2016 RiboClub Program

RNA Biodiversity

19-21 September

Hotel et Villégiature Chéribourg
2603 Chemin du Parc
Orford (Magog) Quebec

Sunday, September 18th

15:00 – 18:00	Registration for early arrivals
18:00 – 19:30	Welcome reception
19:30 – 21:30	Opening dinner

RiboClub
Sherbrooke, Québec

Monday, September 19th

08:00 – 09:00 Registration

09:00 – 09:10 Welcoming notes (Sherif Abou Elela)

09:10 – 09:15 Presentation of Keynote speaker (Jean-Pierre Perreault)

09:15 – 10:15 **Keynote presentation**
RNA mimics of GFP and RFP: new tools for the in vivo study of noncoding RNAs
Adrian R. Ferré-D'Amaré, NIH, Bethesda

10:15 – 10:35 Coffee break

Session 1:
Ribosome biogenesis and diversity

Chair: Jonathan D. Dinman (Host: Michelle Scott)

10:35 – 10:40 Introduction

10:40 – 10:55 Capturing near atomic resolution snapshots of the ribosome assembly process using direct electron detectors
Joaquin Ortega, McMaster University, Hamilton

10:55 – 11:20 Remodeling events driving ribosome assembly in Saccharomyces cerevisiae
John L. Woolford Jr., Carnegie Mellon University, Pittsburgh

11:20 – 11:45 Ribo-T, the ribosome with covalently linked subunits
Alexander Mankin, University of Illinois at Chicago, Chicago

11:45 – 12:00 Investigating the effects of hypoxia on the regulation of ribosomal protein gene expression and alternative splicing events
Andrea Brumwell, University of Guelph, Guelph

12:00 – 12:15 Defective ribosome biogenesis in senescence reveals a novel checkpoint pathway to control cyclin-dependent kinases
Frédéric Lessard, Université de Montréal, Montréal

12:15 – 14:10 Lunch

13:30 – 14:00 Special presentation by Illumina

Session 2:
Co-transcriptional RNA processing

Chair: David Bentley (Host: Brendan Bell)

14:10 – 14:15 Introduction

14:15 – 14:40 Argonaute2 functions with LaminB to Mediate Transcriptional Silencing of Spermatogenesis Genes
Elissa Lei, NIH, Bethesda

14:40 – 15:05 The role of RNA polymerase II CTD phospho-sites in the repression of pho1 gene expression by lncRNA transcription
Beate Schwer, Weill Cornell Medical College, New York

15:05 – 15:30 Spatial and kinetic coupling of co-transcriptional processes in mRNA synthesis
David Bentley, University of Colorado, Denver

15:30 – 16:00 Coffee Break

16:00 – 16:15 Regulation of the fission yeast RNA Polymerase II CTD phosphorylation status by the conserved transcription termination factor Dhp1
François Bachand, Université de Sherbrooke, Sherbrooke

16:15 – 16:30 RNA Pull-down Strategy to Investigate the Roles of MicroRNA-122-Associated Complexes in Hepatitis C Virus Infection
Annie Bernier, McGill University, Montreal

Session 3:
Ribonucleoproteins structure and function

Chair: David Engelke (Host: Raymund Wellinger)

16:30 – 16:35 Introduction

16:35 – 17:00	Aggregation and amyloid fiber formation by Mod5 is affected by RNA binding **David Engelke**, University of Colorado, Denver
17:00 – 17:25	Proteins in catalytic RNPs: from RNase P to telomerase **Andrey S. Krasilnikov**, Penn State University, University Park
17:25 – 17:40	A role for the P3 domain of TLC1 **Bruno Lemieux**, Université de Sherbrooke, Sherbrooke
17:40 – 17:55	RNA Editing TUTase 1: structural foundation of substrate recognition, complex interactions and drug targeting **Stephane Thore**, Université de Bordeaux, Bordeaux
17:55 – 18:10	The conserved GTPase HflX is a ribosome splitting factor that binds to the E-site of the bacterial ribosome. **Hans-Joachim Wieden**, University of Lethbridge, Lethbridge
18:10 – 19:35	Dinner
19:35 – 20:35	Poster competition IA: (Odd numbers)
20:35 – 21:35	Poster competition IB: (Even numbers)

Tuesday, September 20th

07:00 – 08:00 Breakfast

Session 4:
New frontiers in RNA regulation in prokaryotes

Chair: Ben Luisi (Host: François Bachand)

08:00 – 08:05 Introduction

08:05 – 08:30 Not just ncRNAs: overlap between protein coding and regulation
Gisela Storz, NIH, Bethesda

08:30 – 08:55 Determination of in vivo regulation kinetics of small non-coding RNA in bacteria
Jingyi Fei, The University of Chicago, Chicago

08:55 – 09:20 The RNA chaperone Hfq directly binds target mRNAs to promote sRNA-mediated cleavage
Éric Massé, Université de Sherbrooke, Sherbrooke

09:20 – 09:45 The dynamic machinery of RNA degradation, processing and riboregulation in E. coli
Ben Luisi, University of Cambridge, Cambridge

09:45 – 10:00 sRNA Regulation of Acetate Metabolism: Coordination with the TCA Cycle via a Processed sRNA
François De Mets, Université Libre de Bruxelles, Bruxelles & National Institutes of Health, Bethesda

10:00 – 10:15 Finding and characterizing noncoding RNAs in bacteria: how bioinformatics, biochemistry and microbiology come together to make a story.
Jonathan Perreault, Institut Armand-Frappier, Montréal

10:15 – 10:55 Coffee break

Session 5:
Detection and function of nucleic acid structural motifs

Chair: Jean-Louis Mergny (Host: Éric Massé)

10:55 – 11:00	Introduction
11:00 – 11:25	Recognition of unique RNA structures by quadruplex helicases and their functional consequences **Sean A. McKenna**, University of Manitoba, Winnipeg
11:25 – 11:50	The G-Quadruplex Translation Regulation of BAG-1; an mRNA Involved in Colorectal Cancer **Jean-Pierre Perreault**, Université de Sherbrooke, Sherbrooke
11:50 – 12:15	Quadruplexes are everywhere! **Jean-Louis Mergny**, Université de Bordeaux, Bordeaux
12:15 – 12:30	2016 Group Photo
12:30 – 13:35	Lunch
13:35 – 14:00	A programmed ribosomal frameshifting defect potentiates the transforming activity of the JAK2-V617F mutation **Jonathan D. Dinman**, University of Maryland, College Park
14:00 – 14:15	Ribosomes shape RNA structures in vivo **Jean-Denis Beaudoin**, Yale University School of Medicine, New Haven
14:15 – 14:30	Investigating RNA secondary structural alterations of HCV genome mediated by miR-122 **Jasmin Chahal**, McGill University, Montreal

Session 6:
Detection and functions of small nucleolar RNA

Chair: Denis L. J. Lafontaine (Host: Daniel Lafontaine)

14:30 – 14:35	Introduction
14:35 – 15:00	Rpl13a snoRNAs are critical mediators of metabolic stress **Jean Schaffer**, Washington University School of Medicine, St. Louis

15:00 – 15:25	Small nucleolar RNAs as regulators of gene expression **Michelle Scott**, Université de Sherbrooke, Sherbrooke
15:25 – 15:50	The human box C/D snoRNAs U3 and U8 are required for pre-rRNA processing and tumorigenesis **Denis L.J. Lafontaine**, Université Libre de Bruxelles, Charleroi
15:50 – 16:10	Coffee Break
16:10 – 16:25	Expanding the H/ACA RNA world **Tom Meier**, Albert Einstein College of Medicine, New York
16:25 – 16:50	Best Seminar Award
16:50 – 17:20	Social time (complimentary cocktail)
17:20 – 18:20	Poster competition IIA (Odd numbers)
18:20 – 19:20	Poster competition IIB: (Even numbers)
19:20 – 21:00	Banquet
21:00 – 21:20	Musical Interlude (Part 1)
21:20 – 21:25	Presentations of the travel awards **Éric Massé**, Université de Sherbrooke
21:25 – 21:40	Poster prizes **Michelle Scott**, Université de Sherbrooke
21:40 – 22:00	RNA Group **François Bachand**, Université de Sherbrooke
22:00 – 22:10	Announcement of 2017 opening session and seminars schedule **Sherif Abou Elela**, Université de Sherbrooke
22:10 – 22:35	Musical Interlude (Part 2)
22:35 – ……	Dance

Wednesday, September 21st

07:00 – 08:30 Breakfast

Session 7:
Splicing Biodiversity

Chair: Stephen Rader (Host: Benoit Chabot)

08:30 – 08:35 Introduction

08:35 – 09:00 A single LSm complex in C. merolae associated with splicing factors
Stephen Rader, University of Northern British Columbia, Prince George

09:00 – 09:25 Characterization of snRNAs, snoRNAs and other ncRNAs, and their protein binding partners in model protists
Tony Russell, University of Lethbridge, Lethbridge

09:25 – 09:40 The spliceosomal and NMD machineries in Ustilago maydis
Rebeca Martínez Contreras, Universidad Autonoma de Puebla, Puebla

09:40 – 10:05 The fate of alternative spliced transcripts in plants
Andrea Barta, University of Vienna, Vienna

10:05 – 10:30 Coffee Break

10:30 – 10:55 Deciphering the spliced leader trans splicing machinery in trypanosomes
Arthur Günzl, UConn Health, Farmington

10:55 – 11:20 Comprehensive Characterization of the Functional RNA Elements Encoded in the Human Genome
Brenton Graveley, University of Connecticut Health Center, Farmington

11:20 – 12:20 **Students' Choice Seminar**
Introduction by student representatives
Regulation of Transcription and Splicing in Single Cells: Understanding Heterogeneity in Gene Expression
Daniel Larson, NIH, Bethesda

12:20 – 14:00 Lunch

Departure