Lower Mainland's 10th Nematode Regional Research Review

Wednesday, Feb. 21st, 2007

Hosted by the Rankin/Moerman Labs

Michael Smith Building

Main Lecture Theatre

invitrogen™

Itinerary:

(1) 5:30 pm - Introduction

Update from the NRRR Committee

(2) 5:35 pm – Talks

(A) **Adam Warner** - *The LIM Domain Protein C28H8.6 is Required for Viability and is Localized to Dense Bodies in* C. elegans *Body Wall Muscle*

(B) Dr. Harald Hutter - *IgCAMs in* C. elegans*: Conserved without essential function?*

(3) 6:30 pm - Food/Beverages

Pizza (courtesy of Macrogen)

Drinks (courtesy of Invitrogen)

MACROGEN
Advancing through Genomics

Abstracts:

Presenter: Adam Warner from the Moerman Lab

The LIM Domain Protein C28H8.6 is Required for Viability and is Localized to Dense Bodies in *C. elegans* Body Wall Muscle

Proper conversion of the contractile force generated by sliding myofilaments within muscle into movement of a single nematode requires attachment of actin to structures known as dense bodies. While most *C. elegans* muscle mutants have been uncovered through mutational screens focusing on embryonic lethal and uncoordinated movement phenotypes, we propose that additional sarcomeric proteins exist for which there is a less severe or entirely different mutant phenotype.

In order to search for these proteins, we used a combination of SAGE expression data (McKay et al. 2003) and predicted protein information to uncover a small number of potential candidates. One of these, the LIM domain protein C28H8.6, has a high level of homology to the C-terminal half of human paxillin, a core component of focal adhesions. This multi-LIM domain protein appears to have an important role in *C. elegans* muscle. First, a full-length C28H8.6::GFP functional fusion localizes to dense bodies. Secondly, the homozygous gene knockout of C28H8.6 results in uncoordinated animals arrested at the L1 stage of development. Lastly, C28H8.6 mutants have disrupted organization of the myofilament lattice. Further analysis is underway to characterize this newly discovered muscle protein.

Presenter: Dr. Harald Hutter

IgCAMs in *C. elegans*: Conserved without essential function?

(Abstract currently unavailable.)

The Lower Mainland Collective of *Caenorhabditis elegans* Researchers

Dr. Don Riddle (UBC)
Dr. Catharine Rankin (UBC)
Dr. Terry Snutch (UBC)
Dr. Don Moerman (UBC)
Dr. Eve Stringham (Trinity Western)
Dr. Jack Chen (SFU)
Dr. Ann Rose (UBC)
Dr. Michel Leroux (SFU)
Dr. Nancy Hawkins (SFU)
Dr. Dave Baillie (SFU)
Dr. Harald Hutter (SFU)

NRRR organizing committee

Marco Gallo
Andrew Giles
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Tiffany Timbers
Ryan Viveiros
Adam Lorch
Nick Inglis

Special Thanks to **our volunteer presenters** and all those who helped organize this event

Questions or Comments to andrew@nrrr.ca

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