



NYSF REPORT: INAS ADIL

I am Inas Adil Ahmed, a year 12 student from Mount Alexander College. It was a privilege to be selected to participate in the NYSF program and meet many people who specialise in different fields of STEM. NYSF is a program that encourages young people to pursue their passion for STEM. The program was a very intuitive and astounding program that delivered awesome experiences for students in their final year of high school. The STEM sessions involved specialist lectures, speed networking, talks and lectures from renowned STEM experts, science and communication. I attended many workshops such as Critical Thinking Workshop, Career session, Medical research, Nobel Laureate Lecture, The Science of Solving Crime, The Story of Our Human Genome, the future of artificial intelligence and many more. Reflecting back on the two weeks experiences, I must say the program gave me a deep understanding of how to create my STEM pathway. Coming from Kenya as a refugee, I had no knowledge of what more I could be other than a doctor. I knew I was passionate about science but I always questioned myself what more roles/careers are out there in the world for girls in STEM. To say I was lucky enough is not all, in fact I am grateful that I was granted this opportunity. Despite that I was unable to attend face-to-face programs, The NYSF team delivered amazing sessions, fun activities and discussions that I was able to get involved with other students around Australia.

MEDICAL RESEARCH

In this program, there were different sessions about varieties of research taking place in the medical field. I was lucky to meet three amazing professors; Professor Tri Phan, Professor Mike Rogers and Professor Liz Caldon. Professor Tri Phan demonstrates how the immune system can be used to combat cancer. Professor Mike Rogers talked about how to treat osteoporosis using drugs and Professor Vanessa Hayes and Associate Professor Liz Caldon presented their research on breast and prostate malignancies. I learnt about Medical researchers from Sydney's Garvan Institute of Medical Research discussing how they employ a wide range of techniques and approaches to better understand health and illness. Advanced imaging and techniques for reading the genetic code of single cells are assisting us in better understanding the causes of severe diseases like osteoporosis, autoimmune diseases, and cancer. Advances in medical research are likely to help doctors customise therapies and personalise treatments in the future. Professor Tri Phan talked through his research about immune response using the immune system to target cancer. Professor Mike Rogers discussed his research on the actions and side effects of osteoporosis medications. Associate Professor Liz Caldon and Professor Vanessa Hayes study breast and prostate cancer and understanding people's responses to current therapies and developing precision medicine applications. Medicine has always been my dream course. To learn that scientific research has a significance in medicine, this created a new desire to be involved in research during my future studies. In fact, one thing I was curious about was the development of cancer. I Learned about different interventions currently used and its effectiveness in cancer, implications of those interventions as well as different research taking place aiming to find cure for cancer. Thanks to NYSF, I have promised myself to be involved in research and explore it.

THE FUTURE IS ARTIFICIAL

It is said that artificial intelligence is going to further impact humankind. In this session, we explored the future of artificial intelligence in a variety of industries and examined the advantages, risks and ethical dilemmas associated with embracing a world of AI. This was widely explored by examining the benefits of artificial intelligence, risks and the ethical dilemmas. This session definitely changed my perspective of AI and as a society, the majority of us including myself are skeptical of these new developing technologies, and a question from one of the NYSF'er "what do you suggest is the best way to go about communicating reliability and safety?" This made me realise that instead of having negative perceptions of AI, why don't I also think about ways we as a society can make it reliable and safe as it develops. I guess one thing that everyone is curious about is where technology is going to take us in the future. During the Q&A session, I came across many different opinions people have on AI. Despite this, it was great to know that one thing we all had in common was our curiosity and interest in artificial intelligence technology.

ADVENTURES IN RESEARCH

This was one of my favourite sessions in which I answered a lot of my questions. I learnt that scientific research "does not always take the pathways predicted". There are always challenges that researchers face in their research journey. It was interesting to listen to the defence scientist, Dragan Pittas, who assured us that despite the ups and downs, scientists can still navigate the "twists and turns of the research process." Her anecdote about learning English as a second language became difficult during university and that she had to bring her dictionary to understand the physiological and sophisticated language of the research papers really taught me how she successfully became a scientist despite English not being her first language. This gave me hope, inspiration and a motivational push to keep working hard and believe that I can achieve my goals in life despite English being my second language.

In the end of my journey at NYSF, I have become more confident and passionate about STEM. This experience has taught me many different ways I can become a successful future woman in STEM. I have accumulated much knowledge and wisdom from many influential people in our nation. As this is my final year in high school, I have carried all the advice and lessons learnt throughout the two weeks of this program. I can now say that I am confident with most roads I can lead my journey in STEM. Most of all, this was not only beneficial for me, rather it is also incredible how I am able to guide my younger sister and become an inspiring person for the future generation.



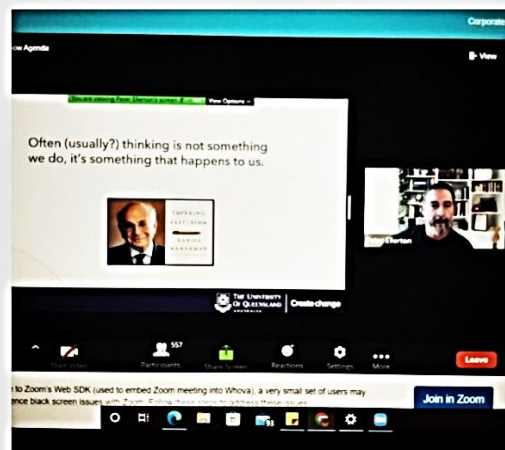
Certificate of completion; Nominated by Rotary Club of Flemington



First day of the program; NYSF T-shirt, activity instructions and name tag



fun activity session; crochet matching NYSF T-shirt



The honourable Nobel Laureate lecture: Professor Peter Doherty