Funded projects

REACT long Covid (REACT-LC)

Professor Paul Elliott, Imperial College London - £5.4m

This project aims to characterise and better understand the genetic, biological, social and environmental signatures and pathways of long Covid. It will also identify factors affecting why some people experience long term health effects of Covid-19, while others do not.

To date, most research on long Covid has been in hospitalised patients. The researchers will survey 120,000 people in the community who have taken part in the REACT study. Over 30,000 participants from REACT who tested positive for Covid-19, plus 90,000 who tested negative, will be invited to take part. Participants will be sent a survey about their health, symptoms and experiences. Participants with long Covid will be asked to join a panel to provide regular updates; while 60 will be invited for in-depth interviews. The researchers will develop a set of patient-reported outcomes that reflect the symptoms most important to people living with long Covid in the community.

Researchers will also invite up to 8,000 people with positive tests, including at least 4,000 with long Covid, for health tests and samples to test for genetic and other biological markers. This will help researchers understand mechanisms causing persistent symptoms and may point to possible treatments.

Therapies for long Covid in non-hospitalised individuals: from symptoms, patient-reported outcomes and immunology to targeted therapies (The TLC Study)

Dr Shamil Haroon and **Professor Melanie Calvert**, University of Birmingham - £2.3m

This project aims to identify which treatments are most likely to benefit people with particular symptoms of long Covid and test supportive treatments to improve their quality of life.

The researchers will identify around 2000 patients with long Covid from GP records. Study participants will be invited to use a digital platform to report long Covid symptoms/quality of life.

A subgroup of around 300 patients will receive blood and other biological tests to understand the immunology of long Covid and will wear a device that will measure their heart rate, oxygen saturation, step count and sleep quality.

The researchers will review evidence for long Covid treatments, including drugs or supportive interventions (e.g. for mental health or tiredness). Working with patients, doctors and other experts, the researchers will recommend treatments that should be tested in long Covid patients and co-produce a targeted intervention for long Covid, tailored to individual patient need.

This will be delivered remotely in the community, via the Atom5TM app, providing critical support and information to empower patients in self-managing long Covid. In addition, they will provide tailored resources to support symptom management and nurse-led support for those with the severest symptoms.

The researchers will also use the digital platform to assess whether the treatments and supportive interventions reduce symptoms, improve quality of life, and are good value for money.

Characterisation, determinants, mechanisms and consequences of the long-term effects of Covid-19: providing the evidence base for health care services

Professor Nishi Chaturvedi, University College London - £9.6m

This project aims to provide an evidence base for healthcare services to define what long Covid is and improve diagnosis. It will address why some people get the condition, the typical effects on a person's health and ability to work, and the factors which affect recovery. It will also look at how best to ensure patients are able to access the right treatment and support through health services.

The researchers will use data from more than 60,000 people drawn from a combination of national anonymised primary care electronic health records and longitudinal studies of people of all ages across the country. From these studies, people reporting long Covid and comparator groups, will be asked to wear a wrist band measuring exercise ability, breathing, and heart rate. Participants will also complete online questionnaires on mental health and cognitive function. They will also be invited to a clinic for non-invasive imaging to look at potential damage to vital organs, such as the brain, lungs and heart.

Findings will be shared with bodies involved in clinical guidelines (NICE, as collaborators in this project), with government (via the Chief Scientific Advisor), with the public via social media and other outputs, and the scientific community via research publications

Non-hospitalised children and young people with long Covid (The CLoCk Study)

Professor Sir Terence Stephenson, UCL Great Ormond Street Institute of Child Health - £1.4m

This research project aims to characterise symptoms typical of long Covid in non-hospitalised children and young people. It will also assess risk factors, prevalence and how long it lasts. This research will establish a medical diagnosis and operational definition of the condition, and look at how it might be treated.

The researchers aim to enrol 6,000 children and young people in the study, in two equal size cohorts - consisting of 3,000 who have had a positive Covid-19 test, and 3,000 who have not. Participants will be asked whether they still have physical or mental problems at 3, 6,12 and 24 months afterwards infection. Comparisons will then be made between the two cohorts. Carers and children and young people taking part will be involved in co-production of this study, and encouraged to complete surveys.

Results will be published, used to inform NHS services and health policy - and made available to participants. The study will provide data to help doctors to diagnose long Covid, establish how common it is, risk factors, and how long it goes on for