Graduate Chemistry Program

Formal responsibility for the program rests with the Board of Studies, comprising Professor Chris Easton (RSC, Convenor), Dr Ray Withers (RSC, Associate Dean, Students), Dr Mark Humphrey (Department of Chemistry), Professors Martin Banwell and Leo Radom (RSC), students Ms Roberta Barbiellini and Mr Sean Yu-McLoughlin (RSC) and Mr Paul Huleatt and Mr Jason Chaplin (Department of Chemistry). There are fifty-five students currently enrolled for the PhD degree within the program. Of these, three are full fee-paying students.

The information sheet Information for Students in the Chemistry Graduate Program and the booklet PhD Supervision were distributed at an induction session in April. Requirements regarding attendance at lecture courses, procedures for mid-term reviews, and student support services available, were discussed. A second function was held in December, in conjunction with the summer scholars program. Feedback from students is taken into account when setting up the lecture program. Exit interviews allow students to express their views about the program and ombudspersons assist students, should a conflict arise with a supervisor (see Internal Management section). PhD Planners are compiled in the Academic Secretary’s office for all commencing PhD scholars to assist them with time management during their candidature.

The following lecture courses were presented in the program:

Dr Geoff Salem
Inorganic Stereochemistry and the Role of Chiral Transition Metal Catalysts in Synthesis (8)*

Dr Ronald Pace
Electron Transfer in Biological Systems (8)*

Professor Ben Selinger
Chemicals, Health and the Law (8)*

Dr Paul Waring
The Chemistry of Toxins (8)*

Mr Lee Welling
Laboratory Safety for Practicing Chemists (1)

Methods for Structure Determination (8)
Dr Alison Edwards – Small Molecule Crystallography
Dr Phil Jackson – Mass Spectrometry
Mr Anthony Herlt – HPLC and GLC
Dr Max Keniry – NMR Spectroscopy

Founders’ Commemoration Lectures

Craig Graduate Lecture Series – Professor Christopher Abell, Biological Chemistry, University of Cambridge, UK, to be delivered in 2003

Birch Lecturer: Professor Peter G. Schultz, Department of Chemistry, Scripps Research Institute, La Jolla, Ca. USA.
PhD Degrees Awarded and Present Employment of Graduates

Eighteen scholars were admitted to the PhD degree in 2002. Those entitled Dr also had degrees conferred:

**Dr Matthew J. Byrnes, BSc NSW**
The Coordination and Organometallic Chemistry of Bis(β-diketonato) Ruthenium (II/III)
Supervisor: Professor M.A. Bennett
Currently: Ohio State University

**Ms Nadine M. Di Bartolo, BSc James Cook**
Radiolabelling Antibodies for Cancer Diagnosis and Treatment
Supervisor: Dr N.E. Dixon
Currently: Radiopharmaceuticals R & D Division, ANSTO, NSW

**Dr Jeffrey A. Crowther, BSc Queensland**
Subunits of Escherichia coli DNA Polymerase III Holoenzyme
Supervisor: Dr N.E. Dixon
Currently: Environment Protection Authority (EPA), NSW

**Dr Belinda J. Haupt, BSc Newcastle (NSW)**
Single Polymer Chains
Supervisor: Dr E.M. Sevick
Currently: Postdoctoral Fellow, University of Leiden

**Dr Owen G. Jepps, BSc ANU**
The Thermodynamic Temperature in Statistical Mechanics
Supervisor: Professor D.J. Evans
Currently: Research Fellow, Griffith University

**Ms Connie K.Y. Lee, BSc Sydney**
4-Acylisoxazoles as Masked Acrylate Synthons in Asymmetric Synthesis
Supervisor: Professor C.J. Easton
Currently: Postdoctoral Fellow, Cambridge University, UK

**Dr Matthew M.W. McLachlan, BSc Auckland**
Studies Directed Toward the Synthesis of the Galbulimima Belgraveana Alkaloids
Supervisor: Professor L.N. Mander
Currently: The Chemical Laboratories, Cambridge University, UK

**Dr Kenneth J. McRae, BSc Melbourne**
cis-1,2-Dihydrocatechols – Versatile Synthons for the Stereoselective Assembly of Natural Products
Supervisor: Professor M.G. Banwell
Currently: Department of Chemistry and Chemical Biology, Harvard University

**Dr Emil J. Mittag, BS MS Texas El Paso**
Applications of the Fluctuation Theorem
Supervisor: Professor D.J. Evans
Currently: Centre for Bioinformatics, University of Hamburg

**Mr Timothy P. O’Sullivan, BSc Limerick**
A New Approach to the Total Synthesis of Harringtonolide
Supervisor: Professor L.N. Mander
Currently: Postdoctoral Fellow, School of Pharmacy, Trinity College, Dublin
Mr Nicholas R. Perkins, BSc NSW
The Synthesis, Electrochemistry and Spectroscopy of Face-sharing Polynuclear Complexes
Supervisor: Dr G.A. Heath
Currently: ACT Government Analytical laboratory

Mr James B. Procter, BSc York, MSc Leeds
Representation and Comparison of Protein Structure
Supervisor: Dr A.E. Torda
Currently: Postdoctoral Fellow, Centre for Bioinformatics, University of Hamburg

Dr Steven L. Ramsay, BSc Adelaide
Structural Analysis of Complex Glycosaminoglycans
Supervisor: Dr J.K. MacLeod
Currently: Department of Chemical Pathology, Women and Children’s Hospital, Adelaide

Ms Jo-Anne M. Rasmussen, BSc Central Queensland
The Synthesis of Some Novel Molecular Clefts
Supervisor: Professor M.G. Banwell
Currently: Research Chemist, CSIRO, Melbourne

Dr Jeremy L. Ruggles, BSc New England
Template Assisted Self-assembly of Mesoporous Silicate Films at the Air-water Interface
Supervisor: Professor J.W. White
Currently: University of Queensland

Dr George J. Vuckovic, BSc Monash, Hons ANU
Studies of the Effects of Biological Catalysts and Cyclodextrins on Chemical Transformations
Supervisor: Professor C.J. Easton
Currently: Environment Australia

Dr Ian Walker, BSc Curtin
Mutagenesis and Mechanistic Studies of Dienelactone Hydrolase: Conversion to Dienelactone Isomerase
Supervisor: Professor C.J. Easton
Currently: University of Melbourne

Mr David J. Wong, BSc Sydney
Studies in Natural Product Synthesis
Supervisor: Professor M.G. Banwell
Currently: Department of Chemistry, Cambridge University

MPhil Degree Awarded

Mr Cy M. Jeffries, BSc Canterbury NZ, Hons ANU
Attempting a Functional Change of an Enzyme: The Directed Evolution of Dienelactone Hydrolase into a Parathionase
Supervisor: Dr D. Ollis
Currently: Technician, University of Sydney
Postdoctoral Fellows, Research Fellows and Fellows–Completions and Destinations

The School provides one of the very best environments for the education and research training of graduate students and postdoctoral fellows. Our interest in their welfare extends well beyond the time spent at the RSC, in part through a comprehensive alumni program. Although the School was founded only thirty-three years ago, many of our alumni now occupy senior positions in academia, government and industry, both in Australia and overseas.

Dr Ellen Beck  Isotechnika, Edmonton, Canada
Dr Nicola Brasch  Lectureship, Kent State University, Ohio, USA
Dr Zsuzsanna Dosztanyi  Institute of Enzymology, Hungarian Academy of Sciences, Budapest
Dr Mukta Gupta  completed her postdoctoral fellowship in February
Dr Rebecca Jacob  Postdoctoral Fellow, Royal Melbourne Institute of Technology
Dr Katrina Jolliffe  QE11 Fellowship at the University of Sydney
Dr Kitty Lee  New Zealand Milk Products, Hamilton, NZ
Dr Vanessa Masters  Graduate Program, Department of Defence, Canberra
Dr Emil Mittag  Centre for Bioinformatics, University of Hamburg, Germany
Dr Lasse Norén  Technical Officer, Research School of Chemistry, ANU
Dr James Procter  Centre for Bioinformatics, University of Hamburg, Germany
Dr Michael Sullivan  Supercomputer Facility, Singapore
Dr Andrew Torda  Professorship, Bioinformatics, University of Hamburg
Dr Xueqin Wang  completed her postdoctoral fellowship in June
Dr Eric Wenger  Research Services Office, ANU
Dr Wolfram Wielandt  Research Assistantship, Karl-Franzens-University, Austria
Dr Ling Xia  Postdoctoral Fellowship with GlaxoSmithKline
Dr Hong Yang  The Walter and Eliza Hall Institute of Medical Research, Royal Melbourne Hospital

Research Students

Alan Sargeson Merit Scholarship = ASM
Australian Postgraduate Award = APA
Australian Postgraduate Award (Industry) = APA(I)
ANU Graduate School Scholarship = GSS
Co-funded ANU Graduate School/Research School of Chemistry = GSS/RSC
ANU PhD Scholarship = ANUPhD
International Postgraduate Research Scholarship = IPRS
Cotton Research Development Corporation = CRDC
University-Industry Linkages in Chemistry = UnIChe
ANU PhD Scholarship = ANUPhD
Deutscher Akademischer Austausch Dienst e.V. = DAAD

- Abraham, Mark  BSc Tasmania  ANUPhD
- Adams, Joanne R.  BSc Flinders  APA
- Bancia, Bogdan  Dipl Cuza Univ Iasi, Romania  ANUPhD
- Barbiellini, Roberta  BHSc Griffith  APA
- Barr, Lorna  BSc Strathclyde  ANUPhD
- Barratt, Brendon  BSc Deakin  ANUPhD
- Beck, Daniel  BSc RMIT  APA
- Bernardo, Martha E.  BS Ateneo de Manila GradDipSc ANU  ANUPhD
- Brink, Francisucus J.  BAppSc South Australia MApSc LaTrobe  ANUPhD
- Carberry, David M.  BSc BEng Hons ANU  ANUPhD
- Cieslinski, Marta M.  BSc Adelaide  GSS/R
- Chand, Satish  BSc USP MSc Macquarie  ANUPhD
Chow, Leonie  BSc Melbourne  APA
Crow, James  MChem Sussex  ANUPhD
Dewhurst, Rian D.  BSc Canterbury, NZ  ANUPhD
Di Bartolo, Nadine M.  BSc James Cook  ANSTO
Dumanski, Paul  BAppSc RMIT Hons Victoria UTech  APA(I)
Duncan, Alexander H.  BSc Macquarie
Evenhuis, Christian R.  BSc Tasmania  APA
Gebbara-Coghlan, Mariana  BSc Sydney Hons ANU  APA(I)
Habermehl, Nicole C.  BSc ANU  APA
Hamdan, Samir M.  BSc Yarmouk MS West Michigan  ANUPhD
Harfoot, Gwion  BSc MSc Waikato  GSS/ASM
Hutt, Oliver E.  BSc Otago, NZ Hons ANU  ANUPhD
Karunaratne, Ochitha  BAppSc RMIT  APA
Kitt, Heather J.  BSc Canterbury, NZ  GSS/RSC
Krenske, Elizabeth H.  BSc Queensland  APA/VC
Jury, Jasmine C.  BSc Massey  ANUPhD
Lee, Thanh Phuoc  BSc Cantho Vietnam MSc Amsterdam  ANUPhD
Lee, Connie K. Y.  BSc Sydney  APA(I)
Looong, David T. J.  BTech (ChemTech) Massey  ANUPhD
Loscha, Karin V.  BSc MSc Göttingen  DAAD
Lupton, David W.  BSc Adelaide  GSS
Ma, Xing H.  BSc Hanzhong ME Dalian, China  APA(I)
Margerson, Samuel A.  BSc Canterbury, NZ  GSS
McLachlan, Matthew M. W.  BSc Auckland  GSS
McNabb, Stephen B.  BSc Canterbury, NZ  ANUPhD
Mittag, Emil J.  BS MS Texas El Paso  IPRS
Mortimer, Adam J.  BSc Wollongong  ANUPhD
Mulcair, Mark  BSc Monash  ANUPhD
Murphy, James M.  BSc Canterbury, NZ  GSS/AMS
Nguyen, Xuan T.T.  BSc Melbourne  GSS/RSC
O’Connor, Patrick D.  BSc Massey  GSS
Onagj, Hideki  BSc Western Sydney Hons ANU  ANUPhD
Park Ah Young  BSc ANU  ANUPhD
Perkins, Nicholas R.  BSc New South Wales
Philbrooks, Amy A.  BSc Maine  UniChe
Ramsay, Steven L.  BSc Adelaide
Rasmussen, Jo-Anne M.  BSc C Queensland
Smith, Michael H.  BSc Melbourne Hons Sydney  ANUPhD
Stanislawski, Pauline C.  BSc Monash  ANUPhD
Stevenson, Bradley J.  BSc Lincoln, NZ  GSS/VC
Sydnes, Magne  CandMag CandSc Oslo  ANUPhD
Taylor, Rebecca M.  BSc MSc Waikato  ANUPhD
Tshabang, Never  BSc Botswana MSc Sussex  U Botswana
Thomson, Regan J.  BSc Auckland Hons ANU  GSS
Warr, Rebecca J.  BSc Canterbury, NZ  GSS
Watts, Zachary I.  BAppSc RMIT  ANUPhD
Wong, David J.  BSc Sydney  APA(I)
Wood, Geoffrey F.  BSc Canterbury, NZ  GSS
Yu McLoughlin, Sean  BSc James Cook  ANUPhD
Zhao, Chunjiu  BSc Changchun MSc Beijing  IPRS/CSIRO
Zuckerman, Michael L.  BSc Adelaide  CRDC/CSIRO
Visiting Scholars

As part of the recruitment program the School hosts international and Australian scholars for visits of two to six months to undertake research projects with individual staff members. In most instances the project forms part of their course requirements and the scholars are supported by their home institutions:

- Corral, Ms Ines Dipl Madrid L. Radom
- Fleck, Ms Karin Dipl Vienna M.A. Bennett
- Helmstedt, Ms Ulrike Dipl Leipzig S.B. Wild
- Jergic, Mr Slobodan BSc Biochem/BiotechEng Belgrade N.E. Dixon
- Kaspar, Ms Hannelore Pre Dipl Munich M.G. Banwell
- Mangin, Ms Stefanie Tübingen A.E. Torda
- Privé, Mr Steven BAppSc RMIT M.A. Bennett
- Wolf, Mr Robert MPhil Cambridge S.B. Wild

Honours Scholars

The following students undertook joint Honours projects with the School and the Chemistry Department, The Faculties:

- Ho, Mr Junming BSc Chem Western Australia M.A. Collins/R. Stranger
- Perriman, Mr Adam BSc ANU J.W. White/G. Fischer

Summer Scholar Program

Summer Research Scholarships for eight to ten weeks, from November to February 2002-2003, were awarded to twenty-four undergraduate students from Australia and New Zealand. All were involved in research projects with individual staff members:

- Abernethy, Ms Robyn Massey R.L. Withers
- Aitchison, Mr Tony Flinders G.A. Heath
- Bilski, Mr Tomasz Curtin UTech M.G. Banwell
- Ciawi, Ms Envi Melbourne E.M. Sevick
- Cruickshank, Ms Amy Canterbury C.J. Easton
- Dick, Mr Andrew Tasmania E.R. Krausz
- Fischer, Mr Joshua Sydney M.S. Sherburn
- Friend, Mr Martin Murdoch M.G. Banwell
- Ho, Mr Junming UWA/ANU L. Radom
- Jackson, Mr Colin Otago D.L. Ollis
- Kay, Ms Hannah Flinders N.E. Dixon/G. Otting
- Kokas, Mr Okanya J Queensland M.G. Banwell
- Kristiana, Ms Ria Murdoch S.B. Wild
- Lim, Mr Teck Hock Victoria U Wellington L.N. Mander
- Martin, Ms Lee New South Wales A.F. Hill
- Miller, Ms Natalie Sydney M.S. Sherburn
- Mramor, Ms Tania Lee Massey G.A. Heath
- Reid, Mr James Victoria Wellington D.J. Evans
- San, Ms Hy Huong Northern Territory C.J. Easton
- Szczepina, Mr Cody Wollongong A.F. Hill
- Watson, Mr Morgan A Canterbury D.L. Ollis
- Williams, Ms Leodrina Victoria U Wellington R.D. Webster
- Wilson, Ms Adele Tasmania A.F. Hill/S.B. Wild
- Wu, Mr Peter Queensland UTech G. Otting