

# TAYLOR PATRICK ALLAN HARI

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## SUMMARY

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- 8 years of research experience in synthetic design and asymmetric synthesis of complex natural products.
- Extensive proficiency in advanced techniques for structural elucidation and purification *via* NMR, MS, HPLC.
- Mentorship and supervision of students at both undergraduate (12 students) and graduate (2) levels.
- Experience in technical writing, editing and review of journal articles and grant proposals.
- Active member of scientific community *via* presentations at regional, national and international conferences.
- Proven entrepreneurial success through start-up business plan recognition and commercialization of school project.

## EDUCATION

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University of Ottawa, Ottawa, Canada

**Doctorate of Philosophy (Ph.D.), Chemistry**

**2012-present**

Area of Specialization: Asymmetric Synthesis of Macrocyclic Polyketide Natural Products

Telfer School of Management, Ottawa, Canada

**Scientific Management & Leadership Graduate Diploma**

**2010-2015**

University of Ottawa, Ottawa, Canada

**Master of Science (M.Sc.), Chemistry**

**2009-2012**

Thesis: *Efforts Toward an Oxa-Conjugate Addition Based Approach to (+)-Neopeltolide Synthesis*

University of Ottawa, Ottawa, Canada

**Bachelor of Science (B.Sc. Hons.), Biopharmaceutical Sciences**

**2004-2009**

Area of Specialization: Medicinal Chemistry (GPA 3.3/4.0)

## RELATED EXPERIENCE

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University of Ottawa, Ottawa, Ontario, Canada

**Research Scientist** (Advisor: Prof. Christopher N. Boddy)

**2008-present**

- Designing and conducting multistep stereoselective synthesis of macrocyclic polyketide natural products.
- Providing safety direction and demonstration as the laboratory safety officer.
- Recruiting, training and supervising new synthetic chemistry undergraduate and graduate students.

University of Notre Dame, Notre Dame, Indiana, USA

**Visiting NSERC Researcher** (Advisor: Prof. Richard E. Taylor)

**Feb. 2014-Aug. 2014**

- Performed multistep stereoselective synthesis toward a highly-oxygenated polyketide natural product.
- Collaborated in the design of analog substrates and computer-based conformational studies.

Department of National Defence, Ottawa, Ontario, Canada

**Regulatory Affairs Officer** (Advisor: Milan Patel, M.Sc., CerRAP)

**May 2007-Sept.2007**

- Developed documents for the approval of pharmaceuticals and therapeutics within the Canadian Armed Forces.
- Assisted in preparing special access program requests for use of unauthorized pharmaceuticals and therapeutics.
- Created and updated phase III clinical study protocols, investigators' brochures, and other clinical trial application documents.

Health Canada, Ottawa, Ontario, Canada

**Toxicological Evaluator** (Advisor: Mark Feeley, Ph.D.)

**Jan. 2007-April 2007**

- Reviewed the basis for changes to food contaminant guidelines using polychlorinated biphenyl (PCB) and perfluorinated compound (PFC) contaminant data sets and corresponding food regulations from various sources.
- Processed PCB and PFC contaminant data using Microsoft Excel, providing direct comparisons between current and expired Health Canada guidelines.

## AWARDS & RECOGNITION

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- **2012-2016**; University of Ottawa Graduate Admissions Scholarship (awarded for GPA of 3.7/4.0 or greater).
- **2014**; NSERC CREATE Visiting Research Travel Grant.
- **2013**; Métis Nation of Ontario Provincial Entrepreneurship Competition (Third Place of 25 finalists).
- **2013**; Mentor to Honors Research Project of the Year (Kyle McClymont, Biopharmaceutical Sciences Program).
- **2012**; University of Ottawa Faculty of Graduate and Postdoctoral Studies Dean's Scholarship.
- **2009-2011**; NSERC CREATE Graduate Scholarship.
- **2009**; Barclays Global Investors Canada Ltd. Scholarship.
- **2004-2005**; University of Ottawa Admission Scholarship (awarded for GPA of 3.9/4.0).

## PUBLICATIONS

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(*h*-index = 3; RG Score = **14.03** updated 2016-03-15)

- **Diastereoselective transannular oxa-conjugate addition generates the 2,6-*cis*-disubstituted tetrahydropyran of neopeltolide.** Hari T. P. A., Wilke B. I., Davey J. A., & Boddy C. N., **2016**, *81*, 415-423.
- **Polyketide synthase and non-ribosomal peptide synthetase thioesterase selectivity: Logic gate or victim of fate?** Horsman, M. E., Hari T. P. A., & Boddy C. N., *Nat. Prod. Rep.*, **2016**, *33*, 183-202.
- (*Invited Cover Art*) **Inside Back Cover: An evolutionary model encompassing substrate specificity and reactivity of type I polyketide synthase thioesterases.** Hari T. P. A., Labana, P., Boileau, M., & Boddy C. N., *ChemBioChem*, **2014**, *15* (18), 2791.
- **An evolutionary model encompassing substrate specificity and reactivity of type I polyketide synthase thioesterases.** Hari T. P. A., Labana, P., Boileau, M., & Boddy C. N., *ChemBioChem*, **2014**, *15* (18), 2656-2661.
- **The role of transcription in heterologous expression of polyketides in bacterial hosts.** Stevens D. C., Hari T. P. A., & Boddy C. N.; *Nat. Prod. Rep.*, **2013**, *30* (11), 1391-1411.

## PROFESSIONAL TRAINING

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- **2013**; 100 Essential Small Business Skills™; GoForth Institute; Toronto, Canada.
- **2013**; Team Building; Mathematics of Information Technology and Complex Systems Inc.; Ottawa, Canada.
- **2012**; From Idea to Launch: Transforming business ideas into reality; McGill University Professional Development Courses, Workshops & Webinars; Montréal, Canada.
- **2010**; Drug-Like Properties in Drug Discovery: Concepts, Structure Design and Methods; Boehringer Ingelheim; Laval, Canada.

## PRESENTATIONS

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- **2015**; *Toward the total synthesis of (+)-neopeltolide: An oxa-conjugate route to the disubstituted 2,6-*cis*-tetrahydropyran ring system*; 98<sup>th</sup> Canadian Chemistry Conference and Exhibition; Ottawa, Canada.
- **2015**; *Characterizing the thioesterase from 6-deoxyerythronolide B synthase: Stereoselective macrolide and macrodiolide formation*; 98<sup>th</sup> Canadian Chemistry Conference and Exhibition; Ottawa, Canada.
- **2014**; *Design and Synthesis of (+)-Peloruside A Analogs*; University of Notre Dame; Notre Dame, Indiana, USA.
- **2014**; *Chemoenzymatic Synthesis of Polyketide Natural Products*; University of Notre Dame; Notre Dame, Indiana, USA.
- **2014**; *Chemoenzymatic Synthesis of Polyketide Natural Products*; BioMOLAR Network; Ottawa, Ontario, Canada.
- **2013**; *6-Deoxyerythronolide B synthase thioesterase-catalyzes stereoselective macrolide and macrodiolide formation*; Quebec and Ontario Mini-Symposium on Biological and Organic Chemistry; Sherbrooke, Quebec, Canada.
- **2013**; *Progress toward an oxa-Michael addition synthesis of (+)-neopeltolide*; 96<sup>th</sup> Canadian Chemistry Conference and Exhibition; Québec, Quebec, Canada.

- **2012**; *Efforts Toward an Oxa-Conjugate Addition Based Approach to (+)-Neopeltolide Synthesis*; University of Ottawa; Ottawa, Ontario, Canada.
- **2011**; *An Evaluation of Biomimetic Synthesis: Common Traits and Identification Criteria*; University of Ottawa; Ottawa, Ontario, Canada.
- **2010**; *Oxa-conjugate addition route to the chemoenzymatic synthesis of neopeltolide*; Pacificchem 2010; Honolulu, Hawaii, USA.
- **2010**; *Oxa-conjugate addition route toward the biomimetic synthesis of neopeltolide*; Quebec and Ontario Mini-Symposium on Biological and Organic Chemistry; St. Catherines, Ontario, Canada.
- **2010**; *Oxa-conjugate addition route to the chemoenzymatic synthesis of neopeltolide*; Ottawa-Carleton Chemistry Institute; Ottawa, Ontario, Canada.
- **2009**; *Toward a Biomimetic Synthesis of Neopeltolide*; University of Ottawa; Ottawa, Ontario, Canada.

## ACTIVITIES & INTERESTS

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- Sports – international hockey experience (Canada-United States-Sweden, 1990-2004), voted team captain; National Championship silver medalist (American football, 2003); recreational softball.
- Art and design – small-scale fashion experience & sales; maintaining group website ([www.boddylab.ca](http://www.boddylab.ca)); woodworking (beginner level); former orchestra member (double bass, 2000-2004).

## PROFESSIONAL REFERENCES

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