

## **Michel Gravel**

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### **Education**

- 1998-2004                      Ph.D., Organic Chemistry  
University of Alberta  
Thesis supervisor: Prof. Dennis G. Hall.
- 1994-1997                      B.Sc., Pharmaceutical Chemistry  
Université de Sherbrooke

### **Employment**

- August 2006 - present              Assistant Professor, University of Saskatchewan
- August 2004 -  
August 2006                      NSERC Postdoctoral Fellow, The University of Chicago  
Research advisor: Prof. Viresh H. Rawal
- 1998-2003                      Teaching Assistant, University of Alberta
- May – August 1998              Summer Research Assistant, University of Alberta  
Supervisor: Prof. Dennis G. Hall
- September -  
December 1997                      Honours Project in organic synthesis  
Université de Sherbrooke  
Supervisor: Prof. Pierre Deslongchamps
- May – August 1997              Co-op term in organic methodology  
Bio-Méga/Boehringer Ingelheim  
Supervisor: Dr. Pierre Beaulieu
- September -  
December 1996                      Co-op term in organic methodology  
Bio-Méga/Boehringer Ingelheim  
Supervisor: Dr. Robert Déziel
- January -  
April 1996                      Co-op term in analytical chemistry  
Bio-Méga/Boehringer Ingelheim  
Supervisor: Dr. Pierre Lavallée
- May - August 1995              Research Assistant in solid-phase organic chemistry  
Université de Sherbrooke  
Supervisor: Prof. Normand Voyer

**Scholarships and Awards**

<b>Award</b>	<b>Year</b>	<b>Type</b>
NSERC Postdoctoral Fellowship	2004-2006	National
Andrew Stewart Memorial Graduate Prize	2003	Institutional
J. Gordin Kaplan Graduate Student Award	2000	Institutional
NSERC PGS B	2000-2002	National
Walter H. Johns Fellowship	2000-2002	Institutional
R.U. Lemieux Award (best poster in organic chemistry)	2000	National
NSERC PGS A	1998-2000	National
Walter H. Johns Fellowship	1998-2000	Institutional
AHFMR Scholarship	1998-2003	Provincial
Entrance Scholarship	1998	Institutional
AHFMR Studentship	1998	Provincial
Nicolas Zajac Scholarship (Academic excellence and involvement in student affairs)	1997	Institutional
Best Poster in Organic Chemistry (Sherbrooke undergraduate conference)	1997	Provincial
NSERC Undergraduate Research Scholarship	1997	National
Audience Award (Sherbrooke undergraduate conference)	1995	Provincial
NSERC Undergraduate Research Scholarship	1995	National
Canada Scholarship	1994-1997	National

**Refereed Publications**

Gondi, V.; Gravel, M.; Rawal, V. H., "Hydrogen Bond Catalyzed Enantioselective Vinylogous Mukaiyama Aldol Reaction", *Org. Lett.* **2005**, 7, 5657-5660.

Gravel, M.; Touré, B. B.; Hall, D. G., "Practical procedure for the preparation of functionalized (E)-1-alkenylboronic acids including the unprecedented 1-alkoxycarbonyl derivatives", *Org. Prep. Proc. Int.* **2004**, 36, 573-579.

Gravel, M.; Lachance, H.; Lu, X.; Hall, D.G., "Scope and limitations of the scandium-catalyzed enantioselective addition of chiral allylboronates to aldehydes", *Synthesis* **2004**, 1290-1302. (Feature Article)

Lachance, H.; Lu, X.; Gravel, M.; Hall, D.G., "Scandium-Catalyzed Allylboration of Aldehydes as a Practical Method for Highly Diastereo- and Enantioselective Construction of Homoallylic Alcohols", *J. Am. Chem. Soc.* **2003**, 125, 10160-10161.

Gravel, M.; Thompson, K.A.; Zak, M.; Bérubé, C.; Hall, D.G., "Universal Solid Phase Approach for the Immobilization, Derivatization, and Resin-to-Resin Transfer Reactions of Boronic Acids" *J. Org. Chem.* **2002**, *67*, 3-15. (Article featured on cover page)

Gravel, M.; Bérubé, C.D.; Hall, D.G., "Resin-to-Resin Suzuki Coupling of Solid Supported Arylboronic Acids" *J. Comb. Chem.* **2000**, *2*, 228-231.

Hall, D.G.; Tailor, J.; Gravel, M., "*N,N*-Diethanolaminomethyl Polystyrene: An Efficient Solid Support to Immobilize Boronic Acids" *Angew. Chem. Int. Ed.* **1999**, *38*, 3064-3067.

Déziel, R.; Malenfant, É.; Thibault, C.; Fréchette, S.; Gravel, M., "2,6-Bis[(2*S*)-Tetrahydrofuran-2-yl]phenyl Diselenide: An Effective Reagent for Asymmetric Electrophilic Addition Reactions to Olefins" *Tetrahedron Lett.* **1997**, *38*, 4753-4756.

### **Presentations and Non-Refereed Publications**

Gondi, V.; Gravel, M.; Rawal, V. H., "Hydrogen Bond Catalyzed Enantioselective Vinylogous Mukaiyama Aldol Reaction", Poster presented at the 230<sup>th</sup> ACS National Meeting, Washington, D. C., September 2005.

Hall, D. G.; Gravel, M.; Lachance, H.; Lu, X., "Enantio- and diastereoselective Lewis acid-catalyzed addition of allylboronates to aldehydes", Lecture given at the 226<sup>th</sup> ACS National Meeting, New York City, September 2003.

Gravel, M.; Hall, D.G., "DEAM-PS: Solid-phase chemistry for boronic acids" in *Speciality Chemicals Magazine*, September **2003**, 31-32.

Gravel, M.; Hall, D.G., "*N,N*-Diethanolaminomethyl polystyrene (DEAM-PS)" in *Encyclopedia of Reagents for Organic Synthesis (e-EROS)*, L.A. Paquette, Ed.-in-chief; Wiley InterScience.

Gravel, M.; Thompson, K. A.; Bérubé, C. D.; Zak, M. E.; Tailor, J.; Hall, D. G., "A Universal Solid-Phase Approach for the Immobilization, Derivatization, and Resin-to-Resin Transfer Reactions of Boronic Acids". Poster presented at the National Organic Symposium, Bozeman, Montana, June 10-14, 2001.

Gravel, M.; Thompson, K. A.; Bérubé, C. D.; Zak, M. E.; Tailor, J.; Hall, D. G. "Synthetic Transformations and Resin-to-Resin Transfer Reactions of Solid-Supported Arylboronic Acids", Lecture given at Pacificchem 2000, Honolulu, Hawaii, December 14-19, 2000.

Gravel, M.; Bérubé, C. D.; Zak, M. E.; Tailor, J.; Hall, D. G., "Synthesis and Resin-to-Resin Suzuki Coupling of Arylboronic Acids Immobilized on *N,N*-Diethanolaminomethyl Polystyrene", Poster presented at the 83rd Canadian Society for Chemistry Conference and Exhibition, Calgary, Alberta, May 27 – June 1, 2000.

Gravel, M.; Beaulieu, P., "Préparation de 4-alkylprolines par cyclisation radicalaire intramoléculaire de dérivés de l'acide aspartique", Poster presented at the 9<sup>th</sup> Sherbrooke Undergraduate Conference, Sherbrooke, Québec, October 31, 1997.

Gravel, M.; Voyer, N. "Synthèse d'un canal ionique artificiel", Lecture given at the 7<sup>th</sup> Sherbrooke Undergraduate Conference, Sherbrooke, Québec, October 27, 1995.

### **Other Professional Activities**

March 2004	Guest lecturer at Kwame N'Krumah University of Science and Technology and at Cape Coast University, Ghana.
November 7-9, 2003	Co-organizer of the 1 <sup>st</sup> Banff Symposium on Organic Chemistry, Banff, Alberta.
May 1999	Judge for the National Science Fair, Edmonton, Alberta.
April 1999	Host for the organic chemistry students' speaker (Prof. Cynthia J. Burrows).
1999 and 2003	Volunteer for the Faculty of Graduate Studies and Research Outreach program.
October 31, 1997	Co-organizer of the "9 <sup>e</sup> Colloque Annuel des Étudiants de Chimie de l'Université de Sherbrooke" (Undergraduate Conference).
1994-1997	Vice-President (External Affairs) of the Association Générale des Étudiants en Sciences de l'Université de Sherbrooke.