

# Achieving Success in Research Projects

**Elyanne M. Ratcliffe**

Division of Gastroenterology and Nutrition, Department of Pediatrics

Farncombe Family Digestive Health Research Institute

McMaster University

October 20th, 2010

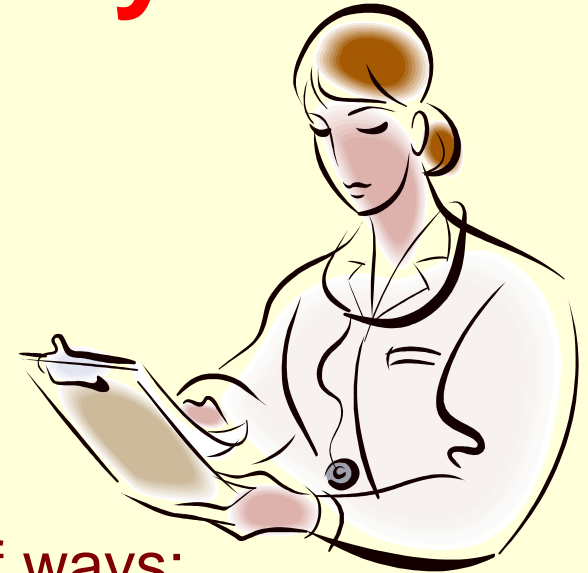
# How to get the most out of your research project

- Try to find a project that:
  - Relates to a problem that has meaning for you
  - Builds on something you know
  - Helps you learn something new
  - Enables you to work with a good supervisor/mentor
  - Could be the basis for your future career
  - Really, really fascinates you



# Relates to a problem that has meaning for you

- Clinical problems come in a range of possibilities:
  - Common clinical problem
  - Particularly complex patient
  - Pathological findings
  - Medication effects
  - Global/public health issues
- And can be approached in a variety of ways:
  - Focus on basic science aspects of pathophysiology
  - Explore epidemiological aspects, create or work with an existing data base, be involved with clinical trials, design surveys/questionnaires
  - Rare diseases can illuminate important physiological concepts
  - Public health work can lead to positive interventions



# Builds on something you know



- Easier to get started if you can build on something familiar:
  - Volunteer experience
  - Inspiring course/lecture
  - Previous research experience
  - Particular clinical interest
  - Personal experience
- Helps provide confidence as you get started on your project

# Helps you learn something new

- Clinical research
  - Opportunity to learn protocol design, data base management, how to work with questionnaires/surveys, statistical methods
- Bench research
  - New techniques, experimental design, data analysis, approach to scientific literature, apply/relate basic science concepts to clinical problems
- **Undergraduate/graduate studies are a great time to explore and try something different!**



# Enables you to work with a good supervisor/mentor

- A good mentor is as important as the topic of your research project, and can help you to:
  - Design project, get oriented to relevant literature
  - Develop the skills you need to carry out project
  - Identify sources of funding and help secure funding
  - Learn how to present your work effectively (papers, grants, abstracts, posters, power point)
  - Get good career guidance



# Could be the basis for your future career

- You could discover that you really enjoy your field of research and decide to pursue it
  - Opportunity to present at meetings, publish your findings and become known in your field
  - Your data can be the basis for your first grant
- Even if you do not pursue a career in research, you will still have learned important skills that can be applied to your career
  - Study design
  - Data analysis
  - Critical reading of literature
  - How to present academic work



# Really, really fascinates you



- Research work can be difficult
  - Time less structured
  - Known to unknown
  - Decreased confidence
  - “Bad days”
- Choosing a project you enjoy will help motivate you and make the challenges easier to overcome

# Summary Framework

- Choose a research project that:
  - Relates to a problem that has meaning for you
  - Builds on something you know
  - Helps you learn something new
  - Enables you to work with a good supervisor/mentor
  - Could be the basis for your future career
  - Really, really fascinates you

