

## ROGER GAUDREULT, Associate Professor



The 2016 Canadian Green Chemistry and Engineering Award, sponsored by Green Centre Canada, was awarded to Prof. Roger Gaudreault for his significant contribution to Green Chemistry research and development through 30 years of dedicated work for the Pulp and Paper (P&P) Industry, industrial water treatment and renewable energy.

Prof. Gaudreault's expertise notably spearheaded him to develop an integrated innovation Green Chemistry approach based on recycled fibres. His scientific and applied background helped developed strong partnerships between academia and industry. He is a member of the; Centre in Green Chemistry and Catalysis (CGCC), Quebec Centre for Advanced Materials (QCAM) and Quebec Respiratory Health Research Network (QRHN). Dr. Gaudreault's scientific interests include: green chemistry, Alzheimer, COVID-19, type 2 Diabetes, colloids, molecular dynamics, shear-induced interactions, papermaking, corrosion inhibition and nanomaterials. Gaudreault did a Post-Doctoral Fellowship at Harvard University (2005-2006). He completed a PhD on molecular modelling (McGill 2003); MSc in P&P (UQTR 1991) and a BSc in Chemistry (UQAC 1986). From 2017 to 2022, Invited Researcher at Université de Montréal (UdeM), and then Associate Professor from 2023 at Université du Québec à Montréal (UQAM) he is studying the impact of green chemistry on mitigating Alzheimer's Disease, and type 2 diabetes mellitus (T2DM).

**Prof. Gaudreault has been named PAPTAC Fellow 2017 in recognition of outstanding long-term contribution to the Association, and the advancement of science and technology of the P&P Industry.**

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### Summary of Achievements



#### INDUSTRIAL RESEARCH & DEVELOPMENT

##### PULP & PAPER

###### Consultant, Scientific Advisor 2017-2022

Leading green chemistry & biomaterial research/projects.

###### Corporate Director, Scientific Development, Cascades Canada ULC. (2013 - 2015)

Leader of scientific development and bridging the industry with the scientific community in North-America and Europe.

###### Manager and General Manager Cascades R&D Centres (1992 - 2010)

Lead a group of over 40 experts on corporate R&D and innovative green processes & products.

- Hired and trained more than 100 employees, now having key positions in the company.
- Implementation of innovations for ROI of +\$150M.

##### INDUSTRIAL WATER TREATMENT

###### Vice-President R&D and Innovation TGWT Clean Technologies Inc. (2013-2017)

###### Executive Scientific Advisor

Development of R&D and Innovation strategy, and green tannin-based corrosion inhibitors for water treatment.

- Aluminumboilers.com program
- 5-10% spending on R&D and innovation.

##### ENERGY TRANSFORMATION

###### Green Chemistry Advisor (2014-16)

###### Borex Inc.

Lead research projects to develop biofuel made from wood biomass. Co-supervision of graduate students.

##### INDUSTRY BOARDS

- PaperWeek Chair: FIBRE Commercialization Forum (2014 - 2015), FIBRE Day (2013 - 2016)
- Co-chair of Technical Program (2013)
- Instigator of two industrial R&D Consortia Canada-USA (1995 - 2010)
- Consortium Hymac on Recycled Fibres (1991-94)



#### INNOVATION MANAGEMENT

##### CORPORATE INNOVATION STRATEGY

###### Innovation Corporate Director

###### Cascades Canada ULC (2011 - 2013)

First Leader of Cascades Innovation Committee and i-LEAD innovation strategy. Structure innovation best practices and increase the innovation rate and efficiency.

###### Key Achievements:

- Development and implementation of key performance indicators (KPIs).
- Integration and continuous improvement of Cascades' innovation process within all sectors and plants
- Leader of the i-LEAD communication strategy team supporting the development of a corporate innovation culture
- Editor of the first online and paper Innovation Journal
- Key collaborator in the achievement of Corporate International & National innovation Awards and Recognitions

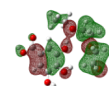
##### INNOVATION CONFERENCES

###### Innovation Management Lecturer

- Total audiences of over 5000 participants (business and public decision-makers).
- Speaker for organizations such as:
  - The Standing Senate Committee of Canada on Agriculture and Forestry
  - The Conference Board of Canada
  - Les Entretiens Jacques-Cartier
  - Science & Policy Exchange
  - Universities and Colleges
  - Chambers of Commerce & Industries

##### INNOVATION BOARDS

- Board member, Association pour le développement de la recherche et de l'innovation du Québec, ADRIQ (2013-2017)
- NSERC Synergy Awards for Innovation Selection Committee (2017-2019)
- Canadian Green Chemistry and Engineering Award 2019-Award Selection Committee.



#### ACADEMIA & KNOWLEDGE DEVELOPMENT

##### RESEARCH, TEACHING, COACHING

###### UQAM (2023...)

- Studying the impact of green chemistry to mitigate Alzheimer's Disease and type 2 diabetes mellitus (T2DM).
- Studying shear-induced interactions.

###### University of Montreal (2017-2022)

- IDEM to UQAM (above) & COVID-19

###### Supervisor\*/Co-Supervisor Grad Students

- Master's and PhD : (ETS 2016), (UQTR 1999), (McGill 1997 & 2022) and (\*UQAM 2024)
- Provide ongoing HQP training to students.

###### External Examiner, Reviewer and Judge

- PhD thesis and Articles (30)
- Grant Applications (50) & Posters (300)

###### Courses and Lectures

- UQAM: Molecular Dynamics for therapeutic chemistry (2024...)
- McGill University: Colloid Chemistry (2012-2025)
- Université Laval: Chimie environnement (2014)
- PAPTAC Paper Wet-End Chemistry: Molecular Modelling (1994, 1997, 2000, 2003, 2006)

##### SCIENTIFIC PUBLICATIONS

###### Scientific Publications

- More than 50 articles
- FRC Symposia: Cambridge UK (2005 & 2013), and Oxford UK (2009).

###### Editor and Guest-editor\*

- \*J-FOR Theo van de Ven Special Issue (2016)
- Theo van de Ven Festschrift Book (2016)
- Fundamental and Applied Pulp & Paper Modelling Symposium (FAPPMS); Refereed Proceedings (Books) (2005, 2008, 2011)

##### SCIENTIFIC BOARDS

- CRMR Comité d'orientation (2014 - 2017)
- Green Fibre Products Network (2011 - 2015)

FOR FURTHER INFORMATION ON EXPERTISE, PUBLICATIONS, TEACHING & PATENTS:

[https://www.researchgate.net/profile/Roger\\_Gaudreault/](https://www.researchgate.net/profile/Roger_Gaudreault/) & <https://professeurs.uqam.ca/professeur/gaudreault.roger/>