

November 1, 2009

HoD Newsletter: Forest from the Trees

Well, the summer came and went, winter is around the corner. Not to worry, although global warming is happening, there is no forecast for snow. Also, I've settled on a good rhythm for the newsletter, it will be quarterly.

The new academic year is off to a nice start. With the adjustments to the Life Science Curriculum, we are busy teaching environmental biology courses beginning in the second year. This change is timely and coincides with a reinvigorated interest in environmental matters. A second change to the curriculum is the option for a new Microbiology Lab that has increased the choice for students. Do you find it too difficult to keep track of these changes or to remember the curriculum? Deputy HoD Chew Fook Tim and the Undergraduate Office have just produced a very handy curriculum guide. Useful to student and faculty alike, the foldout guide contains a roadmap of the four-year curriculum and the core and elective courses.

Among the research highlights from this past quarter include two high impact publications. Prof Hong culminated three years of research with a paper in *Science* on developing Holly, a haploid fish from haploid Medaka ES cells. The ability to ask questions in a haploid background brings the awesome power of bacteria-like genetics to problems in cell and developmental biology. Not to be outdone by Holly is the lungless frog. It has made it in the Guinness Book of World Records. Congratulations to David Bickford! I wonder if this affects his impact factor? The journal tier must be galactic in comparison to *Science*, *Nature*, or *Cell*.

Speaking of publishing in elite journals, C. Michael Curtis, the Fiction Editor of the *Atlantic Monthly*, said that he receives several thousand short stories a month but publishes only one in each issue. Moreover, because most published stories are contributed by well-known authors, new authors have impossible odds against making it into print. But if they are published, then they have broken into the fiction area. I think I'll stick to publishing in science journals.

What do these stories share in common? Outstanding work gets duly recognized.

Another way in which outstanding research can be rewarded is in the form of independent, peer-reviewed grants. I sit on the basic sciences review panel for the BMRC grant applications. The panel is composed of world-class researchers from A*Star, NUS, and NTU. I can report that each proposal is fairly and rigorously evaluated based on the science. Political science never once intruded into the process or score. Because the panel members are experienced in refereeing applications from NIH, HHMI, and the Wellcome Trust, we know a good application when we see one. In this last round, a healthy percentage of the applications will be funded but the competition is getting very tough because the quality of the grants is improving. The newly recruited faculty at NTU and other NUS departments are proving to be formidable competitors for funding. The easy days of getting funding by DBS faculty are over.

Since I also reviewed MOE Tier 2 proposals in the past, I have a good perspective on what gets funded. First, the applications must be well reasoned and written. Too many proposals failed because the aims were unconnected punch lists of to-do's. Thus, the departmental process of reviewing all applications becomes more important and I hope that all DBS faculty take the time to submit their proposals for this critical feedback. Second and more importantly, we've become too comfortable working on the problems that we've stumbled upon without regard to how important the problem is in the bigger context. That is, having described one tree, we move onto the next and

forgot how to describe the forest. The panel will always favor proposals that describe exciting, relevant, and ground-breaking research. A common question is, “Why should we be excited about this application?” So far only the top three or four applications out of the entire pile of grants would be worthy of NIH or Wellcome Trust funding. I predict next round, the number of top applications will increase. As a result the same old science will die on the vine because the priority for departmental support will be in the direction of securing more competitive grants. It’s time to push your studies into more competitive directions.

Thus, papers and grants are independent measures of the quality of our science. At the October DBS faculty meeting I brought up the topic of valuing one’s research in the form of grants and publications. In next year’s evaluations for performance bonuses, we will account for success in securing funding outside of NUS sources. There will be no numerical score on number of grants or total value because access to certain types of funding does not equally favor junior vs senior faculty. Some will feel it is impossible to judge grant success without a number. I don’t have such qualms.

In fact, numerical scores have taken on a larger-than-life influence. In particular, DBS and NUS incorporate impact factors and journal tiering to quantify research output. These parameters were adopted a decade ago when NUS wanted to establish the quality of faculty research. Although useful in the past, impact factors and journal tiering have replaced our confidence in subjectively evaluating research quality. In the next few months I plan to discuss with the DBS faculty and with other department heads how to reduce this obsession on impact factors in evaluating research quality.

Staff Movements

GV Shivashankar (A/P) joins our faculty full time duty this month. He studies the mechanics of the nucleus and is part of the RCE. Welcome to DBS!

John Van Wyhe from Cambridge U will assume duty as Lecturer in Dec 09. He will develop a Wallace on-line resource in addition to the Darwin on-line resource that he curates. The position will be joint with History.

Steve Cohen of the TLL has just been appointed a Professor of Biological Sciences in DBS. We will enjoy his wisdom and insight into the business of biology research and teaching.

Prof. Jack Johnson from UCSD will be a Visiting Professor in DBS for the month of February. Jack is a well-known crystallographer who is a valued friend of the department and mentor to several of our staff.

Vladimir Korzh at the TLL has renewed his Adjunct Appointment. He contributes to DBS through his teaching and is a collaborator on several zebrafish projects.

Gijsbert Grotenberg has just been appointed as an Asst Prof in the Departments of Microbiology and Biological Sciences. Gijsbert was a postdoc in Hidde Plough’s lab at the Whitehead Institute and has a LKY fellowship.

I’m particularly glad to announce two promotions of our teaching staff, Zeehan Jaafar from TA to Instructor and Sivasothi from Instructor to Sr. Lecturer. Our teaching staff are outstanding and these promotions recognize the quality and effectiveness of their efforts in our undergraduate curriculum. They are also very good researchers as well.

Congratulations are in order for the following achievements:

Emeritus Prof Hew Choy Leong – FoS Outstanding Science Alumni Award

Prof Navjot Sodhi - Distinction in Teaching, Harvard University (2009)

A/P Hong Yunhan – Research Breakthrough in ‘Semi-cloning’

Dr Xu Jian – NUS Young Investigator Award 2009

A/P Hugh Tan - Outstanding Mentor Award for Science Mentorship Program (SMP). The award

will be presented during the 15th Youth Science Conference 2009

A/P Lim Tit Meng - Outstanding Contribution Award with Special Mention for Science Mentorship Program (SMP).

Dr Ong Bee Lian - Outstanding Contribution Award for Science Mentorship Program (SMP)

A/P Markus Wenk - Received the 18th Annual Molecular Biology of the Cell (MBC) Paper of the Year Award.

FTEA award winners:

A/P Loh Chiang Shiong (also nominated for Outstanding Educator Award)

Dr Lam Siew Hong (also nominated for Annual Teaching Excellence Award)

Dr Seow Teck Keong (also nominated for Annual Teaching Excellence Award)

Mr N Sivasothi (also nominated for Annual Teaching Excellence Award)

A/P Yu Hao

Dr Chew Fook Tim

Prof Chou Loke Ming

Long Service Medals during the National Day Awards:

Lua Hui Kheng

Ng Kok Chay

Faculty Honour Roll Inductions

Prof Ip Yuen Kwong, Alex

A/P Rudolf Meier

TA (Part Time) Winners

Ng Yi Hui Eunice

Jose Christopher E. Mendoza

Loong Ai May

Tok Chia Yee

Hee Kim Hor Daryl

Lim Shimin Gwynne

Ang Hui Fang Andie

Laura Yap Yen Ling

Ang Yuchen

Special mention is deserved by two awardees.

Miss Gwynne Shimin Lim in Rudolf Meier's lab and a former Life Sciences and USP undergraduate has won an International Fulbright Science and Technology Award to pursue a Ph.D. in Science, Technology and Engineering. She is only the second Singaporean to have won a Fullbright.

A new departmental award, the DBS Teaching Incentive Award, deserves special mention. The Departmental Teaching Evaluation Committee chaired by Prof. Meier thought that we should recognize the achievements of faculty who have greatly improved their teaching. While we have many great teachers, breaking into that top group would prove difficult for most faculty. Thus, it is important to reward dedicated work. The first winner of the teaching award is Wu Jinlu. Well deserved! Our thanks to DTEC for such a wonderful idea.

Related to teaching awards, I hope that we all strive to improve our teaching skills. Thus, at the suggestion of Prof. Kumar, DBS will be sponsoring a series of speech strengthening workshops given by Ms. Verena Tay, a well-known voice coach. Verena has developed a speaking skills workshop when she was in the Centre for Development of Teaching and Learning. Afterwards she has coached TV presenters, theatrical actors, and other professionals who speak frequently in their occupations. She will be working with small groups of DBS faculty to improve their speaking skills. This exercise should improve not only our teaching but also our research presentations! Look out for the announcement of the workshop. It will be first come-first served and I will be the first to sign up.

While on a recent flight to Houston via a refueling stop in Moscow, I experienced a strange epiphany while looking at the terrain passing below. If the flight map didn't show that I was "Back

in the USSR” (credit to M. Jagger), I could have sworn that I was flying over the verdant Rockies, dry expanse of the Southwestern desert, and geometrically tilled Midwest farmlands. The lesson? I only saw forests and not the trees. Let’s keep our eye on the big picture.