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# Science and Technology Exchange Program in the Islamic Countries (STEP)

STEP is a platform, organized by Mustafa<sup>(PBUH)</sup> Science and Technology Foundation, to expand the scientific network amongst the STI actors of the Islamic world in form of holding international events and laying the groundwork for enhancing scientific synergy and cooperation.

#### The highlighted goals of the STEP:

- Providing a context for sharing and debating ideas and encouraging interaction among prominent scientists and young elites.
- Forming effective platforms for sharing scientific and technological capacities and capabilities to solve Islamic world's problems.
- Informing about the Islamic world's capacities, capabilities, and achievements in science and technology.

The highlighted and active people in the field of science and technology such as eminent scientists, university presidents, supportive organizations in science and technology development and activists in the fields of discourse and policy-making in science and technology participate in the program. Participants of the program share their knowledge and experiences and discuss the formation of scientific cooperation for important issues in the Islamic world simultaneously. STEP talks, panel discussion, professional workshops and providing articles and posters are considered as main activities of the program.







# History of Science and Technology Exchange Program





#### Simultaneous with the first round of Mustafa<sup>(PBUH)</sup> **Prize Award Ceremony**

Subjects: Bionanotechnology Development Participants: 60 scientists from 25 countries Tehran 2015

Kuala Lumpur 2016

#### Hosted by Universiti Putra Malaysia (UPM)

**Subjects:** Nanoscience and Nanotechnology

Development

**Participants:** 26 scientists from 12 countries





#### Simultaneous with the second round of Mustafa (PBUH) **Prize Award Ceremony**

Subjects: Bionanotechnology, Islamic Economics, and

Participants: 60 scientists from 20 countries

**Tehran** 2016



#### **Hosted by Sultan Qaboos University (SQU)**

Subjects: Health, Energy and Water; Current and Future

Status

**Participants:** 60 scientists from 20 countries



# Karachi 2019

#### Hosted by ICCBS, University of Karachi

Subjects: Cutting Edge Pharmaceutical Approaches to Meet Emerging Health Challenges of CDs and NCDs; With an Emphasis on Female Scientists' Contributions

Participants: 64 scientists from 19 countries





#### Simultaneous with the third round of Mustafa (PBUH) **Prize Award Ceremony**

Subjects: Water-Energy Nexus, Health, Scientific Collaboration, Science Communication, Financing and

Women in Science and Technology

Participants: 107 Scientists from 35 countries

**Tehran** 2019









### The 7th STEP Summit at a Glance

STEP Participants Senior Official Roundtable

Sharing Experiences of Crisis Management

Sharing Achievements in Prevention, Diagnosis and Therapeutics Fields Eminent Scientists and Medical Staff Professionals, Young Scholars and Students

Presenting Articles and Achievements

# **Highlighted Sessions**



#### **Keynote Speech**

Novel Diagnosis, Prevention and Therapeutic Strategies for COVID-19.



#### **Senior Officials Roundtable**

Post-Coronavirus: Policies and Strategies for the Second Wave of Coronavirus.





Experiences and Observations of Medical Staff in Dealing with COVID-19 in Various Countries.



#### **Panel Discussion**

Scientific and Technological Networking in Facing the Coronavirus Challenges in the Islamic World



# **Paper Presentation**

## **Publishing Selected Articles in:**

Shiraz Electronic Medical Journal

Journal of Science and Technology Policy Management







## Structure of the 7th STEP Summit



Secretary, 7<sup>th</sup> STEP Scientific Committee

#### Prof. Mostafa Ghanei

Secretary of
Biotechnology
Development Council



Chair, 7th STEP Scientific Committee

#### **Prof. Jackie Ying**

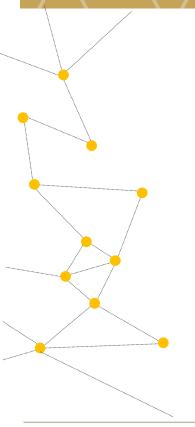
Head of A\*STAR's NanoBio Lab



Chair, 7th STEP

#### **Prof. Rassoul Dinarvand**

Head of Nanotechnology Research Centre, TUMS

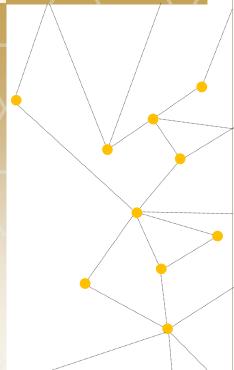




# Executive Secretary, 7th STEP

#### Engr. Mohammad Mehdi Jafari

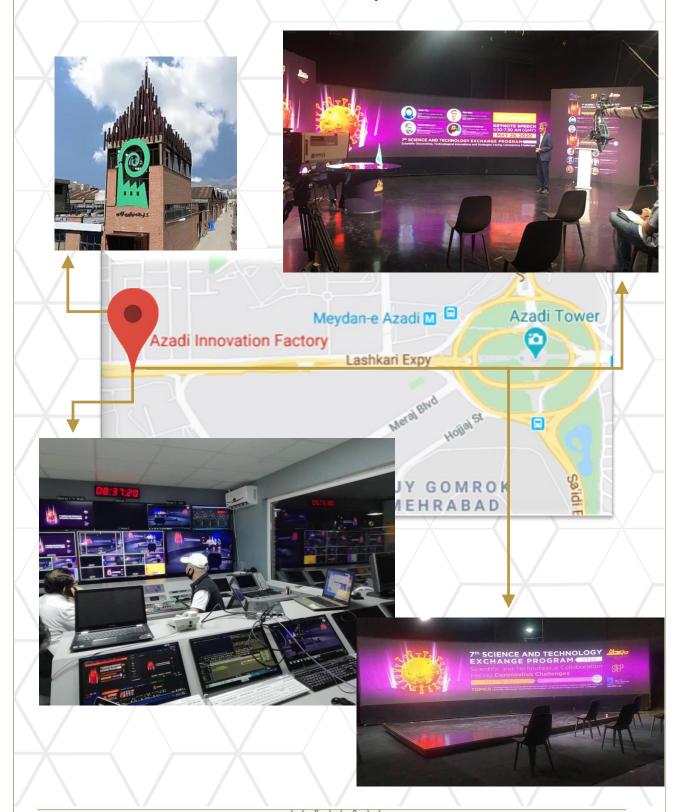
Member of the Board of Directors of Ayandegan Research Institute







# Holding the 7<sup>th</sup> STEP Summit Virtually in the VCast Studio, Azadi Innovation Factory, Tehran, Iran







# Schedule of the 7th STEP Summit (Virtual)

# Sharing Experiences and Observations of Islamic Countries' Medical Staff in Dealing with COVID-19

May 18, 2020

| Time (GMT)    | Main Program  |
|---------------|---|
| 4:30-5:00 AM  | Inauguration  |
| 5:00-10:00 AM | STEP Talks  Sharing Experiences and Observations of Islamic Countries' Medical Staff in Dealing with COVID-19 |

# Scientific Discoveries, Technological Innovations and Strategies Facing Coronavirus Challenges

May 28, 2020

| Time (GMT)        | Main Program  |  |  |
|-------------------|---|--|--|
| 4:30-5:00 AM      | Inauguration  |  |  |
| 5:00-8:00 AM      | Keynote Speech  Novel Diagnosis Strategies for COVID-19, Prevention and Therapeutic Strategies for COVID-19.        |  |  |
| 8:00-8:30 AM      | Break   |  |  |
| 8:30-10:00 AM     | Panel Discussion  Scientific and Technological Networking in Facing the Coronavirus Challenges in the Islamic World |  |  |
| 10:00-10:30 AM    | Break   |  |  |
| 10:30 AM-12:00 PM | Senior Official Roundtable  Post-Coronavirus: Policies and Strategies for the Second Wave of the Coronavirus        |  |  |
| 12:00-3:30 PM     | STEP talks  Prevention, Diagnosis and Therapeutic Strategies for COVID-19   |  |  |







### Sessions of the 7th STEP Summit

In the wake of the global crisis that led to the outbreak and the subsequent pandemic of the Coronavirus, various countries, including Islamic ones, suffered enormous damage in areas like public health, human mental security, and the global economy.

STEP with an emphasis on the importance of holding the summit in this critical time, tried to provide the best possible platform through virtual thematic summit on the Coronavirus, to synergize the capacities and capabilities of scientists and experts in the Islamic world to solve this global crisis.

The 7th STEP summit entitled "Scientific and Technological Collaboration Facing Coronavirus Challenges" was held on May 18 and 28, 2020.

#### First Day (May 18, 2020)

- With an emphasis on sharing experiences and observations of medical staff in dealing with COVID-19 in different countries.
- With the presence of the eminent scientists from Azerbaijan, Malaysia, Indonesia, Pakistan, Iran, Bangladesh, and China.













#### Second Day (May 28, 2020)

- \* Emphasis on scientific discoveries, technological innovations and strategies facing coronavirus challenges.
- With the presence of UNOSSC Director and the Vice-Minister of Healthcare of the Republic of Kazakhstan at the inauguration for sharing experiences and strategies facing Coronavirus challenges.
- ❖ Presentation by previous Mustafa<sup>(PBUH)</sup> Prize laureates at the keynote speech session.
- Holding the panel discussion entitled, "Scientific and Technological Networking in Facing the Coronavirus Challenges in the Islamic World" with the presence of 7 eminent scientists from organizations such as TWAS and ECOSF.
- Holding the senior official roundtable entitled, "Post-Coronavirus: Policies and Strategies for the Second Wave of the Coronavirus" with the presence of 6 scientists and experts from Iran, Pakistan, Japan, and Italy.
- Holding 9 STEP talks with an emphasis on "Prevention, Diagnosis and Therapeutic Strategies for COVID-19" with the presence of eminent scientists from Canada, US, Turkey, India, Iran, France and Indonesia.

















#### Details of the 7th STEP Summit

The 7<sup>th</sup> STEP summit included 1 Panel Discussion, 4 Keynote Speeches, 1 Senior Official Roundtable, and 19 STEP Talks.

#### **Panel Discussion**

#### With an emphasis on

- The importance of recognizing the Islamic world challenges in facing Coronavirus pandemic
- Scientific and technological networking in facing Coronavirus difficulties
- Current status of the Islamic world in the critical time
- Introducing successful achievements of Muslim Scientists in novel diagnosis, prevention and therapeutic strategies for COVID-19



#### **Keynote Speech**

- ❖ Prof. Jackie Ying-2015 Mustafa<sup>(PBUH)</sup> Prize Laureate, Diagnostic Assays for Infectious Diseases
- ❖ Prof. Ugur Sahin-2019 Mustafa<sup>(PBUH)</sup> Prize Laureate, Developing COVID-19 mRNA vaccines
- Prof. Hossein Baharvand-2019 Mustafa (PBUH) Prize Laureate, Mesenchymal Stem Cells for Treatment of Patients with SARS-COV-2-related
- ❖ Dr. Mohammad Abdolahad-2019 Mustafa<sup>(PBUH)</sup> Prize Laureate, Real-time electrical diagnosis of COVID-19 during its pandemic by sputum and/or blood sampling









#### **Senior Official Roundtable**



Specialized meeting with the presence of politicians and experts in the field of health with an emphasis on sustainable development and targeted strategies in the healthcare system, entitled, "Post-Coronavirus: Policies and Strategies for the second wave of Coronavirus".

- Decision-making for sustainable development in the future
- \* Recognizing the faster and better solutions for COVID-19
- \* Reflection on post-COVID-19 strategies
- ❖ Importance of readiness of the Islamic countries facing the second wave of COVID-19
- ❖ Scientific achievements of Islamic countries in dealing with COVID-19









# **STEP Talk (First Day)**

Sharing experiences and observations of scientists and medical staff of different countries in dealing COVID-19.

- ❖ Dr. Iraj Harirchi- Experience of Iran in facing the Coronavirus Crisis.
- Prof. Abdol Majid Cheraghali-Management of COVID-19 Iranian Patients Using Convalescent Plasma
- Prof. Farshad Farzadfar-NCDRC's Initiatives on COVID-19 Epidemic Control in Iran
- Prof. Sherina Mohd Sidik-Sharing Experiences & Observations of Malaysia in Dealing with COVID-19 Among Patients with Cancer
- Prof. Daryono Hadi Tjahjono-How Universities, Private Sectors and Non-government Organizations Contribute in Fighting COVID-19 Pandemic
- Prof. Syed Mohammad Wasim Jafri-COVID-19, Learning from China's Experiences, Current and Future Implications in Pakistan
- Prof. Rustam B. Rustamov-Sharing of Achievements and Challenges/High Technology Engagement for COVID-19
- Prof. Hossein Ghanaati-Experiences of Iranian Confrontation with COVID-19 Crisis
- ❖ Prof. Faridul Alam-Initiatives Taken by Bangladesh in Response to COVID-19
- Prof. Jian-cang ZHOU-Management of Patients with COVID-19: China's Experiences













### STEP Talk (Second Day)

With an emphasis on Prevention, Diagnosis and Therapeutic Strategies for COVID-19 in different countries around the world.

- ❖ **Prof. Hamid R. Rabiee-**Rapid Detection of Coronavirus with Explainable AI and Chest CT-Scans
- ❖ Prof. Zulfigar A. Bhutta- Children and COVID-19
- Prof. Naim Akhtar Khan-Obesity and COVID-19: Immunosuppresion & Oro-nasal-sensory Loss.
- ❖ **Prof. Ilkay Erdogan Orhan-**Could Natural Products Be Structural Models as Potential Leads in Drug Design Against SARS-CoV-2.
- Prof. Farhan Jalees Ahmad-Nanotechnology Based Diagnostic Platform for COVID-19.
- ❖ Prof. Kobra Omidfar-Development of a Colloidal Gold-based Immunochromatographic Test Strip for Screening of COVID-19 IgM/IgG
- Prof. Omar Bagasra-Protoplast Fusion, A Novel Method to Develop Antibiotics Against Multi-drug Resistant Microbes
- \* Prof. Afshar Alam-India COVID-19
- ❖ Dr. Aly Lamuri-Perceived Distress Among Greater Jakarta Area Residents during COVID-19 Pandemic and Community Containment







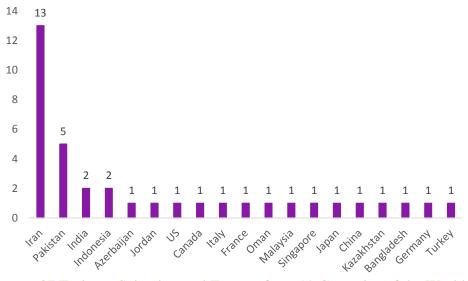




# Participation of Various Countries in the 7th STEP Summit



# Distribution of Participated Scientists in the 7th STEP Summit Based on Country



37 Eminent Scientists and Experts from 19 Countries of the World





# Partner Universities and Organizations in the 7th STEP Summit

Universities 17 Organizations 9 Research Centers 7

| Universities                                 | Tehran<br>University                                     | Tehran University of<br>Medical Science                | Sharif<br>University                            |
|--|--|--|---|
| Shiraz University of<br>Medical Science      | Baqiytallah<br>University of<br>Medical Science          | University of Nizwa                                    | Keio University                                 |
| Gazi<br>University                           | Jamia Hamdard  | University of Bourgogne                                | Bangladesh<br>University                        |
| Aga Khan<br>University                       | Khazar<br>University                                     | Universiti<br>Putra Malaysia                           | Hashemite<br>University                         |
| Claflin<br>University                        | Quaid-i-Azam<br>University                               | Organizations  | WHO   |
| UNOSSC                                       | UNESCO   | ECOSF  | TWAS  |
| COMSTECH                                     | CDO Kazakhstan   | Ministry of Health<br>and Medical<br>Education of Iran | D-8 Organization<br>for Economic<br>Cooperation |
| Research<br>Centers                          | NanoBio Lab<br>A*STAR,<br>Singapore                      | TRON Translational<br>Institute, Germany               | Royan Institute, Iran                           |
| Centre for Global<br>Child Health,<br>Canada | Indonesia Medical<br>Education and<br>Research Institute | Non-Communicable<br>Diseases Research<br>Center, Iran  | Bandung Institute<br>Technology,<br>Indonesia   |



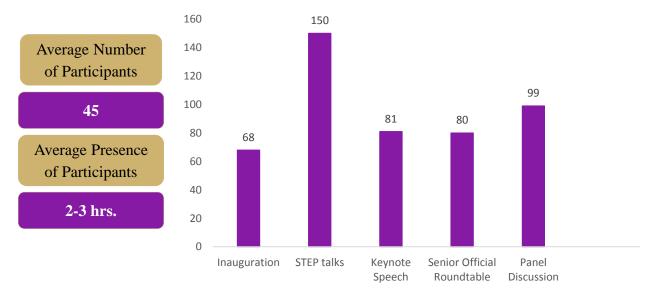




# Statistics of Participants in the 7th STEP Summit

Presence of 200 people on the first day and 278 people on the second day of the summit via "Adobe Connect"

#### Number of Participants in Different Sessions of the 7th STEP Summit via Adobe Connect



#### Participants of the 7th STEP Summit from Various Countries



- Iran

- Malaysia
- Indonesia
- Pakistan
- Azerbaijan
- Canada
- South Africa •
- Saudi Arabia

- Japan
- India
- Philippines
- Qatar

- Russia
- Iraq
- Egypt
- Oman
- Netherlands

- Ethiopia
- Serbia

- Turkey
- USA
- Congo Italy
- Bangladesh





# **Eminent Scientists in the 7th STEP Summit**



Ugur Sahin-Germany Co-founder and Leadership of BionTech



Jackie Ying-Singapore Head of A\*STAR NanoBio Lab



Hossein Baharvand-Iran Director of Royan Institute for Stem Cell Biology and Technology



Mohammad Abdolahad-Iran Associate Professor, School of ECE, University of Tehran



Zulfiqar A. Bhutta-Canada Co-director of the Centre for Global Child Health



Olzhas Abishev -Kazakhstan Vice minister (CDO), Ministry of Healthcare



Dr. Iraj Harirchi-Iran Deputy Minister of Health and Medical Education



Rana Dajani-Jordan Professor, Hashemite University



Jorge Chediek-US UNSSOC Director and Envoy of the Secretary



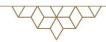
Manzoor H. Soomro-Pakistan Founder President, ECO Science Foundation (ECOSF)



Max Paoli-Italy TWAS Program Coordinator



Kamran Bagheri Lankarani-Iran Professor, Shiraz University of Medical Sciences







## **Eminent scientists in the 7th STEP Summit**



Ilkay Erdogan Orhan-Turkey Dean of Faculty of Pharmacy, Gazi University



Hamid R. Rabiee-Iran Professor, Sharif University of Technology



Naim Akhtar Khan-France Director, Nutritional Physiology & Toxicology Division, University of Bourgogne



Omar Bagasra-US Director of the South Carolina Center for Biotechnology



Muhammad I. Choudhary-Pakistan Coordinator General COMSTECH



Sherina Mohd Sidik-Malaysia Deputy Director, Cancer Resource & Education Center (CaRE), Universiti Putra Malaysia



Amirhossein Takian-Iran Chair, Department of Global Health & Public Policy, Tehran University of Medical Sciences



Haruka Sakamoto-Japan Assistant professor, Department of Health Policy and Management, Keio University



Hossein Ghanaati-Iran Head of Think Tank Room of Corona Crisis in Tehran





# Media Coverage of the 7th STEP Summit

#### **Media Content Production**

- Publishing 91 pieces of news, articles, and interviews, in different languages including English and Arabic.
- ❖ Production of 10 multimedia contents including 6 interview clips, 1 introduction motiongraphy introducing the 7<sup>th</sup> STEP, and 2 clips of the daily meetings.

#### **Highlights of the Social Media**

- ❖ The editor-in-chief of Kuwait's Al-Qabas newspaper, introduced the Mustafa<sup>(PBUH)</sup> Science and Technology Foundation on his personal page in praise of the foundation and the Science and Technology Exchange Program(STEP), announcing that he was ready to be a bridge among the Gulf scientific centers and the foundation.
- Mr. Jahanpour; the spokesman for Iran Ministry of Health, which is currently considered Iran's most important news source in the Coronavirus situation, tweeted about Professor Sahin's Coronavirus vaccine advancement till August.











# Media Coverage of the 7th STEP Summit

### Highlighted feedback on mass media

- ❖ In total, 431 feedbacks on mass media in different languages including English and Arabic.
- \* Holding an interview with Radio Farhang, Radio Payam, and News Talk on Channel 4.

| Jaam Jam Online     | IRNA                       | Fars   | Tasnim            |
|---------------------|----------------------------|--|-------------------|
| IRIB                | ION                        | ISNA   | Hamshahri Online  |
| Technology<br>Times | ISCA                       | Ana  | Mehr              |
| Alaalam             | Mardomsalari               | SNN  | Tabnak            |
| Wakala<br>Agency    | Al-Vefagh                  | Al-Ahed  | UAport            |
| Iran Press          | Islamic Voice of<br>Turkey | MBS  | Financial Tribune |
| IQNA                | Iran News Daily            | Organization of<br>Asia-Pacific News<br>Agencies | Such TV           |
| Tehran Times        | News Maghreb               |  |                   |







#### Achievements of the 7th STEP Summit

- ❖ Holding the event virtually and providing an optimal condition for recording the program
- Cooperation with other networks to synergize capacities for holding events:
- □ Engagement of new organizations like World Health Organization (WHO) and Society for the Advancement of Science and Technology in Arab World (SASTA)
- □ Development of communications with members of the STEP network:
- The World Academy of Sciences (TWAS)
- United Nations Office for South-South Cooperation (UNOSSC)
- OIC Ministerial Standing Committee on Scientific and Technological Cooperation (COMSTECH)
- Eco Science Foundation (ECOSF)
- NanoBio Lab A\*STAR
- Endocrinology and Metabolism Research Institute
- ☐ Effective communication with officials of various countries like Japan, Serbia, Kazakhstan and Russia
- Speech of the Vice-Minister of Healthcare of the Republic of Kazakhstan at the inauguration
- Cooperation with scientific Journals to publish selected articles
- Shiraz Electronic Medical Journal
- -Journal of Science and Technology Policy Management





- Appropriate media coverage
- ❖ Informing about the 7<sup>th</sup> STEP summit by reputable universities and organizations in the Islamic world
- ECOSE
- COMSTECH
- UNSSOC
- UNESCO
- Gathering of scientists, experts and politicians of various countries in different sessions with emphasis on sharing experiences, observations and defining sustainable solutions in dealing with first and second waves of the Coronavirus challenges.
- Benefiting from presentation of Health politicians and experts on methods and policies in dealing with COVID-19.
- \* Emphasis on the latest achievements of scientists in the Islamic world about novel diagnosis, prevention and therapeutic strategies for COVID-19 in the session entitled keynote speech with the presence of Mustafa<sup>(PBUH)</sup> Prize laureates.
- \* Emphasis on impressive, sustainable and strategic policies in facing second wave of the Coronavirus at the senior official roundtable.
- Emphasis on scientific and technological networking in facing the Coronavirus challenges in the World at the panel discussion with the presence of representatives of TWAS and COMSTECH.
- Benefiting from worthwhile experiences of medical staff and scientists in facing COVID-19 in STEP talk sessions with the presence of 19 scientists from different countries.





#### Feedbacks of Scientists on the 7th STEP Summit



Prof. Olzhas Abishev
Vice Minister (CDO), Ministry of Healthcare
Kazakhstan

It was a great honor for me to participate virtual summit to synergize COVID-19 responses organized by Mustafa Science and Technology Foundation of Iran.





I believe this is the critical time to fund some small money for COVID-19 research. This is the time to bring the talent of Muslim scientists and showcase that there are Muslim scientist who are making contributions to treat and find vaccines against the pandemic. I am suggesting that you form a committee of 5 scientist to review the proposals. Even \$10,000 grants can make a difference and put the Muslim scientists at the forefront of News media. This is the right time to show to the world how the Muslim Scientists are making a difference in fighting against COVID-19.

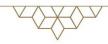




It was an honor to accept invitation of the Science and Technology Exchange Program on Virtual Summit for the "Scientific and Technological Collaboration Facing Coronavirus Challenges".

There is no doubt that this platform was an excellent opportunity for sharing and exchanging knowledge's and experiences in such a complicated pandemic circumstance embraced over all the World.

Taking this advantage I would like to express my personal gratitude to STEP Organizing Committee for invitation and excellent environment as well as organization such a vital event within the framework of Islamic countries.



# **Partnerships**

# The 7<sup>th</sup> Science and Technology Exchange Program May 18 & 28, 2020



























































