



Innovate  
UK



News Release

Immediate release: Monday 23 November

## **Coeliac UK and Innovate UK announce the award from their 2019 research call**

Coeliac UK, the UK charity for people who need to live gluten free, along with Innovate UK, the UK's innovation agency, announces joint funding of £180K from their 2019 research call, has been awarded to Lyzeum Ltd.

Despite Covid-19, which has meant many research projects being put on hold, this joint funding from 2019 enabled the research grant winners to commence the project earlier this year. The funding will assist Cambridge based Lyzeum Ltd, who is working with a multi-disciplinary team of mathematicians and pathologists from both the University of Cambridge and the University of Edinburgh to develop an AI (artificial intelligence) solution to help and speed up the diagnosis of coeliac disease, an autoimmune condition.

Currently in the majority of cases, in order to diagnose coeliac disease, biopsies are inspected by a trained pathologist to identify the damage to intestinal cells which is characteristic of coeliac disease. A process which is time consuming and subjective, with different opinions in up to 25% of cases.

With access to a large database of scanned, high resolution, microscopic images of small intestinal biopsies, this funding will allow the researchers to develop a cloud based, digital pathology tool to help with the diagnosis of coeliac disease using an algorithm that can diagnose biopsies as diseased or normal.

The aim is to substantially improve the speed and accuracy of biopsy based coeliac disease diagnosis and potentially automate part of the process. The research may also provide important new insights into the microscopic appearances of coeliac disease and potentially identify different subtypes of coeliac disease.

Hilary Croft, CEO of Coeliac UK said: "This new research is a tremendous step forward to potentially help speed up one element of the diagnosis journey, reduce subjectivity and improve accuracy. Pioneering research is essential to aid in developing new testing methods

and we are thrilled to have combined forces with Innovate UK once again to advance our knowledge and support innovation that can improve the lives of people with coeliac disease.”

Richard Hebdon, Head of Health and Medicine at Innovate UK, said: “Innovate UK has long supported businesses innovating in the areas of healthcare diagnostics and nutrition, helping to translate the UK’s world class research into commercially available solutions. This new research will not only help improve, but also speed up diagnoses of one of the most undiagnosed chronic conditions in the UK.”

In early 2019, three projects based in Birmingham, Newcastle and Edinburgh, were awarded Coeliac UK / Innovate UK grants from the first joint research call held in 2018. Including the contribution from industry, a total £750k was committed to research:

- A new test to provide a less invasive way of diagnosing coeliac disease that may not rely on someone having to eat ongoing amounts of gluten if they have already adopted a gluten free diet.
- Development of three new plant proteins derived from crops, which are underused in the UK: rapeseed cake, faba beans and naked oats, to help improve the ingredients used in gluten free bread. At the beginning of the year, Nandi Proteins Ltd and the team welcomed Finsbury Food Group – Ultrapharm to the project, as one of the industrial end users.
- Software innovation to help in the ongoing management of coeliac disease, so that those who need additional care receive access to crucial support when they need it and those living well can receive the assurance of being clinically followed up without the inconvenience, time and cost of hospital appointments.

#### **About Coeliac UK**

Coeliac UK campaigns for better access to diagnosis of coeliac disease and funds critical research into potential cures. It provides expert and independent information to 65,000 members and the wider gluten free community to manage their health and gluten free diet.

The charity also fights for wider availability of gluten free food by working with food manufacturers, service providers and venues. Currently 3,000 products and 200 companies use the charity’s Crossed Grain certification scheme and over 3,200 food outlets, cafés and restaurants have achieved its Gluten Free accreditation.

#### **About Innovate UK**

Innovate UK is part of UK Research and Innovation, a non-departmental public body funded by a grant-in-aid from the UK government. For more information visit [www.ukri.org](http://www.ukri.org).

Innovate UK drives productivity and economic growth by supporting businesses to develop and realise the potential of new ideas, including those from the UK’s world-class research base.

We connect businesses to the partners, customers and investors that can help them turn ideas into commercially successful products and services and business growth.

Ends

For more information, please contact  
Kate Newman [kate.newman@coeliac.org.uk](mailto:kate.newman@coeliac.org.uk)  
PJ Taylor [pjtaylor@innovateuk.ukri.org](mailto:pjtaylor@innovateuk.ukri.org)

**Notes to Editors:**

- Coeliac UK is the national charity for people who need to live without gluten, whether due to coeliac disease or another medical condition requiring a gluten free diet.
- Coeliac disease is a serious autoimmune condition where the body's immune system reacts to gluten found in food, making the body attack itself.
- 1 in 100 people in the UK has coeliac disease but half a million people in the UK are undiagnosed.
- Average time to diagnosis is 13 years.
- Gluten is a protein found in wheat (including spelt), rye and barley. Some people are also sensitive to oats.
- Coeliac UK has a Helpline on 0333 332 2033 and further information can be found at [www.coeliac.org.uk](http://www.coeliac.org.uk)