

Financial Summary

The financial strategy in 2002 focused on preparing for full entry of the IAS into DETYA/ARC programmes in 2003. Funding for school-funded postdoctoral fellows was decreased whilst that for PhD scholarships was increased, although a lack of suitably qualified candidates made it difficult to secure a commensurate increase in actual student numbers. The ongoing programme of expenditure on small to medium items of research and IT equipment to replace old and obsolete items was continued.

In addition to recurrent income, the research contracts with the pharmaceutical company **GlaxoSmithKline** continued throughout the year as did funding from DETYA under the Higher Education Innovation Program – Science Lectureship Initiative. New research contracts with biotechnology companies Progen Industries Ltd and Lipotek Pty Ltd were negotiated. Funding was also received through the Australian Research Council's Discovery and Linkage Schemes plus from a variety of other external sources, details of which are given below. In addition the School continues to make patent applications for work carried out by several of the research groups, and work is undertaken by the microanalytical unit, mass spectrometry unit, and the glass workshop, for external clients.

Outside Grants and Contracts

The annual recurrent grant for the School (\$10,792,000) was supplemented by external income (\$2,918,210). The recipients and sources of external grants are listed below:

** denotes a new grant in 2002

Biochemical Reactions and Molecular Recognition

Professor C.J. Easton.** *Synthesis of nitrilotriacetic acid compounds*. Lipotek Pty Ltd, July 2002–July 2003.

Professor C.J. Easton and Professor M.G. Banwell.** *Development of novel inhibitors for compounds from GlaxoSmithKline*. January 2002–December 2002.

Professor C.J. Easton and Mr P.G. Dumanski. *Electrophilic chlorination: new products, improved processes, and their toxicological and environmental implications*. Australian Research Council and Australian Vinyls Corp Ltd, January 2000–December 2002.

Dr A.G. Meyer. *Regioselective nitrile oxide cycloadditions with application to the synthesis of molecules with potential in the treatment of Alzheimer's disease*. Australian Research Council, Postdoctoral Fellowship, April 1999–March 2002.

Biomolecular NMR Professor G. Otting.** *New methods of structural biology in solution*. Australian Research Council, Federation Fellowship, January 2002–December 2006.

Biomolecular Simulations and Calculations

Dr A. Torda. Australian Partnership for Advanced Computing. July 2000–June 2003.

Computational Quantum Chemistry

Dr M. Coote.** *Hydrogen abstraction in chemical, biochemical and polymerisation processes.* Australian Research Council, Postdoctoral Fellowship, June 2002–June 2005.

Professor L. Radom. Australian Partnership for Advanced Computing. July 2000–June 2003.

Coordination Chemistry and Spectro-electrochemistry

Dr R.D. Webster. *In situ electrochemical NMR spectroscopy.* Australian Research Council, Queen Elizabeth II Fellowship, June 2001–June 2006.

Mass Spectrometer Unit

*High resolution mass spectrometer for MS(n) chemical characterisation.***
Australian Research Council, Linkage Infrastructure, Equipment and Facilities, January 2002–December 2002

Organotransition Metal Chemistry

Dr E. Wenger. *Early transition metal acetylides and related MxC_n complexes.* Australian Research Council, Queen Elizabeth II Fellowship, February 1997–January 2002.

Protein Crystallography and Engineering

Dr P.D. Carr.** *Probing the active site of epsilon subunit of DNA polymerase III.* Australian Synchrotron Research Program, July 2002.

Protein Synthesis and Evolution

Dr N.E. Dixon, Dr E. Liepinsh and Dr J. Carazo.** *Structures and Functions of bacterial replisomal proteins.* Australian Research Council, Discovery-Projects, January 2002–December 2004.

Solid State Molecular Science

Professor V.J. James. ** *A study of changes in the diffraction pattern of human and transgenic mouse hair with disease. (Visit to Photon Factory, Japan)* Australian Synchrotron Research Program, January 2002.

Professor V.J. James.** *A study of changes in the diffraction pattern of human and transgenic mouse hair with disease. (Visit to Chem MatCARS)* Access to Major Research Facilities Program, June 2002.

Professor V.J. James.** *A study of changes in the diffraction pattern of human and transgenic mouse hair with disease. (Visit to Argonne)* Australian Synchrotron Research Program. July 2002.

Finance

Dr P.A. Reynolds.** *Langmuir films of b-casein deposited at the air/polysilicic acid interface* Access to Major Access to Major Research Facilities Program. November 2002.

Professor J.W. White. *The UnIChe Project* Higher Education Innovation Program (HEIP) – Science Lectureship Initiative. July 2000–December 2002.

Professor J.W. White, Dr M.J. Henderson and Mr A.W. Perriman.** *Langmuir films of poly(t-butylacrylate) films at the air/water interface.* Access to Major Research Facilities Program, July 2002.

Professor J.W. White and Dr S.A. Holt. *The nanoscale structure of milk: stability implications for milk products.* Dairy Research and Development Program, January 2001–December 2003.

Professor J.W. White, Dr P.A. Reynolds, Dr R. Goodridge and Dr C. Such.** *High internal phase emulsions – structure and rheology control.* Australian Research Council and ORICA Australia Ltd., January 2002–December 2004.

Synthesis and Mechanism

Professor M.G. Banwell. *Progen phase II synthesis and identification of novel, heparinoid mimetics and development of the heparanase enzyme as diagnostic and therapeutic target.* Progen Industries Ltd, April 1999–April 2002.

Professor M.G. Banwell.** *Progen phase III synthesis and identification of novel, heparinoid mimetics and development of the heparanase enzyme as diagnostic and therapeutic target.* Progen Industries Ltd, October 2002–September 2005.

Professor M.G. Banwell.** *Generation and exploitation of fermentatin products in the chemical synthesis of biologically active compounds with therapeutic potential.* Australian Research Council, Discovery–Projects, January 2002–December 2004.

Professor M.G. Banwell and Professor C.J. Easton.** *Development of novel inhibitors for compounds from GlaxoSmithKline* GlaxoSmithKline. January 2002–December 2002.

Professor M.G. Banwell and Mr X.H. Ma. *Chemoenzymatic synthesis of novel sialic acid analogues related to the potent anti-influenza drug. Relenza* Australian Research Council and Biota Holdings, February 2000–January 2003.

Dr B.D.K. Kelly. *Chemoenzymatic routes to spinosyns – a new environmentally benign class of insecticides.* Australian Research Council, Postdoctoral Fellowship, January 2001–December 2003.

Theoretical Chemical Physics

Dr M.A. Collins. Australian Partnership for Advanced Computing, July 2000–June 2003.