

NUS FACULTY OF SCIENCE COMMENCEMENT 2009

8 July, 8.00pm

NUS Trustee, LG(NS) Ng Yat Chung

Distinguished Guests

Graduates

Ladies and Gentlemen

A very good evening to one and all

Introduction

It is a great honour for me to be invited to address this 2009 graduating cohort from the Biological Sciences and Physics Departments of the National University of Singapore Faculty of Science. I am equally heartened by the fact that your alma mater has invited a non NUS graduate from a competing institution, PSB Academy, to address you. It shows their humble confidence. Congratulations NUS.

I am also privileged to be here to share your joy at this turning point in your life where you have successfully completed a challenging journey you set your mind on. And to all the concerned parents who often worry excessively over your children's abilities, progress and preparation for life, this is a day of some relief I am sure. It is a day to celebrate wholeheartedly. You deserve to feel a sense of joy, achievement and pride, as if we were on top of Mount Everest with a flag pole in your hand and thinking to ourselves, "It wasn't that bad after all, right? Glad I don't have to go through it again". Please put your hands together and applaud those who stood by you and supported you, and those who taught and mentored you in the university.

Challenge 1 - The current economic challenge and a globalised world

And now for a touch of reality. It is true that we are all going through a major global financial contraction that will drag its feet even when some say there are green shoots of potential turnaround and growth. For sure it will turn around and there is only one way out of this and that is up. But be cautious, as this is the nature of things to come, as we have moved into a highly globalised and inter-connect world and we cannot turn back. We are financially connected, we are information and knowledge connected, we are environmentally connected and more recently "H1N1" connected....for better or for worse, we are one dominant organism, living in one world. For sure, this will be one of your key challenges going into the future.
Challenge 1 - How do you prepare yourself and survive in a "porous" world?

Challenge 2 - The rapid pace of change

The age old pre-Socrates Greek philosopher who lived in Ephesus in 500 BC,

Heraclitus, said, "You cannot step twice into the same river; for other waters are continually flowing in."

"You cannot step twice into the same stream. For as you are stepping in, other waters are ever flowing on to you."

Back then, some 2,500 years ago, the wise Heraclitus already realized and postulated the doctrine of change as being central to the whole universe. This he called FLUX. Looking at the changes today, it is even more real and tangible. We are immersed in a world of competition, constant improvement, adaptation, alternatives and adjustment, and as the body of knowledge, technologies, trends, views, behaviour and political/social systems change in one part of the world, this change often moves on to affect, "infect" or "immunise" others. And with every passing decade, the pace increases and the fuse gets shorter. You may know that Twitter got to the news of the Mumbai terrorist attack on 26 November before any news media. We have lost the Telex but we now have the SMS and Blackberry, so we have almost instant information.

This challenge 2 – How do you manage in a fast changing world?

Putting the two challenges together you may well ask. So how does a young graduate commencing working life cope in a "porous" and rapidly changing world, what should be your guiding light, your compass and your true North.

If you are lost, don't feel lost or alone. You are not alone. When I was in your shoes, I was just as "lost"...what career to follow, which postgraduate program to follow, should I work first and continue postgraduate studies later...a whole set of things to work out. Looking back, I must say I didn't have a clear map or a final destination, I only had clear desires and a sense of direction. I don't think life or career can be so clear, it's often an iterative process of experimentation and good fortune. I could have benefited from a few simple guiding principles to help me. But I was sure there were others in my cohort that were crystal clear what they wanted to be. Fine, we are not all alike. But let me digress for awhile with a short story.

A typical scenario for an Entrepreneur

I am reminded of a story told to me by a now successful entrepreneur. He never wrote his story, perhaps people won't believe him. He told me the truth in a roundabout way – imagine you are at the regatta by the Singapore river. It is a hot day and crowds of people have lined up by the edge of the river to cheer on the competitors. As Singaporeans, they jostled for the best position and that is of course next to the water's edge. In the commotion, a young boy was accidentally pushed into the river and was struggling to stay afloat. The onlookers realised the boy was not a good swimmer, but for a split second, all froze and there was a silent pause, as everyone waited for someone to make the first move to help the boy. Finally, an old

man jumped in. Of course on seeing this many others then jumped in to help. In the ensuing noise, splash and screams, the boy and the old man were rescued. The boy was fine but unfortunately the poor old man took in too much water, was unconscious and had to be sent to hospital. Next day, the press was there in droves to hear the first word of the local hero, a good old man. On waking up, the old man was taken aback by the reception in front of him. He was a bit stunned but managed to utter those fateful words, “who pushed me in??” Life is like that.

So do not think that great opportunities come knocking on your door daily and that success always come from well crafted road maps or plans. A wise army General once said that “Plans are nothing really, but planning is everything.” So make sure you have a map but don’t over depend on it because things change very rapidly and your map may be outdated very quickly. Some things happen by design but many more things happen by accident. But a typical accidental entrepreneur becomes the successful entrepreneur because he is observant, he has the perspective, he re-works, re-strategizes and he perseveres in order to succeed and turns an innocent event to his advantage. Many things happen to us, but how we look at them is the key to what happens next.

Guiding principle 1 – The right Perspective

Perspective is everything. Successful people have good perspective and a better frame of mind. They tend to say “I prefer this but if that happens, it’s ok, I will find ways to make best use of it. It’s not what happens to you that determine your success or happiness. It’s how you think about what happens to you. You can’t always change the whole world, but you can change your own thinking and perspective when things happen to you. With the right perspective, you carve out a positive attitude and a correct frame of mind. This sets the stage for you to “get it right from the start.” The right perspective also leads to a positive attitude that puts you on the right platform and cushions you in your new journey. Keeping your perspective and watching how you assess opportunities, challenges and difficulties that come your way is crucial. Do not let what you cannot do, stop you from doing what you can do.

Guiding principle 2 – Enthusiasm (Passion)

My guiding light 2 is simple....choose or continue on the path that you enjoy doing most, cultivate your interest, discover and go deep into your favourite subject. If the job is or becomes your hobby, it becomes much easier and more interesting. All these breed enthusiasm. Where possible take the path of least resistance with respect to interest and commitment and then save your energy and resource to focus on the journey, project or assignment once you have decided on it. The fire of enthusiasm must be kept burning within you and it should aid you in igniting passion others. This quality attracts your co-workers and friends to work with you. It provides the staying power in your journey and work life. Much of your perseverance will

come from your enthusiasm

Guiding principle 3 – Focus

Focus has to do with implementation, it increases your likelihood of achieving a specific objective or reaching a targeted destination. There are many distractions today which divert you. A very rich and successful Singapore man was once asked, “what is his formula for success?”. He said three things....FOCUS, FOCUS and FOCUS. Imagine holding a magnifying glass over a piece of paper. If it is not in focus, it will never burn in a million years. But as soon as it is brought into focus, within seconds it will ignite and burn. This is the power of focus, it's elementary physics for the physicists amongst.

So these are just 3 simple guiding principles, they are the tool kits for you to consider as you start your commencement adventure – **Perspective, Enthusiasm and Focus (PEF)**. These are the practical tools I have used with good success, share this with others.

Career opportunities

With respect to careers, I like to say a few things about the Life Science/Biological Sciences and Physics in general. Looking at the challenges and opportunities ahead, I will say that Life Science as a whole presents very substantial opportunities. The whole of the medical, pharma and environment sectors will depend to a large extent on expertise in Biological Sciences. If you take a quick look at the Singapore Biomedical Science industry today, you will see 7 research institutes under A*STAR, S\$ 5b set aside for Biomedical Science infrastructure (building & human capital), the top 10 world leaders in Pharma and biomedical science already based in Singapore, and the industry generated an output of S\$19 b last year. The list goes on. And with the “Silver industry” coming into play, the Biomedical Science industry will be on a sustainable growth path. So you are at the right time and right place. When I came back in 1985, as a drug discovery scientist, this would have been a dream come true.

On the other hand, the Physics presents something very different. In all my encounters with Physicists, I have typically found them to be very versatile and seem to adapt themselves to almost every sector of industry....from Finance to manufacturing, they have made a name for themselves; the most watched economist with a potential to win the Nobel prize is Professor Paul Romer, at Stanford University. He is a physicist by training. So physicists are a different kettle of fish. You have been blessed with versatility and adaptability and that leads to employability in almost all industry. So you are prepared for all eventualities.

Therefore, let me wish all of you a wonderful adventure ahead and remember take with you the 3 guiding principles - Perspective, Enthusiasm and Focus, if you can't

remember all 3, then stick with Focus, Focus, Focus, I am sure it will serve you just as well.

And last of all, do laugh at yourself sometimes. Don't take yourself too seriously...a mature person or nation takes time to reflect and laugh at oneself. It helps you keep sane.

In parting I leave you with what Mother Theresa taught many of us – we cannot do great things every day, but we can do little things with great love.

God bless