**STEM careers podcast series – Haematology**

**Dr Rebecca Adams**

*Dr Rebecca Adams is a consultant haematologist at Sullivan Nicolaides Pathology, Brisbane. She reports across all areas of diagnostic haematology. She graduated in medicine with First Class Honours from the University of Queensland in 2004. She was awarded several academic prizes including the University Medal for Medicine and the Charles Miford Lilley Memorial Prize for greatest merit in surgery. Dr Adams holds a number of roles in training and education. As well as being responsible for the teaching of registrar, scientists, and students who rotate through the Haematology department, she is the RCPA's Network Coordinator of Advanced Haematology training in Queensland. She is an RCPA examiner in haematology and a reviewer for the college's pathology journal. She is also a senior lecturer at The University of Queensland.*

**Announcer:**

This is a Queensland Department of Education podcast.

**Virginia Bowdidge:**

The careers that fall under the STEM, science, technology, engineering and mathematics umbrella are many and varied. In this podcast series we talk to professionals working in some of these careers.

Hi, my name is Virginia Bowdidge from the Department of Education and I'm joined by Dr Rebecca Adams consultant haematologist at Sullivan Nicolaides Pathology, Brisbane. Dr Adams, thanks for joining me today to talk about your career and STEM education.

**Dr Rebecca Adams:**

Thanks for having me, Virginia. It's a real pleasure to talk to you.

**Virginia Bowdidge:**

As a senior lecturer at the University of Queensland and a consultant haematologist at a pathology lab in Brisbane, what does a typical day look like for you?

**Dr Rebecca Adams:**

We might just go through a little bit what a haematologist actually is. So as a haematologist, working in a pathology laboratory, I'm a doctor who is a specialist in the diagnosis and monitoring of disorders of blood and bone marrow. So in a typical day, I diagnose patients with disorders like leukaemia, lymphoma, anaemia, thalassemia, haemophilia, blood clots, and also patients who need transfusions.

I speak to other doctors to provide advice on tests and ensure that critical and urgent results are communicated as soon as possible. I perform bone marrow biopsy procedures on patients and attend multidisciplinary team meetings to review patient diagnoses and treatment plans. I give educational talks to trainees, scientists or medical students. And every day I work closely with our team in the lab to solve complex diagnostic hematologic questions for our patients.

And although I chose to specialize in laboratory haematology, many haematologists also work as clinicians and they're treating patients with haematological disorders and some haematologists are also researchers doing amazing cutting-edge work in research laboratories. So my day can be very varied and I see interesting things every single day.

**Virginia Bowdidge:**

So you graduated with first class honours in medicine from the University of Queensland with several impressive academic prizes. What first sparked your interest in STEM and, in particular, medicine?

**Dr Rebecca Adams:**

My interest in STEM started very early and I can think of lots of influences and role models through my childhood who encouraged that interest, including my dad, who was a science teacher and my mum who was a medical scientist and also some amazing teachers who were really enthusiastic and encouraging of my interest in STEM subjects.

I've always been quite curious and I was encouraged from a very early age to think about what I was looking at and why it was like that. And I think for anyone who is curious about the world that we live in, STEM is really appealing because there are answers to the questions we ask about why things are the way they are and the innovations and the new developments that STEM careers can lead to can help make the world a better place.

As for my interest specifically in medicine, to be honest, I can't remember a time when I didn't want to be a doctor. And I think some of the appeal of a career in medicine is that it combined scientific knowledge and the opportunity to help others and looking back, I think it was this combination that initially attracted me to medicine.

**Virginia Bowdidge:**

What is it about haematology that initially interested you in the field?

**Dr Rebecca Adams:**

Haematology is an amazing specialty. As a junior doctor I was lucky enough to work in the haematology ward and in the haematology lab and I realized I really loved the variety of the specialty. And particularly the diagnostic aspects of working in the lab. Haematology is a discipline that can incorporate clinical and laboratory skills to diagnose and treat disorders of blood and bone marrow. Trainees can train in either or in both, so they can elect to focus only on clinical haematology or laboratory haematology. And I decided that I was really passionate about the diagnostic aspects of haematology. So I trained as a pathologist in the discipline of haematology. And my pathology training was a five year program with the Royal College of Pathologists of Australasia or the RCPA. And apart from haematology, there are other disciplines, other pathological disciplines, and these include anatomical pathology, microbiology, chemical pathology, immunology, forensic pathology, and genetic pathology, as well as general and clinical pathology, which combines several of these.

And as pathologists we're concerned with the nature and the causes of disease, and in haematology, we use various techniques to diagnose, prognosticate and monitor disorders of blood and bone marrow. And this ranging from amazingly sophisticated technology in our suite of analysers through to really old school methods, by looking at stained blood cells, using a light microscope. We work with a team of professional laboratory staff who are all as passionate as we are about haematology. It's a really exciting field to be working in with constantly evolving knowledge, groundbreaking scientific advancements and treatments, and it means that we can improve the lives of our patients.

**Virginia Bowdidge:**

What is your particular field of interest in haematology?

**Dr Rebecca Adams:**

I have always loved the aspect of my work that is morphological diagnosis. This is being able to look at stained blood cells down the microscope, and by carefully examining the features on the film, being able to diagnose a wide range of conditions from that blood film. But I enjoy all aspects of diagnostic haematology. And as a pathologist in a busy lab, I feel very lucky to have the opportunity to use my skills to diagnose haematological conditions. And we use the whole spectrum of diagnostic tools. We talked about the light microscopy through to really cutting edge technology and the overarching skills of critical thinking, pattern recognition, effective communication, and problem solving make haematology an intellectually stimulating and very rewarding career, no matter your particular field of interest within haematology,

**Virginia Bowdidge:**

You hold a number of roles in training and education. Could you explain what they are and what motivates you to train and educate our future haematologists?

**Dr Rebecca Adams:**

I'm a senior lecturer with the University of Queensland and in that role, I'm involved in providing haematology education to our up and coming young doctors currently studying medicine. I'm also the coordinator of haematology training in Queensland. And in that role, I ensure that our haematology trainees are able to access high quality training and educational resources and that they're supported in their training. I also manage the selection process into haematology training so that it's fair, equitable, and merit based.

I'm also the associate chief examiner in haematology for the RCPA. And in that role, I'm involved in all aspects of the examination process for haematology trainees. I also a number of roles, including the chair of the haematology scientific stream for Pathology Update, which is the annual scientific meeting for the RCPA.

I have chosen to take on these roles because I find teaching very rewarding. So seeing the development of knowledge and skills in our trainees, getting to know them, and then seeing them become confident in their own abilities, I find extremely fulfilling. And I feel like if you're passionate about your career and passionate about maintaining high standards in your profession, it's really important to be involved in the education of future colleagues, whatever career you choose.

**Virginia Bowdidge:**

What advice do you have for high school students interested in a career in STEM?

**Dr Rebecca Adams:**

From my perspective, STEM careers are immensely rewarding, they're intellectually stimulating, and you have the potential to make real positive changes in our world. A career in STEM means that you have the opportunity to be on the forefront of discovery and innovation and understanding of the world we live in. So my advice to students interested in STEM would be to get out there and be proactive. Find out more about how you can be involved by talking to people in areas that you're interested in, and then use this knowledge to help you figure out what STEM career might be right for you.

**Virginia Bowdidge:**

Thank you. That sounds very interesting.

**Dr Rebecca Adams:**

Thanks, Virginia. Lovely to talk to you.

**Announcer:**

You have been listening to a Queensland Department of Education podcast.