

International Forum IEEE Medical Applications of Biological Nanocommunications and Nanotechnology, August 28 2026

Part I: Biological Nanocommunications		
8:00 AM GMT-05	Dr. Luis Tello	Opening virtual session
8:10 AM GMT-05	Dr. Murilo Romero IEEE R9 (Latin America) Nanotechnology Council Chair	Welcoming remarks
8:20 AM GMT-05	Dr. Tadashi Nakano (Osaka Metropolitan University/Japan)	Multicellular Molecular Communication and Cancer Morphogenesis
8:45 AM GMT-05	Dr. Lin Lin (Tongji University/China)	Designing Molecular Communication Transceivers: From Theory to Practice
9:10 AM GMT-05	Dr. Fatih Gulec (University of Essex/England)	Revealing Nature's Hidden Conversations Across Scales
9:35 AM GMT-05	Dr. Ian Akyildiz (QuantumAlgae; Bio Tech Labs/ Turkey, USA)	Internet of Algae: A New Frontier in Molecular Communication based on Photosynthesis
10 AM GMT-05	Dr. Jorge Torres (TU Berlin /Germany)	Communicating Smartly in Molecular Communication Environments: Neural Networks in the Internet of Bio-Nano Things
10:25AM GMT-05	Dr. Sasitharan Balasubramaniam (Nebraska-Lincoln/USA)	Wet Neuromorphic Computing: A New Age for AI
10:50 AM GMT-05 Twenty-minutes break		

11:10 AM GMT-05	Dr. Andrew Eckford (York University/Canada)	Molecular communication: From theory to practice
11:35 AM GMT-05	Dr. Adam Noel (Memorial University Newfoundland/Canada)	Signaling and Communication in Heterogeneous Biological Environments
12 PM GMT-05	Dr. Ethungshan Shitiri (Universitat Politècnica de Catalunya/ Spain)	Intrabody Nanonetworks for Advancing Health Care
Part II: Nanomaterials		
14:30 PM GMT-05	Dr. Myriam Murillo Rector of the National University of Chimborazo/Ecuador	Welcoming remarks
14:35 PM GMT-05	Dr. Murilo Romero (IEEE NTC R9 Chair /Brazil)	Physics-Based Analytical Modeling of Nanotransistors Based on 2D-Materials
15:00 PM GMT-05	Dr. Marbel Torres (ESPE/Ecuador)	Plant Exosomes: Biological Nanocommunications for Next-Generation Regenerative Medicine and Cosmeceuticals
15:25 PM GMT-05	Dr. Talia Tene (UTPL/Ecuador)	Antibacterial activity of nanomaterials obtained through green synthesis
15:50 PM GMT-05	Dr. Estefanía Almache (YACHAY/Ecuador)	Emerging metal oxide-based absorber materials for photovoltaic device fabrication
16:15 PM GMT-05 Twenty-minutes break		
16:35 PM	MSc. Viviana Robalino (Tongji University/China)	Modeling of molecular communication channels via enzymatic signal generation: Analysis of hydrogen peroxide
17:00 PM GMT-05	Dr. Jhonny Chimborazo (YACHAY/Ecuador)	Neuronal Nanomechanics: Early Detection of Neurotoxicity via Atomic Force Microscopy

17:25 PM GMT-05	Dr. Jiri Svozilik (ESPOCH/Ecuador)	Comparison of quantum and classical models of information transmission in biological systems
17:50 PM GMT-05	Dr. Fernando Escudero (UNACH/Ecuador)	Experimental applications of biosensor systems and microfluidics at the local level
18:15 PM GMT-05	Dr. Yesenia Cevallos IEEE Nano Technology Council Ecuador Chair	Closing session