

A SCIENTIST just like me



Dr Kirsty Anderson
Medicinal Chemist

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Hi there! I am Dr Kirsty Anderson – a medicinal chemist



Where do I work?

I have just finished my PhD in Chemistry in New Zealand and now I work at the Krembil Research Institute in Toronto, Canada.

What did I like doing when I was at school?

I really enjoyed computing and music at school, until I got to secondary school and I fell in love with science and maths!

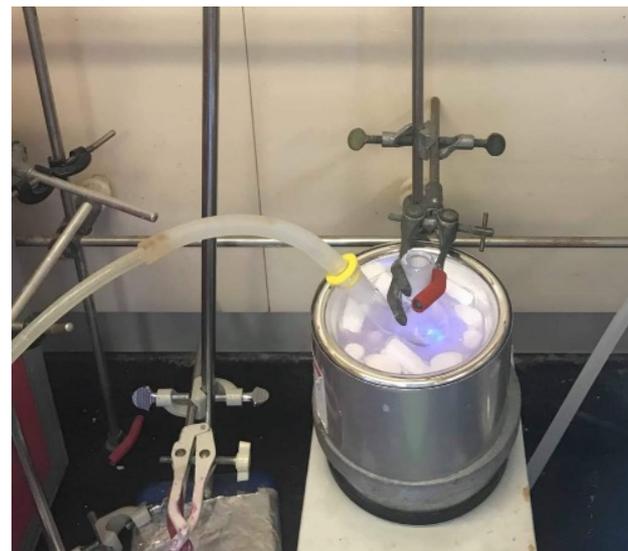
What do I like doing in my spare time?

I love going to the gym as well as watching superhero movies on the couch (Ironman is my favourite)! I love travel and spending time exploring with my friends and family. My favourite food is pizza!

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What do I do as a medicinal chemist?

I work in a lab where I make new substances that are used to treat diseases. I have to come up with a way to make the brand-new substances and then identify the chemical structure of them using different instruments like scanners that use nuclear magnetic technology.



How does what I do make the world a better place?

Currently my project is working towards a cure for a brain illness called Alzheimer's disease, a leading cause of dementia (memory loss). My job has a real possibility of improving the lives of Alzheimer's patients as well as other related brain illnesses.

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What I like about my job

I love going into the lab and carrying out chemical reactions, especially when I make a nice brightly coloured solid like the one in this picture. I have to be creative to come up with a way in which to mix the chemicals together, in a particular order, to obtain the product we want.



Challenges I have faced

I was the first person in my family to go to university, and I also found it daunting to be pursuing a career in a male-dominated field. However, through professional contacts and friends, I have learnt to trust my skills and know that I belong in STEM and specifically in chemistry!

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If you want to be a medicinal chemist, you need:

- ✦ **to enjoy learning lots of new things**, like how chemical reactions happen and how they can make useful materials.
- ✦ **to use your imagination** to work out which liquids and solids to add together to make your chemistry happen!
- ✦ **to love everything about science!** From using the special instruments to carrying out chemical reactions (that might even be fluorescent and shine blue or purple).



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Discussion time

- ✦ Would you like to be a medicinal chemist like Dr Kirsty Anderson?

Why? Why not?



- ✦ What skills and interests do you already have that would help you become a medicinal chemist?
- ✦ What new skills and knowledge would you need to develop?

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Free supporting resources for medicinal chemistry

I bet you didn't know... articles use cutting-edge science research as a context for learning. Teacher Guides describing the research and activities and investigations for children can be used as classroom presentations. See:

- Blood tests could detect cancers
- Dragons could save us from bad bacteria
- Slug slime might be the answer for medical adhesives
- How to grow a new skin

Created by the Primary Science Teaching Trust

