

Meet the superheroes!

## Global Guardian



**Global Guardian** and her squad of scientists use pictures from satellites and computer simulations to understand how the world works and predict where there might be threats to people and wildlife. By working together and combining their skills, they can send Global Guardian around the world to help people that are affected by extreme weather and disasters like wildfires, landslides and earthquakes.

# Fact File

**Name:** Claire Burke

**Job:** Geospatial Modelling Lead,  
Climate X

**Hobbies:** I love rock climbing, adventure sports, origami and art (and rock music!)

## How did you get where you are now?

I was always fascinated by space so I studied Astrophysics. But I also love nature so I found a way to use my physics skills, combined with drones and artificial intelligence, to help protect endangered species. I now work with a team of scientists at a company called Climate X.

## How does your job help people?

My team and I aim to understand the effects of climate change and how we can be prepared for things like extreme weather and its impact on the natural world and society. We use computer simulations and pictures from satellites to work out where problems might be in the future.

## What's the best thing about what you do?

I love working as part of a team! Everyone has their own specialty – Laura knows all about flooding, James is a satellite expert, Hamish studies rocks and the Earth and Sally is a climate scientist that understands the workings of the atmosphere!



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## Molecule Manipulator



The magnificent **Molecule Manipulator** can shrink down to the size of atoms! She can then place the atoms exactly where they need to go to make incredible new materials to build things like super-powered computers!

# Fact File

**Name:** Maddison Coke

**Job:** Senior Experimental Officer,  
University of Manchester

**Hobbies:** Walking and camping in the countryside with my wife and our two rescue dogs

**How did you get where you are now?**

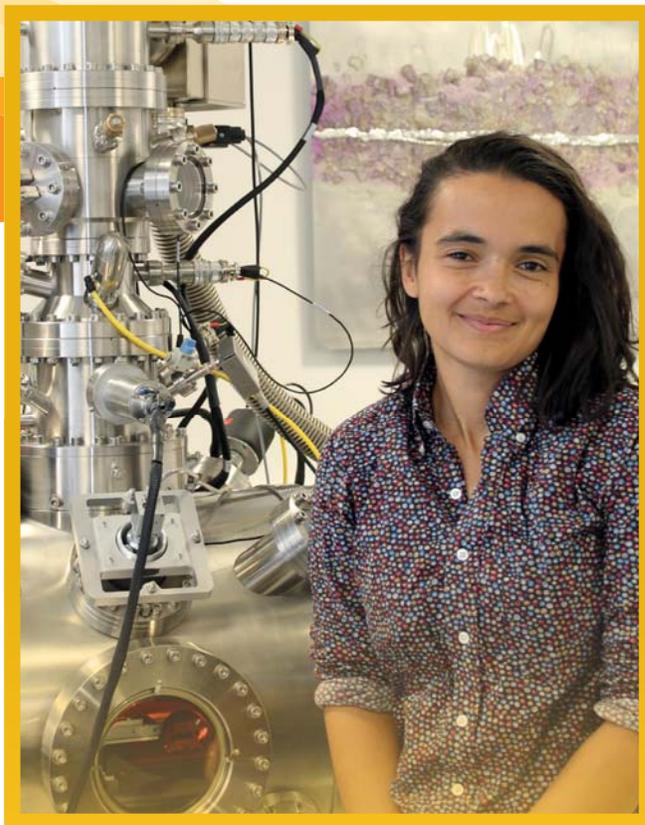
I always found reading and writing difficult at school (I have dyslexia) but I loved science and maths. I ended up studying for a PhD in electronic engineering and now I work in a special laboratory where I create new materials by manipulating atoms!

**How does your job help people?**

By changing what atoms are in a material, we can create new super materials that do special jobs! This will mean that we can build incredible new computers that will be faster than ever before.

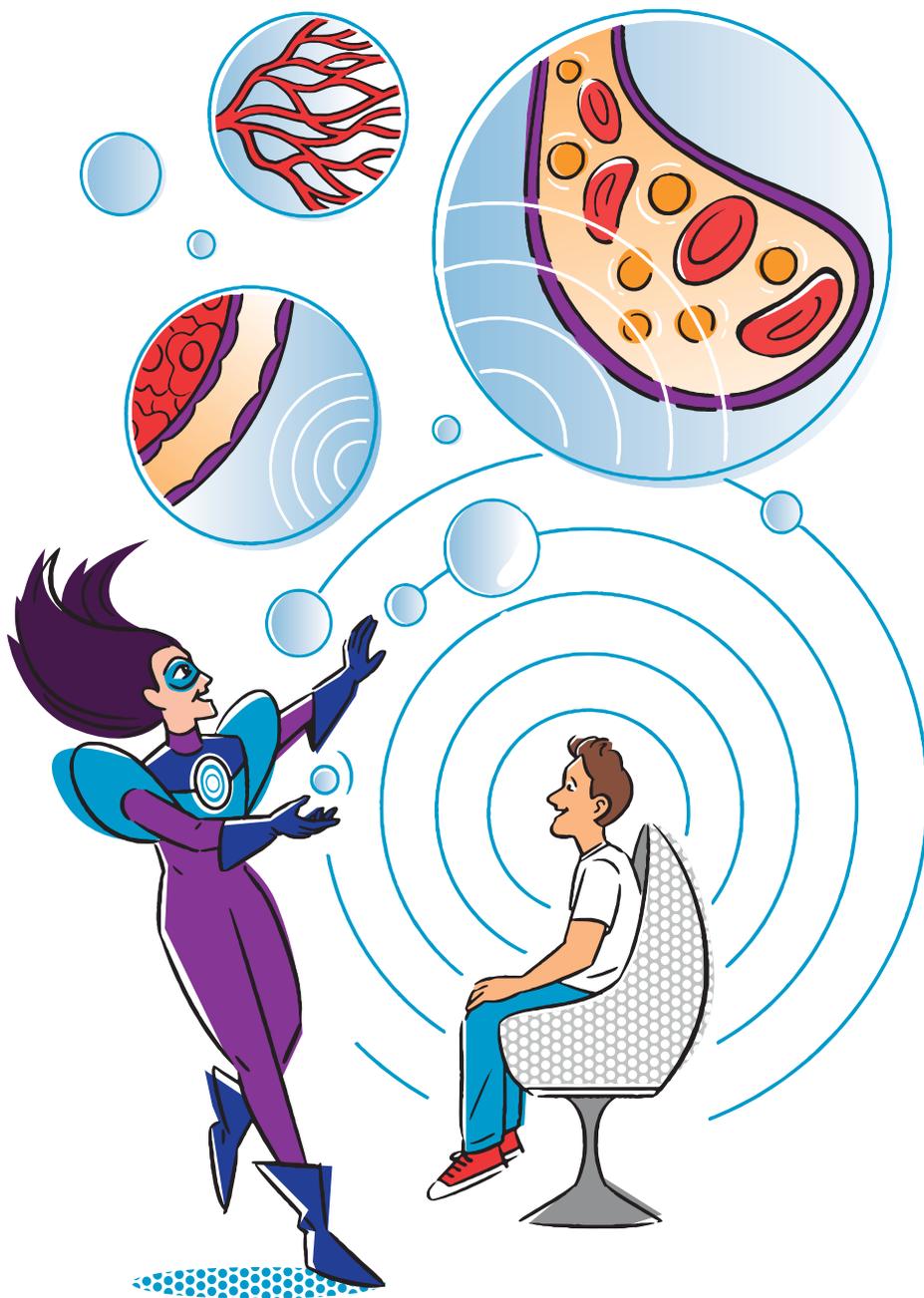
**What's the best thing about what you do?**

In science, things don't often work out quite the way we expect! I love solving puzzles so it is always exciting to find out what has happened and learn something new.



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## UltraSonic



**UltraSonic** has the power to create bubbles and control them using ultrasound! By controlling tiny bubbles with her ultrasound powers, she can make super-clear images of what is happening inside the body to help find diseases.

# Fact File

**Name:** Kirsten Christensen-Jeffries

**Job:** Research Fellow,  
King's College London

**Hobbies:** Being creative by making pottery, drawing and knitting scarves

## How did you get where you are now?

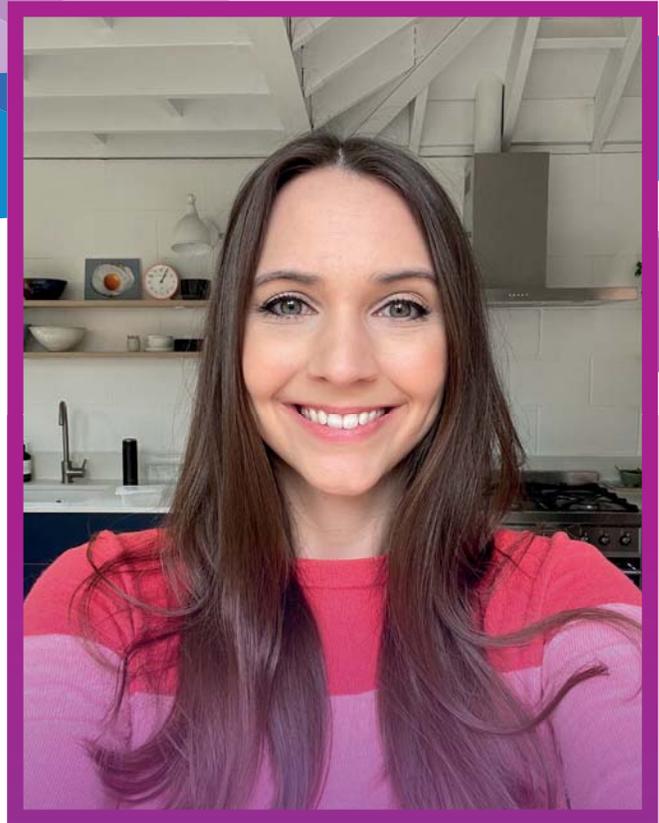
I was always very shy at school and I was one of the only girls in my physics class – I nearly gave it up! But I was inspired to keep going by some great teachers and I went on to university and studied physics and maths. I want to use that knowledge to help the world!

## How does your job help people?

It is really difficult to take good pictures inside the body to find out what is making people ill – you can use x-rays to see a broken bone but what about things like organs? We use tiny micro-bubbles combined with ultrasound to see inside the body like never before!

## What's the best thing about what you do?

I work with all sorts of scientists and doctors – there's so many interesting things to find out from each of them! And it's great to think that my work might help people in the future.



Limit Less

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## Mister Tech



**Mister Tech** is the team's inventor! He uses his robotic arms and rocket boots to create amazing inventions to solve the world's problems and make new discoveries. He can control electricity and magnetic fields to build incredible new machines!

# Fact File

**Name:** Munir Saleh

**Job:** Electronics and Mechatronics Technician, Imperial College London

**Hobbies:** I love baking bread, making authentic ramen noodles and playing basketball

**How did you get where you are now?**

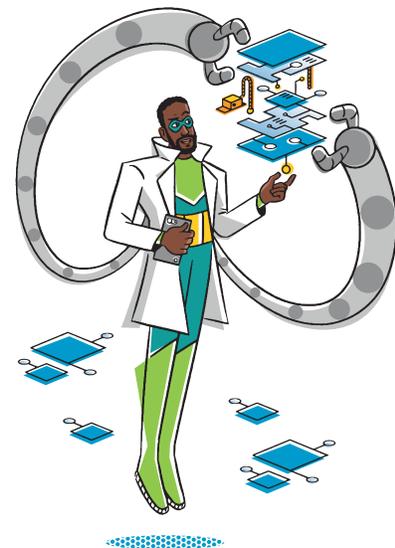
I've always been interested in taking things apart and seeing how they worked – especially electronics and circuit boards! I decided I wanted to learn all about engineering and became an apprentice technician.

**How does your job help people?**

I come up with new inventions and ideas to help scientists working on some of the world's biggest problems like climate change and renewable energy.

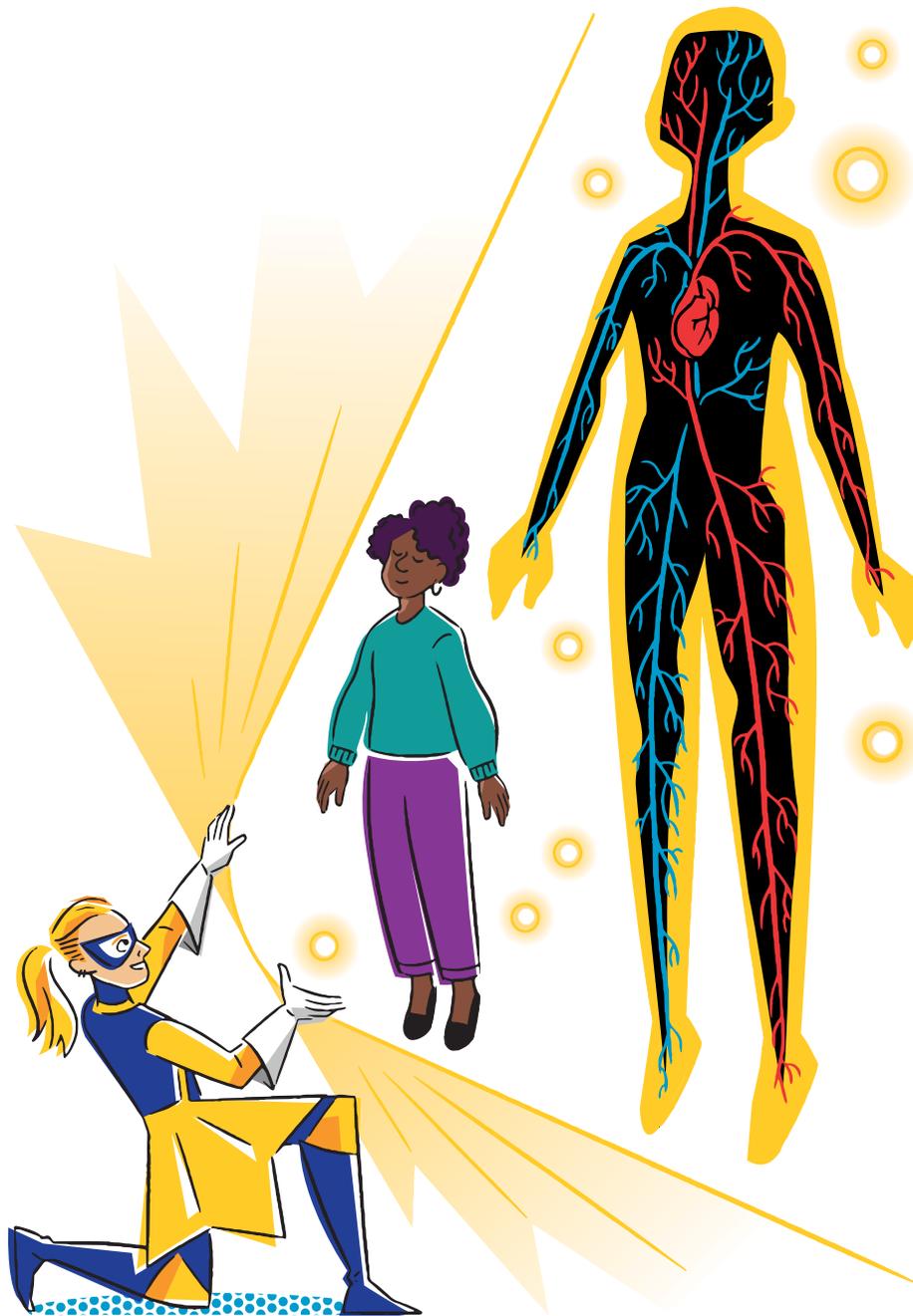
**What's the best thing about what you do?**

I love finding out about all the amazing research that is going on at Imperial College London – technicians are always working on something exciting and sometimes it might end up in places like the Large Hadron Collider!



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## Laser Lady



**Laser Lady** uses her incredible powers to create laser beams which can be used to see inside people, without hurting them! She uses the power of light to see things like veins and muscles to help understand illnesses and make people feel better.

# Fact File

**Name:** Rachel Lennon

**Job:** Postgraduate Researcher,  
University of Exeter

**Hobbies:** Playing the clarinet, saxophone  
and flute in jazz bands and orchestras

## How did you get where you are now?

I always wanted to use science to help people. I used to think that meant being a medical doctor in a hospital but then I realised I could do other kinds of science – like making sure the machines that they use in hospitals and the treatments given to patients work properly.

## How does your job help people?

I work with lasers – powerful beams of light – which can be used to take pictures inside your body if you're ill or hurt. The problem is that light doesn't travel through skin! I'm working on ways to solve this problem.

## What's the best thing about what you do?

I work in an amazing laser laboratory and do lots of experiments! I don't wear a white coat but I wear cool goggles that protect my eyes from being damaged by the laser

