





# 12th INTERNATIONAL COLLOQUIUM ON ENDOCYTOBIOLOGY AND SYMBIOSIS

August 18<sup>TH</sup> - 22<sup>ND</sup>, 2013, Dalhousie University, Halifax, Nova Scotia

# SUNDAY, August 18<sup>TH</sup>, 2013

**Arrivals for those traveling** (Check-in at Lord Nelson starts at 3:00PM)

**5:00-7:30 pm REGISTRATION** (Lobby of McCain Building)

**5:00-7:30 pm RECEPTION** (Lobby of McCain Building)

#### MONDAY, August 19th, 2013

8:00-9:00am BREAKFAST & REGISTRATION

9:00-9:15am Opening Remarks

9:15-10:05am \*\*\*THE EMBO LECTURE

#### William Martin - "The origin of membrane bioenergetics"\*\*\*

10:05-12:15	Contributed talks:	Chloroplast molecular biology (Chair: TBA)
10:05-10:30	Karin Krupinska	Plastid nucleoids of higher plants possess architectural SWIB domain proteins
10:30-10:55	William Zerges	Functional analyses of chloroplast stress granules
10:55-11:25	COFFEE BREAK	
11:25-11:50	Alexandra-Viola Bohne	ATRAP – the single octotricopeptide repeat protein in Arabidopsis is involved in chloroplast rRNA maturation
11:50-12:15	Masayuki Nakamura	Chloroplast-encoded rps16 mRNA is translationally repressed in tobacco

#### 12:15-13:50 LUNCH BREAK

13:50-15:50	Symposium	Symbiosis as an evolutionary driver (Chair: TBA) Sponsored by the Canadian Institute for Advanced Research
13:50-14:30	John McCutcheon	Extreme genome reduction in insect endosymbionts: walking the line between bacteria and organelles
14:30-15:10	Fabien Burki	Phylogenomics of the uncultivated intracellular parasite Mikrocytos mackini reveals evidence for a mitosome in Rhizaria
15:10-15:50	Steve Perlman	Flies, worms, and bacteria: Ecology and evolution of defensive symbiosis

#### 15:50-16:20 COFFEE BREAK

16:20-18:00	Contributed talks:	Endosymbiotic gene transfer (Chair: TBA)
16:20-16:45	Mitsuhiro Matsuo	Transcription start site analysis of the nuclear localized cyanelle genes in <i>Paulinella chromatophora</i>
16:45-17:10	Junichi Obokata	Possible roles of ATP initiation codon in the maintenance and alteration of the transcriptome in the plant genome: hints for elucidating the molecular basis of EGT
17:10-17:35	Minoru Ueda	Marchantia plastid transformation for the study of endosymbiosis
17:35-18:00	Colin Dale	Genome evolution and functional adaptations in the nascent stages of insect-bacterial associations

# Dinner on your own (restaurant suggestions provided)

## 18:00-20:00 ISE BOARD MEETING, dinner included for attendees

# TUESDAY, August 20th, 2013

8:00-9:00 BREAKFAST

9:00-9:40 SPECIAL LECTURE

# Michael Gray - "Historical perspective on the endosymbiont hypothesis"

9:40-12:15	Contributed talks:	Genomes and evolution (Chair: TBA)
9:40-10:05	Shigekatsu Suzuki	Nucleomorph genome sequence of the chlorarachniophyte Partenskyella glossopodia reveals subsequent chromosomal expansion
10:05-10:30	Goro Tanifuji	Genome and transcriptome analyses of <i>Neoparamoeba pemaquidensis</i> and its kinetoplastid endosymbiont
10:30-11:00	COFFEE BREAK	
11:00-11:25	Naoyuki Tajima	Sequence and characterization of the complete chloroplast and mitochondrial genomes of the Parmales <i>Triparma laevis</i>
11:25-11:50	Tom Williams	Genomic links between eukaryotes and the TACK superphylum of Archaea
11:50-12:15	Masayuki Hata	Perkinsus marinus mitochondrial genome is mixture of randomly fragmented linear DNAs

#### 12:15-13:50 LUNCH BREAK

## 13:50-15:10 POSTER SESSION: Refreshments and snacks provided

15:10-16:25	Contributed talks:	Shining a Light on Endosymbiosis (Chair: TBA)
15:10-15:35	Joerg Nickelsen	Evolution of Photosystem II assembly
15:35-16:00	Mitsumasa Hanaoka	Endosymbiotic evolution of light responses in chloroplasts
16:00-16:25	Peter Kroth	Molecular aspects of diatom physiology

#### **CONFERENCE EXCURSION** 18:00-19:30

# Tall Ship Silva Halifax Harbour cruise (refreshments and snacks included)

# WEDNESDAY, August 21st, 2013

8:00-9:00 **BREAKFAST** 

9:00-9:40 **SPECIAL LECTURE** 

## Kirsten Krause - "Morphological, functional and plastomic striptease in the parasitic plant genus Cuscuta"

9:40-12:15	Contributed talks:	Hosts and endosymbionts—recent and ancient (Chair: TBA)
9:40-10:05	Ugo Cenci	Polysaccharide debranching a universal and polyphyletic mechanism for starch in bacteria and eukaryotes
10:05-10:30	Steven Ball	Metabolic effectors secreted by bacterial pathogens: essential facilitators of plastid endosymbiosis?
10:30-11:00	COFFEE BREAK	
11:00-11:25	Naoki Sato	Discontinuity in cyanobacterial evolution: Lipids and DNA polymerase
11:25-11:50	Ralf Oelmüller	REDOX RESPONSIVE TRANSCRIPTION FACTOR1 amplifies the formation of reactive oxygen species in Arabidopsis thaliana shoots and roots
11:50-12:15	Filip Husnik	Host-symbiont, symbiont-symbiont and symbiont-pathogen interactions at the symbiotic interfaces of blood-sucking flies

#### 12:15-13:20 **LUNCH BREAK**

13:20-14:15	Contributed talks:	<b>Hosts and endosymbionts—recent and ancient</b> (Chair: TBA)
13:20-13:45	Eunsoo Kim	A modern descendant of early green algal phagotrophs
13:45-14:10	Gillian Gile	Evidence for a cryptic plastid in the colpodellid <i>Voromonas pontica</i>
14.10.14.20	NATURE RREAK	

11.10 11.20	WIII ORE BREAM	
14:20-17:30	Symposium	Diversity of anaerobic mitochondria and mitochondrion- related organelles (Chair: TBA)  Sponsored by the Centre for Genomics & Evolutionary Bioinformatics
14:20-15:00	Andrew Roger	TBA
15:00-15:40	Staffan Svard	Hydrogenosomes in the salmon slayer Spironucleus salmonicida
15:40-16:00	COFFEE BREAK	
16:00-16:40	Pavel Dolezal	Protein transport in the excavate mitochondria
16:40-17:05	Courtney Stairs	Evolution of a sulphur mobilization (SUF) Fe-S cluster biosynthesis machinery in the mitochondrion-related organelles of the breviate <i>Pygsuia biforma</i>
17:05-17:30	Michelle Leger	Adaptations to anaerobiosis in the mitochondrion-related organelles of the jakobid <i>Andalucia incarcerata</i>

# 19:00-22:00 CONFERENCE BANQUET

#### DALHOUSIE UNIVERSITY - SHIRREFF HALL DINING HALL

# THURSDAY, August 22<sup>nd</sup>, 2013

#### 8:00-9:00 BREAKFAST

9:00-12:50	Contributed talks:	The ins and outs of organellar integration (Chair: TBA)
9:00-9:25	Julia Lau	New insights into the SELMA system of complex plastids
9:25-9:50	Ansgar Gruber	Occurrence and significance of C-terminal targeting motifs in organisms with secondary plastids
9:50-10:15	Simone Stork	Metabolite transport across the periplastidal membrane in complex plastids of diatoms
10:15-10:40	Daniel Moog	Investigating the protein composition of a minimized eukaryotic cytoplasm of the periplastidial compartment of the diatom <i>Phaeodactylum tricornutum</i>

#### 10:40-11:10 COFFEE BREAK

11:10-11:35	Kentaro Inoue	Chloroplast Biogenesis
11:35-12:00	Ilka Haferkamp	A bacterial carrier protein mediates S-adenosylmethionine transport in plastids of green algae (Prasionophyceae)
12:00-12:25	Hirokazu Sakamoto	Characterization of secondary plastid membrane transporter homologs in <i>Perkinsus marinus</i>
12:25-12:50	Christian Schmitz- Linneweber	Nuclear-encoded RNA binding proteins as global regulators of chloroplast RNA metabolism

#### 12:50-13:50 LUNCH BREAK

13:50-14:40	Wolfgang	Evolution of protein sorting into and within plastids: the muroplasts
	Loeffelhardt	of Cyanophora paradoxa
14:40-14:55	Rudolf Hagemann	Facts and problems regarding the genetic and cytological control of
	(Ralf Oelmüller)	the transmission of paternal plastids

15:00-15:15 PRESENTATION OF PRIZES

A. Miescher Ishida Prize

**B. Postdoc and student prizes** 

**15:15-15:25 CLOSING REMARKS** 

15:30 CONFERENCE ENDS