

Mentoring young (junior) researchers – what they need

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Finding young researchers – Who are they and where are they?

- Every student, intern, resident and registrar is a potential researcher.
- All can be instilled with enthusiasm
- Registrar/fellow level is the watershed at which interest and involvement in research is likely to develop
- Specific mentoring during this period is required to overcome barriers to involvement in research

Targeting the registrar/fellow

- Most at this level have very little idea of :
 - What research activities are ongoing in their unit/hospital/university/city
 - What different types of research have to offer?
 - Clinical trials
 - Laboratory research
 - Epidemiology
 - etc
 - How to become involved?
 - Finding mentors
 - Research funding and scholarships

Needs of the Potential Researcher

- Time and discussion
 - With senior staff in differing fields of research
 - With other fellows undertaking research
- Exposure to clinical trial activities
- Exposure to laboratory research
 - Information evenings
- Encouragement and assistance to undertake a manageable research project during registrar training
 - Assist with design
 - Present at a local meeting

In the end

- Rapport with a mentor will often decide the area of research
- Most trainees 'fall in' to a research programme rather than go out to seek it.
- Not all trainees will wish to make research their focus but the majority will contribute in some fashion to research.
- It is harder to train in research methodology once consultant duties have been assumed

Needs of the Junior Researcher

- Funding
- Laboratory vs. clinical needs
- Face to face meetings and mentoring
- Presentations
- Publications
- Thesis writing
- Future career – Where to from here?

Funding

- Up front discussion
- Usually a decrease in salary
 - Clinical trials positions may be exceptions
- Many avenues for funding
 - University, NHMRC, specialist funding bodies
- If a scholarship is to be applied for, requires forward planning, assistance in writing research plan, referee report etc.
- Trainees may need to take on extra work to make ends meet.
 - Clinical mentors may assist in this.

Laboratory based projects

- For the lab researcher with a clinical supervisor it is essential/useful to have a full time lab based supervisor or mentor with expertise in the project undertaken.
- For clinicians entering a lab based project supervised by a scientist it is helpful to also have a clinician supervisor in the field.
- For preference, researchers should NOT be required to establish a totally new technique in the laboratory or to establish data bases both of which will require much time without specific output.
- Most (all) young researchers in lab or clinic require special training in statistics
- Well planned project, feasible within timeframe, consistent with theme of the laboratory

Clinical research

- Strict lines must be drawn allowing the researcher the required time for their project. No 'filling in' at clinics etc.
- Where the research requires informatics, epidemiological or statistical skills, initial referral to appropriate specialists is required
- Where data collection is required, initial consideration to the type of system required will pay dividends later
- Adequate support personnel, trials nurses, data managers etc

Meetings and mentoring

- Many styles and frequencies may be appropriate
- Monthly with each supervisor/mentor together or separately
- Consider keeping notes of meetings
- Cover
 - Progress to date
 - Road blocks and requirements
 - Presentations and papers to be done
 - Work/tasks to be done by supervisor and researcher before next meeting
 - University requirements, confirmation etc
 - Plans for after end of research

Presentations and publications

- Publications - Young researchers need them therefore they are a high priority
- Aim for high impact journals and local journals read by colleagues and potential employers
- 2-3 for a two year project, 4+ for a three year project, even if not first author on all
- Send manuscripts back and forth
- Set deadlines for manuscript writing
- Presentations – useful for becoming known locally but publications more important on CV

Thesis writing

- Start discussing it at the beginning of the project
- Write literature review first
- Try to make each chapter a paper
- Set deadlines for chapter review with supervisor/mentor
- Make available examples of similar theses
- Almost all young researchers need to be pushed to write!

Future Career

- Young researchers will look to their mentors for advice and direction for future career
- Start discussions early
- May need to help create opportunities
 - Introduction to other senior researchers
 - Assistance with fellowship applications
 - Giving advice regarding other institutions
 - Going in to bat to get sessions
- Even those not staying in research full time will use what they have learned in their future career

Thank you!