

## The Wellcome Centre for Anti-Infectives Research

At the Wellcome Centre (WCAIR), we are a group of scientists and experts working together as one of Wellcome's 'centres of excellence'. As a team, we have 3 key missions:

- **Research**

We combine the talents of the University of Dundee's Drug Discovery Unit and academic parasitology labs. Our aim is to create new medicines to cure diseases which affect some of the poorest people in the world.

- **Training**

The vast majority of the world's drug discovery capacity is based in the global north. We aim to bring talented early-career researchers from low- and middle-income countries to Dundee for specialist training in what we do. We then support them at home, with the long-term ambition of kick-starting drug discovery research where its benefits are most needed

- **Public engagement**

As with our other two pillars, fighting inequality is a key part of our PE work. We want to inspire publics with what we do. In Dundee, we want to people yet another reason to be proud of their city and its place in the world. We are also interested in showing the breadth of opportunities that having science in your life can bring.

### Science Art

We have had an exciting productive partnership with Duncan of Jordanstone College of Art and Design (DJCAD). Much of this has been through LifeSpace Science Art Research Gallery. In each case, artists and scientists have met and shared ideas to co-create the projects. Our previous collaborations have included:

- *Para-site-seeing*

This began as a co-commission with NEEON in 2018. Artists Jen Southern and Rod Dillon answered our open call with the question 'what would a parasite's travel blog look like?' The initial commission led on to a significantly larger exhibition in LifeSpace as *Para-site-seeing: Departure Lounge*. This subsequently toured to Dundee Science Centre and we are excited about its future potential.



- *Translations*

We worked with Dundee Print Collective on a long-term exploration of life between laboratory and print studio. Ultimately we made a new collective where the lines were blurred. A series of beautiful, 3D art works using techniques from print and equipment from lab is now in LifeSpace.

- *Emily Fong in digital residence*  
Over the Covid outbreak, we have worked with artist Emily Fong to create a new non-resident residency. This project has evolved along with the world. Emily has created a whole new suite of work with scientists she has only met over MS Teams. Her blog is ever evolving, and the work has been a truly fascinating part of lockdown, opening up new views of life for all concerned.



With our history of successful collaborations, the WCAIR management are excited and enthused about working with artists. While it is important that we see ourselves reflected in the work in some way, we are very comfortable with artists who have their own bold vision too. To be a truly successful collaboration we believe that learning has to be a two-way process, and we are ready to be re-inspired by each new art project. We look forward to working with artists in whatever way we can, even with the Covid pandemic ongoing,

### Our Themes

Our work is varied, as we are a team which harnesses synergies across disciplines. Our research areas include:

- **Parasitology**

Looking at how these organisms live, work, hide and harm us – and how we can take back control. Our focuses are on Leishmania, Trypanosomes, Malaria and Cryptosporidium, using techniques like genetic engineering

- **Drug discovery**

Exploring chemical molecules, how our molecules affect our parasites, and how our molecules can affect the humans we want to give them to

- **Computational science**

More and more, we want to run our experiments using high-powered computers rather than complicated lab equipment, cells, and other organisms

- **Developing new technology**

Drug discovery can be incredibly expensive, in terms of time, money, and technology, taking around 15 years and \$500 million to make one new medicine. We aim to develop new ways to streamline this whole process

- **Fighting inequality**

Why are researchers in Dundee looking for cures for the so-called ‘Neglected Tropical Diseases’?

- **Public engagement:**

We want all of our work to be open, understandable, and inspiring. We hope our science art can kick off new conversations that change people’s lives.

You can find out more about what we do on our website at <https://wcair.dundee.ac.uk/>, and about our public engagement work at <https://wcair.dundee.ac.uk/public-engagement/>