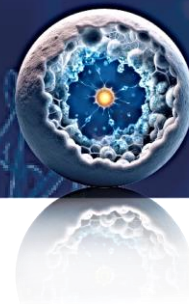


Scientific Program

8:15 – 8:25	Opening Ceremony		
8:25 – 8:35	Prof. Abdolhossein Shahverdi (President of Royan Institute)		
8:35 – 8:40	Welcome Message	Dr. Somayeh Tavana (Scientific chairman)	Department of embryology, reproductive biomedicine research center, Royan Institute for reproductive biomedicine
8:40 – 8:55 (Virtual)	Keynote	Dr. Majid Ebrahimi Warkiani (Australia)	School of Biomedical Engineering, University of Technology Sydney, NSW 2007, Australia
1st Panel: Cryobioengineering approaches for tissue engineering Applications			
Time	Chairpersons: Dr. Mohammad Hossein Ghanian, Dr. Mohammad Kazemi Ashtiani, Dr. Hossein Ravanbakhsh		
9:00 – 9:25 (Virtual)	Cryobioprinting for biomedical applications	Dr. Hossein Ravanbakhsh (Canada)	Department of Biomedical Engineering, The University of Akron, Akron, OH, 44325, USA
9:30 – 9:55	Biomedical applications of cryogel scaffolds	Dr. Hamid sadeghi Abandansari	Department of Cell Engineering, Cell Science Research Center, Royan Institute for Stem Cell Biology and Technology, ACECR, Tehran, Iran
10:00 – 10:25 (Virtual)	Shape memory nanohybrid cryogels for bone tissue engineering	Dr. Shadab Bagheri Khoulenjani (Australia)	University of South Australia, institute for future industries
10:30 – 10:55	Cryopreservation: unlocking the secret to stem cell longevity	Dr. Masoumeh Nouri	R&D Manager at Royan Stem Cell Technology Co. Tehran-Iran
11:00 - 11:25	Coffee break		
11:30 – 11:55	Cryogel scaffolds for tissue- engineering: advances and challenges for effective cartilage regeneration	Dr. Atefeh Solouk	Associate professor of biomaterials and tissue engineering, Director of Smart Biomaterials Lab, Department of Biomedical Engineering, Amirkabir University of Technology (Tehran Polytechnic)
12:00 – 12:25	Encapsulation approaches to cryopreservation	Dr. Mohammad Kazemi Ashtiani	Department of Cell Engineering, Cell Science Research Center, Royan Institute for Stem Cell Biology and Technology, ACECR, Tehran, Iran
12:30 – 13:30	Pray & lunch		



2nd Panel: Microfluidic application in cryopreservation			
Time	Chairpersons: Dr. Majid Ebrahimi Warkiani, Dr. Mojtaba Dashtizad, Dr. Mehdi Yousefi		
13:30 – 13:55	Revolutionizing cryopreservation: the role of microfluidics in enhancing cell viability and storage	Dr. Mehdi Yousefi	Stem Cell Research Center, Tabriz University of Medical Science, Tabriz, Iran
14:00 – 14:25	Application of microfluidics for predicting the quality of vitrified-warmed oocytes, sperm, and embryos for use in the ivf process	Dr. Davood Fathi	Department of Electrical and Computer Engineering, Tarbiat Modares University (TMU), Tehran, Iran Department of Renewable Energies, Faculty of Interdisciplinary Sciences and Technologies, Tarbiat Modares University (TMU), Tehran, Iran
14:30 – 14:55 (Virtual)	Micro-engineered solutions for cryobioengineering	Dr. Majid Ebrahimi Warkiani (Australia)	School of Biomedical Engineering, University of Technology Sydney, NSW 2007, Australia
15:00 - 15:25	Coffee break		
3rd Panel: Application of nanotechnology in cryopreservation			
Time	Chairpersons: Dr. Mohammadreza Ghalamboran, Dr. Mehdi Hajian, Dr. Rouhollah Fathi		
15:30 – 15:55	Effects of nano-berberine and berberine loaded on green synthesized selenium nanoparticles on cryopreservation and in vitro fertilization of goat sperm	Dr. Mehdi Hajian	Department of Animal Biotechnology, Reproductive Biomedicine Research Center, Royan Institute for Biotechnology, ACECR, Isfahan, Iran
16:00 – 16:25	Nanowarming improves survival of vitrified ovarian tissue and follicular development in sheep model	Dr. Sareh Karimi	Applied Biomedical Research Center, Mashhad University of Medical Sciences, Mashhad, Iran
16:30 – 16:55 (Virtual)	Using nano-encapsulation in freezing mouse oocytes, sperm and embryos	Dr. Faranak Aghaz	Nano Drug Delivery Research Center, Health Technology Institute, Kermanshah University of Medical Sciences, Kermanshah, Iran
17:00 – 17:30	Closing Ceremony Dr. Rouhollah Fathi (Educational Deputy)		