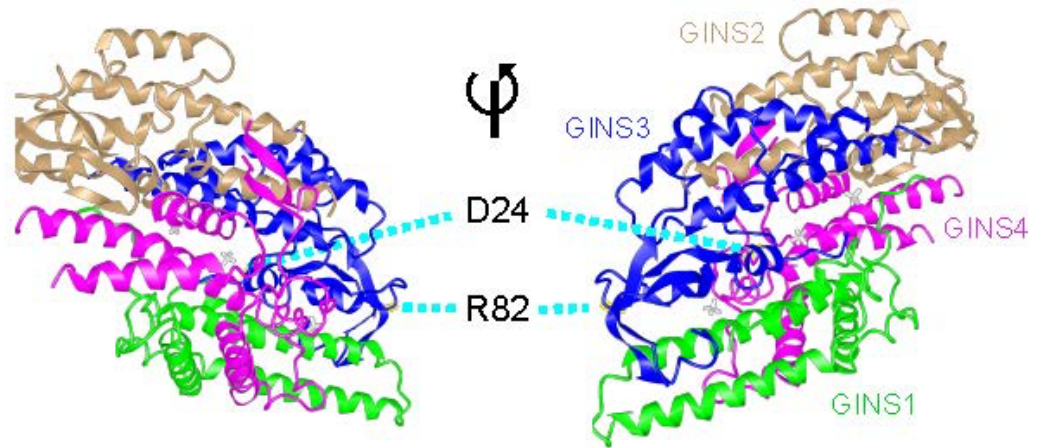
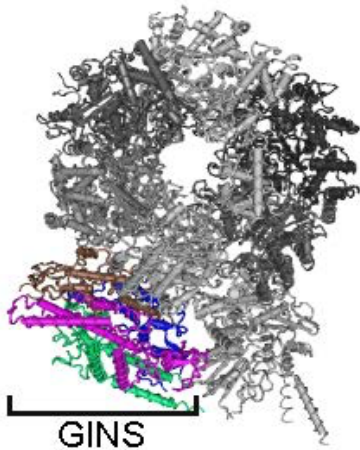




# RESEARCH INSTITUTE SEMINAR SERIES

## RESEARCH CONNECTIONS

A Research Institute seminar series showcasing successful partnerships between researchers in different research programs or in basic and clinical research. Each seminar highlights the connections that have led to impactful discoveries and stimulate future productivity.



### Featured Speakers

**PETER KANNU, MB**  
ChB (Otago), PhD, DCH,  
FRACP

Staff Physician, Clinical and  
Metabolic Genetics,  
Associate Scientist,  
Developmental & Stem Cell  
Biology,  
SickKids Research Institute;  
Associate Professor,  
Pediatrics,  
University of Toronto

**ERIC CAMPOS, PhD**

Scientist,  
Genetics & Genome Biology,  
SickKids Research Institute;  
Assistant Professor,  
Department of Molecular  
Genetics,  
University of Toronto

### New hypomorphic mutations affecting the CMG DNA helicase cause Primordial Dwarfism

The evolutionarily conserved CDC45/MCM2-7/GINS (CMG) protein complex is an essential helicase that unwinds DNA at replication forks. We identified four individuals from two unrelated families presenting short stature characterized by unreported mutations in the *GINS3* gene, which encodes a subunit of the CMG helicase. Our analysis suggests that *GINS3* mutations destabilize the GINS subcomplex of the DNA helicase. This in turn affects DNA replication dynamics in mammalian and yeast models.

### Panel Discussion with additional Panel Members

**Aleixo Muise, MD, PhD, FRCPC** Staff Gastroenterologist, Gastroenterology, Hepatology and Nutrition; Co-director, Inflammatory Bowel Disease Centre;  
Senior Scientist, Cell Biology

**Rosanna Weksberg, MD, PhD, FRCPC** Staff Physician, Clinical & Metabolic Genetics;  
Senior Associate Scientist, Genetics & Genome Biology