



# SABINA

Southern African Biochemistry and Informatics for Natural Products



## UNIMA node supports research in natural products

University of Malawi, Department of Chemistry and Department Biological Sciences, Zomba, Malawi

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.

### • Biological Sciences Research Laboratory

This laboratory is equipped with thermal cyclers, a capillary sequencer, darkroom and polyacrylamide DNA electrophoresis gel equipment.

### • Chemistry Laboratory

This laboratory is equipped with the following spectrometry equipment: microwave plasma atomic emission spectroscopy, ultraviolet-visible (UV/Vis) spectroscopy, infrared (IR) spectroscopy and gas chromatography mass spectrometry (GC-MS). The facility is also equipped with high-performance liquid chromatography (HPLC) equipment and a rotary evaporator.

## Expertise

- Environmental chemistry
- Physical chemistry
- Natural products



## Equipment and infrastructure

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

- Agilent gas chromatography-mass spectrometer: purchase and installation
- Microwave plasma-atomic emission spectrophotometer (MP-AES for metal analysis): maintenance

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

### Current projects of SABINA fellows at UNIMA:

- Phytochemical and bioactivity studies of secondary metabolites from *Clinopodium vernayanam* and *Justicia striata*: Lucia Kabanga (MSc)
- Biological activity and phytochemistry of *Azadirachta indica* A. Juss (Meliaceae), *Trichilia emetica* Vahl (Meliaceae), *Moringa oleifera* Lam. (Moringaceae) and *Fadogia ancylantha* Schweinf (Rubiaceae) from Malawi: Kumbukani Nyirenda (PhD)

## Contact information

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Visit our website for details of all node members.

