

## PROFESSOR ANNE DELL CBE FRS FMedSci

**DATE OF BIRTH:** 11-9-50 (Perth, Australia)  
**NATIONALITY:** British/Australian  
**ADDRESS:** Division of Molecular Biosciences, Faculty of Natural Sciences,  
Imperial College London SW7 2AZ  
[a.dell@imperial.ac.uk](mailto:a.dell@imperial.ac.uk);  
Tel:+44 (0) 207 594 5219; Fax: +44 (0) 207 225 0458

### APPOINTMENTS:

**2004-present** Head GlycoTRIC Centre, Imperial College  
**2002-2007** BBSRC Professorial Fellow, Imperial College  
**1999-2001** Head of Department of Biochemistry, Imperial College  
**1991-present** Professor of Carbohydrate Biochemistry, Imperial College  
**1986-1991** Reader, Dept of Biochemistry, Imperial College  
**1979-1986** Lecturer, Dept of Biochemistry, Imperial College  
**1975-1979** Postdoctoral Research Assistant, Dept of Biochemistry, Imperial College

### TERTIARY EDUCATION:

**1972-1975** 1851 Exhibition Scholarship to the University of Cambridge; PhD Degree in the Department of Chemistry on "Peptide and Protein Sequencing by Mass Spectrometry".  
**1968-1972** University of Western Australia; First Class Honours Degree in Organic Chemistry.

### AWARDS, PRIZES etc:

1986 Tate and Lyle Medal from the Royal Society of Chemistry  
2000 Whistler Award of the International Carbohydrate Organisation  
2001 Chair of the Glycobiology Gordon Conference, Ventura, CA, USA  
2002 Elected Fellow of the Royal Society  
2003 Haworth Memorial Medal and Lecture, Royal Society of Chemistry  
2004 Elected Member, European Academy of Science  
2005 International Glycoconjugates Organisation Award  
2008 Elected Fellow of the Academy of Medical Sciences  
2009 Awarded CBE in recognition of services to Science  
2010 Honorary DSc, University of Western Australia  
2011 President, Society of Glycobiology  
2011 Honorary DSc, University of Waterloo, Canada

### PROFESSIONAL POSITIONS:

- U.K. Co-ordinator of the International Carbohydrate Data Base (1986-1999)
- Chairman Glycobiology Group of Biochemical Society (1988-1993)
- Executive Editor of Glycobiology (1990-2005)
- Member of Editorial Board of Carbohydrate Research (1989-2000)
- Member of Editorial Board of Biochemical Journal (1994-1999)
- Member of Editorial Board of Current Opinion in Chemical Biology (since 1998)
- Member of Editorial Board of Journal of Biological Chemistry (2001-2006)
- Member of Editorial Board of Chemical Society Reviews (since 2003)
- Member of Biochemistry and Biophysics Sub-Committee of SERC (1991-1993)
- Member of Committee of International Society for Glycobiology (1996-2001)

- Member of BBSRC Bioinformatics/E-Science Panel (2001-2003)
- Visiting Professor, University of San Diego (2001-2002)
- Member of Steering Committee of NIH Consortium for Functional Glycomics (2001-present)
- Co-Ordinator of Analytical Core of NIH Consortium for Functional Glycomics (2002-2011)
- Member, Royal Society Council (2003-2004)
- Member, National Physical Laboratory RS/RAE Advisory Committee (2004-present)
- Member, British Library Advisory Council (2004-present)
- UK Representative on the European Science Foundation Expert Group on Structural Medicine (2004-2005)
- Member Japanese Human Disease Glycomics Proteome Initiative (HGPI) Advisory Panel (2004-present)
- Member Executive Committee, UK Glycosciences Forum (2005-2010)
- Member BBSRC Council (2007-present)
- Chair, Royal Society Mercer Committee (2009-)
- President Society of Glycobiology (2011)

### **IMPERIAL COLLEGE ADMINISTRATIVE ACTIVITIES:**

Committee Membership:

Departmental level: Teaching Committee, Technical Review Committee, Appointments Committees and Promotions Committees.

College level: Undergraduate Studies Committee, Science Studies Committee and Senate, Faculty of Life Sciences Strategic Research Committee, Faculty of Medicine Strategic Research Committee.

I have also been a member of the Faculty of Medicine Strategic Research Committee, Faculty of Life Sciences Strategic Research Committee and Centre for Integrative Systems Biology (CISBIC) Management Group, and have chaired the CISBIC Infrastructure Committee and the Biochemistry Building Committee. I was the Academic Co-ordinator for the JIF, SRIF and Wolfson funded refurbishment of the Biochemistry building. I currently chair the Departmental REF committee.

### **TEACHING ACTIVITIES:**

Teaching is integral to my academic post at Imperial and I have had a full teaching load at undergraduate and masters levels since the early 1980s. I was Director of Undergraduate Studies for Biochemistry from 1991-1999. In this role I was responsible for the entire undergraduate teaching programme for all Biochemistry degrees. I re-structured and modernised the curriculum to ensure it was fit for purpose at a time when the biosciences were expanding rapidly. I have considerable experience of innovative course design at all levels of the undergraduate curriculum and have played a central role in the introduction of postgraduate MSc courses in Biochemical Research, Applied Biosciences and Bioinformatics. I have won two of the Rector's awards for excellence in teaching. I am strongly committed to the provision of high quality training for young scientists and was part of the team which established the Imperial College Graduate School of Life Sciences and Medicine.

### **ENGAGEMENT WITH INDUSTRY:**

From 1980 to 2010 I served as Company Secretary and Consultant for M-Scan Ltd (Mass Spectrometry Consultants and Analysts), an independent company established by Professor Howard Morris which is dedicated to providing high quality training and analytical services based on mass spectrometry and chromatography. I have contributed to the design and construction of mass spectrometric technology developed by M-Scan and I have taught on several of their training courses.

## **RESEARCH AND TRAINING ACTIVITIES:**

My research is focused on the development and application of ultra-high sensitivity mass spectrometric strategies for solving biopolymer structural problems, with particular emphasis on post-translational modifications especially glycosylation. Current research projects include glycomic and glyco-proteomic studies of murine and human leukocytes and characterisation of glycoproteins implicated in mammalian fertilization and of glycoconjugates implicated in bacterial pathogenesis. I direct an interdisciplinary team of fifteen staff and students which is engaged in a wide range of collaborations with more than fifty scientists in the UK, Europe, North America and Japan. Notably we have introduced and optimised rapid techniques for screening for carbohydrate structures in a wide range of biological materials, including purified glycoproteins, body fluids, secretions, organs, cultured cell lines and whole parasites. A key objective is to provide the structural underpinning for national and international collaborative programmes of research that are seeking to define the biological roles that carbohydrates play in health and disease. This research has implications not only for understanding how sugar-coded recognition occurs, but also, because the sugar chains are so effective in stimulating immune responses, for the design of new drugs and vaccines, for example against parasites and pathogens.

Over thirty students have completed PhDs under my supervision or co-supervision, and all are successfully pursuing careers in academia, industry and medicine, where they are exploiting their mass spectrometric and/or glycobiology skills. Amongst them are university professors and CEO's of industry. With the aim of drawing a wider community of scientists into glycobiology I established the Glycobiology, Training ,Research and Infrastructure Centre (GlycoTRIC) at Imperial College in 2006 (<http://www.imperial.ac.uk/glycotric/>). The mission of GlycoTRIC is to facilitate interactions between groups knowledgeable in glycobiology and those positioned to apply this knowledge to the understanding of health and disease. Since then over 70 trainees from all over the world have attended hands-on glycomics courses and glycobiology workshops. I have contributed to advanced training courses for postgraduate and postdoctoral scientists in France, Sweden, Holland and the USA.

## **PUBLICATIONS:**

**See website: <http://www3.imperial.ac.uk/people/a.dell/publications>**