

Christopher N. Boddy

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Affiliations

Department of Biology
Centre for Catalysis Research and Innovation
Centre for Chemical and Synthetic Biology

Education

The Scripps Research Institute
Ph.D. in organic synthesis (with K. C. Nicolaou), 2001

University of Alberta
B.Sc. Honours Chemistry, 1995

Professional Experience

Full Professor, Department of Chemistry and Biomolecular Sciences, University of Ottawa (2016-present)

Visiting Professor, Department of Chemistry and Biochemistry, University of California San Diego (2014)

Visiting Professor, Department of Chemistry, Universidad Nacional de Costa Rica (2013)

Associate Professor, Department of Chemistry, University of Ottawa (2008 - 2016)

Assistant Professor, Department of Chemistry, Syracuse University (2004 - 2008)

NIH Postdoctoral Fellow, Department of Chemistry and Biochemistry, Stanford University, (2001-2004): Research with Prof. Chaitan Khosla studying the enzymes involved in secondary metabolite biosynthesis

Postdoctoral Fellow, Department of Cell Biology, The Scripps Research Institute (2001): Research with Prof. Phil Dawson studying developing new chemistry to couple unprotected denatured peptides and proteins.

Graduate Research Associate, Department of Chemistry, The Scripps Research Institute (1995-2001): Research with Prof. K. C. Nicolaou studying the total synthesis of the antibiotic vancomycin and the anticancer agent epothilone.

Awards

Chair's Service Excellence Award, University of Ottawa, Department of Chemistry and Biomolecular Sciences, 2021

IntelliSyn Pharma Research Excellence Award, 2018

Professor of the Year, Science Student Association, 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

Natural Sciences and Engineering Research Council of Canada Postgraduate Fellowship (declined) 1995

Canada Scholarship 1991-1995

Alberta Heritage Medical Research Summer Studentship 1993-1994

Funding

NSERC RTI (2020) Peptide synthesizer essential for natural products and chemical biology research. \$86,802.00

BioCanRX (2020-2023) Development of Supporting Analytical Assays and Regulatory Compliance Package for Viral Sensitizer Technology Commercialization. \$57,000.00
NSERC Discovery Grant (2019-2024) Synthesis and Biosynthesis of Polyketide Natural Products. \$320,000.00
NSERC RTI (2018) MS detector to replace previous LCMS detector damaged in a catastrophic electrical fire. \$150,000.00
CRS-CIHR (2017-2019) Characterization of a new pharmaco-viral approach for the treatment of brain cancer. \$120,000.00
NSERC CRD (2017-2020) Viral sensitizer technology for increasing yield of vaccines produced in cell culture. \$405,000
NSERC Accelerator supplement (2014-2017) Synthesis and Biosynthesis of Polyketide Natural Products. \$120,000.00
NSERC Discovery Grant (2014-2019) Synthesis and Biosynthesis of Polyketide Natural Products. \$492,500.00
OTTN POP (2013) 2nd Generation Viral Sensitizer 1 with improved properties. \$10,000.00
CFI-LEF (2013) Sustainable Chemical Synthesis from Renewable Feedstocks, \$11,465,704
CHRP (2012-2015) Development of small molecule viral sensitizers to boost vaccine manufacturing, \$789,160.00
NSERC EG (2012) Development of a process for the manufacture of pseudaminic acid. \$25,000
NSERC EG (2010) Development of an assay for residual protease detection and quantification. \$21,500.00
NSERC RTI (2010) MALDI-TOF mass spectrometry for biomolecule characterization. \$128,489.00
NSERC Discovery Grant (2009-2014) Synthesis and Biosynthesis of Polyketide Natural Products. \$200,000.00
OTTN (2009) Demonstration of a novel Platform for natural products drug discovery. \$10,000.00
ORI-RI (2009) Laboratory for Natural Product Biotechnology. \$130,347.00
CFI-LOF (2008-2009) Laboratory for Natural Product Biotechnology. \$130,380.00
The Clinton Foundation HIV/AIDS Initiative (2007-2008) Improvements for the Tenofovir and Ritonavir manufacturing processes. \$49,150.00
Shimadzu Scientific Inc. (2004) Application of LCMS Technology to Study Synthesis and Biosynthesis of Complex Polyketides. \$57,000.00.

Service

Faculty Teaching and Personnel Committee, 2022-2024
Editorial Board, *Natural Product Reports*, 2020-2022
Editorial Board, *Applied and Environmental Microbiology*, 2019-2025
CIHR Peer Review Committee, COVID-19 Therapeutics 2020
Section Editor for Chemical Biology, *Molecules*, 2018-2020
Academic Editor, *PLoS One*, 2018-
Chair GRC Natural Products and Bioactive Compounds 2018
External evaluator, Western Biochemistry undergraduate program 2018
NIH study section SBCB, ad hoc member Feb 2018
Vice-chair GRC Natural Products and Bioactive Compounds 2017
External evaluator, SUNEY-ESF Biochemistry Undergraduate program, 2016
Session Chair, CSC 2016
NIH study section BCMB-W (02), April 2016
Director, Biochemistry Program, 2015-present
Faculty Executive, BCH program, 2015-2020
Biochemistry Curriculum Committee, 2014-present
CRC T2 Chemical Biology Faculty Search Committee, 2015-16
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 2011-2013
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

Lectures and Conferences (total of 84)

2022 105th Canadian Chemistry Conference Exhibition
2021 104th Canadian Chemistry Conference and Exhibition
II Bio.Natural-Bioactive Natural Products Research Meeting, Portugal
2020 Mona Symposium on Natural Products & Medicinal Chemistry, Jamaica
McGill University
TU Dresden
2019 Concordia University
Ottawa Carleton Chemical Institute
2018 Industrial Synthetic Biology Congress
French American Chemical Society meeting
CSC 101th Canadian Chemistry Conference
Manitoba Chemistry Symposium
PepTalk 2017
2017 Natural Product Gordon Research Conference
Synthetic Biology for Natural Products
2016 CSC 99th Canadian Chemistry Conference
Natural Product Gordon Research Conference
2015 Natural Products Gordon Research Conference
National Meeting of the American Chemical Society, Denver CO
University of British Columbia
Carleton University
University of Manitoba
2014 CSC 97th Canadian Chemistry Conference
Natural Products Gordon Research Conference
University of Toronto
University of Notre Dame
University of California San Diego
2013 University of Oregon
University of Saskatchewan
University of Regina
State University of New York, Environmental Science and Forestry
University of Alberta
University National, Costa Rica
Natural Products Gordon Research Conference
2012 CSC 96th Canadian Chemistry Conference
Natural Products Gordon Research Conference
CSC 95th Canadian Chemistry Conference
2011 Centre for Catalysis Research and Innovation, Annual Board Meeting
Bioorganic Chemistry Gordon Research Conference
CSC 94th Canadian Chemistry Conference
2010 McMaster University
Rochester Institute of Technology
CSC 93rd Canadian Chemistry Conference
North Eastern Regional Meeting of the American Chemical Society
Natural Products Gordon Research Conference
2009 CSC 92nd Canadian Chemistry Conference
Zing Conference on Natural Products
Natural Products Gordon Research Conference
2008 Eli Lilly Summer Seminar Series
Alfred University
NSF Workshop in Synthetic and Natural Products Chemistry
Colorado State University
Notre Dame University
Natural Products Gordon Research Conference
2007 University of Ottawa

- Brown University
Oxford University Department of Chemistry
Oxford Glycobiology Institute
National Research Council of Canada
Natural Products Gordon Research Conference
Amherst College
State University of New York, Oswego
- 2006
Transatlantic Frontiers in Chemistry
Natural Products Gordon Research Conference
Worcester State College
Stonchill College
- 2005
Seton Hall University
Upstate Medical School, Division of Infectious Disease
Natural Products Gordon Research Conference
NIH Mentoring Workshop in Chemical Biology
Youngstown State University
SUNY Environmental Science and Forestry
Hamilton College
- 2004
University of Cincinnati
Ithaca College
Syracuse University
University of Toledo
McGill University
University of British Columbia
Washington University St. Louis
Cornell University
Vanderbilt University
The Ohio State University
- 2003
Duke University
University of Hawaii, Manoa
University at Buffalo
- 2002
Natural Products Gordon research Conference

Publications

(4934 citations; h-index = 33; i10-index = 58; Google Scholar Oct 2022)

83. **Protonophore activity alone is insufficient for antibiotic activity of the armeniaspirol class of antibiotics.** Michael G. Darnowski, Taylor D. Lanosky, and Christopher N. Boddy *submitted*
82. **The ATP-dependent protease ClpYQ degrades cell division proteins DivIVA and Mbl in *Bacillus subtilis*.** Taylor D. Lanosky, Michael G. Darnowski, Jordan T. Brazeau-Henrie, Puneet Labana, and Christopher N. Boddy *submitted*
81. **A comparison of hard and soft direct methods for DNA extraction from soil.** Patrick Hill, Mathieu F. Dextraze, David Kroetsch, Christopher N. Boddy *submitted*.
80. **In vitro biochemical characterization of excised macrocyclizing thioesterase domains from non-ribosomal peptide synthetases.** Jordan T. Brazeau-Henrie, André R. Paquette, Christopher N. Boddy *submitted*.
79. **Synthesis of a constitutional isomer of armeniaspirol A, pseudoarmeniaspirol A, via Lewis acid-mediated rearrangement.** Michael G. Darnowski, Taylor Lanosky, Andre Paquette, Christopher N. Boddy *J. Org. Chem.* **2022**, accepted.
78. **Untargeted metabolomics screening reveals unique secondary metabolite production from *Alternaria* section *Alternaria*.** Thomas E Witte, Nicolas Villeneuve, Samuel W Shields, Amanda Sproule, Quinn Eggertson, Natalie E Kim, Christopher N Boddy, Jeremy R Dettman and David Patrick Overy *Front. Mol. Biosci.* **2022**, in press *doi: 10.3389/fmolb.2022.1038299*

77. **Total and Chemoenzymatic Synthesis of Seongsanamide E.** Jordan, T. Brazeau-Henrie, Andre R. Paquette, Allison Q. O'Rourke, Michael G. Darnowski, Christopher N. Boddy *Org Lett.* **2022**, *24*, 6369. doi: 10.1021/acs.orglett.2c02271.
76. **Biomining in Cave Bacteria-Popcorn and Soda Straw Crystal Formations, Morphologies, and Potential Metabolic Pathways.** Keagan Koning, Richenda McFarlane, Jessica T. Gosse, Sara Lawrence, Lynnea Carr, Derrick Horne, Nancy Van Wagoner, Christopher N. Boddy, Naowarat Cheeptham N. *Front Microbiol.* **2022** *13*, 933388. doi: 10.3389/fmicb.2022.933388.
75. **RpoN-based stapled peptides with improved DNA binding suppress *Pseudomonas aeruginosa* virulence** Andre Paquette, Sterling Payne, Geoffrey McKay, Jordan Brazeau-Henrie, Michael Darnowski, Anitha Kammili, Federico Bernal, Thien-Fah Mah, Samantha Gruenheid, Dao Nguyen, Christopher N. Boddy *RSC Med Chem* **2022**, *13*, 445-455.
74. **Armeniaspirol analogues with more potent Gram-positive antibiotic activity show enhanced inhibition of the ATP-dependent proteases ClpXP and ClpYQ.** Michael G. Darnowski, Taylor Lanosky, Puneet Labana, Jordan Brazeau-Henrie, Nicholas Calvert, Mark H. Dornan, Claudia Natola, Andre Paquette, Adam J. Shuhendler, Christopher N. Boddy *RSC Med Chem* **2022**, *13*, 436-444.
73. **Evolution of the Ergot Alkaloid Biosynthetic Gene Cluster Results in Divergent Mycotoxin Profiles in *Claviceps purpurea* Sclerotia.** Carmen Hicks, Thomas E. Witte, Amanda Sproule, Tiah Lee, Parivash Shoukouhi, Zlatko Popovic, Jim G. Menzies, Christopher N. Boddy, Miao Liu, David P. Overy *Toxins* **2021**, *13*, 861.
72. **A metabolomic study of vegetative incompatibility in *Cryphonectria parasitica*.** Thomas E. Witte, Samuel Shields, Graham W. Heberlig, Micheal G. Darnowski, Anatoly Belov, Amanda Sproule, Christopher N. Boddy, David P. Overy, Myron L. Smith *Fungal Genet Biol.* **2021**, *157*, 103633
71. **Apicidin biosynthesis is linked to accessory chromosomes in *Fusarium poae* isolates.** Thomas E. Witte, Linda J. Harris, Hai D. T. Nguyen, Anne Hermans, Anne Johnston, Amanda Sproule, Jeremy R. Dettman, Christopher N. Boddy, David P. Overy *BMC Genomics* **2021**, *22*, 591
70. **Armeniaspirols inhibit the AAA+ proteases ClpXP and ClpYQ leading to cell division arrest in Gram-positive bacteria.** Puneet Labana, Mark H. Dornan, Matthew Lafrenière, Tomasz L. Czarny, Eric D. Brown, John P. Pezacki, Christopher N. Boddy, *Cell Chemical Biology.* **2021**, *28*, 1703-1715.
69. **Accessory Chromosome-Acquired Secondary Metabolism in Plant Pathogenic Fungi: The Evolution of Biotrophs Into Host-Specific Pathogens** Thomas E. Witte, Nicholas Villeneuve, Christopher N. Boddy, David P. Overy *Frontiers in Microbiology* **2021**, *12*, 664276.
68. **Thioesterase from Cereulide Biosynthesis Is Responsible for Oligomerization and Macrocyclization of a Linear Tetradepsipeptide.** Graham Heberlig, Christopher N. Boddy, *J. Nat. Prod.* **2020**, *83*, 1990-1997.
67. **Whole genome sequencing and metabolomics characterization of cave *Streptomyces* isolates ICC1 and ICC4.** Soumya Ghosh, Jessica Thandara Gosse, Christopher N. Boddy, Naowarat Cheeptha. *Front Microbiol.* **2019**, *10*, 1020.
66. **Trapping biosynthetic acyl-enzyme intermediates with encoded 2,3-diaminopropionic acid.** Nicolas Huguenin-Dezot, Diego A. Alonzo, Graham W. Heberlig, Mohan Mahesh, Duy P. Nguyen, Mark H. Dornan, Christopher N. Boddy, T. Martin Schmeing, Jason W. Chin *Nature*, **2019**, *565*, 112-117.
65. **Draft genome of the type strain *Streptomyces armeniacus* ATCC 15676.** Puneet Labana, Jessica T. Gosse, Christopher N. Boddy, *Microbiology Resource Announcements*, **2018**, *7*, e01107-18
64. **Chemoenzymatic Macrocyclic Synthesis Using Resorcylic Acid Lactone Thioesterase Domains.** Graham W. Heberlig, Jesse Brown, Ryan Simard, Monica Wirz, Wei Zhang, Meng Wang, Leah Susser, Mark E. Horsman, Christopher N. Boddy *Org. Biomol. Chem.* **2018** *16*, 5771-5779.

63. **Inhibition of Bacterial Gene Transcription with an RpoN-based Stapled Peptide.** Sterling R. Payne, Daniel I. Pau, Ye Joon Kim, Amanda L. Whiting, Blaze M. Pharoah, Christina A. Moi, Christopher N. Boddy, Federico Bernal *Cell Chemical Biology* **2018** 25,1059-1066
62. **Inducible T7 polymerase-mediated multigene expression system, pMGX.** Mohamed I. Hassan, Fern R. McSorley, Kinya Hotta, Christopher N. Boddy *J. Vis. Exp.* **2017**, doi: 10.3791/55187.
61. **Sampling Terrestrial Environments for Bacterial Polyketides.** Patrick Hill, Graham W. Heberlig, Christopher N. Boddy *Molecules* **2017**, 22, E707.
60. **Natural products: Mapping an amazing thicket.** Mark E. Horsman, Christopher N. Boddy *Nat. Chem. Biol.* **2017**, 13, 6-7.
59. **Portable, On-demand Biomolecular Manufacturing.** Keith Pardee, Shimyn Slomovic, Peter Q. Nguyen, Jeong Wook Lee, Nina Donghia, Devin Burrill, Tom Ferrante, Fern McSorley, Yoshikazu Furuta, Michael Lewandowski, Christopher N. Boddy, Neel S. Joshi, James J. Collins *Cell* **2016**, 167, 248-259.
58. **Total Biosynthesis of Legionaminic Acid, a Bacterial Sialic Acid Analog.** Mohamed I. Hassan, Benjamin R. Lundgren, Michael Chaumon, Dennis M. Whitfield, Brady Clark, Ian C. Schoenhofen, Christopher N. Boddy *Angew. Chem. Int Ed.* **2016**, 55, 12018-21.
57. **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.* **2016**, 6, 26786.
56. **Sialic acid production in Escherichia coli lacking of N-acetylglucosamine catabolism.** Horsman, Mark E.; Lundgren, Benjamin R.; Boddy, Christopher N. *Chem. Eng. Commun.* **2016**, 203, 1326-1335.
55. **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.* **2016**, 81, 415-423.
54. **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* **2016**, 1860, 486-497.
53. **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.* **2016**, 1401, 233-52.
52. **Polyketide Synthase and Non-ribosomal Peptide Synthetase Thioesterases: logic gate or a victim of fate?** Horsman, Mark; Hari, Taylor P. A.; Boddy, Christopher N. *Nat. Prod. Rep.* **2016**, 33, 183-202.
51. **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.* **2015**, 6, 1499-1503.
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.* **2015**, 3, e00859-15.
49. **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* **2015**, 70, 79-89.
48. **Resorcylic acid lactone biosynthesis relies on a stereo-tolerant macrocyclizing thioesterase.** Heberlig, Graham; Wirz, Monica; Wang, Meng; Boddy, Christopher N. *Org. Lett.* **2014**, 16, 5858-5861.

47. **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* **2014**, *15*, 2656-61. (Selected for the inside back cover art)
46. **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.* **2014**, *79*, 9992-9997.
45. **Genetic analysis of the assimilation of C5-dicarboxylic acids in *Pseudomonas aeruginosa* PAO1.** Benjamin Lundgren, Luis Villegas-Peñaranda, Joshua Harris, Alexander Mottern, Diana Dunn, Christopher Boddy, and Christopher Nomura. *J. Bacteriol.* **2014**, *196*, 2543-2551.
44. **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.* **2014**, *55*, 2600-2602.
43. **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.* **2013**, *76*, 2269-2276.
42. **Bioinformatics tools for genome mining of polyketide and non-ribosomal peptides.** Boddy, Christopher N. *J. Ind. Microbiol. Biotechnol.* **2014**, *41*, 443-450. doi: 10.1007/s10295-013-1368-1.
41. **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.* **2014**, *41*, 75-85.
40. **The role of transcription in heterologous expression of polyketides in bacterial hosts.** Stevens, David C.; Hari, Taylor P.; Boddy Christopher N. *Nat. Prod. Rep.* **2013**, *30*, 1391-1411. doi: 10.1039/C3NP70060G.
39. **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. Antibiot.* **2013**, *66*, 421-430. doi: 10.1038/ja.2013.48.
38. **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; Villegas-Peñaranda, Luis Roberto; Garza, Anthony; Boddy, Christopher N. *PLoS ONE*, **2013**, *8*, e64858.
37. **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.* **2013**, *195*, 2087-2100.
36. **ClusterMine360: a database of Microbial PKS/NRPS Biosynthesis.** Conway, Kyle; Boddy, Christopher N. *Nucleic Acid Res.* **2013**, D402-407.
35. **Non-canonical regioisomerizations and a 'Diels-Alderase' are likely essential in the biosynthesis of Spiculoic acid.** Pinto, Atahualpa; Boddy, Christopher N. *Bioorg Med Chem Lett.* **2012**, *22*, 5253-5256.
34. **6-deoxyerythronolide B synthase thioesterase-catalyzed macrocyclization is highly stereoselective.** Pinto, Atahualpa; Wang, Meng; Horsman, Mark; Boddy, Christopher N. *Org. Lett.* **2012**, *14*, 2278-2281.
33. **Coenzyme Q10 Production in the Filamentous *Basidiomycete Sporidiobolus johnsonii*.** Dixson, D.; Boddy, Christopher N.; Doyle, Robert P. *Chem. BioDiv.* **2011**, *8*, 1033-1051.
32. **Land use intensity controls Actinobacterial community structure.** Hill, Patrick; Křišťůfek, Václav; Dijkhuizen, Lubbert; Boddy, Christopher N.; Kroetsch, David; van Elsas, Jan Dirk *Microb. Ecol.* **2011**, *61*, 286-302.

31. **Process Improvements for the Manufacture of Tenofovir Disoproxil 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.* **2010**, *14*, 1194-1201.
30. **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* **2010**, *66*, 8137-8144.
29. **Heterologous expression of the oxytetracycline biosynthetic pathway in *Myxococcus xanthus*.** Stevens, David C.; Henry, Michael R.; Murphy, Kimberly; Boddy, Christopher N. *Applied Environ. Microbiol.* **2010**, *76*, 2681-2683.
28. **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* **2009**, *48*, 6288-6290.
27. **Polyketide synthase thioesterases catalyze rapid hydrolysis of peptidyl thioesters.** Wang, Meng; Opare, Peter; Boddy, Christopher N. *Bioorg. Med. Chem. Lett.* **2009**, *19*, 1413-1415.
26. **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.* **2009**, *74*, 1454-1463 (Featured Article).
25. **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* **2008**, *47*, 11793-11803.
24. **Orthogonal ligation: a three piece assembly of a PNA-peptide-PNA conjugate.** Burlina, Fabienne; Dixon, David D.; Doyle, Robert P.; Chassaing, Gérard; Boddy, Christopher N.; Dawson, Philip; Offer, John *Chem. Commun.* **2008**, 2785-2787.
23. **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.* **2007**, *129*, 9304-9305. (* Corresponding authors)
22. **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.* **2007**, *5*, 1903-1909. (Evaluated by Faculty of 1000.)
21. **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.* **2007**, *17*, 3034-3037.
20. **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* **2006**, *2*, 423-428.
19. **Sweetening Cyclic Peptide Libraries.** Boddy, Christopher N. *Chem. Biol.* **2004**, *11*, 1599-1600.

Publications as a post-doctoral fellow and graduate student

18. **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.* **2004**, 7436-7437.

17. **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.* **2003**, *278*, 42020-42026.
16. **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.* **2003**, *125*, 3428-3429.
15. **Atropselective Macrocyclization of Diaryl Ether Systems: Application to the Synthesis of Vancomycin.** Nicolaou, K. C.; Boddy, Christopher N. C. *J. Am. Chem. Soc.* **2002**, *124*, 10451-10455.
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