

CURRICULUM VITAE

Christopher N. Boddy

Department of Chemistry and Biomolecular Sciences

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DEGREES:

Ph.D. Chemistry, The Scripps Research Institute, U.S.A., 2001

B.Sc. Honours Chemistry, University of Alberta, Canada, 1995

EMPLOYMENT HISTORY:

2016-present	Professor, Department of Chemistry and Biomolecular Sciences, University of Ottawa
2014	Visiting Professor, Department of Chemistry and Biochemistry, University of California San Diego
2013	Visiting Professor, Department of Chemistry, Universidad Nacional, Costa Rica
2008-2016	Associate professor, Department of Chemistry, University of Ottawa
2004-2008	Assistant professor, Department of Chemistry, Syracuse University
2001-2004	Postdoctoral fellow, Department of Chemistry, Stanford University
2001-2001	Postdoctoral fellow, Department of Cell Biology, The Scripps Research Institute
1995-2001	Graduate student, Department of Chemistry, The Scripps Research Institute

HONOURS:

University of Ottawa Science Student Association Professor of the Year 2014-2015

Early Researcher Award, Ministry of Research and Innovation, 2010-2015

Pfizer Fellow, Natural Product Gordon Research Conference 2002

National Research Service Award, National Cancer Institute 2001-2004

National Science and Engineering Research Council of Canada Postgraduate

Fellowship (declined, tenure available in Canada only) 1995

Canada Scholarship 1991-1995

Alberta Heritage Medical Research Summer Studentship 1993-1994

INVITED CONFERENCES:

CSC 99th Canadian Chemistry Conference, 2016
Natural Products Gordon Research Conference, July 2015
National Meeting of the American Chemical Society, Denver CO, March 2015
CSC 97th Canadian Chemistry Conference, 2014
CSC 96rd Canadian Chemistry Conference, 2013
CSC 95rd Canadian Chemistry Conference, 2012
CSC 93rd Canadian Chemistry Conference, 2010
North Eastern Regional Meeting of the American Chemical Society, 2010
CSC 92nd Canadian Chemistry Conference, 2009
NSF Workshop in Synthetic and Natural Products Chemistry, 2008
Transatlantic Frontiers in Chemistry, 2006
NIH Mentoring Workshop in Chemical Biology, 2005

INVITED LECTURES:

University of British Columbia, 2015
Carleton University, 2015
University of Manitoba, 2015
University of Toronto, 2014
University of Notre Dame, 2014
University of California San Diego, 2014
University of Oregon, 2013
University of Alberta 2013
State University of New York Environmental Science and Forestry, 2013
University of Regina, 2013
University of Saskatchewan, 2013
Universidad Nacional, Costa Rica, 2013
Centre for Catalysis Research and Innovation, Annual Board Meeting, 2011
McMaster University, 2010
Rochester Institute of Technology, 2010
Ottawa Regional Microbiology symposium, 2010
Eli Lilly Summer Seminar Series, 2008
Alfred University, 2008
Colorado State University, 2008
Notre Dame University, 2008
University of Ottawa, 2007
Brown University, 2007
Oxford University Department of Chemistry, 2007
Oxford Glycobiology Institute, 2007
National Research Council of Canada, 2007
Amherst College, 2007
State University of New York, Oswego, 2007
Worcester State College, 2006
Stonehill College, 2006
Seton Hall University, 2006

Upstate Medical School, Division of Infectious Disease, 2005
Youngstown State University, 2005
SUNY Environmental Science and Forestry, 2005
Hamilton College, 2005
University of Cincinnati, 2004
Ithaca College, 2005
Syracuse University, 2004
University of Toledo, 2004
McGill University, 2004
University of British Columbia, 2004
Washington University St. Louis, 2004
Cornell University, 2004
Vanderbilt University, 2004
The Ohio State University, 2004
Duke University, 2003
University of Hawaii, Manoa, 2003
University at Buffalo, 2003

EXECUTIVE POSITIONS

Director Biochemistry Program, University of Ottawa 2015-present
Co-Director Biochemistry Program, University of Ottawa 2014-2015

CONFERENCES:

Natural Product Gordon Research Conference, 2016
CSC 98th Canadian Chemistry Conference, 2015
Natural Products Gordon Research Conference, 2014
Natural Products Gordon Research Conference, 2013
Natural Products Gordon Research Conference, 2012
Bioorganic Chemistry Gordon Research Conference, 2011
CSC 94th Canadian Chemistry Conference, 2011
Natural Products Gordon Research Conference, 2010
Zing Conference on Natural Products, 2009
Natural Products Gordon Research Conference, 2009
Natural Products Gordon Research Conference, 2008
Natural Products Gordon Research Conference, 2007
North Eastern Regional Meeting of the American Chemical Society, 2006
Natural Products Gordon Research Conference, 2006
Natural Products Gordon Research Conference, 2005
Natural Products Gordon Research Conference, 2002

SERVICE

Natural Products Gordon Research Conference Co-chair 2017 & Chair 2018

NIH study section BCMB-W (02), April 2016
Faculty Executive, BCH program, 2015-present
Biochemistry Curriculum Committee, 2014-present
CRC T2 Chemical Biology Faculty Search Committee, 2015-present
Chemical biology/Biochemistry Faculty Search Committees, 2014-2015
CRC T2 Chemical Biology Faculty Search Committee, 2014
CRC T2 Molecular Pharmacology Faculty Search Committee, 2014
BPS/BIM Faculty Search Committee, 2014
College of reviewers for NSERC IRDF, 2013-2014
BPS/BIM Faculty Search Committee, 2013
FQRNT Medicinal Chemistry study section 2013
Chemistry Space Committee 2012-2013
Working group on e-Learning, 2012-2013
Internal reviewer for uOttawa Neuroscience graduate program 2012-2013
Centre for Catalysis Research and Innovation EOC, Chair 2011-present
Chemistry Departmental Personnel and Teaching Committee 2010 - 2013
Ontario Graduate Scholarship Chemistry Selection Committee Chair 2011
Ontario Graduate Scholarship Chemistry Selection Committee, 2010
Chemistry Department Graduate Recruiting Committee, 2009-2011
Faculty council, 2008-2010
Exploratory committee for Chemical Biology Development and Senior Hire,
2005-2007
Department of Biology, Faculty Search Committee, 2005-2006
Chemistry Department Instrument committee 2004-2007
Biology Department Cell Signaling Search committee, 2004-2005
14 Second year qualifying exam committees
20 M.Sc Thesis defence committees
16 Ph.D. Thesis defence committees

SCIENTIFIC REVIEWER

NSERC, FQRNT, NSF, NIH
Nova Scotia Health Research Foundation
Michael Smith Foundation for Health Research
National University of Singapore
Cottrell Foundation
30+ journals at the Chemistry-Biochemistry-Microbiology interface

GRADUATE SUPERVISIONS:

Completed: 5 M.S., 9 Ph.D.
In progress: 3 M.Sc., 5 Ph.D.
Completed

- Krishna Kant Sharma (M.S.), *The thioesterase domain from the pimarinic and erythromycin biosynthetic pathways can catalyze hydrolysis of simple thioester substrates*, Sept. 2004 - June 2006 (Syracuse University)
- Stephen Houghton (Ph.D.), *Improving access to biologically and pharmaceutically relevant molecules by understanding mechanisms of biosynthesis and improving chemical synthesis*, Sept 2004 – Dec 2008 (Syracuse University)
- Meng Wang (Ph.D.), *Characterization of polyketide synthase thioesterase domains*, Sept 2005 – Dec 2009 (Syracuse University)
- Benjamin Lundgren (Ph.D.), *Production of sialic acid and sialic acid analogs by fermentation of metabolically and genetically engineered Escherichia coli*, Sept. 2004 – March 2010 (Syracuse University)
- David Dixson (Ph.D., co-supervised with R. P. Doyle, Syracuse University), *Cyclic peptides as carriers for radionuclide delivery for imaging and anticancer therapy*, Sept 2006 – April 2011 (Syracuse University)
- David Cole Stevens (Ph.D.), *Heterologous expression of secondary metabolite biosynthetic pathways in Escherichia coli*, Sept 2009 – July 2011 (University of Ottawa)
- Monica Wirz (M.Sc. University of Ottawa), *Synthesis of zerealenone analogs to characterize specificity of fungal thioesterase domains*. Sept 2008 – Nov, 2011 (University of Ottawa)
- Ata Pinto (Ph.D.), *Total synthesis of polyketide natural products*, Sept 2006 – Dec. 2011 (Syracuse University)
- Burkhart Wilke (Ph.D.), *Chemoenzymatic synthesis of marine polyketide anticancer agents*, Sept 2005 – 2012 (Syracuse University)
- Taylor Hari (M.Sc. University of Ottawa), *Total synthesis and chemoenzymatic synthesis of the marine anticancer polyketide neopeltolide A*. Sept 09 – May 2012
- Kyle Conway (M.Sc. University of Ottawa), *Identification of new σ^{54} promoters in Escherichia coli via multi-genome wide bioinformatics analysis*. Sept 2010 – 2012
- Panos Argyropoulos (M.Sc. University of Ottawa), *Characterization of the substrate specificity of polyketide synthase thioesterase domains*. Sept 2011 – April 2014
- Daniel Pau (M.Sc. University of Ottawa), *Stapled peptides, a new class of antibacterial agents for treating Gram-negative bacteria*. Sept 2013- present
- Luis-Roberto Villegas (Ph.D. University of Ottawa), *Characterization of bacterial amino sugar metabolism*. May 2010 – Dec 2015
- Mark Dornan (Ph.D. University of Ottawa), *Structure activity relationship and mechanisms of action for a novel class of viral sensitizer agents*. Sept 2010 – Dec 2015
- Mark Horsman (Ph.D. University of Ottawa), *Metabolic engineering of Escherichia coli to produce biodiesel via an alkyl ester forming thioesterase*. Sept 2010 – 2016

Taylor Hari (Ph.D. University of Ottawa), *Total synthesis and chemoenzymatic synthesis of the marine anticancer polyketide neopeltolide A*. Sept 2012 – 2016

In progress.

Patrick Hill (Ph.D. University of Ottawa), *Characterizing the community structure of antibiotic producing bacteria in diverse environments*. Sept 2011 – present

Graham Heberlig (Ph.D. University of Ottawa), *Harnessing polyketide biosynthetic pathways to produce complex molecules*. Sept 2013 – present

Jessica Gosse (Ph.D. University of Ottawa), *Bioprospecting the metagenome for new polyketide natural products*. Jan 2014 – present

Mohamed Hasan (M.Sc. University of Ottawa), *Production of high value monosaccharides from metabolically and genetically engineered Escherichia coli*. Sept 2014 – present

Puneet Labana (M.Sc. University of Ottawa), *Mechanism of armenaspirole antibiotic activity*. Sep 2015 – present.

Jesse Brown (M.Sc. University of Ottawa) Sept 2016-present.

GRADUATE COURSES:

2016	Biosynthesis of Medicinal Natural Products, CHM8304C
2016	Advanced Molecular Biology Approaches for Chemists and Biochemists, CHM8304J
2014	Polyketide and Nonribosomal Peptide Biosynthesis, CHM8304G
2013	Physical Organic Chemistry CHM8327
2012	Physical Organic Chemistry CHM8327
2011	Biocatalysis, CHM8304
2011	Polyketide and Nonribosomal peptide biosynthesis, CHM8304H
2010	Physical Organic Chemistry, CHM8304D
2007	Synthetic Methodology, CHE 676
2006- 2008	Organic Spectroscopy, CHE 575
2005- 2008	Chemical Biology, CHE 600

UNDERGRADUATE COURSES:

2016-2015	Introduction to Biochemistry, BCH2333
2016-2008	Biosynthesis and Medicinal Natural Products , BPS4121
2016-2015	Seminar BCH4932
2008-2012	Seminar, BPS4900
2009-2012	Organic Chemistry II, CHM2120
2008	Organic Spectroscopy, CHE575

EXTERNAL RESEARCH FUNDING

Year	Source	Type*	Amount per year	Purpose**
2014-2020	NSERC DG (PI Boddy)	C	\$98,500	Operating
2014-2017	NSERC DAS (PI Boddy)	C	\$40,000	Operating
2014	NSERC RTI (PI Treadeau, V; coPIs Boddy, Akimenko, Arnason, Berezovski Chan, Ekker,	C	\$92,169	Infrastructure
2013	OTTN POP (PI Boddy, CoPI Diallo)	C	\$10,000	Operating
2013	CFI-LEF (PI Baker, CoPIs, Boddy and 6 others)	C	\$11,465,704	Infrastructure
2012-2015	CHRP (PI: Boddy, C. CoPIs: Diallo, J.S.; Smith, J.)	C	\$263,053	Operating
2010-2015	MRI Early Researcher Award (PI: Boddy, C.N)	C	\$28,000	Operating
2012	NSERC Engage (PI: Boddy)	C	\$25,000	Operating
2012	NSERC RTI (PI: Beauchemin, A. CoPIs: Boddy, C.; Ben, R.; Ogilvie, W.)	C	\$24,831	Infrastructure
2011-2012	NSERC RTI (PI: Bryce, D. CoPIs: Boddy, C.; Beauchemin, A.; Baker, T.; Alper, H.; others)	C	\$150,000	Infrastructure
2011-2012	NSERC RTI (PI: Trudeau, V. CoPIs: Boddy; Moon; Poulain; Walsh; Akimenko)	C	\$128,468	Infrastructure
2010-2011	NSERC Engage (PI: Boddy, C.N.)	C	\$21,500	Operating
2010-	CFI-IOF (PI: Ekker, M. CoPIs: Boddy, C.N.	C	\$35,000	Operating

2013	Harden, J.)			
2010-2011	NSERC RTI (PI: Harden, J. CoPIs: Boddy, C. N.; Berezovski, M.V.)	C	\$89,088	Infrastructure
2010-2011	NSERC RTI (PI: Boddy, C.N. CoPIs: Harden, J.; Ben, R. Goto, N.; Couture, F.J.; Lam, C.)	C	\$128,489	Infrastructure
2009-2015	CREATE (PI: Ogilvie, B. CoPIs: Boddy C. N.; Alper, H.; Barriault, L.; Beauchemin, A.; Ben, R.; Durst, T.; Pezacki, J.;)	C	\$277,262	Training
2009-2014	NSERC Discovery grant (PI: Boddy, C. N.)	C	\$40,000	Research
2009-2010	OTTN Network phase I grant (PI: Boddy, C.N.)	C	\$10,000	Research
2009-2010	ORF – Research Infrastructure (PI: Boddy, C.N.)	C	\$130,347	Infrastructure
2008-2009	CFI Leader’s Opportunity Fund (PI: Boddy, C.N.)	C	\$130,380	Infrastructure
2007-2008	The Clinton Foundation HIV/AIDS Initiative (PI: Boddy, C.N.)	F	\$49,150 (USD)	Research
2004	Shimadzu Scientific Inc. (PI: Boddy, C.N.)	O	\$57,000 (USD)	Research equipment

INTERNAL RESEARCH FUNDING:

Syracuse University, \$445,000 unrestricted start-up funds, 2004 – 2008
University of Ottawa, \$168,000 unrestricted start-up funds, 2008 – present
University of Ottawa, CORE 2010, \$25,000, operating funds for core Molecular Biology Genomics Laboratory, 2010-2013

PUBLICATIONS:

- Books authored0
- Books edited0
- Chapters in books.....0
- Papers in refereed journal.....55
- Papers in refereed conference proceedings.....0
- Major invited contribution s and/or technical reports.....6
- Abstracts and/or papers read.....38
- Patents.....5
- Others (workshops presented etc.).....2

Papers under review in refereed Journals:

1. **Resorcylic acid lactone thioesterases: versatile biocatalysts for macrocycle formation.** Graham W. Heberlig, Ryan Simard, Monica Wirz, Wei Zhang, Meng Wang, Leah Susser, Mark E. Horsman, Christopher N. Boddy *submitted*.

Papers in refereed Journals:

57. **Inducible T7 RNA polymerase-mediated multigene expression system, pMGX.** M. I Hassan, F. R. McSorley, K. Hotta, C. N. Boddy, *J. Vis. Exp. In press*, 2016.
56. **Total Biosynthesis of Legionaminic Acid, a Bacterial Sialic Acid Analog, in *Escherichia coli*.** Mohamed I. Hassan, Benjamin R. Lundgren, Michael Chaumon, Dennis M. Whitfield, Brady Clark, Ian C. Schoenhofen, Christopher N. Boddy *Angew. Chem. Int. Ed. Epub ahead of print*, 2016.
55. **First-in-class small molecule potentiators of cancer virotherapy.** Dornan, Mark H.; Krishnan, Ramya; Macklin, Andrew M.; Selman, Mohammed; El Sayes, Nader; Davis, Colin; Chen, Andrew; Keillor, Kerkeslin; Le, Penny; Moi, Christina; Ou, Paula; Pardin, Christophe; Le Boeuf, Fabrice; Bell, John C.; Smith, Jeffrey C.; Diallo, Jean-Simon; Boddy, Christopher N. *Scientific Reports*. 6, 26786, 2016.
54. **Sialic acid production in *Escherichia coli* lacking of N-acetylglucosamine catabolism.** Horsman, Mark E.; Lundgren, Benjamin R.; Boddy, Christopher N. *Chem. Eng. Commun.* 203, 1326-1335, 2016.
53. **Diastereoselective Transannular Oxa-Conjugate Addition Generates the 2,6-cis Disubstituted Tetrahydropyran of Neopeltolide.** Hari, Taylor P. A.; Wilke, Burkardt I.; Davey, James A.; Boddy, Christopher N. *J. Org. Chem.* 81, 415-423, 2016.
52. **Towards a characterization of the structural determinants of specificity for the macrocyclizing thioesterase from deoxyerythronolide B biosynthesis.** Argyropoulos, Panos; Bergeret, Fabien; Pardin, Christophe; Reimer, Janice M.; Pinto, Atahualpa; Boddy, Christopher N.; Schmeing, T. Martin *Biochimica Biophysica acta general subjects* 1860, 486-497, 2016.
51. **The use of ClusterMine360 for the analysis of polyketide and non-ribosomal peptide biosynthetic pathways.** Tremblay, Nicolas; Hill, Patrick; Conway, Kyle R.; Boddy, Christopher N. *Method Mol. Biol.* 1401, 233-52, 2016.
50. **Draft Genome Sequence of *Streptomyces sp.* Strain PBH53, isolated from urban environment.** Gosse, Jessica T.; Hill, Patrick; Dowd, Scot E.; Boddy, Christopher N. *Genome Announc.* 3, e00859-15, 2015.

49. **Plasmon-Mediated ssDNA Dynamic Release from Gold Nano-particles Examined with Advanced Fluorescence Microscopy.** Simoncelli, Sabrina; de Alwis Weerasekera, Hasitha; Fasciani, Chiara; Boddy, Christopher N.; Aramendía, Pedro; Alarcon, Emilio; Scaiano, Juan, J. Phys. Chem. Lett. 6, 1499-1503, 2015.
48. **Polyketide Synthase and Non-ribosomal Peptide Synthetase Thioesterases: A logic gate or a victim of Fate?** Horsman, Mark; Hari, Taylor P. A.; Boddy, Christopher N. Nat. Prod. Rep. early view 2015.
47. **Modulation of Antifreeze Activity and the Effect upon Post-Thaw HepG2 Cell Viability after Cryopreservation.** Capicciotti, Chantelle; Poisson, Jessica S; Boddy, Christopher N. Ben, Robert; Cryobiology 70, 79-89, 2015.
46. **Resorcylic acid lactone biosynthesis relies on a stereo-tolerant macrocyclizing thioesterase.** Heberlig, Graham; Wirz, Monica; Wang, Meng; Boddy, Christopher N. Org. Lett. 16, 5858-5861, 2014.
45. **An evolutionary model encompassing substrate specificity and reactivity of type I polyketide synthase thioesterases.** Hari, Taylor P. A.; Labana, Puneet; Boileau, Meaghan; Boddy, Christopher N. ChemBioChem 15, 2656-61, 2014.
44. **Salvadenosine, a 5'-Deoxy-5'-(methylthio) Nucleoside from the Bahamian Tunicate *Didemnum* sp.** Jamison, Mathew T.; Boddy, Christopher N.; Molinski Thadeus F. J. Org. Chem. 79, 9992-9997, 2014.
43. **Genetic analysis of the assimilation of C5-dicarboxylic acids in *Pseudomonas aeruginosa* PAO1.** Benjamin Lundgren, Luis Villegas-Peñaranda, Joshua Harris, Alexandar Mottern, Diana Dunn, Christopher Boddy, and Christopher Nomura. J. Bacteriol. 196, 2543-2551, 2014.
42. **Hexanes/acetonitrile: a binary solvent system for the efficient monosilylation of symmetric primary and secondary diols.** Burkhardt I. Wilke, Mark H. Dornan, Jon Yeung, Christopher N. Boddy, Atahualpa Pinto. Tetrahedron Lett. 55, 2600-2602, 2014.
41. **Bioinformatics tools for genome mining of polyketide and non-ribosomal peptides.** Boddy, Christopher N. J. Ind. Microbiol. Biotechnol., 41:443-450, 2014.
40. **Habitat specific type I PKS synthases in soils and street sediments.** Hill, Patrick; Piel, Jörn; Aris-Brosoul, Stéphane; Křišťůfek, Václav; Boddy, Christopher N. Dijkhuizen Lubbert. J. Ind. Microbiol. Biotechnol. 41:75-85, 2014
39. **Elucidation of Gephyronic Acid Biosynthetic Pathway Revealed Unexpected SAM Dependent Methylations.** Young, Jeanette; Stevens, David; Carmichael,

- Rory; Tan, John; Rachid, Shwan; Boddy, Christopher N.; Müller, Rolf; Taylor, Richard E. J. Nat. Prod. 76:2269-2276, 2013.
38. **The role of transcription in heterologous expression of polyketides in bacterial hosts.** Stevens, David C.; Hari, Taylor P.; Boddy Christopher N. Nat. Prod. Rep. 30:1391-1411, 2013.
- 37 **Biosynthesis of Ebelactone A: Isotopic tracer, advanced precursor and genetic studies reveal a thioesterase-independent cyclisation to give a polyketide β -lactone.** Harrison, Paul; Wyatt, Morgan; Ahilan, Yasodha; Argyropoulos, Panos; Boddy, Christopher N. Magarvey, Nathan J. J. Antibiot. 66:421-430, 2013.
- 36 **Alternative sigma factor over-expression enables heterologous expression of a type II polyketide biosynthetic pathway in *Escherichia coli*.** Stevens, David C.; Conway, Kyle; Pearce, Nelson; Garza, Anthony; Boddy, Christopher N. PLoS ONE 8:e64858, 2013.
- 35 **The Putative Transcriptional Regulator PA2449 is Essential for Glycine Metabolism and Pyocyanin Biosynthesis in *Pseudomonas aeruginosa* PAO1.** Lundgren, Benjamin R.; Thornton, William; Dornan, Mark H.; Villegas-Peñaranda, Luis Roberto; Boddy, Christopher N.; Nomura Christopher T. J. Bacteriol. 195:2087-2100, 2013.
- 34 **ClusterMine360: a database of Microbial PKS/NRPS Biosynthesis.** Conway, Kyle; Boddy, Christopher N. Nucleic Acid Res. D402-407, 2013.
- 33 **Non-canonical regioisomerizations and a 'Diels-Alderase' are likely essential in the biosynthesis of Spiculoic acid.** Pinto, Atalualpa; Boddy, Christopher N. Bioorg Med Chem Lett. 22:5253-5256, 2012.
32. **Bacterial polyketide thioesterase macrocyclization activity is highly stereoselective.** Pinto, Atalualpa; Wang, Meng; Horsman, Mark; Boddy, Chirstopher N. Org. Lett. 14:2278-2281, 2012.
- 31 **Coenzyme Q₁₀ Production in the Filamentous Basidiomycete *Sporidiobolus johnsonii*.** Dixon, D.; Boddy, Christopher N.; Doyle, Robert P. Chem. BioDiv. 8:1033-1051, 2011.
30. **Land use intensity controls Actinobacterial community structure.** Hill, Patrick; Křišťůfek, Václav; Dijkhuizen, Lubbert; Boddy, Christopher; Kroetsch, David; van Elsas, Jan Dirk Microb. Ecol. 61:286-302, 2011
29. **Process Improvements for the Manufacture of Tenofovir Disoproxyl Fumarate (TDF) at Commercial Scale.** Ripin, David H. Brown; Teager, David; Fortunak, Joseph; Basha, K.; Bivins, Nylea; Boddy, Christopher N.; Byrn,

- Stephen; Catlin, Kelly; Houghton, Stephen R.; Jagadeesh, S. Tirumala; Kumar, K. Anesh; Melton, Jack; Muneer, K.; Rao, L. Nagaprasada; Rao, R. Venkateswara; Reddy, N. Gopal; Reddy, R. Mallikarjuna; Shekar, K. Chandra; Silverton, Tricia; Smith, Daniel T.; Stringham, Rodger; Talley, Frajovon; Williams, Adrian. Org. Process Res. Dev. 14:1194-1201, 2010.
28. **Rapid, mild method for phosphonate diester hydrolysis: Development of a one-pot synthesis of tenofovir disoproxil fumarate from tenofovir diethyl ester.** Houghton, Stephen R.; Melton, Jack; Fortunak, Joseph; Ripin, David H. Brown; Boddy, Christopher N. Tetrahedron 66:8137-8144, 2010.
27. **Heterologous expression of the oxytetracycline biosynthetic pathway in *Myxococcus xanthus*.** Stevens, David C.; Henry, Michael R.; Murphy, Kimberly; Boddy, Christopher N. Applied Environ. Microbiol. 76:2811-2813, 2010.
26. **A thioesterase from an iterative fungal polyketide synthase shows macrocyclization and cross-coupling activity, and may play a role in controlling iterative cycling through product off loading.** Wang, Meng; Zhou, Hui; Wirz, Monica; Tang, Yi; Boddy, Christopher N. Biochemistry 48:6288-6290, 2009.
25. **Polyketide synthase thioesterases catalyze rapid hydrolysis of peptidyl thioesters.** Wang, Meng; Opare, Peter; Boddy, Christopher N. Bioorg. Med. Chem. Lett. 19:1413-1415, 2009.
24. **Biomimetic transannular oxa-conjugate addition approach to the 2,6-disubstituted dihydropyran of laulimalide yields an unprecedented transannular oxetane.** Houghton, Stephen R.; Furst, Laura; Boddy, Christopher N. J. Org. Chem. 74:1454-1463, 2009.
23. **Examining the role of hydrogen bonding interactions in the substrate specificity for the loading step of polyketide synthase thioesterase domains.** Wang, Meng; Boddy, Christopher N. Biochemistry 45:11793-11803, 2008.
22. **Orthogonal ligation: a three piece assembly of a PNA-peptide-PNA conjugate.** Burlina, Fabienne; Dixson, David D.; Doyle, Robert P.; Chassaing, Gérard; Boddy, Christopher N.; Dawson, Philip; Offer, John Chem. Commun. 2785-2787, 2008.
21. **A New Mechanism for Benzopyrone Formation in Aromatic Polyketide Biosynthesis** Zhang, Wenju; Wilke, Burkhardt I.; Zhan, Jixun; Watanabe, Kenji; Boddy,* Christopher N.; Tang,* Yi J. Am. Chem. Soc. 129:9304-9305, 2007. (* Corresponding authors)
20. **Sialic acid and *N*-acyl sialic acid analog production by fermentation of metabolically and genetically engineered *Escherichia coli*** Lundgren, Benjamin

- L.; Boddy, Christopher N. Org. Biomol. Chem. 5:1903-1909., 2007. (Evaluated by Faculty of 1000.)
19. **The thioesterase domain from the pimaricin and erythromycin biosynthetic pathways can catalyze hydrolysis of simple thioester substrates.** Sharma, Krishna K.; Boddy, Christopher N. Bioorg. Med. Chem. Lett. 17:3034-3037, 2007.
 18. **Total biosynthesis of antitumor nonribosomal peptides in *Escherichia coli*.** Watanabe, Kenji; Hotta, Kinya; Praseuth, Alex P.; Kotetsu, Kento; Migita, Akira; Boddy, Christopher N.; Wang, Clay C. C.; Oguri, Hiroki; Oikawa, Hideaki Nature Chemical Biology 2:423-428, 2006
 17. **Precursor-Directed Biosynthesis of Epothilone in *Escherichia coli*.** Boddy, Christopher N.; Hotta, Kinya; Tse, Martha Lovato; Watts, R. Edward; Khosla, Chaitan. J. Am. Chem. Soc. 126:7436-7437, 2004.
 16. **Understanding Substrate Specificity of Polyketide Synthase Modules by Generating Hybrid Multimodular Synthases.** Watanabe, Kenji; Wang, Clay C. C.; Boddy, Christopher N.; Cane, David E.; Khosla, Chaitan J. Biol. Chem. 278:42020-42026, 2003.
 15. **Epothilone C Macrocyclization and Hydrolysis Are Catalyzed by the Isolated Thioesterase Domain of Epothilone Polyketide Synthase.** Boddy, Christopher N.; Schneider, Tanya; Hotta, Kinya; Walsh, Christopher T.; Khosla, Chaitan J. Am. Chem. Soc. 125:3428–3429, 2003.
 14. **Atropselective Macrocyclization of Diaryl Ether Systems: Application to the Synthesis of Vancomycin.** Nicolaou, K. C.; Boddy, Christopher N. C. J. Am. Chem. Soc. 124:10451–10455, 2002.
 13. **Extending Synthetic Access to Proteins with a removable acyl transfer auxiliary.** Offer, John; Boddy, Christopher N. C.; Dawson, Philip E. J. Am. Chem. Soc. 124:4642–4646, 2002.
 12. **Does CIP nomenclature adequately handle molecules with multiple stereoelements? A case study of vancomycin and cognates.** Nicolaou, K. C.; Boddy, Christopher N. C.; Siegel, Jay S. Angew. Chem. Int. Ed. 40:701–704, 2001.
 11. **Total Synthesis of Vancomycin: Part 2. Retrosynthetic Analysis, Synthesis of Amino Acid Building Blocks and Strategy Evaluations.** Nicolaou, K. C.; Boddy, Christopher N. C.; Li, Hui; Koumbis, A. E.; Hughes, Robert; Natarajan, Swaminathan; Jain, Nareshkumar F.; Ramanjulu, Joshi M.; Bräse, Stefan; Solomon, Michael E. Chem. Eur. J. 5:2602–2621, 1999.

10. **Total Synthesis of Vancomycin: Part 1. Design and Development of Methodology.** Nicolaou, K. C.; Li, Hui; Boddy, Christopher N. C.; Ramanjulu, Joshi M.; Yue, Tai-Yuen; Natarajan, Swaminathan; Chu, Xin-Jie; Bräse, Stefan; Rübsam, Frank Chem. Eur. J. 5:2584–2601, 1999.
9. **Chemistry, Biology, and Medicine of the Glycopeptide Antibiotics.** Nicolaou, K. C.; Boddy, Christopher N. C.; Bräse, Stefan; Winssinger, Nicolas Angew. Chem. Int. Ed. 38:2097–2152, 1999.
8. **Total Synthesis of Vancomycin Aglycon - Part 1: Synthesis of Amino Acids 4-7 and Construction of the AB-COD Ring Skeleton.** Nicolaou, K. C.; Natarajan, Swaminathan; Li, Hui; Jain, Nareshkumar F.; Hughes, Robert; Solomon, Michael E.; Ramanjulu, Joshi M.; Boddy, Christopher N. C.; Takayanagi, Masaru Angew. Chem. Int. Ed. 37:2708–2714, 1998.
7. **Probing the Ring Size of Epothilones: Total Synthesis of [14]-, [15]-, [17]-, [18]-Epothilones A.** Nicolaou, K. C.; Sarabia, Francisco; Ninkovic, Sacha; Finlay, M. Ray V.; Boddy, Christopher N. C. Angew. Chem. Int. Ed. 37:81–84, 1998.
6. **A Suzuki Coupling-macrolactamization Approach to the AB-COD Bi-cyclic System of Vancomycin.** Nicolaou, K. C.; Ramanjulu, Joshi M.; Natarajan, Swaminathan; Bräse, Stefan; Li, Hui; Boddy, Christopher N. C.; Rübsam, Frank Chem. Commun. 1899–1900, 1997.
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35. **Metabolic and Genetic Engineering of *Escherichia coli* for the Production of Complex Carbohydrates.** Hassan, M.; Lundgren, B. R.; Clark, B.; Whitfield, D.; Schoenhofen, I. C.; Boddy, Christopher N. 98th Canadian Society for Chemistry National Meeting, Ottawa, ON, Canada, 2015.
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