



Canadian Society for Chemistry | ***For Our Future***

# CSC Awards

*Terms of Reference and Lists of Award Recipients*

# CSC Awards

The CSC Awards program recognizes outstanding contributions by chemists for their research in a wide variety of fields. Most CSC award winners receive their awards and present award lectures at the Canadian Chemistry Conference and Exhibition

This CSC Awards Handbook provides the Terms of Reference for each award along with a list of current and past winners. The awards are

- Alfred Bader Award
- Bernard Belleau Award  
formerly Hoffmann–La Roche Ltd. Award  
formerly Syntex Award
- *Canadian Journal of Chemistry* Best Paper Award
- CCUCC Chemistry Doctoral Award
- Clara Benson Award
- E.W.R. Steacie Award
- IntelliSyn  
formerly Boehringer Ingelheim (Canada) Research Excellence Award
- John C. Polanyi Award
- Keith Fagnou Award
- Keith Laidler Award  
formerly Noranda Award
- Melanie O'Neill Award
- R. U. Lemieux Award
- Ricardo Aroca Award  
formerly Maxxam Award  
formerly Fisher Scientific Award
- Rio Tinto Alcan Award  
formerly Alcan Award
- Strem Chemicals Award for Pure or Applied Inorganic Chemistry  
formerly Award for Pure or Applied Inorganic Chemistry
- T K Sham Award for Research Excellence in Materials Chemistry
- Teva Canada Limited Biological and Medicinal Chemistry (BMC) Lectureship Award
- Tom Ziegler Award
- W.A.E. McBryde Medal:

List of past winners for awards no longer offered:

- Boehringer Ingelheim Doctoral Thesis Award
- Ichikizaki Fund for Young Chemists
- Merck Frosst Therapeutic Centre Award

## Alfred Bader Award

This award is presented as a mark of distinction and recognition for excellence in research in organic chemistry by a scientist who is currently working in Canada.

### Terms of Reference

**Deadline:** July 2 of every year

**Sponsor:** Alfred Bader, HFCIC

**Award:** A framed scroll, \$3,000 cash and up to \$500 for travel to the CSC Conference to present the lecture, if required.

**Eligibility:** The scientist shall not have reached the age of 60 years by January 1 of the year in which the nomination becomes effective. The recipient will be required to present an award lecture at the Canadian Chemistry Conference and Exhibition. Membership in the Institute is not a prerequisite for this award.

All nominations will remain in force for three years. Nominators are responsible for keeping the record of the nominee up to date and complete.

### Nominations must include:

- **Citation** (250 word maximum) statement of why the candidate should receive the award. This is the key document in the nomination and this information should be relevant to the achievements for which the award is being offered.
- **Biographical Sketch** (maximum one page) This provides background information on the nominee and summarizes past accomplishments. This is a summary of information obtained from a C.V.
- **Curriculum Vitae** (maximum nine pages).
- **Supporting Letters** (3 to 5) At least two letters must be from outside the nominee's organization.

Membership in the Institute is not a prerequisite for this award.

All nominations will remain in force for three years. Nominators are responsible for keeping the record of the nominee up to date and complete.

### Selection Committee:

- CSC Director of Awards as non-voting Chair
- Past Chair of the Organic Chemistry Division
- Past two winners of the Alfred Bader Award

The award shall be presented annually unless the Committee considers that no suitable candidate has been nominated.

### List of Recipients

| Date | Award Winner      | Award Lecture  |
|------|-------------------|--|
| 2017 | Andrei Yudin      | Synthesis of Bioactive Macrocycles   |
| 2016 | Dennis Hall       | Boronic Acid Catalysis: Rethinking Classical Reactions with Greener Substrates   |
| 2015 | Michael A. Kerr   | Towards the Total Synthesis of Callosine   |
| 2014 | Robert A. Batey   | Applications of Organoboron-based Reactions towards the Synthesis of Macrocyclic Dipeptides and Related Natural Products                           |
| 2013 | B. Mario Pinto    | Serendipity and Nature's Guide to Therapeutic Interventions  |
| 2012 | Yvan Guindon      | From Free-Radicals to Polypropionates  |
| 2011 | Frederick G. West | Approaches to Natural and Unnatural Oxacyclic Compounds  |
| 2010 | Tomas Hudlicky    | Design and Stereoselective Synthesis of Medicinal Agents via Chemoenzymatic Methods: The Story of Amarylidaceae and Morphine Alkaloids and Tamiflu |
| 2009 | André Charette    | New Developments in the Asymmetric Cyclopropanation of Alkenes   |

|      |                      |   |
|------|----------------------|---|
| 2008 | Thomas G. Back       | Design and Synthesis of Some Biologically Interesting Natural and Unnatural Products  |
| 2007 | No award             |   |
| 2006 | Mark Lautens         | Meddling with Metals: New Reactions and Applications  |
| 2005 | John Vederas         | Bacteriocins: Antimicrobial Peptides from Bacteria – Structure, Synthetic Modification, and Mode of Action  |
| 2004 | R. Stanley Brown     | Metal Ion Catalyzed Acyl and Phosphoryl Transfer Reactions. New Strategies for the Disposal of Organophosphorus Pesticides and Chemical Warfare Materials |
| 2003 | J. Peter Guthrie     |   |
| 2002 | Derrick L. Clive     |   |
| 2001 | James D. Wuest       |   |
| 2000 | J. Scheffer          |   |
| 1999 | Clifford Leznoff     | From Solid Phase Organic Synthesis to Phthalocyanines   |
| 1998 | Alex G. Fallis       | Tangents and Targets: The Synthetic Highway From Natural Products to Medicine   |
| 1997 | Robert McClelland    | Reactivities of Carbenium and Nitrenium Ions in Organic and Biological Processes  |
| 1996 | Ronald Kluger        | Biomimetic Aminoacylation – Aminoacyl Phosphate Monoesters  |
| 1995 | D. Arnold            | Radical Ions in Photochemistry  |
| 1994 | Edward Piers         | Versatile Bifunctional Reagents for Organic Syntheses: Preparation and Applications   |
| 1993 | Victor Snieckus      | Aromatic Metallation. Methodology and Synthetic Consequences.   |
| 1992 | J. Bryan Jones       | Probing the Specificity of Synthetically Useful Enzymes   |
| 1991 | Pierre Deslongchamps | Transannular Diels-Alder on Macrocycles; A Powerful Synthetic Strategy  |
| 1990 | Howard Alper         | Metal Catalyzed Organic Reactions   |
| 1989 | Keith U. Ingold      | At the Organic Chemistry/Bioscience Interface: Rate Processes in Complex Systems  |
| 1988 | Stephen Hanessian    | Design and Implementation of Tactically Novel Strategies for Stereochemical Control   |

## Bernard Belleau Award

This award is presented to a scientist residing in Canada who has made a distinguished contribution to the field of medicinal chemistry through research involving biochemical or organic chemical mechanisms.

### Terms of Reference

**Deadline:** July 2 of every year

**Sponsor:** Biological/Medicinal Chemistry Division

**Award:** A framed scroll

The recipient will be required to present an award lecture at the Canadian Chemistry Conference and Exhibition.

### Nominations must include:

- **Citation** (250 word maximum) statement of why the candidate should receive the award. This is the key document in the nomination and this information should be relevant to the achievements for which the award is being offered.
- **Biographical Sketch** (maximum one page) This provides background information on the nominee and summarizes past accomplishments. This is a summary of information obtained from a C.V.
- **Curriculum Vitae** (maximum nine pages).
- **Supporting Letters** (3 to 5) At least two letters must be from outside the nominee's organization.

Membership in the Institute is not a prerequisite for this award.

All nominations will remain in force for three years. Nominators are responsible for keeping the record of the nominee up to date and complete.

### Selection Committee

- CSC Director of Awards as non-voting Chair
- Chair of the Biological/Medicinal Chemistry Division
- Chair of the Organic Chemistry Division
- One past award winner

The award shall be presented annually unless the Committee considers that no suitable candidate has been nominated.

### List of Recipients

| Date | Award Winner         | Award Lecture  |
|------|----------------------|--|
| 2017 | Jeffrey W. Keillor   | Targeted Covalent Inhibition of Tissue Transglutaminase in Cancer Stem Cells                         |
| 2016 | Patrick T. Gunning   | Targeted Covalent Modification of Cancer Promoting Proteins: Lessons Learned                         |
| 2015 | Andrei K. Yudin      | New Synthetic Methods Based on Amphoteric Reactivity: From Heterocycles to Bioactive Boron Fragments |
| 2014 | John Honek           | Biological Chemistry of the Carbon-sulfur Bond   |
| 2013 | William Lubell       | Discovery and Study of Biologically Active Peptides Towards Drug Discovery                           |
| 2012 | Todd Lowary          | Protein Recognition of Bacterial Glycans Containing  |
| 2011 | Pierre Deslongchamps | From Fundamental Studies in Organic Synthesis to Drug Discoveries                                    |

Sponsored by Bristol Myers Squibb Canada

|      |                  |   |
|------|------------------|---|
| 2010 | Martin Tanner    | Studies on, and the Manipulation of, Enzymes Involved in Alkaloid and Sialic Acid Biosynthetic Pathways |
| 2009 | Andrew Bennet    | Intrinsic Reactivity and Catalysis in Carbohydrate Chemistry  |
| 2008 | G. Andrew Wooley | Photo-Switchable Proteins   |
| 2007 | Masad Damha      | Silencing Aberrant RNAs with Arabinonucleic Acids: Possible New Therapeutic Agents                      |
| 2006 | Jik Chin         | Ligand Design: From Artificial Hydrolytic Metalloenzymes to Stereoselective Recognition                 |

|      |                   |  |
|------|-------------------|--|
| 2005 | Victor Snieckus   | Carbanion-Mediated Strategies for Synthetic Aromatic Chemistry |
| 2004 | David R. Bundle   |  |
| 2003 | Donald F. Weaver  |  |
| 2002 | B. Mario Pinto    |  |
| 2001 | Stephen Hanessian |  |
| 2000 | N/A               |  |

#### **Hoffmann–La Roche Ltd. Award**

Sponsored by Hoffman–La Roche Limited

|      |                    |   |
|------|--------------------|---|
| 1999 | N/A                |   |
| 1998 | Stephen G. Withers | Understanding and Exploiting Glycosidases.                            |
| 1997 | René Roy           | Neoglycoconjugates: New Glycotools for Immunochemical Investigations. |
| 1996 | J. W. Lown         | Photochemistry and Photobiology of Perylenequinones.                  |

#### **Syntex Award**

Sponsored by Syntex Discovery Research

|      |                      |  |
|------|----------------------|--|
| 1995 | J. Peter Guthrie     | Correlation and Prediction of Rate Constants for Organic Reactions.  |
| 1994 | Ronald H. Kluger     | Anionic Electrophiles, Protein Modification, and Artificial Blood.   |
| 1993 | David Dolphin        | Photodynamic Therapy.  |
| 1992 | R. C. Barclay        | Model Biomembranes: Quantitative Studies of Peroxidation, Antioxidant Action, Partitioning, and Oxidative Stress.                    |
| 1991 | R. Stanley Brown     | Physical and Structural Properties of Distorted Bicyclic Analides and their Use as Model Substrates for Biomimetic Protease Studies. |
| 1990 | Robert A. McClelland | Molecular Interactions and Biological Effects of the Products of Reduction of Nitroimidazole Drugs.                                  |
| 1989 | John Warkentin       | New Chemistry of Acrylic and Cyclic Diazene Systems, Born from a Long Affair with Azo Functional Group.                              |
| 1988 | A. J. Kresge         | Flash Photolytic Generation and Study of Reactive Species.   |
| 1987 | R. Stewart           | Some Aspects of Hydrogen Transfer in Organic Chemistry.  |
| 1986 | E. G. Janzen         | Spin Trapping  |
| 1985 | E. Buncl             | Interactions of Nucleophiles with Nitroaromatic Electrophiles and Super-Electrophiles.   |
| 1984 | K. Yates             | Photohydration Reactions.  |
| 1983 | Keith U. Ingold      | Vitamin E in vitro and in vivo.  |

## Canadian Journal of Chemistry Best Paper Award

This annual award recognizes the “best paper” published in the volume year of the *Canadian Journal of Chemistry (CJC)* by a scientist residing in Canada.

### Terms of Reference

**Sponsor:** [Canadian Journal of Chemistry](#) and [Canadian Science Publishing \(CSP\)](#)

#### Eligibility

- A nominee must be the sole corresponding author or one of the corresponding authors.
- S/he must hold a professional appointment as an independent researcher in academia, government, or industry in Canada at the time of nomination.
- CIC Membership is *not* a prerequisite for this award.
- The current *CJC* editorial advisory board members and editors are *not* eligible.

#### Award

- A certificate
- The winner is expected to present an award lecture at the Canadian Chemistry Conference and Exhibition in an appropriate symposium. A prize of \$1,000 can be used to offset the costs of registration at and travel to the CSC conference.
- The winner is also expected to give a sponsored lecture tour to include 1 or 2 Canadian universities. The location(s) are to be approved by the *CJC*. Up to \$1,500 in major travel costs for this tour will be reimbursed by the CSP.
- The award-winning paper will be made open access in perpetuity.

#### Nomination procedure and deadline

- When submitting a manuscript via the *CJC* web site [<http://www.nrcresearchpress.com/journal/cjc>], the author shall indicate whether s/he wishes the submission to be considered for the award nomination
- Nominations shall be made by the Section Editors who handle the manuscripts based on the papers published in the preceding year (between January–December)
- Nomination deadline is February 1 every year
- 

#### Selection criteria:

- Originality, creativity and novelty
- Scientific importance and potential impact
- Breakthrough in a particular area
- Quality and clarity of the presentation

#### Selection committee

- Three members from the Editorial Advisory Board who are not from the same institutes as the nominees.

The award shall be presented annually unless the Committee considers that no suitable candidate has been nominated.

#### List of Recipients

| Date | Award Winner    | Award Lecture  |
|------|-----------------|--|
| 2017 | James W. Gauld  | Computational Enzymology Elucidating the Role of Enzyme Active Sites and their Residues in Ligand Binding Oxidative Protection and Catalysis |
| 2016 | Kevvin Thurbide | A Novel Ultrashort Capillary Gas Chromatography Method Using On-column Injection and Detection   |
| 2015 | Adrian Schwan   | The Diverse Chemistry of Sulfinic Ester Substituted Diels-Alder Cycloadducts.  |



## CCUCC Chemistry Doctoral Award

This award is intended to recognize outstanding achievement and potential in research by a graduate student who has fulfilled all of the requirements for a PhD degree for graduation from a Canadian university in the 12- month period preceding the nomination deadline of Sept 15. The formal convocation need not have occurred. In selecting candidates for the award, the Selection Committee shall be primarily concerned with demonstrated ability and achievements in research.

### Terms of Reference

**Deadline:** September 15 of every year

**Sponsor:** Canadian Council of University Chemistry Chairs (CCUCC)

**Award:** A framed scroll, \$2,000 (which includes travel expenses to present the lecture at the CSC Conference). If the award winner is not a member of the CIC/CSC, the award will also include one-year free membership to the society

Nomination must include:

- **Letter of support** by the nominator
- **Curriculum vitae**, in which the nominee's research contributions are described according to the NSERC Guidelines for Postdoctoral Fellowships, Parts I and II. (Part I: list of contributions to research and development; Part II: brief description of the nominee's role in his/her three most significant contributions to research, and their significance and impact. See the [NSERC website](#))
- Thesis synopsis - abstract
- Statement of merit – Thesis committee comments
- One representative publication

The recipient will be required to present an award lecture at the Canadian Chemistry Conference and Exhibition.

Membership in the Institute is not a prerequisite for this award.

### Selection Committee

- CSC Director of Awards as non-voting Chair
- Past or current Chair of the CCUCC
- Past or current Treasurer of the CCUCC
- To ensure breadth of expertise, one or more members of the CCUCC, appointed by the CCUCC Chair, and in the event of a conflict of interest by the CCUCC chair, the CCUCC Treasurer.

Nominations for this award are valid for one year only.

### List of Recipients

| Date | Award Winner         | Award Lecture   |
|------|----------------------|---|
| 2017 | Cristina Mottilo     | Synthesis and Design of Microporous Metal-organic Materials and Molecular Solids in the Solid State   |
| 2016 | Stephen Winter       | Opportunities for Spin-orbit Coupling in p-systems: Bridging Chemistry and Physics  |
| 2015 | Mita Dasog           | Silicon Nanocrystals: The Rebel Child of the Semiconductor Quantum Dot Family   |
| 2014 | Gabriel Ménard       | Main Group Goes Mainstream: New Adventures in Small Molecule Activation Using P/Ai Frustrated Lewis Pairs                                     |
| 2013 | Zachary M. Hudson    | Molecules Shape and Light: Luminescent Organoboron Compounds for Optoelectronics  |
| 2012 | Charles Yeung        | Transition Metal Catalysis Activating CO <sub>2</sub> , CH and CO Bonds En Route to Carboxylic Acids, Biaryls, and N- Containing Heterocycles |
| 2011 | Matthew Macauley     | Insight into O-GlcNAc Protein Modifications Using Chemical and Biochemical Tools  |
| 2010 | Michael J. Katz      | From Poison to Pepto: The Role of the Metal Cation in Birefringent Cyanoaurate-Containing Coordination Polymers                               |
| 2009 | Ludovico Cademartiri | Opportunities in the Grey Area Between Polymers and Nanowires   |

2008 Vivain L. Y. Yip Family 4 Glycosidases Utilize a Redox-Elimination Mechanism in the Hydrolysis of  $\alpha$ - and  $\beta$ -Glycosides

## Clara Benson Award

This award is presented to a woman who has made a distinguished contribution to chemistry while working in Canada.

### Terms of Reference

**Deadline:** July 1 of every year.

**Sponsor:** Canadian Council of University Chemistry Chairs (CCUCC)

**Award:** Framed Scroll, \$1,000 cash, and up to \$500 for travel to the CSC Conference.

The recipient will be required to present an award lecture at the Canadian Chemistry Conference and Exhibition.

### Nominations must include:

- **Citation** (250 word maximum) statement of why the candidate should receive the award. This is the key document in the nomination and this information should be relevant to the achievements for which the award is being offered.
- **Biographical Sketch** (maximum one page) This provides background information on the nominee and summarizes past accomplishments. This is a summary of information obtained from a C.V.
- **Curriculum Vitae** (maximum nine pages).
- **Supporting Letters** (3 to 5) At least two letters must be from outside the nominee's organization.

Membership in the Institute is not a prerequisite for this award.

All nominations will remain in force for three years. Nominators are responsible for keeping the record of the nominee up to date and complete.

### Selection Committee

- CSC Director of Awards as non-voting Chair
- Past or Vice Chair of each of the following Divisions: Analytical Chemistry Division; Organic Chemistry Division; Inorganic Chemistry Division; Physical, Theoretical and Computational Chemistry Division, Chemistry Education Division

The award shall be presented annually unless the Committee considers that no suitable candidate has been nominated.

### List of Recipients

| Date | Award Winner      | Award Lecture   |
|------|-------------------|---|
| 2017 | Ann English       | Homoglobin – A Conformationally Gated Nanobioreactor that Synergizes O <sub>2</sub> and NO Binding to Match O <sub>2</sub> Delivery with Metabolic Demand |
| 2016 | Yunjie Xu         | Spectra signatures of Chirality, Chirality Recognition and Chirality Transfer   |
| 2015 | Laurel Schafer    | Building a Career in Catalysis. Hydrofunctionization using N <sub>2</sub> O-Chelated Complexes  |
| 2014 | Hélène Lebel      | Transition Metal-catalyzed Amination Processes  |
| 2013 | Jillian M. Buriak | Using Block Copolymer Self-Assembly on Surfaces to Create Complex Nanopatterns  |
| 2012 | Rina Carlini      | The Industrial R&D Approach to Design and Development of Engineered Nanopigments and Nanostructured Gels for Commercial Applications                      |
| 2011 | Cathleen Crudden  | Challenging the Suzuki-Miyaura Reaction: The Preparation of Novel Organic Structures Through the Use of Chiral Organoboron Esters                         |
| 2010 | Parisa Ariya      | Bridging the Gap Between Nano-Scale to Macro-Scale Atmospheric Chemistry at Environmental Interfaces.   |
| 2009 | Molly Shoichet    | Polymers Designed for Applications in Medicine  |
| 2008 | Cornelia Bohne    | Supramolecular Dynamics   |
| 2007 | Michèle Auger     | Deciphering the Secrets of Novel Antimicrobial Agents and Spider Silk: A Solid-State NMR Investigation  |
| 2006 | Françoise Winnik  |   |

|      |                    |   |
|------|--------------------|---|
| 2005 | Mary Fairhurst     | Trends in Industrial Analytical Chemistry   |
| 2004 | Eugenia Kumacheva  | Materials with Structural Hierarchy   |
| 2003 | Soledade C. Pedras |   |
| 2002 | Kim M. Baines      |   |
| 2001 | Sharon G. Roscoe   |   |
| 2000 | Caroline Preston   |   |
| 1999 | No award           |   |
| 1998 | Suzanne Fortier    | Looking at Molecules with Smart Computers.  |
| 1997 | M. Palcic          | How Do Enzymes Oxidize Amines.  |
| 1996 | Margaret Back      | The Reaction of Carbon with Oxygen.   |
| 1995 | H. M. Tosine       | The Environment: from a Fringe Research Area to Big Business.                     |
| 1994 | Penny W. Coddling  | Crystallographic and Modeling Studies of Molecular Recognition and Drug Activity. |
| 1993 | Viola Birss        | Electrochemical Modification of Metal Surfaces.                                   |

## E. W. R. Steacie Award

The award is presented to a scientist who has made a distinguished contribution to chemistry while working in Canada.

### Terms of Reference

**Deadline:** July 2 every year

**Sponsors:** E. W. R. Steacie Endowment Fund

**Award:** A framed scroll and up to \$500 for travel to the CSC Conference, if required.

The recipient will be required to present an award lecture at the Canadian Chemistry Conference and Exhibition.

### Nominations must include:

- **Citation** (250 word maximum) statement of why the candidate should receive the award. This is the key document in the nomination and this information should be relevant to the achievements for which the award is being offered.
- **Biographical Sketch** (maximum one page) This provides background information on the nominee and summarizes past accomplishments. This is a summary of information obtained from a C.V.
- **Curriculum Vitae** (maximum nine pages).
- **Supporting Letters** (3 to 5) At least two letters must be from outside the nominee's organization.

Membership in the Institute is not a prerequisite for this award.

All nominations will remain in force for three years. Nominators are responsible for keeping the record of the nominee up to date and complete.

### Selection Committee

- Director of Awards of the CSC as non-voting Chair
- Vice Chair of each of the following Divisions: Physical, Theoretical and Computational Chemistry; Inorganic Chemistry; Organic Chemistry; Analytical Chemistry

The award shall be presented annually unless the Committee considers that no suitable candidate has been nominated.

### List of Recipients

| Date      | Award Winner        | Award Lecture   |
|-----------|---------------------|---|
| 2017      | Jillian Buriak      | Plasmonic Stamps: Using Plasmons to Drive Nanopatterned Chemistry on Silicon  |
| 2016      | Richard Oakley      | Beating the Odds: Main Group Radicals as Functional Materials   |
| 2015      | William Cullen      | A Taste for Arsenic   |
| 2014      | A.B.P. Lever        | A Quantitative Assessment of Back Donation and its Electronic Effects on Metal Complexes  |
| 2013      | Lewis E. Kay        | no paper presented  |
| 2012      | Janusz Pawliszyn    | In Vivo Applications of Solid Phase Microextraction   |
| 2011      | Raymond Kapral      | Enzyme Kinetics and Molecular Machines: Diffusion, Hydrodynamics and Molecular Crowding   |
| 2006–2010 |                     | No award  |
| 2005      | Tom Ziegler         | Transition Metals under the Influence of a Magnetic Field. First Principle DFT Calculations of NMR, ESR, CD, and MCD Parameters |
| 2004      | Michael Thompson    | High Frequency Wave Detection of Biochemical Interactions in Biosensor and Microarray Format                                    |
| 2003      | Gary J. Schrobilgen |   |
| 2002      | Geoffrey A. Ozin    |   |
| 2001      | Tristram Chivers    |   |
| 2000      | Bryan Jones         |   |

|      |                       |  |
|------|-----------------------|--|
| 1999 | Martin Moskovits      |  |
| 1998 | Adi Eisenberg         | Morphological Diversity in Block Copolymer Self-Assembly in Dilute Solution.                               |
| 1997 | Brian R. James        | Developments in the Chemistry of Ruthenium Porphyrins.   |
| 1996 | Richard J. Puddephatt | Organo-Platinum Chemistry: From Mechanisms to Polymers.  |
| 1995 | Arthur J. Carty       | Twenty Years of Cluster Chemistry: from Small Molecules to Materials Science.                              |
| 1994 | William Ayer          | Application of Natural Products Chemistry to a Biological Problem.   |
| 1993 | Howard Alper          | New Developments in Metal Catalyzed Processes.   |
| 1992 | P. De Mayo            | No award presented.  |
| 1991 | W.A.G. Graham         | Oxidative Addition in Organometallic Chemistry and its Application to Carbon-Hydrogen Activation.          |
| 1990 | I. G. Csizmadia       | Multidimensional Conformational Potential Energy Surface Topology and the Secondary Structure of Peptides. |

## Fred Beamish Award

This award recognizes an individual who demonstrates innovation in research in the field of analytical chemistry, where the research is anticipated to have significant potential for practical applications.

### Terms of Reference

**Deadline:** July 2 of every year

**Sponsor:** Thermo Fisher Scientific

**Award:** A framed scroll and CSC conference registration.

**Eligibility:** The award is open to new faculty members at a Canadian university. The nominee must be a recent graduate within six years of appointment in the calendar year of nomination.

### Nominations must include:

- **Citation** (250 word maximum) statement of why the candidate should receive the award. This is the key document in the nomination and this information should be relevant to the achievements for which the award is being offered.
- **Biographical Sketch** (maximum one page) This provides background information on the nominee and summarizes past accomplishments. This is a summary of information obtained from a C.V.
- **Curriculum Vitae** (maximum nine pages).
- **Supporting Letters** (3 to 5) At least two letters must be from outside the nominee's organization.

Membership in the Institute is not a prerequisite for this award.

All nominations will remain in force for three years. Nominators are responsible for keeping the record of the nominee up to date and complete.

### Selection Committee

- CSC Director of Awards as non voting Chair
- Vice Chair of the Analytical Chemistry Division
- Past winner of the Fred Beamish Award
- One other member appointed by the Division executive

The award shall be presented annually unless the Committee considers that no suitable candidate has been nominated.

### List of Recipients

| <b>Date</b> | <b>Award Winner</b>  | <b>Award Lecture</b>  |
|-------------|----------------------|---|
| 2017        | Russ Algar           | The Small Matter of Bioanalysis: Adventures at Less Than 10 nm with Quantum Dots and/or FRET                  |
| 2016        | Michael Serpe        | Sensing and Biosensing with Responsive Polymer-based Materials  |
| 2015        | Janine Mauzeroll     | New Tools in Scanning Electrochemical Microscopy for Magnesium Alloy Corrosion Characterization               |
| 2014        | Juewen Liu           | Towards the DNA Code of the Periodic Table  |
| 2013        | Jean-François Masson | Concepts of SPR Instrumentation, Surface Chemistry and Materials for Protein and Drug Monitoring in Biofluids |
| 2012        | Alan Doucette        | Proteomics Reboot: Classic Approaches to Protein Sample Preparation   |
| 2011        | Jonathan W. Martin   | Of Isomers and Enantiomers of Perfluorinated Acids  |

Sponsored by Eli Lilly Canada Inc.

|      |               |   |
|------|---------------|---|
| 2010 | André Simpson | From Molecular Structure to Global Processes: NMR Spectroscopy in Environmental Chemistry |
| 2009 | Aicheng Chen  | Nanomaterials Design for Electrochemical Biosensing                                       |
| 2008 | Aaron Wheeler | Digital Microfluidics for Screening Assays  |

|      |                  |  |
|------|------------------|--|
| 2007 | No award         |  |
| 2006 | No award         |  |
| 2005 | Richard Oleschuk | Microfluidics on the Cheap: Polymeric Devices Coupled with Mass Spectrometry for the Analysis of Proteins and Peptides |
| 2004 | Hua-Zhong Yu     |  |
| 2003 | Lars Konermann   |  |



## IntelliSyn Pharma Research Excellence Award

This award is presented to a scientist residing in Canada who has made a distinguished contribution to medicinally relevant organic or biophysical chemistry while working in Canada. Eligible candidates must have held their first professional appointment as an independent researcher for twelve years\* or less at the time of initial nomination.

\*excluding time spent on parental leave

### Terms of Reference

**Deadline:** July 2 of every year

**Sponsor:** IntelliSyn RD

**Award:** A framed scroll and \$2,000 cash prize which can be used for travel to the CSC Conference to present a lecture.

The recipient will be required to present an award lecture at the Canadian Chemistry Conference and Exhibition.

### Nominations must include:

- **Citation** (250 word maximum) This is a statement of why the candidate should receive the award. This is the key document in the nomination and this information should be relevant to the achievements for which the award is being offered.
- **Biographical Sketch** (maximum one page) This provides background information on the nominee and summarizes past accomplishments. This is a summary of information obtained from a C.V.
- **Curriculum Vitae** (maximum nine pages).
- **Supporting Letters** (3 to 5) At least two letters must be from outside the nominee's organization.

Membership in the Institute is not a prerequisite for this award.

All nominations will remain in force for three years. Nominators are responsible for keeping the record of the nominee up to date and complete.

### Selection Committee:

- CSC Director of Awards as non-voting Chair
- Past Chair of the Biological-Medicinal Chemistry Division
- Past Chair of the Organic Chemistry Division
- Past two winners of the IntelliSyn RD Research Excellence Award

The award shall be presented annually unless the Committee considers that no suitable candidate has been nominated.

### List of Recipients

| Date | Award Winner      | Award Lecture   |
|------|-------------------|---|
| 2017 | Fraser Hof        | Supramolecular and Peptide Tools for Probing Epigenetic Methylation Pathways  |
| 2016 | Robert A. Britton | Development of New Reactions for Natural Product Synthesis and Drug Discovery |

### Boehringer Ingelheim Research Excellence Award

|      |                    |  |
|------|--------------------|--|
| 2015 | André Beauchemin   | Reaction Development Using Temporary Intramolecularity and Amphoteric Isocyanates      |
| 2014 | Robert E. Campbell | Engineering Next Generation Optogenetic Probes for Visualization of Neuronal Activity  |
| 2013 | David Vocadlo      | Chemical Biology of O-GlcNAc: Enzyme Mechanisms to Roles in Neurodegenerative Diseases |

2012

Louis Barriault

Harvest in the Natural Product Synthesis and Gold-Catalyzed Gardens

## John C. Polanyi Award

This award is presented for excellence by a scientist carrying out research in Canada in physical, theoretical or computational chemistry or chemical physics.

### Terms of Reference

**Deadline:** July 2 of every year

**Sponsor:** CIC Physical, Theoretical and Computation Chemistry Division and the University of Toronto, Department of Chemistry

**Award:** A framed scroll

The recipient will be required to present an award lecture at the Canadian Chemistry Conference and Exhibition.

### Nominations must include:

- **Citation** (250 word maximum) statement of why the candidate should receive the award. This is the key document in the nomination and this information should be relevant to the achievements for which the award is being offered.
- **Biographical Sketch** (maximum one page) This provides background information on the nominee and summarizes past accomplishments. This is a summary of information obtained from a C.V.
- **Curriculum Vitae** (maximum nine pages).
- **Supporting Letters** (3 to 5) At least two letters must be from outside the nominee's organization.

Membership in the Institute is not a prerequisite for this award.

All nominations will remain in force for three years. Nominators are responsible for keeping the record of the nominee up to date and complete.

### Selection Committee:

- CSC Director of Awards as non-voting Chair
- Vice Chair of the Physical, Theoretical and Computational Chemistry Division
- Past two winners of the John C. Polanyi Award

The award shall be presented annually unless the Committee considers that no suitable candidate has been nominated.

### List of Recipients

| Date | Award Winner           | Award Lecture   |
|------|------------------------|---|
| 2017 | Josef W. Zwanziger     | The Relationship of Glass Structure to its Optical Performance  |
| 2016 | Federico Rosei         | Multifunctional Materials for Electronics and Photonics   |
| 2015 | Terrance McMahon       | Energetics, Structure and Vibrational Spectra of Gaseous Cluster Ions   |
| 2014 | Tucker Carrington, Jr. | Using Efficient Calculations of High-lying Levels of Methane to Refine a Potential Energy Surface   |
| 2013 | Ronald P. Steer        | Kasha's Rule Isn't: Adventures in the Land of Molecular Electronic Excited States   |
| 2012 | Dennis Salahub         | Towards the Multiscale Modelling of Chemical Reactions in Complex Environments from the Hohenberg-Kohn Theorems to Health, Wealth and Happiness |
| 2011 | Moshe Shapiro          | Coherent Control and Chiral Separation and the Imaging of Molecular Potentials  |
| 2010 | Tsun-Kong Sham         | Probing Materials Properties in the Energy and Timing Domain with Light-Synchrotron Light   |
| 2009 | Axel Becke             | Static Correlation in Density Functional Theory: The Good and the Bad   |
| 2008 | Jacek Lipkoswski       | Building a Biomimetic Membrane at an Electrode Surface  |
| 2007 | No award               |   |
| 2006 | No award               |   |
| 2005 | No award               |   |

|      |                       |  |
|------|-----------------------|--|
| 2004 | Roderick E. Wasylshen | Characterization of NMR Parameters via Experiment and Theory               |
| 2003 | David Bishop          |  |
| 2002 | Donald G. Fleming     |  |
| 2001 | André D. Bandrauk     |  |
| 2000 | R.J. Dwayne Miller    |  |
| 1999 | A. Merer              |  |
| 1998 | Diethard K. Bohme     | Fullerene Ions in the Gas Phase: Chemistry as a Function of Charge State.  |
| 1997 | R. F. W. Bader        | Why are There Atoms in Chemistry?  |
| 1996 | R. E. Kapral          | Reactions in Clusters.   |
| 1995 | Peter R. Norton       | Surface Science: Past, Present and Future; A Personal Perspective.         |
| 1994 | S. Huzinaga           | Concept of Active Electrons in Chemistry.                                  |
| 1993 | C. E. Brion           | Electron, Molecules and Chemistry.   |
| 1992 | John C. Polanyi       | The Dynamics of Photodissociation and Photoreaction in the Adsorbed State. |

## Keith Fagnou Award

This award is presented to a scientist residing in Canada who has made a distinguished contribution to organic chemistry while working in Canada. Eligible candidates must have received their Ph.D. no more than 12 years\* prior at the time of initial nomination.

\*excluding time spent on parental leave

Terms of Reference

**Deadline:** July 2 of every year

**Sponsor:** [University of Ottawa](#) and the CSC Organic Chemistry Division

**Award:** A framed scroll and \$1,000 cash prize.

The recipient will be required to present an award lecture at the Canadian Chemistry Conference and Exhibition.

### Nominations must include:

- **Citation** (250 word maximum) statement of why the candidate should receive the award. This is the key document in the nomination and this information should be relevant to the achievements for which the award is being offered.
- **Biographical Sketch** (maximum one page) This provides background information on the nominee and summarizes past accomplishments. This is a summary of information obtained from a C.V.
- **Curriculum Vitae** (maximum nine pages).
- **Supporting Letters** (3 to 5) At least two letters must be from outside the nominee's organization.

Membership in the Institute is not a prerequisite for this award.

All nominations will remain in force for three years. Nominators are responsible for keeping the record of the nominee up to date and complete.

### Selection Committee:

- CSC Director of Awards as non-voting Chair
- Vice Chair of the Organic Chemistry Division
- Past two winners of the Keith Fagnou Award

The award shall be presented annually unless the Committee considers that no suitable candidate has been nominated.

### List of Recipients

| Date | Award Winner         | Award Lecture  |
|------|----------------------|--|
| 2017 | Mark Taylor          | Organoborn Catalysts and Reagents for Carbohydrate Chemistry   |
| 2016 | Jean-François Paquin | Exploration and Some Discoveries in Organofluorine Chemistry   |
| 2015 | Derek Pratt          | New Chemistry for an Old Problem: Prolonging the Life of Petroleum-derived Products (and Us?) with Hetrocycles |

## Keith Laidler Award

This award recognizes outstanding early-career contributions to physical chemistry, for research carried out in Canada, by a scientist residing in Canada.

### Terms of Reference

**Deadline:** July 2 of every year.

**Sponsor:** CIC Physical, Theoretical and Computation Chemistry Division

**Award:** A framed scroll

The recipient will be required to present an award lecture in a Physical, Theoretical and Computational (PTC) Symposium at the Canadian Chemistry Conference and Exhibition.

**Eligibility:** Eligible candidates will have held their first professional appointment as an independent researcher in academia, government, or industry for no more than twelve years\* at the time (calendar year) that the award is conferred. Nominations shall remain in force for three years, subject to this criterion of eligibility.

\*excluding time spent on parental leave

### Nominations must include:

- **Citation** (250 word maximum) statement of why the candidate should receive the award. This is the key document in the nomination and this information should be relevant to the achievements for which the award is being offered.
- **Biographical Sketch** (maximum one page) This provides background information on the nominee and summarizes past accomplishments. This is a summary of information obtained from a C.V.
- **Curriculum Vitae** (maximum nine pages).
- **Supporting Letters** (3 to 5) At least two letters must be from outside the nominee's organization.

Membership in the Institute is not a prerequisite for this award.

All nominations will remain in force for three years. Nominators are responsible for keeping the record of the nominee up to date and complete.

### Selection Committee:

- CSC Director of Awards as non-voting Chair
- Past Chair of the Physical, Theoretical and Computational Chemistry Division
- Past two winners of the Keith Laidler Award

The award shall be presented annually unless the Committee considers that no suitable candidate has been nominated.

In the event of a conflict of interest, the Division Chair shall designate an alternative member of the Executive to serve on the award jury.

### List of Recipients

| Date | Award Winner             | Award Lecture   |
|------|--------------------------|---|
| 2017 | Viktor N. Staroverov     | Wave Functions, Density Functionals, and Kohn-Sham Potentials                 |
| 2016 | Venkataraman Thangadurai | Solid State Chemistry for Energy Storage and Conversion                       |
| 2015 | Gonzalo Cosa             | Visualizing Chemistry at the Single Molecule/Particle Level                   |
| 2014 | David Bryce              | Solid-state NMR at the University of Ottawa                                   |
| 2013 | Roman Krems              | Molecular Dynamics at Ultracold Temperatures                                  |
| 2012 | Aicheng Chen             | Electrochemical and Photochemical Catalysis Based on Functional Nanomaterials |
| 2011 | Paul Ayers               | Breaking the Curse of Dimension for the Electronic Schrödinger Equation with  |

|      |                     |  |
|------|---------------------|--|
|      |                     | Functional Analysis  |
| 2010 | Ruth Signorell      | Understanding Aerosols on a Molecular Level  |
| 2009 | Paul Wiseman        | Cellular Cartography: Mapping Protein Transport and Interactions in Living Cells with Image Correlation Spectroscopy |
| 2008 | Albert Stolow       | Non-Adiabatic Molecular Dynamics and its Quantum Control   |
| 2007 | Pierre-Nicholas Roy | Rotational Dynamics of Doped Superfluid Clusters   |
| 2006 | Gregory D. Scholes  | Photophysics of Nanoscale Materials: The Question of Shape   |
| 2005 | No award            |  |

#### Noranda Award

Sponsored by Noranda Incorporated

|      |                       |   |
|------|-----------------------|---|
| 2004 | Peter G. Kusalik      | Understanding the Behaviour of Liquid Water: The Importance of Quantum Effects  |
| 2003 | Wolfgang Jäger        |   |
| 2002 | Gustavo A. Arteca     |   |
| 2001 | Donald Douglas        |   |
| 2000 | R.A. Wolkow           |   |
| 1999 | Tucker Carrington Jr. |   |
| 1998 | B. Roux               | Understanding Biomolecules with the Help of Computer Simulations.   |
| 1997 | K. T. Leung           | Chemical Applications of Electron-Matter Interactions: From Probing Low-Temperature Industrial Plasmas and Atmospheric Chemistry of “Environment-Safe” Freon-Substitutes to Enhancing Novel Surface Reactions on Metals and Semiconductors. |
| 1996 | Mary Anne White       | Thermal Properties of Solids: Etude in Three-Part Anharmonicity.  |
| 1995 | J. S. Tse             | Order Out of Disorder.  |
| 1994 | Axel D. Becke         | Kohn-Sham Density-Functional Theory: The “Perfect” Molecular Orbital Formalism.   |
| 1993 | John W. Hepburn       | Under the Rainbow: Photochemistry and Photoelectron Spectroscopy Using Coherent Vacuum Radiation.   |
| 1992 | Norman Dovichi        | Thermo-Optical and Laser-Induced Fluorescence for High Sensitivity Measurements of Condensed Phase Systems.   |
| 1991 | A. Thakkar            | Choices in Theoretical Chemistry: A Retrospective.  |
| 1990 | No Award              |   |
| 1989 | Adam P. Hitchcock     | Inner-Shell Excitation: An Element Specific Probe of Geometric and Electronic Structure.  |
| 1988 | P. A. Hackett         | Laser Studies of Reactive Intermediates Containing Single Metal Atoms.  |
| 1987 | Dennis R. Salahub     | Towards the Quantum Chemistry of Transition Metal Clusters.   |
| 1986 | G. N. Patey           | The Theory of Liquids and Solutions.  |
| 1985 | Paul W. Brumer        | A Unified View of Classical and Quantum Intramolecular Dynamics.  |
| 1984 | G. A. Kenney-Wallace  | Laser Probing of Molecular Dynamics in the Picosecond Domain.   |
| 1983 | Diethard K. Bohme     | Ion Chemistry in the Gas Phase: Solving Chemistry Without Solutions.  |
| 1982 | R. M. Leblanc         | Optical and Surface Studies of Biological Interfaces.   |
| 1981 | Raymond Kapral        | A Microscopic View of Condensed Phase Reactions: Rings and More Rings.  |
| 1980 | G. P. Johari          | The Electromagnetic Spectrum of Ice.  |
| 1979 | Ashok Viji            | Electrochemistry and Energy Science.  |
| 1978 | B. Bosnich            | Asymmetric Synthesis. The Ultimate Synthetic Method.  |
| 1977 | Christopher E. Brion  | Spectroscopy in the Dark.   |
| 1976 | James R. Bolton       | Photochemical Storage of Solar Energy.  |
| 1975 | Brian R. James        | Rhodium - Expensive, but Rich in Chemistry.   |
| 1974 | W. R. Cullen          | Unnatural Products.   |
| 1973 | T. P. Schaeffer       | Reminiscences of an Old-fashioned NMR Spectroscopist.   |
| 1972 | J. Trotter            | X-Ray Diffraction Studies in Inorganic Structural Chemistry.  |
| 1971 | A. G. Harrison        | Bimolecular Reactions of Gaseous Ions.  |
| 1970 | W.A.G. Graham         | Metal Carbonyl Derivatives, Including Silicon, Germanium and Tin.   |
| 1969 | L. W. Reeves          | The Future of Nuclear Magnetic Resonance as a Tool in Chemistry.  |
| 1968 | H. C. Clark           | Synthetic Studies in Organometallic Chemistry.  |
| 1967 | John C. Polanyi       | Energy Distribution Among Reaction Products.  |
| 1966 | R. J. Gillespie       | Acids - Old and New.  |
| 1965 | J. A. Davis           | Electrochemistry as a Tool of Nuclear Science and Vice Versa.   |
| 1964 | B. E. Conway          | Electrochemical Catalysis.  |
| 1963 | Neil C. Bartlett      | Some Unusual Oxidation States of the Noble Elements.  |

## Melanie O'Neill Young Investigator Award in Biological Chemistry

This award is presented to a scientist residing in Canada who has made a distinguished contribution to biological chemistry while working in Canada. Eligible candidates must have received their Ph.D. no more than 12 years prior at the time of initial nomination.

### Terms of Reference

**Deadline:** July 2 of every year

**Sponsors:** The Biological and Medicinal Chemistry Division of the Canadian Society for Chemistry and [Simon Fraser University](#)

**Award:** A framed scroll and \$500 cash prize.

The recipient will be required to present an award lecture at the Canadian Chemistry Conference and Exhibition.

### Nominations must include:

- **Citation** (250 word maximum) statement of why the candidate should receive the award. This is the key document in the nomination and this information should be relevant to the achievements for which the award is being offered.
- **Biographical Sketch** (maximum one page) This provides background information on the nominee and summarizes past accomplishments. This is a summary of information obtained from a C.V.
- **Curriculum Vitae** (maximum nine pages).
- **Supporting Letters** (3 to 5) At least two letters must be from outside the nominee's organization.

Membership in the Institute is not a prerequisite for this award.

All nominations will remain in force for three years. Nominators are responsible for keeping the record of the nominee up to date and complete.

### Selection Committee:

- CSC Director of Awards as non-voting Chair
- Past or Vice Chair of the Biological and Medicinal Chemistry Division
- Past two winners of the Melanie O'Neill Award

The award shall be presented annually unless the Committee considers that no suitable candidate has been nominated.

### List of Recipients

| Date | Award Winner   | Award Lecture |
|------|----------------|---------------|
| 2017 | Katherine Ryan |               |



## R U Lemieux Award

This award is presented to an organic chemist who has made a distinguished contribution to any area of organic chemistry and who is currently working in Canada.

### Terms of Reference

**Deadline:** July 2 of every year

**Sponsor:** [Gilead Alberta ULC](#)

**Award:** A framed scroll, \$1,000 cash

The recipient will be required to present an award lecture at the Canadian Chemistry Conference and Exhibition.

### Nominations must include:

- **Citation** (250 word maximum) statement of why the candidate should receive the award. This is the key document in the nomination and this information should be relevant to the achievements for which the award is being offered.
- **Biographical Sketch** (maximum one page) This provides background information on the nominee and summarizes past accomplishments. This is a summary of information obtained from a C.V.
- **Curriculum Vitae** (maximum nine pages).
- **Supporting Letters** (3 to 5) At least two letters must be from outside the nominee's organization.

Membership in the Institute is not a prerequisite for this award.

All nominations will remain in force for three years. Nominators are responsible for keeping the record of the nominee up to date and complete.

### Selection Committee:

- CSC Director of Awards as non-voting Chair
- Past Chair of the Organic Chemistry Division
- Vice Chair of the Organic Chemistry Division
- Past two winners of the R.U. Lemieux Award

The award shall be presented annually unless the Committee considers that no suitable candidate has been nominated.

### List of Recipients

| <b>Date</b> | <b>Award Winner</b> | <b>Award Lecture</b>  |
|-------------|---------------------|---|
| 2017        | Cathleen Crudden    | N-heterocyclic Carbenes as Supporting Ligands for Boremium-based Catalysts and on Metal Surfaces                              |
| 2016        | Michael Organ       | The Negishi Reaction...Reveal your Secrets  |
| 2015        | Chao-Jun Li         | Exploration of New Reactivities for Synthetic Efficiency  |
| 2014        | Tomas Hudlicky      | Recent Advances in Process Development for Oplate-derived Pharmaceutical Agents and Progress in Total Synthesis of Morphine   |
| 2013        | Marco Ciufolini     | Synthetic Studies on Heterocyclic Natural Products  |
| 2012        | B. Mario Pinto      | Look What You Started, Ray! NRM Methods for Probing Protein-Ligand Interactions   |
| 2011        | Stephen Withers     | Towards Efficient Synthesis of Glycoconjugates through Engineering and Evaluation of Glycosyl Transferases and Glycosynthases |

### Sponsored by the Organic Chemistry Division

|      |                     |   |
|------|---------------------|---|
| 2010 | Derrick L. J. Clive | Some Adventures in Methodology and Total Synthesis  |
| 2009 | Raymond J. Andersen | Bioactive Marine Natural Products: Drug Leads and Cell Biology Tools  |
| 2008 | J. Peter Guthrie    | No Barrier Theory as an Approach to Calculating Rate Constants for Chemical Reactions, Illustrated by a Survey of Decarboxylation |

|      |                      |   |
|------|----------------------|---|
| 2007 | R. Stanley Brown     | Dinuclear Zn <sup>2+</sup> Catalysts as Biomimics of Biological RNA and DNA Phosphoryl Transfer Enzymes: A Reduced Polarity Medium Provides Spectacular Rate Enhancements |
| 2006 | André Charette       | New Methods for the Stereoselective Synthesis of Organic Compounds  |
| 2005 | Ian Spenser          | Biosynthesis of Vitamins B6 and B1: Diversity and Convergence   |
| 2004 | Mark Lautens         |   |
| 2003 | Robert A. McLelland  |   |
| 2002 | John Vederas         |   |
| 2001 | Ronald Kluger        |   |
| 2000 | David Bundle         |   |
| 1999 | Erwin Buncel         |   |
| 1998 | J. B. Jones          | Enzymes in Organic Synthesis. Wither Next?  |
| 1997 | Victor Snieckus      | Synthetic Observations from the Flatland, Contributions Towards Chemical Synthesis of Aromatics   |
| 1996 | Edward Piers         | Reagents and Methods for Organic Synthesis: New Protocols for the Construction of Carbon-Carbon Bonds   |
| 1995 | Thomas T. Tidwell    | Ketenes and Bisketenes: Organic Chemistry in Microcosm  |
| 1994 | Pierre Deslongchamps | Oxidation and Hydrolysis of Acetals: Geometry of Transition States and SYN and ANTIo Stereoelectronic Effects   |
| 1993 | T-H. Chan            | Organometallic-type Reactions in Aqueous Media – A New Challenge in Organic Synthesis   |
| 1992 | Saul Wolfe           | Studies Related to the Penicillin Receptor  |

## Ricardo Aroca Award

Formerly the Maxxam Award

This award is presented to a scientist residing in Canada who has made a distinguished contribution to the field of analytical chemistry while working in Canada. It is available to government, industry and academia, on a rotating basis.

### Terms of Reference

**Deadline:** July 2 of every year

**Sponsor:** University of Windsor

**Award:** A framed scroll, \$1,000 cash and up to \$1,000 for travel expenses to the CSC Conference, if required. This award is on a rotating basis:

The recipient will be required to present an award lecture at the Canadian Chemistry Conference and Exhibition.

### Nominations must include:

- Nominations being considered for the 2018 selection will be from academia (deadline July 2, 2017)
- Nominations being considered for the 2019 selection will be from industry and government (deadline July 2, 2018)
- Nominations being considered for the 2020 selection will be from academia, industry and government (deadline July 2, 2019)
- The recipient will be required to present an award lecture at the Canadian Chemistry Conference and Exhibition.

### Nominations must include:

- **Citation** (250 word maximum) statement of why the candidate should receive the award. This is the key document in the nomination and this information should be relevant to the achievements for which the award is being offered.
- **Biographical Sketch** (maximum one page) This provides background information on the nominee and summarizes past accomplishments. This is a summary of information obtained from a C.V.
- **Curriculum Vitae** (maximum nine pages).
- **Supporting Letters** (3 to 5) At least two letters must be from outside the nominee's organization.

Membership in the Institute is not a prerequisite for this award.

All nominations will remain in force for three years. Nominators are responsible for keeping the record of the nominee up to date and complete.

### Selection Committee:

- CSC Director of Awards as non-voting Chair
- Chair of the Analytical
- Past two winners of the Maxxam Award
- No member of which is to be an employee of Maxxam Analytics

The award shall be presented annually unless the Committee considers that no suitable candidate has been nominated.

### List of Recipients

| Date         | Award Winner       | Award Lecture  |
|--------------|--------------------|--|
| Maxxam Award |                    |  |
| 2017         | Diane Beauchemin   | The Unlimited Capabilities of Inductively Coupled Plasma Spectrometry        |
| 2016         | Michael A. Quillam | Liquid Chromatography-tandem Mass Spectrometry for Detection and Discover of |

|      |                  |   |
|------|------------------|---|
| 2015 | David D.Y. Chen  | Biotoxins<br>Big Science in a Small Capillary A Recarding Journey along Capillary Electrophoresis           |
| 2014 | Sergey Krylov    | Unusual Behaviour of DNA in a Uniform Electric Field  |
| 2013 | Jim Luong        | Planar Microfluidic Devices and Gas Chromatography  |
| 2012 | Pierre Thibault  | Mass Spectrometry Tools to Unravel the Molecular Basis of Adaptive Immunity and Cancer Development          |
| 2011 | X. Chris Le      | DNA Protein Binding Assays  |
| 2010 | Eric Reiner      | Advances in the Analysis of Persistent Halogenated Organic Compounds  |
| 2009 | Liang Li         | Missing Links of Omics Technologies: Analytical Challenges in Large Scale Proteome and Metabolome Profiling |
| 2008 | Charles Lucy     | A Physical Analytical Perspective of Self-Assembled Coatings in Capillary Electrophoresis                   |
| 2007 | Ralph Sturgeon   | Reference Materials, Traceability and Uncertainty: New Challenges for the Analytical Community              |
| 2006 | K.W.M. Siu       | Discovery, Identification and Validation of Endometrial Cancer Biomarkers                                   |
| 2005 | Ray Clement      | An Analytical Scientist in Government: 23 Years of Progress - and More to Come!                             |
| 2004 | R. Jocelyn Paré  | Contributions of Microwaves to Analytical Chemistry and to the Environment                                  |
| 2003 | D. Jed Harrison  | Chemistry, Analysis and Integrated Circuit Technology Take a Peek into the Brave New World of Nanotech      |
| 2002 | Ulrich J. Krull  | Novel Designs for Biosensors and Biochips that Detect Nuclei Acids  |
| 2001 | Robert K. Boyd   | Much Ado About Next-to-Nothing: Mass Spectrometry in Trace Analysis   |
| 2000 | Janusz Pawliszyn | Unified Theory of Extraction  |

#### **Fisher Scientific Award**

Sponsored by Fisher Scientific

|      |                   |  |
|------|-------------------|--|
| 1999 | No award          |  |
| 1998 | Norman J. Dovichi | The Chemistry of Single Enzyme Molecules.  |
| 1997 | D. Douglas        | Developing New Mass Spectrometry System: Fundamental Science at Home in Industry.                      |
| 1996 | M. Comisarow      | Fourier Transform Ion Cyclotron Resonance Spectroscopy.  |
| 1995 | H. I. Schiff      | Musings of an Atmospheric Chemist Trying to Understand Why he Would Win an Analytical Chemistry Prize. |
| 1994 | M. W. Blades      | Plasma Sources for Atomic Spectroscopy – A Fundamental Interest.                                       |
| 1993 | Joseph Hubert     | Surface Wave Plasmas, A “Nouvelle Vague” in Analytical Spectrochemistry                                |
| 1992 | F. F. Cantwell    | Equilibrium and Kinetic Aspects of Phase Distribution in Analytical Chemistry.                         |
| 1991 | No award          |  |
| 1990 | B. Kratochvil     | An Analysis of Sampling in Chemical Analysis.  |
| 1989 | M. Thompson       | On the Transduction of Molecular Recognition.  |
| 1988 | F. W. Karasek     | The Impact of Instrumentation on Science.  |
| 1987 | G. Horlick        | New Developments in Atomic Spectrochemical Measurement Systems.  |
| 1986 | S. S. Berman      | The Analysis of Marine Materials for Trace Metals.   |
| 1985 | A. Corsini        | Trace Metal Analysis: Selectivity, Sensitivity and Speciation.   |
| 1984 | D.L. Rabenstein   | NMR and Other Analytical Studies of Thiols in Red Blood Cells.   |
| 1983 | No award          |  |
| 1982 | W. C. Purdy       | An Analytical Chemist in the Health Care Industry.   |
| 1981 | C.L. Chakrabarti  | In Search of a New Interference-free Analytical Technique.   |
| 1980 | W. A. Aue         | A Day in the Life of an Analytical Chemist.  |
| 1979 | D. S. Russell     | Some Features in Inorganic Trace Analysis—Much Ado About Nothing.                                      |
| 1978 | R. E. Jervis      | Neutrons on the Trail of Those Trace Elements - an Analytical Pursuit.                                 |
| 1977 | J. L. Monkman     | Is Chemistry Necessary Today?  |
| 1976 | I. Hoffman        | Environmental Cause/Effect Data – Some Preliminary Conclusions.  |
| 1975 | S. Barabas        | Water Quality - A Global Problem of Many Common Denominators.  |
| 1974 | G. C. B. Cave     | Solvates and Aggregates of Solvent-Extraction Systems.   |
| 1973 | W.A.E. McBryde    | Solution Chemistry - An Analyst's Playground   |
| 1972 | D. E. Ryan        | Trace Analysis by Solution Spectroscopy.   |
| 1971 | R. N. Jones       | Data Banking for Science and Technology.   |
| 1970 | R. P. Graham      | Analytical Chemistry - Some Prospects and Retrospects.   |
| 1969 | Walter E. Harris  | Gas Chromatography-Developments in Temperature Programming and Pyrolysis QC.                           |
| 1968 | Fred E. Beamish   | Analytical Chemistry and the University.   |

## Rio Tinto Alcan Award

This award is presented to a scientist who has made a distinguishing contribution to the fields of inorganic chemistry or electrochemistry while working in Canada.

### Terms of Reference

**Deadline:** July 2 of every year

**Sponsor:** [Rio Tinto Alcan](#)

**Award:** A framed scroll, \$2,000 cash and up to \$1,000 for travel to present the lecture at the CSC Conference, if required

The recipient will be required to present an award lecture at the Canadian Chemistry Conference and Exhibition.

### Nominations must include:

- **Citation** (250 word maximum) statement of why the candidate should receive the award. This is the key document in the nomination and this information should be relevant to the achievements for which the award is being offered.
- **Biographical Sketch** (maximum one page) This provides background information on the nominee and summarizes past accomplishments. This is a summary of information obtained from a C.V.
- **Curriculum Vitae** (maximum nine pages).
- **Supporting Letters** (3 to 5) At least two letters must be from outside the nominee's organization.

Membership in the Institute is not a prerequisite for this award.

All nominations will remain in force for three years. Nominators are responsible for keeping the record of the nominee up to date and complete.

### Selection Committee:

- CSC Director of Awards as non-voting Chair
- Past Chair of the Inorganic Chemistry Division
- Past two winners of the Rio Tinto Alcan Award

The award shall be presented annually unless the Committee considers that no suitable candidate has been nominated.

### List of Recipients

| Date | Award Winner          | Award Lecture   |
|------|-----------------------|---|
| 2017 | Heinz-Bernhard Kraatz | Ferrocene Peptides. Self-assembly and Materials   |
| 2016 | Michael Wolf          | Making Conjugated Materials Shine   |
| 2015 | Steven Holdcroft      | ORR Electrochemistry at the Pt/Ionomer Interface  |
| 2014 | Martin Stillman       | Nature's Shrink-wrapped Metal Thiolate Clusters: Mechanistic Complexity Vies with Structural Simplicity in the Metallothioneins |
| 2013 | Pierre Harvey         | What can you Learn from Artificial Special Pairs?   |
| 2012 | Stephen Loeb          | Metal-Organic Framework (MOF) Materials with Dynamic Interlocked Components   |
| 2011 | Linda Nazar           | Inorganic Nanostructured Materials for Large Scale Energy Storage   |
| 2010 | Jeff Dahn             | How Can One Tell if a Rechargeable Battery Will Last 10 Years—In a Few Weeks?   |
| 2009 | Chris Orvig           | Medicinal Inorganic Chemistry   |

### Alcan Award

Sponsored by Alcan International

|      |               |   |
|------|---------------|---|
| 2008 | Jack Passmore | Homopolyatomic Cations of Groups 16 and 17: Structure, Energetics and Chemistry: New Classes of Compounds, Unexpected Structures, Novel Bonding and Physical Properties |
| 2007 | Suning Wang   | Three-Coordinate Organoboron: Impact of Molecular Geometry on Donor-Acceptor  |

|      |                       |  |
|------|-----------------------|--|
|      |                       | Charge Transfer Emission and Applications  |
| 2006 | Neil Burford          | Homoatomic P-P Coordination Complexes: A New Direction in the Chemistry of Phosphorus  |
| 2005 | Warren Piers          | Bifunctional Boranes: Two Borons Are Better Than One   |
| 2004 | Laurie K. Thompson    |  |
| 2003 | Martin Cowie          |  |
| 2002 | Gary J. Schrobilgen   |  |
| 2001 | Douglas W. Stephan    |  |
| 2000 | Michael McGlinchey    |  |
| 1999 | Ian Manners           |  |
| 1998 | Jacek Lipkowski       | Surface Electrochemistry - Surface Science with a Joystick   |
| 1997 | John Harrod           | Going for the Goal: Some Successes and Failures in the Field of Hydrosilane Chemistry  |
| 1996 | Sandro Gambarotta     | Highly Reactive Low-Valent Early Transition Metals: From Dinitrogen Fixation, to C-H Bond Activation and Metal-Metal Bond Formation                                  |
| 1995 | Robert H. Morris      | Intermediates in the Homolytic and Heterolytic Splitting of Dihydrogen by Transition Metal Complexes   |
| 1994 | Tom Ziegler           | Approximate Density Functional Theory: A Practical Tool in Molecular Energetics and Dynamics   |
| 1993 | Richard T. Oakley     | Chemical Binding within and between Inorganic Rings; the Design and Syntheses of Molecular Conductors  |
| 1992 | M. Fryzuk             | Excursions around the Periodic Table: Ligand Design in Inorganic Chemistry   |
| 1991 | F. Bottomley          | [Ru(NH <sub>3</sub> ) <sub>5</sub> (N <sub>2</sub> O)] <sup>2+</sup> + to (-C <sub>5</sub> H <sub>5</sub> ) <sub>14</sub> V <sub>16</sub> O <sub>24</sub> and Beyond |
| 1990 | G. Michael Bancroft   | Shedding Light on the Electronic and Molecular Structure of Inorganic and Organometallic Molecules using Far UV and Soft X-Rays                                      |
| 1989 | Peter Legzdins        | Aspects of the Organometallic Nitrosyl Chemistry of the Group 6 Elements   |
| 1988 | Dennis G. Tuck        | Recent Studies of the Chemistry of Indium (I) and (III) Compounds  |
| 1987 | Tristram Chivers      | Electron-rich Inorganic Systems  |
| 1986 | Michael C. Baird      | A Chemist Looks to Theory, Fact and Fancy  |
| 1985 | Richard J. Puddephatt | Organometallic Chemistry with Binuclear and Trinuclear Complexes   |
| 1984 | Arthur J. Carty       | Chemical Transformations on Phosphido (PR <sub>2</sub> , PR, P) Bridged Clusters   |
| 1983 | W. R. Fawcett         | The Electrodepositions of Semi-Conducting Films and their Use in Solar Energy Conversion   |
| 1982 | Gregory Ozin          | Some Light on Taking Metal Atom Chemistry out of the Cold  |
| 1981 | A. B. P. Lever        | An Experimental View of the Electronic Structure of Metallophthalocyanines – Towards Solar Energy Conversion   |
| 1980 | Howard Alper          | Organometallic Phase Transfers Catalysis   |
| 1979 | R. G. Cavell          | Excursions in Phosphorus Chemistry   |

## Strem Chemicals Award for Pure or Applied Inorganic Chemistry

This award will be presented to a Canadian citizen or landed immigrant who has made an outstanding contribution to inorganic chemistry, demonstrating exceptional promise, while working in Canada. Eligible candidates must have held their first professional appointment as an independent researcher in academia, government, or industry for ten years\* or less at the time of nomination. Awardees must be members of the Inorganic Division working in Canada at the time of the award.

\*excluding time spent on parental leave

### Terms of Reference

**Deadline:** July 2 of every year

**Sponsor:** [Strem Chemicals, Inc.](#)

**Award:** A framed scroll, an award lecture to be given in an inorganic chemistry symposium at the annual CSC conference, and a lecture tour to one or more Canadian universities that are not in major centers, and whose students normally do not travel to CSC meetings. Up to \$1,000 in major travel costs for this tour will be reimbursed on application to the DIC Treasurer; local costs (taxi, accommodation and meals) will be expected to be covered by the host institution(s).

Membership in the Institute is not a prerequisite for this award.

### Nominations must include:

- **Citation** (250 word maximum) statement of why the candidate should receive the award. This is the key document in the nomination and this information should be relevant to the achievements for which the award is being offered.
- **Biographical Sketch** (maximum one page) This provides background information on the nominee and summarizes past accomplishments. This is a summary of information obtained from a C.V.
- **Curriculum Vitae** (maximum nine pages).
- **Supporting Letters** (3 to 5) At least two letters must be from outside the nominee's organization.

Membership in the Institute is not a prerequisite for this award.

All nominations will remain in force for three years. Nominators are responsible for keeping the record of the nominee up to date and complete.

### Selection Committee:

- CSC Director of Awards as non-voting Chair
- Chair of the Inorganic Chemistry Division
- Past two winners of the Strem Chemicals Award for Pure or Applied Inorganic Chemistry

All nominations will remain in force for three years, subject to the limit of the eligibility window stated above. Nominators are responsible for keeping the record of the nominee up to date and complete. The award shall be presented annually unless the Committee considers that no suitable candidate has been nominated.

### List of Recipients

| Date | Award Winner           | Award Lecture   |
|------|------------------------|---|
| 2017 | Dwight Seferos         | Organo-Tellurium Materials and Reactive Molecules                                       |
| 2016 | Curtis P. Berlinguette | Do Molecules Really Help Us Understand Heterogeneous Catalysts?                         |
| 2015 | Muralee Murugesu       | Lanthanides the New Enables   |
| 2014 | Paul Ragogna           | Fun with Main Group Chemistry: From Fundamental Discoveries to Interesting Applications |
| 2013 | Mark MacLachlan        | Supramolecular Inorganic Chemistry: Constructing Molecules and Materials with           |

|      |                   |  |
|------|-------------------|--|
|      |                   | Interesting Structures and Properties  |
| 2012 | Mark Stradiotto   | New Strategies in P,N Ligand Design: Applications in Challenging Late Metal-Catalyzed Transformations. |
| 2011 | Derek P. Gates    | Adventures in Phosphorus Chemistry: A Journey from Molecules to Polymers and Back Again                |
| 2010 | Daniel B. Leznoff | Ancient Metals in Advanced Materials: Cyanoaurate-Based Coordination Polymers                          |
| 2009 | Hanadi Sleiman    | Assembling Materials with DNA as the Guide   |
| 2008 | George Shimizu    | Nanoporous Metal Organic Frameworks: Possibilities from Porous Materials to Fuel Cell Membranes        |
| 2007 | Deryn Fogg        | Catalyst Design in Olefin Metathesis and Tandem Catalysis  |

**Award for Pure or Applied inorganic Chemistry**

Sponsored by the CIC Inorganic Chemistry Division

|      |                     |  |
|------|---------------------|--|
| 2006 | Bernhard Kraatz     | Redox Active Peptides: From Macrocycles to Barrels and Helicates   |
| 2005 | David Antonelli     | Electroactive Mesoporous Oxides as Hosts for 1-d Molecular Wires and Functional Materials for Nitrogen Activation and Hydrogen Storage |
| 2004 | Michael Wolf        | Metal-Containing Conjugated Materials: Oligomers, Polymers and Nanomaterials   |
| 2003 | Robin G. Hicks      |  |
| 2002 | Gary J. Schrobilgen |  |
| 2001 | Richard Oakley      |  |
| 2000 | Thomas Ziegler      |  |
| 1999 | Geoffrey Ozin       |  |
| 1998 | Robert H. Morris    | Non-classical Hydrogen Bonding and the Heterolytic Splitting of Dihydrogen   |
| 1997 | Ian Manners         |  |



## T K Sham Award for Research Excellence in Materials Chemistry

This award is presented to a Canadian citizen or landed immigrant who has made an outstanding contribution to materials chemistry while working in Canada. Nominations may be made for candidates within 15 years\* of their first independent appointment.

\*excluding time spent on parental leave

### Terms of Reference

**Deadline:** July 2 of every year

**Sponsor:** Western University, Canadian Light Source and the Materials Chemistry Division

**Award:** A framed scroll, an award lecture in a Materials Chemistry Division Symposium at the CSC conference and a lecture tour to two or more Canadian universities that are not in major centers, whose students normally do not travel to CSC meetings. Major travel costs for the award tour, to a maximum of \$1,000, will be supported upon application to the Materials Chemistry Division Treasurer; local costs (taxi, accommodation and meals) will be expected to be covered by the host institutions.

### Nominations must include:

- **Citation** (250 word maximum) statement of why the candidate should receive the award. This is the key document in the nomination and this information should be relevant to the achievements for which the award is being offered.
- **Biographical Sketch** (maximum one page) This provides background information on the nominee and summarizes past accomplishments. This is a summary of information obtained from a C.V.
- **Curriculum Vitae** (maximum nine pages).
- **Supporting Letters** (3 to 5) At least two letters must be from outside the nominee's organization.

Membership in the Institute is not a prerequisite for this award.

All nominations will remain in force for three years. Nominators are responsible for keeping the record of the nominee up to date and complete.

### Selection Committee:

- CSC Director of Awards as non-voting Chair
- Chair of the Materials Chemistry Division
- Vice-Chair of the Materials Chemistry Division
- Treasurer of the Materials Chemistry Division

In the event of a conflict of interest, the Division Chair shall designate an alternative member of the Executive to serve on the award jury.

The award shall be presented annually unless the Committee considers that no suitable candidate has been nominated.

## List of Recipients

| Date   | Award Winner            | Award Lecture   |
|--|-------------------------|---|
| Award for Research Excellence in Materials Chemistry |                         |   |
| 2017   | Jonathan Veinot         | Group 14 Nanomaterials: Complex Systems with Vast Potential   |
| 2016   | Mark MacLachlan         | Our Recent Adventures in Materials Chemistry: Making Nanomaterials with Controlled Architectures                          |
| 2015   | Dmitrii F. Perepichka   | Towards Supramolecular Design of Organic Semiconductors   |
| 2014   | Federico Rosei          | Multifunctional Materials for Electronics and Photonics   |
| 2013   | Alex Adronov            | Interactions of Carbon Nanotubes with Novel Aromatic Compounds: The Effect of Structure and Architecture                  |
| 2012   | Frank C.J.M. Van Veggel | Ln <sup>3+</sup> Doped Nanoparticles with Optical and Magnetic Properties: My Perspective of the Past, Present and Future |

## Teva Canada Limited Biological and Medicinal Chemistry (BMC) Lectureship Award

This award is presented to a scientist who has made a distinguished contribution to the field of biological or medicinal chemistry within the past five years of the initial nomination deadline date while working in Canada.

### Terms of Reference

**Deadline:** July 2 of every year

**Sponsor:** Teva Canada Limited

**Award:** A framed scroll, an award lecture to be given in a biological or medicinal chemistry symposium at the annual CSC conference, and a lecture tour to one or more Canadian universities, with special consideration given to schools that are not in major centers, and whose students normally do not travel to CSC meetings. The location(s) to be approved by the BMC Division Chair. Up to \$1,000 in major travel costs for this tour will be reimbursed on application to the BMC Division Treasurer; local costs (taxis, accommodation and meals) are to be covered by the host institution(s). A cash prize of 1,000 can be used to offset travel costs to the CSC conference.

### Nominations must include:

- **Citation** (250 word maximum) statement of why the candidate should receive the award. This is the key document in the nomination and this information should be relevant to the achievements for which the award is being offered.
- **Biographical Sketch** (maximum one page) This provides background information on the nominee and summarizes past accomplishments. This is a summary of information obtained from a C.V.
- **Curriculum Vitae** (maximum nine pages).
- **Supporting Letters** (3 to 5) At least two letters must be from outside the nominee's organization.
- **Three Recent Publications** The publications should demonstrate the recent advance(s) for which the nomination is made and should be published within the past six years prior to the nomination.

Membership in the Institute is not a prerequisite for this award.

All nominations will remain in force for three years. Nominators are responsible for keeping the record of the nominee up to date and complete.

### Selection Committee

- CSC Director of Awards as non-voting Chair
- Chair of the Biological/Medicinal Chemistry Division
- Last 2 Past Chairs of the Biological/Medicinal Chemistry Division

The award shall be presented annually unless the Committee considers that no suitable candidate has been nominated.

### List of Recipients

| Date | Award Winner      | Award Lecture   |
|------|-------------------|---|
| 2017 | John Paul Pezacki | Interrogating Host-pathogen Interactions with Activity-based Probes   |
| 2016 | Robert Campbell   | The Bottomless Barrel of Fluorescent Protein-based Tools for Visualizing Biochemistry as it Happens   |
| 2015 | David M. Perrin   | Meeting the Challenge of <sup>18</sup> F-Labeling for PET with Organotrifluoroborates: A Physical-organic Chemist's Foray from the Bench to the Bedside of Nuclear Medicine |
| 2014 | David Vocadlo     | O-GlcNAc as a Potential Target for Disease Modifying Therapy in Alzheimer Disease   |
| 2013 | Andrew Woolley    | Visible Light Photo-switches for Controlling Protein Structure  |

## Tom Ziegler Award

This award is presented in honour of Prof. [Tom Ziegler](#) (1945-2015) to a scientist residing in Canada who has made an outstanding early-career contribution to theoretical and/or computational chemistry

### Terms of Reference

**Deadline:** July 2 of every year

**Sponsor:** Scientific Computing & Modelling ([www.scm.com](http://www.scm.com))

**Award:** A framed scroll, \$2,000 cash prize and a free license for SCM's ADF Molecular Modelling Suite.

**Eligibility:** Eligible candidates will have held their first professional appointment as an independent researcher in academia, government, or industry for no more than twelve years\* at the time (calendar year) that the award is conferred. Nominations shall remain in force for three years, subject to this criterion of eligibility.

\*excluding time spent on parental leave.

The recipient will be required to present an award lecture in a Physical, Theoretical and Computational (PTC) Symposium at the Canadian Chemistry Conference and Exhibition.

### Nominations must include:

- **Citation** (250 word maximum) This is a statement of why the candidate should receive the award. This is the key document in the nomination and this information should be relevant to the achievements for which the award is being offered.
- **Biographical Sketch** (maximum one page) This provides background information on the nominee and summarizes past accomplishments. This is a summary of information obtained from a C.V.
- **Curriculum Vitae** (maximum nine pages).
- **Supporting Letters** (3 to 5) At least two letters must be from outside the nominee's organization.

Membership in the Institute is not a prerequisite for this award.

All nominations will remain in force for three years. Nominators are responsible for keeping the record of the nominee up to date and complete.

### Selection Committee:

- CSC Director of Awards as non-voting Chair
- Past Chair of the Physical, Theoretical and Computational Chemistry Division
- Past two winners of the Tom Ziegler Award

The award shall be presented annually unless the Committee considers that no suitable candidate has been nominated.

### List of Recipients

| Date | Award Winner   | Award Lecture  |
|------|----------------|--|
| 2017 | Marcel Nooijen | A Sumptuous Buffet of New Methods in Electronic Structure Theory and Quantum Statistical Mechanics |
| 2016 | Tom Woo        | A Computational Chemist's Curious Course from Cars to Carbon Capture                               |

## W. A. E. McBryde Medal

This award is presented to a young scientist working in Canada who has made a significant achievement in pure or applied analytical chemistry.

### Terms of Reference

**Deadline:** July 2 of every year

**Sponsor:** [Sciex](#)

**Award:** A medal, \$1,500 cash to cover travel costs and conference registration for the CSC Conference. The recipient will be required to present an award lecture at the Canadian Chemistry Conference and Exhibition.

### Nominations must include:

- **Citation** (250 word maximum) statement of why the candidate should receive the award. This is the key document in the nomination and this information should be relevant to the achievements for which the award is being offered.
- **Biographical Sketch** (maximum one page) This provides background information on the nominee and summarizes past accomplishments. This is a summary of information obtained from a C.V.
- **Curriculum Vitae** (maximum nine pages).
- **Supporting Letters** (3 to 5) At least two letters must be from outside the nominee's organization.

Membership in the Institute is not a prerequisite for this award.

All nominations will remain in force for three years. Nominators are responsible for keeping the record of the nominee up to date and complete.

### Selection Committee:

- CSC Director of Awards as non-voting Chair
- Chair of the Analytical Chemistry Division
- Past two winners of the W.A.E. McBryde Medal

The award shall be presented annually unless the Committee considers that no suitable candidate has been nominated.

### List of Recipients

| Date | Award Winner   | Award Lecture   |
|------|----------------|---|
| 2017 | Zhifeng Ding   | From Tool Construction to Analytical Chemistry                                  |
| 2016 | Aicheng Chen   | Phase Transitions and Viscosities of Atmospheric Particles                      |
| 2015 | Hua-Zhong Yu   | Bona Fide Optical Discs and Players for Molecular Diagnostics                   |
| 2014 | Lars Konermann | Electrospray Mass Spectrometry as a Readout of a Protein Structure and Function |
| 2013 | Aaron Wheeler  | Digital Microfluidics for Chemistry, Biology and Medicine                       |
| 2012 | Yingfu Li      | Exploring Functional Nucleic Acids for Bioanalytical Applications               |
| 2011 | André Simpson  | <i>Lecture not given</i>  |

Sponsored by MDS Analytical Technologies

|      |                    |   |
|------|--------------------|---|
| 2010 | Xing-Fang Li       | Analytical Challenges in Drinking Water Safety  |
| 2009 | Hans-Peter Looock  | Chemical Sensing Using Fibre Optic Waveguides   |
| 2008 | David D. Y. Chen   | Capillary Electrophoresis for Chemical Separation, Characterization, and Identification |
| 2007 | Sergey Krylov      | Kinetic Capillary Electrophoresis - An Analytical Swiss Army Knife                      |
| 2006 | John Brennan       | Entrapment of Proteins in Silica Materials for the Development of Bioanalysis Tools     |
| 2005 | No award           |   |
| 2004 | Gregory Jerkiewicz |   |
| 2003 | Scott D. Tanner    |   |
| 2002 | X. Chris Le        |   |
| 2001 | Liang Li           |   |

|      |                   |  |
|------|-------------------|--|
| 2000 | D.H. Burns        |  |
| 1999 | Bruce B. Sitholé  | Analytical Pyrolysis in the Pulp and Paper Industry  |
| 1998 | Charles A. Lucy   | Searching for the Holy Grail in Analytical Separations   |
| 1997 | B. A. Thomson     | The Magic (and Chemistry) of Quadrupoles   |
| 1996 | K. W. Michael Siu | Fundamentals and Applications of Electrospray Mass Spectrometry  |
| 1995 | Janusz Pawliszyn  | Solvent-Free Sampling/Solvent Preparation Techniques based on Fibre and Polymer Technologies                 |
| 1994 | Ulrich J. Krull   | Investigations of Organized Monolayer Films for Development of Biosensors                                    |
| 1993 | D. J. Harrison    | Microelectronics, Polymers and Chemical Sensors: Probing their Problems and Advantages in Sensor Development |
| 1992 | Ray Clement       | Needle in a Haystack: The Search for Dioxin in Air, Water, Soils and Biota                                   |
| 1991 | Norman Dovichi    | Capillary Electrophoresis Separation and Laser-Induced Fluorescence Detection                                |
| 1990 | R. E. Sturgeon    | Furnace Atomization Plasma Emission Spectrometry   |
| 1989 | Eric Salin        | In Search of a Soled Solution  |
| 1988 | J. W. McLaren     | From Lithium to Uranium, Picograms to Per Cent   |
| 1987 | Michael W. Blades | Plasma Spectroscopy - Innovation through Understanding   |

## CSC Awards no longer offered

### Boehringer Ingelheim (Canada) Doctoral Research Award – Discontinued in 2014

This award is presented to a Canadian citizen or landed immigrant whose PhD thesis in the field of organic or bio-organic chemistry was formally accepted by a Canadian university in the 12-month period preceding the nomination deadline of July 2 and whose doctoral research is judged to be of outstanding quality.

#### List of Recipients

##### **Date      Award Winner      Award Lecture**

Sponsored by the Organic Chemistry and Biological/.Medicinal Chemistry Divisions

2013      Jefferson Chan

Sponsored by Boehringer Ingelheim (Canada) Ltd.

2012      Daivd Marcoux      Development of Cross-Coupling and Cycloaddition Reactions

2011      Jason M. Thomas      Some Enzymology Experiments on Ribozymes and DNazymes

##### **Boehringer Ingelheim Award**

Sponsored by Boehringer Ingelheim (Canada) Ltd.

2010      Luke Lairson      Mechanisms and Engineering of Glycosyltransferases

2009      Alexandre Côté      Use of the Diphosphine Monoxide Ligand in Copper Catalyzed Nucleophilic Addition Reactions

2008      Jamie Rich      Thiosialosides: Synthesis and Immunochemistry

2007      Margaret Johnson      NMR Studies of Molecular Mimicry in Protein-Ligand Interactions

2006      Jason W. J. Kennedy

2005      Rami Hannoush      Identification of Inhibitors of the Cellular Secretory Pathway: A Chemical Genetics Approach

2004      David Zechel      Catalytic Promiscuity of Mutant Glycosidases

2003      Matthew Russell Netherton

2002      Robert E. Campbell

2001      Grace DeSantis

2000      No award

##### **Bio-Méga Boehringer Ingelheim Award**

Sponsored by Bio-Méga Boehringer Ingelheim

1999      R. Chapman

1998      Dennis Hall

1997      J. McCarter      Mechanism-based Inhibitors as In Vitro and In Vivo Probes of Glycosidase Structure and Mechanism

1996      R.H.E. Hudson      Synthesis and Studies on Branched Oligonucleotides

## Enantioselective Synthetic Research Grants

**Sponsor:** AstraZeneca Canada Inc., Boehringer Ingelheim (Canada) Ltd., Merck Frosst Canada Ltd.

### Call for Applications

Applications are invited for the Enantioselective Synthetic Chemistry Research Program. It is the intention of the Enantioselective Synthetic Chemistry Research Program to support the development and application of methods for enantioselective synthetic organic chemistry and related fields such as the development of catalysts for chiral transformations, and more specifically, research projects directed to:

1. the development and application of methods for enantioselective synthetic organic chemistry and related fields;
2. the development of novel catalysts for the formation of carbon-carbon bonds and the creation of chiral centres through functional group manipulation;
3. the development and application of novel and efficient chiral auxiliaries for functional group manipulation, alkylation, oxidation, carbon-carbon bond formation;
4. novel uses of enzymes and biosystems to perform chiral transformations;
5. kinetic resolution technologies.

*Funding will normally be provided up to \$30,000 per year for a two-year period.*

Applicants must be Canadian citizens or permanent residents and must be researchers at a Canadian university. Joint applications from investigators with different areas of expertise (e.g. organic synthesis and polymer or organometallic chemistry) are encouraged.

This program, sponsored by AstraZeneca Canada Inc., Boehringer Ingelheim (Canada) Ltd. and Merck Frosst Canada & Co., and administered by the Canadian Society for Chemistry (CSC), will provide grants to support research in chemistry and related fields.

It is expected that proposals should have potential to fulfill NSERC requirements for industrial-oriented research matching grants, and applicants are encouraged to submit their proposals to the NSERC Collaborative Research and Development Grants Program in order to obtain additional funding. The sponsoring pharmaceutical companies will support these applications.

### List of Recipients

| <b>Date</b> | <b>Award Winner</b>                      | <b>Research</b>  |
|-------------|--|--|
| 2005        | André Beauchemin<br>University of Ottawa | Development of Enantioselective Reactions Involving trans-Cycloalkenes |
|             | Hélène Lebel Université de Montréal      | Toward the Enantioselective Formation of Chiral Amines                 |
| 2004        | Chao-Jun Li, MCIC<br>McGill University   | Developing Asymmetric Carbon-Carbon Bond Formation Via C-H Activations |



|                               |  |  |
|-------------------------------|--|--|
|                               | Dennis G. Hall, MCIC<br>University of Alberta  | Lewis Acid Activation of a Lewis Acid and Electrophilic Boronate Activation: New Concepts for Green and Practical Catalytic Enantioselective Carbonyl Allylation |
| 2003                          | Karine Auclair, MCIC<br>McGill University      | The Use of p450 Enzymes in Enantioselective Synthesis  |
|                               | André Charette, FCIC<br>Université de Montréal | Asymmetric Catalytic Synthesis and Application of Alpha-Chiral Amines: Development of a Novel Class of Unsymmetrical Chiral Ligands                              |
| Combinatorial Research Grants |  |  |
| 2002                          | James Gleason, McGill<br>University            | Dynamic Combinatorial Libraries  |
|                               | William Lubell, FCIC<br>Université de Montréal | Solid Phase Synthesis of Heterocyclic Amino Acids  |
| 2001                          | Cathleen Crudden, MCIC<br>Queen's University   |  |
|                               | Victor Snieckus, FCIC<br>Queen's University    |  |
| 2000                          | Thomas Fyles, FCIC<br>University of Victoria   |  |
|                               | Andrei K. Yudin, MCIC<br>University of Toronto |  |
|                               | Dennis Hall, FCIC<br>University of Alberta     |  |

## AstraZeneca Request for Proposals

### List of Recipients

| Date | Award Winner |
|------|--------------|
| 2001 | Peter Wilson |
| 2000 | Julian Zhu   |

### Astra Pharma Research Grant

Sponsored by Astra Pharma Inc.

|      |                |
|------|----------------|
| 1999 | André Charette |
| 1998 | Robert Batey   |

## Ichikizaki Fund for Young Chemists – Discontinued in 2014

This Fund provides financial assistance to young chemists who are showing unique achievements in basic research by facilitating their participation in international conferences or symposia.

### List of Recipients

| <b>Date</b> | <b>Award Winner</b>   |
|-------------|---|
| 2013        | Patrick T. Gunning<br>Mukund Jha<br>Katherine S. Ryan   |
| 2012        | Patrick T. Gunning<br>James J. Mousseau<br>Mukund Jha   |
| 2011        | Patrick T. Gunning<br>Mark Taylor<br>Glenn Sammis   |
| 2010        | Glenn Sammis<br>Mark S. Taylor<br>Parisa Mehrkhodavandi<br>Fraser Hof<br>James J. Mousseau  |
| 2009        | Jean-François Paquin<br>Vy M. Dong<br>Mark Stephen Taylor<br>Sara Eisler<br>Kenneth Maly  |
| 2008        | André Beauchemin<br>Shawn K. Collins<br>Kenneth Maly<br>Parisa Mehrkhodavandi<br>Jean-François Paquin<br>Mojmir Suchy                             |
| 2007        | André Beauchemin<br>Robert Britton<br>Shawn K. Collins<br>Jean-François Paquin<br>Andreea Schmitzer<br>Christopher Wilds                          |
| 2006        | André Beauchemin<br>Shawn K. Collins<br>Keith Fagnou<br>Torsten Hegmann<br>Jennifer A. Love<br>Andreea Schmitzer<br>W. G. Skene<br>Hongbin Yan    |
| 2005        | Karine Auclair<br>Louis Barriault<br>Guillaume Bélanger<br>Shawn K. Collins<br>Keith Fagnou<br>Hélène Lebel<br>Jennifer A. Love<br>Effiette Sauer |

- Andreea Schmitzer  
Alison Thompson
- 2004 Karine Auclair  
Shawn K. Collins  
Hélène Lebel
- 2003 Dennis Hall  
Thiery Olevier  
Laura L. Schafer  
Mojmir Suchy  
Andrei K. Yudin
- 2002 Kleem Chaudhary  
Gregory Dake  
Stephen Gottschling  
Dennis Hall  
Scott Harley  
Andrei K. Yudin
- 2001 Louis Barriault  
Jerome Cluzeau  
Eric Fillion  
Francis Gosselin  
Dennis Hall  
Robin Hicks  
Hélène Lebel  
David R. Palmer  
Tomislav Rovis  
William Tam  
Rolf Vermej  
Vance Williams  
Peter D. Wilson  
Andrei K. Yudin
- 2000 Robert Batey  
Cathleen Crudden  
David C. Forbes  
Jeffrey W. Keillor  
Hélène Lebel  
Peter D. Wilson  
Andrei K. Yudin
- 1999 Robert Batey  
Laurent Bélec  
Neil Branda  
Cathleen Crudden  
Francis Gosselin  
Liliane Halab  
Dennis Hall  
James McNulty  
William Tam  
Rik Tykwinski  
Mark S. Workentin  
Andrei K. Yudin
- 1998 Robert Batey  
Francis Gosselin  
Christine Gottardo  
Liliane Halab  
Michael R. Mannion  
James McNulty

Andrew R. Vaino  
Stephen Withers

1997 Robert Batey  
Fred Capretta  
Cathleen Crudden  
Andrew MacMillan

1996 Robert Batey  
Graham Bodwell  
Karim Kassam  
Robert P. Lemieux  
William Lubell  
Warren Piers  
Andrew Wooley

## Merck Frosst Therapeutic Research Centre Award – Discontinued in 2012

The award is presented to a scientist residing in Canada who has made a distinguished contribution in the fields of organic chemistry or biochemistry while working in Canada.

### List of Recipients

| Date                               | Award Winner         | Award Lecture  |
|------------------------------------|----------------------|--|
| 2011                               | Eric Fillion         |  |
| 2010                               | Andrei Yudin         | Chemoselective Macrocyclization Strategies   |
| 2009                               | Hélène Lebel         | Toward the Formation of C-C and C-N bonds via Transition Metal-Catalyzed Processes   |
| 2008                               | Dennis Hall          | Catalytic Enantioselective Carbonyl Allylboration: Discovery and Application of a New Mode of Activation for Boronic Esters  |
| 2007                               | Jeffrey Keillor      | The Bioorganic Chemistry of Transpeptidase Enzymes: From Mechanistic Studies to Inhibition and Engineering                   |
| 2006                               | Robert Batey         | Late-Transition Metal Catalyzed C-X Bond Formation: Synthetic Explorations and Applications                                  |
| 2005                               | Graham Bodwell       | VID Chemistry and the Quest for Aromatic Belts   |
| 2004                               | Martin Tanner        | Understanding Nature's Strategies for Enzyme-Catalyzed Racemization and Epimerization  |
| 2003                               | Warren Piers         |  |
| 2002                               | William D. Lubell    |  |
| 2001                               | John Sherman         |  |
| 2000                               | Gregory Thatcher     |  |
| 1999                               | Masad Damha          |  |
| 1998                               | André B. Charette    | The Catalytic Asymmetric Cyclopropanation of Olefins   |
| 1997                               | Donald Weaver        | Design and Synthesis of Novel Therapeutics for Epilepsy and Alzheimer's Dementia   |
| 1996                               | Brian A. Keay        | Synthetic Adventures Along a Rocky Mountain Road   |
| 1995                               | Peter Wan            | Quinone Methides: Relevant Intermediates in Organic Chemistry  |
| 1994                               | Mark Lautens         | New Strategies for the Stereoselective Synthesis of Natural and Unnatural Products via Organometallic Reagents and Catalysts |
| 1993                               | B. Mario Pinto       | From Streptococcal Infections to Rheumatic Heart Disease   |
| 1992                               | William Leigh        | Orbital Symmetry and the Photochemistry of Cyclobutene   |
| 1991                               | A. Weedon            | The Structures of Biradical Intermediates in Photochemical Cycloaddition Reaction; Synthetic and Mechanistic Consequences    |
| 1990                               | O. Hindsgaul         | Applications of Synthetic Carbohydrate Chemistry to the Study of Glycosyltransferases  |
| 1989                               | Stephen G. Withers   | Fluorinated Sugars as Probes of Enzyme Specificity and Mechanism   |
| 1988                               | James D. Wuest       | Synthesis, Structure, Coordination Chemistry, and Applications of Multidentate Lewis Acids                                   |
| <b>Merck Sharp and Dohme Award</b> |                      |  |
| 1987                               | Raymond J. Andersen  | Cold Water Marine Natural Products   |
| 1986                               | John C. Verderas     | Biosynthesis of Polyketide Plant Growth Regulators and Antifungal Antibiotics  |
| 1985                               | D. Griller           | Radicals and Their Riddles, Carbenes and Their Conundrums  |
| 1984                               | Larry S. Weiler      | The Art and Practice of Organic Synthesis  |
| 1983                               | Ronald H. Kluger     | Bio-organic Approaches to Coenzyme Mechanisms  |
| 1982                               | T. H. Chan           | Adventures with Silicon: From Sex Pheromones to Tetrahydrocannabinol   |
| 1981                               | Colin A. Fyfe        | Application of High Resolution Solid State NMR in Organic Chemistry  |
| 1980                               | Tony Durst           | Cyclobutanols and Benzocyclobutanols   |
| 1979                               | Edward Piers         | Recent Studies in Organic Synthesis  |
| 1978                               | I. C. P. Smith       | Molecular Details of Complex Biological Systems as Seen by Magnetic Resonance  |
| 1977                               | B. O. Fraser-Reid    | Some Mistakes We Would Gladly Make Again   |
| 1976                               | Pierre Deslongchamps | Synthetic Studies toward Ryanodine   |
|                                    | F. King              | The Middle Word on Sulfenes  |
| 1975                               | L. D. Hall           | A Fourth Dimension for NMR Spectroscopy  |

|      |                    |  |
|------|--------------------|--|
| 1974 | Stephen Hanessian  | New Synthetic Methods: From Carbohydrates to Antibiotics and Beyond                            |
| 1973 | John W. ApSimon    | Terpenoid Meanderings  |
| 1972 | S. Wolfe           | Sulfur-free Penicillin Derivatives   |
| 1971 | J. B. Stothers     | Organic Applications of C NMR Spectroscopy   |
| 1970 | William A. Ayer    | Recent Studies in Natural Products   |
| 1969 | E. W. Warnhoff     | Mechanistic Variations in the Favorskii Reaction   |
| 1968 | J. P. Kutney       | Recent Studies in Natural Products   |
| 1967 | Zdenek Valenta     | Synthetic Study of Ormosia Alkaloids   |
| 1966 | Paul de Mayo       | Photochemical Cycloaddition and Synthesis  |
| 1965 | L. C. Vining       | Antibiotics, Mould Metabolites and their Biosynthesis  |
| 1964 | G. M. Tener        | Studies on Soluble Ribonucleic Acid  |
| 1963 | P. Yates           | Studies on Gamboge   |
| 1962 | Bernard Belleau    | Some Recent Developments in the Chemistry of Enzyme — Substrate and Enzyme Inhibitor Complexes |
| 1961 | A. S. Perlin       | The Chemistry of Oligosaccharides  |
| 1960 | O. E. Edwards      | Some Perspectives in Natural Products Research   |
| 1959 | J. F. Morgan       | Tissue Cultures as a Tool in Biochemical Research  |
| 1958 | H. G. Khorana      | Recent Progress in the Synthesis and Structural Analysis of Polynucleotides                    |
| 1957 | A. C. Neish        | The Biosynthesis of Carbohydrates in Plants  |
| 1956 | Raymond U. Lemieux | The Significance of the Half-Chair Conformation in Carbohydrate Chemistry                      |
| 1955 | S. Kirkwood        | The Thyroid Gland as Viewed Through the Eyes of a Chemist                                      |

## Protective Coatings Award

Award no longer presented as of 1991

### List of Recipients

| <b>Date</b> | <b>Award Winner</b> | <b>Award Lecture</b>   |
|-------------|---------------------|--|
| 1990        | Daniel DeKee        |  |
| 1989        | No award            |  |
| 1988        | Barry Kay           |  |
| 1987        | No award            |  |
| 1986        | No award            |  |
| 1985        | No award            |  |
| 1984        | No award            |  |
| 1983        | A. Rudin            |  |
| 1982        | J.W. Wright         | Coating Pigmentation for Long Term Colour Retention on Precoated Architectural Aluminium |
| 1981        | No award            |  |
| 1980        | R. Rauch            | Titanium Dioxide: Its Performance in Flat Latex Paints                                   |
| 1979        | J.W. Tomecko        |  |
| 1978        | A.E. Hamielec       | Liquid Exclusion Chromatography  |
| 1977        | H.P. Shreiber       | Physical Interactions in Coatings Coping with the Problem                                |