

MAURITIUS RESEARCH AND INNOVATION COUNCIL (MRIC)

POLE OF INNOVATION GRANT SCHEME (PoIGS)

Project Summary

Title of Project: MSIRI/MRC Pole of Innovation for Biotechnology
Hosting Institution: Mauritius Sugarcane Industry Research Institute (MSIRI)
Collaborating Institutions/Companies: ACP Sugar Research and Innovation Programme- Phase II Ministry of Finance and Economic Development through Ministry of Agro-Industry and Food Security
Innovation Leader: Dr Asha Saumtally (Biotechnology Department, MSIRI)
Collaborators: Dr Yogesh Parmessur – Innovation Partner (Biotechnology Department, MSIRI) Dr Nawshad Joomun - Innovation Partner (Biotechnology Department, MSIRI) Mr Miguel Antoine – Research Assistant (Biotechnology Department, MSIRI) Dr Goolam Badaloo – Team Member as Researcher (Plant Breeding Department, MSIRI) Mr Gunshiam Umrit – Team Member as Researcher (Agricultural Chemistry Department, MSIRI) Mrs Nalini Behary Paray – Team Member as Researcher (Crop Protection Department, MSIRI) Dr Malini Unmole – Service Provider (Entomology Department, FAREI) Dr Mike Butterfield – Service Provider (Secretary, International Consortium for Sugarcane Biotechnology)
Technical Abstract <p>The Government of Mauritius has recognized that ‘modern agriculture’ is important to sustain the agricultural sector. In the Ministry of Agro-Industry and Food Security Strategic Plan 2016-2020, one of the key strategic orientations is ‘R&D in new technologies to increase land productivity and sustainable production and ensure food and nutrition security; biotechnology and biological inputs in production systems.’</p> <p>The aims of the Pole of Biotechnology are to promote technical advances to the agricultural sector in Mauritius. The MSIRI, having more than two decades of expertise in Biotechnology application to sugarcane and related crops, will further the adoption and implementation of recent biotechnology tools locally. One such recent technique in implementation is the CRISPR/Cas9 tool to edit genes in the sugarcane genome. The Pole will also play a significant role in the development and application of biotechnology in other sectors in Mauritius. Young graduate scientists, including female scientists, will be trained in specialised fields. This can also be an opportunity for the scientists to register for a postgraduate degree locally or abroad. In the short, medium and long term, the Pole of Biotechnology will acquire a number of modern biotechnology tools and this will allow for significant improvement in the agricultural sector in Mauritius.</p>

Key Words: agricultural sector, biotechnology, crop improvement, crop protection, new products