## **Lineage and Legacy**

David Needham PhD DSc (Nottingham) Graduation Ceremony 12 Thursday 10 December 5pm University of Nottingham, Winter 2015

Wow! Congratulations to you all. It really is a great honor to be here today and receive this honorary degree, thank you so much for this. And thank you Phil for the Oration.

I was here, just like you all sat at the back, almost 35 years ago in 1981, receiving my PhD, after having graduated with a degree in Chemistry under the late and great Daniel D Eley, PhD, ScD, CChem, FRSC, FRS, OBE. This is the kind of professors there are here in Nottingham

Who would have thought then that I would go on to

- do two post docs in Cambridge and Vancouver,
- become a full Professor at Duke University,
- invent a treatment for cancer, and take it through full development and testing with Mark Dewhirst at Duke, that, if the company finally does it right, will be a valuable addition to this fight, and
- then be given 4.5 million pounds by the Danish National Research Foundation to do whatever I want in Denmark, as long as I internationalize Danish science and do all I can to raise its standards.
- embedding a new center,
- and working on a second cancer treatment based on a concept I call, "Put the drug in the cancer's food",
- that, if successful, I want to offer at cost, no profit
- and that maybe some of you graduating in Pharmacy will provide the prescription for your patients!

But enough about me! Today is all about you! Your graduation, your next 35 years, and what you are going to do with it.

The theme of this next 2 minutes is Lineage and Legacy. By way of example, I am afraid its back to me for a minute.

My Mother had survived a bout of breast cancer by having radical mastectomy surgery in 1972. And so I had this notion during my PhD with Eley that, if I was going to work this hard, then I wanted to do something useful. I used to go across the road to the cancer center and attend some of their seminars, not having a clue what they were all talking about, with src and ras just starting to be understood then in the late 1970's.

But, once I told Prof. Eley, I wanted to move out of gas solid catalysis and perhaps work in cancer research, he said, without batting an eyelid,

"So, you want to work in Cancer do you?"

"Well it seems there is something wrong with their membranes, so you need to work in membranes. I'll give someone a call"

The next day I got a call from Dennis Haydon FRS,

"So, you want to work in membranes do you? Why don't you come down for a chat?"

That's an interview in Cambridge.

So my work in membranes with Haydon, led to another recommendation and post doc with THE world-leader in membrane mechanochemistry, Evan Evans, who then sent me to Duke.

So I am part of a lineage, --2 Fellows of the Royal Society and a world-leader in his field. I inherited their legacy of mentorship, advice, generosity, and methodology of how to actually do research.

Now here I am with this Niels Bohr Visiting Professorship and Honorary Degree *honoris causa*, (without examination, --my kind of degree!) and I am the one leaving a legacy, passing on the lineage to my students, post docs and colleagues, and even my administrators (if they would listen ©).

So as you leave here today, reflect just briefly on your mentors, what they may have said in passing, their advice, generosity, and methodology of how to behave in your chosen profession or in research and development if some of you are heading in that direction.

And to the mentors, do take the time to reflect on your own legacy, they are sat here right in front of you,

Let me finish by saying, once again, "great job, my congratulations to you all"

Thank you.