

# Kick-starting your research program: (Anecdotal) Field-tested tips



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Service

Research

Teaching



- Interim Review
- Tenure
- Promotion



(Grants)

# Eyes on the Prize

## **Interim Review assessment:**

1. “Has performance been sufficiently satisfactory for a second probationary period to be recommended?”
  2. “...what counselling should be given to the appointee to improve areas of weakness and maintain areas of strength?”
- 

## **Criteria for Tenure:**

1. achievement in research & creative professional work
2. effectiveness in teaching
3. clear promise of future intellectual and professional development

# Kick-starting your research program

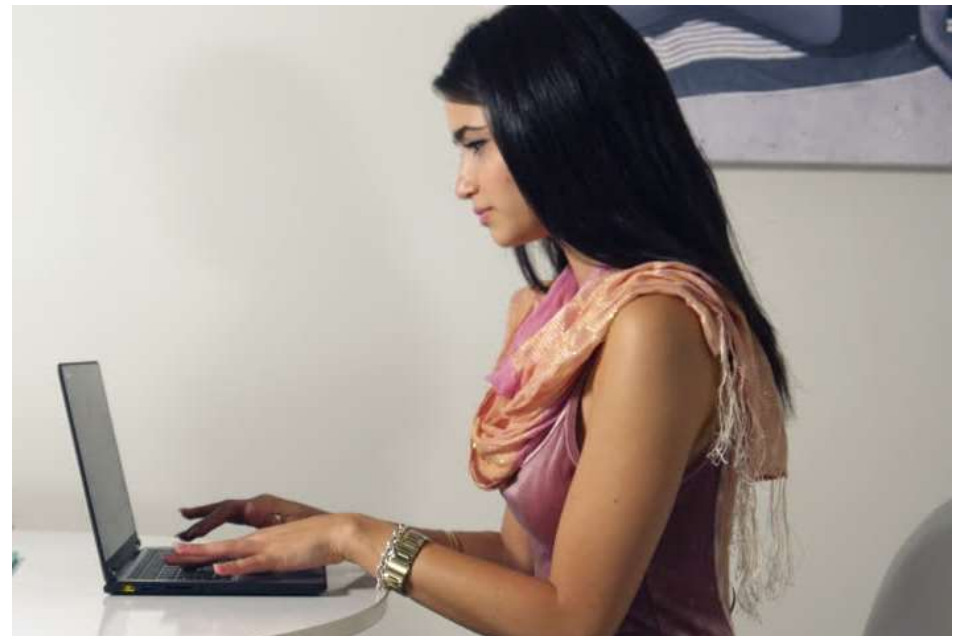
## **Granting success (e.g., NSERC, CIHR)**

1. Research record
2. Research program and proposal
3. Training of Highly Qualified Personnel (HQP)

# Kick-starting your research program

## You

- Bread-and-butter research
- Make time for writing
- Seek help & advice



<http://www.davidafields.com/>

# National Center for Faculty Development and Diversity (NCFDD)

- Institutional membership
- Professional development and training resources:
  - increase research and writing productivity
  - improve work-life balance
- Available to anyone with a U of T email
- Activate membership at:
  - <https://www.facultydiversity.org/institutions/utoronto>

‘Faculty Success Program’ : intense 12 week writing program

- ~\$3,000 USD
- Full financial support available
- (10% Chair/Director; 40% Dean; 50% Provost)

# Faculty mentorship & Workshops

## Seek input/counsel

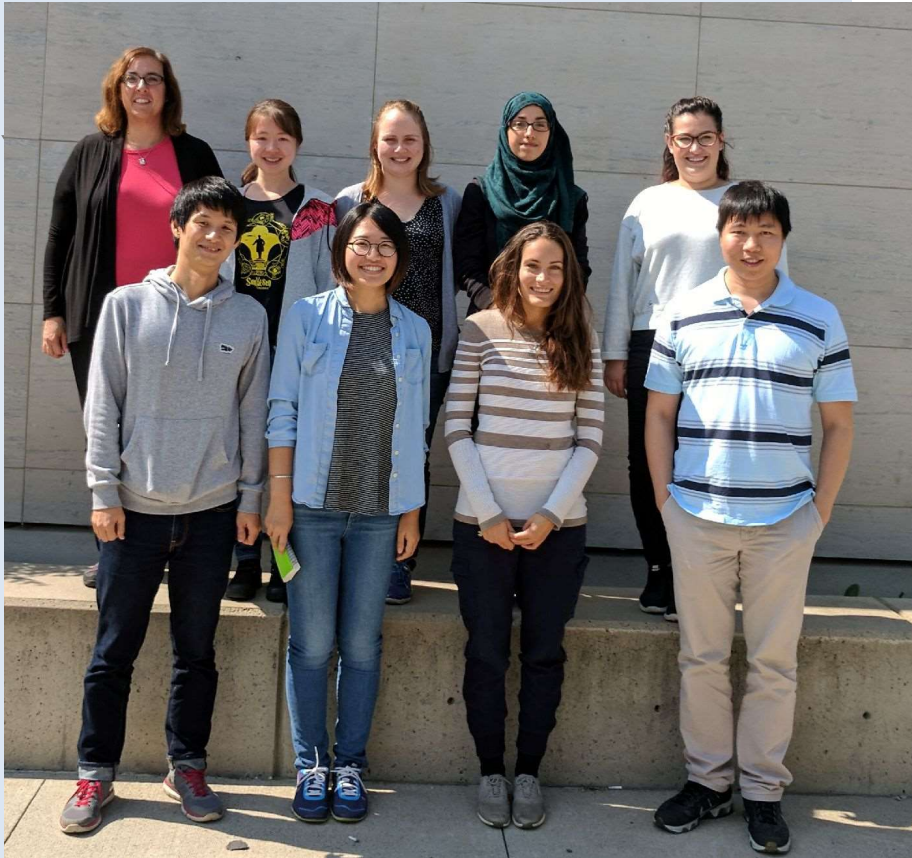
- Assigned mentors
- Informal contacts
- Chair or Associate Chair
- More on this: Thursday 11:15

## Provostial & Decanal Workshops

- Reviews policy, process and tips for career reviews



# Kick-starting your research program



## Your group

- Research-group culture
- Recruiting students
- Mentoring students

See: School of Graduate studies Supervision Resources  
UTSC contact: Vice Dean Graduate, Mary Silcox



# Kick-starting your research program



## Your Group

### 1. Determine Research–group culture

- Supervisory Philosophy
- Research environment

### 2. Recruitment

- Generate interest
- First contact
- Meeting candidates
- Admission decisions

### 3. Mentorship

- 7 ? types of students

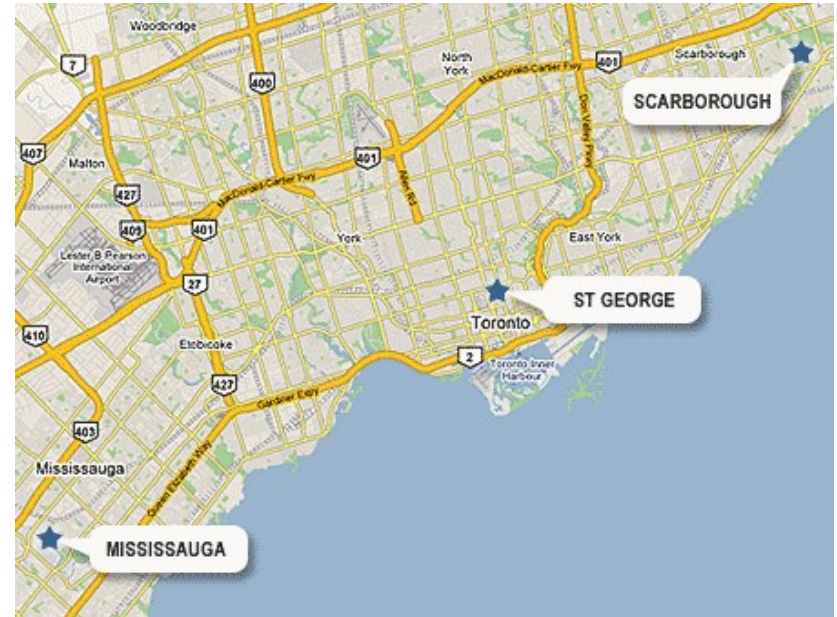
# 1. Determine Research-group culture

## Supervisory philosophy



### *Housekeeping*

- Funding requirements
- Internal or external students?
- 9 to 5 / flexible?
- Hands on/off?
- Plug-in project/Independent development
- Local (UTSC) engagement?



# 1. Determine Research-group culture



## Supervisory philosophy

### *Academic norms*

- Publishing expectations (#)
- Publishing practices & policies
  - One approach to authorship\*:

- 4 areas of contribution:
  - Idea/Concept/Hypotheses
  - Design
  - Data Collection
  - Analysis/Writing

2 or more =  
authorship



**Authorship order: Up front, Transparent**

## 1. Determine Research-group culture



# Data & publication practices

- *All data are property of PI*
- *Original data books/files, clearly annotated stored in the lab/secured space/drive*
- Store specimens or raw data files/photos *at least* until data are published



- Ensure all students have signed (NSERC-style) disclosure forms for use of their names in future applications

## 1. Determine Research-group culture



# Research environment

## Personnel

- Numbers?
- Layering (Post-doc/PhD, MSc, Undergrad)
- Technicians?

## Academic culture

- Lab meetings
- Journal clubs
- Practice talks
- Seminar attendance
- post-seminar redux



## Socializing is important!

- Parties/lunches/Friday afternoon beer

# Kick-starting your research program



## Your Group

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Communicate this to new lab members

# Kick-starting your research program



## Your Group

### 1. Determine Research–group culture

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### 2. Recruitment

- Generate interest
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## 2. Recruitment

# Step 1. Generate Interest



- Speaking tour



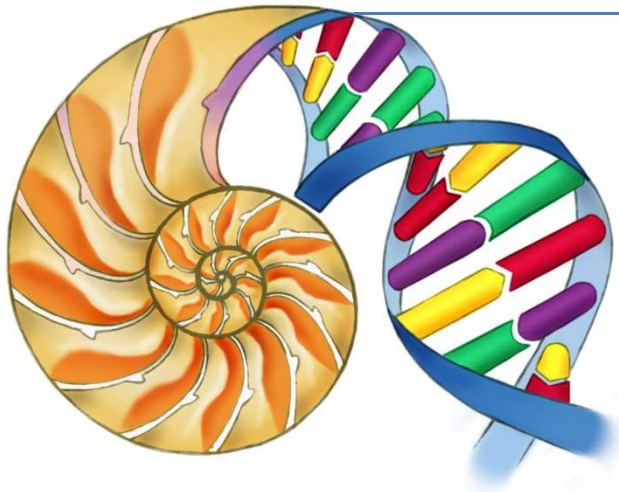


## 2. Recruitment

# Step 1. Generate Interest



- Speaking tour
- **Conference participation**
  - Send students & attend yourself
  - Good for **recruitment** not necessarily best for research dissemination



- Ontario Biology Day
- Ontario Ecology & Ethology Colloquium
- Canadian Society for Ecology & Evolution
- Canadian Society of Zoologists

## 2. Recruitment

# Step 1. Generate Interest



- Speaking tour
- Conference participation
- **Ensure UTSC is on your papers,** not just U of T

## 2. Recruitment



# Step 2. Early contact

- **Not all good students have good mentors**
  - first contact may be rough, unprofessional, excessively familiar
- **Respond quickly to *all* applicants**
  - Develop a stock email response
  - Include a pdf with details & next steps

**Goal:**  
make them **WANT** to come to your lab,  
**THEN** decide whether you want them there

## 2. Recruitment



Spring 2011

Hello

Thank you for your interest in joining my lab group. This letter will give you some information about our campus, my graduate department and my lab. Feel free to ask me any questions you might have. After reading this over, if you are still interested in applying to work in my lab, I would like to see a sample of your writing, your CV, unofficial transcripts, and I would like your permission to contact 2 or 3 academic references who are familiar with your work. If we are both interested in pursuing this further, we would ideally arrange for you to visit my lab, or at the very least arrange a video-call to 'meet' and discuss possibilities.

My lab is at the University of Toronto Scarborough (UTSC, [www.utsc.utoronto.ca](http://www.utsc.utoronto.ca)), one of 3 campuses of the University of Toronto. If you joined my lab, your graduate department would be the Department of Ecology & Evolutionary Biology (EEB, <http://www.eeb.utoronto.ca/graduate>), which is a tri-campus graduate department (note that you must be admitted to the EEB graduate department, see <http://www.eeb.utoronto.ca/oraduate/admissions/general> and see the UoT school of graduate studies for general guidelines/information: <http://www.sgs.utoronto.ca/informationfor/prospective.htm>). All your research and TA activities would take place at UTSC, but your committee members could be drawn from any of the three campuses, you would likely take many of your graduate courses at the St George (downtown Toronto) campus, and you would be welcome to attend seminars etc. on the other campuses as well. Most of my graduate students live on the east side of Toronto (e.g., [http://en.wikipedia.org/wiki/Riverdale\\_Toronto](http://en.wikipedia.org/wiki/Riverdale_Toronto)), or in graduate housing on the St. George campus (see <http://www.gradschool.utoronto.ca/housing-campus-life.htm>), and commute to UTSC. The campus is well-served by transit (express buses to the nearest subway, light-rail, and commuter-rail stations).

UTSC is a mid-sized campus in an eastern suburb of Toronto, and [Biological Sciences](#) (my local campus affiliation) has 28 faculty, ~100 graduate students, and 12 or so post-docs (there are about 11,000 undergrads on the campus across all faculties). UTSC is located on parkland along the edge of a ravine, and is much quieter and more intimate than the larger St George campus. As part of U of T, we have full access to an extensive network of libraries, digital collections, and e-resources that rival the best in North America.

My lab is one of the founding members of the Integrative Behaviour & Neuroscience Group (IBN, [www.utsc.utoronto.ca/ibn](http://www.utsc.utoronto.ca/ibn)) which was formed to facilitate cross-lab interaction and collaboration with a focus on applying multiple levels of analysis to testing behavioural hypotheses. There are currently four core labs in the group (Andrade, Mason, Lovejoy, and Fitzpatrick) with expertise and instrumentation spanning behavioural ecology, neurophysiology & mechanisms of communication, molecular phylogenetics and behavioural genetics. We are housed in a contiguous block of newly-renovated (2009) labs to facilitate collaborative work (the Integrative Behaviour & Neuroscience Research Facility). We attend regular meetings of the Organismal Biology Discussion group (<http://www.utsc.utoronto.ca/~mandrade/organismal.html>) which includes 6 labs with a primary interest in organismal biology.

I currently have 3 PhD students, 1 visiting graduate student (from Israel), a research technician, a lab manager, 11 undergraduate assistants, and 5 undergraduates doing research projects. If you joined the lab, this would bring my grad student complement to 4, as you would be lab-mates with PhD candidates Emily MacLeod (who started in 2007), Luciana Baruffaldi (who will started in May 2011) and Sheena Fry (who will

Greeting & next steps (sample of writing, CV, transcripts, reference info, Skype or visit)

How does a tri-campus grad program work?  
Where is my lab?  
Where will you TA?  
Where might you live?

Info on UTSC

- My research cluster
- Research facilities overview
- Discussion groups
- My research group (personnel)

## 2. Recruitment



start in Sept. 2011). I have graduated 2 PhD students (Michael Kasumovic & Jeff Stoltz), both of whom have earned NSERC post-doctoral fellowships (Kasumovic was also awarded an ARC post-doctoral fellowship). Michael is now working with Rob Brooks at the University of New South Wales. Jeff started his post-doc with Tom Tregenza at U. Exeter this fall (he defended in June 2010). I have also graduated 3 MSc students (Lindsay Snow, M Daniela Biaggio, Maria Modanu) and one co-supervised MSc (Gillian Laird) since starting at UTSC in 2000.

In my lab, undergraduate lab assistants support rearing of laboratory populations of spiders, which reduces the workload associated with ongoing experiments. More senior graduate students may choose to help supervise undergraduates engaged in their own independent research projects, or have a TAsip associated with leading a small-group research project in the lab (with 3 to 4 students working in a team).

My work is funded by NSERC (Natural Sciences & Engineering Council of Canada) and the Canada Research Chairs program. Research in the lab currently follows a few different paths

1. Behavioural and evolutionary ecology of sexual selection in *Latrodectus* (and other) spiders.
2. Links between developmental plasticity, mating system, demography, and divergence.
3. Energetics, signaling (chemical & vibrational), performance, and physiological bases of quality.

Many recent papers from my lab group are listed on my homepage <http://www.utsc.utoronto.ca/mandrade> or [http://www.utsc.utoronto.ca/mandrade/index\\_files/Publications.htm](http://www.utsc.utoronto.ca/mandrade/index_files/Publications.htm).

We rear large numbers of spiders for use in research, particularly the redback spider (*L. hasselti*) and western black widow spider (*L. hesperus*). We have also worked on several local species (a few *Tetragnatha* species, *Argiope* species, and one *Phidippus* species) and continue to develop these systems, some through collaboration. Spiders are kept in an invertebrate rearing facility which includes light and temperature-controlled rooms in addition to stand-alone environmental chambers. In addition to laboratory studies, we do field work in local parks, at the EEB field station (Jokers Hill, [http:// http://ksr.utoronto.ca/](http://http://ksr.utoronto.ca/)), in British Columbia, in Australia, and in California. I encourage PhD students and post-docs to combine laboratory and field work to create comprehensive research projects.

My supervisory philosophy is simple. I initially provide students with direction and potential projects as needed to get them started, but expect them to develop their own ideas and thesis, as long as this can reasonably be funded by my operating grant, physically supported by available infrastructure (see [http://www.utsc.utoronto.ca/~mandrade/index\\_files/Facilities.htm](http://www.utsc.utoronto.ca/~mandrade/index_files/Facilities.htm) and <http://www.utsc.utoronto.ca/~ibn/facilities.shtml>), and intellectually supported by myself, the IBN group, and the wider EEB department. I encourage independence and I seek students who are self-directed and motivated to excel. If you join my group, I will insist that your research plan includes at least two 'bread and butter' studies (relatively 'safe', virtually guaranteed to yield publications), which then leaves you free to also do higher-risk projects with potentially high payoffs without risking timely and successful completion of your degree. Other than this, I am as 'hands off' as is reasonable given the student's stage, but am available and enthusiastic when input is sought, and insist on keeping to the department-mandated schedule of regular committee meetings with written progress reports. I require attendance at lab meetings (2 hours per week), departmental seminars, and interaction with lab-mates as this is an important part of training. I encourage students to write up and submit their work as they go along, as productivity is essential to securing post-doctoral funding (or a job).

I am an enthusiastic (some say brutal) editor and place a high priority on mentoring the scientific communication skills of my students (written and oral) in addition to their ability to design and conduct

### •Info on grad alums

- My research funding
- Overview of research questions
- Pointer to my publications (webpage)

### •Typical research organisms locations, & field work

- Supervisory philosophy
- Expectations for grad students

## 2. Recruitment



elegant experiments. I support attendance at one conference per year for students who have completed work they are able to present (UTSC also contributes \$400 per year to support graduate student conference travel). This would likely be a local conference early on, but an international meeting when warranted by your data and stage (lab members typically attended meetings like: OE3C [hosted at UTSC this year <http://www.utsc.utoronto.ca/~oe3c/>], CSEE [<http://www.ecoevo.ca/ubc2008/en/>], ISBE [<http://www.isbe2008.cornell.org/>], ABS [<http://www.animalbehavior.org/>] or Evolution [<http://www.cce.umn.edu/conferences/evolution/>]).

I encourage you to contact my current or past grad students to get their perspective on life in the Andrade lab (<http://www.utsc.utoronto.ca/mandrade> see 'personnel').

### Funding

**Graduate Students** (see <http://www.eeb.utoronto.ca/graduate/current/finances/guaranteed-stipends>). EEB has a guaranteed minimum income for graduate students, which was \$23,940 for Canadian students and about \$32,917 for international students in 2009/2010. This is made up of scholarships, teaching assistantships and research assistantships if needed (the latter is paid from my operating grant). In general, TAships are readily available at UTSC and my students can usually TA in their areas of strength (e.g., Evolutionary Biology, Animal Behaviour, or Special topics in Behavioural Ecology, all of which I teach). I strongly encourage all applicants to apply for any fellowships for which they are eligible (e.g., NSERC, OGS for Canadian students) as funding may determine whether I can offer a place in my lab. *Because of budget limitations, I will unlikely to accept MSc students unless they have external scholarships.*

- *MSc applicants should also be aware that EEB has an 18 month MSc program, so any planned MSc research must be designed to make completion feasible within this time-frame. This means field work is unlikely for MSc students unless it is local.*
- *International applicants should be aware that the department takes in a limited number of international students each year, and competition for these positions is intense.*

**Post-doctoral fellows.** I value post-doctoral fellows, and treat them like colleagues. I have had two post-doctoral fellows: Dr. Yoni Brandt, who is now a visiting Assistant Professor at North-central College, and Dr. Chad Johnson, who is now an Assistant Professor at Arizona State University. The University of Toronto considers post-doctoral fellows to be valuable trainees, and has an office which deals with post-doc issues (including health care etc, see: <http://www.sgs.utoronto.ca/informationfor/postdoctoral.htm>). Salaries for post-doctoral fellows vary, depending on the form of support, but the University has a guaranteed minimum stipend of \$27,500 plus a health benefit of \$600, which has to be met through fellowships and/or the supervisor's grant. I do not currently have sufficient funding for sole support of a post-doctoral fellow. If you are interested in doing post-doctoral research in my laboratory, you should apply for any fellowships for which you are eligible. I would be more than happy to work with you in designing a feasible project and writing a competitive grant application (e.g., for NSERC, NSF International Post-doctoral fellowships, or Connaught fellowships [internal to UoT]). Dr. Johnson was an NSF International post-doctoral fellow in my lab, so I have some experience (and success) with this type of application.

I look forward to hearing more about your interests and telling you more about our work.

Sincerely

Maydianne Andrade  
Professor & Canada Research Chair in Integrative Behavioural Ecology

## Direct Invitation to contact my students\*

\* Tell your students to expect this

- Funding information (guaranteed min.)
- Encourage application for external funding (is external funding essential or just preferred?)

Information for potential post-docs,  
including possible sources of funding

## 2. Recruitment



# Step 2. Early contact

- Always ***contact references directly***
  - do ***NOT*** just depend on application letters
  - telephone or email often more revealing



Give bad news early when necessary & end the interaction

## 2. Recruitment

# Step 3. Meeting candidates



- **Alternative 1**: get together @ a conference
  - View their poster/talk
  - Arrange 1-on-1 meetings
    - With you & your students
- **Alternative 2**: Skype interview
  - With you (and then one of your students?)





## 2. Recruitment



# Step 3. Meeting candidates

- **Alternative 3.**

Whenever possible, ***invite them to visit UTSC***

- 50/50 payment if feasible
- (**note**: NSERC will not pay for this, try PERA)

- **Serious visits**

- Full schedule of meetings
- Have them stay with you or a student if possible
- Pay for your students to take them to lunch/dinner



## 2. Recruitment

# Step 4. Admission Decisions



### Your deliberations

- Consider your supervisory style vs. their preferences
  - Even ‘free’ (scholarship) students can be costly
- Solicit input from lab members, colleagues
- Know the timeline!
- Take red flags seriously (e.g., transcripts, information from current students)

### Interactions with student

- Be crystal clear about your timeline and expectations
  - admission dependent on a fellowship?



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# Your Group

## 1. Determine Research–group culture

- Supervisory Philosophy
- Research environment

## 2. Recruitment

- Generate interest
- First contact
- Meeting candidates
- Admission decisions

## 3. Mentorship & Supervision

- Early days
- 7 types of students

### 3. *Mentorship*



## Early days

### Make your policies and expectations clear

- Graduate program requirements: who tracks?
- Choosing the committee/ first meetings
- **Develop project balancing risk and safety**
  - Sure thing(s) = # chapters required by grad program
  - Balance = risky with high payoff possible
  - Think in terms of publishable units



### 3. *Mentorship*



## Early days

**Keep on top of their progress/issues**

- Direct contact (at the bench/field/computer)
  - 3<sup>rd</sup> hand training is risky
- Require writing early and often
- Require at least 1 oral presentation per year



### 3. *Mentorship*



## Early days: Editing/feedback tips

### Explicit statement of goals for your comments

- Constructive but critical
- Home audience should be the most challenging
- **Establish a culture** of rigorous defense of ideas
  - conversation, discussion groups, after seminars etc.
- **Explicitly** encourage questions, challenges, critiques of your own statements/presentations
  - Circulate your work for feedback from students
  - Give practice talks for your own presentations

### 3. *Mentorship*



## Editing/feedback tips

- Require they circulate/practice for lab-mates first
- ALWAYS give positives first
- discuss the process first
- develop a reputation!

### Writing:

- Rough guidelines:
  - **First drafts:** Broad strokes
  - **Subsequent drafts:** 'Brutal' is ok
    - Microedit once framework in place (if this is your style)
    - Soften the blow but not the rigour
- Explain goals of academic writing
  - up front/in your comments



### 3. Mentorship



## Editing/feedback tips

### Talks:

- **Determine as you listen** whether a second practice will be needed
  - **If YES:** Suggest Broad changes (theory, logic, statistics, visual presentation issues)
  - **If NO:** Start with: “You could give this as is, but here are some ways it can improve”: then dig in!
- Discuss your own approach to talks:
  - e.g., memorize?
  - Practice repeatedly?
  - Nervousness?





### 3. Mentorship



## Editing/feedback tips

### Talks:

- Determine

Remember this is terrifying for many people...  
...second practice  
...needed

- **If YES:** Suggest Broad changes (theory, logic, statistics, visual presentation issues)
- **If NO:** Start with: “You could give this as is, but here are some ways it can improve”: then dig in!

- Discuss your own approach to talks:

- e.g., memorize?
- Practice repeatedly?
- Nervousness?



### 3. *Mentorship*

## Early days

- Identify **specific needs** of your student and adapt your supervisory style for support:
  - **7 basic types of students (?)**
  - **Expect students to change over time...**

Anecdotal evidence alert



### 3. Mentorship



## 1. The insecure student

*(many students have these problems to some extent!)*

*Crushed when given a critique, may be defensive or unwilling to voice opinions.  
Imposter syndrome is strong, internalizes criticism, aggressive/critical atmosphere in  
discussion groups has strong negative effect on participation*

### Strategies:

1. **Never skip the positive reinforcement** preceding a critique
  - Important in all areas: experimental design, execution, writing, talks
2. Require meetings with seminar speakers & conference attendance to increase confidence (ensure you are NOT there, student must be the authority)
3. Consider your manner in lab meetings. Do all get a chance to speak? Are you dominating discussions? Dismissive of alternative viewpoints?  
***Be conscious of your tone of voice & body language.***
4. **Explicitly state** supportive goal and philosophy of discussion group meetings  
*(no, they actually can't read your mind...)*
5. Be careful in choosing committee members
6. Be prepared for poor performance in committee meetings

### 3. *Mentorship*

## 2. The excessively dependent student (aka: the *slow starter*)



*Won't do anything without consulting you, long delays in starting (and completing) experiments (and possibly assignments), no evidence student is generating own ideas OR paralyzed into inaction by their constant, deep thinking about layers of complexity.*

#### Strategies:

1. Require written timeline of progress/plans, regularly updated.
2. Have **all** students regularly outline their progress at lab meetings (peer-to-peer-mentoring)
3. Encourage independence wherever possible with **specific tasks** that require **independent action**
  - e.g., "... you need to develop a lab assay for X. Look up examples of this in the literature, try out the ones that seem best for your application, then we'll meet in 2 weeks (set a date) to discuss your results and ideas about which will work best for you (promise of help once they do their bit)..."
  - *Gradually reduce the amount of direction in your description of these tasks...*

### 3. *Mentorship*

## 2. The excessively dependent student (aka: the *slow starter*)



*Won't do anything without consulting you, long delays in starting (and completing) experiments (and possibly assignments), no evidence student is generating own ideas OR paralyzed into inaction by their constant, deep thinking about layers of complexity.*

#### Strategies:

4. make it clear when certain actions **do not require direct approval from you.**
  - e.g., "... for basic lab equipment that we usually get, you can buy replacements using **\*\*\* procedure\*\*\*** as long as total amount is less then \$\*\*\*\* ..."
  - e.g., "...once we've discussed your research plan, you should talk to your lab-mates to arrange times when you can use the necessary equipment and get started..."
5. Recruit supervisory committee members to reinforce your timeline messages
6. Ensure committee meetings 2x per year if possible (even if 1 is by skype or emailed progress reports to members [with responses])

## 3. Mentorship



# 3. The excessively independent student

*Often a hard-worker with good ideas but may not ask for help when needed, or may be too confident in their own (relative to your) knowledge of their project risk of this student making big, costly, time-consuming mistakes*

## Strategies:

1. Require regular meetings with written summaries of activities
2. Wander into the lab and chat periodically, know what they are doing!
3. Don't be hesitant to demonstrate your superior knowledge where necessary!  
***(subtle suggestions may not work with these students)***
4. If errors are made, walk through what happened, be very clear on what you would have advised if asked
  - do not sugar-coat the cost (financial, time etc).

### 3. Mentorship



## 4. The data grind

*Collects data continuously, often a tireless workhorse*

*Reluctant to stop and analyze, write, or consider the next logical step. Tends to focus on practicality or feasibility rather than best way to test hypotheses.*

*May be a poor writer.*

*Risks: may miss connections, necessary data or experiments which could elevate thesis.*

### **Strategies:**

1. Supervisory committee invaluable in reinforcing 'pause and think' messages
2. Require that progress summaries include *hypotheses tested and preliminary conclusions*, not just descriptions of what was done
3. Ensure written timelines include analysis and writing times, and meeting times with you for discussing results
4. As soon as is reasonable, encourage conference attendance—creates deadlines for analysis and discussion of ideas
5. Ensure you build in sufficient time to mentor writing, particularly if you wish the forest to emerge from the trees

### 3. Mentorship



## 5. The pedestrian

*Basically capable, but uninspired. Will carefully follow all stages of a research project to completion, but with consistently boring output. Writing will need a lot of conceptual input. Can be a challenge to give them a fair share of your attention.*

### Strategies:

1. Regularly scheduled meetings to help (force) you to stay in touch.
2. Schedule theory-based lab/journal club meetings relevant to their thesis
3. Frequently solicit speculation and give positive reinforcement where possible.
4. Discuss your own speculations
5. If you lead the horse to water & it still won't drink:
  - Be prepared to rewrite or heavily edit introductions & discussions.
  - Grit your teeth and smile encouragingly.



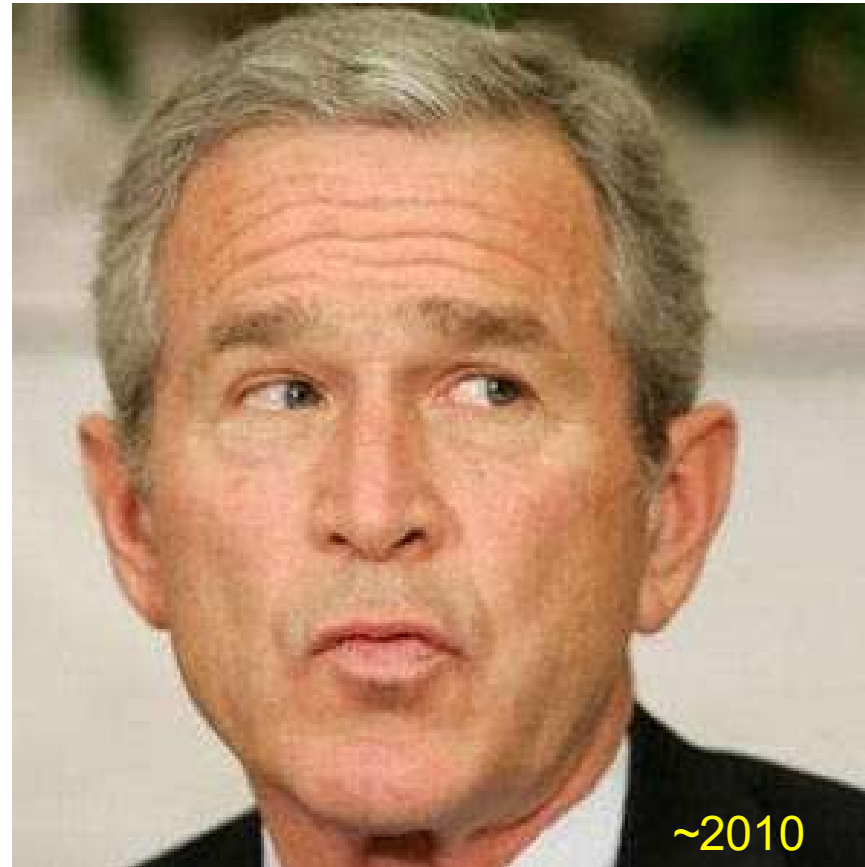
### 3. Mentorship



## 6. The mistake

*Simply not equipped for the job at hand. **Mild form:** direct-entry to a PhD program, willing to work, but over their heads and not likely to be able to finish PhD; OR capable but has lost interest in your area of research , completely unmotivated*

***Severe form:** completely unable to function as a grad student & unlikely to finish (every day of investment is like throwing your time and money down a well)*



### 3. Mentorship



## 6. The mistake

*Simply not equipped for the job at hand. **Mild form:** direct-entry to a PhD program, willing to work, but over their heads and not likely to be able to finish PhD; OR capable but unmotivated **Severe form:** completely unable to function as a grad student & unlikely to finish (every day of investment is like throwing your time and money down a well)*

### Strategies:

1. Give the student a fair chance to shape up:
  - frank meeting with (judgment-free) discussion of problems/shortcomings
  - Make expectations clear (you & graduate program)
  - Make consequences of failure to meet expectations clear
    - e.g., you **MUST** hand in a review of the literature before your next committee meeting OR I will need to reconsider your candidacy
2. If you suspect a mental health issue, contact Health & Wellness/SGS

### Not up to it?

3. **Mild form:** Consider shifting student to a well-defined MSc project.
4. **Severe form:** Challenging to deal with. Consult with your chair and/or grad chair for policy considerations and strategies.

### 3. *Mentorship*



# Problems with students

***Hope for the best but be prepared for the worst***

- Inform your grad office/grad chair/coordinator of any serious problems immediately
- Document all problems carefully and regularly (SAVE all correspondence)
- Avoid discussing problems with other lab members
- Determine available courses of action with your grad department
- Clearly lay out and enforce consequences for problematic behaviour (consult with Health & Wellness or AccessAbility if relevant)

***Accept that asking a student to leave the lab is sometimes the best course of action***

- Avoid personal attacks, try to retain a civil relationship
- Help them make alternative arrangements if possible/desirable

### 3. *Mentorship*



# Problems with supervision

## *Avoid the road to poor supervision*

- Be able to distinguish what is best for YOUR career from ***what is best for your student's career*** (choose the latter)
- ***Be ready to SPEND your money*** without making your students feel guilty or constrained about REASONABLE requests/expenses
  - You need to spend (grant) money to make (grant) money
  - Conferences are an EXCELLENT investment
- Be ready to ***manage personalities/inter-personal relationships*** as well as supervise research
- Seek input/help from faculty mentors and/or your Chair

### 3. Mentorship



## 7. The dream student

*Independent and confident without being overbearing. Asks for help or input when needed, but has potential solutions to problems already outlined. On top of all graduate program requirements. Writes up research as it is done & frames work in terms of general contributions to the field, thus ensuring publication in high-impact journals. Outstanding writer, statistics wunderkind. Minimizes demands on your time, helps others in the lab with their problems.*

### Strategies:

1. Sit back and enjoy the accolades for your phenomenal mentorship
2. Ride your unicorn to the nearest rainbow & collect your pot of gold



But you can get them there by the time they are ready to graduate

### 3. *Mentorship*

## Value of Undergrad researchers/assistants



### **Benefits:**

- HQP\* even if grad student #'s are low
- Gives grad students supervisory experience
- Can function as farm team for grad students

### **Costs:**

- time
- risk
- *Years* of letter writing



### 3. *Mentorship*



## Student supervision: Rewards

- Students are the BEST ADVERTISEMENT for your research group & UTSC
- Increased Research Output
- Mentorship & relationships will not stop after graduation
- This is your academic family...

