



# ANCHOR



Win me\*

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What would YOU like to see in the next ANCHOR? Email the editor: [blackma@dal.ca](mailto:blackma@dal.ca) with your suggestions!

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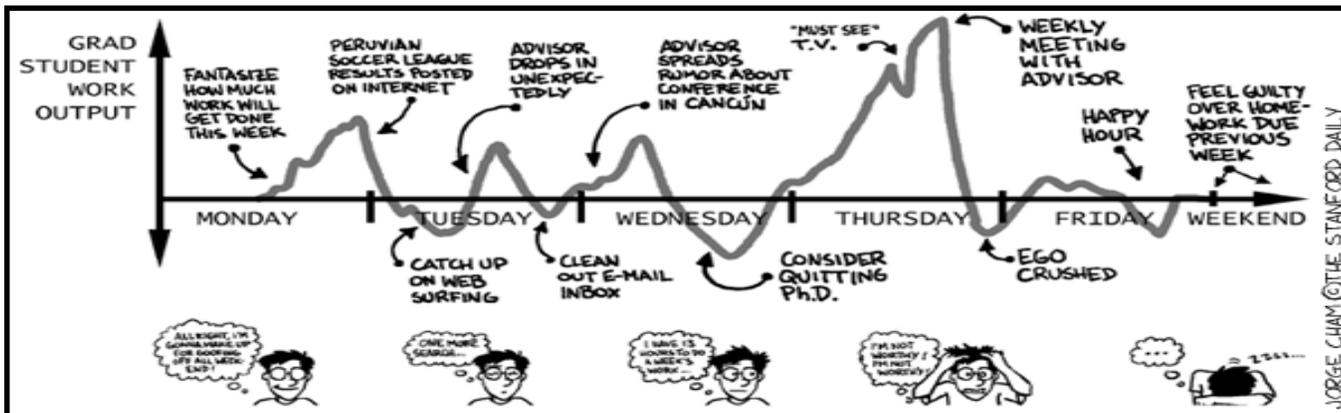
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### WANTED!

Graduate student department reps. Contact us for more details [CAANCBGS@gmail.com](mailto:CAANCBGS@gmail.com)



Who couldn't use a brand new Sony digital camera, complete with a Zeiss lens?

We're looking for more entries for the CAANCB ANCHOR Imaging Contest!

#### Imaging Contest Rules

- 1) All images submitted must be original, unpublished images. Images can be captured with a microscope, MRI, etc.
- 2) The means of capturing the image is up to the entrant.
- 3) Information regarding the equipment used and a description of the image must accompany the submission.
- 4) Contest is open to any member of CAANCB.
- 5) Email images as a TIFF document [please use an LWZ compression file] to [CAANCBGS@gmail.com](mailto:CAANCBGS@gmail.com).
- 6) Entry date is by 5pm on the 25th of each month.
- 7) There will be one first place winner per quarter.
- 8) Other honourable mentions will be given to second, third, and fourth place images. A grand prize winner will be selected from the four first place winners at the end of the contest year.
- 9) Each winner will have their image on the cover of the newsletter.
- 10) Entries will be judged by our qualified judges who will be blind to the origin of the entry.
- 11) Judging will be based on technical difficulty of acquiring the image, aesthetic of the image, uniqueness of the image.
- 12) All decisions are final.
- 13) Winners will be notified by email and their names will be announced in the newsletter.



## ***In Memoriam***

**Dr. Charles Philippe Leblond, M.D., Ph.D.  
1910-2007**



On April 10, 2007, Dr. Charles Philippe Leblond passed away peacefully at his residence in Montreal surrounded by his family. On this date the Department of Anatomy and Cell Biology of McGill University lost its most prominent member. Throughout his long and distinguished career, Dr. Leblond's contributions to modern medical science have been outstanding and recognized by numerous distinctions and awards. Dr. Leblond was a Fellow from the Royal Society of London, the Royal Society of Canada and the American Academy of Arts and Sciences. He received honorary doctorates from Acadia University (1972), McGill University (1982), l'Université de Montreal (1985), York University (1986) and l'Université de Sherbrooke (1988). He was also Companion of the Order of Canada and Officier de L'Ordre National du Québec. In 1979 he was the recipient of the J.C.B. Grant Award of the Canadian Association of Anatomists, Neurobiologists and Cell Biologists (CAANCB).

Dr. Leblond began his scientific career in France studying the distribution of vitamin C in various tissues of laboratory animals. He also learned to use newly discovered radioactive isotopes, in particular radioiodine, which he found concentrated in the thyroid gland. After a brief stay in Canada in 1941, he eventually settled in the Department of Anatomy of McGill University in 1946. In collaboration with Dr. Bélanger, he

developed the technique of radioautography which permits the exact localization of radioactive molecules in tissues and cells. Radioautography was extensively used by Dr. Leblond in his laboratory at McGill and by researchers around the world to investigate and clarify a variety of biological processes. This procedure continues to be used today by molecular biologists to detect RNA molecules *in situ* and to study the localization of genes and DNA sequences.

Dr. Leblond used radioautography to introduce radioactive precursors of DNA, and thus to study the renewal and fate of cells of several basic tissues and he demonstrated for the first time that most cells and tissues in the adult body undergo continued renewal. Using mathematical models and modern methods of quantitation, Dr. Leblond and his colleagues estimated with remarkable accuracy the turnover and mitotic rates of numerous cell types. He and his colleagues made fascinating discoveries that resulted in the introduction of "time dimension" to cells and tissues, thus opening the doors to the understanding of the cell cycle and to the identification of stem cells.

During the mid sixties Dr. Leblond's laboratory achieved the refinement of radioautography and its application to electron microscopy to exploit the high resolution of this technique. Dr. Leblond was able to analyze intracellular pathways followed by radiolabeled amino acids and carbohydrates. Again, he was one of the first to identify the role of different compartments and subcompartments of the cell involved in the biosynthesis and secretion of glycoproteins. Throughout his illustrious career, Dr. Leblond initiated numerous other projects involving immunocytochemistry, both at the light and electron microscope levels, which led to elegant results and important discoveries. These contributions resulted in the publication of 430 scientific papers, many of which are still frequently cited. In addition to his passion as a researcher, Dr. Leblond served as the head of the Department of Anatomy of McGill University for more than 25 years. During that time he developed one of the best international research centres in cell biology and he was the mentor of many prominent colleagues.

Dr. Leblond was a distinguished colleague in every sense of the word and in fact became emblematic

icon for McGill University. Visitors and colleagues from around the globe always asked if he was still around and if they could pay a visit to him. Until recently, before his health started to decline, he was still attending the departmental seminar series and often asked insightful questions. Dr. Leblond was a person of genuine finesse and originality and a role model for many graduate students.

Another important part of aspect of Dr. Leblond that could not pass unnoticed was his public and family life. His beloved wife of 64 years, Gertrude, died in December 2000. His dedication to his wife during the last years of her life was moving. At the age of 93, he married for a second time; his cherished wife Odette passed away in 2004. Dr. Leblond loved his family immensely, had a passion for classics, and was a loyal friend. He was very fond of the color purple and often wore purple ties and purple suits, and he was a supreme optimist.

Dr. Leblond has touched the lives of many colleagues, former students, and post-doctoral fellows, who will forever remember him with gratitude, admiration, and respect.

Carlos R. Morales, D.V.M., Ph.D.  
Department of Anatomy and Cell Biology  
McGill University  
Montreal, Quebec

### ***Selected Honours Bestowed Upon Dr. Leblond:***

- 1961** – awarded the Royal Society of Canada's Flavelle Medal
- 1977** - made an Officer of the Order of Canada
- 1982** - received an honorary degree from McGill University
- 1986** - received an honorary Doctor of Science (biologist) from York University
- 1992** - awarded the Quebec government's Prix Marie-Victorin
- 1995** - inducted into the Canadian Medical Hall of Fame
- 1999** - promoted to Companion of the Order of Canada
- 2001** - made a Grand Officer of the National Order of Quebec

# **Mentorship Program**

*Coordinated by Emma Turner,  
University of Saskatchewan*

One of the goals of the graduate society is to facilitate networking between professors and graduate students. This mentorship program will help professors in the search for hard-working graduate students to join their lab, as well as help graduate students in finding compatible supervisors and positions in which they will thrive.

These connections made across the country can allow a greater forum for discussion between students and professors, possibly resulting in future research collaborations.

It is the hope of this committee that mentors will provide their students with valuable advice concerning both their career and academic goals. Many individuals find balancing their personal and professional lives difficult, especially young academics who are beginning a family while early in their careers.

**INTERESTED IN THE PROGRAM? WE ARE  
LOOKING FOR PROFESSORS AND  
STUDENTS WHO WOULD LIKE TO BE  
MATCHED AND PEOPLE TO HELP  
COORDINATE THIS PROGRAM**

To download the application forms please visit our website at:

<http://caanCB.googlepages.com/mentorship>

and click on the appropriate link.

Once applications are completed please forward them to [CAANCB-GS@gmail.com](mailto:CAANCB-GS@gmail.com).

**Questions? Need more info?**

**PLEASE CONTACT US AT**

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## Student Member Perspective

### My advice for alleviating some of the pressure of completing graduate studies

*By Marie Gingras, Ph.D., Laval University,  
Quebec City*

I just obtained my Ph.D. degree and when Michelle asked me if I could write my perspective as a student for the ANCHOR I thought it would be a great way to share my experience with new or future graduate students. Among the great things about graduate studies, one is that you learn a lot. However, some things that you learn during this long journey would have been much more beneficial if you knew them at the start. With the goal of helping students pass through those many years of hard work that constitute graduate studies, I decided to write a few things I learned all through my doctoral studies.

In my opinion, the first and the most important thing to do before starting graduate studies are to ask yourself why you want to earn a M.Sc. or Ph.D. If you cannot find a good answer to that question (having a studentship is not a good one!), you should probably reconsider your choice. It is better to opt out before having spent many years pursuing something in which you are not really interested.

When you finally decide to pursue graduate studies, it is of utmost importance to adequately choose your supervisor. For sure, you must choose according to your research interests, but you should also try to choose a supervisor that has enough money to finance you and your research. Don't be afraid to negotiate your salary, working conditions and vacations at the beginning of and during your studies (if you are good enough to get a studentship, maybe you deserve a bonus!). Also, your supervisor must fit with you and with your personality. Try talking to other students in the lab to get their feedback. This should help to avoid potential conflicts or bad surprises.

While working on your studies, try to develop your own ideas and to be creative in your work. In addition, participate as much as possible in anything that is related to your research work

such as article and grant writing or revision, as well as international and local conferences. Collaborations with other researchers are a good way to make contacts. You may also use your spare time (if you have some!) to apply yourself and develop your skills in different activities such as teaching, journalism, politics, ethics, management, etc. This will complement your professional development and maybe help you in your future job. However, keep in mind that it is important to stay focused on your final goals, i.e.: writing your thesis and publishing articles. It is good to have a well established research plan and not spend too much time in secondary projects, or in projects that will probably end up nowhere or will take too much time before ending up somewhere.

Finally, when you are nearing the completion of your graduate studies, is it important to take time to prepare your future. If you are willing to continue your studies or want to get a job, it is always better to look for a place to go *before* the end of your current studies.

My last (but not least!) advice would be to try to have fun and make new friends - you'll see time go much faster!

So this is it! Hope those tips will serve you well!  
Success to all of you, courageous students!

### CAANCB ANCHOR IMAGING CONTEST! (Have you entered yet?)



Think you can take a good picture?  
Enter the  
CAANCB ANCHOR  
Imaging Contest for your chance to win a Sony  
digital camera!  
See Page 2 for full details!

## Top 10 Tips for Writing a Good Thesis

Saikat Kumar Basu

*PhD candidate, University of Lethbridge*

Be focused and don't worry; all grad students have to go through this at least once in their academic career. If they can do it, so can you.

1. First of all, prepare a layout of your proposed thesis and discuss it during your committee meeting. This will save you time and energy. Everyone in your committee will be able to offer suggestions and this is a kind of informal approval which should help to avoid complications and regrets later.

2. Thesis writing is a painstaking process but please do not get overwhelmed. Eat and sleep well, talk to your friends and peers. Go for a run or a brisk walk or to a movie to avoid monotony. Being mentally and physically alert and healthy is one of the most important requisites for writing a good thesis.

3. Work on your thesis with optimism and enthusiasm. Starting to write the initial format pages according to your university guidelines (e.g., the preface/introduction or acknowledgements) will remove the initial fear about writing and slowly you will become more confident and better able to cope with the task at hand. You are in the lag phase of writing at this stage, slowing gaining momentum.

4. Next, try and attempt the Review of Literature section. You have already done a lot of hard work researching; now is the time to put it all together. Write this section with the idea that you could later use it as a journal review article. If you are trained to use a reference manager like Endnote<sup>®</sup>, that will make your life easier and help you to focus more on the text rather than the reference format. While writing this section please make sure that you are honing in on the specific area of your work.

5. You have entered the exponential phase of writing now. Previously, most universities had the standard Introduction, Aims and Objectives, Review of Literature, etc. as the most accepted thesis format. However, the dynamics of science have changed a lot and there is a tremendous focus on research publications nowadays. Hence,

many universities are allowing the students to split their thesis into chapters after the Review of Literature section. Take this opportunity to have your journal articles partly ready by putting them into the thesis...one time labour with two times benefit! End your thesis with a broad discussion and conclusion, connecting all the chapters. Add future directions to show your understanding of the scope of the work you have done. This will impress your committee members and the external when they review your thesis.

6. If you have already published a paper(s)/article(s) in your research area, make sure to include that in your thesis as a chapter. Don't forget to get written permission from the journal or publishing office!

7. All through this process you are exchanging the documents back and forth with your supervisor(s). You are now in the static phase....changes, modifications, corrections, rewrites. Make sure that you are following your supervisor(s) suggestions and criticisms. Do not take things personally when you get your corrected or modified versions. Remember that your supervisors are more experienced than you and they are trying to help, not to put you down. It is better to get critiqued now, rather than during your defence. If your own views differ from those of your supervisor(s), politely discuss that; don't argue. Remember that no one really wins an argument and it will only take your focus off the work, thus delaying the process.

8. Please DO NOT leave things for the last moment! Start early enough so that you can have time to improve your work successively. On average you need 2-3 months of solid labour to generate a good thesis. Avoiding distractions and being focused will help you to finish it in time. Do not procrastinate at this stage as you will pay very heavily with your career for this.

9. It is an excellent idea to get part(s) of your thesis reviewed simultaneously by some of your committee members, should they have the time. This is a great opportunity to get some feedback from those outside your core research group.

10. After you defend and add all the necessary changes to your thesis, not only will you have generated an excellent thesis; you will also have finished a bunch of documents ready to fly to the journal office! Party time now! ENJOY!!!!!!

# Defining Effective Teaching of Post-Secondary Students: Competencies for Graduate Teaching Assistants

Pamela Adams, Ph.D.

Faculty of Education, University of Lethbridge

Effective teaching in post-secondary contexts has historically been equated with *instruction*, and has been viewed as an essentially didactic activity likened to "...the systematic beating of learning into dumb subjects" (Eble, 1988b, p. 3). Germane to this belief is the assumption that learning and teaching are frequently as painful as a beating, to be - at best - endured. Particularly vulnerable to this ontology are graduate teaching assistants upon whom teaching responsibilities have been assigned within institutions that routinely devalue teaching at the expense of almost any form of research.

A persistent view in many post-secondary institutions is that lecturing is synonymous with teaching. This stance reflects a limited understanding of the reciprocity between teaching and learning for, as Angelo (1990) suggests, "Teaching without learning is just talking. It is common practice, nonetheless, for faculty to assume that when we are talking, our students are learning..." (p. 75).

## Characteristics of Effectiveness

Several authors outline characteristics they contend represent effective teaching. For example, Joyce and Weil (2000) present four "families" of teaching skills that constitute an effective repertoire of strategies to enhance student learning. These categories include the *personal* family of skills, which revolve around the teacher's responsibility to offer learning opportunities that heighten students' self-esteem and facilitate healthy independence; the *behavioral* family of skills, which incorporate teaching techniques such as mastery, direct instruction, and simulation; the *information-processing* family, which "emphasizes concept formation and hypothesis testing, [while] others generate creative thinking" (p. 14) and; the *social* family, which facilitates learning in ways that are cooperative, social, and based in the notion of responsible citizenship. As another example, Arends (2004) offers a profile of the effective

teacher as characterized by three *aspects*: the *leadership* aspect including skills in planning, management, and assessment; the *interactive* aspect involving skills in presenting and explaining, and facilitating cooperative learning, problem-based learning, and discussion; and the *organizational* aspect involving professional and community collaboration.

Table 1 (to see this table and the article in its entirety, please visit:

<http://caanbc.googlepages.com/caanbcnewsletter>)

is a compilation of knowledge, skills, and attitudes that define effective university teaching. Importantly, the skill of *instructional effectiveness* is offered not as a pedagogical activity in itself, but as one of several important components of teaching. The clear direction promoted by these guidelines for graduate student teaching assistants in university settings is toward more negotiation and reciprocal learning activities.

As Harrison (1961) points out, "most post-secondary educators cannot describe what they do in practice, let alone say why they do what they do" (p. 214). A university teaching career upon which many graduate teaching assistants are about to embark must be considered to be an ongoing process of creatively and enthusiastically engaging in a shared learning of skills, information, and values in ways that expand the hearts and minds of students and teachers. This definition implies, of course, that learning and teaching are reciprocal and interchangeable activities of the teacher *and* the learner. To teach is to learn. Such is the nature of teaching.

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## The Science Skinny

by Heather Angka, Dalhousie University

### The first of many

The Canadian Association for Neuroscience held its Inaugural meeting from May 23<sup>rd</sup> to the 25<sup>th</sup>, 2007. The meeting took place at the University of Toronto's Chestnut Conference Center, located in downtown Toronto. The event was well-organized and saw a large turnout – one that is expected to increase at future meetings. Four large conference rooms accommodated morning and afternoon poster presentation sessions.

Some of the highlights included Keynote Speaker Cliff Saper, from Harvard Medical School and Beth Isreal Deaconess Medical Center, Boston, who discussed both the hypothalamic regulation of sleep and circadian rhythms and sleep-wake switches. Michael Meaney, of McGill University, Montreal, spoke on the topic of epigenetic programming of stress responses through variations in maternal care. My personal favorite highlight was a talk given by Brenda Milner, of McGill University. Very well known for her contributions to the field of



Dr. Brenda Milner

neuropsychology which lead to the discovery of multiple memory systems, Dr. Milner spoke during one of the Plenary Lectures sessions. Her talk was both informative and entertaining and her passion for investigating scientific mysteries was clear when she finished her talk by informing the audience that her curiosities, her passion, still lies within the temporal lobe, the right temporal lobe to be specific!

For more info: [http://www.can-acn.org:80/Pub/Pub\\_Front.asp](http://www.can-acn.org:80/Pub/Pub_Front.asp)

### Space: The current frontier

On October 4<sup>th</sup>, 1957, Sputnik-1 was successfully launched by the Soviet Union. The launch was the first artificial satellite to be put

into geocentric orbit, and was swiftly followed by others. Sputnik-1 emitted radio signals that, along with naked eye observations of orbit patterns and associated temperature fluctuations, were received and analyzed by open-mouthed scientists around the world. These investigations were conducted from July, 1957 to December, 1958, during the International Geophysical Year (IGY).



In response to these events, the International Council of Scientific Unions (ICSU), now the International Council for Science, established the Committee on Space Research (COSPAR) during an international meeting in

London in 1958. In its first years of existence COSPAR, as an entity that strives to ignore political consideration and view issues from the scientific standpoint, played an important role in allowing cooperation in space between the East and West.

The Committee's priorities have continued to evolve over the years, along with continuous global metamorphosis, so that its current objectives focus on the progress of all types of space research. To mark this date of origin, a half-century Anniversary Celebration will take place in Montreal, Canada, during the 37<sup>th</sup> COSPAR Scientific Assembly, July 13<sup>th</sup> to the 20<sup>th</sup>, 2008. This will be the first COSPAR meeting to take place in Canada in 26 years; the last Assembly was in 1982 in Ottawa. The call for Papers/Announcement will appear in the August 2007 issue of *Space Research Today*, COSPAR's information bulletin. Current COSPAR objectives, achieved through Scientific Assemblies and publications, are to "promote on an international level of scientific research in space, with emphasis on the exchange of results, information and opinions, and to provide a forum, open to all scientists, for the discussion of problems that may affect scientific space research".

While I'm not entirely convinced that space is the "final frontier" (as *Star Trek* science fiction writers might have us believe), it certainly appears to be the current frontier for COSPAR.

For more info: <http://cosparhq.cnes.fr/Meetings/sciass.htm>; [http://www.cospar2008.org/anniversary\\_e.shtml](http://www.cospar2008.org/anniversary_e.shtml)