February 1, 2009

Letter from Paul Matsudaira

To the DBS faculty, staff, and students

Best wishes for the New Year, again. I started the last Newsletter with this greeting. So far into the first month, the Year of the Ox is shaping up into an exciting year.

Why is that so? Earlier in the month I met with the grad students and the non-academic staff. The grad students number around 300 total and LT32 was quite filled. DBS has the largest life-sciences graduate program at NUS and every indicator forecasts the graduate program will grow even larger in number. I also had lunch with the non-academic staff in the Department office. The quality of effort and high professionalism were two reasons why I felt taking on the HoD position would be an honor. Speaking of honors, recently our own Joan Choo received the National Day Award 2008 for her meritorious service. Congratulations!

I've been spending each day meeting with two faculty members to hear what's on their minds regarding research, teaching, or other. Their passion for research comes through clearly and it is the faculty who will take responsibility for moving the department into strategic directions. But in a university, we lead dual lives, as teachers and researchers. As I meet with the faculty, our discussions frequently touch upon teaching and it's relationship with research. "Professor" is an honorific that refers to an academic teacher and dates from the early 14th century. The academic part involves the research that helps one remain a scholar in the chosen field. As a teacher for the past 24 years, I care deeply about how our undergraduate and graduate students are taught and mentored. In fact, as HoD of DBS I gave the beginning lecture on what is bioengineering in BN2101, the introductory undergraduate bioengineering course. One legacy of an academic is our students and like proud parents we tell stories about them like they are our own kids. Teaching is a critical part of our mission (in another newsletter I'll discuss teaching, advising, and mentoring).

However, there seems to be some confusion or even perceived conflict between teaching and research. Some think that teaching prevents one from doing research by taking away time from the lab. On the contrary, teaching forces a researcher to expand his/her vision, to see the context in which the research takes place. The scholarship from investing time in teaching is repaid when writing papers and grants or making a critical connection that leads to a ground-breaking discovery. In fact, teaching is a great mechanism to move research in new directions.

What prevents one from being a good teacher? Personally, I always find that "time" to prepare properly is my main hurdle. For others, comfort in speaking or proper use of

teaching aids matters. We can help with those and the FoS teaching evaluations are helpful in providing feedback. Paradoxically, a significant problem is not the time devoted for research but too much teaching. We find our graduate courses oversubscribed by 100-200% (a good problem) and the DBS faculty is doing the heavy lifting in the undergraduate Life Sciences Curriculum. The teaching load for the average DBS faculty member is too high. The remedy may lie in rethinking the undergraduate and graduate curriculum. Teaching will be a topic in our up-coming Faculty Retreat. I hope to reduce the teaching load, a promise made in the first newsletter.

On a final note, DBS faculty is particularly successful in research and every month are awarded research grants that are hard earned and richly deserved. However, I've noticed in particular that the funding in the non-medical areas is starting to grow significantly. For example, Prof Hugh Tan is the PI on two recent awards (total $2.4M) from the MND Research Fund for the Built Environment, both on the general topic of biodiversity and ecology of urban environments. Well done! My crystal ball forecasts that research in the Eco/BioD area will continue to grow as the DBS faculty move into the Environmental Sciences and Energy areas.

In closing,

Gong Xi Fa Cai!

Paul