Orientation to Resident Research

Dr Karen Choong
July, 13 2009
Overview

- Research during residency
- Expectations
- Resources
- Research Electives
- Grants and Awards
Why do research during residency?

- Research can be fun!
- Excellent opportunity to learn EBM
- Nurtures critical thinking - multifaceted clinician and scholar
- Important in advancing career
- Opportunity for collaboration
- It is an expectation of the Residency programme!
What is Resident Research?

- Scholarly investigation to test a hypothesis or answer a health related question:

  - Methodical study
    - Basic Science
    - Observational study (case report, case series, cohort, case-control)
    - Clinical Trial
    - Systematic Review

- Quality Assurance, Review of Practice,

- Gathering if information/data must be systematic and organized
  - Study protocol and design
What makes a good resident research project?

- Interesting
- A project that can and will help you
- Appropriately mentored

Feasible
- Realistic time line
- Resources available – support, personnel and $$
Research during pediatric residency: predictors and resident-determined influences.
Ullrich N, Botelho CA, Hibberd P, Bernstein HH
Acad Med. 2003 Dec;78(12):1253-8

■ Interest in research during residency is high, but participation in research is low (18%)

■ The most commonly identified influences to conducting research were:
  ■ availability of time (97%)
  ■ personal interest in research (84%)
  ■ availability of opportunities (76%)
  ■ mentors on hand (72%).
Resident Expectations

The CanMEDS 2005 Physician Competency Framework

Scholar
Resident Expectations

Section 6, RCPS General Standards for Accreditation:

“....every resident must demonstrate scholarly activity during his/her residency”

Demonstration of research and scholarly activity is a requirement for completion of each resident’s final FITER
Pediatric Resident Guidelines and Expectations  www.macpeds.com

- Select an appropriate project and mentor

- Get feedback on research idea and protocol
  - Work in Progress sessions – mandatory for all R2s

- Complete your project during residency
  - Annual MCH Trainee Research Day – mandatory for all R3s and award recipients
  - Submit an abstract/manuscript of original work

- Communicate - research supervisor, resident research committee
<table>
<thead>
<tr>
<th>Date</th>
<th>Expectations</th>
<th>Measurement</th>
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<tbody>
<tr>
<td>September</td>
<td>Select a research supervisor and research idea</td>
<td></td>
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<tr>
<td>Ongoing</td>
<td>Schedule regular meetings with research supervisor</td>
<td></td>
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<tr>
<td>Work-in Progress (scheduled on 3rd Tuesday, every other month)</td>
<td><strong>Mandatory for all 2nd year residents.</strong> Presentation of research ideas, and projects at various stages of development.</td>
<td>20-30 min, power point presentation and discussion</td>
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<tr>
<td>January</td>
<td>Note deadline for abstract submissions to Pediatric meetings (CPS, SPR)</td>
<td>See individual websites</td>
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<tr>
<td>April 30th (McMaster Resident Research Award)</td>
<td>Submit research proposal for funding</td>
<td>Refer to “Award” section on website for more information</td>
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<tr>
<td>August 31 (RMA Scholarship)</td>
<td></td>
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<tr>
<td>June</td>
<td>Formal presentation of project (poster or oral). <strong>Mandatory for all 3rd year residents.</strong> Submission forms to be submitted by April 30th to Dr. Stephanie Atkinson’s office.</td>
<td>15 min oral presentation. Prize awarded for best presentations for each category of trainee.</td>
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Resources

- www.macpeds.com
- http://fhs.mcmaster.ca/pediatrics/
- macpedsresearch@gmail.com; Resident research database

Education:
- Critical Appraisal course
- Work in Progress Rounds
- Journal clubs
- HHS rounds
- Mentor

- MCHRI
- Research Electives
- Resident Research Committee
Literature Search Resources

- McMaster Librarian
- BUMC Searching Tutorial. A listing of tutorials designed to assist users of different MEDLINE systems and at different experience levels
- ISI Web of Science
Research Electives

- Protected research time
- “Horizontal”: half day / week during non-service rotations
- “Block”: a complete rotation block
- Written request to programme director required
- Evaluation of rotation for resident and supervisor
# Grants and Awards

<table>
<thead>
<tr>
<th>Type of Award</th>
<th>Who is eligible</th>
<th>Deadline for application</th>
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<tbody>
<tr>
<td>McMaster Resident research award</td>
<td>Pediatric residents</td>
<td>April 30</td>
</tr>
<tr>
<td>RMA Research Scholarship</td>
<td>All residents</td>
<td>August 31</td>
</tr>
<tr>
<td>Travel Awards</td>
<td>Pediatric residents</td>
<td>Any time</td>
</tr>
<tr>
<td>St. Louis Family Fund</td>
<td>Pediatric residents</td>
<td>March 1</td>
</tr>
<tr>
<td>Winnipeg Annual Resident and Fellow Research Competition</td>
<td>2 candidates (1 resident and 1 fellow; 2 residents; or 2 fellows).</td>
<td>April 14, 2009</td>
</tr>
<tr>
<td>McMaster Child Health Research Day Award</td>
<td>Trainees (Residents, Fellows, medical students and Graduate students) who present at the Research Day</td>
<td>June</td>
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<tr>
<td>PSI Resident Research</td>
<td><a href="http://www.psifoundation.org/resident_research.htm">http://www.psifoundation.org/resident_research.htm</a></td>
<td>Sept 11, 2009 (See website)</td>
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Numerous other funding and award opportunities are available from the McMaster Office of Research services ([www.mcmaster.ca/ors/](http://www.mcmaster.ca/ors/))
Presentation Opportunities

- Institutional
- Pediatric Academic Society: May 2010, Vancouver
- Canadian Pediatric Society: June 2010, Victoria
- European Academy of Pediatric Societies, Oct 2010, Copenhagen
Resident Research Committee, 2009

- Karen Choong, MB, BCh, MSc
- Uma Athale MBBS, MD, M.Sc.
- Lucy Giglia MD,
- 2009 Resident representative: Jodie Ouahed
Table I. Journal names and number of articles published in each (N = 148) (residents graduating from 1988 to 1995)

<table>
<thead>
<tr>
<th>Journal name</th>
<th>Number of articles</th>
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<tbody>
<tr>
<td>Journal of the American Academy of Dermatology</td>
<td>42</td>
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<tr>
<td>Dermatologic Surgery/JDSO</td>
<td>18</td>
</tr>
<tr>
<td>Archives of Dermatology</td>
<td>17</td>
</tr>
<tr>
<td>International Journal of Dermatology</td>
<td>8</td>
</tr>
<tr>
<td>British Journal of Dermatology</td>
<td>6</td>
</tr>
<tr>
<td>Journal of Dermatologic Science</td>
<td>6</td>
</tr>
<tr>
<td>Journal of Investigative Dermatology</td>
<td>5</td>
</tr>
<tr>
<td>Pediatric Dermatology</td>
<td>5</td>
</tr>
<tr>
<td>Journal of Cutaneous Pathology</td>
<td>4</td>
</tr>
<tr>
<td>Others (journals with less than five articles each)</td>
<td>37</td>
</tr>
<tr>
<td>Total</td>
<td>148</td>
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### Table II. Responses from resident (graduating years 1988–95); N = 43 (response rate 71%)

<table>
<thead>
<tr>
<th>Statement</th>
<th>Percentage of respondents agreeing with statement</th>
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<tbody>
<tr>
<td>I was happy to participate in research as a resident</td>
<td>45%</td>
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<tr>
<td>I am happy to have done research as a resident</td>
<td>80%</td>
</tr>
<tr>
<td>Research in residency changed the way I think about patients</td>
<td>50%</td>
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<tr>
<td>Research in residency helped me in the way I treat patients</td>
<td>50%</td>
</tr>
<tr>
<td>Research helped me become a critical thinker</td>
<td>75%</td>
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<tr>
<td>Research during dermatology residency is a beneficial part of training</td>
<td>90%</td>
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