Congratulations to Lisa Kush for her nomination for a President’s Award for Excellence for 2006.

Biochemistry and Biomedical Sciences has three new additions to its family. Congratulations to the families of Dino Trigatti, Ray Truant and Giuseppe Melacini!

40th Anniversary Celebration News! (see page 5)

It’s early June and a little late for our Spring Newsletter, but the office has been hopping these past few weeks with final exams and graduate recruitment, and grants. So I hope you will forgive my tardiness.

We’ve all survived the Double Cohort as this combined class of Grade 12 and Grade 13 students have made it though the system and graduate this Spring. These have been a challenging four years for the students who have faced larger classes and a competitive climate for everything from summer research jobs to off campus housing. If my experience is any indication though, this graduating class will go down as one of our best. The thesis students I had the pleasure to work with in my lab and those I’ve interacted with across the Department have been exceptional. I wish them all happiness and success and look forward to seeing them as alumni of McMaster Biochemistry and Biomedical Sciences. Kudos to Michelle MacDonald and her crew for shepherding the students though our new undergraduate program.

The Department continues to grow with a unique opportunity to expand our graduate enrolment through new funding from the Province. Under our Assistant Chair (Graduate Education) Justin Nodwell’s leadership we are poised to enroll our largest ever class of graduate students. Justin has been at the forefront of modernizing graduate education in our Department for years and I daresay that as a result all of McMaster is benefiting.

These are tough times for research. The CIHR and NSERC are facing an extremely difficult funding climate and success rates in the former have plunged to historic lows. The stress of trying to capitalize on opportunities such as graduate expansion in the absence of stable operating funding is challenging to say the least. It is under these trying circumstances that Eric Brown has stepped forward to take up the challenge of a new portfolio in the Department; Assistant Chair (Research). Eric has already struck an executive committee who have been developing a number of new initiatives to support research one of which is a rigorous pre-review process for outgoing grants that I’m convinced will have an impact when CIHR results are announced next month.

Finally, our plans continue apace for our 40th anniversary Alumni Reunion that will be held on Saturday, October 13th. Keep checking the web site for details as they emerge. A good time is guaranteed!

As Alice Cooper famously said: “School’s Out For The Summer!”

Rock On.

Gerry Wright, Chair
This past year, a major change was introduced to the undergraduate program curriculum. Our introductory laboratory course (3L03) was moved to second year and was expanded to BIOCHEM 2L06 - Inquiry in Biochemical Techniques. This now exposes students to biochemistry research early on in their degree studies. In this course, students were not given a laboratory manual, but independently and collaboratively, with the guidance of teaching assistants and faculty, sought out protocols to overexpress and purify a protein, for example. A secondary focus of the course was to develop skills in seminar presentations, keeping a laboratory notebook and writing scientific papers.

In the upcoming academic year, we look forward to offering two new courses. BIOCHEM 3X03 - Structure and Function of Macromolecules and BIOCHEM 4N03 - Molecular Membrane Biology.

In May, the university hosted May@Mac, an open house where prospective students and their families converged on McMaster to gather information about various programs and see what the university has to offer. The department had displays and interactive demonstrations in the teaching lab where faculty members and graduate students were present to answer questions.

Congratulations to all of our graduates who will convocate in June! We are very proud of you and your accomplishments and wish you every success in your future!

Michelle MacDonald, Assistant Chair
Undergraduate Education

Graduate Program Update

Spring 2007 has been a transformative time for graduate studies at McMaster University. The Ontario government's graduate expansion initiative, which is poised to provide more than $200 million to higher education in the province, has brought about a great deal of creative thinking about how to capture the best and brightest in our programs. The consensus appears to be focus on those aspects of each program that are most important for the students' professional development. To the Department of Biochemistry and Biomedical Sciences, this means continued focus on research as our primary educational objective for our students.

This philosophy received an enormous boost from the School of Graduate Studies this spring. Specifically, the School passed new bylaws making it possible for us to drop our formal course requirement for PhD students. Henceforth, we no longer require any course work for our PhD students and our minimum course requirement for MSc students is two 700 level courses. This is not to say that we will be dropping our graduate courses altogether -- these will stay as they are, although we expect class size to be considerably smaller and participation to be limited to those students most interested in the subject matter. PhD students will continue to be permitted to take these courses, but they will not be required to do so. In addition to this, the School has made it easier for us to recruit the most highly qualified individuals directly into our PhD program, targeting students with an A average or better in all years of undergraduate study.

Work will begin in 2007-08 on a new initiative from the Chair that aims to provide more targeted educational supplements for graduate students. The idea is to provide short (i.e. 2 - 7 days) intense courses that introduce students to specific technologies that could serve as jumping off points for postdoctoral research or the initiation of a new research undertaking. The details of this initiative have not been worked out however, it is anticipated courses could centre on some of the large infrastructure in the department such as the HTS and Photonics laboratories.

In the mean time, recruiting continues apace. This year’s pool of graduate applications was absolutely outstanding, surpassing all previous years. 18 students were offered acceptance outright (8 with the option of direct entry to PhD) and an additional 28 were offered provisional acceptance. As of mid-May, a total of ~30 students had accepted these offers and it is expected that the total new enrollment for September 2007 could be as high as 35.

Justin Nodwell, Assistant Chair
Graduate Education
**Graduate Awards**

**CIHR Canada Doctoral Award**
- Vanessa D’Costa (Wright Lab)

**CIHR Doctoral Award**
- Iva Bruhova (Zhorov Lab)

**Canadian Cystic Fibrosis Foundation Studentship**
- Carmen Giltner (Burrows Lab)

**Impact Awards**
- Rahul Das (Melacini Lab)
- Vanessa D’Costa (Wright Lab)
- William Chiuman (Li Lab)

**NSERC Canada Graduate Scholarships M**
- Wendy Mok (Li Lab)
- Michael Lung (Andrews Lab)
- Kathryn Taylor (Mossman Lab)

**NSERC Postgraduate Scholarship D**
- Anna Bowes (Werstuck Lab)

**Ontario Graduate Scholarships**
- Lindsay Matthews (Guarne Lab)
- Seiji Sugiman-Marangos (Junop Lab)
- Jeffrey Lam (Li Lab)
- Sean Jackson (Junop Lab)
- Elizabeth Marton (Nodwell Lab)
- Rebecca Rodrigues (Mossman Lab)
- Chris Delvecchio (Capone Lab)
- Amrita Bharat (Brown Lab)
- Colin Kretz (Weitz Lab)

**The Lee Nielsen Roth Award**
- Lieven Billen (Andrews Lab)

**Fred and Helen Knight Enrichment Fund**
Colin Kretz (Weitz Lab)
Michael D’Elia (Brown Lab)

**OGSST Scholarships Competition**
Morag Stewart - (Bhatia Lab) Heart & Stroke
Sara Andres - (Junop Lab) D & G Prosser
Maria Kondratyev - (Hassell Lab) D & G Prosser
Ed Morrison - (Berti Lab) Bank of Montreal

**Ashbaugh Prestige Scholarship**
Courtney Baker - (Brown Lab)

**Lambier Prestige Scholarship**
Fei Geng - (Andrews Lab)

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**Recent Graduates**

**MSc Defence**

**Date:** February 28, 2007

**Supervisor:** Sujata Persad

**Title:** O-glycosylation of beta-catenin regulates its nuclear localization and transcriptional activity.

![Ria Sayat](image1)

**Date:** April 18, 2007

**Supervisor:** Gerry Wright

**Title:** Diversity of TetX Homologues.

![Laura Thompson](image2)

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**Things to do:**

**Biochemistry and Biomedical Sciences Annual PICNIC at Websters Falls**

Thursday, June 28, 2007 at 12:00 noon

Details to follow...
It’s a pleasure to write the first ever update in the newsletter for the new BBS Research Council and to do this in my new capacity as Assistant Chair, Research. The new portfolio formerly recognizes the importance of the research enterprise to the department and reflects the dedication we have as a group to research excellence. Indeed, departments like ours tend to focus on undergraduate and graduate education as these are complicated and very important endeavors that tie us together. We have found nevertheless that what was missing was a cohesive strategy to support research efforts that the vast majority of us spend most our time on. Meanwhile grant review and award processes are becoming increasingly competitive and ever more demanding. Team research is the new rallying cry and new networking, matching, translation, etc. funding programs abound. While the research landscape becomes increasingly complex and daunting, we should remember that this department is widely recognized on the McMaster campus as a research powerhouse and so too is our national reputation an impressive one. So it’s timely that we mount a cohesive and sophisticated response to the new pressures of the granting process and to organize ourselves to present a model to others departments at McMaster and elsewhere for how to compete in research.

David Andrews, Lori Burrows and Yingfu Li have agreed to sit on this new committee and we are looking forward to working with the rest of the department on a variety of initiatives. There’s much scope in the mandate of the BBS Research Council and many directions that we could go but to start we’ve identified internal peer review, grant-writing workshops and departmental brain-storming sessions as key initiatives to get the ball rolling. We’re also keen to hear the ideas of faculty, students and alumni and welcome all your feedback.

Eric Brown
Assistant Chair, Research

Transitions

Jonathan Cechetto - Biochemistry and Biomedical Sciences bid a fond farewell to Jonathan Cechetto in February. He has started a new position in Seoul, Korea. Jonathan earned both his undergraduate and PhD degrees in Biochemistry here at McMaster. Since 2002, he has been the Manager of the McMaster High Throughput Screening Lab. We wish him the best in his future endeavors!

Faculty Highlights

Mick Bhatia - has been named a Tier 1 Canada Research Chair in Human Stem Cell Biology.

Jonathan Bramson - has received a $98,448 IDEA grant from the Canadian Breast Cancer Research Alliance (CBCRA).

John Brennan - has been named the inaugural winner of the Ken Standing Award which is presented to a young scientist who has made a significant contribution to the development of technology related to life sciences. Brennan will receive the award at the 3rd. International Symposium on Enabling Technologies for Proteomics (ETP 2007) at the MaRS Centre in Toronto on May 10.

Lori Burrows - Carmen Giltner (PhD student) received a 2 year CCFF studentship starting April 1, 2007.

Tony Zhang and Justin Losier (2nd. year BHSc students) each received CCFF summer studentships for 2007.

Brian Coombes - was awarded an operating grant from CIHR for $485,000 over 5 years to study the regulation of virulence genes during host-pathogen interactions. He also recently received a CIHR New Investigator Award for $300,000 over 5 years.
Richard Epand - In the first three months of 2007, Richard Epand’s activities included being invited to present a plenary lecture at the 10th Membranes Research Forum in Kyoto, Japan. He was an invited speaker at the Membrane Structure and Assembly subgroup of the Biophysical Society and gave another talk at this conference in Baltimore on his current work and also presented three other posters with his collaborators and graduate student. In addition, he recently gave invited talks at the University of Alberta, the University of Guelph and the University of Toronto.

Dr. Epand has received a three year grant from the Heart and Stroke Foundation of Canada ($79,250/yr) entitled “Development of potent antiatherogenic peptides”.

Radhey Gupta - has received a 5 year NSERC grant ($22,140/yr) entitled “Applications of rare genomic changes for understanding cyanobacterial phylogeny and the plastids origin”.

Dr. Gupta also received an $87,602 three year grant from HSFC entitled “Studies on mammalian adenosine kinase and its inhibitors”.

Justin Nodwell - has received a $25,000 grant from NSERC entitled “Mechanism of action of the BldB-like family of proteins”.

Joaquin Ortega - obtained a 5 year CIHR operating grant ($108,544/year) entitled “Structural and Functional Analysis of Macromolecular Machines Involved in the Protein Quality Control System”.

The lab was also awarded a 5 year NSERC discovery grant ($35,000/year) to work on “Structural and Functional Analysis of Chromatin Remodelling Complexes”.

Ray Truant - was awarded a CIHR grant for $108,640 over 5 years to investigate the potential of a membrane association signal in the huntingtin protein as a new drug target for Huntington’s Disease.

Geoff Werstuck - has been awarded a HSFC three year grant for $82,914 entitled “Investigating the role of glycogen synthase kinase (GSK) - 3 in atherogenesis”.

40th Anniversary Plans

The Department will be celebrating its 40th anniversary this year. The celebration will take place on Saturday, October 13th, 2007 and will coincide with homecoming weekend. The Alumni Advancement office will be sending a notice to alumni. Please go to our website for more information on the events planned for the day which will include a series of talks, tours of the campus and departmental facilities, concluding with dinner with keynote speaker, Dr. Calvin Harley, former graduate and faculty member.

We would also like to hear from alumni and find out where you are. So please go to our website if you would like to provide us with a short biography with any pictures you wish to share.

BBS Graduate Students Association Update

For those of you who think graduate students in Biochemistry have no time to enjoy ourselves and spend every waking moment behind a bench covered with chemicals no one has ever heard of, you should come on out to the Mac baseball diamonds by parking zone number 7 during twilight hours. There you can see some familiar faces from the department facing off against other Mac departments in what can only be described as the most intense mind blowing competition the world has ever known.

I am talking of course about 3-pitch softball. For the last seven years the Biochemistry Department has participated in the GSA summer softball league. It is actually not all that intense, just eighteen science geeks armed with nothing more that gloves and bats looking to unwind after a long day by taking our stress out on a few unsuspecting softballs.

(continued on page 6)
We may play in a simple division but we are by no means slackers on the field as indicated by our team name “THE MIGHTY CHONDRIA”. We go out every game aiming for nothing more than outright victory and domination of the diamond. All leading up to the year-end tournament The Phoenix Cup, where we have been runner up’s up the last two years and looking to claim victory, and endless bragging rights, this time around. We are always looking for support from our colleagues so come on out, enjoy our favourite past-time and cheer us on.

Scott Bindner

**First Annual Graduate Student Invitational Seminar**

Friday, March 16, 2007 marked the first annual graduate student invitational seminar with speaker Dr. Christopher Walsh, Hamilton Kuhn Professor, Department of Biological Chemistry and Molecular Pharmacology at Harvard Medical School. The topic was “Enzymatic Strategies for Biosynthetic Halogenations”.

Thanks to the faculty, staff and especially the students for making this event a great success. Preparations are underway for the Second Annual Seminar and graduate students should be ready to nominate the next potential guest speaker.

The 1st Annual BBSGSA Photo-Scavenger Hunt was an overwhelming success and had the department in a frenzy of flashes during the last week of April. In a tight race, the Grand Prize ($50 gift certificate to Boston Pizza) went to Team Super Fun from the Andrews’ Lab, with Team Clooney of the Wright Lab and Team Zhortega, a combined effort from the Ortega and Zhorov labs, taking second and third place respectively. Thanks to everyone who participated, and special thanks to the entire department for good-naturedly succumbing to the grad student paparazzi. Look for upcoming BBS GSA events this summer such as the Annual Clothing Drive in June and Canada’s Wonderland in July.

The 2007 BBS Grad Student Scavenger Hunt

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