

Still from **Alzheimer's Enigma** by Christopher Hammang

# VIZBIplus

VISUALISING  
THE FUTURE OF BIOMEDICINE



An Australian Government Initiative



Inspiring  
AUSTRALIA

CANBERRA PREMIERE 2015

Still from **Insulin Receptor and Type 2 Diabetes** by Maja Divjak

# CANBERRA PREMIERE 2015

We want to share something with you  
that is very close to our hearts:  
the latest animations from the VizbiPlus project

In this project, partially funded by an *Inspiring Australia* grant, we trained three new science animators and set out to create resources that increase the visibility of the life sciences and, at the same time, raise the quality of science communication. Our efforts were very successful: ABC's Catalyst has made extensive use of our material, and two of our videos were selected as finalists in the 2014 International Science and Engineering Visualisation Challenge of the National Science Foundation (USA). Over the course of the last year, our newly-trained science animators produced two more wonderful videos.

**You are cordially invited to the 2015 VizbiPlus Animation Premiere** featuring:

Christopher Hammang's "Alzheimer's Enigma"

which explores the neurons of the human brain, and reveals how normal protein breakdown processes become dysfunctional and result in plaque formation during Alzheimer's disease.

Maja Divjak's "The Insulin Receptor and Type 2 Diabetes", a story about diabetes focusing on the insulin receptor structure and what might be happening in insulin resistance, based on pioneering research at the Walter and Eliza Hall Institute.

**DATE** Wednesday, 4. February 2015

**TIME** 4:30 - 5:45 pm

**PLACE** CSIRO Discovery Centre  
North-Science Road, Acton ACT 2601

This is a free event, but registration is required, so please RSVP.

**VIZBI**plus  
VISUALISING  
THE FUTURE OF BIOMEDICINE  
[www.vizbi.org/plus](http://www.vizbi.org/plus)



Walter+Eliza Hall  
Institute of Medical Research

Our speakers will be:

Prof. Ian Chubb [Chief Scientist of Australia](#)

Dr. Jim Peacock [CSIRO](#)

Dr. Seán O'Donoghue [CSIRO & Garvan Institute](#)

Drew Berry [WEHI](#)

Dr. Bill Wilson [CSIRO](#)

Dr. Mike Lawrence [WEHI](#)

Dr. Maja Divjak [WEHI](#)

Christopher Hammang [Garvan Institute](#)

There will be time for questions after the screening. We hope you can attend this presentation and look forward to seeing you!

The VizbiPlus project leaders

Dr. Seán O'Donoghue  
Dr. Kate Patterson  
Christian Stolte

# SPEAKER BIOGRAPHIES

## Australia's Chief Scientist



**Professor Ian William Chubb AC, MSc, DPhil (Oxon), FACE, FTSE, Hon DSc (Flinders), Hon DLitt (CDU), Hon DUniv (ANU), Hon LL.D (Monash), Hon DUniv (SCU).**

Professor Chubb commenced his role as Australia's Chief Scientist on 23 May 2011.

Previous roles:

2001-2011 Vice-Chancellor, The Australian National University

1995-2000 Vice-Chancellor, Flinders University of S. Australia

1993-1995 Senior Deputy Vice-Chancellor, Monash University

1990-1995 Chair of the Commonwealth's Higher Education Council

1986-1990 Deputy Vice-Chancellor, University of Wollongong.

Professor Chubb was appointed a Companion of the Order of Australia for "service to higher education including research and development policy in the pursuit of advancing the national interest socially, economically, culturally and environmentally and to the facilitation of a knowledge-based global economy".

**Dr. Jim Peacock (AC, FAA, FRS, FTSE, FAIAST)** is a Fellow in CSIRO and a Distinguished Professor at the University of Technology Sydney; previously he was Australia's Chief Scientist from March 2006-August 2008, and an award

winning molecular biologist and fervent science advocate; he is recognised internationally as an eminent researcher in the field of plant molecular biology and its applications in agriculture. Dr Peacock is a strong advocate for the integration of science and global business and drives innovative communication efforts to inform the general public as to the outcomes and value of modern science—he has brought the excitement of science to a broad cross-section of the community and to Australian school students.

**Dr. Seán O'Donoghue** is an OCE Science Leader in Australia's Commonwealth Scientific and Industrial Research Organisation (CSIRO), Sydney. He is also Group Leader and Senior Faculty Member at the Garvan Institute of Medical Research in Sydney. Previously, he worked in the Structural and Computational Biology programme at the European Molecular Biology Laboratory (EMBL), and at Lion Bioscience AG, both in Heidelberg, Germany. He received his B.Sc. (Hons) and PhD in biophysics from the University of Sydney, Australia. He was awarded a C. J. Martin Fellowship from the National Health & Medical Research Council of Australia, an Achievement Award from Lion Bioscience, and was recently elected a Fellow of the Royal Society of Chemistry.

**Drew Berry** creates biomedical animations that combine cinema and science to reveal the microscopic worlds inside our bodies. Beginning his career as a cell biologist and microscopist at the University of Melbourne, Drew brings a rigorous scientific approach to every topic, immersing himself in research, current data and the latest discoveries. Since 1995 he has been a biomedical animator at the Walter and Eliza Hall Institute of Medical Research in Melbourne, Australia. His animations have exhibited at the Guggenheim Museum, MoMA New York, the Royal Institute of Great Britain and the University of Geneva. In 2010 he received a MacArthur Fellowship 'genius grant'. Recent projects include animations for E.O. Wilson's Life on Earth iPad interactive textbook of biology, and Björk's Biophilia interactive album and stage show, as well as the music video for Björk's song Hollow. His awards and recognitions are too numerous to mention here, but they are all listed on his Wikipedia page.

## SPEAKER BIOGRAPHIES

**Dr. Bill Wilson** studied as a molecular biologist before turning bioinformatician and then clinical biomarker hunter.

He began work at CSIRO ten years ago, and has worked on preventative health projects, focused on identifying blood-based markers for early disease detection and monitoring. Through researching cohorts of people with colorectal cancer, Alzheimer's Disease and stroke patients, his team has made useful biomarker discoveries. He is currently part of the CSIRO Translational Bioinformatics team in Sydney, and a member of the biomarker discovery team within the CRC for Mental Health. Recently, he began working with the Melbourne Genomics Health Alliance to realise the benefits of bringing patient genomic data into clinical decision making. He has a strong interest in data visualisation and beekeeping!

**Dr. Mike Lawrence** completed a PhD in physics at the University of Cape Town and then moved into structural biology research during a post-doctoral period in Cambridge, UK. He emigrated to Australia and joined CSIRO (Parkville) in 1988. In 2006, together with other members of Colin Ward's group, he was awarded the CSIRO Chairman's medal for his seminal contribution to the determination of the three-dimensional structure for the human insulin receptor extra-cellular domain. In 2007, he joined the Walter and Eliza Hall Institute of Medical Research, wherein he is currently a laboratory head and continues his research on the insulin receptor system.

**Dr. Maja Divjak** is a biomedical animator who recently completed her VIZBIplus mentorship with world-renowned biomedical animator Drew Berry at the Walter and Eliza Hall Institute of Medical Research. After completing her PhD in the molecular biology of asthma, Maja spent quite some time in scientific sales, but was keen to bring together her love of art and science in some shape or form. This led to studies in 3D Animation at the Australian Film, Television and Radio School. Thereafter, she honed her skills on personal animation projects and an interactive iPad sales tool for life sciences company Promega Corporation. In 2011, she won the 60 Second Science Competition, Australian Open Division for an animation detailing the immune response in asthma. Her first animation for the VIZBIplus project illustrates how inflammation causes type 2 diabetes, via a unique structure known as the 'inflammasome'.

**Christopher Hammang** is a biomedical animator who has been creating professional scientific animations for CSIRO and other institutions over the past 2 years. His work has been internationally recognized, has been presented on broadcast television and has received several honours, including reaching the top 10 in the international science visualisation challenge (the Vizzies) from the National Science Foundation (USA). His biomedical animations convey complex biological processes with deceptively easy to understand visuals and beautifully organic rendering. Christopher's passion for scientific communication is fueled by his background in cell biology research and teaching students as a private tutor.