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Profile

A highly motivated, enthusiastic and determined scientist-turned-writer and editor who believes strongly in the value of education, seeking new challenges in the sphere of communications and public engagement. Drawing on my training and understanding of the scientific process, and using my written and verbal communication skills, I want to encourage two-way dialogue that raises appreciation of and support for the specific and general significance and relevance of scientific research. I am an accomplished writer, with over 15 years' research experience and a strong working knowledge of social media tools and web-based content management and production.

Experience

PRINT & ONLINE

I write and edit for The Scientist magazine, drawing on material I obtain from interviewing scientists as well as my own scientific knowledge. I write scientific literature-based articles as well as more general interest articles about scientists. I also record and edit video and audio interviews including video news items under embargo. I founded and The Scientist's blog, *Naturally Selected*. Elsewhere, I have published opinion pieces in Chemistry World, the magazine of the Royal Society of Chemistry, and had three articles published in the Futures section of Nature. I have written numerous book reviews and short fiction, published at lablit.com and scienceboard.net.

My award-winning blog, *Confessions of a (former) lab rat*, is read widely and enjoyed by scientists and lay readers alike. While in Sydney it was one of the University of Sydney's most successful blogs and was quoted in the national press. *Confessions* was consistently one of the top five most popular blogs at Nature Network. It appeared in OpenLab 2008 and 2007, and I won the Research Blogging Award 2010 Best Blog in the category Philosophy, Research, or Scholarship. In December 2010 I founded and built the community blogging network Occam's Typewriter, recruiting several of the most popular Nature Network bloggers, and have ultimate responsibility for its design and content management. In December 2008 I contributed to the 'Why Science?' project at whyscience.co.uk .

I have edited two scientific reference books, was Deputy Editor of OpenLab 2008 and was an editorial panellist and contributor to The Biochemist for six years. I am the Deputy Editor editor at LabLit.com. I record, edit and produce the LabLit.com podcast and provide consulting services to BioInformatics, LLC.

APPEARANCES

In 2010 I played a central role in the successful Science is Vital campaign, coordinating its online presence and organizing a peaceful rally at the Treasury, attended by over 2000 scientists and supporters. I was involved in the organization of and presented at Science Online London 2009 and 2010. I presented at Internet Librarian International 2009 in Charleston, and am often invited to speak at events organized by the Research Information Network. As part of See Further: The Festival of Science + Arts, celebrating 350 years of the Royal Society, in June 2010 I participated in a panel discussion on the future of scientific conversation.

TEACHING

Colleagues and students frequently asked me to edit and proofread written work (theses, chapters, papers). I trained undergraduates and research students how to make clear, readable slides and present their work in seminars. I supervised students in the lab and have participated in the assessment of Honours candidates.

Career

FACULTY OF 1000/THE SCIENTIST; 2009–2011

The Scientist is the leading magazine for life scientists. In my current role as Associate Editor I write articles for a professional scientific audience, contextualizing and explaining published specialist research evaluated on Faculty of 1000 (f1000.com), an expert post-publication peer review web service and part of the Science Navigation Group. I am responsible for providing scientific content to The Scientist and for improving its design and web presence. I also edit scientist-written articles to fit the magazine's style. I fill in for other members of the editorial team at short notice, which included writing The Scientist's editorial in October 2010.

I initiated and am responsible for social media engagement at F1000, running the Twitter and Facebook accounts, and am chief editor of The Scientist's blog, *Naturally Selected*, having overall responsibility for its design, content, engagement and outreach. I am experimenting with AV content for the blog and for the magazine proper, perform research on scientific publishing, and contribute to the technical development and marketing of the service.

Previously at F1000 in my role as Information Architect I directed a team responsible for the redesign and relaunch of the website. I contributed to website design and press engagement, and used my contacts in the academic world to forge ties between F1000 and the academic community.

POST-DOCTORAL RESEARCH FELLOW, UNIVERSITY OF SYDNEY; 2006–2009

I used cell biological, bioinformatic, structural and protein engineering methods to characterize the molecular interactions of proteins and nucleic acids in cellular processes. My career goal was to understand how function is defined by structure. In Sydney I studied how zinc-finger RNA-binding proteins direct alternative splicing of pre-messenger RNA.

CAREER DEVELOPMENT FELLOW, MRC-LMB, CAMBRIDGE UK; 1999–2005

Using X-ray crystallography and NMR I determined the structure of proteins involved in cell motility and nuclear trafficking. I contributed to our understanding of how polymerization of small macromolecules can generate the force that enables cells to crawl, and examined how proteins export RNA from the nucleus.

SENIOR R&D SCIENTIST, CAMBRIDGE MOLECULAR, CAMBRIDGE UK; 1997–1999

I implemented DNA extraction procedures in kit and automated forms. I redesigned software and chemistry for a novel, automated plasmid preparation technology. I worked closely with the marketing division, wrote and edited protocol guides and documentation, and accompanied sales representatives into academic labs to explain technical details. The company valued my communication skills and I learned how to appreciate the commercial applicability of academic research.

POST-DOCTORAL RESEARCH ASSISTANT, NDOG, UNIVERSITY OF OXFORD; 1994–1997

I showed how adjacent structural domains in fibronectin act in synergy to bind cells and initiate integrin-mediated signalling to bring about attachment and spreading. I designed and made fibronectin domain constructs and examined their affect on phosphorylation and the actin cytoskeleton.

Professional Activities & Awards

Member, the Biochemical Society

Member, the British Society for Cell Biology

1994: Honor Fell Travel Award

Contributor, member of the Editorial Panel of The Biochemist

Editor, Current Issues in Molecular Biology

Training courses

2005 Medical Research and the Public—a course on communicating the importance and relevance of MRC-funded research

1998–1999 Building a market-focussed strategy
ISO9001 (internal)

Scientific Publications

PAPERS

Miao, L., Vanderlinde, O., Liu, J, Grant, R. P., Wouterse, A., Shimabukuro, K., Philipse, A. T., Stewart, M. and Roberts, T. M. (2008) The role of filament-packing dynamics in powering amoeboid cell motility. *Proc Natl Acad Sci USA* **105**: 5390–5395

Grant, R. P., Marshall, N. J., Yang, J. C., Fasken, M. B., Kelly, S. M., Harreman, M. T., Neuhaus, D., Corbett, A. H., Stewart, M. (2008) Structure of the N-Terminal Mlp1-Binding Domain of the *Saccharomyces cerevisiae* mRNA-Binding Protein, Nab2. *J. Mol. Biol.* **376**: 1048–1059

Grant, R. P., Buttery, M. S., Ekman, G. C., Roberts, T. M and Stewart, M. (2005) Structure of MFP2 and its Function in Enhancing MSP Polymerization in *Ascaris* Sperm Amoeboid Motility. *J. Mol. Biol.* **347**: 583–595

Grant, R. P., Neuhaus, D. and Stewart, M. (2003). Structural basis for the interaction between the Tap/NXF1 UBA domain and FG nucleoporins at 1Å resolution. *J. Mol. Biol.* **326**: 849–858

Grant, R. P., Hurt, E., Neuhaus, D. and Stewart, M. (2002). Structure of the C-terminal FG-nucleoporin binding domain of Tap/NXF1. *Nature Struct. Biol.* **9**:247–251

Stewart, M., Baker, R. P., Bayliss, R., Clayton, L., Grant, R. P., Littlewood, T. and Matsuura, Y. (2001). Molecular mechanism of translocation through nuclear pore complexes during nuclear protein import. *FEBS Lett.* **498**:145–149

Calderwood, D. A., Zent, R., Grant, R., Rees, D. J., Hynes, R. O. and Ginsberg, M. H. (1999). The Talin head domain binds to integrin beta subunit cytoplasmic tails and regulates integrin activation. *J. Biol. Chem.* **274**:28071–28074

Grant, R. P., Spitzfaden, C., Altroff, H., Campbell, I. D. and Mardon, H. J. (1997). Structural requirements for biological activity of the ninth and tenth FIII domains of human fibronectin. *J. Biol. Chem.* **272**: 6159–6166

Spitzfaden, C., Grant, R. P., Mardon, H. J. and Campbell, I. D. (1997). Module-module interactions in the cell binding region of fibronectin: Stability, flexibility and specificity. *J. Mol. Biol.* **265**: 565–597

Mardon, H. J., Grant, R. P., Grant, K. E. and Harris, H. (1993). Fibronectin splice variants are differentially incorporated into the extracellular matrix of tumorigenic and non-tumorigenic hybrids between normal fibroblasts and sarcoma cells. *J. Cell Sci.* **104**: 783–792

BOOKS AND REFERENCE WORKS

Gell, D. A., Grant, R. P. and Mackay, J. P. (2009) The Detection and Quantitation of Protein Oligomerization. In Protein Dimerization (and Oligomerization) in Biology, Ed. J. Matthews, Landes Bioscience, Austin, TX.

Grant, R. P., Crossley M. and Mackay, J. P. (2007) Zinc-finger Genes. In Encyclopedia of Life Sciences, John Wiley & Sons, Inc., Chichester. http://www.els.net/

Grant, R. P. (2005) An Introduction to EMBOSS—the free born son of GCG. In Analytical tools for DNA, genes and genomes: Nuts & bolts, Ed. A Markoff, DNA Press, LLC, Eagleville PA. http://www.dnapress.com

Grant, R. P. (Ed.) September 2004. Computational Genomics: Theory and Application. Horizon Scientific Press, UK. ISBN: 1904933017

Cabibbo, A., Grant, R. P. and Helmer-Cetterich, M. (Eds) 2002. The internet for cell and molecular biologists. Horizon Scientific Press, UK. ISBN: 0954523202

PROTEIN STRUCTURES

1go5 Solution structure of the C-Terminal FG-binding (UBA) domain of Tap1 (2002)

1oai Complex between Tap1 UBA domain and FxFG nucleoporin peptide (2003)

2bjq Crystal structure of the nematode sperm cell motility protein MFP2A (2005)

2bjr Crystal structure of the nematode sperm cell motility protein MFP2B (2005)

2bvu D83R mutant of Ascaris suum major sperm protein (2006)

2jps Solution structure of the N-terminal domain of NAB2 (2008)

2v75 Crystal structure of the N-terminal domain of NAB2 (2008)

Extracurricular

Apart from writing fiction and poetry, I maintain a number of websites. These include my personal site at http://rg-d.com/, http://jennyrohn.com/ and http://occamstypewriter.org/. I also have a small but well-loved garden, and enjoy photography—http://www.flickr.com/pommiebastards/.