

Brock University Faculty of Mathematics and Science

Science Mentorship Symposium Presentations

Wednesday, February 22, 2023

Comments by Brock University Professor Jeffrey Atkinson

Welcome fellow scholars, researchers, scientists, friends, and family.

There are few things academics like more than talking about their work. Indeed, sometimes it is hard to get them to stop. Today will be replete with the stories of your most recent research efforts. We are each other's audience.

I hope that what may have been your first research experience let you witness what academics feel every day: ignorance, confusion, anxiety, doubt, and - my personal favorite - failure.

Of course, all the above occasionally punctuated by insight, comprehension, excitement, and joy.

I believe it's not emphasized often enough that research is done by real people. And that people are more productive in motivated groups and teams. And that the lone genius is not as common as thought. The most exceptional intellect most often comes from a large group of past and present intellectual supporters. A key skill as a scholar is knowing how to interact with colleagues both lesser and greater than you.

James Watson [of Watson and Crick, and Rosalind Franklin fame, co-discoverers of the structure of DNA]

On how to succeed as a scientist:

"You've got to try and be with people who are brighter than yourself. You've got to be prepared sometimes to do things that people say you are not qualified to do. But since you know you're going to get into trouble, you ought to have someone to save you after you're in deep shit. So you better always have someone who believes in you."

SCIENCE, 12 Mar 1993, Vol 259, Issue 5101, pp. 1532-1533

On the matter of genius, Giorgio Vasari, in his 1550 book *The Lives of the Most Excellent Painters, Sculptors and Architects*, wrote of Michelangelo:

"Just before his death, he burned a large number of his own drawings, sketches and cartoons to prevent anyone from seeing the labours he endured or the ways he tested his genius, for fear that he might seem less than perfect."

[Taken from [here](#)]

In this way I would suggest not being like Michelangelo. Your notes and lab books are sacred, describing as much your mistakes as successes, and showing to those that follow you just how difficult the practice of science can be.

Researchers walk over the corpses of really bad ideas all the time. May you have the good fortune to improve on what was once a really bad idea.

And it is sometimes forgotten that creativity is not reserved only for the arts, but is also critical for mathematicians, sociologists, chemists, physicists, computer scientists, biologists, and all thinkers that struggle to attain knowledge

Lawrence Durrell (from the novel *Nunquam*)

"Salvaging a general principle from a mass of conflicting evidence can be both science and poetry."

Most of us are indebted to mentors who provided opportunities, steered our thinking and work, supported us in times of intellectual paralysis, and celebrated with us in moments of success and understanding.

I hope that you will always recall fondly your mentors from the last 5 months. Should you move on to mentor, coach, or teach others in your studies and careers, know that sometimes even the smallest moments can be memorable and transformative.

Vincent Van Gogh

"Great things are done by a series of small things brought together."

Thank you, students, for joining us at Brock for the Science Mentorship program.

Thank you, mentors, for your time, and shared expertise.

Thank you, families and friends, for being a formative part of the community of scholars speaking here today.

Congratulations and good luck!