

**RiboClub 2025**

*Organized in association with the Colorado RNA Group*

**September 21–25, 2025**

Hôtel Chéribourg, Orford, Québec

*(All presentations are 15' + 5 minutes questions unless specified otherwise)*

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**Sunday, September 21**

**13:30–14:30** — Registration

**14:30–17:00** — RNA Canada Outreach Open House

Organizer: RNA Canada Outreach Group (Mark Bayfield, York University, Toronto)

**15:00–16:00** — Trainees' Orientation

Organizers: Student Representatives in coordination with RNA Canada  
(Laurence Faucher-Giguère & Louis-Philippe Chaumont, Université de Sherbrooke, Sherbrooke)

**16:00–17:00** — Sponsors' Session: Innovations in RNA Technology

Chairs: Simon Fortier (Director, RNA Therapeutics) & Sam Osseiran (Director, RNA Entrepreneurship) from Axelys, Montréal

(Each presentation: 5 minutes talk + 3 minutes discussion)

- Cytiva — Advanced Bioprocessing Tools for RNA Production and Purification
- Illumina — Innovations in RNA Sequencing and Single-Cell Profiling
- New England Biolabs (NEB) — RNA IVT: From Template to Transcript
- 10x Genomics — Next-Generation Multi-omic Approaches for RNA Research
- Moderna — Next-Generation RNA Synthesis and Delivery Pipelines
- Immagina Biotechnology — Translatomics: Profiling Translation Dynamics
- BioVectra — Scaling RNA and Oligonucleotide Manufacturing for Clinical Applications

17:00–17:05 — Closing Remarks & Open Discussion with Sponsors

***(Introductory trials, potential discounts, and collaboration opportunities will be discussed on site.)***

**17:00–18:30** — Welcome Reception

**18:30–20:00** — Opening Dinner

Welcome Note: Michelle Scott, Université de Sherbrooke, Sherbrooke

**19:30–19:40** — Colorado RNA Community Presentation

Mathieu Flamand, Université Laval & Jay Hesselberth, University of Colorado

**20:00–20:05** — Introduction of Keynote Speaker  
Chantal Autexier, McGill University, Montréal

**20:05–21:05** — Opening Keynote Talk (45 min talk + 15 min Q&A)  
*"60 Years of RNA Structure: The Origami of Life"*  
Tom Cech, University of Colorado, Boulder

**Monday, September 22**

**08:00–09:00** — Registration

**09:00–09:10** — Opening Notes & Announcements  
Sherif Abou Elela, Université de Sherbrooke, Sherbrooke

**09:10–09:15** — Introduction of Keynote Speaker  
Haissi Cui, University of Toronto, Toronto

**09:15–10:15** — Keynote Presentation  
*"Decoding the Untranslated"*  
Wendy Gilbert, Yale School of Medicine, New Haven

**10:15–10:40** — Coffee Break

### **Academia–Industry Event**

Organized by AReNA & RiboClub in collaboration with ARN Québec & Génome Québec

*Theme: Building Tomorrow's RNA Ecosystem: Roles, Opportunities, and Synergies*

**10:40–10:50** — Introduction

Jonathan Perreault, Centre Armand-Frappier, Laval & Yassine El Bakkouri, Montréal InVivo, Montréal

**10:50–11:20** — Company Presentations (6 × 5 min)

- *The Path to Phase I: Making mRNA Manufacturing Scalable and Simple*, Jared Davis, co-founder and CTO of Northern RNA
- *CereCura Nanotherapeutics: a novel approach using LNP-mRNA to treat brain diseases*, Louis-Philippe Bernier, CEO & Co-Founder of CereCura Nanotherapeutics
- *Developing RNA as a Therapeutic Drug for Oculopharyngeal Muscular Dystrophy: The Journey of RNA-based research: from lab bench to industrial innovation*, Aida Abu-Baker, scientist at McGill and SoliRNA
- *Nemrod Biotechnologie : from university to market, aptamer on demand*, Emre Yurdusev, co-founder Nemrod Biotechnologies
- *Galenvs Sciences / Precision DNA/RNA Oligo synthesis CRO*, Xuyen Dai Hoa, Director of Product development at Galenvs Science
- *Treating retinal diseases with siRNA targeting lncRNA*, Ting Ling, Cofounder & CEO of i-RNA Corporation

**11:20–11:30** — Panel Introduction  
John Mattick, UNSW Sydney, Sydney

**11:30–12:20** — Panel Discussion (Industry & Academic Experts)  
Moderated by John Mattick

**12:20–13:50** — Lunch & Roundtable Discussions

**13:50–14:40** — Patient Panel  
Moderated by Martin Sauvageau, Université de Montréal, Montréal

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Session 1: RNA Therapeutics  
Chair: Philippe Gros, McGill University, Montréal

**14:40–14:45** — Introduction by Chair

**14:45–15:05** — Anastasia Khvorova, University of Massachusetts, Worcester  
*"Developing RNA Therapeutics for Huntington's Disease"*

**15:05–15:25** — Frédéric Catez, Cancer Research Center of Lyon, Lyon  
*"Ribosomal RNA Maturation: A Novel Therapeutic Vulnerability in Triple-Negative Breast Cancer and Neuroblastoma"*

**15:25–15:45** — Nabil Seidah, IRCM, Montréal  
*"Complementary and Synergistic Roles of Proprotein Convertases PCSK7 and PCSK9 in Health and Disease"*

**15:45–16:05** — Kate Matlin, University of Colorado Anschutz, Aurora  
*"eIF3d and eIF3e Mediate Selective Translational Control of Hypoxia Inhibited by Novel Small Molecules"*

**16:05–16:25** — Mateo Gray, University of Alberta, Edmonton  
*"CParty: Fast Partition-Function Analysis and Base-Pair Probabilities for Hierarchically Pseudoknotted RNA"*

**16:25–16:40** — Panel Discussion

**16:40–17:00** — Poster Flash Talks (10 trainees × 2 min, Organized by trainees, Laurence Faucher Giguère, and Louis-Philippe Chaumont)

- Aliabbas Zia, Université de Montréal, Montréal
- Jean Vencic, Université de Sherbrooke, Sherbrooke
- Sophie Sigfstead, University of Alberta, Edmonton
- Emma Walter, University of Toronto, Toronto
- Frédérique Goulet, Université de Sherbrooke, Sherbrooke
- Felicia Pan Du, INRS–Centre Armand-Frappier Santé Biotechnologie, Laval
- Michael D'Souza, University of Lethbridge, Lethbridge
- Ibrahim Soumana Adamou, Université de Sherbrooke, Sherbrooke

- Alice Morgunova, McGill University, Montréal
- Georgia Barone, University of Colorado Boulder, Boulder

**17:00–19:00** — Extended Coffee Break & Poster Sessions

- 17:15–18:15: Poster Competition IA (Odd Numbers)
- 18:15–19:15: Poster Competition IB (Even Numbers)

**19:15–20:00** — Dinner

**20:00–21:15** — After-Dinner Keynote / Workshop

*"Entrepreneurship: Stories and Thoughts"*

Stephen Scaringe (Founder, Dharmacon, Lafayette)

Introduction: Robert T. Batey, University of Colorado, Boulder

**21:15–late** — Social Gathering

**Tuesday, September 23**

**07:00–08:30** — Breakfast

Session 2: Infection, Immunology & Host Response

Chair: Lara Mahal, University of Alberta, Edmonton

**08:30–08:35** — Introduction

**08:35–08:55** — Sara Cherry, University of Pennsylvania, Philadelphia

*"Exploring the Interface Between RNA Viruses and Innate Immunity"*

**08:55–09:15** — Matt Daugherty, UC San Diego, La Jolla

*"Short 5' UTRs: A Novel Molecular Pattern for Viral mRNA Translation Inhibition by the IFIT2-IFIT3 Antiviral Complex"*

**09:15–09:35** — Simon Boudreault, University of Pennsylvania, Philadelphia

*"Nonsense-Mediated Decay Controls a Negative Feedback Loop in Innate Immune Sensing"*

**09:35–09:55** — Morgana Letizia, Georgia Institute of Technology, Atlanta

*"Discovery of Bacterial sRNAs Using Human Infection Metatranscriptomes"*

**09:55–10:15** — Laura Marcela Garcia Prada, INRS, Laval

*"Targeting eIF4A-Dependent Translational Control During Leishmania amazonensis Infection"*

**10:15–10:30** — Panel Discussion

**10:30–11:00** — Coffee Break

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Session 3: RNA Synthesis, Processing & Metabolism

Chair: John Mattick, UNSW Sydney, Sydney

**11:00–11:05** — Introduction

**11:05–11:25** — Roy Parker, University of Colorado, Boulder

*"RNP Granules in Health and Disease"*

**11:25–11:45** — Charlie Moffatt, University of Colorado Anschutz, Aurora

*"Understanding the Molecular Language of RNA Localization"*

**11:45–12:05** — Olivia Wilkins, University of Manitoba, Winnipeg

*"Spatiotemporal Variation of Osmotic Stress Responses in Developing Rice (Oryza sativa) Leaves"*

**11:05–11:25** — Lydia Herzog, Freie Universität, Berlin  
*"Transcriptome Dynamics and Heterogeneities Across Microorganisms"*

**12:25–12:45** — Alex Palazzo, University of Toronto, Toronto  
*"Inferring the Evolution of mRNA Sequence Features with Artificial Intelligence"*

**12:45–13:00** — Panel Discussion

**13:00–14:00** — Lunch

**13:40–14:40** — Equity, Diversity and Inclusion workshop / Lunch on career transitions with panel discussion and audience questions

Q&A Panelists: Wendy Gilbert (Yale School of Medicine, New Haven), Elana Sefton (University of Toronto), Haissi Cui (University of Toronto), Manny Ares (UC Santa Cruz), Volker Nitschko (University of Toronto)

Organizer: RNA Canada ARN EDI Committee

Chairs: Jennifer Porat (Harvard University), Isabella Todd (University of Waterloo)

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Session 4: RNA Structure–Function

Chair: Sebastian Will, École Polytechnique, Montréal

**14:40–14:45** — Introduction

**14:45–15:05** — Elena Rivas, Harvard University, Cambridge  
*"What does it take to learn the rules of RNA base pairing? A lot less than you may think"*

**15:05–15:25** — Jan Gorodkin, RTH, Copenhagen  
*"Computational CRISPR gRNA Design and Analysis"*

**15:25–15:45** — Elizabeth Jolley, Penn State University, University Park  
*"Identification and Characterization of RNA Thermometers in Bacillus subtilis from Transcriptome-Wide Probing Data"*

**15:45–16:05** — Sarah M. Assmann, Penn State University, University Park  
*"Unexpected Roles of Heat Shock Protein Transcripts in Plants and Bacteria"*

**16:05–16:25** — Shea Siwik, University of Colorado, Boulder  
*"Structural Basis for Ring-Opening Fluorescence by the RhoBAST RNA Aptamer"*

**16:25–16:45** — Hendrik Boog, Simon Fraser University, Burnaby  
*"A Keychain for the RNA World"*

**16:45–17:00** — Panel Discussion

**17:00–17:25** — RNA Canada Information Session

Mark Bayfield, York University, Toronto & Hosna Jabbari, University of Alberta, Edmonton

**17:25–19:15** — Extended Coffee Break & Poster Sessions

- 17:35–18:25: Poster Competition IIA (Even Numbers)
- 18:25–19:15: Poster Competition IIB (Odd Numbers)

**19:15–20:30** — Dinner

**20:30–21:30** — After-Dinner Speaker

*"How Dodging the Second Law Became My Second Job"*

Manny Ares, UC Santa Cruz, Santa Cruz

Introduction: Benoit Chabot, Université de Sherbrooke, Sherbrooke

**Wednesday, September 24**

**07:00–08:30** — Breakfast

Session 5: Translation

Chair: Tommy Alain, University of Ottawa, Ottawa

**08:30–08:35** — Introduction

**08:35–08:55** — Tim Stasevich, Colorado State University, Denver

*"Towards Gold-Standard Measurements of mRNA Translation Dynamics in Living Cells"*

**08:55–09:15** — Kristin Koutmou, University of Michigan, Ann Arbor

*"PUS7 Cytoplasmic Localization Directs a Pseudouridine-Mediated Cellular Stress Response"*

**09:15–09:35** — Laura White, University of Colorado Anschutz, Aurora

*"Nanopore Sequencing of Intact Aminoacylated tRNAs Reveals Modification- and Stress-Dependent Charging Dynamics"*

**09:35–09:55** — Manolya Sag, University of British Columbia, Vancouver

*"miR-122 Mediates Switch From Translation to Replication in the Hepatitis C Virus Life Cycle"*

**09:55–10:15** — Ross Kaufhold, University of Michigan, Ann Arbor

*"Structural Basis for Repeat-Associated Non-AUG Translation Initiation on C9orf72 mRNA"*

**10:15–10:30** — Panel Discussion

**10:30–11:00** — Coffee Break

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Session 6: Regulatory RNAs

Chair: Rob Batey, University of Colorado, Boulder

**11:00–11:05** — Introduction

**11:05–11:25** — Kai Papenfort, Friedrich Schiller University, Jena

*"From Strings of Nucleotides to Collective Behavior: Lessons from Vibrio cholerae and Its Phages"*

**11:25–11:45** — Ivo Hofacker, Universität Wien, Vienna

*"Predicting the Effect of RNA Modifications on RNA Structure"*

**11:45–12:05** — Lara Mahal, University of Alberta, Edmonton

*"Breaking Paradigms: New Insights into Upregulatory miRNA"*

RiboClub is an independent, not-for-profit organization. While RNA Canada ARN may provide support for certain activities in alignment with its charitable goals, all RiboClub finances, administration, events, and programs remain distinct and are governed solely by RiboClub. Participation in RiboClub activities does not imply membership in, or endorsement by, RNA Canada ARN.

**12:05–12:25** — Lianne Blodgett, Whitehead Institute, Cambridge  
*"Contribution of microRNA Pairing and Trigger RNA Structure to Target-Directed microRNA Degradation"*

**12:25–12:45** — Wendy Tan, University of Massachusetts, Worcester  
*"Evidence for a Hidden piRNA Pathway in *C. elegans*"*

**12:45–13:00** — Panel Discussion

**13:00–14:00** — BBQ Lunch

**13:00–15:00** — Outdoor Mentoring Activity

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Session 7: Non-Coding RNAs

Chair: Martin Sauvageau, Université de Montréal, Montréal

**15:00–15:05** — Introduction

**15:05–15:25** — Joe Piccirilli, University of Chicago, Chicago  
*"Structural and Functional Characterization of a Self-Acylating RNA Motif"*

**15:25–15:45** — Amy Palmer, University of Colorado, Boulder  
*"Optimizing Tools for Live Cell Imaging of RNA"*

**15:45–16:05** — Mary A. Allen, University of Colorado, Boulder  
*"Understanding Human Diseases and Disorders Through the Lens of Typical Gene Expression"*

**16:05–16:25** — Zhen Jin, University of British Columbia, Vancouver  
*"Long Non-Coding RNA PAN3-AS1 as a Novel Therapeutic Target in Acute Myeloid Leukemia"*

**16:25–16:45** — Zoé Joly-Lopez, Université du Québec à Montréal, Montréal  
*"Stress-Responsive Enhancer RNAs in Plants"*

**16:45–17:00** — Panel Discussion

**17:00–18:40** — Cocktail (Outdoor)

**18:40–22:00** — Gala Dinner & Awards Ceremony  
Animated by Mathieu Flamand & Mark Bayfield

- **20:20–20:30** — Best Poster Awards — Jean-Philippe Brosseau, Université de Sherbrooke, Sherbrooke
- **20:30–20:35** — The RiboClub Travel Award — Laurence Faucher-Giguère & Louis-Philippe Chaumont, Université de Sherbrooke, Sherbrooke

- **20:35–20:45** — Blue Jacket Award — Mark Bayfield, York University, Toronto & Pascal Chartrand, Université de Montréal, Montréal
- **20:45–20:55** — RNA Canada ARN's Moderna Discovery of the Year Award — Sherif Abou Elela, Université de Sherbrooke, Sherbrooke & Rahbar Rahimpour, Moderna, Cambridge
- **20:55–21:05** — RNA Canada ARN's Moderna Trainee of the Year Award — Howard Lipshitz, University of Toronto, Toronto
- **21:05–21:15** — RNA Canada ARN's Moderna Volunteer of the Year Award — Howard Lipshitz, University of Toronto, Toronto

**21:20–23:00** — Music & Entertainment

Introduced by Brendan Bell, Université de Sherbrooke, Sherbrooke

**23:00–late** — Annual RiboClub Dance

**Thursday, September 25**

**07:00–08:30** — Breakfast

Session 8: RNA-Binding Proteins

Chair: Neel Mukherjee, University of Colorado Anschutz, Aurora

**08:30–08:35** — Introduction

**08:35–08:55** — Matthew Taliaferro, University of Colorado Anschutz, Aurora

*"TDP-43 Directly Inhibits RNA Accumulation in Neurites Through Modulation of RNA Stability"*

**08:55–09:15** — Mark Glover, University of Alberta, Edmonton

*"Mechanism of sRNA Recognition and Regulation by FinO RNA Chaperones"*

**09:15–09:35** — Luis Daniel Cruz Zaragoza, Université de Sherbrooke, Sherbrooke

*"Dissecting Mitochondrial Gene Expression"*

**09:35–09:55** — Dmitry Kretov, Université Laval, Québec

*"RBPscan: A Quantitative, In Vivo Tool for Profiling RNA-Binding Protein Interactions"*

**09:55–10:15** — Kathryn Walters, University of Colorado Anschutz, Aurora

*"Determining the Mechanism of MSI2-Mediated Target mRNA Regulation"*

**10:15–10:30** — Panel Discussion

**10:30–11:00** — Coffee Break

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Session 9: Best Seminar Awards by Trainees

Chair: Student Representatives (Laurence Faucher-Giguère & Louis-Philippe Chaumont, Université de Sherbrooke, Sherbrooke)

**11:00–11:05** — Introduction by Student Representatives

**11:05–11:25** — Talk 1: Best Seminar Award (Trainee)

Elizabeth Trofimenkoff, University of Lethbridge, Lethbridge

*"Mathematical modeling of transcription-independent splicing events in human gene expression"*

**11:25–11:30** — Introduction by Student Representatives

**11:30–11:50** — Talk 2: Alumnus of the Year, Presented by Marc Fabian

Tommy Alain, CHEO Research Institute, University of Ottawa, Ottawa

*"The dsRNA reovirus and its application as an immunotherapeutic platform"*

**11:50–12:00** — Closing Remarks

**12:00–13:00** — Lunch

**13:00** — Conference Concludes