

# Trieste, city of Science and Innovation and the ESOF event of 2020

Interview with Professor Mauro Giacca, Director General of ICGBE - International Centre for Genetic Engineering and Biotechnology, Trieste, Italy  
Opportunities, perspectives, challenges

## About ICGBE

The ICGBE is an international, non-profit research organization. Established as a special project of UNIDO (United Nations Industrial Development Organization), it became fully autonomous in 1994 and now counts over 60 Member States. The International Centre for Genetic Engineering and Biotechnology provides a scientific and educational environment of the highest standard and conducts innovative research in life sciences for the benefit of developing countries. It strengthens the research capability of its Members through training and funding programmes and advisory services and represents a comprehensive approach to promoting biotechnology internationally.

The Centre is dedicated to advanced research and training in molecular biology and biotechnology and holds out the prospect of advancing knowledge and applying the latest techniques in the fields of:

- Biomedicine;
- Crop improvement;
- Environmental protection/remediation;
- Biopharmaceuticals and biopesticide production.

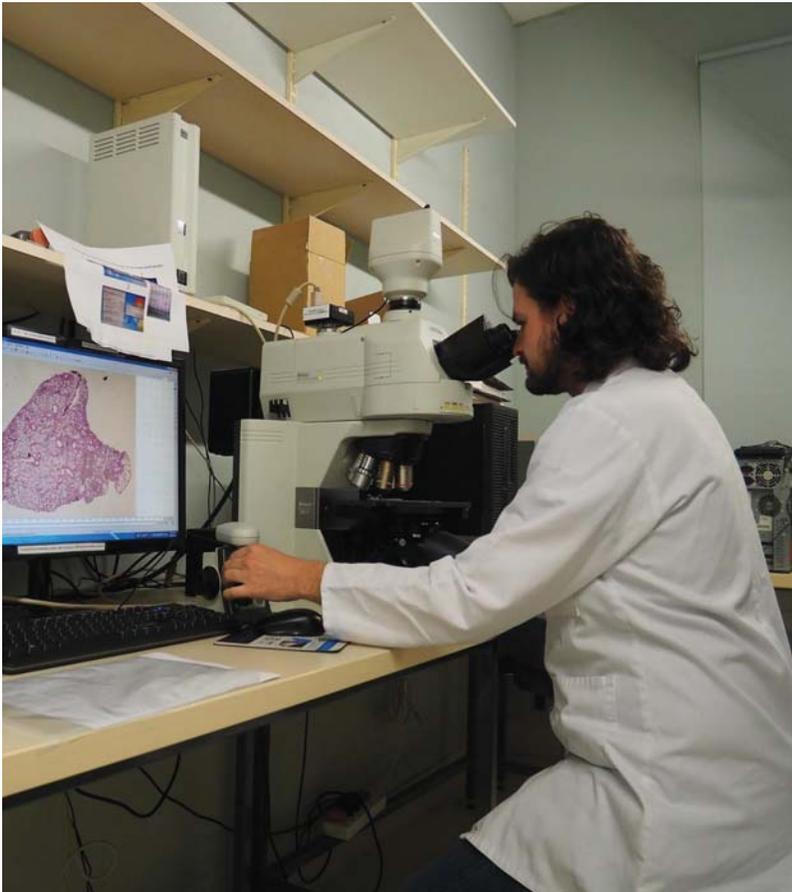
With Components in Trieste, Italy, New Delhi, India and Cape Town, South Africa, the Centre forms an interactive network with Affiliated Centres in ICGBE Member States. ICGBE is part of the United Nations System.

**Q.:** For sure, you have already answered to these type of questions hundreds of times since the release of the news relevant to the selection of Trieste as European Capital of Science for the year 2020, winning the competition against the other nominations of the two cities of representing the Netherlands: The Hague and Leiden.

**A.:** Trieste proved its value in presenting a very strong candidature. It is already a true capital of Science with a remarkably high concentration of researchers, scientific centres and a multidisciplinary approach towards the dissemination of science to the general public. The team that put forward the candidature made an outstanding effort in displaying the extraordinary features of this territory and its potentials to make ESOF 2020 a truly memorable event.

**Q.:** The ESOF, (EuroScience Open Forum) is the largest interdisciplinary science meeting in Europe and it is the largest biennial Pan European Forum bringing together over 4.000 researchers, educators, business actors, policy makers and journalists from all over the world to discuss breakthroughs in science. Which was the most important crucial factor that weighed most in the selection of Trieste to host the event in 2020?





**A.:** Trieste has an unique historical and cultural vocation to the Eastern Countries, such as the Balkan Basin, and this point was one of the crucial features which makes this territory the ideal Capital of Science.

**Q.:** The organizing executive committee, which presented the candidacy of Trieste, received more than 164 letters of support. This is an important result. What is your opinion?

**A.:** Indeed, the number of letters was very high. Nevertheless, it is not surprising, as it is important to underline that Trieste hosts a high concentration of International Institutes, such as the International Centre for Genetic Engineering and Biotechnology (ICGEB), the International Centre for Theoretical Physics (ICTP), SISSA (International School for Advanced Studies) and several others. All of them can boast remarkable and constant collaborations at international level and with Central and Eastern Europe, as a sign of the value of our relations with that particular area of the world.

**Q.:** The duration of the event is supposed to cover one week, from four to ten of July. According to some information found browsing the web, however, it seems that Trieste has a different idea on how to organize the celebration and that it will be different from the traditional format. Could you describe the contribution and concept of ICGEB?

**A.:** Normally the event is organized based on a structure

of few days, generally one week. The idea that is currently being developed is not to concentrate a series of activities in one week only, but to prepare a programme that will include a series of initiatives of various types, to be launched also during the year before. All these initiatives will be linked to the themes and mission of ESOE and will be organized with the contribution of all the Institutions which took part to the candidature presented to ESOE. In this way, there will be the opportunity to spread over time a series of events capable to maximize the visibility of the closing week of the celebration.

Moreover, I participated with personal interest to the ESOE campaign as Director-General of ICGEB, representing one of most outstanding and active research centers in Trieste. Professor Stefano Fantoni, President of Trieste International Foundation for the Progress and Freedom of Science, will be the ESOE Champion and will chair the ESOE Steering Committee (together with the Secretary-General of EuroScience as Vice-Chair) and will play a key role in representing ESOE in fund raising activities. In other words, Trieste already started working at the preparation of the ESOE 2020.

The great challenge of ESOE is not focused only on the selection of one European city to be the European Capital of Science, but to award the selected venue the possibility to show its potential, its capability to attract interest and gain visibility at international level.





We are honoured for this award: we have a long and extensive experience in the organization of international activities, together with all the other international institutions based in Trieste. We organize an average of twenty international events per year, most of them in Trieste or in Developing Countries. The recognition given to Trieste by ESOF is not only one medal to be collected together with other prizes or honours.

What really matters and is really important for the so called "Trieste System" (the ensemble of all the International Scientific Organizations and Institutions in the city) will be to gain visibility not only abroad, at European and international level but, strange to admit it, in Italy and most of all, in Trieste.

Therefore, the opportunity given by ESOF is somehow a huge chance for Trieste and for Italy: this is the real challenge.

**Q.:** The network alliance system, which presented the candidature of Trieste, has brought together different types of identities: the scientific community, politics, entrepreneurs and national governmental institutions.

**A.:** The candidature received strong institutional support from the Friuli Venezia Giulia Region and from the Italian

Government through the support of the MIUR (Minister of Education, University and Research).

The Italian Ministry of Foreign Affairs also played a significant role and we have to say that we witnessed a perfect convergence of all the efforts: ESOF 2020 is becoming one of the priority objectives for the whole region. The problem was not lying in the attempt to be effective in convincing Institutions. The problem has to be converted into a great challenge for the city as it will be possible to transform Trieste into a powerful display for the community at all levels, not only for the scientific environment. Moreover, it is important to underline that ESOF 2020 does not have to stop in 2020 but it must leave a permanent legacy at national and local level: for instance, the creation of permanent facilities will represent a crucial priority.

Furthermore, new resources will have to be identified in order to optimize the efforts to realize ESOF 2020 and to create permanent infrastructures lasting in the future. The Porto Vecchio (Old Port), the main site proposed for ESOF 2020, is a huge space of 650.000 square meters, with a real estate heritage sites of disused warehouses and an immense unobstructed floor area available. It is an ideal place to be exploited and and to be available to the



general public, also to improve and increase the scientific facilities in the city.

**Q.:** The most important heritage of ESOF 2020 will be the creation of an International Science Center. Could you describe what type of Center will be designed?

**A.:** It will be a large interactive museum, a display-center of attraction for the general public interested in science. An open space where science meets people, in which it will be possible to learn from the simplest experiment to the most complicated theories, enjoying exhibitions, reproduction of environments, thematic days of study and discussions.

On the one hand, the Center will have a strong impact in the communication and dissemination of Science. On the other, the premises for a real and great Auditorium, with innovative facilities for the organization of Meetings and Conventions will also be necessary: even if Trieste is known as the City of Science, there is a strong need to create a proper and high-level Convention Centre.

**Q.:** I would like to learn your opinion on the motto created for the ESOF 2020 in Trieste: "F4S, S4F - Freedom for Science, Science for Freedom".

**A.:** It is a slogan for all people dealing with Science at international level. There must be freedom in Science, which has to progress without any type of border or limitation, and there must be the same freedom for all scientists. This is especially true for young scientists coming from or working in developing countries.

The ICGEB has its Headquarters located in Trieste, and two further components in New Delhi, India and Cape Town, South Africa, carrying out innovative biomedical and environmental research, high-level training and technology transfer. For example, just having a look around in our building in Trieste, you can see young researchers coming from 30 different nationalities.

Science has to be considered universal and shared, by definition. In our laboratories we host people with different cultures, coming from different countries and believing in different religions: the most interesting and important issue is that the truth of an experiment, the scientific data is the same for all of us: for an African Scientist coming from a central African country, for a Muslim scientist or for people from all over the world.

The scientific truth is one and universal. This is what really matters: if one thinks about the Balkan Countries which for years have been wounded and in which still there are tensions and contrasts, we do believe that Science has value beyond issues that are essentially "scientific" but are universal, ethical and, most of all, human.



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## Mauro Giacca

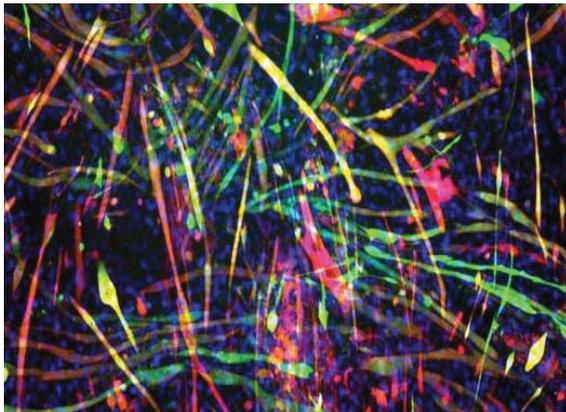
Mauro Giacca, MD PhD, is the Director-General of the International Centre for Genetic Engineering and Biotechnology (ICGEB), an international organization in the United Nations system for advanced research and education, with laboratories in Trieste, Italy, New Delhi, India and Cape Town, South Africa.

Mauro Giacca is Full Professor of Molecular Biology at the University of Trieste. Since 2016, elected member of the International Society for Heart Research (ISHR), European Section, Since 2015, member of the International Governing Board of the International Centre for Biotechnology at the University of Nigeria Nsukka (UNN) of UNESCO. Since 2014, elected member of the Nucleus of the Working Group on Myocardial Function of the European Society of Cardiology (ESC), Expert Member in the National Committee for Biotechnology, Biosafety and Life Sciences (CNBBSV), an advisory body to the President of the Council of Ministries of the Republic of Italy.

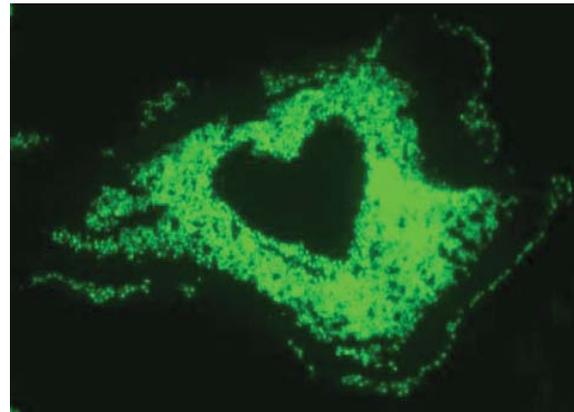
His research interest focuses on the development of novel biotherapeutics for cardiovascular disorders, with particular reference to the identification of growth factors and microRNAs inducing cardiac regeneration after myocardial infarction. He also maintains a strong interest in the molecular biology of HIV-1 infection.

He has published over 290 papers in peer-reviewed international journals, which have received cumulatively over 1.200 citations, and 20 reviews or chapters in published books and university text books. He is also active in promoting scientific outreach for the general public.

For more information on ICGEB please visit the website: [www.icgeb.org](http://www.icgeb.org)



*Skeletal muscle fibres modified with an AAV vector*



*Section of a mouse retina at the fluorescence microscope. Nuclei are stained in dark with DAPI*



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