



ICGEB TRIESTE
ITALY



ICGEB NEW DELHI
INDIA



ICGEB CAPE TOWN
SOUTH AFRICA

ICGEB

International Centre for Genetic
Engineering and Biotechnology

Developing
Knowledge

ICGEB perspective on Responsible Research & Innovation (RRI)

*An Intergovernmental Organisation for research, training and technology transfer in Life Sciences
to promote sustainable global developments*



www.icgeb.org

Sustainable Biotech Innovation Symposium 2020 March 2nd 2020



What is the International Centre for Genetic Engineering and Biotechnology ?



ICGEB

International Centre for Genetic
Engineering and Biotechnology

Developing
Knowledge



1987-1994
a UNIDO
special
project

A Centre of **Excellence for Research and Training** in genetic engineering and biotechnology;
Addressing the **needs of developing countries**
and economies in transition



1994-today
An independent UN international organization



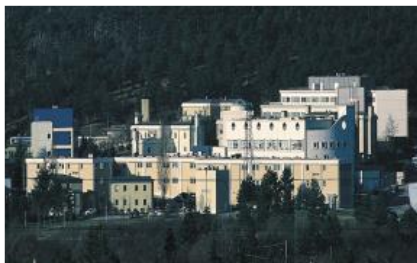
ICGEB

International Centre for Genetic
Engineering and Biotechnology

Developing
Knowledge

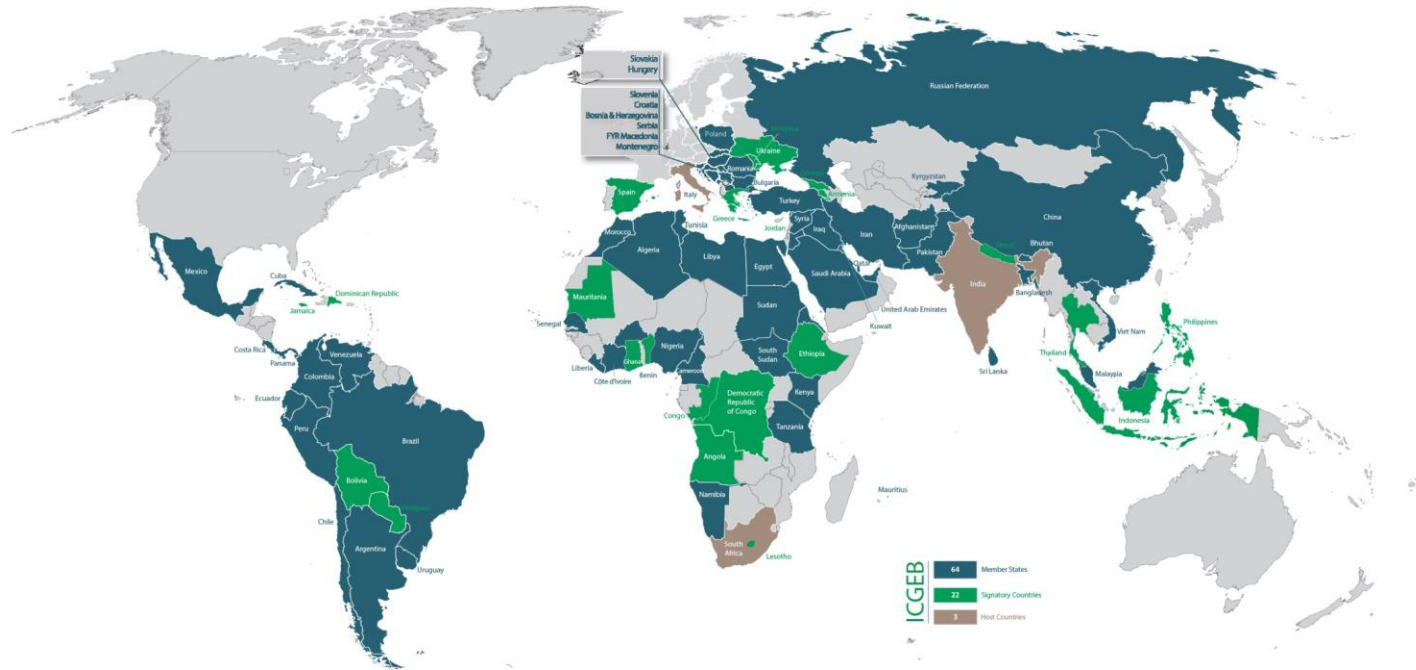


2008: ICGEB is one Centre, made of three Components and a network of Affiliated Centres



66 MEMBER STATES

24 AFFILIATED MEMBER STATES



ICGEB

International Centre for Genetic
Engineering and Biotechnology

Developing
Knowledge



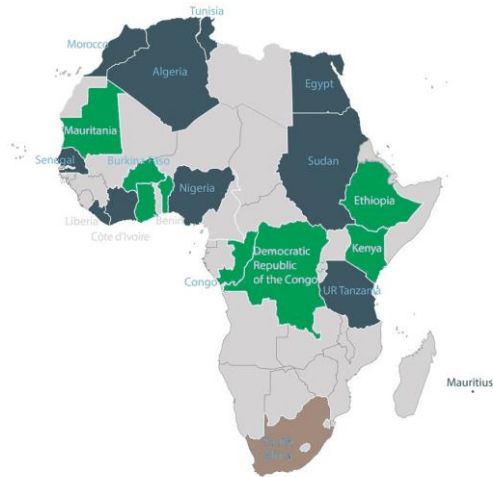
ICGEB

International Centre for Genetic
Engineering and Biotechnology

Developing
Knowledge

ICGEB Membership in Africa 2008-2019

2008



2019



The Council of Scientific Advisers (CSA)

The Council of Scientific Advisers (CSA) is composed of fifteen eminent scientists active in the international arena in the Life Sciences. CSA monitors and sustains the ICGEB scientific activities and makes recommendations to the Board



ICGEB

International Centre for Genetic
Engineering and Biotechnology

Developing
Knowledge

Board of ICGEB Governors



24th Session ICGEB **Board of Governors**

10-11 May 2018, Trieste Italy



ICGEB

International Centre for Genetic
Engineering and Biotechnology

Developing
Knowledge

Macro Areas of RESEARCH

INFECTIOUS DISEASES

Virology

Parasitic Diseases

NON-COMMUNICABLE DISEASES

Cardiovascular Disorders

Immunology

Molecular Genetics

Neurobiology

Cancer

MEDICAL BIOTECHNOLOGY

Biosimilar Drugs

Recombinant Diagnostics and Vaccines

INDUSTRIAL BIOTECHNOLOGY

Biofuels and Industrial Biotechnology

PLANT BIOLOGY AND BIOTECHNOLOGY

Crop Improvement

Biotic and Abiotic Stress



STARBIOS2 project

Structural Transformation to Attain Responsible BioSciences



Consortium partners



UPPSALA
UNIVERSITET

UNIWERSYTET GDAŃSKI

AARHUS UNIVERSITET



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 709517.

STARBIOS2 project

Structural Transformation to Attain Responsible BioSciences

- Objectives for the project are:
- to attain “structural change related to **responsible research and innovation (RRI)** in 6 European institutions (in Bulgaria, Germany, Italy, Slovenia, Poland, and the United Kingdom) through the implementation of Action Plans (APs) and to develop APs for 3 international institutions active in the field of biosciences (in Brazil, South Africa and United States);
- to use the implementation of APs as a learning process for developing a set of guidelines on the implementation of RRI;
- to develop a sustainable model for RRI in biosciences.

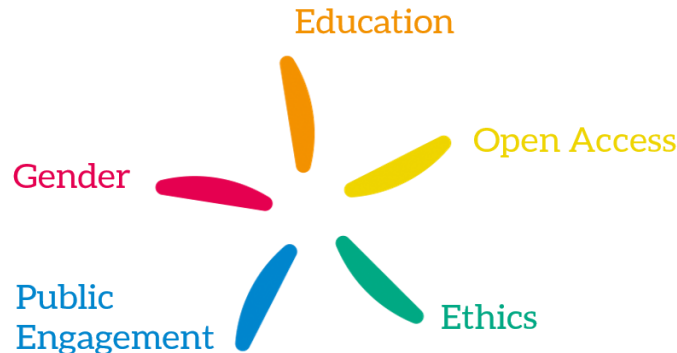


STARBIOS2 project

Structural Transformation to Attain Responsible BioSciences

- The project aims are to introduce or strengthen **responsible research and innovation (RRI) practices** through the implementation of Action Plans and to use the implementation of APs as a learning process for developing a set of guidelines and a model on the implementation of RRI in bioscience institutes.

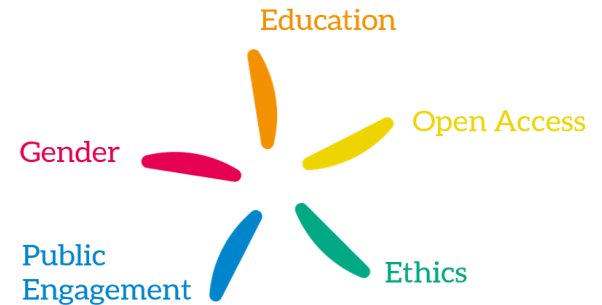
- RRI keys:





ICGEB: Instruments of action

- Advanced research projects in the Trieste, New Delhi and Cape Town Laboratories
- Long-term post-doctoral fellowships
- Short-term fellowships
- Ph.D. Program
- Organization of meetings, courses and workshops
- Collaborative Research Granting Program
- Collaboration with industrial sector
- Scientific services to member Countries
- Technology transfer



ICGEB

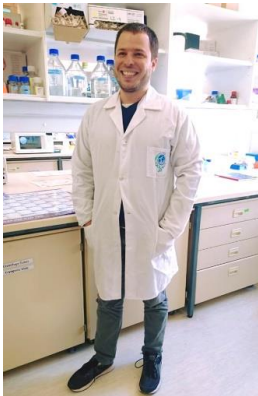
International Centre for Genetic
Engineering and Biotechnology | Developing
Knowledge

Education

- Education is one of the ICGEB's pillars. The ICGEB offers a unique technological and educational platform to promote scientific learning and innovation.

- We support education by:

Long-and short-term fellowships for PhD students and Post-docs.



Education

- **Scientific Mobility for Advanced Research Training (SMART) fellowship** that allow mobility of researches between ICGEB Member States, increasing South-South cooperation.



Education

Organising and funding of Meetings, Courses and Workshops at the international level

Providing **technical assistance and advisory services** to Member states (example implementations of GMO guidelines)



Gender

- ICGEB is committed to attaining gender equality in all its activities and this is exemplified in the Fellowship programme. In 2018 we had 320 Fellows of which 175 were female
- 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**



ICGEB

International Centre for Genetic
Engineering and Biotechnology

Developing
Knowledge

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

India has been a Host Country of the ICGEB since its inception. Collectively, the host countries India, Italy and South Africa, with all of the ICGEB Member States have addressed global challenges and share an unflinching commitment to science for capacity-building. DBT has now partnered with ICGEB to strengthen and promote capacity-building for Women Scientists. Being a large Scientific Research organisation, ICGEB attracts some of the best talents in the world and has a strong diversity narrative.

One of the most prominent socio-economic changes in India over the last half-century has been the strong increase in the participation of women in the work-force. However, there is still a significantly underutilized potential in certain groups, one of which is professional women returning to work from a career break. Highly-trained doctoral women in the sciences drop out of the academic pipeline for a variety of reasons. Many women take career breaks during the course of their professional lives for a variety of reasons, and currently, a large proportion of women in the scientific field are economically



Ethics

Biosafety Research group

Promotes the safe and responsible use of products of modern biotechnology (GMOs) through:

- direct support in establishing of national GMO regulatory frameworks and offices;
- organising training workshops and providing assistance in drafting relevant policy documents, guidelines and regulations

Biopesticide Research group

Promote programmes to enhance the use of biopesticides and hence reduce over-reliance on synthetic chemical pesticides

Identify & address challenges to compliance with Pesticide Maximum Residue Levels (MRLs) – and hence enhance access to safer foods

Genome Editing working group

- ICGEB contributed to International Bioethics week, 14-19 October 2019, in collaboration with UNESCO, WHO, the European Commission, and all Members and Associated Members of the United Nations Inter-Agency Committee on Bioethics.

<https://www.icgeb.org/icgeb-and-the-un-inter-agency-committee-on-bioethics-uniacb/>

October 9, 2019

ICGEB Webinar on Genome Editing for the UN Inter-Agency Committee on Bioethics (UNIACB)



ICGEB is pleased to contribute to International Bioethics week, 14-19 October 2019, in collaboration with UNESCO, WHO, the European Commission, and all Members and Associated Members of the [United Nations Inter-Agency Committee on Bioethics](#).

On Tuesday, 15 October, the ICGEB Webinar entitled "Genome Editing – Facts and Implications" took place, with our scientists discussing state-of-the-art genome editing in bacteria ([Vittorio Venturi](#)), plants ([Tanushri Kaul](#)), animals ([Andrés Muro](#)) and humans ([Serena Zacchigna](#)). The Webinar is now available on YouTube.

The UNIACB published short interviews with policymakers, experts and the general public on what Bioethics means to them and how it impacts their everyday life and work: [Michael P. Myers](#), Protein Networks at ICGEB Trieste, moderated both events.

Monday, 14 October: ICGEB video on Bioethics with Emanuele Buratti

Tuesday, 15 October: ICGEB video on Bioethics with Andrés Muro

Wednesday, 16 October: ICGEB video on Bioethics with Michael P. Myers

Thursday, 17 October: Bioethics for an international high-school student

Friday, 18 October: ICGEB video on Bioethics with Serena Zacchigna



TRIESTE

N. Rostoks - Considerations for the risk assessment of genome-edited organisms



Public engagement

- Part of the ICGEB's mission is to contribute to the scientific community, disseminating knowledge and inspire interest in science among people.

- We are involved in a number of activities and projects:

ICGEB participates in “**Triest NEXT**”, an annual scientific research festival, organising talk shows with international speakers.

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.



Science & the City Young

Teatro Miela | ore 18:00-19:30
Piazza Duca degli Abruzzi, 3 - Trieste

Ingresso gratuito fino a esaurimento posti

Giovvedì 5 marzo 2020

Tumori contagiosi, vaccinarsi si può

Marcello Pinti - (Università di Modena e Reggio Emilia)
Paola Massimi - (ICGEB, Trieste)
Bruna Marini e Rudy Ippodrino - (Ulisse BioMed, Trieste)

Giovvedì 19 marzo 2020

Sigarette E-cigarette, cosa rischiamo veramente?

Roberto Boffi - (Fondazione IRCCS Istituto Nazionale dei Tumori e Comitato Scientifico per la lotta al fumo, Fondazione Umberto Veronesi, Milano)
Giancarlo Sturloni - (Giornalista scientifico, NatCom, Trento)

Giovvedì 2 aprile 2020

Mordi e fuggi, l'elisir di lunga vita

Michela Zanetti - (Università di Trieste)
Andrea Pecile e Lorenzo Giannetti - (Allianz Pallacanestro Trieste)

Modena e conduce: Serena Zaccagna (ICGEB e Università di Trieste)

Organizzato da: ICGEB, CURICSA, PICCOLO

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

Please register on our website to attend



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 medicines 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!

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
and Biotechnology, Trieste, Italy

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

Organised by



ICGEB International Centre for Genetic
Engineering and Biotechnology



Acknowledgement



This project has received funding from the European
Union Horizon 2020 research and innovation programme
under grant agreement No 759317

International Centre for Genetic Engineering and Biotechnology - ICGEB | E-mail: claudia.russo@icgeb.org | www.icgeb.org



Public engagement

We participate in the **India International Science Fair** in Chennai, to showcase technologies.
We have attended the **Launch of South African National Science Week**



Public engagement

- 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"



On 26 February 2020, ICGEB's team joined Manu Prakash – inventor of Foldscope at Spine Road High School in Mitchell's Plain, Cape Town, to run a Foldscope workshop.

Science engagement and curiosity at its best.

'It's not about what others discover, it's what you discover' – Dr Manu Prakash



Open Access

- The ICGEB has a collection of Podcasts (iTunes, YouTube and our website)
- Over 550 movies on more than 50 topics, our collections are accessed an average 100,000 times a year in over 80 countries
- The Biosafety Research group also maintains a collection of open access Scientific journal articles on practicing biosafety in Life Sciences and eLearning courses



ICGEB podcasts

50 Collections >500 movies - freely available on:

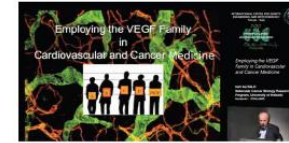
<https://www.youtube.com/channel/UCQhEZCyW80SYXEQaNAueg/videos>

<https://itunes.apple.com/gb/artist/international-centre-for-genetic-engineering-biotechnology/id1280870649?mt=2>

<http://www.icgeb.org/itunes.html>

YouTube

Available on iTunes



50 Collections >500 movies

ICGEB Scientific Collections on iTunes and YouTube

GEOGRAPHY	NO. VIEWS	%
ITALY	20543	30
USA	19219	18
UK	4026	5.3
INDIA	3671	5.7
GERMANY	3262	3.9
JAPAN	1876	2.2
FRANCE	1749	2.1
CANADA	1684	2.0
AUSTRALIA	1072	1.3
NETHERLANDS	1023	1.2

>80k views per year - 2017 top 10





ICGEB

International Centre for Genetic
Engineering and Biotechnology

Developing
Knowledge

ICGEB Funding Programmes at a glance



	Fellowships	Meetings & Courses	Research Grants
Calls	One call per year for Pre-doctoral Fellowships Two calls per year for Postdoctoral Fellowships Four calls per year for short-term Fellowships	One call per year	One call per year
Eligibility	Nationals of ICGEB Member States	ICGEB Member States	All ICGEB Member States <i>[except Italy]</i>
Annual deadlines for Applications	Pre-doc: 31 March Postdoc: 31 March & 30 September Short-term: 31 March, 30 June, 30 September & 31 December	28 February	30 April
Submission	On-line via the ICGEB dedicated Website	On-line via the ICGEB dedicated Website	By e-mail Principal Investigators must submit their complete application in a pdf file to the ICGEB Liaison Officer for endorsement, with a copy also to crp@icgeb.org
Endorsement	The ICGEB will subsequently send the Pre- and Postdoctoral applications received to Liaison Officers, asking for endorsement	The ICGEB will send the proposals received to Liaison Officers, requesting endorsement by 31 March	Liaison Officers will confirm endorsement to ICGEB, and to the applicant, by e-mail by 31 May
No. of endorsed applications per Member State	No limit	No limit	3 standard Research Grant applications PLUS 2 Early Career Return Grant applications
Website	www.icgeb.org/fellowships.html	www.icgeb.org/meeting-proposals.html	www.icgeb.org/research-grants.html
Contacts	Fellowships Unit Padriciano, 99 - 34149 Trieste, ITALY Tel: +39-040-3757347/7305 Fax +39-040-226555 Email: fellowships@icgeb.org	Conferences Unit Padriciano, 99 - 34149 Trieste, ITALY Tel: +39-040-3757332/7333, Fax +39-040-226555 Email: MeetingOrganisers@icgeb.org	CRP-ICGEB Research Grants Unit Padriciano, 99 - 34149 Trieste, ITALY Tel: +39-040-3757382, Fax +39-040-226555 Email: crp@icgeb.org



	ICGEB Search	HQ-ICGEB Trieste	ICGEB New Delhi	ICGEB Cape Town
--	--------------	------------------	-----------------	-----------------



ICGEB

International Centre for Genetic Engineering and Biotechnology

A Centre of excellence for research, training and technology transfer to industry in the field of biotechnology to promote sustainable global development

Developing Knowledge

ICGEB > ICGEB Home > What's New?	
Who We Are What We Do Why Become a Member Fellowships Grants Meetings and Courses Meetings 2019 Meetings 2018 ICGEB Courses - Podcast Industrial Relations Biotechnology Transfer Patents ICGEB Members Board of Governors Scientific Council Signatory Countries Affiliated Centres Regional Research Centres eduroam Podcasts Outreach Materials and Documents Informazioni in Italiano Vacancies News Intranet Username Password	 ICGEB Home THE INTERNATIONAL CENTRE FOR GENETIC ENGINEERING AND BIOTECHNOLOGY 01/10/2018 16:57 Science & the City returns to Trieste from 3 October 2018 The 4th in the series of Science events for the general public, hosted by Mauro Giacca, will be held every Wednesday at 6 pm at the Teatro Miela in Trieste, and broadcast on Rai national television. Don't miss it! Read more ... 01/10/2018 14:34 ICGEB Meetings and Courses 2019 - Just published ICGEB has been organising highly successful scientific meetings in the Life Sciences since 1988, to facilitate interaction between internationally renowned scientists and young researchers. See this years events: Read more ... 27/09/2018 14:57 Trieste Next, 7th edition of the Festival for Scientific Research Returning to Trieste from 28-30 September 2018, ICGEB participates as Guest Promoter at #TriesteNext, advocating public engagement in science Read more ... 25/09/2018 09:27 ICGEB is at EURO BioHighTech - 26-27 September Innovation Management team members and Group Leaders from ICGEB Trieste will be participating in the conference and fair on research for business innovation taking place in Trieste, Italy this week. Read more ...

Headquarters

ICGEB Trieste

ICGEB New Delhi

ICGEB Cape Town

Contact

Cod. Fisc. 90031700322

AREA Science Park
Padriciano 99
34149 Trieste, ITALY
Tel: +39-040-37571
Fax: +39-040-226555
icgeb@icgeb.org
Address book










Thank You!