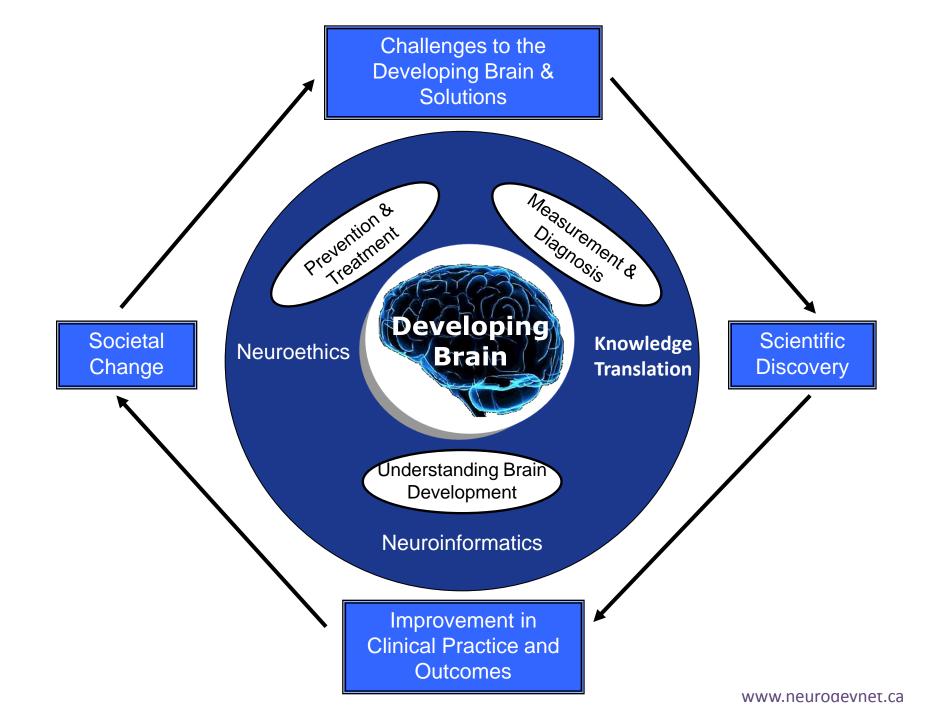


NeuroDevNet: Opportunities in Brain Development Across Canada

Dan Goldowitz, Scientific Director September 14, 2010





Selection of Initial Research Projects

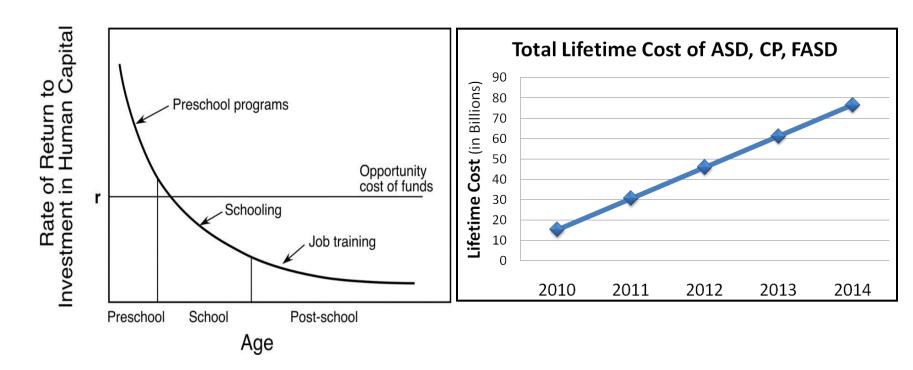
- Each disorder sheds light on the much larger spectrum of brain developmental disorders that affect Canadian children.
- Each disorder reflects roles of genes, environment, and GxE in brain function.
- Each disorder represents a significant socioeconomic burden to Canada.
- Our collective expertise across Canada will make major inroads into understanding and treating each disorder.
- Three demonstration projects were selected (ASD, CP, and FASD) and an Opportunities Initiative.



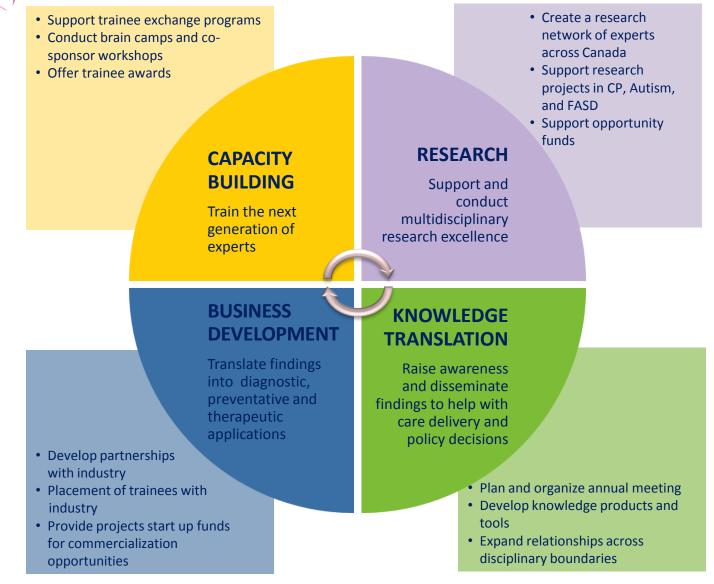
Costs to Society

"When we fail to provide children with what they need to build a strong foundation for healthy and productive lives, we put our future prosperity and security at risk."

(National Scientific Council on the Developing Child, 2007)



Overview of NeuroDevNet Infrastructure





Fetal Alcohol Spectrum Disorders: Gene-environment interactions; predictive biomarkers; and the relationship between structural alterations in the brain and functional outcomes

NeuroDevNet Initiative on FASD

Eye Tracking



Genetic Susceptibility



Fetal Alcohol Spectrum Disorder (FASD)

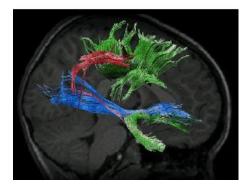
Brain Volumes



Cognition & Behaviour



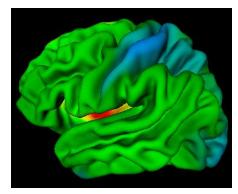
Brain Connectivity



Animal studies



Cortical Thickness



Network Investigators & Collaborato

Queen's University

James Reynolds James Brien Doug Munoz Garth Smith Dawa Samdup

University of Alberta

Christian Beaulieu Carmen Rasmussen Gail Andrew

Universite de Montreal Marie-Pierre Dube

University of British Columbia

Sterling Clarren Joanne Weinberg Dan Goldowitz Michael Kobor

University of Southern California

Laurent Itti

University of Ottawa

Sarah Nikkel Virginia Bourget

University of Toronto

Steve Scherer



NeuroDevNet Opportunities

TRAINING

INTERNSHIPS

WORKSHOPS

ANNUAL GENERAL MEETING

RESEARCH FUNDING (Opportunities Initiative)

KNOWLEDGE TRANSLATION and ADVOCACY



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