



22nd International Vascular Biology Meeting

Preliminary Program

October 13-17, 2022 • San Francisco Bay Area at the Oakland Marriott City Center

Thursday, October 13		Friday, October 14		Saturday, October 15		Sunday, October 16		Monday, October 17	
6:30 pm—Welcome 6:35 pm—Keynote Lecture: <i>Molecular anatomy of the vasculature</i> Christer Betsholtz, Uppsala University 7:35 pm—Presentation of the Florence Sabin Award to Omolola Eniola-Adefeso, University of Michigan 8:00pm—Benditt Award Lecture: <i>Three Vignettes on Endothelial Plasticity, Vasculogenesis and Disruption</i> Joyce Bischoff, Boston Children’s Hospital/Harvard Medical School 9:00pm—Welcome Reception hosted by Kowa 10:00pm—Reception ends		7:15am—Eye Opener Sessions for Trainees 7:15am—Round table on DEI 8:30am—Concurrent Sessions 10:00am—Concurrent Sessions 12:00pm—Posters & Exhibits 2:00pm—Keynote Lecture: <i>Traveling the Path to Immune Tolerance</i> Jeffrey Bluestone, University of California, San Francisco 3:15pm—Workshops by Miltenyi Biotec and FujiFilm VisualSonics 3:45pm—Concurrent Sessions 5:30pm—Day ends		7:15am—Eye Opener Sessions for Trainees 7:15am—Round table on DEI 8:30am—Concurrent Sessions 10:00am—Concurrent Sessions 12:00pm—Posters & Exhibits 2:00pm—Folkman Award Lecture: <i>RNA based mechanism guiding endothelial cell behaviors</i> Stefania Nicoli, Yale University 2:45pm— PerkinElmer Workshop 3:45pm—Concurrent Sessions 5:30pm—Day ends		7:15am—Eye Opener Sessions for Trainees 7:15am—Round table on DEI 8:30am—Concurrent Sessions 10:00am—Concurrent Sessions 12:00pm—Posters & Exhibits 2:00pm—Springer Award Lecture <i>Recipient TBD</i> 2:30pm—Presentation of the Stephen Schwartz Award to Richard Hynes, MIT 3:00pm—Technology Showcase - TBD 3:45pm—Concurrent Sessions 7:00pm—Dinner Cruise (tkts required)		8:00am—Keynote Lecture: <i>Neurovascular crosstalks in the aging heart</i> Stefanie Dimmeler, University of Frankfurt 9:00am—Presentation of the Travel Awards by several societies 9:20am—Presentation for the 23rd IVBM in Amsterdam 10:00am— New Signaling Mechanisms Advancing a quantitative understanding of vasculature through VEGFR measurements Princess Imoukhuede, University of Washington <i>The lung lymphatics in health and disease</i> Hasina Outtz-Reed, Weill Cornell Medical Center <i>Guidance of vascular barrier formation</i> Anne Eichmann, Yale University <i>Vascular rejuvenation for healthier aging</i> Eli Keshet, Hebrew University <i>The good and the bad of PIK3CA in endothelial cells</i> Mariona Graupera, Josep Carreras Leukaemia Research Institute 12:45pm—Concluding Remarks	
Participating Societies									
American Society for Investigative Pathology (ASIP)				International Atherosclerosis Society (IAS)					
Australian Vascular Biology Society (AVBS)				International Society for Applied Cardiovascular Biology (ISACB)					
British Microcirculation and Vascular Biology Society (BMVBS)				Japanese Vascular Biology and Medicine Organization (JVBMO)					
Chinese American Academy of Cardiology (CAAC)				The Korean Society of Cardiology (KSC)					
European Vascular Biology Organization (EVBO)				Korean Society for Vascular Biology and Medicine (KVBM)					
Societe Française d’Angiogenese (SFA)				The Microcirculatory Society (MCS)					
Hosted and sponsored by the North American Vascular Biology Organization									
Thematic Tracks of Concurrent Sessions (Color Key)									
Vascular Development and Aging		Vasculature in Disease		Vascular Physiology			Translational Research		
Vascular Beds and Cells		Vascular Diseases		Emerging Topics & New Technologies					

Friday, October 14 – Concurrent Sessions at the IVBM2022

8:30-10:00am

<u>Stem Cells</u> <i>Regulation of endothelial cell specialization</i> Karen Hirschi, University of Virginia <i>Adaptable and hemodynamic human endothelial cells for tissue-specific organogenesis</i> Shahin Rafii, Weill Cornell Medical College	<u>Smooth Muscle Cells</u> <i>Notch Signaling in Vascular Smooth Muscle Cells</i> Brenda Lilly, Nationwide Children's Hospital <i>Rescuing cerebral blood flow deficits in small vessel disease of the brain</i> Mark Nelson, University of Vermont	<u>Vascular Cell-Matrix Interactions</u> <i>Co-sponsored by JVBMO</i> <i>Novel mouse model of familial thoracic aortic dissection</i> Hiromi Yanagisawa, University of Tsukuba <i>Smooth muscle cell transdifferentiation in response to matrix stiffening</i> Michelle Bendeck, Univ of Toronto	<u>Vascular Malformations</u> <i>Co-sponsored by EVBO</i> <i>Mechanisms of cerebral bleeding in the collagen IV disease</i> Anne Joutel, INSERM <i>From identification of somatic mutations to targeted therapies for vascular malformations</i> Miiikka Vikkula, de Duve Institute, University of Louvain	<u>Systems Approach to Target Discovery</u> <i>Co-sponsored by JVBMO</i> <i>Inflammatory vascular disease: A focus on macrophages</i> Masanori Aikawa, Brigham and Women's Hospital, HMS <i>Genetic regulation of vascular smooth muscle cell function</i> Mete Civelek, Univ of Virginia	<u>Translational Approaches to Vascular Pathology and Regeneration</u> <i>Sponsored by ISACB</i> Yukiko Matsunaga, The University of Tokyo Cynthia St. Hilaire, University of Pittsburgh Ngan Huang, Stanford University Sara Nunes de Vasconcelos, University of Toronto
--	--	--	--	---	---

10:30am-12:00pm

<u>Vascular Aging</u> <i>Co-sponsored by JVBMO</i> <i>Vessel-tissue interactions during aging</i> Anjali Kusumbe, University of Oxford <i>Targeting senescent cells for the treatment of cardiovascular disease</i> Tohru Minamino, Juntendo University	<u>Vascular Heterogeneity</u> <i>Sponsored by EVBO</i> <i>Vascular heterogeneity during organ growth and regeneration</i> Karina Yaniv, Weizmann Institute of Science <i>Lymphatic endothelial heterogeneity in development and disease</i> Taija Makinen, Uppsala University	<u>Cell-Cell Interactions</u> <i>Co-sponsored by KVBM</i> <i>Tie'ing Up Loose Ends in the Vasculature</i> Susan Quaggin, Northwestern University <i>Bioactive lipid regulation of vascular and innate immune systems</i> Tim Hla, Boston Children's Hospital	<u>Dyslipidemia as Cardiovascular Risk</u> <i>Co-sponsored by IAS</i> <i>Lipoprotein(a): Use of Stable Isotopes to Understand Protein Function</i> Gisette Reyes-Soffer, Columbia University <i>Targeting Triglyceride-rich Lipoproteins to Modify Cardiovascular Risk</i> Peter Libby, Brigham & Women's Hospital	<u>Vascular-Immune Interface in Cancer</u> <i>Co-sponsored by ASIP</i> <i>Effects of lymphatic activation on T cell plasticity in the tumor microenvironment</i> Melody A Swartz, University of Chicago <i>High endothelial venules generate tumor-attacking T cell niches</i> Gabriele Bergers, VIB-Center for Cancer Biology and KU Leuven	<u>Frontiers in Vascular Biology</u> <i>Supported by Frontiers in Cardiovascular Medicine</i> Eugene C. Butcher, Stanford University School of Medicine Shizuka Uchida, Aalborg University Cécile Oury, University of Liège
---	---	--	--	--	---

3:45-5:30pm

<u>Vascular Differentiation</u> <i>Co-sponsored by EVBO</i> <i>Making endothelial and epithelial tubes</i> Ondine Cleaver, UT Southwestern Med Ctr <i>Endothelial cell specification</i> Didier Stainier, Max Planck Institute	<u>Blood Brain Barrier</u> <i>Co-sponsored by SFA</i> <i>Mechanisms of blood-brain barrier damage and pathological angiogenesis in neuroinflammation</i> Dritan Agalliu, Columbia University <i>The Neuro-vascular interactions in the CNS</i> Chenghua Gu, Harvard Medical School	<u>Mechanotransduction</u> <i>Co-sponsored by ASIP</i> <i>Mechanotransduction in endothelial cells</i> Ellie Tzima, University of Oxford <i>Precision vascular nanomedicine targeting novel endothelial mechano-sensing mechanisms</i> Yun Fang, University of Chicago	<u>Arterial Diseases</u> <i>Co-sponsored by ISACB</i> <i>New screening approaches to identify inhibitors for cardiovascular calcification</i> Elena Aikawa, Brigham and Women's Hospital, HMS <i>ACTA2 pathogenic variants that predispose to childhood onset occlusive cerebrovascular disease uniquely disrupt a nuclear function of smooth muscle alpha-actin and lead to undifferentiated smooth muscle cells</i> Dianna Milewicz, UT Health Sciences Center at Houston	<u>Innovative Research on Key Molecule to Regulate Heart, Blood, and Vessel</u> <i>Sponsored by KSC</i> <i>Discovery of surface marker for cardiac progenitors from human iPSCs: role of Latrophillin2</i> Hyun-Jai Cho, Seoul National Univ. <i>Cross-road of hematopoiesis and angiogenesis: Role of Kai1 (CD82)</i> Yoo-Wook Kwon, Seoul National Univ.	<u>Revealing Vascular Biology through Omics Lenses</u> <i>Sponsored by CAAC</i> Hong Chen, Harvard Medical School/Boston Children's Hospital Hong Wang, Temple University Tzung Hsiai, University of California, Los Angeles Changcheng Zhou, University of California, Riverside Ying Shen, Baylor College of Medicine Jiliang Zhou, Augusta University
--	--	--	---	--	--

Saturday, October 15 – Concurrent Sessions at the IVBM2022

8:30-10:00am

<u>Lymphangiogenesis</u> <i>Co-sponsored by AVBS</i> <i>Dissecting the mechanisms by which lymphatic endothelial cell identity is transcriptionally programmed</i> Natasha Harvey, University of South Australia <i>The specification of the lymphatic vascular lineage and the role of Prox1 in zebrafish</i> Benjamin Hogan, Peter MacCallum Cancer Centre	<u>AVMs and Somatic Vascular Malformations</u> <i>Deciphering molecular mechanisms of arteriovenous malformation</i> Rong Wang, University of California, San Francisco <i>Somatic activating KRAS mutations in brain arteriovenous malformations</i> Jason Fish, University of Toronto	<u>Translational Vascular Biology</u> <i>Co-sponsored by CAAC</i> <i>Notch function in the tumor microenvironment</i> Jan Kitajewski, Univ of Illinois, Chicago <i>Purinergic modulation of vascular L-type calcium channel Cav1.2</i> Madeline Nieves-Cintron, University of California, Davis	<u>Ocular and CNS Vascular Disease</u> <i>Neutrophil arrest in brain capillaries causes cerebral blood flow deficits and contributes to memory impairment in Alzheimer's disease mouse model</i> Chris B. Schaffer, Cornell University <i>VEGF-B as a buffering system in angiogenesis</i> Xuri Li, Sun Yet-Sen University	<u>Bioengineering</u> <i>Co-sponsored by ISACB</i> <i>Engineered microvascular niches for evaluation of pericyte form and function</i> Anjelica Gonzalez, Yale University <i>Forces and adhesions: New insights in regulating endothelial function</i> Christopher Chen, Boston University	<u>Myeloid Cells, Vasculature, and Cancer Progression</u> <i>Sponsored by ASIP</i> <i>Tracking tumor cells through the vasculature: Who are the influencers of stemness, survival, and dormancy in the lung?</i> David Entenberg, Albert Einstein College of Medicine <i>Pro-angiogenic neutrophil reprogramming in the tumor niche promotes tumor vascularization and growth</i> Ronen Sumagin, Northwestern University
--	--	---	---	--	--

10:30am-12:00pm

<u>Vascular Cell Differentiation and Plasticity</u> <i>Do cells with different developmental trajectories remember their history?</i> Kristy Red-Horse, Stanford University <i>Novel regulatory functions of GPCRs in vascular growth and development</i> Kathleen Caron, University of North Carolina, Chapel Hill	<u>Strategies to Understand and Treat COVID-19</u> <i>A validated single-cell-based strategy to identify diagnostic and therapeutic targets in complex diseases</i> Alex Arenas, Universitat Rovira i Virgili TBD	<u>Vascular Cell-Blood Interaction</u> <i>Co-sponsored by AVBS</i> <i>Novel mechanisms for therapeutic angiogenesis</i> Napoleone Ferrara, University of California, San Diego <i>Pathogenic vascular signaling mechanisms</i> Mark Kahn, University of Pennsylvania	<u>Endothelial Organ Heterogeneity and Stem Cells</u> <i>Co-sponsored by JVBMO</i> <i>Vascular heterogeneity in respiratory organs</i> Gou-Young Koh, IBS/KAIST <i>Development and senescence of resident vascular endothelial stem cells</i> Nobuyuki Takakura, Osaka University	<u>Atherosclerosis</u> <i>Co-sponsored by ASIP</i> <i>The role of efferocytosis in atherosclerosis</i> Nick Leeper, Stanford University <i>Protein sulfhydrylation and endothelial cell function</i> Ingrid Fleming, Johann Wolfgang Goethe University	<u>Innovation of Gene Therapy Technology</u> <i>Supported by AnGes</i> <i>HGF gene therapy</i> David Armstrong, University of Southern California <i>Gene therapy and DNA vaccine</i> Hironori Nakagami, Osaka Univ <i>Molecular mechanisms of AAA disease</i> Philip Tsao, Stanford University
--	---	--	---	--	--

3:45-5:30pm

<u>Imaging and Computational Approaches</u> <i>Unravelling vascular biology with multispectral single cell genetics</i> Rui Benedito, CNIC <i>Imaging neurovasculature at high spatiotemporal resolution</i> Na Ji, University of California, Berkeley	<u>Neurovascular Crosstalk</u> <i>Co-sponsored by EVBO</i> <i>Crosstalk between blood vessels and neural cells in the central nervous system</i> Carmen Ruiz de Almodovar, Heidelberg University <i>Unexpected vascular findings at the brain borders</i> Jonathan Kipnis, Washington University in St. Louis	<u>Vascular Plasticity</u> <i>Sponsored by EVBO</i> <i>Co-sponsored by BMVBS</i> <i>Vascular plasticity in the growing, aging and regenerating skeletal system</i> Ralf Adams, Max-Planck Institute for Molecular Biomedicine <i>Senescence and vascular smooth muscle cell plasticity</i> Martin Bennett, University of Cambridge	<u>New Therapeutics</u> <i>Co-sponsored by the BMVBS</i> <i>DNA-based gene therapy</i> Ryuichi Morishita, Osaka University <i>Mechanisms and molecules for stopping neuroinflammation and neuronal cell death</i> Michelle Arkin, University of California, San Francisco	<u>Innovative research on mechanism for variant angina or diabetic cardiomyopathy</u> <i>Session Sponsored by KSC</i> <i>Molecular mechanism of vasospastic angina: blood monocytes, iPSCs, and VSMCs</i> Han-Mo Yang, Seoul National Univ. <i>Mechanism and therapeutic approach of diabetic cardiomyopathy</i> Sung Woo Cho, Inje University	<u>Angiogenesis and Vascular Remodeling</u> <i>Sponsored by JVBMO</i> Shigetomo Fukuhara, Nippon Medical School Yoshiaki Kubota, Keio University Kyoko Hida, Hokkaido University Yuichi Oike, Kumamoto University
---	---	---	---	--	---

Sunday, October 16 – Concurrent Sessions at the IVBM2022

8:30-10:00am

<u>Epigenetic Regulation</u> <i>What chromatin remodelers can teach us about vascular development and integrity</i> Courtney Griffin, Oklahoma Medical Research Foundation <i>Physiologic and Pathologic Changes in Chromatin Remodeling in Vascular Cells</i> Marlene Rabinovitch, Stanford University	<u>Organ Crosstalk</u> <i>Co-sponsored by KVBM</i> <i>Aging, stress and systemic inflammation: Can the endothelium be the master regulator of it all via RNA decay proteins?</i> Luisa Iruela-Arispe, Northwestern University <i>Endothelial metabolism in the muscle microenvironment</i> EVBO Lecturer: Katrien de Bock, ETH Zürich	<u>Stem Cells and Regenerative Medicine</u> <i>Search for the script for generating human hematopoietic stem cells from hemogenic endothelium</i> Hanna Mikkola, University of California, Los Angeles <i>Additional speaker to be determined</i>	<u>Tumor biology</u> <i>Co-sponsored by Societe Française d'Angiogenese</i> <i>Vascular control of aging and metastasis</i> Hellmut Augustin, Heidelberg University <i>Tumor microenvironment and resistance to checkpoint blockade therapy in cancer</i> Rosemary Akhurst, UCSF	<u>Inflammatory Vasculitis</u> <i>Co-sponsored by MCS</i> <i>Immune Checkpoints in Vasculitis</i> Cornelia Weyand, Stanford University <i>Endothelial Immune cross talk</i> David Harrison, Vanderbilt University	<u>The Vasculature in Health and Disease</u> <i>Sponsored by AVBS</i> Emma Gordon, University of Queensland Andrew Murphy, Baker Heart and Diabetes Institute Connie Wong, Monash University
--	---	--	--	---	--

10:30am-12:00pm

<u>Lymphatics</u> <i>Co-sponsored by EVBO</i> <i>Lymphoangiocrine factors in organ repair</i> Guillermo Oliver, Northwestern University <i>Lymphatics in CNS disease</i> Kari Alitalo, University of Helsinki	<u>Cardiovascular Regenerative Medicine</u> <i>Stem cells & genomics for precision medicine</i> Joseph Wu, Stanford University <i>CAP1 is the pivotal molecule to bind Resistin or PCSK9, leading to inflammatory and metabolic diseases</i> Hyo-Soo Kim, Seoul National University	<u>Signaling in Vascular Disease</u> <i>Vascular Mineralocorticoid Receptors in Cardiovascular Disease</i> Iris Jaffe, Tufts University <i>Vascular Diseases associated with the impairment of BMP signaling pathway</i> Akiko Hata, UCSF	<u>The Vasculature in Metabolic Disease</u> <i>Co-sponsored by the International Atherosclerosis Society</i> <i>Vascular smooth muscle cAMP signaling in health and disease</i> Manuel Navedo, University of California, Davis <i>Current and Novel Therapies for Dyslipidemia and Prevention of Atherosclerosis</i> Raul Santos, Univ of Sao Paulo	<u>Immune-Vascular Crosstalk for Cancer Therapy</u> <i>Supported by Eisai</i> <i>Effect of angiogenesis inhibitor on tumor immune microenvironment</i> Yu Kato, Eisai <i>The vasculature as a target for therapy in glioblastoma</i> Anna Dimberg, Uppsala University	<u>Leukocyte Transendothelial Migration</u> <i>Sponsored by ASIP</i> <i>Cellular pathways of T-cell diapedesis across vascular and non-vascular brain barriers in vitro and in vivo</i> Britta Engelhardt, Univ of Bern <i>How the endothelium allows leukocytes to cross: Secrets Revealed by high-end microscopy</i> Jaap van Buul, Sanquin Research and Landsteiner Laboratory
---	--	--	---	---	---

3:45-5:15pm

<u>New -omics Approaches</u> <i>Multiomics Approaches for Systems Biology in Human Cardiovascular Disease</i> Manuel Mayr, King's College <i>A multi-omics approach to dissect the multi-layer networks of cardiovascular disease: from metabolites to proteins</i> Sasha Singh, Brigham and Women's Hospital, HMS	<u>Heterogeneity of Vascular and Immune Cells</u> <i>TBD</i> Katerina Akassoglou, Gladstone Institute, UCSF <i>Application of dual recombinases-mediated genetic system in endothelial cell study</i> Bin Zhou, Chinese Academy of Science	<u>Vasculature in the Inflammatory Response</u> <i>Co-sponsored by ASIP</i> <i>Mechanisms that govern the dissemination of inflammatory signals from the intestine</i> Gwen Randolph, Washington University in St. Louis <i>Inflammation is a double-edged sword. Anti-inflammatory therapy doesn't have to be.</i> Bill Muller, Northwestern University	<u>Lipoproteins in Vascular Disease</u> <i>Co-sponsored by CAAC</i> <i>HDL and Atherosclerosis: More than just cholesterol efflux</i> Edward A. Fisher, New York University <i>The remnant lipoprotein hypothesis of diabetes-accelerated cardiovascular disease</i> Karin E. Bornfeldt, University of Washington	<u>Impact of Microvascular Aging in Development and Progression of Cardiovascular Pathology</u> <i>Sponsored by MCS</i> <i>Restoring coronary microvascular dilation to flow in old age – is NO necessary for a comeback</i> Amanda Joe Leblanc, University of Louisville <i>Energetics of mouse brain microvessels: Impact of age and sex</i> Prasad V. Katakam, Tulane University	<u>Pathophysiology of Vascular Disease</u> <i>Sponsored by JVBMO</i> Tetsuro Watabe, Tokyo Medical and Dental University Takashi Minami, Kumamoto University Yoshikazu Nakaoka, National Cerebral and Cardiovascular Center Masayuki Yoshida, Tokyo Medical and Dental University
---	---	--	---	---	---