



Network on Research and Postgraduate Education in Biophysics, Biotechnology and Environmental Health



# International virtual conference on Biophysics of life on Earth and the Covid-19 pandemic (World Biophysics Week 2021)

**14-16 March 2021  
(24-26 Esfand 1399)**

**A Three Day International Virtual Congressional Debate as an Activity Biophysics Week**

That, will be followed by the IBB International Symposium on Importance of Biophysics, March 25, 2021

<https://ibb.ut.ac.ir/IBB-BW2021>

**Institute of Biochemistry and Biophysics (IBB), University of Tehran, Tehran, Iran  
14-16 March 2021 (24-26 Esfand 1399)**

**Free registration**

Interdisciplinary Theoretical & Experimental Approaches in Education, Training, Research, Discoveries, Innovation To Understand & Solve Biological Problems

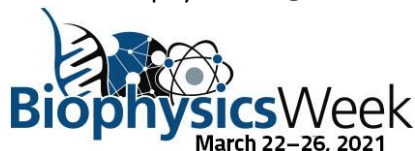
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In collaboration with

USERN (Universal Scientific Education and Research Network) SCIENCE WITHOUT BORDERS UNESCO/UNITWIN (Interregional NETWORK in Biophysics, Biotechnology and Environmental Health)

**Director: Prof. Hamid Mobasheri**

# Program

<b>Sunday (March 14)</b> Day 1 (24-12-1399) <b>Morning Session (09:00-12:00)</b> <b>Afternoon Session (14:00-18:00)</b> (+3:30 GMT)	<b>Opening session</b>	Video on Biophysics in Iran/World
07:30-08:00	<b>Registration</b>	
08:00-09:15 08:00-08:05 08:05-08:10 08:10-08:20 (10 Min each)	<b>Opening Ceremony</b> Quran Iran National Anthem Message of the Head of IBB Message of IBB-BW 2021 Director Message of USERN Chairman Message of UNESCO Chairman	
<b>Programs and Times</b> <b>Morning Session (09:00-12:00)</b>	<b>Biophysical Research</b> <b>(in different aspects)</b>	<b>Concepts in</b> <b>Biological Sciences</b> (Cell and Molecular Biology, Zoology, Botany, Microbiology, etc.), <b>Basic Sciences</b> (Physics, Chemistry, Mathematics) <b>Clinical Sciences</b> (Medicine, Dentistry, Pharmacy, Paramedics) Environmental and agricultural sciences <b>Medical Engineering</b> (Bioelectric, Biomechanics, Biomaterials)
09:15-09:30	<b>Prof. Hamid Mobasheri</b> (IBB, University of Tehran, Iran)	Importance of Biophysics
09:30-10:00	<b>Prof. Ali Akbar Moosavi Movahedi</b> (UNESCO Chair of Biophysics of Diabetes)	Biophysics of Diabetes Complexity
10:00-10:30 (Italy +2:30, 09:00-09:30)	<b>Prof. Alberto Foletti</b> (Clinical Biophysics, International Research Group, Montagnola, Switzerland)	Clinical Biophysics as an integrative toolkit to cope with the pandemic burden
10:30-10:45 Discussion		
<b>10:45-11:00 Coffee Break</b>	<b>Video</b>	<b>Interdisciplinary aspects of Biophysics</b>
11:00-11:30 (Armenia, +0:30, 1130-1200)	<b>Prof. Synerik Ayrapetyan</b> (UNESCO/UNITWIN Network, Armenia)	Quantum mechanical sensitivity of living organisms
11:30-12:00	<b>Prof. Hossein Naderi-Manesh</b> (Tarbiat Modares University, Tehran, Iran)	Microfluidic platform: new approach for biophysical studies in Lab on a chip
12:00-12:15 Discussion		
<b>12:15-12:30</b>	<b>Poster Presentation</b>	<b>Presentation of Accepted poster</b>
<b>Afternoon Session</b> <b>(1400-1700) (+3:30 GMT)</b>	<b>Biophysical Research</b>	
14:00-14:30	<b>Dr Azimzadeh Irani</b> (Shahid Beheshti Univ, Tehran, Iran)	O-glycosylation of the SARS-CoV-2 RBD Affects the Virus Affinity to ACE2
<b>14:30-15:00</b>	<b>To be announces</b>	<b>??</b>
15:00-15:15 Discussion		
<b>15:15-15:30 Coffee Break</b>	<b>Poster Presentation/Video</b>	<b>Presentation of Accepted poster/Biophysics in Iran</b>
15:30-16:00	<b>Dr Peyman Shariatpanahi</b> (IBB, University of Tehran, Iran)	<b>Effects of Weak Magnetic fields on the ROS production in living cells</b>
16:00-16:30 Sunday (March 14)	<b>Dr Mehrdad Saviz</b> (Amirkabir Univ. Technology, Tehran, Iran)	Using multiscale analogies in understanding bioelectric phenomena

16:30-17:00	<b>Prof. Faezeh Ghanati</b> (Tarbiat Modares University, Tehran, Iran)	Effect of SMF on signaling pathways involved in cell cycle and metabolism of tobacco cells
17:00-17:30 (Bolivia time, 08:30-0900 am)	<b>Prof Gustavo Zubieta</b> (Prof. Dr. Gustavo Zubieta-Calleja Head High Altitude Pulmonary and Pathology Institute (HAPPI-IPPA) La Paz, Bolivia)	Increased photoelectric biological effect at high altitude as one factor reducing lethality in COVID
<b>1700-1715 Discussion</b>		

<b>Monday (March 15)</b> Day 2 (25-12-1399) Morning Session (0900-1200) Afternoon Session (14:00-18:00) (+3:30 GMT)	<b>Biophysical Education</b> Education in biophysics, <b>The Biophysicist</b> , <a href="https://www.biophysics.org/the-biophysicist">https://www.biophysics.org/the-biophysicist</a>	Curriculum, Teaching, Interests Talents Creativity, Analytical approaches, Problem Solving, Innovation Standards and ethics Jobs, Startup establishment
09:00-09:30	<b>Prof. Hossein Naderi-Manesh</b> (Previous Vic-chancellor of Ministry of Higher Education, Iran)	Biophysics in the view of policy maker
09:30-10:00 (Australia time, 17:00-17:30)	<b>Prof. Frances Separovic</b> (University of Melbourne, Australia)	NMR studies of antimicrobial peptides
10:00-10:30	<b>Prof. Mohamad Reza Ejtehadi</b> (Sharif University of Technology, Tehran, Iran)	Making life simple by modeling
10:30-10:45 Discussion		
<b>10:45-11:00 Coffee Break</b>	<b>Accepted Student poster presentation/video</b>	<b>IBB and Iran biophysical Discoveries</b>
11:00-11:30 (Armenian time, 1130-1200)	<b>Prof. Sinerik Ayrapetyan</b> (UNESCO/UNITWIN Network, Armenia)	UNESCO/UNITWIN Programs for Postgraduate Studies in Biophysics
11:30-12:00	<b>Dr Mahriar Amininasab</b> (University of Tehran, Iran)	Importance of creative Biophysical knowledge to study biological sciences
12:00-12:15 Discussion		
<b>Afternoon Session (1400-1700) (+3:30 GMT)</b>	<b>Biophysical Outcomes</b>	<b>Interdisciplinary/integrative approach, Research, Discoveries, Inventions, Problem solving, Targeted horizons</b>
	<b>Video of Iran Culture and Music</b>	
14:00-14:30 (Armenian time, 1130-1200)	<b>Mary-Hrachoochi Boghosian</b> (UNESCO/ UNITWIN Life Sciences International Education Center)	Creativity & Collaboration in the Era of COVID 19
14:30-15:00	<b>Prof. Hossein Abbasi</b> (Amirkabir Uni. Technology, Tehran, Iran)	Cold Plasma application in dental treatments
15:00-15:15 Discussion		
<b>15:15-15:30 Coffee Break</b>	<b>Video</b>	<b>IBB and Iran. Biophysically solved Problems</b>
<b>15:30-16:00</b>	<b>To be announces</b>	<b>??</b>
16:00-16:30	<b>Dr Hamid Hadi-Alijanvand</b> (Institute for Advanced Studies in Basic Sciences (IASBS), Zanjan, Iran)	The relation between ACE2 polymorphisms and its affinity for SARS-CoV-2 spike protein
16:30-16:45 Discussion		

<p><b>Tuesday (March 16)</b>  <b>Day 3</b>  <b>(26-12-1399)</b>  <b>Morning Session (0900-1200)</b>  <b>Afternoon Session (14:00-18:00)</b>  <b>(+3:30 GMT)</b></p>	<p><b>Future of Biophysics</b>  <b>(Problems needed to be addressed)</b></p>	<p><b>Living status on Earth, physiological Infectious, and psychological problems</b>  <b>Electromagnetic pollutions, UV irradiation, Sound pollution, Pharmaceutical side effects, Untreated diseases</b>  <b>Environmental, air, food production, water and pest controls</b></p>
Head of session and referees		
09:00-09:30	<b>Prof. Hamid Mobasheri</b> (IBB, University of Tehran, Iran)	Biophysical control of insects and microorganisms
09:30-10:00	<b>Prof. Reza Fekrazad</b>	Photobiomodulation and Photodynamic Therapy in COVID-19 Management
10:00-10:30	<b>Prof S. M. Javad Mortazavi</b> (Shiraz University of Medical Sciences, Shiraz, Iran)	The Pros and Cons of Low Dose Radiation Therapy for COVID-19 Associated Pneumonia
10:30-10:45 Discussion		
<b>10:45-11:00 Coffee Break</b>	<b>Video</b>	<b>Biophysical projects addressing EMF and other field pollutions</b>
11:00-11:30	<b>Prof. Sinerik Ayrapetyan</b> (UNESCO/UNITWIN Network, Armenia)	Importance of biophysical approaches in solving biological problems mankind facing world wide
11:30-12:00	<b>Prof. Hossein Abbasi</b> (Amirkabir Univ. Technology, Tehran, Iran)	<b>Application of Cold Plasma in agriculture, for higher yield, less water and more resistance plants to pests</b>
12:00-12:15 Discussion		
<p><b>Afternoon Session</b>  <b>(14:00-17:30) (+3:30 GMT)</b></p>	<p><b>Problems to be solved Biophysically</b></p>	<p><b>Living status on Earth, Environmental crises, Water scarce, Destructive pests and insects, Desert ecosystem stability</b></p>
14:00-14:30	<b>Mary-Hrachoochi Boghosian</b> (UNESCO/UNITWIN Network, Armenia)	Where Physics and Biology are combined?
14:30-15:00 (Russian time, 1330-1400)	<b>Prof. Andrey B. RUBIN</b> Department of Biophysics Biological Faculty, Moscow State University Member of Russian Academy of Sciences	Modeling of SARS-COV-2 spike protein electrostatic field and Brownian dynamics simulation of its interaction with photosynthetizer Zn-phtalocyanin
15:30-15:45 Discussion		
<b>15:45-16:00 Coffee Break</b>	<b>Video</b>	<b>Biophysical projects addressing environmental health problems</b>
1600-1630	<b>Dr. Shamszoha Abolmaali</b> (Semnan University, Semnan, Iran)	<b>Biophysics of Desert life stabilization</b>
1630-1700	<b>Dr Marjan Seyedi</b> (School of Biology, College of Science, University of Tehran)	<b>Destructive Migrating Desert Locust</b>
<b>1700-1715 Discussion</b>	<b>Dr Ghafari</b>	<b>Water Treatment</b>
<b>1715-1730 Closing Ceremony</b>	<b>Discussion and debates</b>	<b>Video (Iranian culture and music)</b>

# IBB International Symposium on the Importance of Biophysics in understanding biological mechanisms

March 25, 2021

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To Understand & Solve Biological Problems

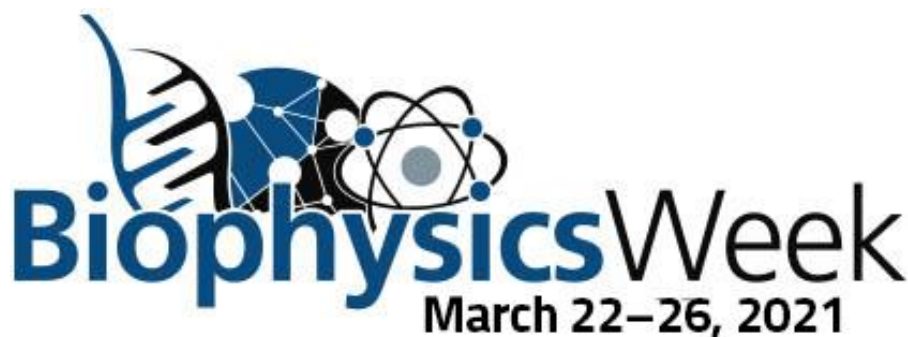
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**Director: Dr. Hamid Mobasheri**

**Prof. Andrey B. RUBIN**

(Department of Biophysics, Moscow State University, Russian Academy  
of Sciences)

Principles of biophysical education and the contents of  
General course on Biophysics