2011 RiboClub Program
Studying RNA one Molecule at a Time

In partnership with the Canadian Society of Biochemistry, Molecular and Cellular Biology (CSBMCB)
Hotel et Villégiature Chéribourg
2603 Chemin du Parc
Orford (Magog) Quebec

Sunday, September 18, 2011

CSBMCB Reception:
15:00 – 17:00 Early Registrations
17:00 – 19:00 Meeting-launching wine and cheese at 5 pm
17:30 – 18:30 Concurrent CSBMCB board meeting and the RiboClub organizers meeting
19:00 – 20:00 Free-time and dinner on your own

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 (Martin Simard)
09:15 – 10:15 **Keynote presentation:** Small RNAs of C. elegans
Gary Ruvkun, The Massachusetts General Hospital, USA
10:15 – 10:40 Coffee break
Session 1:
RNA dependent regulation of translation (Organized by Thomas Duchaine)

Chair: James E. Dahlberg

10:40 – 10:45 Introduction

10:45 – 11:10 Limiting Ago proteins restricts RNAi during X. laevis early development
James E. Dahlberg, University of Wisconsin - Madison, USA

11:10 – 11:35 The GAIT system and the "translational trickle" control mechanism
Paul Fox, Cleveland Clinic Lerner College of Medicine, USA

11:35 – 11:50 Investigation of the Ribosome-Independent mRNA Targeting and Maintenance on the Endoplasmic Reticulum
Xianying Amy Cui, University of Toronto, Canada

11:50 – 12:05 Role of antisense ribosomal RNA processing in translational arrest during stress and apoptosis-inducing conditions in Leishmania
Prasad Padmanabhan, Université Laval, Canada

12:05 – 12:20 Determining the Role of mRNA Structure during Translational Bypassing of Bacteriophage T4 Gene 60
Gabrielle C. Todd, University of Michigan, USA

12:20 – 12:35 Non-canonical repression of translation initiation through small RNA-recruitment of the RNA chaperone Hfq
Guillaume Desnoyers, Université de Sherbrooke, Canada

12:35 – 13:45 Lunch, concurrent CSBMCB Annual General Meeting.

Session 2:
Splicing Decisions under Stress (Organized by Benoit Chabot)

Chair: Benoit Chabot

13:45 – 13:50 Introduction

Benoit Chabot, Université de Sherbrooke, Canada

14:15 – 14:40 Distinct ways in the control of alternative splicing by external factors.
Jiuyong Xie, The University of Manitoba, Canada
14:40 – 15:05  Control of alternative splicing by signal-dependent degradation of splicing regulatory proteins.
David Wassarman, University of Wisconsin Madison, USA

15:05 – 15:30  Alteration of the coupling between transcription and splicing hits the core of the genotoxic stress response.
Martin Dutertre, Université de Lyon, France

15:30 – 16:20  Coffee Break

**Session 3:**
RNA dependent regulation of viral infection (Organized by Martin Pelchat)
Chair: Andrew White

16:20 – 16:25  Introduction

16:25 – 16:50  Regulation of RNA virus processes by long-range RNA-RNA interactions
Andrew White, York University, Canada

16:50 – 17:15  RNA motif-mediated intercellular RNA trafficking
Biao Ding, The Ohio State University, USA

17:15 – 17:30  Involvement of PSF in the recognition of HDV RNA promoters by RNA polymerase II
Martin Pelchat, University of Ottawa, Canada

17:30 – 17:45  New Aptamers, Neutral Networks, and Next-generation Sequencing: A Fresh Look at HIV Reverse Transcriptase Aptamers
Mark Ditzler, University of Missouri, USA

17:45 – 18:00  UPF1: La CRM de la CRM of HIV-1 vRNA export
Lara Ajamian, Lady Davis Institute for Medical Research, Canada

18:00 – 18:15  RNA Recognition and Cleavage by CRISPR Endonuclease
Erin Garside, University of Alberta, Canada

18:15 – 19:15  Poster competition IA: (Odd numbers)

19:15 – 20:15  Poster competition IB: (Even numbers)

20:15 – 21:15  Dinner

21:15 – 21:25  Presentations of the CSBMCB travel awards
21:25 – 21:30  Presentation of the after dinner speaker
               Benoit Chabot

21:30 – 22:15  **After-dinner general presentation**
               How We Got Here: an Informal History of the Structural Biology of RNA
               Peter Moore, Yale University, USA
Tuesday, September 20th

7:00 – 8:40  Breakfast

**Session 4:**
RNA molecules associated with genome stability. (Organized by Raymund J. Wellinger)

Chair: Andrès Aguilera

08:40 – 08:45  Introduction

08:45 – 09:10  Factors and mechanisms connecting mRNP biogenesis and genome instability
Andrés Aguilera, CABIMER, Spain

09:10 – 09:35  Telomerase RNP mechanism in yeast: determining the limits of flexibility within the 1157-nt RNA
David Zappulla, Johns Hopkins University, USA

09:35 – 09:50  Coupling of RNA 3’-end processing with the DNA Damage Response
Jason Kuehner, Tufts University, USA

09:50 – 10:05  The RNA Helicase DHX36 (RHAU) regulates telomere maintenance by binding to a G4-Quadruplex in the 5’ region of human telomerase RNA
Evan Booy, University of Manitoba, Canada

10:05 – 10:50  Coffee break

**Session 5A:**
Structure and behavior of regulatory RNA (Organized by Philip Johnson)

Chair: Frédéric Allain

10:50 – 10:55  Introduction

10:55 – 11:20  Guanine recognitions by Lin28 zinc-binding domains and SR protein RRM
Frédéric Allain, Institute of Molecular Biology and Biophysics, Switzerland

11:20 – 11:45  Structural and Mechanistic Studies of Riboswitches
Robert T. Batey, University of Colorado at Boulder, USA
11:45 – 12:00  Interdomain allostery promotes assembly of the mRNA complex with PABP and eIF4G
Kalle Gehring, McGill University, Canada

12:00 – 12:15  Critical steps in pseudouridine formation by both stand-alone and complex pseudouridine synthases
Ute Kothe, University of Lethbridge, Canada

12:15 – 12:30  2011 Group Photo

12:30 – 14:00  Lunch

Session 5B:
Structure and behavior of regulatory RNA (Organized by Philip Johnson)

14:00 – 14:15  6S RNA transcriptional regulation controlled by a phylogenetically conserved hairpin switch
Shyam S. S. Panchapakesan, Simon Fraser University, Canada

14:15 – 14:30  Regulation of Pokeweed Antiviral Protein by a small RNA and a transcribed pseudogene
Lydia Burns, York University, Canada

Session 6A:
Nuclear RNA degradation: a new mechanism of gene regulation (Organized by Francois Bachand)

Chair: Domenico Libri

14:30 – 14:35  Introduction

14:35 – 15:00  A comprehensive analysis of exosome targets in yeast S. cerevisiae
Domenico Libri, Centre de génétique Moléculaire, France

15:00 – 15:15  The THO complex controls small nucleolar (sno) RNAs expression by promoting the co-transcriptional recruitment of the TRAMP complex
Francois Bachand, Universite de Sherbrooke, Canada

15:15 – 15:40  Characterization of antisense mediated transcriptional gene silencing
Francoise Stutz, Université de Genève, Switzerland

15:40 – 16:00  Coffee break
Session 6B:
Nuclear RNA degradation: a new mechanism of gene regulation (Organized by François Bachand)

16:00 – 16:15 The Fe-sensing Aconitase B protein blocks sRNA-induced mRNA degradation
Julie-Anna M. Benjamin, Université de Sherbrooke, Canada

16:15 – 16:30 Human PUF mediated deadenylation regulates protein expression and mRNA degradation
Jamie Van Etten, University of Michigan, USA

16:30 – 17:00 Best student seminar
Introduction by the student’s representatives

17:00 - 18:00 Social time and cocktail

18:00 – 19:00 Poster competition IIA (Odd numbers)

19:00 – 20:00 Poster competition IIB: (Even numbers)

20:10 – 22:40 Banquet

21:40 – 22:00 Musical Interlude (Part 1)

22:00 – 22:30 Poster prizes and the blue jacket award

22:40 – 23:00 Musical Interlude (Part 2)

23:15- ...... Dance
Wednesday, September 21st

CSBMCB Annual Awards Presentations:
Chair: Jean-Pierre Perreault

09:00 – 09:10 Introduction

09:10 – 09:35 2011 award
E2Fs transcription factors and cancer cell proliferation: targeting protein or RNA
Gerardo Ferbeyre, Université de Montreal, Canada

09:35 – 10:00 2011 award
TBN
Ben Blencowe, University of Toronto, Canada

Session 7A:
Studying the dynamics of a single RNA molecule in vitro (Organized by Daniel Lafontaine)
Chair: Jody Puglisi

10:00 – 10:05 Introduction

10:05 – 10:30 Dynamics of Translation Initiation
Jody Puglisi, Stanford University School of Medicine, USA

10:30 – 11:10 Coffee Break

11:10 – 11:35 RNA Folding Memory Effects
David Rueda, Wayne State University, USA

11:35 – 11:50 Single molecule FRET study of a purine binding aptamer
Patrick St-Pierre, Université de Sherbrooke, Canada

11:50 – 12:05 Digitalized protein synthesis for ultra high density protein arrays
Satoko Yoshizawa, University of Tokyo, Japan

12:05 – 13:30 Lunch
Session 7B:
Single molecule RNA studies in vivo (Organized by Daniel Zenklusen)
Chair: Rob Singer

13:30 – 13:35 Introduction

13:35 – 14:00 Single molecule mRNA decay measurements reveal promoter regulated mRNA stability in yeast
Robert Singer, Albert Einstein College of Medicine, USA

14:00 – 14:25 Crossing The Gate: Imaging mRNAs with Millisecond Time Resolution Inside Living Cells
David Grünwald, Delft University of Technology, The Netherlands

14:25 – 14:40 Single molecule mRNA detection in cells; tools, applications and a little bit of data
Daniel Zenklusen, Université de Montréal, Canada

14:40 – 14:55 Tracking the yeast telomerase RNA subunit in live cells: Using MS2-GFP tagging to study the in vivo dynamics of a long-life RNA.
Raymund J. Wellinger, Université de Sherbrooke, Canada

14:55 – 15:55 Student Choice Seminar
Introduction by the student’s representatives
Dicing and Beyond: Regulatory RNA in Humans and Bacteria
Jennifer Doudna, Berkeley University, USA

Departure