

CELEBRATING 10 YEARS OF PHYSICS WITHOUT FRONTIERS!!

Inspiring and training students in
developing countries



BIOPHYSICS IN TANZANIA AND MALAWI

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The Abdus Salam
International Centre
for Theoretical Physics
Physics Without Frontiers



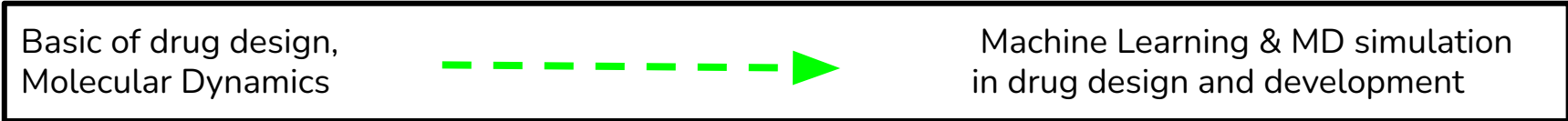
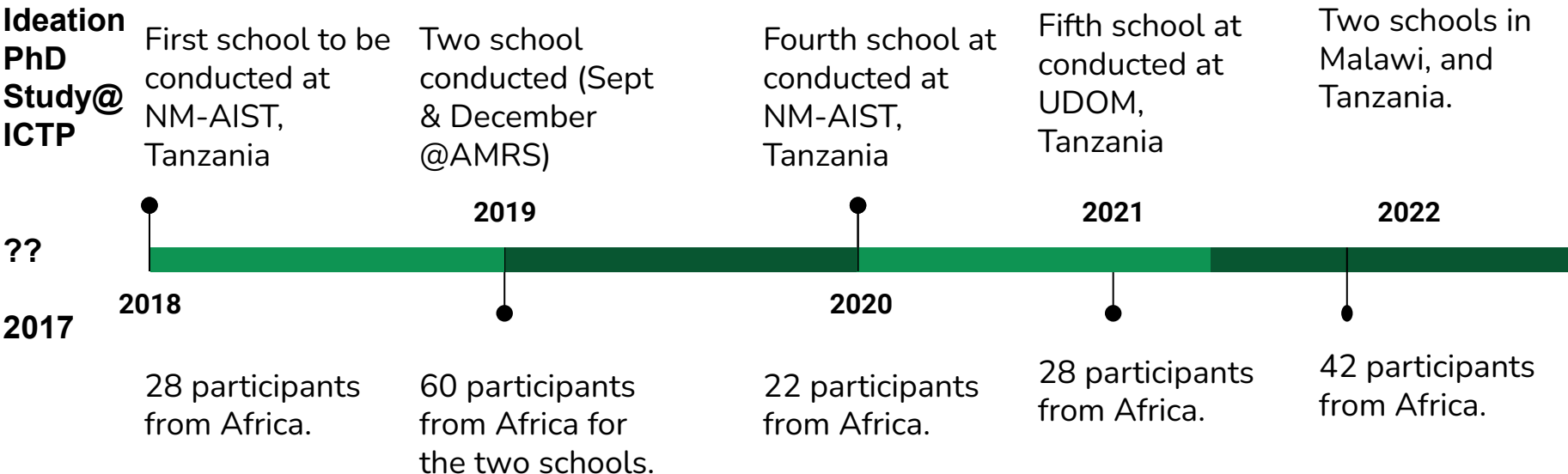


“Those who receive this privilege therefore, have a duty to repay the sacrifice which others have made. They are like the man who has been given all the food available in a starving village in order that he might have strength to bring supplies back from a distant place”. On higher education, 1960.

Life changing moments: A journey from experiments to computational



Biophysics activities in Africa: Timeline



The Genesis of Biophysics School in Africa

Since 2018 - todate



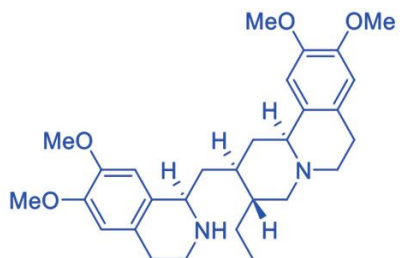
The Motivation

Structural Modification

c



plant (*Psychotria ipecacuanha*)



Emetine

$EC_{50} = 0.46 \mu\text{M}$

$CC_{50} = 56.46 \mu\text{M}$



**Natural
Products**



Solubility

Potency

Stability

Selectivity

...



**Available
Drugs**



Simulations & ML

Previous schools: Some success stories



Last two schools in Malawi and Tanzania: success

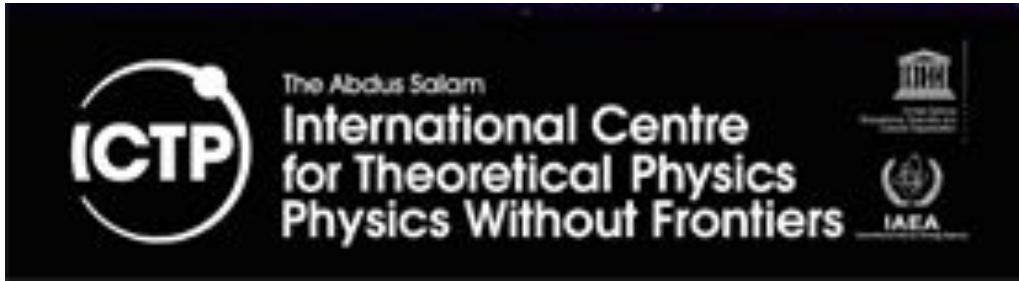
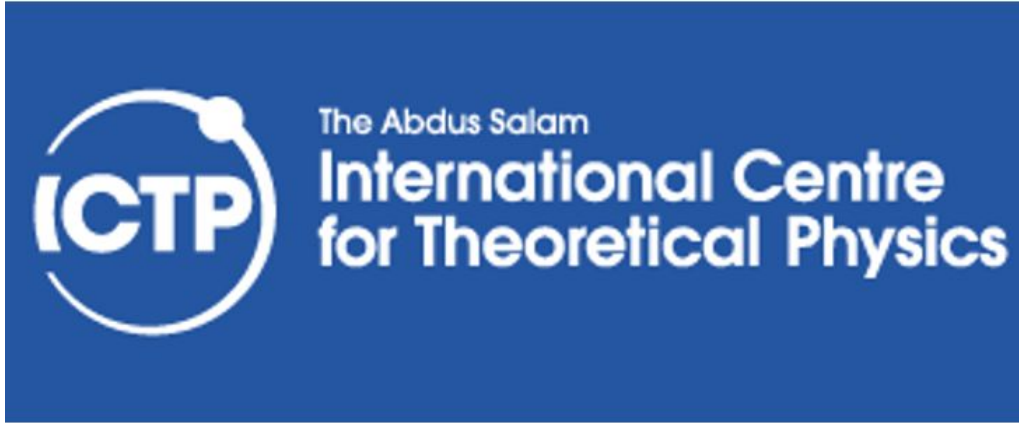
- 1. Strong collaboration and research network established in Africa**
- 2. Student supervision**
- 3. One student was accepted at ICTP to pursue the diploma in CMSP section**

The future of the Biophysics schools

The vision is to have a focused

African Biophysics Centre of Excellence

Support



**The Nelson Mandela African Institution
of Science and Technology**





**Zikombo
kwambiri**

Thank You

Grazie Mille