

**CIRM Scientific and Medical Research Funding Working Group
Biographical information of candidates nominated to serve as
Alternate Scientific Members of the Working Group**

Joy Cavagnaro, Ph.D., DABT, RAC, Fellow ATS, RAPS Fellow

Dr. Cavagnaro is the President of Access BIO a consultancy specializing in science-based regulatory strategies and preclinical product development services to facilitate biomedical research and emerging technologies. Specific product areas of expertise include vaccines, cellular and gene based therapies, animal-based and plant based biotherapeutics, biotechnology-derived and tissue-engineered products.

Dr. Cavagnaro received her Ph.D. in Biochemistry at the University of North Carolina Chapel Hill followed by postgraduate work at Duke and Boston University Medical Centers. Her professional career spans academia, the Contract Research Organization (CRO), and biotechnology industries and government. During her tenure at the Center for Biologics Evaluations & Research (CBER) at the Food and Drug Administration (FDA) she was appointed to the Senior Biomedical Research Service, served as FDA's International Conference on Harmonisation (ICH) safety topic lead and rapporteur for "ICH S6." Prior to joining the FDA, Dr. Cavagnaro was principal study director for biotechnology products at Covance (formerly Hazleton Labs).

Dr. Cavagnaro is Past Chair of the Regulatory Affairs Professional Society (RAPS) and the National Capital Area Chapter of the Society of Toxicology (SOT) and Past Chair and Founder and current member of the leadership committee of BioSafe, an expert preclinical science committee within BIO. Dr. Cavagnaro is currently a member of the SOT and the Biotechnology Specialty Section of SOT where she serves as a councilor. She was recipient of the specialty section's first Career Achievement Award. She is Past North American Chair of the Defense Intelligence Agency's (DIA) Biotech Special Interest Area Communities (SIAC) and Past Chair of the Clinical and Regulatory Affairs Committee of the American Society of Gene and Cell Therapy (ASGCT) and was the US BIO representative to the 2006 ABPI/BIA Early Stage Clinical Trials Taskforce. She is currently a member of the DIA Advisory Committee of North America Executive Committee (Research and Development SIAC Liaison), Translation Science and Product Development Committee of ASGCT and a Chair of Chesapeake Research Review Independent IRB. Dr. Cavagnaro is a Charter Member of FDA's Alumni Association and currently serves on the Membership Committee. Dr. Cavagnaro also serves on Scientific Advisory Boards (SABs) and consults and lectures internationally on preclinical development of novel therapies. She has edited and authored chapters including a chapter on Considerations in Design of Preclinical Safety Evaluation Programs to Support Human Cell-Based Therapies in *Preclinical Safety Evaluation of Biopharmaceuticals A Science-Based Approach to Facilitating Clinical Trials* published by John Wiley & Sons, NJ, 2008.

Thomas Freeman, M.D.

Dr. Freeman is the Director of Clinical Research for the University of South Florida Department of Neurosurgery "Center of Excellence for Aging and Brain Repair". He received his M.D. from Johns Hopkins University, completed his Internship at Columbia Presbyterian Medical Center. and his Residency at New York University Medical Center.

Dr. Freeman research interests are in cellular therapies for treatment of neurodegenerative disorders and other neurological injuries such as stroke and spinal cord injuries. He has worked collaboratively with several other renowned physicians providing the most recent advances in the study of Parkinson's disease. His most current research study is "Lewy body-like pathology in long-term embryonic nigral transplants", currently in press at *Nature Medicine*.

Dr. Freeman's clinical specialty is complex spine surgery. He utilizes both standard as well as innovative minimally invasive techniques to fix complex spine problems in the least invasive manner possible. He is Board certified by the American Board of Neurological Surgery and licenced in the State of Florida.

Wolfram-Hubertus Zimmermann, M.D.

Dr. Zimmermann is Professor of Pharmacology and Toxicology and Director of the Department of Pharmacology at the University Medical Center of the Georg-August-University in Goettingen (Germany). He studied Medicine at the University of Hamburg (Germany), DUKE University Medical School in Durham (US), Harvard Medical School in Boston (US), and the University of Cape Town (South Africa). He graduated from Medical School in 1998 and earned his doctorate from the University of Hamburg in 2000. In parallel, Dr. Zimmermann completed a second academic degree in Molecular Biology at the University of Hamburg in 2001. He trained at the Institutes of Pharmacology and Toxicology at the Friedrich-Alexander University (Germany) and the University Medical Center in Hamburg, where he was promoted to the rank of Assistant Professor in 2003. Dr. Zimmermann completed his training in Pharmacology and Toxicology in 2006 (board examination) and was awarded the *Venia Legendi* (and Habilitation) in Pharmacology and Toxicology in 2007. He was appointed to his current position at the Georg-August-University in Göttingen in 2008.

Dr. Zimmermann's research interests include novel pharmacological and cell-based approaches to repair diseased myocardium with a special emphasis on myocardial tissue engineering. He also serves as a clinical consultant in pharmacology and toxicology. Dr. Zimmermann has published 60+ articles and book chapters, presented his research at numerous national and international conferences, and holds 3 patents on different aspects of myocardial tissue engineering. He is the recipient of several awards including the Oskar-Lapp-Award and the Albert-Fraenkel Award from the German Society of Cardiology and the Young Investigator Award of the International Society for Heart Research. Prof. Zimmermann serves as *ad hoc* reviewer for several international scientific journals and granting agencies. He is member of different editorial boards (e.g. *American Journal of Physiology, Journal of Molecular and Cellular Cardiology*) and serves presently as member of the executive board of the German Society of Cardiology. Dr. Zimmermann holds grants from the German Research Council the Federal Ministry of Science and Education as well as the European Union.