General Surgery Resident Research Retreat 2016

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Research Expectations

- Residency Training Requirements
  - In the spring, the Division of General Surgery holds its annual Resident Research Day.
  - Residents are expected to present a research project 4 out of your 5 years at the annual Resident Research Day.
  - Generally, residents in years one to four are expected to present at this event.

Research Project Timelines

- October 1, 2016: Research Progress Report #1
  - Minimum expectations:
    - Project summary & REB submission

- January 1, 2017: Research Progress Report #2
  - Minimum expectations: Data collection initiated

- **April 1, 2017: Abstract Deadline**
- April-May 2017: Annual Research Day
- June 2017: Dept of Surgery Research Day

Resident Research Resources

- Research costs can be covered by division
  - Chart pulls: need to submit Research request form to Christine Ward
  - Poster preparation

- Conference Travel Expenses
  - Abstract submission must be approved by supervisor and research committee if funds are to be provided by the Division
  - Need to write and submit a “submission ready” manuscript to division for re-imbursement of expenses

Resident Research Resources

- Software:
  - Reference Software:
    - Endnote available
    - Reference Manager available
  - Statistical Analysis software:
    - SPSS

Research Resources

- Your peers/resident mentors
- Your supervisor(s)/clinical mentors
- Christine Ward
- Research director(s): Dr Mele and Dr Vogt

Top Ten List for a Successful Research Project

1. Choose your research supervisor *wisely*
2. Pose a focused and specific research question
3. Conduct a thorough literature review to ensure your project has not been done previously
4. Collaborate with content and methodological experts
5. Be realistic about how much time your project will take

Top Ten List for a Successful Research Project

6. Ensure/obtain in a timely fashion Research Ethics approval
7. Pick a topic YOU are INTERESTED in
8. Meet with a statistician to discuss analysis PRIOR to collecting data
9. Start early....ie. Tomorrow
10. **Choose your research supervisor *wisely***

Potential Basic Science Projects

- **Project 1:** Differentiating the role of host IDO from tumour IDO in suppressing antitumour immunity
  - **Time commitment:** three months.

- **Project 2:** Circular RNA and ischemia reperfusion injury
  - **Time commitment**: three months

Potential Basic Science Projects

- **Project 3:** The role of miR-711 in preventing cardiomyocyte apoptosis induced by cold ischemia reperfusion injury.
  - **Time commitment**: 1 year MSc thesis. If a resident is interested in this project but only has three months, he or she can work on one objective

Research Question and Hypothesis Development

- **PICOT** approach to framing a research question:
  - **P**opulation
  - **I**ntervention
  - **C**omparator
  - **O**utcome
  - **T**ime frame

Research Question and Hypothesis Development

- Consider the **FINER** criteria to evaluate your research question
  - **F**easible?
  - **I**nteresting?
  - **N**ovel?
  - **E**thical?
  - **R**elevant?

Research methods and design

- Choose the appropriate research design based on your research question

- Consider potential sources for error and bias ie selection bias, confounding factors, etc and how they can be addressed in the study's design, conduct and analysis