

Name: Thomas William Muir

Contact Address: Princeton University
 Department of Chemistry
 325 Frick Chemistry
 Princeton, NJ 08544
 Tel: (609) 258-5778
 Fax: (609) 258-6746
 e-mail: muir@princeton.edu

Education and Appointments:

INSTITUTE AND LOCATION	DEGREE/POSITION	YEAR CONFERRED	FIELD OF STUDY
University of Edinburgh, UK	B.Sc. (Hons) 1st Class	1989	Chemistry
University of Edinburgh, UK	Ph.D	1993	Organic Chemistry
Scripps Research Institute	Postdoctoral	1993	Bio-Organic Chemistry
Scripps Research Institute	Senior Research Associate	1995	Bio-Organic Chemistry
The Rockefeller University	Assistant Professor Head of Laboratory	1996	Bio-Organic Chemistry
The Rockefeller University	Associate Professor Head of Laboratory	2000	Bio-Organic Chemistry
The Rockefeller University	Professor and Head of Laboratory	2002	Bio-Organic Chemistry
The Rockefeller University	Richard E. Salomon Family Professor	2005	Bio-Organic Chemistry
The Rockefeller University	Director; Pels Center for Chemistry, Biochemistry and Structural Biology	2005	Bio-Organic Chemistry
Princeton University	Van Zandt Williams, Jr. Class of '65 Professor of Chemistry	2010	Bio-Organic Chemistry
Princeton University	Chairman Department of Chemistry	2015	Bio-Organic Chemistry
Princeton University	Affiliate of the Lewis- Sigler Institute for Integrated Genomics	2015	Bio-Organic Chemistry

Awards and Honors

Faculty of Science undergraduate scholarship (University of Edinburgh).

Mackay-Smith undergraduate prize (University of Edinburgh).

Stephenson undergraduate prize (University of Edinburgh).

Faculty of Science postgraduate scholarship (University of Edinburgh).
Williamson postgraduate prize (University of Edinburgh).
Gordon postgraduate fellowship (University of Edinburgh).
Amgen postdoctoral fellowship (The Scripps Research Institute).
1998 Pew Scholar in the Biomedical Sciences
1999 Burroughs-Wellcome Fund New Investigator Award
2000 Alfred P. Sloan Research Fellow
2001 Irma T. Hirschl/Monique Weill-Caulier Trust Research Fellow
2002 Leonidas Zervas Award from The European Peptide Society
2005 Irving Sigal Young Investigator Award from The Protein Society
2005 Richard E. Salomon Family Professor (Rockefeller University)
2007 Kavli Fellow, U.S. National Academy of Sciences
2007 Fellow of the American Association for the Advancement of Science
2008 Vincent du Vigneaud Award in Peptide Chemistry, American Peptide Society
2008 Distinguished Teaching Award, The Rockefeller University
2008 Winner of the New York Academy of Sciences Blavatnik Award for Young Scientists and Engineers
2012 Jeremy Knowles Award from the Royal Society of Chemistry
2012 Elected Fellow of the Royal Society of Chemistry
2012 NIGMS MERIT Award
2013 Arthur C. Cope Scholar Award from the American Chemical Society
2013 Elected Corresponding Fellow of the Royal Society of Edinburgh
2016 Breslow Award in Biomimetic Chemistry from the American Chemical Society
2017 E.T. Kaiser Award in Protein Chemistry from the Protein Society

Professional Affiliations/Service

Member of the American Chemical Society
Member of the American Association of the Advancement of Science
Member, The Harvey Society
Editorial Board, Current Peptide and Protein Science
Editorial Board, Journal of Peptide Science
Member Bioorganic & Natural Product Chemistry Study Section (NIH) (2003-2005)
Member Synthetic and Biological Chemistry B Study Section (NIH) (2005-2006)
Editorial Board, ChemBiochem
Member, Review Panel, Damon Runyon Cancer Foundation 2004-2007
co-Chair (with Jeff Kelly), 19th American Peptide Symposium, San Diego June 2005
Member Awards Committee, The Protein Society, 2007
Member of External Review Committee for UCSF Graduate Program in Chemistry March 2008

Member of External Review Committee for Gene Transcription Unit, EMBL Heidelberg May 2008
 Member Awards Committee, American Peptide Society, 2008-
 Council Member, American Peptide Society, 2009-2015
 Ad-hoc member Synthetic and Biological Chemistry B Study Section (NIH) (2009)
 Member of Review Panel for Swiss National Science Foundation Center Grants (2009-present)
 Member of Scientific Advisory Committee – European Molecular Biology Laboratory (2010-present)
 Member of Review Panel – NIH Directors Pioneer Award (2010-2012)
 Associate Editor, Chemical Science (2012-2015)
 Member of Scientific Advisory Committee – Institute of Biochemical Research, Barcelona (2012-present)
 Ad-hoc member NIH NIGMS Advisory Council (2014)
 Member of Scientific Advisory Board – Pew Biomedical Fellows Program (2014-present)
 Member of Chemistry Advisory Board – Sloan Fellows Program (2015-present)

Consulting/SAB Activities

Consultant – Biomeasure/Ipsen Pharmaceuticals (2006-2010)
 Consultant – Amgen (2011-present)
 Member of the Scientific Advisory Board – Ascent Pharmaceuticals (2008-2012)
 Member of the Scientific Advisory Board – Redwood Biosciences (2010-present)
 Consultant – Merck, 2015-present

U.S. Patents

Structural Models for the Cytoplasmic Domains of Transmembrane Proteins.
 # 08/260,514.

Synthesis of Proteins by Native Chemical Ligation.
 US6184344 B1, issued Feb 6th 2001
 WO 96/34878, 7th Nov 1996

General Native Ligation
 US6307018 B1, issued Oct 23rd 2001
 WO 9828434 A1, issued 1998

Synthesis of Novel *Staphylococcus Aureus* Peptides For Bacterial Interference
 US6337385 B1, issued Jan 8, 2002
 WO 9967286 A2, issued 1999

Process for Characterizing Proteins
 US 6495314, issued Dec 17th, 2002

Methods of Ligating Expressed Proteins
 US 6875594B2, issued April 5th 2005

Multiple Sensor-Containing Active Modified Polypeptides, Preparation and Uses Thereof
 Application filed January 2000

Current Support

R37 GM086868 (PI: Muir, Co-PI: Cowburn) 09/01/03 – 07/31/22

NIH/NIGMS

“Structure, Function and Applications of Inteins”

The major goal of this project is to explore the enzymology and mechanisms of inteins using semi-synthetic & NMR approaches.

R01 AI042783 (P.I. Muir, Co-PI: Novick) 05/15/98 – 1/1/20

NIH/NIAID

“Peptide autoinducers of staphylococcal pathogenicity”

The major goal of this project is to utilize chemical and biochemical methods to investigate how histone methylation occurs and what is the function of this modification in regulating the expressions pattern in cells.

R01 GM107047 (PI: Muir) 09/01/13 – 04/30/17

NIH/NIGMS

“Development and Applications of ‘Designer Chromatin’”

The major goal of this project is to deepen our understanding of the molecular mechanisms underlying the regulation of chromatin structure and function.

GHCCOPS-DON-3858 (PI: Muir) 04/01/13 – 03/31/16

Amgen, Inc.

“Discovery and Applications of Novel Inteins”

The major goal of this project is to use genetic and chemical biology methods to study and modify, for the purposes of protein engineering, intein protein splicing elements.

P01 CA196539 (PI: Allis, Co-PI: Muir) 07/01/15 – 06/30/20

NIH/NCI

“Oncohistones: Role of Histone H3 Mutations in the Oncogenesis of Pediatric Cancers”

The broad goal of this project is to develop a suite of chemistry-driven tools to study the detailed mechanism by which histone H3 mutations, oncohistones, associated with pediatric brain and bone cancers mis-regulate epigenetic control of gene expression, leading to disease.

LKR144237 (PI: Muir) 07/21/15 – 07/20/18

Merck & Co., Inc.

“Merck Nucleosome Collaboration”

Distinguished Lectureships

Society of Fellows Distinguished Lecturer, The Scripps Research Institute, May 2004

Baker Chemical Biology Lecturer, Chemistry Dep’t., Cornell University, April 2005

Distinguished Lecture Series, New England Biolabs, Boston, May, 2006

Danny Thomas Lectureship St. Judes Children’s Hospital, , February 2007

2008 Treat Johnson Lectureship, Chemistry Department, Yale University, February 2008

2008 du Vigneaud Lecture, Peptide Gordon Conference, Ventura California, February 2008

Astra-Zeneca Lectureship, Department of Chemistry, University of Montreal, Canada, September, 2008

Peter Yates Lectureship, Department of Chemistry, University of Toronto, Canada, October, 2008
Distinguished Lecturer, EMBL Chemical Biology Symposium, Heidelberg, October, 2008
2009 Samuel M. McElvain Lecturer in Organic Chemistry, University of Wisconsin, Madison, April 2009
Green Distinguished Lectureship, EMBL-Heidelberg, April 2011
2012 Bender Distinguished Lectureship Series, Department of Chemistry, Northwestern University, August, 2012
Eminent Scholar Series, Chemistry Department, U. Arizona, Tucson, February 2013
Frontiers of Chemistry Symposium, The Scripps Research Institute, February 2013
Hyp Dauben Lecturer, Department of Chemistry, University of Washington, April 2013
Johnson Symposium Lecturer, Department of Chemistry, Stanford University, October 2013
Halocarbon Lecture, Department of Chemistry, Cornell University, January 2014
Morningside Lectureship, Chemistry Department, University of Hong Kong, December 2014
Arun Guthikonda Memorial Lecture, Chemistry Department, Columbia University, March 2015
O'Malley Lectureship, Chemistry Department, Boston College, March 2015
William H. Stein Memorial Lecture, The Rockefeller University, March 2015
Friedman Lecture, Brooklyn College, May 2015
Sigma-Aldrich Lecture, Chemistry Department, Duke University, October 2015
Torkil Holm Lecturer, Danish Academy of Technical Sciences, Copenhagen, January 2016
Heinrich Wieland Prize Symposium Lecturer, Munich, October 2016
2017, Gassman Lecture Series, University of Minnesota, Twin-Cities, March 2017

Selected Invited Talks

Biological Chemistry Series, Waksman Institute, Rutgers University, January 1999
Lorne Conference in Protein Science, Lorne, Australia, February 1999
Medicinal Chemistry Lecture Series, 3D Center, University of Queensland, February 1999
Chemistry Seminar Series, Chemistry Dep't., University of Pennsylvania, February 1999
Bioorganic Seminar Series, Chemistry Dep't., SUNY Stony Brook, March 1999
Yale Chemical Biology Symposium, Yale University, May 1999
American Society for Microbiology Conference, Chicago, June 1999
Bioorganic Gordon Conference, New Hampshire, June 1999
American Peptide Symposium, Minneapolis, June 1999
Protein Society Symposium, Boston, July 1999
French Academy of Sciences Symposium in Protein Science, Paris, August 1999
American Chemical Society Western Conference, Los Angeles, September 1999
Protein Chemistry Seminar, Abbott Labs, Chicago, October 1999
Biochemistry Lecture Series, Astra-Zeneca, Manchester, November, 1999
Chemistry Seminar Series, Chemistry Dep't., Cornell University, November 1999
Microbial Targets for Small Molecules, Banbury Conference, Cold Spring Harbor, December 1999
Chemistry Section, Nycomed-Pharmacia, Oslo, January, 2000
Scandinavian Biochemistry Society, Geillo, Norway, January 2000
Biochemistry and Biophysics Seminar Series, Brandeis University, January 2000
Chemistry Seminar Series, Chemistry Dep't., University of California, Berkeley, February 2000
Bioorganic Chemistry Series, Chemistry Dep't., M.I.T., Cambridge, March 2000
American Chemical Society National Meeting, San Francisco, March 2000
Biological Chemistry Series, ICCB, Harvard University, April 2000
Organic Chemistry Colloquium, University of Delaware, April 2000
Chemistry Seminar Series, University of Utah, May 2000
Proteomics Symposium, SUNY Stony Brook, May 2000

Chemistry Seminar Series, Albert Einstein College of Medicine, June 2000
National Science Foundation Workshop in Physical Organic Chemistry, June 2000
Biological Regulatory Systems Gordon Conference, July 2000
Chemistry Seminar Series, Ohio State University, Nov, 2000
Chemistry Seminar Series, Tufts University, February, 2001
Biochemistry Seminar Series, UT Southwestern Medical Center, March 2001
Chemical Biology Seminar Series, University of California, San Francisco, April 2001
Biochemistry Lecture Series, Biochemistry Dep't., University of Dundee, May 2001
Organic Chemistry Seminar, Chemistry Dep't. University of Edinburgh, May 2001
Biochemistry Seminar Series, Biochemistry Dep't., University of Chicago, May 2001
Biochemistry Seminar Series, New Jersey Medical Center, Newark, May 2001
Burroughs-Wellcome Meeting, San Diego, July, 2001
Firbush Biological Chemistry Meeting, Royal Society of Chemistry, August 2001
Biochemistry Department, Columbia University Medical School, September 2001
Chemical Biology Seminar Series, Washington University, St. Louis, October 2001
Biochemistry Seminar Series, Chemistry Dept., Univ. Maryland, November 2001
Chemistry Colloquium, Chemistry Dept, Johns Hopkins University, April 2002
Chemical Protein Synthesis Symposium (National Med. Chemistry Meeting) June 2002 – Organizer
Frontiers in Chemistry Symposium, University of Marburg, Germany, June 2002
American Chemical Society National Meeting, Boston, August 2002
German-American Chemistry Societies Joint Meeting, Durham, New Hampshire, August 2002
Chemistry Department, University of Naples, Italy, August 2002
European Peptide Symposium, Sorrento, Italy, September, 2002
Chemical Biology Seminar Series, Pharmacology Dept. Johns Hopkins Medical School, Nov., 2002
Biochemistry Seminar Series, University of Wisconsin, Madison, March, 2003
Keystone Meeting in Proteomics, Keystone Colorado, March 2003
Chemical Biology Symposium, FASEB Meeting San Diego (Organizer), April 2003
Pharmacology Departmental Seminar Series, UCLA, April 2003
Presidents Lecture Series, Memorial Sloan-Kettering Cancer Institute, April 2003
Chemistry Colloquium, Swiss Chemical Society, Zurich, Switzerland, May 2003
Keynote Lecture, 18th American Peptide Symposium, Boston, Massachusetts, July 2003
Keynote Lecture, New York Structure Biology Symposium, Cold Spring Harbor, August 2003
Chemical Biology Symposium, Chemistry Dep't, University of Michigan, December, 2003
Keynote Lecture, 1st International Biomol. Chem. Symposium, Awaji, Japan, December, 2003
Department of Pharmaceutical Chemistry, The University of Tokyo, December, 2003
Lorne Conference in Protein Science, Lorne, Australia, February 2004
Chemical Biology Lecture Series, IMB, University of Queensland, February 2004
Department of Biophysics, Columbia University, March 2004
American Chemical Society National Meeting, Anaheim, April 2004
Chemistry Department, Princeton University, April 2004
Student Hosted Seminar, Chemistry Department, UC Berkeley, April 2004
Chemistry Department, Stanford University, April 2004
Chemistry Department, CUNY Staten Island, May 2004
Genomic Science Department, University of Washington, May 2004
Bioorganic Gordon Conference, New Hampshire, June 2004
Peptide Society Mini-Symposium, San Diego, August 2004
Protein Society Meeting, San Diego, August 2004
American Chemical Society National Meeting, Philadelphia, August 2004

Protein Engineering Symposium, Danish Chemical Society, Copenhagen, September 2004
Chemical Engineering Department, RPI, Albany, September 2004
Chemistry Department, University of Chicago, November 2004
Rockefeller University Lecture, January 2005
Biology Department, Argonne National Lab, March 2005
Biotechnology Seminar Series, UT Southwestern, Dallas, March 2005
Chemistry Department, Duke University, April 2005
Chemistry Department, Harvard University, May 2005
Lipids, Liposomes and Membrane Proteins Symposium, Vancouver, Canada, July 2005
Protein Society Symposium, Boston, August 2005
Australian Peptide Symposium, Hamilton Island, October, 2005
ESF Meeting on Protein Chemistry, Barcelona, November 2005
Biochemistry and Biophysics Department, Mount Sinai School of Medicine, November 2005
PacifiChem 2005, Engineered Proteins Symposium, Honolulu, December 2005
Chemistry Department, University of Pharmaceutical Sciences, Copenhagen, Denmark, January 2006
Knud Lind Larsen Symposium; Organic Chemistry at the Interface to Biology, Copenhagen, January 2006
Volcano Conference in Bioorganic Chemistry, Seattle, Washington, February 2006
Molecular and Cellular Physiology Department, Yale Medical School, March 2006
Chemical Biology Series, Mount Sinai School of Medicine, April 2006
Department of Molecular Pharmacology, Stanford University School of Medicine, April 2006
Student Hosted Seminar, Chemistry Department, UC San Diego, April 2006
Chemical Biology Initiative Symposium, Department of Chemistry, Harvard University, May, 2006
Protein Society Symposium (Session Organizer and Chair), San Diego, August 2006
Seminar - Max Planck Institute for Molecular Physiology, Dortmund, Germany, October, 2006
IMPRS Symposium on Chemical Biology, Dortmund, Germany, October, 2006
43rd Japanese Peptide Symposium, Yokohama, November 2006
Kyoto University, Chemistry Department, November 2006
International Symposium on Biomolecules and Related Compounds, Kyoto, November, 2006
Japanese-American Kavli Frontiers of Science Symposium, Irvine, CA, December 2006
Chemistry Colloquium, Chemistry Dep't., M.I.T., Cambridge, December 2006
New York Structural Biology Discussion Group, Plenary Speaker, January 2007
Biochemistry Dep't., University of Geneva, Switzerland, March 2007
Chemistry Dep't., Indiana State University, April 2007
Organic Chemistry Seminar, California Institute of Technology, April 2007
Biological Chemistry Symposium, University of Chicago, May 2007
20th American Peptide Symposium, Montreal, June 2007
ACS National Meeting, Boston, August 2007
New York University Chemistry Department Colloquium, September 2007
Roche Peptide Symposium, Bolder, Co., September 2007
Protein Chemical Synthesis Symposium, Heron Island, Australia, October 2007
International Peptide Symposium, Cairns, Australia, October 2007
Chemistry Department Colloquium, Yokohama University, December 2007
Chemistry Department Colloquium, University of Michigan, Ann Harbor, January 2008
Chemistry Department Colloquium, Georgia Tech, Atlanta, January 2008
International Seminar, National Cancer Institute (NKI), Amsterdam, The Netherlands, Feb 2008
Biochemistry Seminar, CUNY City College, March 2008
Chemical Biology Symposium, ASBMB Meeting San Diego, April 2008
Departmental Seminar, Department of Physiology, Columbia University, April 2008

American Chemical Society National Meeting (Session Chair), Philadelphia PA, August 2008
Departmental Seminar, Department of Chemistry, Princeton University, October 2008
Monday Lecture Series, The Rockefeller University, November 2008
Student Hosted Seminar, Chemistry and Chemical Biology Program, UC San Francisco, January 2009
Departmental Seminar, Department of Chemistry, University of Pittsburgh, February 2009
Friday Colloquium, The Rockefeller University, March 2009
Nichols Distinguished Symposium Speaker, ACS, March 2009
CABM Institute Seminar, Rutgers University, April 2009
Departmental Seminar, Department of Molecular Biology, UT Southwestern, April 2009
Departmental Seminar, Department of Biochemistry, Thomas Jefferson University, May 2009
Departmental Seminar, Department of Biochemistry, Albert Einstein, May 2009
Plenary Lecture, 21st APS, Bloomington, IN, June 2009
Plenary Lecture, European Protein Society Symposium, Zurich, June 2009
Plenary Lecture, Enzymes Gordon Conference, New Hampshire, July 2009
Plenary Lecture, IUPAC Symposium, Glasgow, Scotland, August 2009
Departmental Seminar, Department of Chemistry, Technical University of Munich, September 2009
Keynote Speaker, Protein Chemistry Symposium, MPI-Castle Ringberg, Germany, September 2009
Plenary Speaker (and Session Chair), Chromatin Keystone Meeting, Taos, New Mexico, January 2010
Departmental Seminar, Department of Biochemistry, Ohio State University, February 2010
Plenary Lecture (and Session Chair), ACS National Meeting, San Francisco March 2010
Plenary Lecture 31st EPS, Copenhagen, Denmark, September 2010
Student Invited Seminar, Department of Chemistry, MIT, October 2010
Departmental Seminar, Department of Chemistry, Brandeis University, October 2010
Organizer and Speaker, Protein Engineering Symposium, Pacificchem, Hawaii, December 2010
Student Invited Seminar, Department of Chemistry, UI-Urbana-Champaign, January 2011
Departmental Seminar, Department of Chemistry, UC-Berkeley, February 2011
Departmental Seminar, Department of Pharmacology, Vanderbilt University, February 2011
Student Invited Seminar, Department of Chemistry, U. Pennsylvania, February 2011
Departmental Seminar, Department of Chemistry, Tufts University, March 2011
Keynote Lecture, TIDES Symposium, Boston. May 2011
Plenary Lecture, Proteins Gordon Conference, New Hampshire, June 2011
Plenary Lecture, Proteins Society 25th Symposium, Boston, July 2011
Plenary Lecture, Chemical Biology Symposium, Beijing, China 2011
Departmental Seminar, Department of Chemistry, Oxford University, August 2011
Plenary Lecture, NCCR Structural Biology Symposium, Zurich, Switzerland, September 2011
Plenary Lecture, Australian Peptide Symposium, Hamilton Island, Australia, October 2011
Plenary Lecture, Nature Chemical Biology Cancer Symposium, Boston, October 2011
Departmental Seminar, Department of Biological Chemistry, Harvard Medical School, January 2012
Plenary Lecture, Keystone Symposium In Chemical Biology, Santa Fe, NM, February 2012
Plenary Lecture, Peptides Gordon Conference, Ventura, California, February 2012
Lecture, Amgen, Thousand Oaks, California, February 2012
Lecture, Merck, West Point, Pennsylvania, March 2012
Lecture, Biogen-Idex, Boston, Mass, March 2012
Lecture, Cell Signaling Technologies, Boston, Mass, March 2012
Keynote Address, CBI Symposium. U. Penn. April 2012
Institute Seminar, Netherlands Cancer Institute, Amsterdam, June 2012
Keynote Address, NYAS Chemical Biology Meeting, June 2012
Plenary Lecture, ISACS 7 Symposium, Edinburgh, June 2012

Plenary Lecture, Tetrahedron Symposium, Amsterdam, June 2012
Ecole National Superior, Paris; Visiting Professor Lectures in Chemistry, July 2012
Lecture, Genentech, San Francisco, California, August 2012
Plenary Lecture, 32nd European Peptide Symposium, Athens, September 2012
Departmental Seminar, Department of Molecular Biology, Princeton University, September 2012
Departmental Seminar, Scripps Florida, September 2012
Titisee Conference in Chromatin Biochemistry (co-organizer and speaker), Titisee, Germany, October 2012
Lecture, Merck, Rahway, New Jersey, November 2012
Lecture, Novartis, Cambridge, January 2013
Departmental Seminar, Department of Chemistry, Cambridge University, March 2013
Departmental Seminar, Department of Chemistry, UCL, March 2013
Departmental Seminar, Department of Chemistry, St. Andrews University, March 2013
Organic Seminar, Department of Chemistry, University of Washington, April 2013
Burgenstock Conference, Brunnen, Switzerland, May 2013
Tercentennial Chemistry Symposium, University of Edinburgh, June 2013
Plenary Talk, Organic Reactions GRC, Bryant Academy, RI, July 2013
Plenary Talk, ISACS Meeting on Chemical Biology, Boston, July 2013
Departmental Seminar, Department of Pharmacology, UCSF, October 2013
Solvay Meeting in Chemistry, Brussels, Belgium, October 2013
Institute Seminar, Rutgers University, New Brunswick, NJ, November 2013
Chemical Biology Symposium, Geneva, Switzerland, November 2013
Lorne Conference in Protein Science, Lorne, Australia, February 2014
University of Melbourne, Bio21 Institute, February 2014
University of Sydney, Chemistry Department, February 2014
Departmental Seminar, Department of Biochemistry, UTSW, April 2014
Institute Colloquium, IST Austria, Vienna, June 2014
Institute of Organic Chemistry and Biochemistry, Czech Academies of Science, Prague, June 2014
Departmental Colloquium, Department of Chemistry, Brown University, September 2014
Medicinal Chemistry Symposium, Janssen Pharmaceuticals, September 2014
Lecture, Merck, Rahway, New Jersey, October 2014
Departmental Seminar, Department of Biochemistry, Albert Einstein Med. School, November 2014
Armenise Symposium in Chemical Biology, Harvard Medical School, November 2014
Singapore International Chemistry Symposium, Plenary lecture, Singapore, December 2014
Lecture, Amgen, Thousand Oaks, March 2015
Biological Chemistry Seminar, Department of Chemistry, USC, April 2015
Student Invited Seminar, Department of Chemistry, Texas A&M University, April 2015
Fellows Invited Seminar, NIH-NIDDK, Washington D.C. April 2015
Chemical Protein Synthesis Symposium, St. Augustine, Florida, June 2015
American Peptide Symposium, Orlando, Florida, June 2015
Transcription Regulation Meeting, Penn State, July 2015
RSC Fircush Bioorganic Chemistry Meeting, Scotland, September 2015
Plenary Talk, Chemical Biology Symposium, University of Konstanz, Germany, October 2015
Plenary Talk, Pharmaceutical Sciences Symposium, UNC-Chapel Hill, October 2015
Student Invited Chemical Biology Lecture, Yale University, November 2015
Pacifichem, Keynote Speaker, Honolulu, December 2015
Keynote Talk, Takeda Symposium in Chemistry, Osaka, Japan, January 2016
Chemistry Department, Osaka University, Japan, January 2016
Lecture, Novo Nordisk, Copenhagen, Denmark, January 2016

Biochemistry Seminar, U. Penn. Medical School, February 2016
 Plenary Talk, Merck Symposium in Chemical Biology, March 2016
 GRC-Chromatin Structure and Function, Les Diablerets, Switzerland, May 2016
 American Chemical Society National Meeting, Philadelphia, August 2016
 Scientific Oktoberfest, LMU, Munich, September 2016
 Pfizer, Chemical Biology Seminar Series, December, 2016
 Keynote Lecture, ERATO Meeting, Tokyo, Japan, January 2017
 Keynote Lecture, Peptide Forum, University of Tokyo, January 2017
 Keynote Lecture, Epigenetics Meeting, RIKEN, January 2017
 Scottish Chemistry Symposium, Northwestern University, January 2017

Publications (* Corresponding Author)

1. McLellan, J.F., *McNab, H. & Muir, T.W. 1993, 839-840. *J. Chem. Soc., Chem. Comm.*
Ring Expansion and Rearrangement Reactions of N-Heteroarylmethyl Radicals.
2. Layfield, R., Muir, T.W., Ramage, R., Landon, M., & *Mayer, R.J., 1993, *J. Neurochem*, **61**, 174.
Ubiquitin Carboxyl-terminal Hydrolases in Human Brain.
3. Muir, T.W., *Kent, S.B.H., 1993, **4**, 420-427, *Curr. Opin. Biotechnology*.
Chemical Synthesis of Proteins.
4. Muir, T.W., Williams, M.J., Ginsberg, M.H. & *Kent, S.B.H., 1994, *Biochemistry*, **33**, 7701-7708.
Design and Chemical Synthesis of a Neo-Protein Structural Model for the Cytoplasmic Domain of a Multi-Subunit Cell-Surface Receptor: Integrin α IIb β 3 (Platelet GP11b-IIIa).
5. Muir, T.W., Williams, M.J., Ginsberg, M.H., & *Kent, S.B.H., 1994, *J. Am. Chem. Soc.* **116**, 10797-10798.
Total Chemical Synthesis of a Folded β -Sandwich Protein Domain: A Fibronectin Type 3 Module.
6. Baca, M., Muir, T.W., Schnolzer, M. & *Kent, S.B.H., 1994, *J. Am. Chem. Soc.* **117**, 1881-1887.
The Chemical Ligation of Cysteine-Containing Peptides: Synthesis of a 22 kDa Tethered Dimer of HIV-1 Protease.
7. Dawson, P.E., Muir, T.W., Clark-Lewis, I. & *Kent, S.B.H., 1994, *Science*, **266**, 776-779.
Synthesis of Proteins by Native Chemical Ligation.
8. *Ramage, R., Green, J., Muir, T.W., Ogunjobi, O.M., Love, S. & Shaw, K., 1994, *Biochem J*, **299**, 151-158.
Synthetic, Structural and Biological Studies of the Ubiquitin System. Part 1: The Total Chemical Synthesis of Ubiquitin.
9. Alexeev, D., Fawcett, S.M., Turner, M.A., Ogunjobi, O.M., Muir, T.W., *Ramage, R. & Sawyer, L., 1994, *Biochem. J*, **299**, 159-163.
Synthetic, Structural and Biological Studies of the Ubiquitin System. Part 2: Chemically Synthesised and Native Ubiquitin Fold into Identical Three-Dimensional Structures.

10. Muir, T.W., Williams, M.J., & *Kent, S.B.H., 1995, *Analytical Biochemistry*, **224**, 100-109.
Detection of Synthetic Protein Isomers & Conformers by Electrospray Mass Spectrometry.
11. *Muir, T.W., 1995, *Structure*, **3**, 649-652.
A chemical approach to the construction of multimeric protein assemblies.
12. Zhao, Y., Muir, T.W., Kent, S.B.H., Tischer, E., Scardina, J.M. *Chait, B.T., 1996, *Proc. Natl. Acad. Sci. USA*, **93**, 4020-4024.
Mapping protein-protein interactions by affinity-directed mass spectrometry.
13. *Muir, T.W., Dawson, P.E., Fitzgerald, M.C., & Kent, S.B.H., 1996, *Chem. Biol.*, **3**, 817-825
Probing the Chemical Basis of Binding Activity in an SH3 Domain by Protein Signature Analysis.
14. Love, G. S., Muir, T.W., Ramage, R., Shaw, K.T., Alexeev, L., Kelly, S.M. Price, N.C., Arnold, J.E. Mees, M.P., *Mayer, R.J. 1997, *Biochem. J.* **323**, 727-734.
Synthetic, structural and biological studies of the ubiquitin system: synthesis and crystal structure of an analogue containing unnatural amino acids.
15. Franklin, K., Layfield, R., Landon, R., *Ramage, R., Brown, A., Muir, T.W., Urquhart, K., Bownes, M., and Mayer, R.J., 1997, *Anal. Biochem.* **247**, 305-309.
Capillary Electrophoresis Assay for Ubiquitin Carboxy-Terminal Hydrolases with Chemically Synthesized Ubiquitin-Valine as Substrate.
16. Dawson, P.E., Fitzgerald, M.C., Muir, T.W. and *Kent, S.B.H., 1997, *J. Am. Chem. Soc.* **119**, 7917-7927
Methods for the chemical Synthesis and Readout of Self-Encoded Arrays of Protein Analogues.
17. Stewart, P.L., Chiu, C.Y., Huang, S., Muir, T.W., Zhao, Y., Chait, B., Mathias, P., & *Nemerow, G.R., 1997, *EMBO J.*, **16**, 1189-1198
Cryo-EM visualization of an exposed RGD epitope on adenovirus that escapes antibody neutralization.
18. Camarero, J.A. and *Muir, T.W. 1997, *J. Chem. Soc. Chem. Comm.* 1369-1370
Chemoselective Backbone Cyclization of Unprotected Peptides.
19. Camarero, J.A., Pavel, J. and *Muir, T.W. 1998, *Angew. Chem. Int. Ed.*, **37**, 347-349.
Chemical Synthesis of a Functional Circular Protein Domain: Evidence for Folding Assisted Cyclization
20. Camarero, J.A. Cotton, G.J., Adeva, A. and *Muir, T.W. 1998, *J. Peptide. Res.*, **51**, 303-316
Chemical Ligation of Unprotected Peptides Directly from a Solid Support
21. *Muir, T.W., Sondhi, D. and *Cole, P.A. 1998, *Proc. Natl. Acad. Sci. USA* **95**, 6705-6710.
Expressed Protein Ligation: A General Method For Protein Engineering
For commentary see: 1998, *Science*, **281**, 367-368
22. Camarero, J.A., Ayers, B. and *Muir, T.W. 1998, *Biochemistry*, **37**, 7487-7495
Studying Receptor-Ligand Interactions Using Encoded Amino Acid Scanning
23. Severinov, K. and *Muir, T.W., 1998, *J. Biol. Chem.* **273**, 16205-16209.

Expressed Protein Ligation: A novel method for studying protein-protein interactions in transcription.

24. Holford, M. and *Muir, T.W., 1998, *Structure*, **6**, 951-956.
Adding 'Splice' to Protein Engineering
25. Potash, M.J., Bentsman, G., Muir, T.W., Krachmarov, C., Sova, P., *Volsky, D.J., 1998, *Proc. Natl. Acad. Sci USA*, **95**, 13865-13868
New peptide inhibitors of HIV-1 protease and viral infection of peripheral blood lymphocytes based on HIV-1 Vif.
26. Layfield, R., Franklin, K., Landon, M., Walker, G., Wang, P., Ramage, R., Brown, A., Love, S., Urquhart, K., Muir, T., Baker, R., and *Mayer, R. J., 1999, *Anal. Biochem.* **274**, 40-49.
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