

Canadian Society for Chemistry | *For Our Future* Société canadienne de chimie | *Pour notre avenir* 

# **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 (CCCE)

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

Award for Research Excellence in Materials Chemistry

Bernard Belleau Award formerly Hoffmann–La Roche Ltd. Award formerly Syntex Award

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

Canadian Journal of Chemistry Best Paper Award

Canadian Light Source TK Sham Award in Materials Chemistry

CCUCC Chemistry Doctoral Award

Clara Benson Award

E.W.R. Steacie Award

IntelliSyn Pharma Research Excellence Award formerly Boehringer Ingelheim (Canada) Research Excellence Award

John C. Polanyi Award

Keith Fagnou Award

Keith Laidler Award formerly Noranda Award

Melanie O'Neill Young Investigator Award in Biological Chemistry

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

Tom Ziegler Award

W.A.E. McBryde Medal:

List of past winners for CSC awards no longer offered:

Ichikizaki Fund for Young Chemists
Merck Frosst Therapeutic Centre Award
Note that changes may be required to the specified Selection Committees (in consultation with the specific Division(s)) due to conflicts of interest, committee gender balance or other issues that may arise.

Boehringer Ingelheim Doctoral Thesis 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:** Organic Division **Award:** A framed scroll

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.

#### 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 CIC is not a prerequisite for this award.

If the nominee has previously received awards by the CSC and/or CIC, the nominator has to differentiate the current achievements from those that have been previously recognized.

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

No award will be given out, if less than 3 nominations for the award are received or if the Committee considers that no suitable candidate has been nominated.

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

Date	<b>Award Winner</b>	Award Lecture
2018	Chao-Jun Li	Organic Synthesis at the Interface of Academia and the Pharmaceutical Industry
2017	Andrei Yudin	Synthesis of Bioactive Macrocycles
2016	Dennis Hall	Boronoic 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
		Depsipeptides 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 2010	Frederick G. West Tomas Hudlicky	Approaches to Natural and Unnatural Oxacyclic Compounds Design and Stereoselective Synthesis of Medicinal Agents via Chemoenzymatic Methods: The Story of Amarrylidaceae 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

## **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: 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 (taxis, 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 CIC is not a prerequisite for this award.

If the nominee has previously received awards by the CSC and/or CIC, the nominator has to differentiate the current achievements from those that have been previously recognized.

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

No award will be given out, if less than 3 nominations for the award are received or if the Committee considers that no suitable candidate has been nominated.

#### 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

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

Date	Award Winner	Award Lecture
2018	Xueliang (Andy) Sun	Organic Synthesis at the Interface of Academia and the Pharmaceutical Industry
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 Vegg	el Ln <sup>3+</sup> Doped Nanoparticles with Optical and Magnetic Properties: My Perspective
		of the Past, Present and Future

#### **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 CIC is not a prerequisite for this award.

If the nominee has previously received awards by the CSC and/or CIC, the nominator has to differentiate the current achievements from those that have been previously recognized.

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

No award will be given out, if less than 3 nominations for the award are received or if the Committee considers that no suitable candidate has been nominated.

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

#### List of Recipients

Date	<b>Award Winner</b>	Award Lecture
2018	David Vocadlo	Organic Synthesis at the Interface of Academia and the Pharmaceutical Industry
2017	Jeffrey W. Keillor	Targeted Covalent Inhibition of Tissue Trasnglutaminase 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 Amphoric Reactivity: From Heterocycles to
		Bioactive Borofragments
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 Pervlenequinones.

Syntex A	Award		
Sponsore	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 Biomemetic 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. Buncel	Interactions of Nucleophiles with Nirtoaromatic Electrophiles and Super-	
		Electrophiles.	
1984	K. Yates	Photohydration Reactions.	
1983	Keith U. Ingold	Vitamin E in vitro and in vivo.	

## **Biological and Medicinal Chemistry Lectureship Award**

Formerly the Teva Canada Limited Biological and Medicinal Chemistry (BMC) Lectureship Awqard

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: Biological and Medicinal Division and Organic Division

**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 CIC is not a prerequisite for this award.

If the nominee has previously received awards by the CSC and/or CIC, the nominator has to differentiate the current achievements from those that have been previously recognized.

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

No award will be given out, if less than 3 nominations for the award are received or if the Committee considers that no suitable candidate has been nominated.

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

Date	<b>Award Winner</b>	Award Lecture
2018	William D. Lubell	From a CH to N Swap to Therapeutic Prototypes to Treat Macular Degeneration;
		Modulation of the Cluster of Differentiation 36 Receptor Using Azapeptides
		Mediates Macrophage-Driven Inflammation
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 Clannenge of 18F-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

## **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)

#### Award

- A framed scroll
- 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.

#### **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.

#### 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

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

No award will be given out if the Committee considers that no suitable candidate has been nominated.

#### Selection committee

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

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

Date	<b>Award Winner</b>	Award Lecture
2018	Krysztof Starosta	Impact of the Fukushima Daiichi Nuclear Accident on radiation levels in British \
		Columbia
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 Sulfinate Ester Substituted Diels-Alder Cycloadducts.

# Canadian Light Source TK Sham Award in Materials Chemistry

This award is presented to an individual who has made a distinguished contribution to materials chemistry both in terms of research and mentoring while working in Canada.

#### **Terms of Reference**

**Deadline:** July 2 of every year (should July 2 fall on a weekend, the deadline will be the next working day)

Sponsors: Canadian Light Source Inc., CIC Materials Chemistry Division, and Department of Chemistry, University of Western Ontario

**Award:** A framed scroll, an award lecture in the Materials Chemistry Division Award Symposium at the CSC conference, and a lecture tour at 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 \$1,500, will be supported upon application to the Materials Chemistry Division Treasurer; host institutions are expected to cover local costs (taxis, accommodation and meals).

#### Nominations must include:

- Citation (maximum one page, single spaced) 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. In the event the nominee has already received a CIC or CSC award, the onus is on the
  nominator to highlight how the contributions are different from those that had been previously recognized with
  an award.
- **Biographical Sketch** (maximum one page, double spaced). This sketch 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 (three to five) At least two letters must be from outside the nominee's organization.

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

If the nominee has previously received awards by the CSC and/or CIC, the nominator has to differentiate the current achievements from those that have been previously recognized.

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

No award will be given out, if less than 3 nominations for the award are received or if the Committee considers that no suitable candidate has been nominated.

#### **Selection Committee:**

- CSC Director of Awards as non-voting Chair
- Chair of the Materials Chemistry Division
- Vice-Chair of the Materials Chemistry Division
- Past winner of the TK Sham Materials Chemistry Award

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

#### List of Recipients

DateAward WinnerAward Lecture2019inaugural awardeeinaugural awardee

## **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 <u>NSERC website</u>
- Thesis synopsis abstract
- Statement of merit Thesis committee comments
- One representative publication

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

Nominations for this award are valid for one year only.

No award will be given out, if less than 3 nominations for the award are received or if the Committee considers that no suitable candidate has been nominated.

#### 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.

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

Date	Award Winner	Award Lecture
2018	John Thompson	Designing Birefringent Materials: A Crystal Engineering Approach
2017	Cristina Mottilo	Synthesis and Design of Microporous Metal-organic Materials and Molecular Solids in the Solid Sate
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 Familty
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 Birefrigent 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
		a- and b-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.

#### 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 CIC is not a prerequisite for this award.

If the nominee has previously received awards by the CSC and/or CIC, the nominator has to differentiate the current achievements from those that have been previously recognized.

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

No award will be given out, if less than 3 nominations for the award are received or if the Committee considers that no suitable candidate has been nominated.

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

Date	Award Winner	Award Lecture
2018	Brigitte Guérin	Tools for Peptide Radiolabelling
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. Hdrofunctionization using N,O-Chelated Chomplexes
2014	Hélène Lebel	Transition Mteal-catalyzed Amination Processes
2013	Jillian M. Buriak	Using Block Copolymer Self-Assembly on Surfaces to Creaet 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 Organoboronic 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	Michèlle 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. Codding	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 CIC is not a prerequisite for this award.

If the nominee has previously received awards by the CSC and/or CIC, the nominator has to differentiate the current achievements from those that have been previously recognized.

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

No award will be given out, if less than 3 nominations for the award are received or if the Committee considers that no suitable candidate has been nominated.

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

Date	Award Winner	Award Lecture
2018	Josef Zwanziger	Solid-State Structures of Tellurites
2017	Jillian Buriak	Plasmonic Stamps: Using Plasmons to Drive Nanopatterned Chemistry on Sillicon
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 CIC is not a prerequisite for this award.

If the nominee has previously received awards by the CSC and/or CIC, the nominator has to differentiate the current achievements from those that have been previously recognized.

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

No award will be given out, if less than 3 nominations for the award are received or if the Committee considers that no suitable candidate has been nominated.

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

Date	Award Winner	Award Lecture
2018	No winner	
2017	Russ Algar	The Small Matter of Bioanalysis: Adventures at Less Than 10 mm 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
Sponsor	red by Eli Lilly Canada I	nc.
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.

#### 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 CIC is not a prerequisite for this award.

If the nominee has previously received awards by the CSC and/or CIC, the nominator has to differentiate the current achievements from those that have been previously recognized.

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

No award will be given out, if less than 3 nominations for the award are received or if the Committee considers that no suitable candidate has been nominated 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 recipient will be required to present an award lecture at the Canadian Chemistry Conference and Exhibition.

#### List of Recipients

Date	<b>Award Winner</b>	Award Lecture
2018	Jennifer Love	The development of new catalytic transformations for the synthesis of medicinally
		important compounds and pharmaceutical building blocks
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

Isocynates

2014	Robert E. Campbell	Engineering Next Generation Optogenetic Probes for Visualization of Neuronal
		Activity
2013	David Vocadlo	Chemical Biology of O-GicNAc: 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: 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 CIC is not a prerequisite for this award.

If the nominee has previously received awards by the CSC and/or CIC, the nominator has to differentiate the current achievements from those that have been previously recognized.

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

No award will be given out, if less than 3 nominations for the award are received or if the Committee considers that no suitable candidate has been nominated 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 recipient will be required to present an award lecture at the Canadian Chemistry Conference and Exhibition.

Award Winner	Award Lecture
Albert Stolow	Dynamics at Conical Intersections: Towards Polanyi Rules for Polya tomcis
Josef W. Zwanziger	The Relationship of Glass Structure to its Optical Performance
Federico Rosei	Multifunctional Materials for Electronics and Photonics
Terrance McMahon	Energetics, Structure and Vibrational Spectra of Gaseous Cluster Ions
Tucker Carrington, Jr.	Using Efficient Calculations of High-lying Levels of Methane to Refine a Potential
	Energy Surface
Ronald P. Steer	Kasha's Rule Isn't: Adventures in the Land of Molecular Electronic Excited States
Dennis Salahub	Towards the Multiscale Modelling of Chemical Reactions in Complex
	Environments from the Hohenberg-Kohn Theorums to Health, Wealth and
	Happiness
Moshe Shapiro	Coherent Control and Chiral Separation and the Imaging of Molecular Potentials
Tsun-Kong Sham	Probing Materials Properties in the Energy and Timing Domain with Light-
	Albert Stolow Josef W. Zwanziger Federico Rosei Terrance McMahon Tucker Carrington, Jr. Ronald P. Steer Dennis Salahub Moshe Shapiro

## Synchrotron Light

		, 6
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. Wasylishen	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 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 CIC is not a prerequisite for this award.

If the nominee has previously received awards by the CSC and/or CIC, the nominator has to differentiate the current achievements from those that have been previously recognized.

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

No award will be given out, if less than 3 nominations for the award are received or if the Committee considers that no suitable candidate has been nominated 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 recipient will be required to present an award lecture at the Canadian Chemistry Conference and Exhibition.

Date	Award Winner	Award Lecture
2018	Sylvain Canesi	Total Synthesis of Natural Products: Useless Art or Ultimate Goal?
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:** 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 CIC is not a prerequisite for this award.

If the nominee has previously received awards by the CSC and/or CIC, the nominator has to differentiate the current achievements from those that have been previously recognized.

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

No award will be given out, if less than 3 nominations for the award are received or if the Committee considers that no suitable

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

Date	Award Winner	Award Lecture
2018	Dennis Hore	Molecular Structure at Surfaces From Nonlinear Vibrational Spectroscopy
		Combined with Computer Simulations
2017	Viktor N. Staroverov	Wave Functions, Density Functionals, and Kohn-Sham Potentials
2016	Venkataraman Thangac	durai 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 2003	Peter G. Kusalik Wolfgang Jäger	Understanding the Behaviour of Liquid Water: The Importance of Quantum Effects
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 Anharmony.
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 Photoelection 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. Hitchock	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 Vijh	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.

#### 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 CIC is not a prerequisite for this award.

If the nominee has previously received awards by the CSC and/or CIC, the nominator has to differentiate the current achievements from those that have been previously recognized.

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

No award will be given out, if less than 3 nominations for the award are received or if the Committee considers that no suitable

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

Date	Award Winner	Award Lecture
2018	Ratmir Derda	Genetically-Encoded Molecular Libraries
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

#### 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 CIC is not a prerequisite for this award.

If the nominee has previously received awards by the CSC and/or CIC, the nominator has to differentiate the current achievements from those that have been previously recognized.

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

No award will be given out, if less than 3 nominations for the award are received or if the Committee considers that no suitable.

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

#### List of Recipients

Date	Award Winner	Award Lecture
2018	Hanadi Sleiman	DNA Nanostructures for Biological and Materials Applications
2017	Cathleen Crudden	N-heterocyclic Carbenes as Supporting Ligands for Borenium-based Catalysts and on Metal Surfaces
2016	Michael Organ	The Negishi ReactionReveal 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 Zn2+ 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
1005	mi m m' i ii	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
1002	T. II. CI	ANTIo Stereoelectronic Effects
1993	T-H. Chan	Organometallic-type Reactions in Aqueous Media – A New Challenge in Organic
1002	C 13W 1C	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:

#### **Eligibility:**

- Nominations being considered for the 2020 selection will be from academia, industry and government (deadline July 2, 2019)
- Nominations being considered for the 2021 selection will be from academia (deadline July 2, 2020)
- Nominations being considered for the 2022 selection will be from industry and government (deadline July 2, 2021)

#### 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 CIC is not a prerequisite for this award.

If the nominee has previously received awards by the CSC and/or CIC, the nominator has to differentiate the current achievements from those that have been previously recognized.

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

No award will be given out, if less than 3 nominations for the award are received or if the Committee considers that no suitable.

#### Selection Committee:

- CSC Director of Awards as non-voting Chair
- Chair of the Analytical
- Past two winners of the Maxxam Award

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

Date	Award Winner	Award Lecture
2018	Lars Konermann	Adventures in Mass Spectrometry: Probing the Behavior of Proteins in the Gas Phase and in Solution
Maxxam	n 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
		Biotoxins
2015	David D.Y. Chen	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
	8	Proteome and Metabolome Profiling
2008	Charles Lucy	A Physical Analytical Perspective of Self-Assembled Coatings in Capillary
2000	Charles Eucy	Electrophoresis
2007	Ralph Sturgeon	Reference Materials, Traceability and Uncertainty: New Challenges for the
2007	Raipii Stargeon	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	TTI ' 1 T TZ 11	
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
	Scientific Award	
	ed 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 Price.
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.
1974	W.A.E. McBryde	Solution Chemistry - An Analyst's Playground
1973		Trace Analysis by Solution Spectroscopy.
	D. E. Ryan	
1971	R. N. Jones	Data Banking for Science and Technology.  Applying Chamistry, Some Prospects and Patrospects
1970	R. P. Graham	Analytical Chemistry - Some Prospects and Retrospects.
1969	Walter E. Harris	Gas Chromatography-Developments in Temperature Programming and Pyrollysis
1070	E 1 E. D 1	QC.
1968	Fred E. Beamish	Analytical Chemistry and the University.

## **Rio Tinto 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

Award: A framed scroll, \$2,500 cash and up to \$1,000 for travel to present the lecture at the CSC Conference, if

required

**Award:** A framed scroll, \$2,500 cash and up to \$1,000 for travel to present the lecture at the CSC Conference, if required. Rio Tinto will send one of their researchers (or other employee in a technical role) to the winner's institution (all expenses paid) to present a talk that will be appropriate for undergraduate, graduate and academic staff and faculty from across the institution. The winner and his/her Department will be responsible for coordinating and pr9omoting this event to ensure maximum attendance from the Departments of Chemistry and Chemical Engineering,

#### 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 CIC is not a prerequisite for this award.

If the nominee has previously received awards by the CSC and/or CIC, the nominator has to differentiate the current achievements from those that have been previously recognized.

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

No award will be given out, if less than 3 nominations for the award are received or if the Committee considers that no suitable

#### Selection Committee:

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

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

<b>Date</b> 2019	Award Winner	Award Lecture
RioTinto	o Alcan Award	
2018	Jillian Buriak	Totally Radical Chemistry of Chalcogenides on Silicon Surfaces
2017		Ferrocene Peptides. Self-assembly and Materials
2016	Michael Wolf	Making Conjugated Materials Shine
2015	Steven Holdcroft	ORR Electrochemisty at the Pt/Ionomer Interrface
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 ScaleEnergy 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 A	ward	
Sponsor	ed by Alcan International	
2008	Jack Passmore	Homopolyatomic Cations of Groups 16 and 17: Structure, Energetics and
		Chemistry: New Classes of Compounds, Unexpected Structures, Novel
2007	Carrier a Warra	Bonding and Physical Properties Three-Coordinate Organoboron: Impact of Molecular Geometry on Donor-Acceptor
2007	Suning Wang	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
1993	Richard T. Oakley	and Dynamics Chemical Binding within and between Inorganic Rings; the Design and Syntheses of
1992	M. Frazzak	Molecular Conductors Excursions around the Periodic Table: Ligand Design in Inorganic Chemistry
1992	M. Fryzuk F. Bottomley	[Ru(NH3)5(N2O)]2 + to ( -C5H5)14V16O24 and Beyond
1990	G. Michael Bancroft	Shedding Light on the Electronic and Molecular Structure of Inorganic and
1000	D-4 I 1'	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 (1) and (11) 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 (PR2,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 (taxis, accommodation and meals) will be expected to be covered by the host institution(s).

### 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 CIC is not a prerequisite for this award.

If the nominee has previously received awards by the CSC and/or CIC, the nominator has to differentiate the current achievements from those that have been previously recognized.

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

No award will be given out, if less than 3 nominations for the award are received or if the Committee considers that no suitable.

### 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

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

Date	Award Winner	Award Lecture
2018	Eric Rivard	Coaxing Main Group Elements into New Bonding and Phosphorescent
		Environments
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	Suprmolecular 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
2003	David Allionem	
		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-lassical Hydrogen Bonding and the Heterolytic Splitting of Dihydrogen
1997	Ian Manners	

## **Tom Ziegler Award**

This award is presented in honour of Prof. <u>Tom Ziegler</u> (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:** Software for Chemistry & Material B.V (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.

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

Date	<b>Award Winner</b>	Award Lecture
2018	Erin Johnson	Density-Functional Theory for Molecular Crystal Structure Prediction
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 CIC is not a prerequisite for this award.

If the nominee has previously received awards by the CSC and/or CIC, the nominator has to differentiate the current achievements from those that have been previously recognized.

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

No award will be given out, if less than 3 nominations for the award are received or if the Committee considers that no suitable

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

### **List of Recipients**

Date	Award Winner	Award Lecture
2018	Juewen Liu	Highly Sensitive and Selective Detection of Metal Ions Using Catalytic DNA
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	Lecture not given

### Sponsored by MDS Analytical Technologies

2010	Xing-Fang Li	Analytical Challenges in Drinking Water Safety
2009	Hans-Peter Loock	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 bioorganic 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
Sponsore	ed 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 Nucleophillic
		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 Nethe	rton
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.

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

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	s
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Date	Award Winner	Research	
2005	André Beauchemin 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 McGill University	Developing Asymmetric Carbon-Carbon Bond Formation Via C-H Activations	

Dennis G. Hall, MCIC

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

McGill University

The Use of p450 Enzymes in Enantioselective Synthesis

André Charette, FCIC Université de Montréal Asymmetric Catalytic Synthesis and Application of Alpha-Chiral Amines: Development of a Novel Class of Unsymmetrical Chiral

Ligands

Combinatorial Research Grants

2001

2002 James Gleason McGill

University

ynamic Combinatorial Libraries

William Lubell, FCIC

Université de Montréal

Solid Phase Synthesis of Heterocyclic Amino Acids

Cathleen Crudden, MCIC Queen's

University

Victor Snieckus, FCIC Queen's University

2000 Thomas Fyles, FCIC

University of Victoria

Andrei K. Yudin, MCIC University of Toronto

Dennis Hall, FCIC University of Alberta

# **AstraZeneca Request for Proposals**

### **List of Recipients**

**Award Winner** Date 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**

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

Hélène Lebel Jennifer A. Love Effiette Sauer

Karine Auclair Louis Barriault Guillaume Bélanger Shawn K. Collins Keith Fagnou

2005

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

2000 Robert Batey

Cathleen Crudden David C. Forbes Jeffrey W. Keillor Hélène Lebel Peter D. Wilson Andrei K. Yudin

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.

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	1
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
	C	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

Merck Sharp and Dohme Award		
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 o	f Rec	ipie	nts
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Date	Award Winner	Award Lecture
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