

Curriculum Vitae: Prof. King Kuok (Mimi) Hii

Education:

- 1988–91 University of Leeds, England. B.Sc.(First Class Hons.) in Chemistry.
1991–94 University of Leeds, England. Ph.D. in Chemistry (Supervisor: Professor B. L. Shaw, FRS).

Career:

- 1994–97 Postdoctoral Research Assistant, Oxford University (Supervisor: Dr. J. M. Brown, FRS).
1995–97 Keeley Junior Research Fellow, Wadham College, Oxford.
1997–98 Ramsay Memorial Research Fellow (University of Leeds).
1998–2003 Lecturer in Organic Chemistry, King's College London.
2003–9 Senior Lecturer in Inorganic Chemistry, Imperial College London.
2009–2016 Reader in Catalysis, Imperial College London.
2016-present Professor of Catalysis, Imperial College London.
2018-present Director of the Imperial Centre of Excellence for Rapid Online Analysis of Reactions ([ROAR](#)).
From 2019 Director of the EPSRC Centre of Doctoral Training in Next-Generation Synthesis & Reaction Technology.

Honours/Awards:

- 1991–94 Tetley and Lupton Scholarship, University of Leeds.
Edward Boyle Memorial Scholarship, University of Leeds.
Overseas Research Studentship (ORS) Award, Committee of Vice-Chancellors and Principals (C.V.C.P.)
1995 M.A.(Oxon)
1995–97 Keeley Junior Research Fellowship, Wadham College, Oxford
1997–98 Sir William Ramsay Memorial Fellowship, Ramsay Memorial Trust
2013 'Asian Rising Star', awarded by the Federation of Asian Chemical Societies
2013 Elected as a Fellow of the Royal Society of Chemistry (FRSC)
2019 Shortlisted Asian Women of Achievement Award 2019 (Professions)

Teaching track record:

Lectures:

Imperial College London: Practical NMR Spectroscopy (Second Year), 8 Lectures + 2 workshops (from 2014); Fourth Year Advanced Catalysis, 6 lectures (from 2015); Fourth Year Advanced Inorganic Chemistry (Palladium Reagents in Organic Synthesis), 8 lectures (from 2003); First Year Inorganic Chemistry (Coordination Chemistry), 8 lectures (2003–2012); Second Year Inorganic NMR spectroscopy, 4 lectures (2005–6).

King's College London: Foundation Chemistry for Life Science Students (Organic Chemistry), 5 lectures, 2001–3; Second Year Organic Chemistry (coordinator), 11 lectures, 1998–2003; Fourth Year Advanced Organic Chemistry (coordinator), 9 lectures, 1998–2003; Fourth Year Advanced Spectroscopic Techniques for Chemical Research (NMR module), 5 lectures, 1998–2003; First Year 'Frontiers of Chemistry', 8 lectures, 1999–2000.

Demonstrating:

Imperial College London: First, Second and Third Year Practical Laboratory Classes.

King's College London: Foundation of Chemistry for Life Science Students (Organic Chemistry), 2000–2003; First and Second Year Organic Chemistry Laboratories, 1998–2003; Second Year lab-based spectroscopy project "Identification of Unknown" (coordinator), 1998–2003.

Others: Weekly tutorial groups and interactive problem classes, as well as supervision of literature and laboratory-based projects.

St. Hilda's College Oxford (1995–6): Tutorial Fellowship.

Administrating duties:

King's College London: 1) Time-tabling for Undergraduate lectures and laboratory courses; 2) King's College London Alumni Association (KCLAA) Chemistry Representative. Responsible for the production of an annual newsletter and reunion events; 3)

Member of the NMR committee, for the purchase of new departmental NMR machines in 2000; 4) Member of the Departmental Research Committee.

Imperial College London: ‘Advanced Catalysis & Synthesis’ Research Theme coordinator (2015–present), Director of Pharmacat Consortium (2013–present), Coordinator of Third Year Advance Synthesis Laboratory (2013–4); Coordinator of Third Year Inorganic Chemistry Laboratory (2007–2013); Course Coordinator of First Year Inorganic Chemistry (2009–2014); Course Coordinator of Second Year Inorganic Chemistry (2003–8); Coordinator of Fourth Year Modern Applications of Inorganic Chemistry in Industry, 8 Lectures (liaising with industrial chemists, collating and marking of examination papers); Space Working Party (Sectional Representative, 2014–5), Coordinator of ‘Synthesis & Catalysis’ research theme (2016–)

External examinations (PhD defense/vivas):

UK: Cardiff University (December 2010), University College London (November 2010), Oxford University (November 2015, August 2006), University of Leeds (June 2006, November 2002).

Overseas: École Polytechnique, France (July 2017), National Institute of Education, Singapore (June 2016), Royal Institute of Technology (KTH), Stockholm, Sweden (May 2014), National University of Singapore (September 2009), University of Hong Kong (February 2010, October 2009, September 2008), Indian Institute of Technology, Kanpur, India (September 2007), Universidad de Santiago de Compostela, Spain (April 2006, July 2004), Universidad la Coruña, Spain (July 2004), University College Dublin, Ireland (March 2003, June 2008).

Research grant income (>£10,000):

Source	Amount	Project title	Duration
ICI Strategic Fund	£60,000	Ramsay Memorial Fellowship (sponsorship)	10/98–09/00
EPSRC <i>GR/M78229/01</i>	£54,369	Hemilabile P–N–P ligands for catalysis (PI)	12/99–11/02
Aventis Pharma (studentship top–up)	£16,500	New catalysts for asymmetric hydrogenation	10/99–09/02
Synetix–Johnson Matthey	£65,408	Libraries of asymmetric mixed donor ligands for catalysis	10/00–09/03
EPSRC industrial CASE award (GSK) <i>00314292</i>	£55,000	Synthesis of medium–sized heterocyclic rings	10/00–09/03
The Royal Society Research Grant <i>574006.G503/22059/SM</i>	£10,000	Automating catalytic reactions	21/02/01
EPSRC ROPA award <i>GR/R50332/01</i>	£86,165	Developing novel catalytic systems – addition of amines to double bonds (PI)	02/02–07/03
DSM Pharma (studentship top up) <i>ACER 0309–0083</i>	£27,000	Catalytic asymmetric hydroamination reactions	10/03–09/06
EPSRC industrial DTG award (AstraZeneca) <i>GR/P01816/01</i>	£59,275	Palladium–catalysed synthesis of unusual heterocyclic rings	10/03–09/06
GlaxoSmithKline (studentship top–up) <i>S2914</i>	£29,000	Asymmetric hydroamination catalysts	10/04–09/07
Pfizer (studentship top–up)	£30,000	Cationic metal triflates in asymmetric catalysis	10/05–09/09
EPSRC industrial DTG award (AstraZeneca) <i>GR/T18783/01</i>	£60,864	Asymmetric synthesis of nitrogen heterocycles	10/07–09/10
Pharmacat Consortium	£60,000	Scale–up of Electrochemical Reactors for the Reduction of Amides in Pharmaceutical Processes	05/08–04/12
Pharmacat Consortium	£60,000	Examination of Pd catalysis in the heterogeneous/homogeneous phases	05/08–04/12
EPSRC <i>EP/G027544/1</i>	£441,047	Enabling Oxidation Reactions on a Large Scale: Combining Electrochemistry with Flow (PI)	03/09–09/11
EPSRC <i>EP/G070172/1</i>	£602,807	ELSEP (Elucidate and Separate) – Palladium Catalysts in C–C and C–N Coupling Reactions (Co–I)	09/09–08/12
EU Commission <i>FP7–PEOPLE–2009–IEF – 252247</i>	180,603€	Chircat: Novel Organocatalysts for Asymmetric Addition of Me ₃ SiCF ₃ to Carbonyl Compounds	09/10–08/12

Pharmacat Consortium	£30,000	Catalytic Flow Chemistry: Synthesis of amides from primary alcohols and amines	10/10–09/13
EPSRC industrial DTG award (Johnson Matthey)	£92,161	New applications of gold catalysis in alkylation of amines with alcohols	10/11–09/14
EPSRC ‘Pathway–to–Impact’ award <i>RSRO_P43480</i>	£52,792	A flow reactor system for delivery of oxidants on–demand (PI)	03/13–08/13
EPSRC ‘Accelerating Physical Sciences Grand Challenges towards Innovative Manufacturing’ <i>EP/L003279/1</i>	£998,534	Sustainable manufacturing in multiphase continuous reactors: Aerobic oxidations (co–I)	07/13–12/15
EPSRC industrial DTG award (AstraZeneca) <i>EP/L50547X/1</i>	£91,598	Synergistic relationships between ligand, substrate and oxidant in Pd–catalysed C–H activation of aromatic rings	10/13–09/16
EPSRC <i>EP/L012278/1</i> <i>EP/L011697/1</i>	£991,626	Manufacturing in Flow: Controlled Multiphase Reactions on Demand (CoMRaDe, co–I)	04/14–03/17
STFC Impact Acceleration Account award and EPSRC ‘Pathway–to–Impact’ award	£16,395	Demystifying Catalyst Leaching (PI)	04/14–09/14
GSK (studentship top–up)	£24,000	Application of flow technology for sustainable amide bond formation from alcohols	10/14–09/18
Pharmacat Consortium (Eli Lilly)	£40,000	Catalyst leaching and deactivation in Flow	10/16–09/20
EPSRC <i>EP/P007589/1</i>	£249,967	The Dial–a–Molecule Grand Challenge Network. Phase III (co–I)	10/16–09/19
EPSRC Pathway to Impact Award	£14,614	Sustainable process for atom–efficient reduction of amides to amines (PI)	01/17–03/17
EPSRC Strategic Equipment grant <i>EP/R008825/1</i>	£2,757,688	Rapid Online Analysis of Reactions, ‘ROAR’ (PI)	10/17–09/20
EPSRC <i>EP/R027129/1</i>	£3,843,709	Hub ‘Science’ 3: Catalysis for the Circular Economy and Sustainable Manufacturing (co–I)	12/18–11/23
Research England Global Challenges Research Fund	£113,754	Development and application of manufacturing toolkits to support a local pharmaceutical manufacturing industry in South Africa	01/18–07/19
EPSRC Centre for Doctoral Training <i>EP/S023232/1</i>	£5,808,027	EPSRC Centre for Doctoral Training in Next Generation Synthesis & Reaction Technology	04/19–09/27

Professional qualifications, membership of professional bodies, steering groups and advisory boards:

ALCM (Associate of the London College of Music)

BSc (Hons, Leeds), PhD (Leeds), MA (Oxon), FRSC, CChem

Committee Member, Applied Catalysis Group (Royal Society of Chemistry, 2004–2018)

Advisory Board for the *Journal of Fundamental Science Studies* (2006–8)

Advisory Board for *Letters in Organic Chemistry*, Bentham Science (2007–2016)

Advisory Board for *Organic & Biomolecular Chemistry*, Royal Society of Chemistry (2012–2018)

Advisory Board for *Reaction Chemistry & Engineering*, Royal Society of Chemistry (2016–2018)

EPSRC “Dial–a–Molecule” Grand Challenge Network, Steering committee (2010–2015); co–Investigator (2016–2020)

Member of the EPSRC Peer Review Associate College (2016–)

UK Catalysis Hub, Steering committee (2016–)

Professional Member of The Singapore National Institute of Chemistry, SNIC (2018–2020)

Board member, Flow Chemical Society’s Excellence Center Alliance.

Advisory Board for *Journal of Organic Chemistry*, American Chemical Society (2019–)

Other Professional Activities (appointments):

1. Consultancy: Imperial Consultants (ICCON) for PPG Fine Chemicals: "Research work on enantioselective *aza*-Michael reactions", 2005; Eli Lilly (Indianapolis, USA): "Novel flow chemistry applications and practical catalysis for organic synthesis", April 2010; AstraZeneca (UK): Analysis of Pd residues in post-reaction mixtures, April 2011.
2. Visiting Lectureship, Universiti Malaysia, Johor, Malaysia, August 1–22, 2007.
3. Courses given: Advanced Organometallic Chemistry – Characterisation of Organometallic compounds by IR and NMR Spectroscopies (4 lectures), Applications of 2D NMR Spectroscopy (1 day workshop).
4. Scientific Committee, Joint ACG–SCI meeting: "Challenges in Catalysis for Pharmaceuticals and Fine Chemicals", London, November 8, 2007.
5. Visiting Associate Professorship, National University of Singapore, Singapore, July 28–October 5, 2008.
6. Course given: "Advanced Spectroscopy and Organic Synthesis" (CM3221, Third Year Undergraduate, 10 lectures).
7. Scientific Committee, "Catalysis for a Sustainable Future", Industry and Innovation sub-group meeting, IUPAC conference, Glasgow, Scotland, August 3–7 2009.
8. Expert Reviewer for the French National Research Agency, 2009.
9. Scientific Committee, Joint ACG–SCI meeting: "Challenges in Catalysis for Pharmaceuticals and Fine Chemicals II", London, October 20, 2009.
10. Scientific Committee, Joint ACG–SCI meeting: "Challenges in Catalysis for Pharmaceuticals and Fine Chemicals III", London, November 2, 2011.
11. Organising Committee, EuCOMC XX: EuCheMS Conference on Organometallic Chemistry XX, June 30–July 4 2013, St. Andrews, Scotland.
12. Expert Reviewer for Chemistry Innovation CASE awards, 2011.
13. Expert Reviewer for "Jeunes Chercheuses et Jeunes Chercheurs" (JCJC) program, French National Research Agency (SIMI 7 2012), 2012.
14. Independent Scientific Advisor, Organic Letters Editorial Advisory Group meeting, San Diego, 24 March 2012.
15. Expert Reviewer for Division for Chemical Sciences (CW) of the Netherlands Organization for Scientific Research (NWO), 2012, 2013.
16. Expert Reviewer for the French National Research Agency: "BLANC 2013 SIMI 7", 2013.
17. Peer Review Panel, STFC Diamond Light Source (Spectroscopy beamlines), 2013–2015.
18. Reviewer, British Turkish Academics (ABTA) 2014 Doctoral Researcher Awards, 2014.
19. Expert Reviewer for the European Research Council: "Synthetic Chemistry and Materials", 2015.
20. External Scientific Adviser, China Electronics Technology Corporation (CETC): Harbin Electronic Sensing Technology Research Institute, 2015.
21. Part of a focus group providing evidence for the Dowling Review of Business-University research collaborations (published July 2015)
22. Vice-Chair, "Frontier in Organic Synthesis Technology", FROST5, Budapest, Hungary (October 21–23, 2015).
23. External Reviewer, Czech Science Foundation, 2016.
24. Provided evidence for a BIS-commissioned report: "The Nature, Location and Functioning of International Research Collaborations: a study of manufacturing research" (authors: T. C. Ulrichsen and C. Featherston, May 2016)
25. Co-Chair, "Flow Chemistry Europe", Cambridge, February 7–8, 2017.
26. Expert Review Committee, "CFI's 2017 Innovation Fund Competition", Canada Foundation for Innovation (CFI), January 2017.
27. Chair, "Flow Chemistry Europe", Cambridge, February 6-7, 2018.
28. Chair, "10th Symposium on Continuous Flow Reactor Technology for Industrial Applications", Milan, Italy, November 13-

15, 2018.

29. Editor-in-Chief, Chemistry Central Journal, SpringerOpen (2015–2018).

30. Associate Editor, ACS Sustainable Chemistry & Engineering, American Chemical Society (2019–)

Publications (*main author):

(i) Patents:

1. K. K. Hii, “Catalytic method of hydroaminating alkyl N-alkenylcarbamates with primary aromatic amines”, U.S. Pat. Appl. Publ. (2006), US2006183933.
2. K. K. Hii, “In situ generated asymmetric palladium phosphine catalyst and uses thereof”, PCT Int. Appl. (2006), WO2006103453.
3. K. K. Hii, “Copper(II) catalyzed addition of acids, alcohols, amines, and thiols to alkenes”, PCT Int. Appl. (2007), WO2007007084–A2.
4. K. K. Hii, N. Dalton, and C. Turner, “Preparation of iothalamate analogs as isotopically labeled marker for determination of kidney function.” PCT Int. Appl. (2007), WO2007026140.
5. K. K. Hii, “Enantioselective hydroamination reaction to form an intermediate in the synthesis of torcetrapib”, GB application (2006), GB0622908.2.
6. J–C. Caille and K. K. Hii, “Synthesis of imide compounds by enantioselective hydroamination”, PCT Int. Appl. (2008), WO2008059051.
7. K. K. Hii, K. Hellgardt, G. H. Kelsall, J. B. Brazier and L. A. Adrio, “Apparatus and method for production of oxidants”, GB1509769.4 (2015), WO2016193738A1.
8. K. K. Hii and K. Hellgardt, “Electrochemical Cell”, GB 1710655.0, priority date: 3 July 2017, PCT Application No. PCT/GB2018/051868, filing date: 3 July 2018

(ii) Books, Chapters and Monographs:

10. K. K. Hii and K. Hellgardt, “Continuous flow technologies in the development of ‘green’ organic reactions and processes”. In *Advanced Green Chemistry*, I. Hovarth, M. Malacria (Ed.s), World Scientific Publishing Company, 257–284. DOI: 10.1142/9789813228115_0007.
9. K. K. Hii and K. Hellgardt, “Catalysis in Flow: Why Leaching Matters”, *Topics in Organometallic Chemistry*, Ed. T. Noël, Springer, 2015, 57, 249–262. DOI: 10.1007/3418_2015_149.
8. C. Brechtelsbauer and K. K. Hii, Catalysis in Flow. In *Flow Chemistry*. Volume 2: Applications. F. Darvas, G. Dormán, V. Hessel (Ed.s), De Gruyter, Berlin, Chapter 1, pp. 3–62, ISBN: 978–3–11–036707–2, e–ISBN: 978–3–11–036750–8, 2014.
7. “Sustainable Catalysis: Challenges and Practices for the Pharmaceutical and Fine Chemical Industries”, P. J. Dunn, K. K. (Mimi) Hii, M. J. Krische and M. T. Williams (Ed.s), Wiley & Sons, NY, ISBN: 978–1181–5542–4, 2013.
6. B. N. Nguyen, K. K. Hii, W. Szymański, and D. B. Janssen, “Conjugate Addition Reactions (Michael; C–, O–, S– and N–Nucleophiles)”, *Science of Synthesis: Stereoselective Synthesis*, Volume 1: *Stereoselective Reactions of Carbon–Carbon Double Bonds*, Chapter 1.12, J. G. de Vries (Ed.), Georg Thieme Verlag, 2010.
5. “Application of Phosphine Ligands in Organic Synthesis”, L. A. Adrio and K. K. Hii, *Specialist Periodical Reports: Organometallic Chemistry*, Royal Society of Chemistry, I. Fairlamb (Ed.), 2009, 35, 62–92.
4. K. K. Hii, Hydridopalladium Complexes. In *Handbook of Organopalladium Chemistry for Organic Synthesis*, E–i. Negishi (Ed.), Wiley & Sons, NY, 2002, pp.81–90, ISBN: 0–471–31506–0.
3. K. K. Hii and T. P. Kee, “Nitrogen, Phosphorus, Arsenic, Antimony and Bismuth”, *J. Chem. Soc. Annual reports (A)*, 1999, 95, 57. DOI: 10.1039/a804881i
2. K. K. Hii and T. P. Kee, “Group 15: N, P, As, Sb, Bi”, *J. Chem. Soc. Annual reports (A)*, 1996, 92, 71.
1. K. K. Hii and T. P. Kee, “Group 15: N, P, As, Sb, Bi”, *J. Chem. Soc. Annual reports (A)*, 1994, 91, 67.

(iii) Review/Perspective articles (reversed chronological order):

11. “Aerobic Oxidations in Flow: Opportunities for the Fine Chemicals and Pharmaceuticals Industries” A. Gavriilidis, A. Constantinou, K. Hellgardt, K. K. Hii,* G. Hutchings, G. Brett, S. Kuhn and S. P. Marsden, *React. Chem. Eng.* 2016, 1, 595–612. DOI: 10.1039/C6RE00155F (top ten most accessed articles for Q2 and Q3 2017).
10. “SpirOP: Update”, *e–Encyclopedia of Reagents for Organic Synthesis (e–EROS)*, E. M. Barreiro, L. A. Adrio and K. K. Hii, 2014. <http://onlinelibrary.wiley.com/book/10.1002/047084289X>
9. “Coinage metal catalysts for the addition of O–H to C=C bonds”, E. M. Barreiro, L. A. Adrio, K. K. Hii and J. B. Brazier,*

Eur. J. Org. Chem. (microreview), **2013**, 1027–1039. DOI: 10.1002/ejoc.201201441

8. “4, 12–Bis(diphenylphosphino)–[2.2]–paracyclophane”, *e–Encyclopedia of Reagents for Organic Synthesis (e–EROS)*, L. A. Adrio and K. K. Hii, **2012**. <http://onlinelibrary.wiley.com/book/10.1002/047084289X>
7. “Palladium–Catalysed Heterofunctionalisation of C=C and C–H Bonds”, L. A. Adrio and K. K. Hii,* *Current Organic Chemistry* (New Trends in Palladium Chemistry: Synthesis, Structure, Reactivity and Applications), **2011**, *17*, 3337–3361.
6. “Transition Metal Catalyzed Enantioselective α –Heterofunctionalization of Carbonyl Compounds”, A. M. R. Smith and K. K. Hii,* *Chem. Rev.* (Frontiers of Transition Metal Catalyzed Reactions), **2011**, *111*, 1637–1656. DOI: 10.1021/cr100197z
5. “Hydroamination Reactions by Metal Triflates: Brønsted Acid vs. Metal Catalysis?”, L. A. Adrio, J. G. Taylor and K. K. Hii, *Dalton Trans.* (Frontier article), **2010**, 1171–1175. DOI: 10.1039/b918970j
4. “Synthesis of Terphenyls”, L. A. Adrio, J. M. A. Miguez and K. K. Hii,* *Org. Prep. Proced. Int.* **2009**, *41*, 331–358. DOI: 10.1080/00304940903163632
3. “Applications of Phosphine–Functionalised Polymers in Organic Synthesis”, M. Guinó and K. K. Hii,* *Chem. Soc. Rev.* **2007**, 608–617. DOI: 10.1039/b603851b
2. “Development of Palladium Catalysts for Asymmetric Hydroamination Reactions”, K. K. Hii, *Pure Appl. Chem.* **2006**, *78*, 341–349. DOI: 10.1351/pac200678020341
1. “Advances in the Heck Chemistry of Aryl Bromides and Chlorides”, N. Whitcombe, K. K. Hii and S. E. Gibson,* *Tetrahedron*, **2001**, *57*, 7449–7476. DOI: 10.1016/S0040–4020(01)00665–2

(iv) Research Articles (reversed chronological order):

101. “Peracetic acid as an atom-efficient reagent for directed C–H acetoxylation of arenes”, C. J. Mulligan, S. Bagale, O. Newton, J. S. Parker and K. K. Hii,* *ACS Sus. Chem. Eng.* **2019**, *7*, 1611–1615, DOI: 10.1021/acssuschemeng.8b05370.
100. “Base-free, tunable, Au-catalyzed oxidative esterification of alcohols in continuous flow”, F. J. Roberts, C. Richard, F. W. Zemichael, K. K. Hii,* K. Hellgardt,* C. Brennan and D. Sale, *React. Chem. Eng.* **2018**, *3*, 942–948, DOI: 10.1039/C8RE00085A.
99. “Catalysis in flow: Nickel-catalyzed synthesis of primary amines from alcohols and NH₃”, A. Y. K. Leung, K. Hellgardt* and K. K. Hii,* *ACS Sus. Chem. Eng.* **2018**, *6*, 5479–5484. DOI: 10.1021/acssuschemeng.8b00338
98. “2-Iodoxybenzoic Acid Synthesis by Oxidation of 2-Iodobenzoic Acid at a Boron-Doped Diamond Anode”, T. Bystron,* A. Horbenko, K. Syslova, K. K. Hii, K. Hellgardt and G. Kelsall, *ChemElectroChem* **2018**, *5*, 1002–1005. DOI: 10.1002/celec.201800027.
97. “Spatial, temporal and quantitative assessment of catalyst leaching in continuous flow”, E. M. Barreiro, Z. Hao, L. A. Adrio, J. R. van Ommen, Klaus Hellgardt,* K. K. Hii,* *Catal. Today* **2018**, *308*, 64–70, DOI: 10.1016/j.cattod.2017.10.013
96. “One-step multicomponent synthesis of chiral oxazolonyl-zinc complexes”, M. Luo,* J. C. Zhang, W. M. Pang and K. K. Hii,* *Chem. Cent. J.* **2017**, 11:81. DOI: 10.1186/s13065-017-0305-1
95. “A colorimetric method for rapid and selective quantification of peroxodisulfate, peroxomonosulfate and hydrogen peroxide”, B. J. Deadman, K. Hellgardt and K. K. Hii,* *React. Chem Eng.* **2017**, *2*, 462–466, DOI: 10.1039/C7RE00050B.
94. “Effect of retained chlorine in ENCAT™ 30 catalysts on the development of encapsulated Pd: insights from in situ Pd K, L3 and Cl K-edge XAS”, M. A. Newton,* R. Nicholls, J. B. Brazier, B. N. Nguyen, C. J. Mulligan, K. Hellgardt, E. Barreiro, H. Emerich, K. K. Hii, I. Snigireva and P. B. J. Thompson, *Catal. Struct. React.* **2017**, *3*, 149–156, DOI: 10.1080/2055074X.2017.1348711.
93. “Solvent–dependent nuclearity, geometry and catalytic activity of [(SPhos)Pd(Ph)Cl]₂”, J. B. Brazier, M. A. Newton, E. M. Barreiro, L. A. Adrio, L. Naya, and K. K. Hii,* *Dalton Trans.* **2017**, 46, 7223–7231. DOI: 10.1039/c7dt01019b
92. “Controlled multiphase oxidations for continuous manufacturing of fine chemicals”, K. N. Loponova,* B. J. Deadman, J. Zhu, C. Reilly, R. G. Holdich,* K. K. Hii, K. Hellgardt, *Chem. Eng. J.* **2017**, *329*, 220–230. DOI: 10.1016/j.cej.2017.05.017
91. “Catalysis in flow: O₂ effect on the catalytic activity of Ru(OH)_x/Al₂O₃ during the aerobic oxidation of an alcohol”, J. B. Brazier, K. Hellgardt,* and K. K. Hii,* *React. Chem. Eng.* **2017**, *2*, 60–67. DOI: 10.1039/c6re00208k.
90. “Effects of Cl on the reduction of supported PdO in ethanol/water mixtures”, J. B. Brazier, M. A. Newton,* E. M. Barreiro, S. Parry, L. A. Adrio, C. J. Mulligan, K. Hellgardt, K. K. Hii,* P. B. J. Thompson, R. Nichols, B. N. Nguyen, *Catal. Struct. React.* **2017**, *3*, 54–62. DOI:10.1080/2055074X.2016.1267296.
89. “Restructuring of supported Pd by ‘green’ solvents: an operando Quick EXAFS (QEXAFS) study and implications for the derivation of structure–function relationships in Pd catalysis”, M. A. Newton,* J. B. Brazier, E. M. Barreiro, H. Emerich, L. A. Adrio, C. J. Mulligan, K. Hellgardt, and K. K. Hii,* *Cat. Sci. Tech.* **2016**, *6*, 8525–8531. DOI: 10.1039/C6CY02073A
88. “Synthesis of isoindolinones by Pd–catalyzed coupling between *N*–methoxybenzamide and styrene derivatives”, C. Xia, A. J. P. White and K. K. Hii,* *J. Org. Chem.*, **2016**, *81*, 7931–7938. DOI: 10.1021/acs.joc.6b01696.
87. “Synthesis, structure and catalytic activity of NHC–Ag(I) carboxylate complexes”, V. H. L. Wong, S. V. C. Vummaleti, L.

- Cavallo, A. J. P. White, S. P. Nolan, and K. K. Hii,* *Chem. Eur. J.* **2016**, *22*, 13320–13327. DOI: 10.1002/chem.201601762 (Corrigendum: DOI: 10.1002/chem.201605120)
86. “Goldilocks effect of water in Lewis–Brønsted Acid and Base catalysis”, B. J. Baron, W. T. Wong, P. Chiu and K. K. Hii,* *ACS Catal.* **2016**, *6*, 4189–4194. DOI: 10.1021/acscatal.6b00800
85. “Towards a green generation of oxidant on demand: Practical electro–synthesis of ammonium persulfate”, J. Zhu, K. K. Hii, and K. Hellgardt,* *ACS Sustainable Chem. Eng.* **2016**, *4*, 2027–2036. DOI: 10.1021/acssuschemeng.5b01372.
84. “Operando XAFS of supported Pd nanoparticles in flowing ethanol/water mixtures: implications for greener catalysis”, M. A. Newton,* J. B. Brazier, E. M. Barreiro, C. J. Mulligan, S. Parry, H. Emmerich, L. A. Adrio, K. Hellgardt* and K. K. Hii,* *Green Chem.* **2016**, *18*, 406–411. DOI: 10.1039/c5gc01600b
83. “Structure and bonding of [(NHC)AgX] (X = Cl, Br, I and OTf)”, V. H. L. Wong, A. J. P. White, T. S. A. Hor and K. K. Hii,* *Chem. Commun.* **2015**, *51*, 17752–17755. DOI: 10.1039/c5cc07977b
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Oral Presentations at Conferences (submitted papers):

1. “*Development of catalysts for asymmetric hydroamination reactions*”, 14th International Symposium on Homogeneous Catalysis (ISHC–14), Munich, Germany (July 5–9, **2004**)
2. “*Development of catalysts for hydroamination reactions*”, 13th IUPAC Symposium on Organometallic Chemistry directed towards Organic Synthesis (OMCOS13), Geneva, Switzerland (July 17–21, **2005**)
3. “*Asymmetric heterofunctionalization of carbon–carbon double bonds*”, 242nd American Chemical Society National Meeting and Exposition, San Francisco, USA (September 10–14, **2006**).
4. “*Addition of N–H and O–H to carbon–carbon double bonds*”, 12th Asian Chemical Congress, August 23–25, **2007**, Kuala Lumpur, Malaysia.
5. “*Catalysis in flow: practical and selective transformations of alcohols*”, AIChE 2010 Annual Meeting, November 7–11 **2010**, Salt Lake City, Utah.
6. “*Alkylation of amines by alcohols in a continuous flow reactor*”, EuropaCat X, August 28–September 2, **2011**, Glasgow, Scotland.
7. “*Benign alkylation of amines by alcohols (AAA)*”, AIChE 2012 Annual Meeting, October 28–November 2, **2012**, Pittsburgh, Pennsylvania.
8. “*Sustainable and continuous reduction of amides*”, AIChE 2012 Annual Meeting, October 28–November 2, **2012**, Pittsburgh, Pennsylvania.

Invited Lectures and Symposia:

132. **Keynote Speaker**, 7th Conference on Frontiers in Organic Synthesis Technology (FROST7), Budapest, Hungary, October 16–18, 2019.
131. Research Seminar, AstraZeneca Macclesfield, Autumn 2019.
130. Invited Speaker, the International Conference "Catalysis and Organic Synthesis" (ICCOS-2019), Moscow, Russia, September 15–20, 2019
129. Invited Lecturer, EPSRC Catalysis Summer School, Liverpool University, July 15–19, 2019.
128. Invited Speaker, 23rd Conference on Organometallic Chemistry (EuCOMC XXIII), Helsinki, Finland, June 16–20, 2019.
127. Research Seminar, University of Stockholm, Sweden, 13 March 2019.
126. Invited Speaker, Flow Chemistry Europe, Cambridge, UK, February 26–27, 2019.
125. Invited Speaker, BASF Flow Chemistry Symposium, Ludwigshaven, Germany, November 20, 2018.
124. **Keynote Speaker**, International Symposium on Relations between Homogeneous and Heterogeneous Catalysis (ISHHC18), Sydney, Australia, July 22–25, 2018.
123. Invited Speaker, Gordon Research Conference: “Organic Reactions and Processes”, Stonehill College, Easton, MA, USA, July 15–20, 2018.
122. **Keynote Speaker**, National Meeting of the Swedish Chemical Society, Organic Division, Lund, Sweden, June 17–20, 2018.
121. Invited Speaker, Catalysis CDT Symposium on Homogeneous Catalysis, University of Bristol, November 22, 2017.
120. Research Seminar, University of Strathclyde, Scotland, November 8, 2017.
119. Invited Speaker, 6th Conference on Frontiers in Organic Synthesis Technology (FROST6), Budapest, Hungary, October 18–20, 2017.
118. Invited Speaker, 26th International Society of Heterocyclic Chemistry Congress, Regensburg, Germany, September 3–8, 2017.
117. Research Seminar, University of Sydney, Sydney, Australia, August 3, 2017.
116. Research Seminar, Australia National University, Canberra, Australia, August 1, 2017.
115. **Keynote Speaker**, 8th International Conference on Green and Sustainable Chemistry (GSC8), Melbourne, Australia, July 23–26, 2017.
114. **Keynote Speaker**, Flow Chemistry Europe 2017, Cambridge, UK, February 7–8, 2017.
113. Research Seminar, McGill University, Montreal, Canada, January 10, 2017.
112. Research Seminar, University of Quebec at Montreal (UQAM), Canada, January 9, 2017.
111. Research Seminar, Queen’s University, Kingston, Canada, January 6, 2017.

110. Research Seminar, Institute of Chemical and Engineering Sciences (ICES, A*Star Institute), Singapore, December 8, 2016.
109. Invited Speaker, 14th International Symposium for Chinese Organic Chemists (ISCOC), Singapore, December 8–10, 2016.
108. **Plenary Speaker**, Asia–Oceania Conference on Sustainable and Green Chemistry (AOC–SGC6), City University of Hong Kong, November 27–30, 2016.
107. Research Seminar, University of Birmingham, September 27, 2016.
106. Invited Speaker, UK Catalysis Hub–Catalysis Society of South Africa bilateral meeting, The Royal Society, London, May 16–18, 2016.
105. Invited Speaker, Energy Dispersive X–ray Absorption Spectroscopy Workshop, Diamond Light Source, Harwell, March 10–11, 2016.
104. Invited Speaker, Flow Chemistry Europe 2016, Magdalene College, Cambridge, February 16–18, 2016.
103. **Plenary Speaker**, UK Catalysis Conference, Holywell Conference Centre, Loughborough, January 6–8, 2016.
102. Invited Speaker, “Frontier in Organic Synthesis Technology”, FROST5, Budapest, Hungary, October 21–23, 2015.
101. Golden Jubilee Speaker, Golden Jubilee Chemistry Conference (GJCC), NUSS Kent Ridge Guild House, Singapore, August 6–8, 2015.
100. “*Catalytic Sustainability in the Future*”, University of Manchester, February 13, 2015.
99. Research Seminar, University of Leeds, December 10, 2014.
98. Research Seminar, University College London, October 29, 2014.
97. Research Seminar, Syngenta, Stein, Switzerland, October 23, 2014.
96. Research Seminar, Nanyang Technological University, Singapore, September 25, 2014.
95. Invited Speaker, 2nd Japan/UK joint symposium, 64th Conference of the Japan Society of Coordination Chemistry, Tokyo, Japan, September 16–20, 2014.
94. Invited Speaker, 2nd SNIC–RSC Symposium on Coordination Chemistry: “*Women in Science*”, 41st International Conference on Coordination Chemistry, Singapore, July 21–25, 2014.
93. **Plenary Speaker**, Heterocyclic & Synthesis, RSC–SCI–Italian Chemical Society, Cumberland Lodge, Windsor Great Park, U.K., June 29–July 1, 2014.
92. **Plenary Speaker**, VII International School on Organometallic Chemistry: “*Marcial Moreno–Mañas*”, Universitat Autònoma de Barcelona, Spain, June 25–27, 2014.
91. Invited Speaker, 4th Flow Chemistry Congress (Flow Chemistry Society Meeting), Boston, USA, April 10–11, 2014.
90. Research Seminar, Université Pierre et Marie Curie (UPMC), Paris, France, March 31, 2014.
89. Research Seminar, University of Sussex, March 12, 2014.
88. **Distinguished Speaker**, Flow Chemistry Europe (Flow Chemistry Society Meeting), Barcelona, Spain, February 18–19, 2014.
87. Bayer Crop–sponsored Research Seminar, ICBMS, Department of Organic Chemistry and Biochemistry, University of Lyon, France, November 14, 2013.
86. **Keynote Speaker**, “Frontier in Organic Synthesis Technology”, FROST4, Budapest, Hungary, October 16–18, 2013.
85. Invited Speaker, ““X–ray absorption spectroscopy: New Insights at the Interface between Homogeneous, Heterogeneous and Hybrid Catalysis”, Diamond Light Source, Oxfordshire, September 19–20, 2013.
84. Research seminar, Institute of Chemical and Engineering Sciences, Singapore, August 28, 2013.
83. Invited Speaker, Research symposium: “*Transition Metal Catalysis 2013*”, Nanyang Technological University, Singapore, August 26–27, 2013.
82. Invited Speaker, “*Asian Rising Stars*”, 15th Asian Chemical Congress (ACC), Singapore, August 20–23, 2013.
81. Invited Speaker, 18th European Symposium on Organic Chemistry (ESOC18), Marseille, France, July 8–12, 2013.
80. Invited Speaker, “*Modern Trends in Organometallic Chemistry and Catalysis*”, Moscow, Russia, June 3–8, 2013.
79. Invited Speaker, European Materials Research Society (E–MRS) Spring Meeting, Strasbourg, France, May 27–31, 2013.
78. Invited Speaker, Applied Computational Chemistry for Synthetic Chemists (NSCCS Workshop), Imperial College London, April 23–24, 2013.
77. Invited Speaker, “*Catalysis at the Interface*”, India–UK Scientific Seminar, IICT Hyderabad, India, February 11–13, 2013.

76. Invited Speaker, “*A Celebration of Organic Synthesis*”, SCI Fine Chemicals Group biennial conference, AstraZeneca, Alderley Edge, September 24–25, 2012.
75. Invited Speaker, XXV International Conference on Organometallic Chemistry (XXV ICOMC), Lisbon, Portugal, September 2–7, 2012.
74. Research Seminar, Scripps Research Institute, La Jolla, California, USA, March 29, 2012.
73. Invited Speaker, Special Symposium on “*Sustainable Inorganic Chemistry*”, ACS National Meeting, San Diego, USA, March 25–27, 2012.
72. Research Seminar, University of Leicester, February 29, 2012.
71. Invited Speaker, McBain Medal Award Lecture, SCI London, December 12, 2011.
70. Invited Speaker, Montego Bay Group Workshop on “Advanced Reaction Environments”, Hong Kong, PRC, November 28–30, 2011.
69. Research Seminar, Shanghai Institute of Organic Chemistry (SIOC), Shanghai, PRC, November 25, 2011.
68. Research Seminar, School of Pharmaceutical Science and Technology, Tianjin University, Nankai, PRC, November 22, 2011.
67. Research Seminar, National Institute of Biological Sciences (NIBS), Beijing, PRC, November 18, 2011.
66. Research Seminar, West China School of Pharmacy, Sichuan University, Chengdu, PRC, November 17, 2011.
65. **Young Plenary Lecture** (awarded by *New Journal of Chemistry*), XIX EuCheMS Conference on Organometallic Chemistry (XIX EuCOMC), Toulouse, France, July 3–7, 2011.
64. Research Seminar, Institut de Chimie des Substances Naturelles (ICSN), Gif-sur-Yvette, France, April 28, 2011.
63. Research Seminar, Firmenich, Geneva, Switzerland, April 1, 2011.
62. Invited Speaker, RSC North East Regional Meeting, University of Newcastle–Upon–Tyne, March 1, 2011.
61. Invited Speaker, French Chemical Society Symposium (ICO 2010), Paris, September 21–23, 2010.
60. Invited Speaker, 3rd EuCheMS Chemistry Congress: “*Chemistry: The Creative Force*”, Nürnberg, Germany, August 29–September 2, 2010.
59. Invited Speaker, International Symposium on Homogeneous Catalysis (ISHC–17), Poznań, Poland, July 4–9, 2010.
58. **Plenary Lecture**, The Pierre Fabre Chemistry Day, Abbaye École de Sorèze, Sorèze, France, June 11, 2010.
57. Research Seminar, University of Texas at Austin, USA, April 22, 2010.
56. Research Seminar, University of Purdue, Indiana, USA, April 20, 2010.
55. Research Seminar, Eli Lilly, Indiana, USA, April 16, 2010.
54. Research Seminar, University of Bristol, November 16, 2009.
53. Research Seminar, University of Chicago, Chicago, USA, July 29, 2009.
52. Research Seminar, University of Illinois, Chicago, USA, July 28, 2009.
51. Research Seminar, University of Wisconsin, Madison, USA, July 27, 2009.
50. Invited Speaker, Gordon Research Conference: “Organic Reactions and Processes”, Rhode Island, July 19–24, 2009.
49. Invited Lecturer, EPSRC Catalysis Summer School, Liverpool University, July 13–17, 2009.
48. Invited Speaker, ZaCh System Symposium in Organic Synthesis, Paris, France, May 15, 2009.
47. Research Seminar, National University of Singapore, Singapore, September 19 and 29, 2008.
46. **Plenary Lecture**, XXVI “Reunión del Grupo Especializado en Química Organometálica”, Santiago de Compostela, Galicia, Spain, September 9–12, 2008.
45. Research Seminar, Sanofi–Aventis, Bridgewater, NJ, USA, July 21, 2008.
44. Research Seminar, Brandeis University, USA, July 18, 2008.
43. Invited Speaker, UK–Singapore Symposium: “Contemporary Organic Synthesis, Methods and Techniques”, British Council–RSC–SNIC–GSK, Biopolis, Singapore, February 25–27, 2008.
42. Invited Speaker, “Contemporary Organic Synthesis Symposium”, British Council–RSC–NSTDA, Thailand, February 22, 2008.
41. Invited Speaker, Joint ACG–SCI meeting: “Challenges in Catalysis for Pharmaceuticals and Fine Chemicals”, SCI London, November 6, 2007.

40. Research Seminar, Syngenta, Jealott's Hill International Research Station, October 23, 2007.
39. Young Academics Symposium 2007, GlaxoSmithKline, Stevenage, October 18, 2007.
38. Invited Lecturer, EPSRC Catalysis Summer School, Liverpool University, September 3–7, 2007.
37. Research Seminar, Universiti Teknologi Malaysia, Malaysia, August 15, 2007.
36. Research Seminar, University of Hong Kong, Hong Kong, PRC, August 14, 2007.
35. Supporting Speaker, RSC 20th International Symposium: Synthesis in Organic Chemistry, Churchill College, Cambridge, July 16–19, 2007.
34. Invited Lecture, 2007 National Organic Synthesis Trust (NOST) Meeting, Majorda beach resort, Goa, India, July 7–10, 2007.
33. Invited Speaker, Pfizer Spring Symposium, Pfizer Global R&D, Sandwich, March 22, 2007.
32. Research Seminar, St. Andrews University, Scotland, March 14, 2007.
31. Research Seminar, Chemical Research Laboratory, Oxford University, February 15, 2007.
30. Supporting Lecture, RSC Heterocyclic Meeting (40th Anniversary), Imperial College London, January 5, 2007.
29. **Plenary Lecture**, 9th International Symposium for Chinese Organic Chemists (ISCO-9), Singapore, December 17–21, 2006.
28. Research Seminar, National University of Singapore, Singapore, December 13, 2006.
27. Young Academic Industrial Visit, AstraZeneca, Alderley Park, September 7, 2006.
26. Research Seminar, UCB Pharma, Slough, May 25, 2006.
25. Research Seminar, University of Glasgow, Scotland, UK, March 17, 2006.
24. Research Seminar, AstraZeneca, Macclesfield, UK, November 10, 2005.
23. Research Seminar, DSM, Geleen R&D, The Netherlands, October 7, 2005.
22. Invited Lecture, Young Chemists 2005 (YC05), Imperial College London, April 1, 2005.
21. Invited Lecture, RSC Coordination Chemistry Discussion Group, University of Leicester, July 12–15, 2004.
20. Invited Lecture, 4th Anglo–Dutch Symposium on Organometallic and Catalytic Chemistry (ADOCC–4), Cardiff, Wales, April 14–16, 2004.
19. Research Seminar, ETH Zürich, Switzerland, May 2003.
18. Research Seminar, Universidad de Santiago de Compostela, Spain, May 2003.
17. Research Seminar, DSM, Geleen R&D, The Netherlands, April 2003.
16. Research Seminar, University College Dublin, Ireland, March 2003.
15. Research Seminar, Institute of Chemical Process Fundamentals, Prague, Czech Republic, December 2002.
14. Research Seminar, Johnson Matthey plc, Royston, October 2002.
13. Research Seminar, University of Leeds, May 2002.
12. Research Seminar, University College London, January 2002.
11. Research Seminar, University of Southampton, November 2001.
10. Research Seminar, Ibnu Sina Institute for Fundamental Science Studies, Johor, Malaysia, September 2001.
9. Research Seminar, National University of Singapore, Singapore, September 2001.
8. Research Seminar, Queen Mary Westfield College, November 2000.
7. Research Seminar, SmithKline Beecham, Tonbridge, April 2000.
6. Research Seminar, University of Nottingham, October 1999.
5. Invited Lecture, Younger Chemist's Meeting, SCI, London, February 1999.
4. Research Seminar, University of Sheffield, December 1998.
3. Research Seminar, University of Newcastle–Upon–Tyne, September 1998.
2. Research Seminar, Ecole Polytechnique, France, September 1998.
1. Research Seminar, British Petroleum, Sunbury, September 1997.

Research project supervision/mentorship:

Postdoc:

- 2018-2019 Dr. Dominic Pye, Research England (GCRF) Postdoctoral Fellowship
- 2015–2017 Dr. Benjamin Deadman, EPSRC Postdoctoral Fellowship.
- 2014–2017 Dr. Ju Zhu, EPSRC Postdoctoral Fellowship.
- 2014–5 Dr. Luis A. Adrio, EPSRC Postdoctoral Fellowship.
- 2014 Dr. Changkun Xia, Chinese Government Scholarship.
- 2013–5 Dr. Elena Barreiro, Postdoctoral Fellowship, Xunta Galicia.
- 2011–5 Dr. John Brazier, EPSRC Postdoctoral Fellowship.
- 2010–2 Dr. Andrey Sheshenev, Marie–Curie IEF Fellowship.
- 2010–2011 Dr. Elena Barreiro, Postdoctoral Fellowship, Spanish Ministry of Education.
- 2009–2011 Dr. Silvia Diez–Gonzalez, Imperial College Junior Research Fellow.
- 2009–2010 Dr. Bao Nguyen, EPSRC Postdoctoral Fellowship.
- 2010–2011 Dr. Candice Palmer, EPSRC Postdoctoral Fellowship.
- 2009–2010 Dr. Tomas Bystron, EPSRC Postdoctoral Fellowship.
- 2009–2011 Dr. Natalia Zotova, EPSRC Postdoctoral Fellowship.
- 2007–2011 Dr. Luis A. Adrio, Postdoctoral Fellowship, Xunta de Galicia.
- 2005–6 Dr. Mingjun Zhou, China Scholarship Council.
- 2001–3 Dr. Kelin Li, EPSRC Postdoctoral Fellowship (GR/R50332/01, ROPA award).

PhD:

- 2018- Norkhalizatul Akmal Mohd Jamil, “*Upgrading of biomass to high-value chemicals by C-N bond formations*”.
- 2018- Rabia Qamar, “*Highly substituted heterocycles by silver-catalysed intramolecular heterofunctionalisation of alkynes*”.
- 2018- Sharanappa Bagale, “*Chiral Phase-Transfer Catalysts based on an MBI structure*”.
- 2017- Oliver Newton, “*Catalysis in Flow: Investigating catalyst deactivation and leaching*” (joint supervision with Prof. Klaus Hellgardt, Imperial College London).
- 2015– Ilia Dorokhov, “*Catalytic aerobic transformations of alcohol*”, (joint supervision with Prof. Klaus Hellgardt, Imperial College London).
- 2014– Kane Hands, “*Application of flow technology for sustainable amide bond formation from alcohols*” (joint supervision with Prof. Klaus Hellgardt, Imperial College London).
- 2014– Andrew Leung, “*Amination of polyols*” (joint supervision with Dr. Klaus Hellgardt, Imperial College London).
- 2013–2117 Christopher Mulligan, EPSRC DTG award/AstraZeneca, “*Synergistic relationships between ligand, substrate and oxidant in Pd–catalysed C–H activation of aromatic rings*”.

- 2012–2016 Benedict Barron, Imperial College–HKU Joint PhD Scholarship (joint supervision with Prof. Pauline Chiu, Hong Kong University).
- 2011–2015 Luka V. Tallon, EPSRC DTG award/Johnson Matthey, “*New applications of gold catalysis in oxidative transformation of alcohols*” (joint supervision with Dr. Klaus Hellgardt, Imperial College London).
- 2010–2014 Valerie Wong Hui Lin, NUS–Imperial joint PhD studentship, “*C–C and C–X Formation Catalyzed by Green N–Heterocyclic Carbene Complexes*” (joint supervision with Prof. Andy Hor, National University of Singapore).
- 2010–2014 Felicity Roberts, EPSRC DTA award/Pharmacat, “*Catalytic flow chemistry: Conversion of alcohols to amides*”.
- 2009–2013 Steven Lal, EPSRC DTA award (joint supervision with Dr. Silvia Diez–Gonzalez).
- 2009–2013 Kathryn Rix, EPSRC DTA award/Pharmacat, “*Electrochemical reduction of amides to amines.*”
- 2007–2011 Jannine L. Arbour, EPSRC DTA award, “*C–X bond formation by transition metal catalysis*”.
- 2007–2011 Laura L. Taylor, EPSRC DTG award/AstraZeneca, “*Asymmetric synthesis of nitrogen heterocycles*”.
- 2006–2010 Xinzhu Liu, Imperial College Deputy Rector’s Award, “*Development of late transition metal catalyzed direct C–H activation reactions*”.
- 2006–2010 Alexander M. R. Smith, EPSRC DTA award/Pfizer, “*Exploring new asymmetric reactions catalysed by dicationic Pd(II) complexes*”.
- 2004–2008 Jason G. Taylor, EPSRC DTA award/GlaxoSmithKline, “*Development of asymmetric hydroamination catalysts*”.
- 2003–2006 Pim Huat Phua, ORS award/DSM Research BV, “*Development of asymmetric hydroamination catalysts for the synthesis of β -amino acid derivatives*”.
- 2003–2007 Emma L. Cropper, AstraZeneca (EPSRC industrial CASE award), “*Synthesis of unusual-sized nitrogen heterocycles*”.
- 2001–2005 Meritxell Guinó, King’s College London PG Studentship, “*Functionalised polymers as scavengers and supports in organic synthesis*”.
- 2000–2005 Marco Oliana, Syntex–Johnson Matthey CASE award, “*Libraries of asymmetric mixed donor ligands for catalysis*”.
- 2000–2004 Maryiam Qadir, GlaxoSmithKline (EPSRC industrial CASE award), “*Transition metal catalysed synthesis of medium-sized heterocycles*”.
- 2000–2004 Francois A. Loiseau, King’s College London PG Studentship, “*Synthesis of pegylated calixarenes towards new tuberculosis therapies*”.
- 1999–2003 Xiaohui Cheng, K. C. Wong Education Foundation/Ministry of Education China/ British Council, “*Transition metal catalysed hydrogenation, allylic alkylation and transfer hydrogenation reactions*”.
- 1999–2003 Sebastien L. Parisel, EPSRC First Appointee Grant (GR/M78229/01), “*Synthesis and catalytic chemistry of a new generation of aminophosphine ligands*”.
- 1999–2003 Hubert T. C. Lam, King’s College London PG Studentship/Aventis Pharma, “*Synthesis of chiral hybrid ligands and applications in palladium-catalysed asymmetric allylic alkylation reactions*”.
- 1998–2002 Mohammed S. Rahman, King’s College London PG Studentship, “*Chemistry of mixed donor Phosphorus–Nitrogen ligands: Towards asymmetric catalysis*”.

MSci, MRes or MSc(Research):

- 2018-9 Zhuqing Jiang (MRes, Green Chemistry, Imperial), Liquid-liquid biphasic oxidation reactions.
- 2018-9 Zhijie (Edward) Fan (MRes, Advanced Molecular Synthesis, Imperial), Developing
- 2018-8 Justine Tizzard (MRes, Catalysis, Imperial), Peracid as a green oxidant for C-H activation reactions
- 2018-9 Zinan Wang (MSci, Imperial), "*Claisen rearrangement of allyl aryl ethers – combined experimental and theoretical studies*".
- 2018-9 Zhizhen Chen (MSci, Imperial), "*Methylene-bridged bis(imidazoline)-derived organocatalysts and their use in asymmetric phase-transfer catalysis*"
- 2016-7 Jiarui Gao (MRes, Catalysis, Imperial), "*Development of a continuous flow reactor for condensation reactions*".
- 2016-7 Dilruba Popy (MRes, Catalysis, Imperial), "*Group 11 NHC complexes and their catalytic activity in heterofunctionalisation reactions*".
- 2016-7 Sarah Gian (MSci, Imperial), "*Oxidation of alkenes with electrochemically generated peroxosulfates and the oxidative conversion of geraniol to linalool oxide*".
- 2014-5 Iliia Dorokhov (MRes Catalysis, Imperial), "*Catalysis in Flow: Aerobic oxidation of alcohol*"
- 2014-5 Chris Fadel (MRes Green Chemistry, Imperial), "*Development of green catalytic oxidation reactions in the multiphase*".
- 2014-5 Daniel Kirkwood (MSci, Imperial), "*Synthesis of methylene-bridged bis(imidazoline)-derived thiourea salts*".
- 2014-5 Samuel Scott (MSci, Imperial), "*Preparation of new 5-oxothiadiazinium salts*".
- 2013-4 Daniel Davies (MSci, Imperial), "*Synthesis of methylene-bridged bis(imidazoline)-derived sulfoxide and sulfone salts and their use in asymmetric phase-transfer catalysis*".
- 2013-4 Christopher Kaye (MSci, Imperial), "*Synthesising substituted amino alcohols and their derivatives using tandem catalysis*".
- 2012-3 Andrew Leung (MRes Green Chemistry, Imperial), "*Catalytic amination of glycerol via flow chemistry*".
- 2012-3 Aroonroj Mekareeya (MSci, Imperial), "*Exploring a Competitive Friedel Crafts process during aza-Michael reactions*".
- 2011-2 Hiu (Hilary) Kwong (MSci, Imperial), "*Asymmetric Synthesis of chiral N-heteroaryl-substituted β -amino acids*"
- 2010-11 Chi-Hin Tse (MSci, Imperial), "*PTA as water-soluble nucleophilic catalyst for Rauhut-Currier reactions*"
- 2010-11 Jessica Shaw (MSci, Imperial), "*Asymmetric Synthesis of Levonantradol: a synthetic cannabinoid analog*"
- 2009-10 Peter Lusted (MSci, Imperial), "*Asymmetric synthesis of Levonantradol: a synthetic cannabinoid analog*"
- 2007-8 Yae-Eun Han (MSci, Imperial), "*Synthesis of β -lactam derivatives*"
- 2007-8 Karl Bonney (MSci, Imperial), "*Synthesis of the core structure of the antitumour antibiotic agent mitomycin*"
- 2005-6 Aui-Ping Yuen (MSci, Imperial), "*Intramolecular palladium-catalysed amidation for the formation of 7- and 8-membered benzo-fused lactam rings*"
- 2005-6 Shuyi Quek (MSci, Imperial), "*Construction of oxygen-containing heterocycles by copper catalysis*"

- 2004–5 Apal Patel (MSci, Imperial), “*Transition–metal mediated synthesis of benzomorphan derivatives*”.
- 2003–4 Sophie Gore (MSci, Imperial), “*Development of novel fluorescent antagonists for investigating Y1 receptor subcellular localisation and dimerisation*”.
- 2003–4 Farrah L. Bhatti (MSci, Imperial), “*Asymmetric Synthesis of Crinatusin A1 and A2*”.
- 2002–3 Jamie Hunt (MSci, King’s), “*Asymmetric Synthesis of Crinatusin A1*”.
- 2001–2 Rachael E. Priestley (MSci, King’s), “*The synthesis of 2–substituted–1H–1–benzazepines (and an unexpected compound) via palladium catalysis*”.
- 2000–1 Thomas W. D. F. Rising (MSci, King’s), “*A study on the synthesis of biologically active 1–benzazepines via palladium catalysis*”.
- 2000–1 Neil D. Moorcroft (MSc, King’s), “*Second generation of PNP hemilabile ligands with modification at phosphorus.*”
- 1999–2000 Maryiam Qadir (MSci, King’s), “*Examination of Ligand effects in the Heck arylation reaction*”.