



Responsible Research and Innovation in Action at the ICGEB

Mariet Wium
ICGEB, Cape Town, South Africa





ICGEB

International Centre for Genetic Engineering
and Biotechnology

- ICGEB is an **international organisation** with the unique mandate of **fostering research capacity building** and **technology transfer** in Life Sciences with the ultimate purpose of promoting sustainable development
- Established within the **United Nations Common System**

Trieste component



New Delhi component



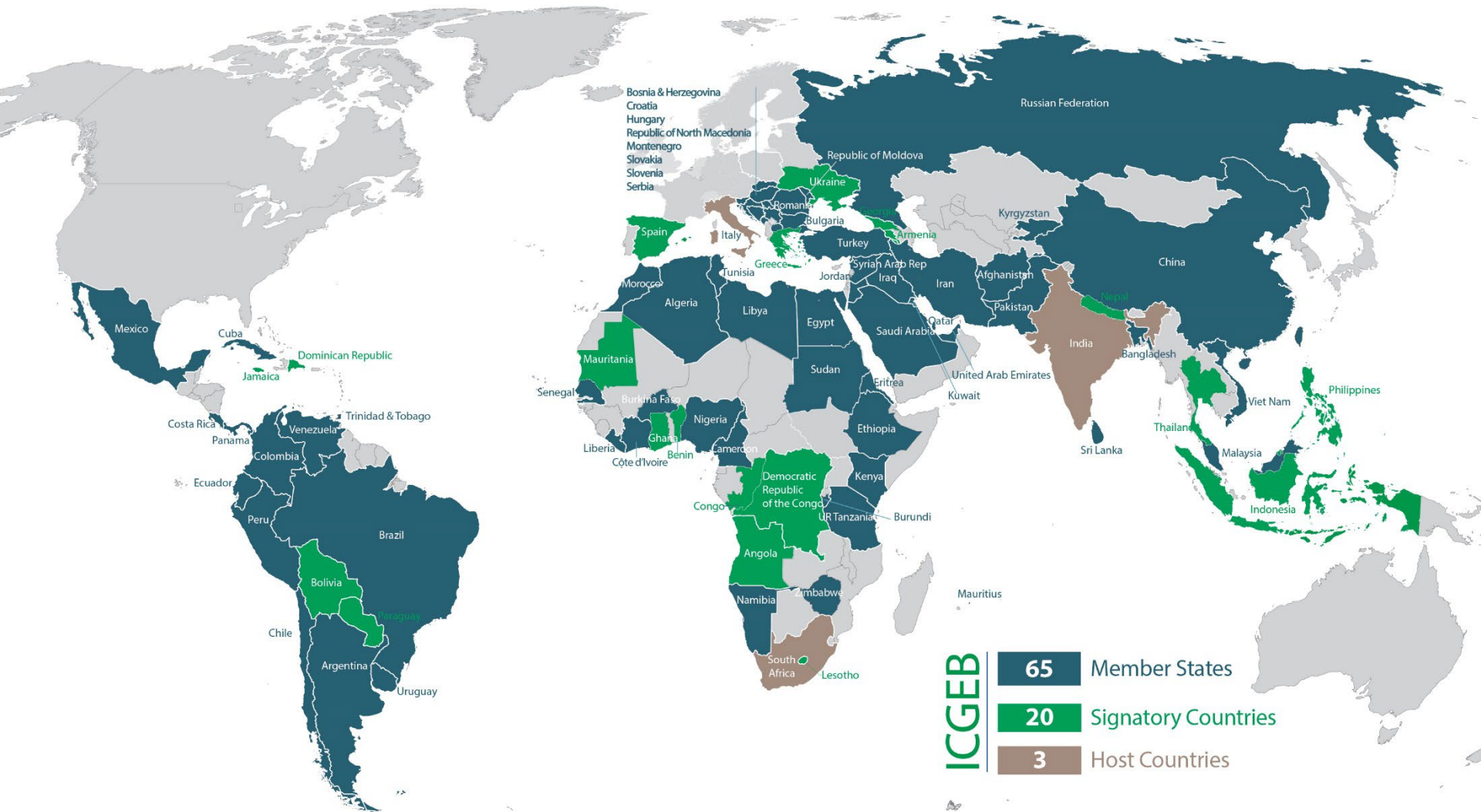
Cape Town component



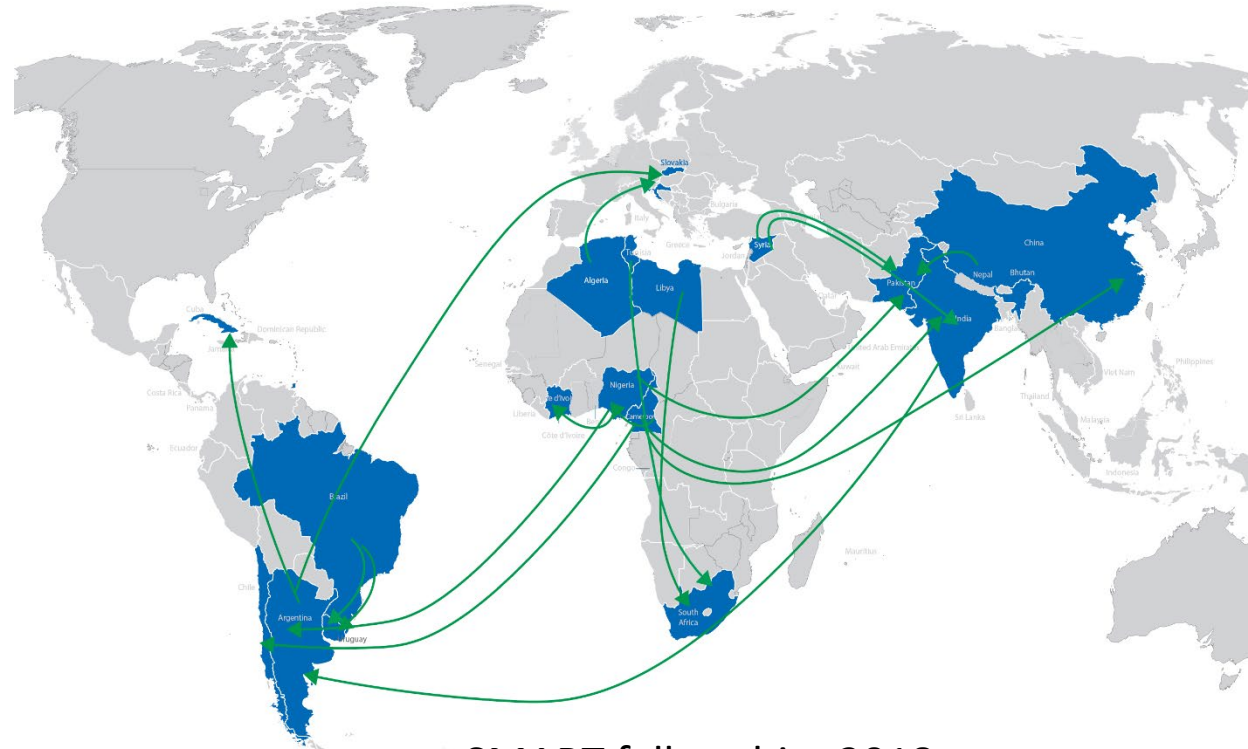


ICGEB

International Centre for Genetic Engineering and Biotechnology



- The ICGEB offers a unique technological and educational platform to promote scientific learning and innovation
 - Providing access to **state-of-the-art research facilities** in the three components
 - **Long-and short-term fellowships** for PhD students and Post-docs.
 - **Scientific Mobility for Advanced Research Training (SMART) fellowship** that allow mobility of researches between ICGEB Member States, increasing South-South cooperation.
 - Organising and funding of **Meetings, Courses and Workshops** at the international level



SMART fellowship, 2018



PhD and Postdoc fellows



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- Part of the ICGEB's mission is to contribute to the scientific community, disseminating knowledge and inspire interest in science among people.
 - **Trieste Science & the City** is a yearly series of public events on topics of scientific interest for the general public. Science & the City is broadcast on Italian national television and radio network, Rai.
 - We participate in the **India International Science Fair** in Chennai, to showcase technologies.
 - We have attended the **Launch of South African National Science Week**

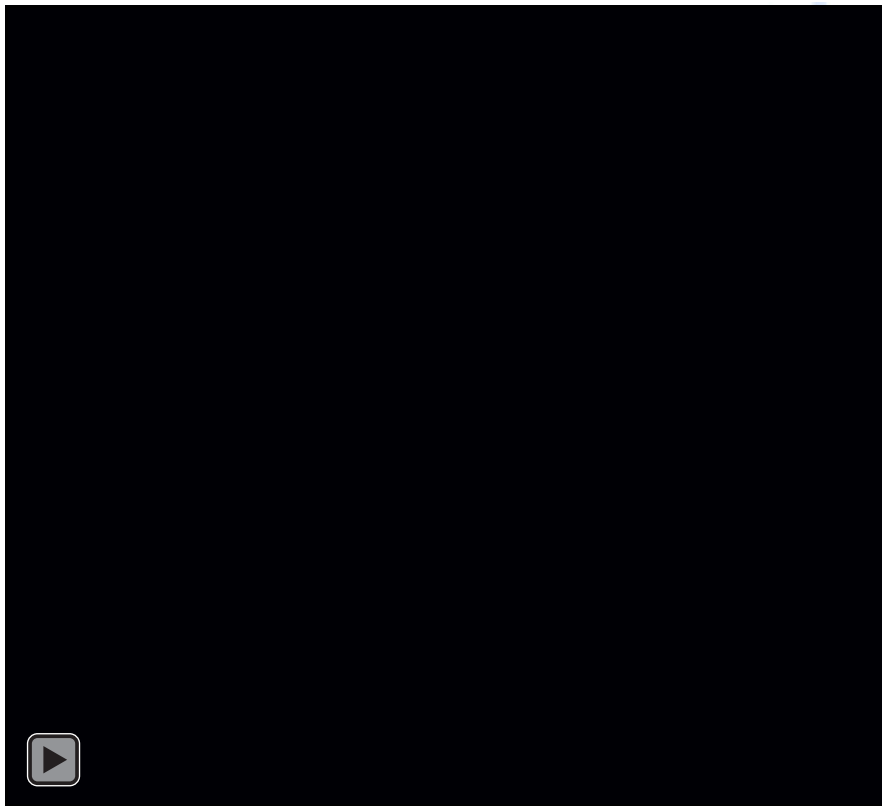




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- We host **visits** to the Component laboratories. The ICGEB offers guests (including **school** and university groups) the opportunity to see research in the laboratory setting.
- The ICGEB is involved with the **Foldscope School Program**. The Foldscope, a paper microscope, is assembled and allows students to "explore the microcosmos and stay curious"





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ICGEB eLearning Showcase



RISK ANALYSIS



CONTAINMENT AND
CONFINEMENT



BIOSAFETY
REGULATORY
FRAMEWORKS



GMO FOOD SAFETY



BIOSAFETY &
BIOSECURITY

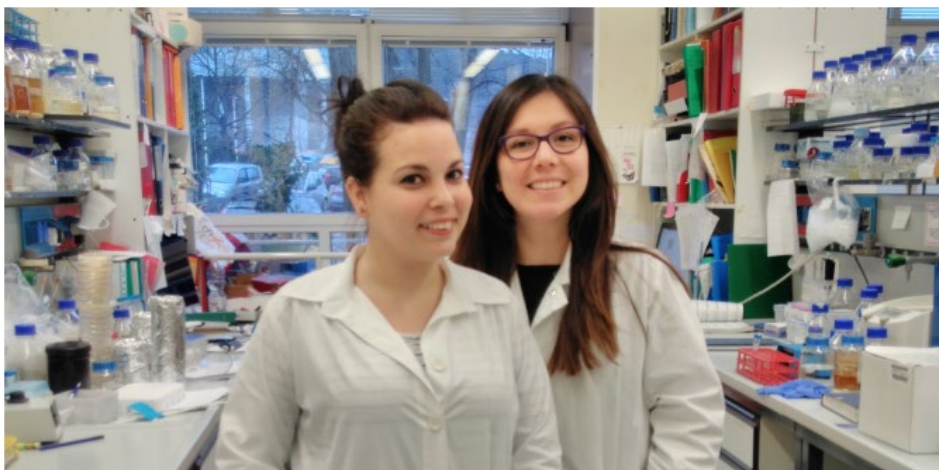


SOCIOECONOMIC
CONSIDERATIONS

- Collection of more than 550 Podcast movies on iTunes, YouTube and our website
- Maintain a collection of **open access** Scientific journal articles on practicing biosafety in Life Sciences and **eLearning courses**
- Providing **technical assistance and advisory services** to Member states (example implementations of GMO guidelines, COVID-19 research and testing)
- ICGEB features in the **UN Interagency Task Team on Science, Technology and Innovation (STI) for Sustainable Developments Goals (SDGs)** – to achieve **gender equality** and empower all women and girls (SDG5). Working with ten other UN specialised agencies, ICGEB has contributed to the latest publication on **SDG5 – Gender Equality**

April 5, 2019

ICGEB for Gender & Science, Technology and Innovation Initiatives





STARBIOS2 Action plan

- **We are in the process of developing a Fellowship programme for female African Scientists**
- Partnership with the South African Department of Science and Innovation (DSI)
- Similar to the fellowship program launched to train woman scientist at the New Delhi component



January 10, 2020

Renu Swarup on ICGEB and the Women in Science Programme



Dr. Renu Swarup, Secretary, Department of Biotechnology, Ministry of Science & Technology, Government of India first announced a new initiative for women in science at the [ICGEB Symposium](#) held in New Delhi in 2019.

This month, she writes for the ICGEB Newsletter on ICGEB, gender parity and science collaboration.

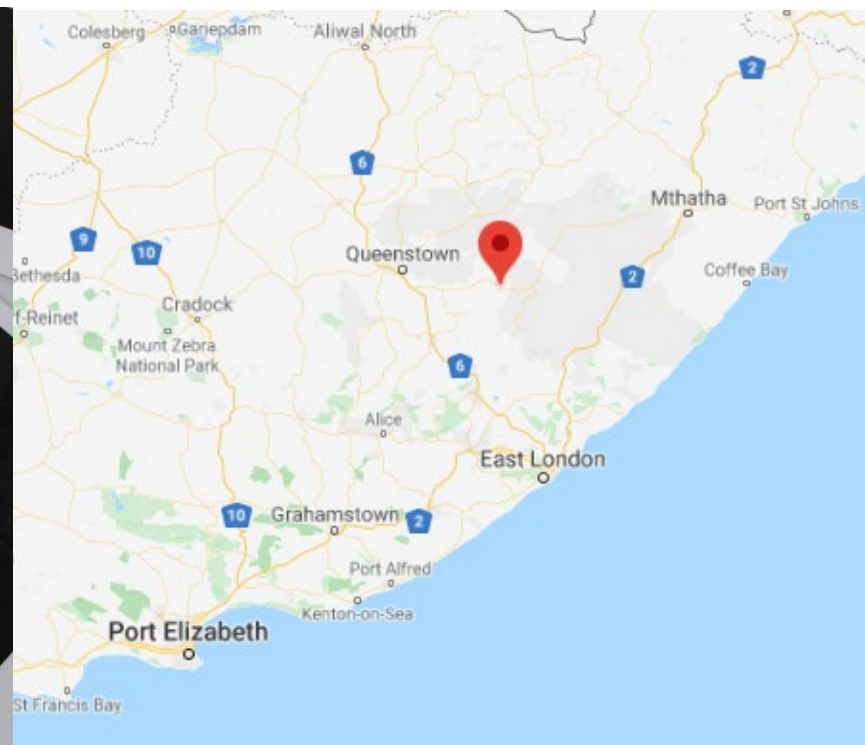
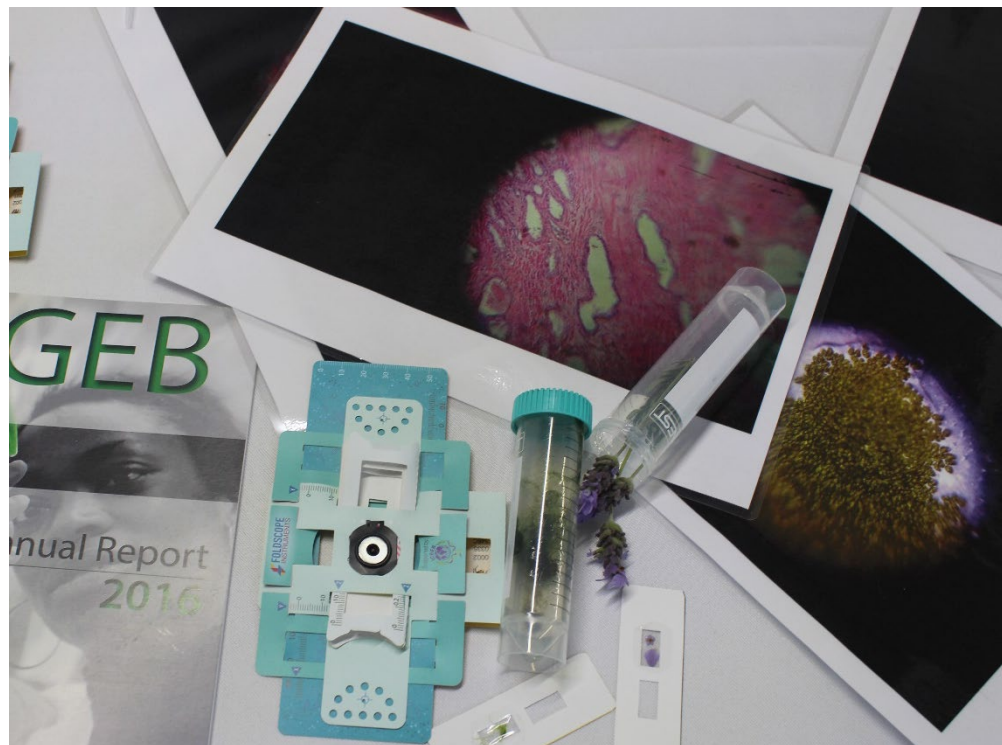
Women in Science Programme

Dr. Renu Swarup, Secretary, Dept. Biotechnology, Ministry of Science & Technology, Govt. of India



STARBIOS2 Action plan

- **Biotechnology exhibition for the Cofimvaba Science Centre**
- The South African Department of Science and Innovation (DSI) in collaboration with the South African Department of Basic Education and the Eastern Cape Department of Education is developing the Cofimvaba Science Centre.
- Cofimvaba is a rural township in Eastern Cape Province of South Africa
- The Science centre will be a platform for the introduction of innovative exhibitions and technologies to improve the quality of learning and teaching in the Eastern Cape region.





STARBIOS2 Action plan

- **Develop Science Teacher Workshop, Cape Town**
- Scientific experiments play a crucial role in science education. Since science is a very active subject, it is best to understand and engage by hands-on experiments. Teachers skills in using experiments in the classroom setting, as part of their teaching plan, plays a crucial role in the learner's ability to understand.





STARBIOS2 Action plan

- Cape Town Science & the City
- First topic
 - Biosimilars: The benefit for Africa
- Launch postpone due to COVID-19
- Re-schedule Early 2021



Cape Town
**Science
& the City**

Biosimilars: The benefit for Africa

18 March 2020 - 6:30-9:00 pm

Centre of the Book

62 Queen Victoria Street, Cape Town City Centre, 8001

Access to medicine is a fundamental human right. Cancer, diabetes, anaemia, rheumatoid arthritis, multiple sclerosis and other life-threatening and rare illnesses are often treated with what is known as biological drugs. Insulin, growth hormone, erythropoietin, monoclonal antibodies are biotechnological products produced from living cells. Original biologic medicines are often expensive. However, it is now possible to produce **biosimilar drugs**, at a much **lower cost**, which would reduce the price and give more patients access to medicine.

To ensure patients on the **African continent** have access to treatment, there is a tremendous need to develop our ability to produce biologics. Come join us to hear how we can foster domestic capacity for the production of biosimilars on the African continent. Promoting and creating a culture for biosimilars together!

Free entrance. Please **REGISTER** here
Limited space available

SPEAKERS



Lawrence Banks
ICGEB Director-General
International Centre for Genetic Engineering
and Biotechnology, Trieste, Italy



Mmboneni Muofhe
Deputy Director-General (Technology Innovation),
South African Department of Science and Innovation



Nhlanhla Msomi
South African Biotechnology Specialist,
South African Governor to the ICGEB
Board of Governors



Natasa Skoko
Group Leader, Biotechnology Development,
International Centre for Genetic Engineering
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Organised by



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Thank you