

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

Nessan Bermingham, PhD

Dr. Bermingham is the founder and CEO of Tal Medical. He is also co-founder and a managing partner of Bio Equity. He earned his BS degree from Queen's University in Belfast, Northern Ireland and earned a PhD in molecular biology from Imperial College London.

Prior to forming Bio Equity, Dr. Bermingham was a partner at Omega Funds, a direct secondary healthcare fund that makes investments in the U.S. and Europe. Dr. Bermingham opened Omega's Boston office, and led the firm's expansion into the U.S. healthcare market. While at Omega, he successfully completed multiple portfolio acquisitions, was a board member for Precisense (www.precisense.dk) and NsGene (www.nsgene.dk), and was a board observer and advisor for multiple companies.

Prior to joining Omega Funds, Dr. Bermingham was a partner at Atlas Venture, where he focused on the U.S. public markets and EU private biotech markets. While at Atlas he was a board member for Renovo (www.renovo.com), Arrow Therapeutics (acquired by AstraZeneca) and Cellzome (www.cellzome.com). Dr. Bermingham was also a co-founder of Serentis (www.serentis-pharma.com), a UK-based biotech company. Prior to joining Atlas Venture, Dr. Bermingham was a biopharma research analyst at UBS Warburg.

Dr. Berminham was a Howard Hughes Associate Fellow at Baylor College of Medicine, and he has published in several science and healthcare journals, including Science, Neuron and Development. Dr. Bermingham is also a mentor in the Boston University Health Care Entrepreneurship Program

Rajesh Chopra, MD, PhD

Dr. Chopra is Vice President of Translational and Early Drug Development, Executive Research at Celgene Corporation. He is also Honorary Professor of Hematology at Kings College London. Dr. Chopra trained in Medicine at University College London. He then completed his training in general medicine at major teaching hospitals in London gaining a Membership of the Royal College of Physicians. He undertook a PhD in cell signaling and growth receptors followed by a postdoctoral fellowship at The Walter and Eliza Hall Institute in Melbourne, Australia. There he worked for Professor D. Metcalf who was the first to culture human hematopoietic stem cells and discover both G- and GM-CSF. He then worked with Professor M. Dexter (laterally Director of the Wellcome Trust) setting up his own research group on Stem Cell Biology. At the same time he was appointed Director of Hematological Oncology leading one of the largest Bone Marrow Transplants and Leukemia Programs in Europe at The Christie Hospital in Manchester.

From 2004 to 2009, Dr. Chopra was part of the leadership team for the largest Oncology Team in AstraZeneca and established Translational Medicine for AZ in Boston, MA. He was involved in taking 6 small molecules and 2 antibodies into clinical trials from discovery.

He is currently a member of a number of Academic Boards including the MRC (UK), Stem Cell Committee and on the clinical advisory board for the California Institute in Regenerative Medicine. Dr. Chopra has been elected as a Fellow of the Royal College of Physicians, and a Fellow of the Royal College of Pathologists in the UK.

Dr. Chopra has been a member of the R&D team, leading Translational Development at Celgene for the last 3 years and leads a team of over 100 scientists and clinicians involved in taking molecules from discovery to proof-of-concept trails in oncology, immune/inflammatory diseases, and stem cell therapies.

Boro Dropulic, PhD, MBA

Dr. Dropulic is the Chief Scientific Officer (CSO) at Lentigen, He received his BS in Microbiology and his PhD in Pathology at the University of Western Australia, Perth. Dr. Dropulic completed a Fogerty Fellowship at the National Institutes of Health in both ES cell/Transgenic and HIV/AIDS/Gene Therapy. He also earned an MBA from Johns Hopkins University.

Lentigen is a diversified biologics company focused on the development and commercialization of breakthrough treatments for human disease and lentiviral vectors are the company's technology platform. The successful production of clinical grade Lentiviral vectors for the genetic modification of hematopoietic stem cells is an important goal for their application for the treatment of several important diseases. While Lentiviral vectors have been successfully used in the laboratory for research, clinical vector production has been difficult. Lentigen, under Dr. Dropulic's direction as CSO, has adopted successful methods for the manufacture of Lentiviral vectors from Cell Genesys, which intellectual property and manufacturing processes was acquired in 2007. Lentigen has spent the last 3 years optimizing these procedures and is ready for clinical vector manufacture at its GMP facility in Gaithersburg Maryland.

Personally, Dr. Dropulic has extensive experience in the design, manufacture, pre-clinical and clinical development of Lentiviral vectors for therapeutic application. He was the sponsor investigator of the first Lentiviral vector clinical trial when he was the CSO at VIRxSYS Corporation. That trial successfully demonstrated the safety of using Lentiviral vectors in humans. Dr. Dropulic founded Lentigen in 2005, and is applying Lentiviral vectors for several types of applications: as an efficient method for the generation of cell substrates for the production of proteins such as erythropoietin, various monoclonal antibodies and factor VIII protein; as a new type of VLP vaccine for influenza and hepatitis C virus infection; and in the gene therapy area with a couple of programs focused on oncology and genetic diseases. In the gene therapy area, a treatment for hemophilia A is the leading program. For this

project, Dr. Dropulic provides overall guidance and regulatory support as it relates to vector design, construction, manufacturing, testing and release of the Lentiviral vector material for clinical application.

Russell Lonser, MD

Dr. Lonser is Chief of the Surgical Neurology Branch in the National Institute of Neurological Disorder and Stroke (NINDS) at the National Institutes of Health (NIH) and is Program Director for the NINDS Neurological Surgery Residency Training Program. He received his MD from Loma Linda University Medical School and completed his Neurological Surgery residency training at the University of Utah. During his residency training, he spent over 2 years performing research in the Surgical Neurology Branch. He returned to the Surgical Neurology Branch in 2001 as a Staff Clinician.

Dr. Lonser's clinical works is focused on neurosurgery. His laboratory studies focus on drug delivery for treatment of neurologic disorders and investigates tumor biology and treatment.

Dr. Lonser was awarded the Tumor Young Investigator Award in 2002 from the American Association of Neurological Surgeons and Congress of Neurological Surgeons.

Bruce Montgomery, MD

Dr. Montgomery is the CEO of Cardeas Pharma. Dr. Montgomery received his Bachelor of Science in Chemistry in 1975 (Magna cum Laude, Outstanding Chemistry Major (Merck Award)), and Doctorate of Medicine in 1979 (Alpha Omega Alpha Honor Medical Society) from the University of Washington, Seattle. He is a board certified internist and pulmonologist.

Prior to founding Cardeas, Dr. Montgomery was a Senior Vice President, Respiratory Therapeutics of Gilead Sciences from 2006 to 2010. Prior to sale to Gilead in 2006 for 410 million dollars, he was the Founder and CEO of Corus Pharma of Seattle, a drug development company focusing on infectious disease and respiratory drugs. Until October 2000, Dr. Montgomery served as Executive Vice President of Research and Development at PathoGenesis Corporation that was sold to Chiron.

Dr. Montgomery has extensive pharmaceutical company experience in drug development, operations and financing. He has raised over 200 million dollars in venture or public financings. Dr. Montgomery has been responsible for three complete drug approvals, aerosolized pentamidine, tobramycin solution for inhalation, aztreonam lysine for inhalation (the only three FDA approved inhaled antimicrobials); from invention to advisory board presentations. From 1985 to 1989, Dr. Montgomery was co-inventor, and then led the effort to obtain FDA approval of aerosolized pentamidine, the second AIDS drug approved by the FDA.

While at Genentech between 1989-1993, he started multiple other programs that have led to three other FDA approvals including Pulmozyme, Xolair and Raptiva.

In 1998 the Commissioner of the FDA recognized Dr. Montgomery with special citation for leadership in the development and approval of tobramycin solution for inhalation. For this work, Dr. Montgomery also received the Inventor of the Year award from the University of Washington in 2009. In 2010, Dr. Montgomery received a scientific achievement award from the Cystic Fibrosis Foundation for his work on three CF drugs that have extended the average life span by over a decade. In 2011, Dr. Montgomery received a career achievement award from ISAM (International Society for Aerosols in Medicine). He has served as a board member for ZymoGenetics, and is currently on the board of Alder Pharmaceuticals.

David J. Pepperl, PhD

Dr. Pepperl is toxicologist and Senior Consultant for the Biologics Consulting Group, Inc., based in Alexandria, Virginia. He is a pharmacologist and toxicologist with experience in preclinical development of both small molecules and biologic products. Dr. Pepperl received his BS in Biochemistry from Michigan State University and his PhD in Pharmacology/Toxicology from the University of Arizona with an emphasis on the pharmacology and signaling of G-protein coupled Adrenergic Receptors. His post-graduate work centered on the signaling and regulation of G-protein coupled receptors and the use of cellular and viralogical methods for studying drug and biologic function. Dr. Pepperl's interests span the nonclinical development and advancement of early stage biologic therapies, particularly cell and gene therapies, oncolytic tumor viruses and immunomodulatory products.

Dr. Pepperl has spent nearly 12 years in product development, involved in the nonclinical development of cell and gene therapies and other biologic products. He has contributed to the early stage development of numerous types of cellular and viral products for treatment of oncologic, degenerative or inflammatory disease. He routinely evaluates nonclinical information on novel products, designs both nonclinical studies and development programs, reviews study data and prepares nonclinical regulatory submissions on behalf of his clients. Since joining the Biologics Consulting Group, Inc., Dr. Pepperl has worked on a diverse array of products, ranging from small molecules and peptides, monoclonal antibodies, viral therapies, bacterial-based vectors to vaccines, toxins, cellular and hormonal therapies. His recent experience includes early stage preclinical development planning and study design, regulatory toxicology, GLP toxicology study oversight, as well as both pre-IND and IND review and preparation.

Dr. Pepperl has also worked closely with clients to oversee and manage their nonclinical development programs. To this end, he sources and identifies nonclinical providers, manages and inspects both US and international CROs for protocol and Good Laboratory (GLP) compliance, and routinely monitors laboratories and studies on behalf of his clients.

Dr. Pepperl is a member of the American College of Toxicology (ACT) and regularly attends both the ACT and Society of Toxicology (SOT) Conferences. He has presented or spoken on nonclinical development of cell and biologic therapies at ISCT and DIA national meetings and routinely contributes to scientific webinars and local teaching opportunities.

Darin Weber, PhD

Dr. Weber serves as Executive Vice President of Global Regulatory Affairs for Mesoblast LTD. He is a leading regulatory expert for cellular and tissue based regenerative medicine products. Prior to joining Mesoblast, Dr. Weber worked as a Senior Consultant at Biologics Consulting Group, Inc. for over seven years, working with a number of leading regenerative medicine academic and industry firms, specializing in stem cell based therapies and combination products.

Dr. Weber is an active participant in key stakeholder organizations, serving on the U.S. Pharmacopeia (USP) Expert Committee responsible for cellular and tissue-based products as well as committees within the International Society for Cellular Therapy (ISCT) among others. Prior to becoming a consultant he spent over seven years at the U.S. Food and Drug Administration, Center for Biologics Evaluation and Research, working as a regulatory project manager, regulatory review officer and most notably as Chief, Cellular Therapy Branch in the then newly created Office of Cellular, Tissue and Gene Therapies. During his time at FDA, Dr. Weber was actively involved in the development of policies and guidance documents for cellular and tissue-based products.