

# Monash e-Research Centre



**Friday 9 September 2011**  
**MURPA SEMINAR**

**The Path to Open Science with Illustrations from Computational Biology**  
**Presented by Professor Philip Bourne (UCSD)**

**Time: 9 - 10am**

**Location: Room 135, Bldg 26, Clayton Campus**

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**Visit:** <http://www.monash.edu.au/eresearch/events/index.html>

## **Abstract:**

Science is increasingly conducted in a digital medium whether it is observationally or hypothesis driven. However, I will argue that we are very ill-equipped to conduct science efficiently and in a way that can maximise discovery in this digital medium. While significant attention has been given to large data the long tail has been neglected - the thousands of scientists who produce and manage laboratory data. I will describe what are some of the issues with the current scientific digital workflow - from idea to publication and what we might do to better the situation. I will draw examples from my own experience in computational biology which is progressive in efforts to deal with the digital roadblocks to new understanding.

**Biography:** <http://www.sdsc.edu/~bourne/>

Philip E. Bourne PhD is a Professor in the Department of Pharmacology and Skaggs School of Pharmacy and Pharmaceutical Sciences at the University of California San Diego, Associate Director of the RCSB Protein Data Bank and an Adjunct Professor at the Burnham Institute. He is a Past President of the International Society for Computational Biology. He is an elected fellow of the American Association for the Advancement of Science (AAAS), the International Society for Computational Biology (ISCB) and the American Medical Informatics Association (AMIA). He is the co-founder and inaugural and current Editor-in-Chief of the open access journal PLoS Computational Biology and a long standing member of the National Science Foundation, National Institutes of Health and Genome Canada panels responsible for reviewing proposals relating to computational biology. professional interests focus on relevant biological and educational outcomes derived from computation and scholarly communication. This implies algorithms, text mining, machine learning, metalanguages, biological databases, and visualisation applied to problems in drug discovery, evolution, cell signaling, apoptosis, systems biology and scientific dissemination. He has published over 200 papers and five books, one of which sold over 150,000 copies. He has co-founded four companies: ViSoft Inc., Protein Vision Inc., a company distributing independent films for free and most recently SciVee.

Bourne is committed to furthering the free dissemination of science through new models of publishing and better integration and subsequent dissemination of data and results which, as much as possible, should be freely available to all.



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