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Cairo Science Forum:

Science Diplomacy and Recent Developments in Biology.

Main fields of activities of the meeting and outline the scientific program

Monday, Nov. 18: Arrival Day

All day: Keynote speakers Arrival at Cairo Airport and hotel transfer

Tuesday, Nov. 19: Day one

9.00 -10.00 : Registration

10.00 – 11.45 : Inaugural programme: Representatives of the sponsors and partners (AvH-Germany, National Research Centre, IUBS, ASRT, STDF, CNR-Italy”.

10.00 : Escorting the dignitaries to the dais

10.10 : Presentation of Bouquets to the visiting dignitaries

10.15 : Vote of thanks, Prof. Dr. M.S. Hanafy, Conference chairman

10.25 : Professor Ibrahim Zeid, President of Humboldt- Cairo Association

10.35 : Ms. Isabell Mering, Director of the DAAD Cairo office.

10.45 : Welcome address, Dr. Thomas Hesse, Deputy Secretary-general of AvH

10.55 : Welcome address, Prof. Dr. Mahmoud Sakr, president of ASRT

11.05 : Science Diplomacy, Italian vision, Prof. Claudio Margottini, Scientific and Technological Attaché, Italian Embassy.

11. 15 : Welcome address Mr. Philippe Maupai, Scientific and Technological Attaché, German Embassy.

11.25 : Prof. Dr. Khaleed Abdel-Ghaffar, Minister of Higher Education and Scientific Research (tbc)

11.35 : Presidential address, Prof. Dr. Mohamed Hashem, President of NRC.

11.45 Group photo and Networking coffee break

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Plenary Session 1: Frontier research as science in diplomacy: fostering sustainable development

Chairmen: Prof. Dr. Helmy Omran and Prof. Dr. Vitantonio Pantaleo

12.30 – 13.00 : Alexander von Humboldt Foundation – Linking Science, Education and Cultural Diplomacy, sponsorship programs.

Dr. Thomas Hesse, Deputy Secretary-general of AvH.

13.00 – 13.30: CNR vision for Science diplomacy

Dr. Francesca Tolve, Responsible for Science Diplomacy, National Research Council of Italy (CNR), Office for European and International Relations

13.30 – 14.00: Higher Education and Scientific Research in the Arab world

Prof. Sultan Abu-Orabi Aladwan, Former Secretary General, Association of Arab Universities, Amman, former president Yarmouk University, Jordan

14.00- 14.30: 40 years in Plant Biotechnology-looking back.

Prof. Dr. Hans-Joerg Jacobsen. Leibniz University Hannover. Germany

14.30 - 15.00 :Agro-Biodiversity between science and trade conflicts

Prof. Dr. Ayman Farid Abo-Haded, Former Minister of Agriculture and Climate change Expert

15.00 – 15.30 : Photodynamic Modality for Cancer Diagnosis & Therapy and the Egyptian Innovation for Control of Malaria Vector in Infested African Swamps

Prof. Dr. Mahmoud Abdel-Kader, Professor of Photochemistry, Cairo University, Former president of the German University in Cairo (GUC).

15.30- 16.30 : Lunch

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Plenary Session 2. Frontier research as science in diplomacy: fostering sustainable development (cont.)

Chairman: Prof. Dr. Ibrahim Tantawi

- 16.30 - 16.55 : **Multi and Interdisciplinary Research: The Wide Gates for Science Diplomacy**
Prof. Rasha Sharaf, Vice-President for Students' Affairs, Egyptian National E-Learning University (EELU)
- 16.55 - 17.20 : **Science diplomacy: Soft power to connect the world through science**
Prof. Dr. Amal Amin, National Research Centre
- 17.20 -17.40 : **The UNESCO 2003 Convention for Safeguarding Intangible Cultural Heritage and its Role in Sustaining Natural Capital and Biodiversity**
Hani Hayajneh, Yarmouk University, Irbid – Jordan

17.40 – 18.40 : Poster session

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Wednesday, Nov. 20: Day 2

8.30 -09.00 : Registration

Plenary Session (3): Frontier research and cutting edge technologies: Recent developments in genomics

Chairmen: Prof. Ashraf Abadi

9.00 - 9.30 : Pathways to yield improvement in wheat

Prof. Dr. Hartmut Stuetzel. Leibniz University Hannover. Germany

9.30 - 10.00 : Redox regulation in the heart of biology

Prof. Dr. Karl-Josef Dietz

Chair of Plant Biochemistry and Physiology, Faculty of Biology, University of
Bielefeld, Germany

10:00 – 10.30: The defence mechanisms of plants attacked by phytoparasitic nematodes

Dr.ssa Paola Leonetti,

CNR - Institute for Sustainable Plant Protection, Italy

10.30 - 11.00 : Viral and sub-viral derived small RNAs as pathogenicity factors in plants

Prof. Dr. Vitantonio Pantaleo, CNR - Institute for Sustainable Protection,
Italy.

11.00-11.30 : Coffee break

Plenary Session (4): Frontier research and cutting edge technologies: Recent developments in genomics

Chairman: Prof. Paola Leonetti

11.30 -12.00 : Improvement of protoplast proliferation for efficient gene editing and
possible target genes to increase the provitamin A content in crops

Prof. Dr. Ralf Welsch, Freiburg University, Germany

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12.00 - 12.30 : **Biotech options to overcome negative impact of abiotic stresses due to climate change on agriculture**

Sudhir K Sopory

International Centre for Genetic Engineering and Biotechnology, New Delhi.

12.30 -12.50 : **Positive impacts of plant biotechnology on environment**

PD. Dr. Fathi Hassn, Laboratory of Experimental Trauma Surgery

Justus Liebig University of Giessen

12-50 - 13.10 : **Deep Learning Approach in Analyzing Medical Images**

Prof. Mohamed Abdel-Rahman Mohamed Abdou, Head of Knowledge Based Systems (AI) Department, Informatics Research Institute, SRTA- City, Alexandria.

Session (5): Frontier research and cutting edge technologies: biodiversity and climate change

Chairmen: Prof. Marian Jaskula

13.10-13.40 : **Unifying biology through diversity for sustainability and equitability.**

Prof. L. S. Shashidhara, President, International Union of Biological Sciences (IUBS)

13.40-14.00 : **CO₂ fixation - resistance of plants to drought, heavy metals and other stresses, and its impact on the changing environment**

Prof. Dr. Zbigniew Miszalski, Polish Academy of Sciences, Poland

14.00-14.20 : **Biodiversity for Sustainable Development - Science and Politics Consensus**

Prof. Dr. Abdel Fattah Badr, Professor of Genetics and Biosystematics, Helwan University.

14.20-15.20 : **Climate Across the Curriculum: Educational Resources for teacher (TROP-ICSU project)**

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Prof. L. S, Shashidhara, President, International Union of Biological Sciences

([IUBS](#))

15.20-16.00 : Lunch

16.00-17.30 : **Junior Scientists Session (short talks delivered by junior scientists in the field of biotechnology and biodiversity).**

Chairmen: Prof. Ahmed Al-Ajluni and Prof. Mohamed Elluze

1- Effects of thermal annealing on the optoelectronic properties of InAs/GaAsSb quantum dots

Dr. Imen Saïdi, Faculty of Science of Bizerte Tunisia

2- Interaction of Nanoparticles with cells: Effect of Rhinovirus infection on Nanoparticle uptake

Dr. Yasmin Abo-zeid, School of Pharmacy, Helwan University, Cairo, Egypt

3- Amperometric biosensor based on laccase immobilization onto functionalized multiwalled carbon nanotubes modified screen-printed electrodes for phenolics detection

Dr. Abdelmageed M. Othman, Microbial Chemistry Department, National Research Centre, Egypt

4- Marine Biodiversity variation in a changing climate

Dr. Samah M. Bassem, Biotechnology and Biodiversity Conservation Group, Centre of Excellence for Advanced Sciences (CEAS), National Research Centre (NRC)

5- Targeting the active site of tumor associated human carbonic anhydrases to obtain selective inhibitors: a cumulative study.

Dr. Hany S. Ibrahim, Pharmaceutical Chemistry Department, Faculty of Pharmacy, Egyptian Russian University, Badr City, Cairo 11829, Egypt

6- Structure-based design generated novel hydroxamic acid based preferential HDAC6 lead inhibitor with on-target cytotoxic activity against primary choroid plexus carcinoma

Dr. Shaymaa Emam Kassab, Faculty of Pharmacy – Damanhour University, Buhaira, Egypt

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**7- Impact of proteomics and metabolomics on the development of pharmaceutical sciences
(A case study of glucosinolates: anticancer natural products).**

Dr. Islam Mostafa, Faculty of Pharmacy, Zagazig University, Zagazig, Egypt

8- Stem cell fate in hypoxic root apical meristems is influenced by phytooglobin expression

Dr. Eman A. Elkhateeb, Tanta University, Faculty of Science, Botany Department (Genetics),
Egypt.

**9- Assessment and Conservation of Mangroves for Their Blue Carbon Along Egyptian
African Red Sea Coast.**

Dr. Abdelwahab Afefe, Nature Conservation Sector, Egyptian Environmental Affairs Agency.

**10. Intrastructural help: improving virus-like particles vaccination approach against HIV
infection.**

Dr. Hassan Elsayed, Department of Microbial Biotechnology, Genetic Engineering and
Biotechnology Division, National Research Centre, Dokki, Giza, Egypt.

**11. Green building techniques in the Egyptian schools: using solar energy and reuse gray
water in sustainable crop production**

Dr. Abdelraouf Ramadan, National Research centre (NRC), Cairo, Egypt euse gray water in
sustainable crop production.

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Thursday, Nov. 21: Day 3

8.30 -09.00 : Registration

Session (6): Frontier research and cutting edge technologies: chemistry, pharmacy and nanoscience.

Chairmen: Prof. Zbigniew Miszalski and Prof. Yaseen Al-Soud

09.00 - 9.20 : **New perspectives in the treatment of Hepatitis C Virus.**

Prof. Dr. Ashraf Abadi, German University in Egypt

09.20 - 09.40 : **Rabies: The need to establish a control strategy in Africa**

Prof. Mohamed Shalaby, Faculty of Veterinary Medicine, Cairo **University**

09.40-10.00 : **Anti-inflammatory and gastroprotective potential of leaf essential oil of *Cinnamomum glanduliferum* in ethanol-induced rat experimental gastritis**

Prof. Dr. Samar S. Azab, Ain Shams University

10.00 - 10.20 : **Use of ZnO nanoparticles for biosensors**

Prof. Dr. Mohamed El-louze, University of Sfax, Faculty of Sciences of Sfax,
Tunisia

10.20 - 10.40 : **Synthesis of new triazole – nitroimidazole hybrid systems via click chemistry as antitumour agents.**

Prof. Dr. Yaseen Al-Soud, Al al-Bayt University, Jordan

10.40 – 11.00 : **Chalcogenocarboxylate complexes of iron bearing vinyl moiety.**

Prof. Mohamed El-Khateeb, Jordan University of Science & Technology, Jordan

11.00 – 11.20 : **Stereoselective Epoxidation of Testosterone with Hydrogen Peroxide as Catalyzed by Mn(III)-Salen Complex**

Prof. Ahmad M. Al-Ajlouni, Jordan University of Science & Technology, Jordan

11.20-11.50 : **Coffee Break**

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Session (7): Frontier research and cutting edge technologies: Multidisciplinary scientific research fields for sustainable developments

Chairman: Prof. Dr. Mohammad El-Khateeb

11.50 - 12.10 : New Designs of Electric Machines for Vehicles Propulsion

Prof. Ryszard. Palka, West Pomeranian University of Technology, Szczecin, Poland

12.10 - 12.30 : Sustainable control of lepidopterous pests in olive groves: integration of egg parasitoids and pheromones,

Prof. Esmat M. Hegaz, Alexandria University

12.30-12.50 :Lessons Learned from the 1st Egyptian Aquaculture Revolution (1976-2015).

Prof Dr Abdelaziz Mousa Nour, Alexandria University

12.50 - 13.10 : Exotic nuclei for physics, astrophysics and applications: A worldwide effort

Giacomo de Angelis, Legnaro National Laboratories (LNL) of the Italian Institute for Nuclear Physics (INFN), Italy

13.10 – 13.30 : Influence of Solar Energy on Self-Organization of Water Molecules. Solution of Water Memory Mystery

Prof. Dr. Igor Shevchenko, Institute of Bioorganic Chemistry and Petrochemistry, Kiev, Ukraine

Session (8): Information session on research funding opportunities for PhD students and post-doctoral scientists.

Chairman: Prof. Dr. Mohamed M. El-Fouly

13.30 -13.45 Science in the ages of globalization, Marian Jaskuła, Jagiellonian University, Cracow, General Secretary of Societas Humboldtiana Polonorum, Poland

13.45- 14.00 Academy of Scientific Research and Technology (ASRT), a delegator from ASRT.

14:00 -14.15 Technische Universität München (TUM), Heba Afifi,

14.15 - 14.30 Marburg University. Irene El-Khorazaty

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- 14:30 - 14.45 Alexander von Humboldt (AvH) foundation: Sponsorship and programmes,
Dr. Thomas Hesse and Dr. Moemen Hanafy
- 14:45 - 15.00 Japan Society for Promotion of Science (JSPS): Programmes and Alumni in Egypt. Prof. N. Fukami and Prof. Dr. I. Tantawi, JSPS
- 15:00 – 16:00 Lunch break
- 16.00 - 17.30 Panel discussions – Science Funding and Science Diplomacy: Which role for research organizations now and in the future?
(Moderated by Dr. Moemen Hanafy)
Prof. Dr. Thomas Hesse, Deputy Secretary-general of AvH
Prof. Dr. Sameh Soror, Foreign Secretary & Supervisor of Scientific and Cultural Relations (ASRT).
Prof. Dr. L.S. Shashidhara, President of IUBS.
Prof. **Dr. M. Ellouz**, Alexander von Humboldt-Maghreb Alumni Association, Tunisia
Prof. Dr. Marian Jaskula, Societas Humboldtiana Polonorum, Poland.
Dr. Francesca Tolve, Responsible for Science Diplomacy, National Research Council of Italy (CNR), Office for European and International Relations. Italy
Prof. Mohamed M. El-fouly, National Research Centre,
- 17.30 : Official closure, conclusions and prizes for oral and poster presentations of junior researchers.

20.00 Gala dinner (by invitations)

Friday, Nov. 22: Day 4

Visiting Cairo Attractions (by invitations)

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