

Christine M. Le, Ph.D.

Department of Chemistry
York University
North York, Ontario

Professional Appointments

07/2020 – Current **York University**
Assistant Professor, Department of Chemistry
08/2019 – 05/2020 **University of New Mexico**
Assistant Professor, Department of Chemistry & Chemical Biology

Academic Background

07/2012 – 12/2016 **University of Toronto**
Ph.D. Degree in Organic Chemistry
06/2011 – 06/2012 **University of Toronto**
M.Sc. Degree in Organic Chemistry
09/2007 – 04/2011 **Western University**
B.Sc. Degree in Chemistry
Honors Specialization Program, Western Scholars Honors Distinction

Research Experience

02/2017 – 05/2019 **Postdoctoral Research Associate** University of California, Berkeley
Department of Chemistry
Supervisor: Professor F. Dean Toste
07/2012 – 12/2016 **Ph.D. Student** University of Toronto
Department of Chemistry
Supervisor: Professor Mark Lautens
11/2015 **Visiting Scientist** Rahway, New Jersey
Merck & Co., Process Chemistry
06/2011 – 06/2012 **M.Sc. Student** University of Toronto
Department of Chemistry
Supervisor: Professor Vy Dong
09/2010 – 04/2011 **Honors Thesis Student** Western University
Department of Chemistry
Supervisor: Professor Brian Pagenkopf
04/2010 – 08/2010 **Undergraduate Research Assistant** Western University
Department of Chemistry
Supervisor: Professor Brian Pagenkopf
04/2009 – 08/2009 **Undergraduate Research Assistant** Western University
Department of Chemistry
Supervisor: Professor Paul Ragogna

Publications (*denotes equal authorship)

- 10 **Le, C. M.**; Morra, B. Retrosynthetic Graphic Organizers and Molecule of the Week Activities in Organic Chemistry Tutorials. *J. Chem. Educ.* **2019**, *96*, 1640–1645.
- 9 von Delius, M.; **Le, C. M.**; Ellinger, B.; Kuzikov, M.; Gul, S.; Dong, V. M. Synthesis and Biological Activity of Octaketides from the Cytosporone Family. *Isr. J. Chem.* **2017**, *57*, 975–981.
- 8 Sperger, T.; **Le, C. M.**; Lautens, M.; Schoenebeck, F. Mechanistic Insights on the Pd-Catalyzed Addition of C–X Bonds across Alkynes – A Combined Experimental and Computational Study. *Chem. Sci.* **2017**, *8*, 2914–2922.

- 7 **Le, C. M.**; Sperger, T.; Fu, R.; Hou, X.; Lim, Y. H.; Schoenebeck, F.; Lautens, M. Stereoselective Synthesis of Methylene Oxindoles via Palladium(II)-Catalyzed Intramolecular Cross-Coupling of Carbamoyl Chlorides. *J. Am. Chem. Soc.* **2016**, *138*, 14441–14448.
- 6 **Le, C. M.**; Hou, X.; Sperger, T.; Schoenebeck, F.; Lautens, M. An Exclusively *trans*-Selective Chlorocarbamoylation of Alkynes Enabled by a Palladium/phosphaadamantane Catalyst. *Angew. Chem. Int. Ed.* **2015**, *54*, 15897–15900 (**Highlighted in Synfacts**).
- 5 **Le, C. M.**; Menzies, P. J. C.; Petrone, D. A.; Lautens, M. Synergistic Steric Effects in the Development of a Palladium-Catalyzed Alkyne Carbohalogenation: Stereodivergent Synthesis of Vinyl Halides. *Angew. Chem. Int. Ed.* **2015**, *54*, 254–257
- 4 Petrone, D. A.*; **Le, C. M.***; Newman, S. G.; Lautens, M. Pd(0)-Catalyzed Carbiodination: Early Developments and Recent Advances. In *New Trends in Cross-Coupling: Theory and Application*; 1st ed. Colacot, T. J. Ed. RCS Publishing: 2014; pp 276–321.
- 3 Zhang, L.; **Le, C. M.**; Lautens, M. The Use of Silyl Ketene Acetals and Enol Ethers in the Catalytic Enantioselective Alkylative Ring Opening of Oxa/Aza Bicyclic Alkenes. *Angew. Chem. Int. Ed.* **2014**, *53*, 5951–5954.
- 2 von Delius, M.; **Le, C. M.**; Dong, V. M. Rhodium-Phosphoramidite Catalyzed Alkene Hydroacylation: Mechanism and Octaketide Natural Product Synthesis. *J. Am. Chem. Soc.*, **2012**, *134*, 15022–15032.
- 1 Martin, C. D.; **Le, C. M.**; Ragogna, P. J. Remarkably Stable Chalcogen(II) Dications. *J. Am. Chem. Soc.*, **2009**, *131*, 15126–15127 (**Highlighted in Nature Chemistry and Chemical & Engineering News**).

Conference Presentations

- 10 **Le, C. M.**; Toste, F. D. 2019 (Oral), “An Asymmetric Aza-Claisen Rearrangement Catalyzed by Chiral Phosphoric Acids” (102nd Canadian Chemistry Conference and Exhibition, Quebec City, Quebec).
- 9 **Le, C. M.**; Lautens, M.; Schoenebeck, F. 2018 (Oral), “Synthesis of Tetrasubstituted Vinyl Halides via Palladium Catalysis” (101st Canadian Chemistry Conference and Exhibition, Edmonton, Alberta).
- 8 **Le, C. M.**; Fu, R.; Sperger, T.; Hou, X.; Lim, Y.; Schoenebeck, F.; Lautens, M. 2016 (Poster), “Synthesis of 3-(Halomethylene)oxindoles via a Pd(II)-Catalyzed Intramolecular Chlorocarbamoylation of Alkynes” (Gordon Research Conference: Organic Reactions and Processes, Easton, MA)
- 7 **Le, C. M.**; Hou, X.; Sperger, T.; Schoenebeck, F.; Lautens, M. 2016 (Oral), “Palladium/Phosphaadamantane Catalyst Enables an Exclusively Selective *trans*-Chlorocarbamoylation of Alkynes” (19th International Symposium for Advancing the Chemical Sciences: Challenges in Organic Chemistry, Irvine, CA)
- 6 **Le, C. M.**; Hou, X.; Sperger, T.; Schoenebeck, F.; Lautens, M. 2016 (Oral), “Palladium/Phosphaadamantane Catalyst Enables an Exclusively Selective *trans*-Chlorocarbamoylation of Alkynes” (251st American Chemical Society National Meeting & Exposition, San Diego, CA)
- 5 **Le, C. M.**; Menzies, P. J. C.; Petrone, D. A.; Lautens, M. 2015 (Poster), “Synergistic Steric Effects in the Development of a Pd-Catalyzed Alkyne Carbohalogenation Reaction” (18th IUPAC International Symposium on Organometallic Chemistry Directed Towards Organic Synthesis, Sitges, Spain)
- 4 **Le, C. M.**; Menzies, P. J. C.; Petrone, D. A.; Lautens, M. 2014 (Oral), “Stereodivergent Synthesis of Vinyl Halides via Palladium-Catalyzed Carbohalogenation of Hindered Alkynes” (25th Quebec and Ontario Mini-Symposium in Synthetic and Bioorganic Chemistry, Toronto, Ontario)
- 3 Zhang, L.; **Le, C. M.**; Lautens, M. 2013 (Poster), “Rhodium-Catalyzed Asymmetric Ring-Opening of Meso Oxabicyclic Alkenes with Silyl Enol Ethers and Silyl Ketene Acetals” (96th Canadian Chemistry Conference and Exhibition, Quebec City, Quebec)
- 2 von Delius, M.; **Le, C. M.**; Dong, V. M. 2012 (Poster), “A Linear-selective Hydroacylation Strategy for the Collective Total Synthesis of Polyketide Natural Products” (8th CRC International Symposium on Organometallics and Catalysis, Toronto, Ontario)
- 1 **Le, C. M.**; Stevens, A. C.; Pagenkopf, B. L. 2011 (Oral), “Synthesis of Tetrahydrocarbazoles using Donor-Acceptor Cyclobutanes” (39th Southern Ontario Undergraduate Student Chemistry Conference, Waterloo, Ontario)

Teaching Experience

University of New Mexico

- CHEM 514, Synthesis in Organic Chemistry
- CHEM 625, Chemistry Divisional Seminar

University of Toronto

- CHM 247H, Introductory Organic Chemistry II

Other

- Chemistry Teaching Fellows Program
- International Chemistry Olympiad Tutor

Select Awards, Scholarships and Distinctions Received

- 2017 – 2019 **NSERC Postdoctoral Fellowship**
Ranked 1st among all female applicants and 2nd among all applicants in chemistry
- 2016 **Boehringer Ingelheim Award of Excellence in Organic or Bioorganic Chemistry**
- 2016 **Faculty of Arts & Science Travel Grant**
- 2015 **Croft Teaching Award**
- 2015 **Named Torontonians of the Year by Post City Magazines**
- 2015 **Huguette Cohen Award**
- 2015 **Forbes Magazine's "30 Under 30" list in Science**
- 2014 **Chemistry Graduate Conference Travel Grant**
- 2014 **1st Place Oral Presentation Award**
25th Quebec and Ontario Mini-Symposium in Synthetic and Bioorganic Chemistry
- 2013 **Scientific American's "30 Under 30" list for promising young chemists**
- 2013 **Sponsored by NSERC to attend the 63rd Lindau Nobel Laureate Meeting in Germany**
Awarded to the top five young Canadian researchers
- 2013 – 2016 **Alexander Graham Bell Canada Graduate Scholarship, doctoral level (CGS-D)**
- 2012 – 2013 **Julie Payette NSERC Research Scholarship**
Awarded to the top 24 applicants in Canada
- 2011 **Western University Alumni Gold Medal**
Awarded to a graduating student in the Honors Specialization in Chemistry program with the highest cumulative average
- 2011 **Oakley and Marion Dean Continuing Scholarships at Western University**
- 2011 **3rd Place Oral Presentation Award**
39th Southern Ontario Undergraduate Student Chemistry Conference
- 2010, 2009 **NSERC undergraduate student research award at Western University**
- 2009 – 2011 **Richard Ivey Continuing Scholarship for Excellence in Science**
- 2009 – 2011 **Theodor Ackerman Continuing Scholarship for Excellence in Chemistry**
- 2007 – 2011 **Western University Entrance Continuing Scholarship**

Invited Lectures

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| 09/2017 | Boehringer Ingelheim Award Lecture | University of Toronto |
| 09/2015 | Teaching Assistant Training Day | University of Toronto |
| 06/2015 | Guest Lecture at Chemistry Teaching Symposium | University of Toronto |
| 05/2015 | Career Day Guest Speaker | University of Toronto |
| 03/2015 | Keynote speaker at Undergraduate 3 Minute Thesis Competition | University of Toronto |

Professional Activities

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| 04/2018 - Current | Science Leadership & Management Committee <ul style="list-style-type: none">• Organize and host seminar speakers from academia, industry, and government agencies | University of California Berkeley |
| 09/2015 – 05/2016 | Women in Chemistry Toronto <ul style="list-style-type: none">• President and co-founding member | University of Toronto |
| 06/2013 – 05/2015 | Scientific Writer <ul style="list-style-type: none">• Monthly contributor for Synfacts journal (79 published articles) | Thieme Chemistry |