

			IGJC 2024 Scientific Program		
SATURDAY JULY 27th					PRESENTER
12:00		REGISTRATION OPENS	Westin Arlington Gateway Second Floor		
15:00	16:00	EARLY CAREER WORKSHOP	<i>Demystifying Biotech - F. Scott Fitzgerald Ballroom Second Floor</i>		Carissa Haynes
16:30	16:45	OPENING REMARKS			Silvia Penuela and Jamie Smyth
16:45	17:00	Welcome address			Michael Friedlander
17:00	18:00	KEYNOTE I	<i>Connexins and Pannexins Lead to Connections</i>		Michael Koval (Chair: Jamie Smyth)
18:00	20:30	Opening Reception	Westin Arlington Gateway Second Floor		
SUNDAY JULY 28th			Westin Arlington Gateway F. Scott Fitzgerald Ballroom - Second Floor		
8:30		Coffee and Pastries			
9:00		SESSION I	<i>Lung, Liver, and Vascular Biology</i> (Chairs: Mauricio Lillo and Brenda Kwak)		
9:00	9:20		<i>Endothelial Piezo1-Pannexin1-TRPV4 channel signaling mediates flow-induced dilation of small pulmonary arteries</i>		Swapnil Sonkusare
9:20	9:40		<i>Nanobody-based pannexin1 channel inhibitors reduce inflammation in acute liver injury</i>		Raf Van Campenhout
9:40	10:00		<i>Macrophages initiate smooth muscle cell proliferation via gap junctions during neointima formation</i>		Mark Renton
10:00	10:20		<i>Connexin43 regulates apicobasal polarity of the airway epithelium</i>		Mehdi Badaoui
10:20	10:40	Break			
10:40		SESSION II	<i>Isoforms and Alternative Translation Initiation</i> (Chairs: Trond Aasen and Samar Sayedyahosseini)		
10:40	11:00		<i>Dynamic 5'UTR element inclusion regulates ribosome scanning and initiation to control GJA1 mRNA internal translation and connexin43 gap junction formation</i>		Michael Zeitz
11:00	11:20		<i>GJA1-20k Promotes Formation of Mitochondrial Actin Cages</i>		Vu Nguyen
11:20	11:40		<i>Role of GJA1-20k, a short isoform of Connexin43, on adaptative stresses abilities of metastatic prostate cancer cells</i>		Sarah Fournier
11:40	12:00		<i>Novel Pannexin 1 isoform is increased in cancer</i>		Brooke O'Donnell
12:00	13:00	Lunch	Westin Arlington Gateway		

13:00		SESSION III	Wound Healing, Metabolism, and Regulation (Chairs: Dale Laird and Brant Isakson)	
13:00	13:20		<i>The Connexin 43 (Cx43) interacting protein human Discs large homologue-1 (Dlg1) controls gap junctional intercellular signalling and is an important component of the wound healing process</i>	Patricia Martin
13:20	13:40		<i>Cold exposure rejuvenates the metabolic phenotype of Panx1^{-/-} mice</i>	Brenda R. Kwak
13:40	14:00		<i>Pannexin 1 is a diagnostic marker and therapeutic target for dysfunctional endothelial progenitor cells in diabetic patients</i>	Ting-Yi Tien
14:00	14:20		<i>Connexin 43 Phosphorylation on Multiple Sites as a Regulatory Mechanism of Cx43-Src Interaction</i>	Anastasia Thévenin
14:20	14:30	Break		
14:30		SESSION IV	Bone and Adipose Biology (Chairs: Maria Mayan and Joseph Stains)	
14:30	14:50		<i>Connexin 43 Mediates Mitochondrial Transfer from Human Mesenchymal Stromal Cells to Chondrocytes</i>	Michelle L. Delco
14:50	15:10		<i>Exploring the Potential of Connexin 43 Peptides as Senotherapeutic Agents for Osteoarthritis Treatment</i>	Paula Carpintero-Fernandez
15:10	15:30		<i>Severe Osteoarthritis in Aged Panx3 Knockout Mice: Implications for a Novel Primary Osteoarthritis Model</i>	Brent Wakefield
15:30	15:50		<i>Connexin Hemichannel Opening in Osteocytes and PGE2 Release: A Mechanism for Reducing Adiposity, Enhancing Metabolic Balance, and Maintaining Lean Mass</i>	Francisca Acosta
15:50	16:00	Break		
16:00	17:00	KEYNOTE II	<i>From gap junctions to hemichannels to intracellular signaling: connexins and bone mass and strength</i>	Lilian Plotkin (Chair: Silvia Penuela)
17:00	19:00	Poster Session I		
MONDAY JULY 29th				
8:30		Coffee and Pastries		
9:00		SESSION V	Innexins and Hemichannels (Chairs: Anaclet Ngezahayo and Juan Carlos Saez)	
9:00	9:20		<i>Mapping electrical synapses in the Drosophila brain</i>	Thomas Ravenscroft
9:20	9:40		<i>Ablation of Panx1 Aggravates Neuroinflammation by Altering Molecular and Bioelectrical Properties of Synapses in the Zebrafish In Vivo</i>	Georg S Zoidl
9:40	10:00		<i>Innexin hemichannel activation by Microplitis bicoloratus ecSOD monopolymer reduces ROS</i>	Kai-Jun Luo

10:00	10:20		<i>Opening of C-terminal truncated human pannexin1 hemichannels allows Ca²⁺ influx that mediates cell death</i>	Juan Carlos Saez
10:20	10:40	Break		
10:40		SESSION VI	<i>Pathophysiology</i> (Chairs: Patricia Martin and Morten Schak Nielsen)	
10:40	11:00		<i>Gap Junctions - a window into the origins of endometriosis and a pathway to diagnosis and therapy.</i>	Bruce J Nicholson
11:00	11:20		<i>Role of pannexin-1 in polycystic kidney diseases</i>	Tengis Pavlov
11:20	11:40		<i>Pharmacological inhibition of pannexin-1 reduces pathophysiological platelet activation.</i>	Kirk Taylor
11:40	12:00		<i>Connexin-43 auto-antibodies and the heart: A potential pathogenic arrhythmogenic role in Brugada Syndrome and beyond</i>	Meena Fatah
12:00	12:20		<i>Tunneling Nanotubes containing connexin43 are essential for the propagation of HIV infection</i>	Silvana Valdebenito
12:20	13:10	Lunch	Westin Arlington Gateway	
13:10		SESSION VII	<i>Vascular and Neurobiology</i> (Chairs: Georg R Zoidl and Alex Lohman)	
13:10	13:30		<i>Physiologically specific roles for post-translational modifications of Pannexin 1</i>	Brooke O'Donnell
13:30	13:50		<i>Sex-specific effects of endothelial Pannexin1 overexpression in cerebral vascular function and ischemic stroke recovery</i>	Amanda Mauro, PhD
13:50	14:10		<i>Electrical synapses – Connexins and beyond</i>	Adam Miller
14:10	14:30		<i>Exploring the dynamics of rod/cone coupling: from molecular mechanisms to functional significance</i>	Christophe P. Ribelayga
14:30	14:40	Break		
14:40		SESSION VIII	<i>Neurobiology</i> (Chairs: Amanda Mauro and Andrew Woolley)	
14:40	15:00		<i>Trafficking of Connexin36 (Cx36) in the early secretory pathway</i>	Stephan Tetenborg
15:00	15:20		<i>Characterization of the critical residues at the second extracellular domain for docking and formation of functional Cx36 gap junctions</i>	Robert S Wong
15:20	15:40		<i>Investigating the roles of PANX1 and TNF-α in dendritic spine stability</i>	Adriana Casillas Martinez
15:40	16:00		<i>New insights into gap junction nexus and connexosome dynamics with new optical tagging and imaging strategies.</i>	Randy Stout
16:00	16:10	Break		
16:10	17:10	KEYNOTE III	<i>Diversity of functions of Pannexin-1 in the brain</i>	Roger Thompson (Chair: Scott Johnstone)
17:10	19:00	Poster Session II		

TUESDAY JULY 30th				
8:30		Coffee and Pastries		
9:00		SESSION IX	Cardiovascular (Chairs: Rob Gourdie and Joseph Palatinus)	
9:00	9:20		<i>Critical Role of S-Nitrosylated Connexin 43 Hemichannels in Hyperpermeability</i>	Pia C. Burboa
9:20	9:40		<i>Left Ventricular Mechanical Unloading Recovers GJA1-20k Expression in Patients with Arrhythmogenic Cardiomyopathy</i>	Lindsey Taylor
9:40	10:00		<i>Mechanistic link between altered metabolic signaling and defective myocardial conduction: Insights into the role of AMPK in arrhythmogenesis</i>	Margaret McKay
10:00	10:20		<i>Fibroblasts in heart scar tissue directly regulate cardiac excitability and arrhythmogenesis</i>	Yijie Wang
10:20	10:40	Break		
10:40		SESSION X	Regulation and Signaling (Chairs: Randy Stout and Kirk Taylor)	
10:40	11:00		<i>Oral Delivery of an Esterified Connexin43 Carboxyl Terminal Mimetic Peptide by Milk-Derived Exosomes Attenuates Cardiac Ischemic and Radiation Injury in Murine Models</i>	Spencer Marsh
11:00	11:20		<i>Inhibition of Pyk2 Improves Cx43 Intercalated Disc Localization, Infarct Size, and Cardiac Function in Rats With Heart Failure</i>	Li Zheng
11:20	11:40		<i>Phospho-Mimic Mutation in Beta Tubulin Suppresses Arrhythmias and Improves Cardiac Connexin 43 Localization in Duchenne Muscular Dystrophy Mice.</i>	DeLong Zhou
11:40	12:00		<i>Bone marrow plasma cells require P2RX4 to sense extracellular ATP</i>	Masaki Ishikawa
12:00	13:00	Lunch	Westin Arlington Gateway	
13:00		SESSION XI	Cancer (Chairs: Justin Lathia and Elizabeth Yeh)	
13:00	13:20		<i>A Cx43-WNK1-C-MYC signaling axis governs glioblastoma cancer stem cell survival</i>	Erin Mulkearns-Hubert
13:20	13:40		<i>GJA1-20k control of gap junction formation impacts epithelial-mesenchymal transition and breast cancer cell metastatic potential.</i>	Kenneth Young
13:40	14:00		<i>Pannexin 1 cross talk with the Hippo pathway in malignant melanoma</i>	Samar Sayedyahosseini
14:00	14:20		<i>Exploring invadopodia biomechanics: Insights from Cx43-expressing brain tumor cells.</i>	Aymerick Gaboriau
14:20	14:30	Break		
14:30	15:30	KEYNOTE IV	<i>The connexin43 mimetic peptide TAT-Cx43-266-283 as a promising therapy against glioblastoma</i>	Arantxa Taberero (Chair: Samy Lamouille)

15:30	16:00		Break to refresh for Gala Dinner Cruise	
16:00	16:30		Buses leave from Westin for Gala Dinner Cruise	
17:00		GALA DINNER CRUISE		
22:00	2:00		After-party at The Commentary in the Westin Arlington	
WEDNESDAY JULY 31st				
8:30		Coffee and Pastries		
9:00		SESSION XII	Structure and Function (Chairs: Paul Sorgen and John O'Brien)	
9:00	9:20		<i>Molecular mechanisms of gap junction channel inhibition by small molecules</i>	Volodymyr Korkhov
9:20	9:40		<i>Connexin channels and hemichannels are modulated differently by charge reversal at residues forming the intracellular pocket</i>	Viviana M. Berthoud
9:40	10:00		<i>Integrated and multiplexed parallel processing by electric synapses in retinal cone bipolar cells</i>	Yao Xue
10:00	10:20		<i>Gap junction networks in ultrastructural mammalian connectomes</i>	Crystal L. Sigulinsky
10:20	10:35		<i>Pulse EPR Imaging for Exploring Neurology & Announcement of O2M Technologies Travel Award</i>	Mrignayani Kotecha
10:35	10:45	Break		
10:45	11:05	FUTURE CONFERENCES	Italy - IGJC 2026	Maria Mayan (Fabio Mammano)
11:05	11:30	AWARDS AND PRIZES		
11:30	11:45	CLOSING REMARKS		Silvia Penuela and Jamie Smyth
	12:00		<i>Exploration of Washington DC and Smithsonians (assisted by conference volunteers)</i>	