

Thank you, President Toope.

For those of you unaware of the “Graduate Class Gift” initiative – In our final year at UBC, in addition to our tuition, a seven dollar fee is collected from each graduating student. A council of elected student representatives then donates this money on behalf of the graduating class. The graduate class council of 2010 donated to three different programs.

First, they donated ten thousand dollars to the AMS Bursary Programme to help aid future generations of students cope with the rising costs of education.

Second, they donated ten thousand dollars to the UBC Alumni Association for student-directed programming that will take place at the new Alumni Centre – to be built in 2013.

Finally, they donated five thousand dollars to the UBC Learning Exchange – a program that brings together students and other members of the UBC community to provide free educational resources to people in the Downtown Eastside and other inner city neighbourhoods.

Please join me in thanking the graduating class for their generous gifts.

I've been given a few moments to share some reflective words with my fellow graduates.

It's a bit of an urban myth that in your first University lecture, a professor will tell you to look to the person on your left, and then look to the person on your right – and tell you that one of you won't make it to graduation. And who knows... perhaps you had a melodramatic professor who said just that.

Well I am going to be a little melodramatic – graduates – look at the person on your left and the person on your right – it's my absolute pleasure to say that all three of you made it. So please, graduates... take a moment now to congratulate each other – Personally, I think the “high five” never goes out of style, but suitable alternatives include the “fist bump”, the handshake, or the solemn nod. “High five everybody”.

Now a few astute graduates have seen the error in my “look to the left and right of you” system... there are people in aisle seats and at the end of each row who are sitting beside only one person... sadly giving them only one other person to “high five”. I myself am an outlier who chickened out and decided not to high five the president and the chancellor.

As scientists, our graduates have learned that many mistakes are made at these boundary conditions – and that often the devil is in the detail and it’s the statistical outliers that tell the story or make it more interesting.

That’s right, graduates – I called you scientists – you now have a piece of paper that tells the world you’re a scientist.

But I encourage you to tell the world you’re a scientist. The next time you’re at a party and someone asks what you do, say “I’m a scientist” – if a telemarketer asks you what you do – “scientist”. If you’re busy working on a project and someone asks what you’re doing, say “Stand back... I’m doing science!”.

But, as is often quoted in superhero movies, with great power comes great responsibility. As a scientist, if you lose your temper and become angry, you’re not just angry – you’re now a “mad scientist”.

The world needs more science, and more scientists. And regardless of whatever career path you end up going down – I encourage you to keep your inner scientist alive. Less than a third of Canadian teens believe that science has any relevance to their everyday life. But what our graduates here realize is that science is all around us. And unfortunately... so is ignorance about science. And I'm not just talking about the big science – the science that threatens our lives and our planet... I'm talking about the little science too, and the general lack of scientific thinking.

There was a study in the US at an Ivy League college on the basic task of boiling water in a pot on the stove... and almost a third of participants failed to recognize that if you put less water in the pot, it will boil faster and use less energy.

In a similar study, over half of the participants could not sufficiently explain why “Correlation does not imply causation”.

It's human nature to fall prey to “Confirmation bias” – that's when if you have a preconceived belief, or a hypothesis you are trying to support – you favour evidence that supports your beliefs and ignore contrary evidence. It's part of the reason a third of the population strongly believes that they have “lucky” numbers and “unlucky” numbers... and a third believe that astrology or horoscopes are accurate and [air quotes] “scientific”.

As scientists you have accumulated a lot of knowledge about your chosen field. It's likely that you will forget more science than 90% of the population will ever learn. And as graduates now your instincts are very sharp, but you also have the knowledge and experience not to trust your instincts – and that you must rely on evidence to make your decisions. And if you encounter evidence that proves you were wrong –it's neither embarrassing nor humiliating – it's just good science.

UBC encourages its students to become “global citizens”, and I encourage you all to be “scientific citizens”. When you see bad science around you – big and small – take the time and try to correct it – and to teach others the importance of critical thinking. Even more importantly, take the opportunity to get a young person in elementary school or high school excited about science.

Some of your very first teachers – who may have inspired you to become scientists – are in this room – they are your parents and loved ones. They taught you the mathematical topology of tying your shoelaces and the physics of riding a bike. They have been with you since your first day of kindergarten. So please take the time in your own way to thank them.

To my own parents, who are watching me on the internet right now – Hi Mom, Hi Dad... I love you – and can you believe it? Your son’s a doctor now.

While some of you are continuing on in Academia – where you will have the opportunity of wearing increasingly elaborate academic robes such as these... for most of you this is the last chapter in a long academic story. For some, your journey may have been a straight line, but for myself and others, it was a twisty path with several dead ends and detours. But regardless of how you got here today, and where life takes you tomorrow, I encourage you all once more to keep your inner scientist alive: feed your curiosities, be a critical thinker and continue your pursuit of knowledge.

Do your best to try to make the world a better – and more scientific – place. Congratulations once again.