Our ability to diagnose disease and to develop new treatments is absolutely dependent on understanding how our bodies function in health and illness.

As doctors, we depend on the best research to enable us to improve patient care.

I lead a team of internationally recognised scientists and clinicians at the University of Edinburgh’s MRC Centre for Inflammation Research.

We’re focused on the body’s natural defence mechanisms – the immune system – and a process called inflammation.

Inflammation is the body's protective response to injury and infection and it’s how our bodies repair damage to our tissues.

If it gets out of control, it can damage healthy tissues and cause diseases such as asthma, arthritis and multiple sclerosis.

Inflammation is a complex process that involves many cell types and different components of our immune systems.

We investigate how different cells of the immune system interact to keep us healthy, and how these interactions can go wrong to cause disease.

We’re also training the next generation of scientists to help us in our quest to tackle these complex challenges.

Our hope is that the knowledge gained from our research will help us to find better ways of diagnosing diseases.

It could also lead to new treatments that alter the behaviour of cells during inflammation –

to boost defences for fighting infections or cancers, to stop the immune system from damaging our own tissues and to help the body heal after illness

Ultimately, we want our research to improve people’s health and change lives.