate that the risk of any increase in disease transmission from VGT is negligible;
- 4. models the disappearance of the male bias transgene within two years following field releases which is consistent with the results of our own analyses;
- 5. predicts a small, transient, localised suppressive effect on *An. coluzzii* populations from simulated releases of male bias mosquitoes. Concomitantly, CSRIO predicts transient and small increases in numbers of *An. gambiae s.s.* and *An. arabiensis* that are of significantly less magnitude than any of their predicted decreases in numbers of *An. coluzzii*. This is consistent with our own analyses which have indicated that, as a result of any minor suppressive effects on numbers of *An. coluzzii*, which would fail within the range of seasonal perturbations of mosquito population sizes, the risk of any change in disease transmission would be negligible;
- 6. examines the risks on non-target organism outside of the *An. gambiae s.l.* complex as a result of a small, transient, localised suppressive effect on *An coluzzii* populations from simulated releases of male bias mosquitoes. Consistent with our own analysis, any effects would be within the range of seasonal perturbations of mosquito population sizes and therefore transient, so that any risks would be negligible.