

Hon Wai Lam

School of Chemistry, University of Edinburgh
Joseph Black Building, King's Buildings
West Mains Road, Edinburgh EH9 3JJ, United Kingdom
Tel: +44 (0)131 650 4831; Fax: +44 (0)131 650 6453; email: h.lam@ed.ac.uk

Personal

Born: 1976, Harrow, England

Professional

2012-present Reader in Organic Chemistry, University of Edinburgh
2009-2012 Senior Lecturer in Organic Chemistry, University of Edinburgh
Oct 2003-2009 Lecturer in Organic Chemistry, University of Edinburgh

Education

Feb 2002-
Aug 2003 **Harvard University**
Postdoctoral Research Associate
Research Advisor: Professor David A. Evans
Development of enantioselective catalytic reactions

1998-2001 **University of Nottingham**
Ph.D. in Chemistry
Supervisor: Professor Gerald Pattenden FRS
Total Synthesis of the Proposed Structure of Amphidinolide A

1994-1998 **Jesus College, University of Oxford**
M.Chem. in Chemistry
1st Class degree with honours

Awards

2011 AstraZeneca Excellence in Chemistry Award 2011
2011 Royal Society of Chemistry Hickinbottom Award
2010 Thieme Journal Award
2008 Royal Society of Chemistry Harrison-Meldola Memorial Prize
2000 GlaxoSmithKline Postdoctoral Fellowship Award
2000 AstraZeneca Postgraduate Scholarship in Organic Chemistry
1997 Gibbs Prize for Chemistry

Independent Publications

36. "Enantioselective Copper-Catalyzed Reductive Coupling of Alkenylazaarenes with Ketones" Saxena, A.; Choi, B.; Lam, H. W. *J. Am. Chem. Soc.* **2012**, *134*, in press.
35. "Enantioselective Rhodium-Catalyzed Addition of Potassium Alkenyltrifluoroborates to Cyclic Imines" Luo, Y.; Carnell, A. J.; Lam, H. W. *Angew. Chem., Int. Ed.* **2012**, *51*, in press.
34. "Enantioselective Rh(I)-Catalyzed Cyclization of Arylboron Compounds onto Ketones" Low, D. W.; Pattison, G.; Wieczysty, M. D.; Churchill, G. H.; Lam, H. W. *Org. Lett.* **2012**, *14*, ASAP.
33. "Palladium-catalyzed hydroacyloxylation of ynamides" Smith, D. L.; Goundry, W. R.; Lam, H. W. *Chem. Commun.* **2012**, *48*, 1505–1507.
32. "Enantioselective rhodium-catalyzed arylation of electron-deficient alkenylarenes" Saxena, A.; Lam, H. W. *Chem. Sci.* **2011**, *2*, 2326–2331.

31. "TADDOL-Derived Phosphonites, Phosphites, and Phosphoramidites in Asymmetric Catalysis" Lam, H. W. *Synthesis* **2011**, 2011–2043.
30. "Ytterbium-Catalyzed Conjugate Allylation of Alkylidene Malonates" Fallan, C.; Quigley, P. F.; Lam, H. W. *J. Org. Chem.* **2011**, *76*, 4112–4118.
29. "Base-catalyzed synthesis of bicyclic 4-aminopyrimidines from the reaction of dinitriles with mononitriles" Chercheja, S.; Simpson, J. K.; Lam, H. W. *Tetrahedron* **2011**, *67*, 3839–3845.
28. "Enantioselective Rhodium-Catalyzed Addition of Arylboronic Acids to Alkenylheteroarenes" Pattison, G.; Piraux, G.; Lam, H. W. *J. Am. Chem. Soc.* **2010**, *132*, 14373–14375.
27. "Catalytic Asymmetric Dihydroxylation of Enamides and Application to the Total Synthesis of (+)-Tanikolide" Gourdet, B.; Lam, H. W. *Angew. Chem., Int. Ed.* **2010**, *49*, 8733–8737.
26. "Rhodium-catalyzed carbometalation of ynamides with organoboron reagents" Gourdet, B.; Smith, D. L.; Lam, H. W. *Tetrahedron* **2010**, *66*, 6026–6031.
25. "Rhodium-Catalyzed Annulation of Ynamides with Bifunctional Arylboron Reagents" Gourdet, B.; Rudkin, M. E.; Lam, H. W. *Org. Lett.* **2010**, *12*, 2554–2557.
24. "Copper-Bisphosphine-Initiated Pentafluorophenylation of Aldehydes and Ketones" Brogan, S.; Carter, N. B.; Lam, H. W. *Synlett* **2010**, 615–617.
23. "Enantioselective Copper-Catalyzed Reductive Michael Cyclizations" Oswald, C. L.; Peterson, J. A.; Lam, H. W. *Org. Lett.* **2009**, *11*, 4504–4507.
22. "Preparation of Multisubstituted Enamides via Rhodium-Catalyzed Carbozincation and Hydrozincation of Ynamides" Gourdet, B.; Rudkin, M. E.; Watts, C. A.; Lam, H. W. *J. Org. Chem.* **2009**, *74*, 7849–7858.
21. "Aromatic Heterocycles as Activating Groups for Asymmetric Conjugate Addition Reactions. Enantioselective Copper-Catalyzed Reduction of 2-Alkenylheteroarenes" Rupnicki, L.; Saxena, A.; Lam, H. W. *J. Am. Chem. Soc.* **2009**, *131*, 10386–10387.
20. "Stereoselective Synthesis of Multisubstituted Enamides via Rhodium-Catalyzed Carbozincation of Ynamides" Gourdet, B.; Lam, H. W. *J. Am. Chem. Soc.* **2009**, *131*, 3802–3803.
19. "Stereoselective Formation of Alkenyl Halides via Magnesium Halide-Promoted Ring-Opening of Bis-Activated Cyclopropenes" Wang, Y.; Lam, H. W. *J. Org. Chem.* **2009**, *74*, 1353–1355.
18. "Synthesis and Application of Alkenystannanes Derived from Base-Sensitive Cyclopropenes" Fordyce, E. A. F., Luebbers, T.; Lam, H. W. *Org. Lett.* **2008**, *10*, 3993–3996.
17. "Stereoselective Synthesis of Tri- and Tetrasubstituted Alkenes by Iron-Catalyzed Carbometalation–Ring-Opening Reactions of Cyclopropenes" Wang, Y.; Fordyce, E. A. F.; Chen, F. Y.; Lam, H. W. *Angew. Chem., Int. Ed.* **2008**, *47*, 7350–7353.
16. "Formal synthesis of salinosporamide A using a nickel-catalyzed reductive aldol cyclization-lactonization as a key step" Villanueva Margalef, I.; Rupnicki, L.; Lam, H. W. *Tetrahedron* **2008**, *64*, 7896–7901.
15. "Racemic and asymmetric cobalt-catalysed reductive aldol couplings of α,β -unsaturated amides with ketones" Lumby, R. J. R.; Joensuu, P. M.; Lam, H. W. *Tetrahedron* **2008**, *64*, 7729–7740.
14. "Diastereoselective Cobalt-Catalyzed Alkylative Aldol Cyclizations Using Trialkylaluminum Reagents" Rudkin, M. E.; Joensuu, P. M.; MacLachlan, W. S.; Lam, H. W. *Org. Lett.* **2008**, *10*, 2939–2942.
13. "Diastereoselective Nickel-Catalyzed Reductive Aldol Cyclizations Using Diethylzinc as the Stoichiometric Reductant: Scope and Mechanistic Insight" Joensuu, P. M.; Murray, G. J.; Fordyce, E. A. F.; Luebbers, T.; Lam, H. W. *J. Am. Chem. Soc.* **2008**, *130*, 7328–7338.
12. "Copper-catalyzed silylation of cyclopropenes using (trifluoromethyl)trimethylsilane" Fordyce, E. A. F.; Wang, Y.; Luebbers, T.; Lam, H. W. *Chem. Commun.* **2008**, 1124–1126.
11. "Cobalt-catalyzed reductive Mannich reactions of 4-acryloylmorpholine with *N*-tosyl aldimines" Prieto, O.; Lam, H. W. *Org. Biomol. Chem.* **2008**, *6*, 55–57.
10. "Diastereoselective Intermolecular Cobalt-Catalyzed Reductive Aldol Reactions of α,β -Unsaturated Amides with Ketones" Lumby, R. J. R.; Joensuu, P. M.; Lam, H. W. *Org. Lett.* **2007**, *9*, 4367–4370.
9. "Synthesis of Pyroglutamic Acid Derivatives via Double Michael Reactions of Alkynones" Scansetti, M.; Hu, X.; McDermott, B. P.; Lam, H. W. *Org. Lett.* **2007**, *9*, 2159–2162.
8. "Diastereoselective Cobalt-Catalyzed Reductive Aldol Cyclizations Using Diethylzinc as the Stoichiometric Reductant" Lam, H. W.; Joensuu, P. M.; Murray, G. J.; Fordyce, E. A. F.; Prieto, O.; Luebbers, T. *Org. Lett.* **2006**, *8*, 3729–3732.
7. "Diastereoselective Synthesis of 4-Hydroxypiperidin-2-ones via Cu(I)-Catalyzed Reductive Aldol Cyclization" Lam, H. W.; Murray, G. J.; Firth, J. D. *Org. Lett.* **2005**, *7*, 5743–5746.
6. "Cu(I)-Catalyzed Reductive Aldol Cyclizations: Diastereo- and Enantioselective Synthesis of β -Hydroxylactones" Lam, H. W.; Joensuu, P. M. *Org. Lett.* **2005**, *7*, 4225–4228.

Previous Publications

5. "A New Copper Acetate-Bis(oxazoline) Catalyzed, Enantioselective Henry Reaction" Evans, D. A.; Seidel, D.; Rueping, M.; Lam, H. W.; Shaw, J. T.; Downey, C. W. *J. Am. Chem. Soc.* **2003**, *125*, 12692–12693.
4. "Enantioselective Indole Friedel-Crafts Alkylations Catalyzed by Bis(Oxazoliny)pyridine-Scandium(III) Triflate Complexes" Evans, D. A.; Scheidt, K. A.; Fandrick, K. R.; Lam, H. W.; Wu, J. *J. Am. Chem. Soc.* **2003**, *125*, 10780–10781.
3. "Total Synthesis of the Presumed Amphidinolide A" Lam, H. W.; Pattenden, G. *Angew. Chem., Int. Ed.* **2002**, *41*, 508–511.
2. "Radical cascade processes leading to fused- and spiro-bicyclic ring systems" Robertson, J.; Lam, H. W.; Abazi, S.; Roseblade, S.; Lush, R. K. *Tetrahedron* **2000**, *56*, 8959–8965.
1. "Structure and total synthesis of benzylthiocrellidone, a novel dimedone-based vinyl sulfide from the sponge *Crella spinulata*" Lam, H. W.; Cooke, P. A.; Pattenden, G.; Bandaranayake, W. M.; Wickramasinghe, W. A. *J. Chem. Soc., Perkin Trans. 1* **1999**, 847–848.

Invited Talks

1. The Royal Society of Chemistry, Organic Division, 34th Scottish Regional Meeting, University of Strathclyde, 19th December 2005
2. University of Liverpool, 13th November 2006
3. University of Glasgow, 24th November 2006
4. AstraZeneca Charnwood, Loughborough, 24th January 2007
5. AstraZeneca Alderley Park, Macclesfield, 26th January 2007
6. Dowpharma, Chirotech Technology Limited, Cambridge, UK, 5th February 2007
7. University of York, 21st February 2007
8. University of Manchester, 28th February 2007
9. University of Warwick, 7th March 2007
10. Young Chemists 2007 (YC07), Imperial College, 30th March 2007
11. The 42nd EUChem Conference on Stereochemistry (Bürgenstock-Conference 2007), Fürigen, 14th–20th April 2007 (short oral contribution)
12. Hoffmann-La Roche, Basel, Switzerland, 8th October 2007
13. GlaxoSmithKline, Harlow, 10th October 2007
14. Young Academics Symposium, GlaxoSmithKline, Stevenage, 18th October 2007
15. University of Nottingham, 7th November 2007
16. University of Leeds, 27th February 2008
17. University of Cambridge, 28th April 2008
18. Organon Laboratories, Newhouse, Motherwell, 7th May 2008
19. University of Bath, 13th May 2008
20. GlaxoSmithKline, Stevenage, 30th June 2008
21. AstraZeneca, Macclesfield, 14th October 2008
22. University of Oxford, 23rd October 2008
23. Shasun Pharma Solutions, Dudley, 26th February 2009
24. Heriot-Watt University, 25th March 2009
25. University of Sheffield, 6th May 2009
26. GlaxoSmithKline, Tonbridge, 17th June 2009
27. GlaxoSmithKline, Harlow, 18th June 2009
28. GlaxoSmithKline, Stevenage, 19th June 2009
29. University of Münster, Germany, 2nd July 2009
30. Young Investigator Workshop, Liblice, Czech Republic, 17th July 2009
31. 21st Synthesis in Organic Chemistry RSC Symposium, University of Oxford, 20th–23rd July 2009
32. AstraZeneca, Avlon Works, Bristol, 18th August 2009
33. University of Birmingham, 11th November 2009
34. University of Bristol, 1st February 2010
35. Syngenta, Jealot's Hill, 11th May 2010
36. GlaxoSmithKline, Stevenage, 24th May 2010
37. Novartis, Basel, Switzerland, 23rd June 2010
38. Stereochemistry Gordon Conference, 1st–6th August 2010, Salve Regina University, Rhode Island (short oral contribution)
39. South African Chemical Institute Conference, University of the Witwatersrand, Johannesburg, 16th–21st January 2011
40. University College London, 23rd February 2011
41. 2nd UK–Japanese Symposium on Asymmetric Catalysis, University of Oxford, 14th–15th April 2011

42. 2nd Annual World Congress on Catalytic Asymmetric Synthesis, Beijing, China, 9th–11th August 2011
 43. Durham University, 8th November 2011
 44. AstraZeneca Excellence in Chemistry Symposium, Alderley Park, Macclesfield, 13th December 2011
 45. SCI meeting on “Catalysis and Synthesis Using Less Expensive Metals” (tentative title), SCI Belgrave Square, London, 18th April 2012
 46. University of Loughborough, 9th May 2012
 47. RSC Award Lecture, University of St. Andrews, 17th May 2012
 48. Cardiff University, 28th May 2012
 49. University of Strathclyde, 20th June 2012
 50. Queen's University Belfast, August/September 2012
 51. GlaxoSmithKline, Stevenage, October 2012
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