

CLEVELAND CLINIC - UTEC

SUMMIT 2021

ENGINEERING SOLUTIONS FOR COVID-19



14 de octubre desde las 09:00 horas



Evento Virtual vía Zoom

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Los invitamos a una nueva edición del Cleveland Clinic-UTEC Summit, un evento organizado por la carrera de Bioingeniería y el Centro de Investigación en Bioingeniería (BIO) de UTEC. Este evento académico anual muestra lo último en innovación, investigación colaborativa, así como los nuevos retos y desafíos, tanto en la Bioingeniería como otras áreas relacionadas; esto de la mano con uno de nuestros más importantes socios estratégicos como es Cleveland Clinic. Este evento asimismo da a conocer la investigación desarrollada entre ambas instituciones, los retos y desafíos conjuntos, la transferencia tecnológica, el apoyo a nuestros estudiantes; y especialmente este 2021 remarca el rol de la bioingeniería en la búsqueda de soluciones para el COVID.

PROGRAMA

EVENT PROGRAM

HORA / TIME	EXPOSITOR / EXPOSITOR	TEMA / TOPIC
9:00 - 9:05	Julio Valdivia, Ph. D. UTEC	Inauguración del evento <i>Event Inauguration</i>
9:05 - 9:15	Carlos Heeren, MD. UTEC	Palabras de bienvenida <i>Welcome words</i>
9:15 - 9:55	Aaron Fleischman, Ph.D. Cleveland Clinic	Tratamiento del volumen espiratorio de pacientes ventilados mecánicamente para inactivar el SARS-CoV-2 <i>Treating the expiratory volume of mechanically ventilated patients to inactivate SARS-CoV-2</i>
9:55 - 10:35	Jacob Scott , MD, DPhil Cleveland Clinic Gabrielle Blocher CelerPurus	Cámara de descontaminación UV para la escasez de PPE revela una oportunidad de mercado para artículos personales <i>A UV decontamination chamber for the PPE shortage reveals a market opportunity for personal items</i>
10:35 - 10:50	BREAK	
10:50 : 11:30	Robert L. Chatburn Cleveland Clinic	Soluciones de ingeniería para ventilación mecánica durante condiciones quirúrgicas <i>Engineering Solutions for Mechanical Ventilation During Surge Conditions</i>
11:30 - 12:10	Lara Jehi, MD Cleveland Clinic	Herramientas de predicción de riesgos COVID 19 y su integración en la atención clínica <i>Prediction tools of COVID 19 risks and their integration in clinical care</i>
12:10 - 12:15	Julio Valdivia, Ph. D. UTEC	Cierre de la primera parte del programa <i>Closure of the first part</i>
16:00 - 16:05	Julio Valdivia, Ph. D. UTEC	Inicio de segunda parte del programa <i>Afternoon presentation</i>
16:05 - 16:45	Geoffrey Vince, Ph.D. Cleveland Clinic	Desarrollo de Breathalyzer para infecciones respiratorias <i>Development of a Breathalyzer for Respiratory Infections</i>
16:45 - 17:25	Barry Kuban, BSEE Cleveland Clinic	Avances en soporte circulatorio mecánico <i>Advances in Mechanical Circulatory Support</i>
17:25 - 17:40	BREAK	
17:40 - 18:20	Amy Nowacki Cleveland Clinic	Análisis de datos de registro de COVID: ponderación de superposición de puntaje de propensión <i>Analyzing COVID Registry Data: Propensity Score Overlap Weighting</i>
18:20 - 18:55	UTEC - Bioengineering students	Presentación de proyectos <i>Projects presentation</i>
18:55 - 19:00	Julio Valdivia, Ph. D. UTEC	Cierre <i>Closure</i>

EXPOSITORES

SPEAKERS



GEOFFREY VINCE, PH.D.

Chair of the Department of Biomedical Engineering at Cleveland Clinic's Lerner Research Institute and Executive Director of Cleveland Clinic Innovations. Dr. Vince earned his undergraduate degree in medical sciences and chemistry at DeMontford University in Leicester, England. He and colleagues invented what became Virtual Histology™. To further develop that invention, Dr. Vince spent 6 years at Volcano Corporation. His areas of research interest include vascular imaging, image and signal processing and atherosclerotic plaque characteristics, which are pertinent to heart disease and stroke.



AARON FLEISCHMAN, PH.D.

Director of the BioMEMS and Nanotech Laboratory at the Cleveland Clinic Department of Biomedical Engineering. Conducts translational research in MEMS and NEMS technology for biomedical applications. He has successfully licensed intellectual property, managed technology transfer and participated in product development in support of manufacturing and market needs. Research areas include: miniaturized ultrasound transducers, IVUS imaging, intraocular pressure sensing, telemetered implantable transducers; artificial kidney and Circulating Tumor Cell (CTC) detection and analysis.



ROBERT L. CHATBURN

Adjunct Professor, Department of Medicine at the Lerner College of Medicine of Case Western Reserve University. Program Manager for Respiratory Care research and Director of the Simulation Fellowship at the Cleveland Clinic. Member of the Editorial Board of Respiratory Care Journal and Fellow of the American Association for Respiratory Care. His career focus has been research methodology and mechanical ventilation.



LARA JEHI, MD

Dr. Jehi received her medical degree from American University of Beirut. She graduated from Dartmouth College in 2020 with a Master's degree in Health Care Delivery Science. Currently, Professor of neurology at Cleveland Clinic Lerner College of Medicine. Chairs several key commissions in the International League Against Epilepsy and the American Epilepsy Society. Has more than 100 peer-reviewed publications and 10 book chapters.

EXPOSITORES

SPEAKERS



BARRY KUBAN, BSEE

Director of Engineering, Cardiovascular Dynamics Laboratory at Cleveland Clinic and Adjunct Assistant Professor of Biomedical Engineering at Cleveland Clinic Lerner College of Medicine of Case Western Reserve University. Prolific inventor with 56 issued patents world-wide and 25 issued US patents. His specialties include: Mechanical circulatory support, executive management, electronics design, optics design, program management, technology assessment, new technology invention and development.



AMY NOWACKI

Received her Master's in Applied Mathematics from Clemson University and a Doctorate in Biostatistics from the Medical University of South Carolina. Currently, Associate Staff Biostatistician at the Cleveland Clinic in the Department of Quantitative Health Sciences and Assistant Professor of Medicine at the Cleveland Clinic Lerner College of Medicine of Case Western Reserve University. Her research focus is primarily on statistical education and the communication of statistical ideas/concepts by physicians in both research and patient care.



GABRIELLE BLOCHER

General manager of CelerPurus handling day-to-day operations and the growth strategy for the business. Ms. Blocher is a U.S. Naval Academy and Columbia Business School graduate and former Marine officer. Her professional career has included extensive start-up management and business growth experience.



JACOB SCOTT, MD, DPHIL

Associate Professor and Staff Physician-Scientist at the Cleveland Clinic and Case Western Reserve University School of medicine, and a co-inventor of the UV decontamination device . He is a US Naval Academy, CWRU School of Medicine and University of Oxford graduate who works at the confluence of medicine, mathematics, engineering and biology to solve problems related to human health.

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