

Curriculum Vitae

FULL NAME: Professor Barry Victor Lloyd POTTER FMedSci

Nationality: British

Current Position: Professor of Biological & Medicinal Chemistry, University of Oxford
Wellcome Trust Senior Investigator (2014-2019)

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Research pages : <http://www.bath.ac.uk/pharmacy/staff/bvlp.html>

EDUCATION

School: 1965 – 1972 Hove County Grammar School

University: Oxford University; Worcester College (1973 – 1977); Wolfson College (1977 – 1981)
1977 **BA Honours degree in Chemistry, 1st Class** – Part I (1976); Part II (1977)
Supplementary subjects: Chemical Pharmacology; Molecular Biophysics; History and Philosophy of Science.
Part II thesis title: The chemical modification of papain and the mechanism of action of fumarase

1980 **MA**

1981 **DPhil** – title: An investigation of enzyme mechanisms using substrate analogues (supervisor: G Lowe FRS)

1993 **DSc** Oxford University

SCHOLARSHIPS AND PRIZES

1973 – 1977 Open Exhibition in Natural Sciences, Worcester College, Oxford

1977 The Part II Thesis Prize in Organic Chemistry, Oxford University

1977 Worcester College Society Prize (best performance in science subjects honour schools)

1978 – 1980 Graduate Scholarship, Wolfson College, Oxford

1980 – 1981 Junior Research Fellowship, Wolfson College, Oxford

ACADEMIC APPOINTMENTS

1977 – 1979 SRC Research Studentship, The Dyson Perrins Laboratory, Oxford

1979 – 1981 SRC Postdoctoral Research Assistantship, The Dyson Perrins Laboratory, Oxford

1980 – 1981 Junior Research Fellowship, Wolfson College, Oxford

1981 – 1984 Royal Society European Exchange Fellow at the Max-Planck-Institut für Experimentelle Medizin, Göttingen, FRG

1983 – 1984 Wissenschaftlicher Mitarbeiter der Max-Planck-Gesellschaft, Göttingen, FRG

1984 – 1990 Lecturer in Biological Chemistry, Leicester University

1987 – 1990 Lister Institute Research Fellow, Leicester University

1990 – 1995 Lister Institute Research Professor of Medicinal & Biological Chemistry, University of Bath

1990 – 2015 Professor of Medicinal and Biological Chemistry, University of Bath (established chair)

2006 – 2015 Visiting Professor of Medicinal Chemistry, University of Oxford

2006 – 2015 Associate Member, Dept of Pharmacology, University of Oxford

1990 – 2015 Professor of Medicinal and Biological Chemistry & Head of Medicinal Chemistry Section, Department of Pharmacy & Pharmacology, University of Bath

2015 - 2018 Visiting Professor of Medicinal Chemistry, University of Bath

MAJOR PRIZES

2007/8 Royal Society of Chemistry George and Christine Sosnovsky Award & Medal in Cancer Therapy

2007 Royal Society of Chemistry UCB-Celltech Industrially Sponsored Award & Medal for Chemical Biology

2009 Royal Society of Chemistry Biological & Medicinal Chemistry Section, Malcolm Campbell Memorial Prize & Medal

2009 GlaxoSmithKline International Achievement Award

2010 Royal Society of Chemistry Interdisciplinary Prize & Medal

2012 European Life Science Awards “Investigator of the Year”

2015/16 Royal Society of Chemistry-BMCS Endowed Medicinal Chemistry Lectureship

PROFESSIONAL FELLOWSHIPS & MEMBERSHIPS

1990 Fellow of the Royal Society of Chemistry (Member since 1981); Chartered Chemist CChem

1985 Member of the Biochemical Society

1995 Member of the Lister Institute of Preventive Medicine

2004 Chartered Scientist CSci

2005 Member of the American Association for Cancer Research

2008 Member of the American Chemical Society

2008 Fellow of the Institute of Directors (FIoD, Member since 2000)

2008 Fellow of the Society of Biology (FSB, formerly FIBiol); Chartered Biologist CBiol

2014 Member International Union of Pure & Applied Chemistry (IUPAC)

HONOURS

2008	Fellow of the Academy of Medical Sciences
2009	Fellow of the Royal Society of Arts (by Trustee invitation)
2009	Member of <i>Accademia Europaea</i>

LECTURESHIPS

1993	Walsh Memorial Lecturer (University of Dundee)
2000	Prestige Lectureship (University of Bradford)
2007/8	RSC George and Christine Sosnovsky Endowed Lectureship
2010/11	RSC Interdisciplinary Prize Endowed Lectureship
2015/16	Royal Society of Chemistry-BMCS Endowed Lectureship

DIRECTORSHIPS

1997 – 2004	Board Director, Sterix Ltd
2004 - 2009	Non-Executive Director, Sterix Ltd

PUBLICATIONS & PATENTS

Over 500 publications on biological and medicinal chemistry (H-index 58; incorporated into “H-Index of Living Chemists” listing, see: [http://www.rsc.org/images/H-index%20ranking%20of%20living%20chemists\(March%202011\)_tcm18-85867.pdf](http://www.rsc.org/images/H-index%20ranking%20of%20living%20chemists(March%202011)_tcm18-85867.pdf)). The March 2011 H-index ranking of living chemists includes 597 international chemists in all sub-disciplines. In my *Bio* category there are 72 entries, so I am placed formally in the top 72 of world biological chemists, as measured by this particular criterion as one of only 4 other named UK scientists in this category. In addition to publications in the academic literature I have also built up a very extensive patent portfolio. During 2010/11 the patent agents D Young & Co did a survey on intellectual property filed under my name. I am a senior co-inventor on *ca* 770 patent filings worldwide derived from 46 distinct families. Of these, including 83 US, 58 EP and 40 JP cases, 430 have been formally granted to date including 45 USPs, 25 EPs and 10 JPs.

RESEARCH GRANTS (1984 – 2015)

£1.31M from The Wellcome Trust (5yr Senior Investigator Award) Chemical biology of cellular signalling using polyphosphate messengers; **£1.2M from The Wellcome Trust (5yr Programme Grant)** Chemical biology, inositol polyphosphates and cellular signalling; **£4.16M from Ipsen Ltd** Development of steroid and steroid-related therapeutics; **£4.8M from Ipsen Ltd** Development of steroid and steroid-related therapeutics; **£1.52M from Sterix Ltd** Development of steroid and steroid-related therapeutics; **£93,090 from Ipsen Ltd** Extension to above grant; **£409,616** plus £31,694 supp from **The Wellcome Trust** Cyclic adenosine diphosphoribose (cADPR) and adenosine diphosphoribose (ADPR) analogues in human T-lymphocyte chemical biology; **£374,890 from The Wellcome Trust** 500 MHz NMR Spectrometer to Underpin Biological and Medicinal Chemistry Research in the Department of Pharmacy and Pharmacology (with T Woodman); **£300K from Ipsen** - contribution to dedicated laboratory refurbishment; **£1.14M from Sterix Ltd** Development of steroid and steroid-related therapeutics; **£1.07M from The Wellcome Trust (5yr Programme Grant)** Design of ligands for intervention in the polyphosphoinositide pathway of cellular signalling; **£703,482 from Sterix Ltd** Development of sulphamate therapeutics; **£674,594 from The Wellcome Trust** Application for a high field nuclear magnetic resonance spectrometer (with S Bagby, J P L Cox, G L Taylor, A S Thompson); **£405,969 from The Wellcome Trust (5 yr Programme Grant)** Synthetic inositol 1,4,5-trisphosphate receptor agonists, antagonists and enzyme inhibitors: New tools for intervention in the polyphosphoinositide pathway of cell signalling; **£329,920 from BBSRC** Design and synthesis of mimetics and antagonists of NAADP; **£275,000 from the Lister Institute** (a) Biological catalysis by RNA, (b) Stable analogues of inositol phosphate second messengers; **£200,000 from The Wolfson Foundation** Phase II Refurbishment of the Wolfson Laboratory for Medicinal Chemistry (with J Dowden); **£200,000 from CRC** Steroid sulphatase inhibitors: chemistry and biology (with M J Reed); **£190,792 from BBSRC** Structural analysis of the interaction between inositol 1,3,4,5-tetrakisphosphate and its putative *in vivo* receptor, GAPIIP, BP (with P Cullen); **£185,000 from MRC** Cyclic ADP-ribose, a novel second messenger candidate: chemistry and biology (with A Galione); **£22,206 from MRC** Extension to above grant; **£173,889 from The Wellcome Trust** Investigations on cyclic ADP-ribose-mediated cellular signalling using novel synthetic probes (with A Galione); **£165,000 from The Wellcome Trust** Synthesis of potential inositol trisphosphate receptor antagonists: novel anti-inflammatory agents (with I S Blagbrough and J Westwick); **£166,000 from SERC** Mass Spectrometry facility for the University of Bath (with M Green and M Sainsbury); **£143,520 from The Wellcome Trust** Structure-function studies of nicotinic acetylcholine receptors based upon methyllycaconitine and related structures (with I S Blagbrough, S J Wonnacott and A J Wolstenholme); **£145,000 from Ipsen** - 2 fully funded research studentships; **£133,991 from Swansea University/Welsh Government** Synthesis of Seraticin; **£119,800 from Biomolecular Sciences (BBSRC/EP SRC)** Novel inositol trisphosphate receptor agonists, antagonists and enzyme inhibitors (with S R Nahorski); **£119,000 from BBSRC** Novel analogues of Ins(1,4,5)P₃ based upon surrogates of the inositol nucleus (with N F Thomas); **£115,625 from EPSRC (JREI)** X-ray structures using a CCD area detector (with M Davidson, M Mahon, B Brisdon, A Burrows, C Frost, K Mollooy, J Williams, M Willis, M Whittlesey, I Blagbrough); **£114,000 from The Wellcome Trust** Structure-activity relationship studies of methyllycaconitine, a very potent nicotinic antagonist (with I S Blagbrough and S Wonnacott); **£104,326 from SERC** Investigations of inositol polyphosphate analogues on Ca²⁺ signalling in permeabilised and resealed cells (with S R Nahorski); **£95,645 from SERC** Intracellular recognition sites for inositol phosphate second messengers (with S R Nahorski); **£86,085 from The Wellcome Trust** Carbohydrate-based mimics of a second messenger: synthesis and pharmacology (Prize Studentship); **£85,000 from The Wolfson Foundation** Laboratory refurbishment for inositol lipid cell signalling work (with J Westwick); **£85,000 from The Wolfson Foundation** Building of annex to house high field nuclear magnetic resonance spectrometer (with S Bagby, J P L Cox, G L Taylor, A S Thompson); **£83,400 from SERC** RNA processing mechanisms using phosphorothioate analogues of RNA (with I Eperon); **£76,755 from CRC** Non-steroidal sulfatase inhibitors: chemistry and biology; **£73,979 from SERC** Inositol polyphosphate analogues: receptor probes in molecular recognition (with S R Nahorski); **£71,216 from CRC** Non-steroidal sulfatase inhibitors: chemistry and biology (with M J Reed); **£61,000 from The Wellcome Trust** Synthesis, molecular modelling and biological assays of methyllycaconitine analogues, novel antagonists of the nicotinic cholinergic receptor (with I S Blagbrough and N F Thomas); **£60,000 from SERC** Mechanism of activation of 3' splice sites (with I Eperon); **£57,743 from The Wellcome Trust** Structure-function studies of nicotinic acetylcholine receptors based on methyl-lycaconitine and related structures (with I S Blagbrough, S J Wonnacott and A J Wolstenholme); **£52,957 from The Wellcome Trust** Biological chemistry of adenophostin A: Synthesis and Pharmacology (Studentship); **£44,034 from Cyanamid USA** Synthesis and formulation of estrone 3-*O*-sulphamate (with C W Pouton); **£43,976 from SERC** An investigation of restriction endonuclease mechanisms using oligonucleotide analogues; **£42,300 from Sterix Ltd** Design of novel therapeutics - fully funded studentship; **£38,000 from IMPEL** Synthesis of enzyme inhibitors; **£37,704 from The Wellcome Trust** Novel inositol phosphate analogues possessing reporter groups (Prize Studentship); **£37,197 from The Wellcome Trust** Synthesis and biology of phosphate analogues (Prize Fellowship); **£36,299 from SERC** Intracellular recognition sites for inositol phosphate second messengers (with S R Nahorski); **£34,895 from MRC** Investigation of self-splicing mechanisms of fungal mitochondrial introns (with I Eperon); **£26,500 from Oxford University OIF/UCSF Fund**, STX140 modified release formulation proof of concept; **£24,748 from BBSRC (JREI)** Upgrading of 270MHz NMR spectrometer console within the Department of Pharmacy and Pharmacology (with A S Thompson and M D Threadgill); **£19,000 from SERC** Inositol phosphate analogues possessing sulphhydryl groups (CASE award with SK&F); **£19,000 from SERC** Phosphorothioate analogues of biophosphates (CASE award with MS&D); **£18,400 from ESF** Technician training in biotechnology; **£18,000 from The Wellcome Trust** (Biomedical Research Collaboration Grant) The roles of cADPR and NAADP in T-lymphocyte Ca²⁺ signalling (with A Guse); **£17,542 from IMPEL** Synthesis of Enzyme Inhibitors; **£16,000 from MRC** Structural studies on an inert catalytic RNA analogue (with I Eperon); **£14,500 from SERC** Synthesis and biochemistry of novel non-hydrolysable analogues of inositol phosphate second messengers (earmarked studentship); **£29,606 from Bath Enterprise Development Fund**: Development of small molecule therapeutics for the treatment of multiple sclerosis and other

T-cell mediated conditions; **£12,600 from The Wellcome Trust** The role of cyclic ADP-ribose in T-lymphocyte Ca²⁺ signalling (Biomedical Research Collaboration grant with A H Guse); €14,000 from **the Hertie Stiftung, Germany**, 2-Methoxyestradiol, its bis-sulphamate STX140 and non-steroidal mimetics: New treatment options for CNS autoimmunity and underlying mechanisms of action; **£10,458 from IMPEL** Synthesis of Enzyme Inhibitors; **£9,939 from the Royal Society** Purchase of ion-exchange chromatography equipment; **£8,910 from The Wellcome Trust** Extension to Prize Studentship; £7,000 Bath HEIF Fund – EstryX Pharma business plan; **£7,500 from ICI** Top up for Quota Research Studentship; **£7,200 from The Royal Society** Research stay of Dr D Dubreuil (Paris); **£6,000 from MS&D** Novel pyrophosphate analogues of inositol phosphates; **£5,850 from The British Council** British-German Academic Research Collaboration Programme. Investigation of the interaction of second messenger analogues with Ins(1,4,5)P₃ 3-kinase using metal-dye HPLC; **£5,000 from SmithKline Beecham** Refurbishment of joint Chemistry/ Pharmacology laboratory, Leicester; **£3,000 from the Research Corporation Trust** Non-hydrolysable analogues of inositol phosphate second messengers; **£3,000 from The Lister Institute** Equipment grant for lyophilizer; **£1,500 from the British Council** Sabbatical stay for Prof D Cech.

EXTERNAL LECTURES

Universities and Research Institutes: University of Aston (Pharmaceutical Sciences), University of Basel (Pharmazeutisches Institut), University of Bath (Pharmacology) (Chemistry), University of Oxford (Pharmacology, three times), University of Oxford (Chemistry, twice), University of Oxford (Biochemistry), University of Cambridge (Zoology), University of Cardiff (Pharmacy), University of Dublin TCD (Chemistry), University of Bristol (Chemistry), University of Edinburgh (Chemistry), University of London, University College (Physiology), University of London, University College (Chemistry), University of London (School of Pharmacy, twice), University of London, King's College (Pharmacy and Biomedical Sciences, twice), University of Birmingham (Biochemistry), University of Dundee (Biochemistry, twice and Sir James Black Centre), University of Dundee (Chemistry), University of Newcastle (Biochemistry) (Chemistry), University of Nottingham (Pharmaceutical Sciences), University of Sheffield (Chemistry, Molecular Biology), University of Manchester (Chemistry, twice), University of Warwick (Chemistry, twice), University of Liverpool (Physiology), University of Southampton (Biochemistry, Chemistry), University of Bonn, FRG (Chemistry), University of Bremen, FRG (Bioorganic Chemistry), University of Kent (Chemistry), University of Portsmouth (Pharmacy), University of Sunderland (Chemistry), University of Sussex (Life Sciences), Herriot Watt University (Chemistry), University of Leicester (Chemistry, Biochemistry), UMIST (Chemistry), University of Galway (Chemistry), University of Bradford (Pharmacy), University of East Anglia (Chemistry & Pharmacy), University of Strathclyde (Pharmacy, SIPBS), Georg-August University of Göttingen, FRG (Biochemistry), Friedrich Schiller University of Jena, GDR (Chemistry), Humboldt University of East Berlin, GDR (Chemistry), Charles University, Prague, Czechoslovakia (Physiology), Max-Planck-Institut für Experimentelle Medizin, Göttingen, FRG, Max-Planck-Institut für Biophysik, Frankfurt, FRG, Max-Planck Institut für Molekulare Physiologie, Dortmund, Germany, Polish Academy of Sciences, Lodz, Poland, Institut de Chemie des Substances Naturelles, CNRS, Gif-sur-Yvette, France, Ludwig Institute Cancer Research, London, Universidad San Pablo, Madrid (Pharmacy), Emory University, Atlanta USA

Industry: Merck Sharp & Dohme Research (Harlow), Smith Kline & French (Welwyn), British Biotechnology (Oxford), Fisons Pharmaceuticals (Loughborough), Roche Products (Welwyn), Laboratoire D'Etudes et de Recherche Synthelabo (Paris), NEN Dupont De Nemours USA (Boston), Bayer UK Ltd (Slough), Celltech (Slough), Astra Charnwood UK, Schering AG (Berlin), Jenapharm, Germany (Jena), Nicomed Amersham (Cardiff), DiscoverX (San Francisco), OSI Pharmaceuticals (Oxford), Oxford Biomedica (Oxford), Avidex (Oxford), Topotarget/Prolifix (Oxford), Amedis (Cambridge), Beaufour Ipsen (London), Kudox (Cambridge), Ipsen, (Slough) (Boston) (Paris), Entremed, USA (Rockville), GSK (Harlow), Gedeon-Richter, Budapest (Hungary)

Conferences: East Midlands Regional Symposium of the Royal Society of Chemistry, Nottingham, 1985 (Invited Speaker); Molecular Enzymology Group Colloquium at the 622nd Meeting of the Biochemical Society, Leicester, 1987 (Invited Speaker); 10th International Conference on Phosphorus Chemistry, Bonn, Germany, 1987 (Plenary Lecturer); 7th Symposium on the Chemistry of Nucleic Acid Fragments, Bechyně Castle, Czechoslovakia; Royal Society of Chemistry Meeting "Glycolipids and Membrane Organisation", Sheffield, 1988 (Plenary Lecturer); 7th Phosphoinositide Discussion Meeting, Oxford, 1988 (Invited Speaker); Biological Council Meeting "Transmembrane Signalling, Intracellular Messengers and Implications for Drug Development", the Royal Institution, London, 1989 (Plenary Lecturer); 11th International Conference on Phosphorus Chemistry, Tallinn, USSR (Invited Speaker), 1989; 2nd SERC Molecular Recognition Initiative Workshop, Nottingham, 1989 (Invited Speaker); 1st Joint NSF/SERC Molecular Recognition Workshop, Barnesdale, 1989 (Invited Speaker); 18th Aharon-Katzir-Katchalsky Conference "From Receptor to Cell Response - Physiology and Pharmacology", San Maria Imbaro, Chieti, Italy, 1990 (Invited Speaker); 15th International Cancer Congress, Hamburg, FRG, 1990 (Invited Speaker); 14th IUB Congress of Biochemistry, Jerusalem, Israel, August 1991 (Invited Speaker); Industrial Biotechnology Group Meeting of the Biochemical Society, "Second Messenger Systems as Pharmacological Targets", London, December 1991 (Invited Speaker); XII International Conference on Phosphorus Chemistry, Toulouse, France, 1992 (Invited Speaker); Bioorganic Chemistry of Nucleic Acids, Göttingen, Germany, 1992 (Invited Speaker); Walsh Memorial Lecture, Dundee University, 1993; 9th Noordwijkerhout-Camerino Symposium: Trends in Drug Research, Noordwijkerhout, Netherlands, 1993 (Invited Speaker); 27th EBOC Symposium on "Chemistry and Mechanism of Cell Signalling", Gregynog, 1993 (Plenary Speaker); RSC Carbohydrate Group Symposium "Structure, function and synthesis of glycoconjugates", Dundee, 1993 (Plenary Speaker); ESBP "Exploiting tumour biology: novel strategies in cancer therapy", Otzenhausen, Germany, 1993 (Invited Speaker); RSC "Drugs from Natural Products" Conference, Dublin, 1994 (Invited Speaker); XIIIth International Conference on Phosphorus Chemistry, Jerusalem, 1995 (Symposium organiser, chairman and Speaker); Calcium Signalling in Inflammatory Cells, University of Bath, March 1995 (Invited Speaker); First European Conference on Carbohydrate Mimics, Strasbourg, France, May 1995 (Plenary Lecturer); 8th European Carbohydrate Symposium (Eurocarb VIII), Seville, Spain, July 1995 (Invited Speaker); Groupement des Pharmacochimistes de l'Arc Atlantique, Angers, France, October 1995 (Plenary Lecturer and Chairman); 3rd Bath RSC Medicinal Chemistry Conference, Bath, September 1996 (Invited Lecturer); Symposium Molekulare Pharmazie, Basel, Switzerland, April 1997 (Invited Lecturer); Advances in Phosphoinositides, 214th ACS National Meeting, Las Vegas, September 1997 (Symposium Organiser, Invited Lecturer and Chairman); Chemical Biology: Current Status and Future Perspectives, Max-Planck Institute für Molekulare Physiologie, Dortmund, Germany, October 1997 (Invited Lecturer); XVth European Federation of Medicinal Chemistry International Symposium on Medicinal Chemistry, 1998 (Invited Lecturer); XIVth International Conference on Phosphorus Chemistry, Cincinnati, USA, July 1998 (Invited Lecturer and Chairman); RSC Heterocyclic Group Meeting, London, January 1999 (Plenary Lecturer); Gesellschaft für Biochemie und Molekularbiologie, Autumn Meeting, Hamburg, September 1999 (Invited Lecturer); British Pharmaceutical Conference, Birmingham, September 2000 (Invited Lecturer); RSC Carbohydrate Group Symposium, Bath, September 2000 (Invited Lecturer); RSC Carbohydrate Group Meeting, Dublin, April 2001 (Invited Lecturer); ECS 7th European Symposium on Calcium Binding Proteins in Normal and Transformed Cells, Brussels, 2002 (Invited Lecturer); 5th Cambridge Symposium, Nucleic Acids Chemistry and Biology, Cambridge, September 2003 (Invited Speaker); 3rd International Symposium on Nucleic Acids Chemistry, Sapporo, Japan, September 2003 (Plenary Lecturer); Inositol Chemistry Mini Symposium, Ehime University, Matsuyama, Japan, September 2003 (Invited Lecturer); ISBOC 7 Sheffield, June 2004 (Invited Lecturer and session chairman); 22nd International Carbohydrate Symposium, Glasgow, July 2004

(Plenary/Keynote Speaker); Trends in Medicinal Chemistry, December 2004, London (Invited Speaker); Smart Molecules for Therapy, Budapest, October 2005 (Plenary Lecturer); 11th International Conference on Natural Products, Karachi, Pakistan Jan 2006 (Plenary Lecturer, Invited Lecturer and session chairman); Groupement des Pharmacochimistes de l'Arc Atlantique (GP2A) Meeting, Bath, September 2006 (Plenary Lecturer); Drug Discovery: Strategies, Markets and Commercial Opportunities, Bath, September 2006 (Keynote Speaker); American Association for Cancer Research, 98th Annual Meeting, Los Angeles, USA, April 2007 (Invited Speaker); British Pharmaceutical Conference, Birmingham, Sept 2007 (Invited Speaker and symposium organiser); 1st International Conference on Drug Design and Discovery, Dubai, Feb 2008 (Invited Speaker); Small Molecule Drug Discovery: From Early-stage to the Clinic, Antigua, Jan 2008 (Invited Speaker, withdrawn); NAD2008, Hamburg, Sept 2008 (Plenary Speaker); Drugs from Natural Products, Cambridge, April 2008 (Invited Speaker); Chemical Biology 2008, EMBL Heidelberg, Sept 2008 (Plenary Speaker); Bath University RSC Medal Symposium, April 2009; 2nd World Cancer Congress, Beijing China, June 2009 (Keynote Speaker); Chemistry for Solving Biological Problems, 42nd IUPAC Congress, Glasgow Sept 2009 (Invited Speaker); Lister Institute Conference, Cambridge, Sept 2009 (Invited Speaker); GSK International Achievement Award Lecture, British Pharmaceutical Conference, Manchester, Sept 2009 (Prize Speaker); Chemical Biology for Drug Discovery, Oxford Dec 8-9 2009 (Invited Speaker); RSC-BMCS/SCI Conference 'Cancer Drug Discovery' London, May 2010 (Invited Speaker); RSC/CRUK "Cancer Medicinal Chemistry" meeting, St Andrews (CRUK-sponsored Plenary Lecturer); CR@B Conference, Bath, September 2010 (Invited Speaker); 4th BMCS Biological and Medicinal Chemistry Postgraduate Symposium, Cambridge Dec 2010 (Plenary Lecturer); RSC Cancer Chemistry Conference, London Jan 2011 (Plenary Speaker); International Congress on Steroid Research, Chicago, March 2011 (Plenary Lecturer); XV Symposium on the Chemistry of Nucleic Acid Components, Cesky Krumlov, Czech Republic, June 2011 (Plenary Lecturer); 14th Royal Society of Chemistry Bioorganic Group, Fribush conference Sept 2011 (Invited Speaker); Gordon Research Conference on Medicinal Chemistry, New London USA, Aug 2011 (Invited Speaker); Drug Design 2012, Oxford (Invited Lecturer); 2nd International Congress on Steroid Research, Chicago, March 2013 (Invited Lecturer & Session Chair); Discovery Chemistry, Munich, March 2013 (Keynote Lecturer); FASEB Conference, NAD Metabolism & Signaling, Chicago, USA, 2013 (Invited Speaker); Gordon Research Conference on Nucleosides, Nucleotides, and Oligonucleotides, Newport, Rhode Island USA, July 2013 (Invited Speaker), Signalling: From Structure to Function, York 2013 (Plenary Lecturer); 2nd RSC-India Med Chem Congress, Hyderabad, March 2013; Human Therapeutics - Where Biology and Chemistry Meet, *Biochem Journal* Symposium, March 2014 (Invited Lecturer); 2014 Queenstown Molecular Biology Meeting: Drug Discovery and International Collaboration, & 6th National Forum on New Technologies in Drug Discovery, Shanghai, China, March 2014 (Plenary Speaker); Spring 2014 Royal Society of Chemistry Carbohydrate Group Meeting, Bath (Invited Lecturer); ICCP450, 19th International Conference on Cytochrome P450, Tokyo, Japan, June 2015 (Invited Lecturer); 3rd International Congress on Steroid Research, Chicago, November 2015 (Co-organiser, Invited Lecturer & Session Chair); RSC Nucleosides & Nucleotides: Synthetic & Biological Chemistry, 17 April 2015 (Invited Lecturer)

RESEARCH GROUP (Past and present members of my research group)

Postdoctoral Research Associates: Dr A Mather, Dr M Coombs, Dr C Deeney, Dr A Else, Dr S Cunningham, Dr I Reed, Dr L James, Dr S Le Brun, Dr M Hamblin, Dr C Liu, Dr D Gawler, Dr N Howarth, Dr D Dubreuil, Dr N Thomas, Dr AM Riley, Dr SJ Mills, Dr D Jenkins, Dr D Fischer, Dr H Hejaz, Dr X Doisy, Dr S Fortt, Dr N Noble, Dr D Hardick, Dr M Lightowler, Dr S Ward, Dr R Wilcox, Dr L Woo, Dr U Sahn, Dr D Lampe, Dr G Grangier, Dr M Migaud, Dr D Gibson, Dr G Horne, Dr A Seago, Dr M Leese, Dr B Leblond, Dr J Ouzman, Dr C Bubert, Dr C Moreau, Dr C Borrisow, Dr O Sutcliffe, Dr J-R Labrosse, Dr K Gaukroger, Dr N Vicker, Mr J Robinson, Dr H De Silva, Dr B Cannan, Dr J Cornet, Dr G Allan, Dr D Ganeshapillai, Dr G Wagner, Dr X Su, Dr H Rosenberg, Dr F Jourdan, Dr P Wood, Dr M Paul, Dr C Moutrille, Dr C Sharland, Dr M Kimberley, Dr T Jackson, Dr K Sureshan, Dr A Smith, Dr Y Godage, Dr M Trusselle, Dr W Heaton, Dr Wolfgang Dohle, Dr G Cozier, Dr F Pradaux, Dr C Visintin, Dr C Chapman, Dr A Colombo-Llimona, Dr A Putey, Dr S Szeto, Dr S Bartlett, Dr J Hargrave, Dr N Veillard, Dr D Knowles, Dr J Swarbrick. **Graduate Students:** Miss J Cummins, Mr A Cooke, Mr J Flora, Mr N Noble, Miss D Sawyer, Miss J McBain, Mr S Mills, Mr N Bennett, Mr P Reay, Ms J Hafidh, Mr D Lampe, Miss P Coates, Mr D Callis, Mr D Jenkins, Miss C McGavigan, Mr A Riley, Mr G Williams, Miss G Ashamu, Mr N Whitelegg, Miss V Bailey, Miss S Diogenous, Mr S Garrett, Mr H Hejaz, Miss R Marwood, Mr W Trigg, Mr P Blaney, Miss D Ganeshapillai, Mr C Mort, Mrs H Rosenberg, Miss J Savovic, Miss D Fischer, Mr R Brown, Mr B Zhang, Miss H Bailey, Mr J Springall, Mr M Mottinelli. **Student destinations:** Academia 42%, Industry 15%, Publishing 4%, Patenting, 4%, Pharmacy 15%, Unknown, 20%. **Technicians (externally funded):** Miss M Goggin, Mr G Sohal, Mr D Bennetto, Miss A Smith, Mr J Smith, Miss K Burrage, Mr A Derrick. **Visiting Staff:** Prof D Cech (Berlin) 1988 – 1989, Prof S Shuto (Sapporo) 1998 – 1999, Prof R Gigg (London) 1996 – 2001, Prof A Ramos (Madrid) 2004 – 2005.

SELECTED OTHER ESTEEM/LEADERSHIP ACTIVITIES Since moving to Bath in 1990 as Head of Medicinal & Biological Chemistry I have built up arguably the largest medicinal chemistry operation of any UK pharmacy/pharmacology department [eg 11 full-time permanent academic staff, 55 dedicated double fumehoods for synthetic chemistry in 6 refurbished labs, a dedicated 400, 500 & 600MHz NMR facility, £multiM grant income], contributing strongly to the Department's overall RAE2001 5* rating. In RAE2008 formal feedback the Medicinal Chemistry Group was uniquely singled out for accolade in the Department. I currently lead a team of mainly postdoctoral synthetic and biological chemists, molecular modellers and protein chemists, with strong historical support *via* Wellcome Trust Programme grants and Project grants and from Industry and current support by a Wellcome Trust Senior Investigator Award. UK peer research esteem is underlined, for example, by a 5 year term (2006-2011) on the Wellcome Trust *Molecules Genes & Cells* Funding Panel as the only chemist and appointment to the Wellcome Trust Peer Review College (2012-2015); three 5 year Wellcome Trust Programme Grants; HEFCE Committees – appointed to the Pharmacy/Pharmacology Panel sub-panel for the Research Assessment Exercises RAE2001 and 2008 and as a 2009 Research Excellence Framework (REF) Expert Panel member. Internationally, in addition to invitations to organise and chair symposia, deliver plenary, keynote and invited lectures *inter alia* at major US conferences, eg ACS, AACR, FASEB and US Gordon conferences, by appointment to journal editorships eg Editor, *BJChemBio* [*Biochemical Journal*, *Chemical Biology*] 2009-16, Associate Editor, *Journal of Steroid Biochemistry & Molecular Biology* 2009-2014, and two Editorial Board positions on top US journals: ACS's *Journal of Medicinal Chemistry* (2009-14) - world no 1 primary journal in medicinal chemistry, AACR's *Molecular Cancer Therapeutics* (2009-15); and formal ACS committee memberships to appoint Editors-in-Chief for the recently founded *ACS Medicinal Chemistry Letters*, and for the *Journal of Medicinal Chemistry*, and the Selection Committee for the 2009-2010 *American Association of Cancer Research* Award for Outstanding Achievement in Chemistry in Cancer Research [committee of "international cancer leaders appointed by the president of the AACR"]. Finalist, 2011 Life Science Awards; within Europe recently, I chaired the 2011 Medical Biopharma International Grant Awarding Panel of the government-financed funding agency, the Danish Council for Independent Research, (DFF), the Denmark equivalent to UK Research Councils [overall budget *ca* £120M] and am a Member of the International Advisory Board, Institute of Organic Chemistry & Biochemistry, National Academy of Sciences of the Czech Republic, Prague (2011-16); Member, Irish Research Council Inner International Assessment Board, Dublin (2014); Advisory Board, *Successful Drug Discovery*, Vols 1 (2015) & 2, John Wiley János Fischer & David P Rotella eds; Member of

Sectional Committee 1, Academy of Medical Sciences (2008-2011); BBSRC Committee on Intracellular Signalling Programme (1992 – 1996); EPSRC Synthetic and Biological Chemistry College (1995 – 1997); Committee Member of the Society for Medicines Research (2002-2006); Organiser, 8th Phosphoinositide Discussion Meeting, 1990; Nucleic Acids and Molecular Biology Group of the Biochemical Society "RNA Processing, Stability and Transport", 1990; RSC Medicinal Chemistry Group Conference "Receptor and Protein Targets in Medicinal Chemistry", 1992; Member of the International Advisory Committee for the XIII International Conference on Phosphorus Chemistry, Jerusalem 1995; and the XIV International Conference on Phosphorus Chemistry, Cincinnati, 1998; Advisory Committee, International Carbohydrate Symposium, 2004; International Scientific Advisory Board Member, 2nd World Cancer Congress 2009, Beijing, China; 3rd World Breast Cancer Congress 2010, Shanghai; 3rd World Cancer Congress 2010, Singapore; 4th World Cancer Congress 2011, Dalian, China; Organising Committee., 1st-3rd International Congresses on Steroid Research, Chicago, USA, 2011; 2013 & 2015, 2015; Scientific Advisory Panel, Drug Design 2012; *ad hoc* consultant to major Pharma and in patent cases in the High Court; External Examiner in Chemical Pharmacology, Oxford University (2006-8); Visiting Professor, Oxford University (2006-15); Editorial Board Member for the *Biochemical Journal* (1990–1992); *Drug Design and Discovery* (1997 – 2004); *Carbohydrate Research* (2000–11); *Current Organic Synthesis*, 2002–; *Perspectives in Medicinal Chemistry* 2007–; *Future Medicinal Chemistry* 2008–; *Messenger* 2012– ; International Advisory Board Member for *ChemMedChem* (2013-17).

Refereeing: Referee for top rank chemistry, biology and interdisciplinary journals eg Nature, Nature Chemical Biology, Chemistry & Biology, ACS Chemical Biology, Angewandte Chemie, Journal of the American Chemical Society, Chemical Science, Journal of Medicinal Chemistry, Journal of Organic Chemistry, Chemical Reviews (ACS), Chemical Communications, Biochemistry, ChemBioChem, Journal of Molecular Biology, Biochemical Journal, FEBS Letters, Nucleic Acids Research, Journal of Neurochemistry, Synthesis, Canadian Journal of Chemistry, Synthetic Communications, European Journal of Organic Chemistry, Organic & Biomolecular Chemistry, European Journal of Medicinal Chemistry, ChemMedChem, Tetrahedron Letters, Letters in Drug Design & Discovery, Organic Letters, Tetrahedron, Bioorganic and Medicinal Chemistry, Bioorganic and Medicinal Chemistry Letters, Messenger, Carbohydrate Research, Journal of Carbohydrate Chemistry, MedChemComm, Liebigs Annalen/Recueil, Pharmaceutical Science Communications, Journal of Pharmacy and Pharmacology, J Chem Soc Perkin Transactions I, Chem Soc Reviews, Journal of Chemical Research, Expert Opinion on Therapeutic Patents; and national and international grant awarding bodies eg the Wellcome Trust, National Science Foundation (USA), Deutsche Forschungsgemeinschaft, Lister Institute of Preventive Medicine, The Wellcome Trust, Association for International Cancer Research, Cancer Research Campaign, Cancer Research UK, the Nuffield Foundation, the Medical Research Council, the Science and Engineering Research Council, BBSRC & EPSRC, Joint Infrastructure Fund, Catalyst Biomedica, The Wolfson Foundation, European Science Foundation,

Spin-out Companies: Founder and Director of *Sterix Ltd*, a biopharmaceutical company specialising in medicinal chemistry and hormone-related disorders; founded jointly between University of Bath and Imperial College London in 1997; Registered office: 190 Bath Road, Slough SL1 3XE; registered in England and Wales No: 3337831; VAT Registration No: GB 685 8173 86; Director of Medicinal Chemistry (1997 – 2004); Chief Scientific Officer (2004 – 2010); Acquired by the Ipsen Group February 2004.