

Our equipment

Latest technology sequencing platforms:

▶ The Sanger sequencing platform using the ABI3500xL.



This powerful tool enhances CRID capabilities in genomic research. Equipped with 24-capillary arrays, this state-of-the-art

sequencing platform, is an advanced technology that supports high-throughput Sanger sequencing and fragment analysis, ensuring precise results. This sequencing platform will boost CRID's potential in in Vitro Diagnostics applications, HLA typing, microsatellite analysis and SNP validation.

▶ Novaseq 6000

The NovaSeq 6000 System provides access to a powerful, high throughput genomics solution that empowers users to perform studies at the throughput and price per sample that meets their research objectives.

Applications:

- Large Whole-Genome Sequencing (Insects, human, plant, animal)
- Small Whole-Genome Sequencing (microbe, virus)
- Exome Sequencing
- Targeted Gene Sequencing (amplicon, gene panel)
- RNA sequencing
- Methylation sequencing
- Shotgun Metagenomics



▶ Long-read sequencing platform using MinION



CRID is also equipped with a long-read sequencing platform using MinION that offers the possibility to detect structural variant,

alternative splicing and methylation processes occurring in variety of sample set from different origins (insects, human, virus, plant, animal, bacteria) that are related to different traits or phenotypes.

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Partners



African Centre for Vector Genomics

1st THE GENOMIC CENTRE IN CENTRAL AFRICA

Funded by: Bill & Melinda Gates

About us

The African Centre for Vector Genomics (AvecGen) project is a 36-month initiative aimed at setting up a world-class Centre for vector genomics in Africa. This will be done by establishing state-of-the-art genomics and bioinformatics facilities at the Centre for Research in Infectious Diseases (CRID) in Cameroon. It will serve as a regional reference hub for malaria vector control research, supporting the fight against malaria through advanced genomic approaches. This project is funded by the Bill & Melinda Gates Foundation to the amount of \$5,56 million. The project is allocated to CRID with a collaboration and support from the Liverpool School of Tropical Medicine (LSTM) in UK and Malaria Genomic Epidemiology Network (MalariaGEN).

Beyond infrastructure, AVecGen will focus on building local capacity by democratising and decentralising genomic and bioinformatics skills. Intensive training programs for African scientists will cover both laboratory and computational techniques (wet and dry lab), fostering expertise in analysing key aspects of malaria vector biology, including insecticide resistance escalation, invasive species, vector competence, and the impact of novel interventions. These efforts will ensure that African researchers are equipped to address complex challenges in vector control, contributing to sustainable malaria elimination strategies.

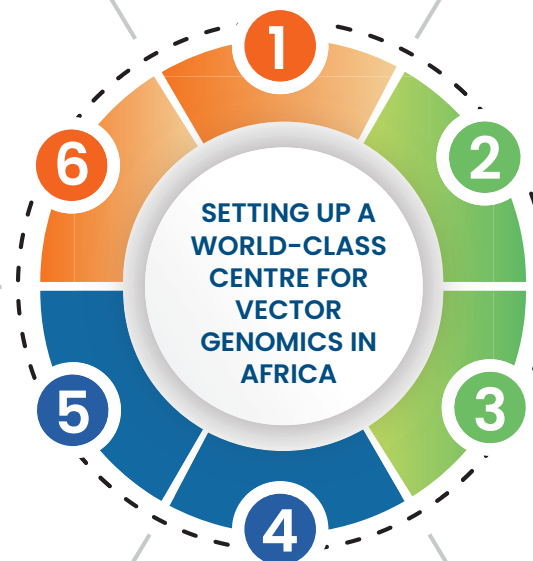
Aims

▶ Engaging stakeholders and translating research findings to boost malaria surveillance.

▶ Implementation of key initial use case research activities for the hub.

▶ Strengthening the computing and bioinformatics infrastructure and systems for vector genomics.

▶ Reinforcing the sequencing platform at CRID for the genomics hub.



▶ Establishing a training path for capacity building in vector genomics in Africa: integrating wet and dry lab.

▶ Bolstering the functional genomics platform for validation and characterization of genes and variants of interest.

Our Team



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