



SABINA

Southern African Biochemistry and Informatics for Natural Products



UNAM node supports research in natural products

University of Namibia, Biotechnology, Biology, Chemistry and Biochemistry, Windhoek, Namibia

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.

• Biotechnology Laboratory

This laboratory is equipped with a rotary evaporator, enzyme-linked immunosorbent assay (ELISA), real time and polymerase chain reaction (PCR) cyclers (funded primarily by the Namibia Biotechnology Alliance (NABA) and SABINA). The laboratory is used primarily for the testing and detection of genetically modified organisms (GMOs) by PCR and ELISA.

• Analytical and Biochemistry Laboratory

This laboratory is equipped with high-performance liquid chromatography (HPLC), Inductively coupled plasma (ICP) spectrometer, gas chromatography (GC) and mass spectrometry equipment.

• Malaria Research Laboratory

This laboratory is equipped with a freeze dryer, rotary evaporator, gel doc, thermal cyclers and a BSL 2 tissue culture facility.

Expertise

- Analytical chemistry
- Biochemistry
- Biotechnology
- Natural products



Equipment and infrastructure

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

- Plate reader: spectramax M2
- Rotary evaporator: Heidolph
- HPLC: Perkin Elmer Flexar LC autosampler
- PCR water purification system: milli-q system
- ELISA thermo multiplate and single reader
- Inverted microscope: Olympus XC10
- Incubator IncoTherm

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

Current projects of SABINA fellows at UNAM:

- *In vitro* evaluation of anticancer and antimicrobial activity and phenolic compounds profiling of selected Namibian indigenous vegetables: Celine Mukakalisa (PhD)
- Investigations of the *in vitro* anti-cancer properties of indigenous plants from the Hardap and Karas regions of Namibia: Hatago Stuurmann (MSc)
- Prevalence, antibiotic resistance trends and virulence characteristics of potentially pathogenic staphylococci: Sunette Walter (PhD)

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Visit our website for details of all node members.

