



# SABINA

Southern African Biochemistry and Informatics for Natural Products



## UDSM node supports research in natural products

University of Dar es Salaam, Department of Chemistry and Department of Molecular Biology and Biotechnology, Tanzania

The Southern African Biochemistry and Informatics for Natural Products (SABINA) is one of five networks of the Regional Initiative in Science Education (RISE). It is funded by the Carnegie Corporation of New York through the Science Initiative Group and the South African Department on Science and Technology (DST). SABINA enjoys collaborative support from eight network partners in the Southern African Development Community (SADC) region, which each house a natural products research node with specialist areas of expertise. These nodes support capacity building, infrastructure development, and postgraduate education and training to develop a network of excellence in natural products for SADC.

### • Gas Chromatography Mass Spectrometry (GC-MS) Laboratory

This laboratory houses GC-MS spectrometer-related accessories.

### • Natural Products Laboratory

This laboratory is equipped with basic natural products research tools, such as a rotary evaporator, UV-spot detectors and vacuum liquid chromatograph (VLC).

### • Research Instrument Room

This houses equipment such as the Fourier transform-infrared spectroscopy (FT-IR), Desktop nuclear magnetic resonance (NMR) and ultraviolet-visible (UV-Vis) spectrometer.

### • Biotechnology Laboratory

This laboratory is equipped with basic molecular biology equipment.

### Current projects of SABINA fellows at UDSM:

- Genomic basis for plant growth promoting Rhizobacteria:  
Aneth David (MSc)
- Design, synthesis and bioassay studies of chiral anthraquinones:  
Lydia Kisula (MSc)
- Targeting disease-specific alternative splicing signature of natural products:  
Cyprian Mpinda (PhD)

## Expertise

- Phytochemistry (medicinal, antimalarials, pesticidal)
- Organic synthesis
- Carbohydrate chemistry
- Mushroom chemistry
- Carbohydrate chemistry
- GC-MS and other instruments
- Biofuels and nutraceuticals



## Equipment and infrastructure

The following equipment was sponsored (in full or in part) by Carnegie (SIG-RISE)

- Gas chromatography equipment
- eBiokit
- Nanospectrophotometer
- FTIR
- Desktop NMR

The equipment at this node is not limited to the items mentioned above.

## Contact information

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Visit our website for details of all node members.

