

## ANGELA RUSSELL DPhil

### Qualifications:

2000 MChem, 1st Class, Chemistry, University of Oxford  
2004 DPhil, Organic Chemistry, University of Oxford

### Current Appointments:

#### Source of support: University of Oxford, HEFCE

2018- Professor of Medicinal Chemistry, Departments of Chemistry and Pharmacology, University of Oxford  
2019- Director, Wellcome Trust 'Chemistry in Cells' Doctoral Training Centre  
2025- Scientific Advisory Board, Goethe University Frankfurt, Germany  
2024- Co-Director Oxford British Heart Foundation Centre of Research Excellence (2018-2024 BHF CRE Steering Committee member)  
2024- Oxford-Novo Nordisk Fellowship Steering Committee  
2024- Management Board, Department of Chemistry  
2024- Executive Editor, Journal of Medicinal Chemistry (the top journal title in the field)  
2023- Scientific Advisory Board, Nxera (formerly Sosei-Heptares)  
2021- International Advisory Board, Institute for Organic Chemistry and Biochemistry, Prague  
2021- Management Board, Department of Pharmacology  
2020- Scientific Advisory Board, Sarepta Therapeutics  
2013- Co-chair of the Athena Swan working group, Department of Pharmacology

### Previous Roles:

2021-2024 Editor-in-Chief, Bioorganic & Medicinal Chemistry, Elsevier's flagship medicinal chemistry journal  
2012-2018 Associate Professor of Medicinal Chemistry, Departments of Chemistry and Pharmacology, University of Oxford  
2007-2012 Research Councils UK Fellow in Medicinal Chemistry, Departments of Chemistry & Pharmacology, University of Oxford  
2018-2020 Editor, Tetrahedron  
2012-2020 Director, British Heart Foundation Centre of Research Excellence Medicinal Chemistry studentship programme  
2013-2017 Co-Director, FP7 Marie Curie - ITN - IDP 'Oxford Innovative Organic Synthesis for Cancer Research' (OxIOSCR)  
*Career breaks (maternity leave) - Jan 2014-Jul 2014 and Feb 2016-Aug 2016*  
*Full time carer (COVID19 lockdown) - Mar 2020-Sep 2020 and Jan 2021-Mar 2021*

### Committee Membership:

2018-2022 Cancer Research UK Multidisciplinary Expert Review Panel  
2018-2022 Academy of Finland Multidisciplinary Expert Review panel (Chair 2021-22)  
2022- MRC Development Pathway Funding Scheme panel (co-Chair 2024)  
2024- AstraZeneca-MRC High Throughput Screening panel (Chair)  
2024- DFG Major Grant Panel, Germany  
2021-2023 International Organising Committee, Tetrahedron Symposium (Chair 2022-23)  
2023-2024 International Organising Committee, European Federation of Medicinal Chemistry biennial symposium  
2022- Organising committee, RSC Biological and Medicinal Chemistry Sector Annual Postgraduate Symposium  
2024- Organising committee, RSC-SCI GPCRs in Medicinal Chemistry Biennial Symposium

### Academic Awards and Honours:

2007 Research Councils' UK Fellowship  
2016 Named as a 'Rising Star', [BioBeat 50 Movers and Shakers in BioBusiness 2016 report](#)  
2020 Harrington Rare Disease Scholar 2021  
2024 Royal Society of Chemistry Jeremy Knowles mid-career award at the life sciences interface

### Current Grants As PI:

- MRC DPFS Grant **MR/X014118/1** "Second generation arylhydrocarbon receptor antagonist, utrophin modulators for the treatment of Duchenne muscular dystrophy". £2,193,234. Jan 2023-Apr 2026.

- Kodiform Therapeutics Ltd “Discovery of new small molecule functional ligands for traditionally ‘hard-to-drug’ high value intracellular biological targets.” £778,488.80. Oct 2024 – Apr 2026.
- Novo Nordisk Collaborative Grant **R42359/CN010** “Small molecule modulation of metabolic function and new target discovery in human cellular models”. £909,080. Jul 2020-Apr 2027.
- Harrington Discovery Institute **FFC004** “Small molecule AhR antagonists for the treatment of Duchenne Muscular Dystrophy”. \$300,000. Jan 2021-Apr 2026.
- Wellcome Trust/Merck Sharpe and Dohme/Janssen **218514/Z/19/Z** ‘Chemistry in Cells’. £5,685,862. Oct 2019-Oct 2030. (Took over as PI from Prof. Stuart Conway, Jul 2023).

### Enterprise and Translational Research:

2004	Summit Therapeutics plc (formerly VASTOx Ltd). Consultant 2004-2007.
2012	MuOx Ltd. Founder. Acquired by Summit Therapeutics plc in 2013 for £5M. Progressed first-in-class utrophin modulator ezutromid, derived from our work, to Phase 2 clinical study in Duchenne muscular dystrophy patients.
2016	OxStem Ltd. Founder. Raised £20M in funding. Six subsidiary companies, including one focussed on cardiovascular regeneration (OxStem Cardio) and one on immune cell modulation (OxStem Immuno).
2020	RapHael Labs. We developed two antiviral prophylaxis nasal sprays, one of which (pHOXWELL) successfully completed a randomised, double-blinded placebo controlled Phase 2/3 clinical trial in 2021, reducing SARS-CoV2 infection by 62% vs placebo.
2024	Kodiform Therapeutics Ltd. Raised £10M in seed funding.

### Training and Mentorship:

Supervision of 56 undergraduate MChem/MSc students, 20 graduate students and 25 post-doctoral scientists in the last 10 years. All DPhil students have completed their degrees within 4 years. Former members of my group have gone on to independent academic leadership positions (6), and the majority into the pharmaceutical industry, biotech or investment sector, including several in leadership roles in start-up or spin out companies in STEM.

### University Lectures and Classes:

<i>Chemistry lectures/classes:</i>	<i>Cohort</i>	<i>No. of lectures</i>	<i>No. of years taught</i>
“Aromatic Benzenoid Chemistry”; Heterocyclic, Aromatic and Pharmaceutical Chemistry Supplementary Subject	Undergraduate, 2 <sup>nd</sup> /3 <sup>rd</sup> year Chemistry	5 x 1 hr lectures	18 years
“Natural Product Chemistry”; Advanced Organic Chemistry Option Topic	Undergraduate, 3 <sup>rd</sup> year Chemistry	4 x 1 hr lectures	16 years
<i>Pharmacology lectures/classes:</i>	<i>Cohort</i>	<i>No. of lectures</i>	<i>No. of years taught</i>
“Cancer chemotherapy” (previously “Drugs and Drug Discovery”)	Undergraduate 2 <sup>nd</sup> year Biomedical Sciences	1 x 1 hr lecture	12 years
“Chemotherapy: Antibacterial, antiviral and antifungal drugs”	Undergraduate 2 <sup>nd</sup> year Biomedical Sciences	1 x 1 hr lecture	4 years
“Chemotherapy: Antibacterial, antiviral and antiparasitic drugs”	Postgraduate, Pharmacology MSc	2 x 1.5hr lectures	14 years
“Drug Discovery Simulation”	Postgraduate, Pharmacology MSc	1 x 3 hr practical	8 years
“Drug Discovery: a Clinical Case Study” (previously “Drugs and Drug Discovery”)	Postgraduate, Pharmacology MSc	1 x 1.5hr lecture	8 years
“Stem cells and regenerative medicinal chemistry”	Postgraduate, Pharmacology MSc	1 x 1.5hr lecture	11 years
“Entrepreneurship in Science”	Postgraduate, Pharmacology MSc	1 x 1 hr lecture	8 years
<i>Doctoral Training Centre lectures/classes:</i>	<i>Cohort</i>	<i>No. of lectures</i>	<i>No. of years taught</i>
“Assay interference and false positives”	Postgraduate, 1 <sup>st</sup> year DTC	1 x 1 hr lecture	3 years

“Target deconvolution in drug discovery”	Postgraduate, 1 <sup>st</sup> year DTC	1 x 1 hr lecture	3 years
“Ezutromid: a case study in drug target deconvolution”	Postgraduate, 1 <sup>st</sup> year DTC	1 x 1 hr lecture	3 years
“Lead optimisation approaches”	Postgraduate, 1 <sup>st</sup> year DTC	1 x 1 hr lecture	1 year
“Drug Discovery Simulation”	Postgraduate, 1 <sup>st</sup> year DTC	1 x 3 hr practical	1 year
“Preparing for postgraduate research”	Postgraduate, 1 <sup>st</sup> year DTC	1 x 2 hour workshop	3 years
<b>Total</b>		<b>54hr</b>	

### Course development/design:

**2017** I have been a member of the Pharmacology MSc teaching committee, and a module coordinator since 2013, and last year helped redevelop the course module in “Drug Discovery and Personalised Medicine”.

**2020** Following the award of our Wellcome Trust Doctoral Training Programme ‘Chemistry in Cells’, we have developed an entire new training course, including four new of substantially revised 2 week modules. This included a ‘Life Skills for Scientists’ course aiming to prepare students for the transition between taught programme and research addressing aspects of roles and responsibilities, responsible and reproducible research, ethics, equality, diversity and inclusion, career planning etc. This course has now been rolled out across the entire MPLS Doctoral Training Centre (c90 students per annum).

**2020 Improving diversity in graduate admissions. Positive Research Culture.** In collaboration with Wellcome through their ‘Reimagine research’ initiative we have taken major steps to address underrepresentation in physical science postgraduate education, pioneering the use of gender & ethnicity anonymisation, and the use of contextual data in admissions, aspects of which are now standard practice across the majority of graduate programmes in Oxford.

Conway et al. Increasing Diversity in Admissions to Postgraduate Study. *J. Med. Chem.* **2022**, *65*, 5867-5869.

### Examining:

#### Internal

Oct 2008 – present Examiner for Heterocyclic, Aromatic and Pharmaceutical Chemistry supplementary subject

Oct 2014 – Sep 2016 Examiner for MSc in Pharmacology

Oct 2016 – Sep 2018 Chair of Examiners for MSc in Pharmacology

Oct 2022 – present Examiner, Pharmacology, Biomedical Sciences

#### External

Oct 2020 – present External examiner in Organic Chemistry, Trinity College Dublin

Oct 2022 – present External examiner, MSc in Drug Discovery, Imperial College London

### Selected key invited lectures and seminars:

Jul 2017 Plenary speaker, 50 Years of Neuroscience Research, Eli Lilly, Erl Wood, UK

Nov 2017 Plenary speaker, Sunway Biomedical Symposium 2017, Kuala Lumpur, Malaysia

Jan 2018 Plenary speaker, Acticule Life Sciences Symposium 2018, Hong Kong

Aug 2018 Invited speaker, Rare Diseases, ACS biannual meeting, Boston, US

Jun 2019 Plenary speaker, 20th Tetrahedron Symposium, Bangkok, Thailand

Sep 2020 Plenary speaker, EFMC virtual Young Medicinal Chemists’ Symposium

Aug 2021 Invited speaker, Anthelmintic Drug Discovery, virtual ACS fall meeting.

Aug 2021 Invited speaker, European Federation for Medicinal Chemistry (EFMC), virtual International Medicinal Chemistry Symposium

Sep 2021 Keynote speaker, virtual GP2A meeting

Sep 2021 Invited speaker, RSC/SCI Medicinal Chemistry Symposium, Cambridge, UK

Jun 2022 Invited speaker, Spanish Medicinal Chemistry Society, Santiago de Compostela, Spain

Jul 2022 Invited speaker, European School of Medicinal Chemistry, Urbino, Italy

Sep 2022 Invited speaker, BrazMedChem, Brazil

Mar 2023 Invited speaker, Cardiovascular and Rare Diseases, ACS biannual meeting, Indianapolis, US

Aug 2024	Plenary speaker, Phenotypic Drug Discovery, ACS biannual meeting, Denver, US
Oct 2024	Keynote speaker, RSC GPCRs in Drug Discovery, Verona, Italy
Oct 2024	Invited speaker, AstraZeneca, Gothenburg, Sweden
May 2025	Plenary Award Lecture, RSC Chemical Biology symposium, London, UK
June 2025	Invited speaker, 5 <sup>th</sup> Synthesis in Drug Discovery and Development, London, UK
Jan 2026	Keynote speaker, Alpine Medicinal Chemistry, France
Sep 2026	Plenary speaker, EFMC, International Medicinal Chemistry Symposium, Basel, Switzerland

### Selected Public Engagement in Research, Outreach and Widening Participation Work:

Jan 2017	BBC One – interview
Feb 2017	BBC Radio Oxford – International Day of Women and Girls in Science (interview/soundbites)
Mar 2017	Oxford ScienceBlog's Women in Science (interview/profile)
Sep 2017	Cardiovascular Medicinal Chemistry: from Plants to Medicines, Curiosity Carnival at the Oxford Botanic Gardens
Mar 2018	Oxford's Women in Science project (interview/profile)
Mar 2019	Oxford Mail (interview)
2019-present	RisingWISE, promoting women in enterprise and innovation (presentation, panellist)
July 2021	Action Medical Research (podcast)
Jan 2022	Oxford University Biotech Society – Women in Biotech (presentation)
Aug 2022	Royal Society of Chemistry, Chemistry World (interview - <a href="https://www.chemistryworld.com/culture/angela-russell-we-have-to-not-be-afraid-of-failing/4015958.article">https://www.chemistryworld.com/culture/angela-russell-we-have-to-not-be-afraid-of-failing/4015958.article</a> )
Nov 2022	Action Medical Research rare childhood diseases awareness evening (presentation)
2022-	European Federation for Medicinal Chemistry (mentor to early career researchers)
2022-	Oxford Women in Engineering, Science and Technology, OxWEST (mentor, presentation, panellist)
2022-	Inspire Programme Study Days: undergraduate access programme for underrepresented groups (panel discussion and mock interviews)
Dec 2023	Increasing Diversity in Enterprising Activity, IDEA ('Wonder Women' interview)
2023-present	UNIQ, Oxford's undergraduate access programme (research lectures)
Jun 2025	OxWiChem: 'Picture a Scientist'

### Relevant publications in last 10 years (from 172 publications):

<https://orcid.org/0000-0003-3610-9369>

- Hernández-Lladó P, Meanwell NA and Russell AJ. A Data-Driven Perspective on Bioisostere Evaluation: Mapping the Benzene Bioisostere Landscape with BioSTAR. *J. Med. Chem.* 2025, 68(16):16921–16939, doi: 10.1021/acs.jmedchem.5c01641.
- Wang P, Raja A, Luscombe VB, Bataille CJR, et al. Development of Highly Potent, G-Protein Pathway Biased, Selective, and Orally Bioavailable GPR84 Agonists. *J. Med. Chem.* 2024, 67(1):110–137. doi: 10.1021/acs.jmedchem.3c00951.
- Josa-Culleré L, Galan S, Cogswell TJ, et al. Phenotypic screening identifies a trisubstituted imidazo[1,2-a]pyridine series that induces differentiation in multiple AML cell lines. *Eur. J. Med. Chem.* 2023, 258(18):115509. doi:10.1016/j.ejmech.2023.115509.
- Jackson TR, Vuorinen A, Josa-Culleré L, et al. A tubulin binding molecule drives differentiation of acute myeloid leukemia cells. *iScience* 2022, 104787. doi: 10.1016/j.isci.2022.104787.
- Balmforth D, Swales JA, Silpa L, et al. Evaluating the efficacy and safety of a novel prophylactic nasal spray in the prevention of SARS-CoV-2 infection: A multi-centre, double blind, placebo-controlled, randomised trial. *J. Clin. Virol.* 2022, 105248. doi: 10.1016/j.jcv.2022.105248.
- Bery N, Bataille, CJR, Russell A, et al. A cell-based screening method using an intracellular antibody for discovering small molecules targeting the translocation protein LMO2. *Science Adv.* 2021, 7, doi: 10.1126/sciadv.abg1950
- Josa-Culleré L, Madden KS, Cogswell TJ et al. A Phenotypic Screen Identifies a Compound Series That Induces Differentiation of Acute Myeloid Leukemia Cells In Vitro and Shows Antitumor Effects In Vivo. *J. Med. Chem.* 2021, 64, 15608–15628. doi: 10.1021/acs.jmedchem.1c00574.
- Vuorinen A, Wilkinson IVL, Chatzopoulou M, et al. Discovery and Mechanism of Action studies of 4,6-diphenylpyrimidine-2-carbohydrazides as utrophin modulators for the treatment of Duchenne muscular dystrophy. *Eur. J. Med. Chem.* 2021, 220:113431. doi:10.1016/j.ejmech.2021.113431.

9. Dinsdale R, Pipatpolkai T, Agostinelli E, et al. An outer-pore gate modulates the pharmacology of the TMEM16A channel. *Proc. Natl. Acad. Sci.* 2021, 118(34):e2023572118. doi:10.1073/pnas.2023572118.
10. Babbs A, Berg A, Chatzopoulou M, et al. 2-Arylbenzo[d]oxazole phosphinate esters as second-generation modulators of utrophin for the treatment of Duchenne Muscular Dystrophy. *J. Med. Chem.* 2020; doi: 10.1021/acs.jmedchem.0c00807.
11. Wilkinson IVL, Perkins KJ, Dugdale H et al. Chemical Proteomics and Phenotypic Profiling Identifies the Aryl Hydrocarbon Receptor as a Molecular Target of the Utrophin Modulator Ezutromid. *Angew. Chem. Int. Ed.* 2020; doi: 10.1002/anie.201912392.
12. Chatzopoulou M, Claridge TDW, Davies KE, et al. Isolation, structural identification, synthesis, and pharmacological profiling of 1,2-trans-dihydro-1,2-diol metabolites of the utrophin modulator ezutromid. *J. Med. Chem.* 2019. doi: 10.1021/acs.jmedchem.9b01547.
13. Lucy D, Purvis GSD, Zeboudj L, et al. A Biased Agonist at Immunometabolic Receptor GPR84 Causes Distinct Functional Effects in Macrophages. *ACS Chem. Bio.* 2019, 14, 2055-2064. doi: 10.1021/acscchembio.9b00533.
14. Cruz-Migoni A, Canning P, Quevedo, CE, et al. Structure-based development of new RAS-effector inhibitors from a combination of active and inactive RAS-binding compounds. *Proc. Natl. Acad. Sci.* 2019. doi: 10.1073/pnas.1811360116.
15. Bery N, Cruz-Migoni A, Bataille CJR, et al. A BRET-based RAS biosensor tool-box reveals a cell-potent small molecule RAS inhibitor. *eLife* 2018, 7, e37122. doi: 10.7554/eLife.37122.
16. Quevedo CE, Cruz-Migoni A, Bery N, et al. Small molecule inhibitors of RAS-effector protein interactions derived using an intracellular antibody fragment. *Nat. Commun.*, 2018, 9. doi: 10.1038/s41467-018-05707-2.
17. Kerr, A.G.; Tam, L.C.S.; Hale, A.B., et al. A genomic DNA reporter screen identifies squalene synthase inhibitors which act cooperatively with statins to upregulate the low-density lipoprotein receptor. *J. Pharmacol. Exp. Ther.* 2017, 361, 417. doi: 10.1124/jpet.116.239574.
18. Gianella-Borradori M, Christou I, Bataille CJR et al. Ligand-based virtual screening identifies a family of selective cannabinoid receptor 2 agonists. *Bioorg. Med. Chem.* 2015, 23, 241-263. doi: 10.1016/j.bmc.2014.11.002.