

DENNIS G. HALL

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Born: Jan. 02 1968, Baie-Comeau (Québec), Canada

Other languages: French

A. EDUCATION and RESEARCH TRAINING

University of California, Berkeley Postdoctoral Associate, bioorganic chemistry. Howard Hughes Medical Institute, Department of Chemistry. <u>Supervisor</u> : Prof. Peter G. Schultz.	07/1995 - 07/1997
Université de Sherbrooke Ph.D., Organic Chemistry. <u>Supervisor</u> : Prof. Pierre Deslongchamps. <u>Thesis</u> : "Studies on Transannular Diels-Alder Reactions of Cyclopentadecatrienes. Application Towards the Synthesis of (+)-8-epi-Aphidicolin."	01/1991 - 06/1995
Université de Sherbrooke B.Sc., Chemistry (GPA 3.9), Co-op program:	09/1987 - 12/1990
E.I. duPont de Nemours and Co., CR&D Dept. Wilmington DE, U.S.A. Laboratory of Dr. D.Y. Sogah.	05/1990 - 08/1990
Bio-Méga / Boehringer Ingelheim Research Inc. Laval, Québec, Canada, Laboratory of Dr. Yvan Guindon.	09/1989 - 12/1989

B. PROFESSIONAL POSITIONS

University of Alberta Distinguished Professor (and Tier 1 <i>Canada Research Chair</i> since 2015) Associate-Chair, Research (Department of Chemistry) Visiting Professor, Max Planck Institute for Molecular Physiology (Dortmund, DE) Professor, Department of Chemistry Coordinator, U of A Combinatorial Synthesis and Purification Facility Associate-Professor, Department of Chemistry (granted early tenure) Assistant-Professor, Department of Chemistry	07/2008 - 07/2014 - 06/2019 06/2006 - 12/2006 07/2005 - 01/2005 - 07/2002 - 06/2005 08/1997 - 06/2002
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C. SELECTED and RECENT APPOINTMENTS, PROFESSIONAL ACTIVITIES

External Committees

- Global Excellence Initiative, Canvassing Committee, Universities Canada (2018-2022)
- Secretary, Humboldt Association of Canada (2016-)

Symposia/Meeting Organization

- Co-organizer, organic chemistry symposia: 100th CSC Meeting (2017, Toronto), 101th CSC Meeting (2018, Edmonton), 105th CSC Meeting (2022, Calgary).

Other Activities

- Scientific Advisory Board, *Onco-Innovations* (2025-)
- Associate-Editor, *Science Advances* (AAAS) (2022-)
- Scientific Advisor, *Hermay Labs Corp.* (2023-)
- Member of the Board of Directors, *Organic Reactions* (2018-2024)
- Guest Editor (with A. Yudin). Themed Issue "Organoboron Chemistry", *Org. Biomol. Chem.* (2019)
- Member of the Editorial Board, *Organic Reactions* (2013-2024)
- Member of the Editorial Advisory Board, *European Journal of Organic Chemistry* (2011-2021)
- Volume Editor, Volume 6 – Boron, *Science of Synthesis* (Updates) (2010-2015)

D. HONORS, AWARDS and NOMINATIONS (2000-present)

- Canadian Institute of Chemistry *Catalysis Award* 2026
- University of Alberta Faculty of Science Graduate Mentoring Award 2025
- *Arthur C. Cope Scholar Award* 2024, American Chemical Society
- Tier 1 Canada Research Chair in *Boron Chemistry for Catalysis and Drug Discovery* (2022-2029)
- Canadian Society for Chemistry *R. U. Lemieux Award* for Organic Chemistry 2021
- Killam Research Fellowship, *Canada Council for the Arts* (2019-2021)
- Elected a Fellow of the *Royal Society of Canada* (FRSC) (2017-)
- Tier 1 Canada Research Chair in *Boron Chemistry for Catalysis and Drug Discovery* (2015-)
- Canadian Society for Chemistry, *Alfred Bader Award* for Organic Chemistry 2016
- *Journal of Organic Chemistry* Outstanding Author of the Year Award, 2013 (ACS Organic Division)
- Killam Professor, University of Alberta (2013-2014)
- Named on the Editorial Board, *Organic Reactions* (2013-); Board of Directors (2018-)
- NSERC Discovery Accelerator Award (2012-2014)
- Named on the Editorial Advisory Board, *European Journal of Organic Chemistry* (2011-)
- Royal Society of Canada's Rutherford Memorial Medal in Chemistry 2009
- Rutherford Teaching Award 2009 (University of Alberta)
- Steacie Prize in Natural Sciences 2008 (National Research Council of Canada)
- NSERC E.W.R. Steacie Memorial Fellowship 2008
- Named University Professor in 2008 (Highest academic title at U of A, given to less than 2%)
- Canadian Society for Chemistry, Merck-Frosst Award for Organic/Bioorganic Chemistry 2008
- Japan Society for the Promotion of Science Fellowship (Japan, July-August 2007)
- Faculty of Science Award for Excellent Teaching 2007 (University of Alberta)
- Humboldt Research Fellowship (2006, MPI-Dortmund, Germany)
- Member of the Editorial Advisory Board, *Current Chemical Biology* (2006-2011)
- Faculty of Science Research Award 2005 (University of Alberta)
- Winner of CSC Enantioselective Synthesis Grants Program 2004
- Martha Cook Piper Research Prize 2004 (University of Alberta)
- AstraZeneca Award in Chemistry 2003 (with unrestricted research grant)
- Petro-Canada Young Innovator Award 2003 (University of Alberta, with research grant)

E. STUDENTS and POSTDOCTORAL FELLOWS SUPERVISED

Current: 9 PhD, 3 MSc, 2 PDF, 1 UG, 1 technician. Past: 29 PhD, 25 MSc, 25 PDF, 65+ UG
Visiting international grad. students: 12.

F. INVITED PRESENTATIONS at CONFERENCES, UNIVERSITY, and INDUSTRY (2002-present): ~140

Selection of notable recent Invited and Name/Plenary Lectures:

2015: January 29: BMS Lecture, University of Illinois, Urbana-Champaign (IL, US).
2016: June 22: French-American Chemical Society XV Symposium, Santa Barbara (CA).
2017: June 27: Physical Organic Chemistry Gordon Research Conference. July 26: Canadian Symposium, 100th Royal Australian Chemical Institute Conference, Melbourne, Australia. Aug. 27-31: Summer School, Villars, Switzerland (two lectures).
2018: June 27: BORAM (Boston College, US). Aug. 30: MCR Conference, Dusseldorf, Germany.
2023: July: Plenary Speaker, IMEBORON (Rennes, France). Aug.: Organic Reactions Lecturer, Queen's University, Kingston. Nov.: Plenary Speaker, QOMSBOD (Montreal).
2024: Feb. 1: CORGI (virtual). Sept.: Beilstein Main Group Symposium (Limburg, Germany).
2025: Feb. 13: Beilstein Institute Online Live Talk. Feb. 21: Valenta-Wiesner Lecture, UNB (Fredericton, NB). Aug.: Plenary Speaker, Southern Highlands Conference on Heterocyclic Chemistry (Kiama, Australia).

G. CONFERENCE PRESENTATIONS (with Abstracts, including presentations of co-workers): ~160

Scientific metrics – 1998 to date (26 June 2025): Google Scholar: 18700 career citations, *h* index: 71.

Ranked in top-8000 of scientist worldwide for standardized citation metrics (2022, Stanford University Statistics & Meta-Research Innovation Center:
<https://elsevier.digitalcommonsdata.com/datasets/btchxktzyw>

1) PUBLICATIONS in PEER-REVIEWED JOURNALS

Independent (1999-2025):

- 174) D. Konowalchuk, D. G. Hall. Solvent-Controlled Monoselective Suzuki-Miyaura Cross-Coupling of Symmetrical 1,1-Dichloroalkenes: Scope and Origin of Selectivity. Submitted (Nov. 2025).
- 173) J. J. Blackner, D. G. Hall. Benzoxaborole and Beyond: The Emergence of Cyclic Hemiboronic Acids as a Versatile Chemotype in Medicine, Catalysis, and Materials. *Chemical Reviews*, 330-page manuscript accepted on Nov. 27, 2025.
- 172) G. O’Keefe, D. J. Konowalchuk, D. L. Akl, D. G. Hall. Selective Monophosphorylation of Cyclic Diols and Polyols *via* Hemiboronic Acid Catalysis. *Org. Biomol. Chem.* **2025**, 23, 6538–6545.
- 171) A. Kheday, D. G. Hall. Migrative Reductive Amination of Ketones Enabled by Multitasking Reagents. *J. Org. Chem.* **2025**, 90, 9181–9188.
- 170) David M. Heard, Martin C. Lessard, Dennis G. Hall. Xanthopinacol Boronate: A Robust, Photochemically Assembled and Cleavable Boronic Ester for Orthogonal Chemistry. *Angew. Chem. Int. Ed.* **2025**, 64, article e202507571.
- 169) J. Sun, C. Jaworski, R. Schirmacher, D. G. Hall. Suppressing Protodeboronation in Cu-Mediated 19F/18F Fluorination of Arylboronic Acids: A Mechanistically Guided Approach towards Optimized PET Probe Development. *Chem. Eur. J.* **2024**, article e202400906.
- 168) J. J. Blackner, O. M. Schneider, W. O. Wong, D. G. Hall. Removing Neighboring Ring Influence in Monocyclic B–OH Diazaborines: Properties and Reactivity as Phenolic Bioisosteres with Dynamic Hydroxy Exchange. *J. Am. Chem. Soc.* **2024**, 146, 19499–19508. [Highlighted in *Synfacts*]
- 167) S. M. A. Sadat, M. Reza Vakili, S. I. Abd-El Hafeez, M. Paladino, D. G. Hall, M. Weinfeld, A. Lavasanifar. Synergistic Nanomedicine Delivering Topoisomerase I Toxin (SN-38) and Inhibitors of Polynucleotide Kinase 3’-Phosphatase (PNKP) for Enhanced Treatment of Colorectal Cancer. *Mol. Pharmaceutics.* **2024**, 21, 3240–3255.
- 166) D. Konowalchuk, D. G. Hall. Divergent Synthesis of 1,2,3,4-Tetrasubstituted Cyclobutenes from a Common Scaffold: Enantioselective Desymmetrization via Dual-Catalyzed Photoredox Cross-Coupling. *Angew. Chem. Int. Ed.* **2023**, 62, article 20231350. [selected a “Hot Paper”]
- 165) M. Z. H. Kazmi, O. M. Schneider, D. G. Hall. Expanding the Role of Boron in New Drug Chemotypes: Properties, Chemistry, Pharmaceutical Potential of Hemiboronic Naphthoids. *J. Med. Chem.* **2023**, 66, 13768–13787.
- 164) J. P. G. Rygus, D. B. Boateng, D. G. Hall. Hemiboronic Acid Catalyzed Reduction of α,β -Unsaturated Ketones with Reagent-Controlled Chemoselectivity. *Synlett.* **2023**, 34, 2215–2219.
- 163) J. P. G. Rygus, D. G. Hall. Direct Nucleophilic and Electrophilic Activation of Alcohols Using a Unified Boron-based Organocatalyst Scaffold. *Nature Commun.* **2023**, 14, article 2563.

- 162) J. Zhou, M. Paladino, D. G. Hall. Direct Boronic Acid Promoted Amidation of Carboxylic Acids with Poorly Nucleophilic Amines. *Eur. J. Org. Chem.* **2022**, article e202201050.
- 161) H. T. Ang, A. A. Ponich, M. Paladino, M. Miskolzie, D. G. Hall. Unraveling the Silent Hydrolysis of Cyclic C=C/B–X isosteres: The Striking Impact of a Single Heteroatom on the Aromatic, Acidic, and Dynamic Properties of Hemiboronic Phenanthroids. *J. Am. Chem. Soc.* **2022**, 144, 10570–10581.
- 160) I. Moura de Paiva, M. R. Vakili, A. H. Soleimani, S. Amirhossein, T. Dakhili, S. Munira, M. Paladino, G. Martin, F. Jirik, D. G. Hall, M. Weinfeld, A. Lavasanifar. Biodistribution and Activity of EGFR Targeted Polymeric Micelles Delivering a New Inhibitor of DNA Repair to Orthotopic Colorectal Cancer Xenografts with Metastasis. *Molecular Pharmaceutics* **2022**, 19, 1825–1838.
- 159) M. Estaitie, D. G. Hall. Regiocontrolled Synthesis of Enantioenriched 2-Substituted Dehydropiperidines Derivatives by Stereospecific Allyl-Allyl Cross-Coupling of a Chiral Allylic Boronate. *Chem. Commun.* **2022**, 1370–1373.
- 158) H. E. Hackney, D. G. Hall. Recent Advances in the Luminescence of Arylboronic acids and their Heteroatom Condensates. *ChemPhotoChem* **2022**, 6, Article number e202100219. [Review article, refereed]
- 157) S. M. A. Sadat, M. Wuest, S. Munira, N. Sarrami, F. Sanaee, I. M. Paiva, X. Yang, M. Paladino, Z. Binkhathlan, F. Karimi-Busheri, G. R. Martin, F. R. Jirik, A. M. Gamper, D. G. Hall, M. Weinfeld, A. Lavasanifar. Nano-delivery of a Novel Inhibitor of Polynucleotide Kinase/Phosphatase (PNKP) for Targeted Sensitization of Colorectal Cancer to Radiation-Induced DNA Damage. *Frontiers in Oncology* **2022**, doi: 10.3389/fonc.2021.772920 (accepted 24 Nov. 2021).
- 156) H. A. Clement, M. Estaitie, Y.-R. Kim D. G. Hall, C. Y. Legault. Mechanism of the Palladium-Catalyzed Asymmetric Borylative Migration of Enol Perfluorosulfonates: Insights into an Enantiofacial-Selective Transmetalation. *ACS Catalysis* **2021**, 11, 8902–8914.
- 155) M. Z. H. Kazmi, J. P. G. Rygus, H. T. Ang, M. Paladino, M. A. Johnson, M. Ferguson, D. G. Hall. Lewis or Brønsted? A Rectification of the Acidic and Aromatic Nature of Boranol-Containing Naphthoid Heterocycles. *J. Am. Chem. Soc.* **2021**, 143, 10143–10156.
- 154) S. M. A. Sadat, I. M. Paiva, Z. Shire, T. D. R. Morgan, M. Paladino, F. Karimi-Busheri, F. Sanaee, G. R. Martin, F. R. Jirik, D. G. Hall, M. Weinfeld, A. Lavasanifar. A Synthetically Lethal Nanomedicine Delivering Novel Inhibitors of Polynucleotide Kinase-Phosphatase (PNKP) for Targeted Therapy of PTEN-Deficient Colorectal Cancer. *J. Controlled Release* **2021**, 334, 335–352.
- 153) C. D. Estrada, H. T. Ang, K.-M. Vetter, A. A. Ponich, D. G. Hall. Enantioselective Desymmetrization of 2-Aryl-1,3-propanediols by Direct O-Alkylation with a Rationally Designed Chiral Hemiboronic Acid Catalyst That Mitigates Substrate Conformational Poisoning. *J. Am. Chem. Soc.* **2021**, 143, 4162–4167.
- 152) K. Nguyen, H. A. Clement, L. Bernier, J. W. Coe, W. Farrell, C. J. Helal, M. R. Reese, N. W. Sach, J. C. Lee, D. G. Hall. Catalytic Enantioselective Synthesis of a *cis*- β -Boronyl Cyclobutylcarboxyester Scaffold and Its Highly Diastereoselective Nickel/Photoredox Dual Catalyzed sp^2 – sp^3 Cross-Coupling to Access Elusive *trans*- β -Aryl and Heteroaryl Cyclobutylcarboxyesters, submitted to: *ACS Catalysis* **2021**, 11, 403–413.
- 151) X. Li, D. G. Hall. Synthesis and Applications of β -Aminoalkylboronic Acid Derivatives, *Advanced Synthesis & Catalysis* **2021**, 363, 2209–2223. [Invited Review article, refereed]

- 150) S. Palvai, J. Bhangu, B. Akgun, C. Moody, D. G. Hall, Y. Brudno. In Vivo Targeting Using Arylboronate / Nopoldiol Click Conjugation. *Bioconjugate Chem.* **2020**, *31*, 2288–2291.
- 149) H. E. Hackney, M. Paladino, H. Fu, D. G. Hall. Diazaboryl-Naphthyl-Ketone: a New Scaffold with Bright Fluorescence, Aggregation-Induced Emission, and Application in the Quantitation of Trace Boronic Acids in Drug Intermediates, *Chem. Eur. J.* **2020**, *26*, 14324–14329.
- 148) J. Bhangu, R. M. Whittall, D. G. Hall. Design, Synthesis and Structure of a Frustrated Benzoxaborole and its Applications in the Complexation of Amines, Amino Acids, and Protein Modification, *Org. Biomol. Chem.* **2020**, *18*, 3492–3500.
- 147) X. Li, D. G. Hall. Stereodivergent Asymmetric Synthesis of α,β -Disubstituted β -Aminoalkylboronic Acid Derivatives via Group-Selective Protodeboronation Enabling Access to the Elusive Anti Isomer, *J. Am. Chem. Soc.* **2020**, *142*, 9063–9069.
- 146) Y. J. Chen, W. D. Wang, D. Wu, H. B. Zeng, D. G. Hall, R. Narain. Multiresponsive and Self-Healing Hydrogel via Formation of Polymer-Nanogel Interfacial Dynamic Benzoxaborole Esters at Physiological pH, *ACS Appl. Mater. & Interfaces* **2019**, *11*, 44742–44750.
- 145) H. A. Clement, M. Boghi, R. M. McDonald, L. Bernier, J. W. Coe, W. Farrell, C. J. Helal, M. R. Reese, N. W. Sach, J. C. Lee, D. G. Hall. High-Throughput Ligand Screening Enables the Enantioselective Conjugate Borylation of Cyclobutenones to Access Synthetically Versatile Tertiary Cyclobutylboronates, *Angew. Chem. Int. Ed.* **2019**, *58*, 18405–18409.
- 144) M. Paladino, M. Boghi, D. G. Hall. Phenoxy-Dialkoxy Borates as a New Class of Readily Prepared Pre-activated Reagents for Base-Free Cross-Coupling, *Eur. J. Org. Chem.* **2019**, 6566–6570.
- 143) D. G. Hall. Boronic Acid Catalysis, *Chem. Soc. Rev.* **2019**, *48*, 3475–3496. [Review Article (refereed)]
- 142) H.-T. Ang, J. P. G. Rygus, D. G. Hall. Two-component Boronic Acid Catalysis for Increased Reactivity in Challenging Friedel-Crafts Alkylations with Deactivated Benzylic Alcohols, *Org. Biomol. Chem.* **2019**, *17*, 6007–6014. [Review Article (refereed)]
- 141) D. Wu, W. D. Wang, D. Diaz-Dussan, Y. Y. Peng, Y. J. Chen, R. Narain, D. G. Hall. In Situ Forming, Dual-Crosslink Network, Self-Healing Hydrogel Enabled by a Bioorthogonal Nopoldiol-Benzoxaborolate Click Reaction with a Wide pH Range, *Chemistry of Materials* **2019**, *31*, 4092–4102.
- 140) H. A. Clement, D. G. Hall. Synthesis of α -Hydroxyalkyl Dehydroazepanes via Catalytic Enantioselective Borylative Migration of an Enol Nonaflate, *Tetrahedron Letters* **2018**, *59*, 4334–4339.
- 139) Y. J. Chen, D. Diaz-Dussan, D. Wu, W. D. Wang, Y. Y. Peng, A. B. Asha, D. G. Hall, K. Ishihara, R. Narain. Bioinspired Self-Healing Hydrogel Based on Benzoxaborole-Catechol Dynamic Covalent Chemistry for 3D Cell Encapsulation, *ACS Macro Letters* **2018**, *7*, 904–908.
- 138) M. Boghi, D. G. Hall. Valdecixib vs Borazavaldecixib: Isoxazole B=N Isosterism as a Case Study in Designing and Stabilizing Boron Heterocycles, *Org. Biomol. Chem.* **2018**, *16*, 4849–4856.
- 137) X. Li, D. G. Hall. Diastereocontrolled Protodeboronation of β -Sulfinimido gem-Bis(boronates): A General and Stereoselective Access to α,β -Disubstituted β -Aminoalkylboronates, *Angew. Chem. Int. Ed.* **2018**, *57*, 10304–10308.
- 136) B. Akgun, D. G. Hall. Boronic Acids as Bioorthogonal Probes in Site-Selective Labeling of Proteins, *Angew. Chem. Int. Ed.* **2018**, *57*, 13028–13044. [Review Article (refereed)]

- 135) Z. Shire, M. R. Vakili, T. D. R. Morgan, D. G. Hall, A. Lavasanifar, M. Weinfeld. Nanoencapsulation of Novel Inhibitors of PNKP for Selective Sensitization to Ionizing Radiation and Irinotecan and Induction of Synthetic Lethality, *Molecular Pharmaceutics* **2018**, 15, 2316-2326.
- 134) X. Mo, T. D. R. Morgan, H. T. Ang, D. G. Hall. Scope and Mechanism of a True Organocatalytic Beckmann Rearrangement with a Boronic Acid / Perfluoropinacol System Under Ambient Conditions, *J. Am. Chem. Soc.* **2018**, 140, 5264-5271.
- 133) Y. J. Chen, W. D. Wang, D. Wu, M. Nagao, D. G. Hall, T. Thundat, R. Narain. Injectable Self-Healing Zwitterionic Hydrogels Based on Dynamic Benzoxaborole-Sugar Interactions with Tunable Mechanical Properties, *Biomacromolecules* **2018**, 19, 596-605.
- 132) B. Akgun, C. Li, Y. Hao, G. Lambkin, R. Derda, D. G. Hall. Synergic 'Click' Boronate/Thiosemicarbazone System for Fast and Irreversible Bioorthogonal Conjugation in Live Cells, *J. Am. Chem. Soc.* **2017**, 139, 14285-14291.
- 131) T. Verdelet, R. M. Ward, D. G. Hall. Direct Sulfonamidation of Primary and Secondary Benzylic Alcohols Catalyzed by a Boronic Acid/Oxalic Acid System, *Eur. J. Org. Chem.* **2017**, 5729-5738.
- 130) D. G. Hall, T. Rybak, T. Verdelet. Multicomponent Hetero-[4 + 2] Cycloaddition/Allylboration Reaction: From Natural Product Synthesis to Drug Discovery, *Acc. Chem. Res.* **2016**, 49, 2489-2500.
- 129) Y. Wang, L. Li, Y. Kotsuchibashi, S. Vshyvenko, Y. Liu, D.G. Hall, H. Zeng, R. Narain. Injectable Shear-Thinning Hydrogels Based on Dynamic Boronate-Diol Covalent Crosslinking that Spontaneous Self-Healing in Aqueous Media, *ACS Biomaterials Sci. & Eng.* **2016**, 2, 2315-2323.
- 128) S. Vshyvenko, M. Clapson, I. Suzuki, D.G. Hall. Characterization of the Dynamic Equilibrium Between Close and Open Forms of the Benzoxaborole Pharmacophore. *ACS Med. Chem. Lett.* **2016**, 12, 1097-1101.
- 127) X. Mo, D.G. Hall. Dual Catalysis Using Boronic Acid and Chiral Amine: Acyclic Quaternary Carbons via Enantioselective Alkylation of Branched Aldehydes with Allylic Alcohols, *J. Am. Chem. Soc.* **2016**, 138, 10762-10765.
- 126) Y. Kim, D.G. Hall. Optimization and Multigram Scalability of a Catalytic Enantioselective Borylative Migration for the Synthesis of Functionalized Chiral Piperidines, *Org. Biomol. Chem.* **2016**, 4739-4748.
- 125) B. Akgun, D.G. Hall. Fast and Tight Boronate Formation for 'Click' Bioorthogonal Conjugation, *Angew. Chem. Int. Ed.* **2016**, 55, 3909-3913.
- 124) T. Rybak, D.G. Hall. Stereoselective and Regiodivergent Allylic Suzuki-Miyaura Cross-Coupling of 2-Ethoxy Dihydropyranyl Boronates: Synthesis and Confirmation of Absolute Stereochemistry of Diospongin B, *Organic Letters* **2015**, 17, 4156-4159.
- 123) X. Mo, J. Yakiwchuk, J. Dansereau, J.A. McCubbin, D.G. Hall. Unsymmetrical Diarylmethanes by Ferroceniumboronic Acid Catalyzed Direct Friedel-Crafts Reactions with Deactivated Benzylic Alcohols: Enhanced Reactivity due to Ion-Pairing Effects, *J. Am. Chem. Soc.* **2015**, 137, 9694-9703.
- 122) C. Selin, M. S. Stietz, J. E. Blanchard, S. S. Gehrke, S. Bernard, D.G. Hall, E. M. Brown, S. T. Cardona. A Pipeline for Screening Small Molecules with Growth Inhibitory Activity against *Burkholderia cenocepacia*, *PLOS One* **2015**, 10, article # UNSP e0128587 (June 8, 2015).

- 121) J.C.H. Lee, H.-Y. Sun, D.G. Hall. Reaction Optimization, Scalability, and Mechanistic Insight on the Catalytic Enantioselective Desymmetrization of 1,1-Diborylalkanes via Suzuki-Miyaura Cross-Coupling, *J. Org. Chem.* **2015**, *80*, 7134-7143.
- 120) S. Fatemi, N. Gernigon, D.G. Hall. A Multigram-Scale Lower E-Factor Procedure for MIBA-Catalyzed Direct Amidation and Its Application to the Coupling of alpha and beta Aminoacids, *Green Chemistry* **2015**, 4016-4028.
- 119) H. Sun, K. Kubota, D.G. Hall. Reaction Optimization, Scalability, and Mechanistic Insight on the Catalytic Enantioselective Desymmetrization of 1,1-Diborylalkanes via Suzuki-Miyaura Cross Coupling, *Chemistry European Journal* **2015**, *21*, 19186-19194.
- 118) Y. Kotsuchibashi, M. Ebara, T. Sato, Y. Wang, R. Rajender, D.G. Hall, R. Narain, T. Aoyagi. Spatiotemporal Control of Synergistic Gel Disintegration Consisting of Boroxole- and Glyco-Based Polymers via Photoinduced Proton Transfer, *J. Phys. Chem. B* **2015**, *119*(6), 2323-2329.
- 117) C. Ricardo, X. Mo, J.A. McCubbin, D.G. Hall. A Surprising Substituent Effect Provides a Superior Boronic Acid Catalyst for Mild and Metal-Free Direct Friedel-Crafts Alkylations and Prenylations of Neutral Arenes, *Chemistry European Journal* **2015**, *21*, 4218-4223.
- 116) J. Ding, T. Rybak, D.G. Hall. Synthesis of Chiral Heterocycles Selectivity by Ligand-Controlled Regiodivergent and Enantiospecific Suzuki-Miyaura Cross-Coupling. *Nature Communications* **2014**, *5*, 5474-5482. [IF: 11.5]
- 115) R.M. Al-Zoubi, D.G. Hall. Catalytic Enantioselective Diversity-Oriented Synthesis of a Small Library of Polyhydroxylated Pyrans Inspired from Thiomarinol Antibiotics, *Molecular Diversity* **2014**, *18*, 701-719.
- 114) H. Zheng, D.G. Hall. Boronic Acid Catalysis: an Atom-Economical Platform for Direct Activation and Functionalization of Carboxylic Acids and Alcohols, *Aldrichimica Acta* **2014**, *47*, 41-51.
- 113) I. Baczko, D. Liknes, W. Yang, K.C. Hamming, G. Searle, K. Jaeger, Z. Husti, V. Juhasz, G. Klausz, R. Pap, L. Saghy, A. Varro, V. Dolinsky, S.H. Wang, V. Rauniyar, D. Hall, J.R.B. Dyck, P.E. Light. Characterization of a Novel Multifunctional Resveratrol Derivative for the Treatment of Atrial Fibrillation, *British J. Pharmacol.* **2014**, *171*, 92-106.
- 112) U. Bhakta, E. Sullivan, D.G. Hall. Catalytic Enantioselective Allylboration of Propargylic Aldehydes, *Tetrahedron* **2013**, *70*, 678-683.
- 111) D. Gao, R. Sand, H. Fu, N. Sharmin, W.J. Gallin, D.G. Hall, Synthesis of the Non-peptidic Snail Toxin 6-Bromo-2-mercaptotryptamine Dimer (BrMT2), its Lower and Higher Thio Homologs and Their Ability to Modulate Potassium Ion Channels, *Bioorg. Med. Chem. Lett.* **2013**, *23*, 5503-5506.
- 110) J. Ding, D.G. Hall, Concise Synthesis and Antimalarial Activity of All Four Mefloquine Stereoisomers Using a Highly Enantioselective Catalytic Borylative Alkene Isomerization, *Angew. Chem. Int. Ed.* **2013**, *52*, 8069-8073. {Selected a "Hot Paper" by the Editor} [IF: 11.2]
- 109) N. Gernigon, H. Zheng, D.G. Hall. Solid-Supported ortho-Iodoarylboronic Acid Catalyst for Direct Amidation of Carboxylic Acids. *Tetrahedron Lett.* **2013**, *54*, 4475-4478.
- 108) Y. Kotsuchibashi, R.V.C. Agustin, J.-Y. Lu, D.G. Hall, R. Narain. Temperature, pH, and Glucose Responsive Gels via Simple Mixing of Boroxole- and Glyco-Based Polymers. *ACS MacroLetters* **2013**, *2*, 260-264.
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Note. Onco-Innovations Inc. is licensing patents 8, 7, 5. Three licensees commercialized the DEAM-PS resin (*cf.* Patent 1). Patents 3 and 4 were licensed to GreenCentreCanada (Kingston, Ontario), and the MIBA catalyst is commercialized by Sigma-Aldrich.