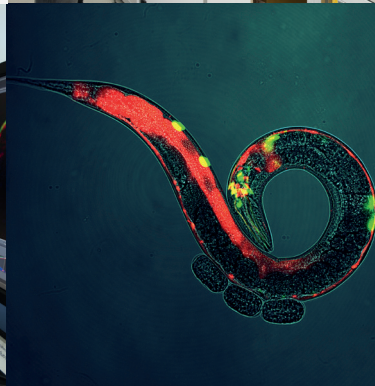
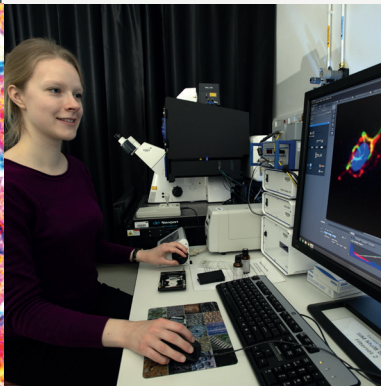
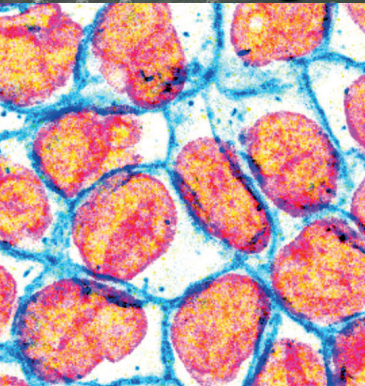
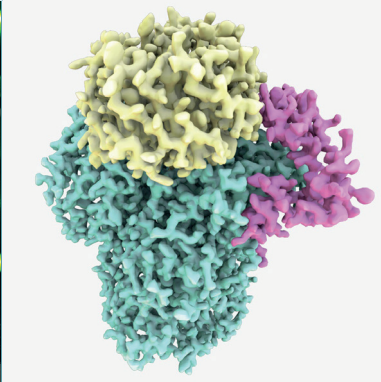
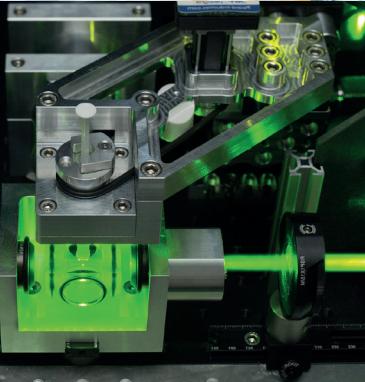




MRC Laboratory
of Molecular
Biology



Over 800 scientists and support staff work at the LMB, representing over 50 different nationalities and consisting of approximately:

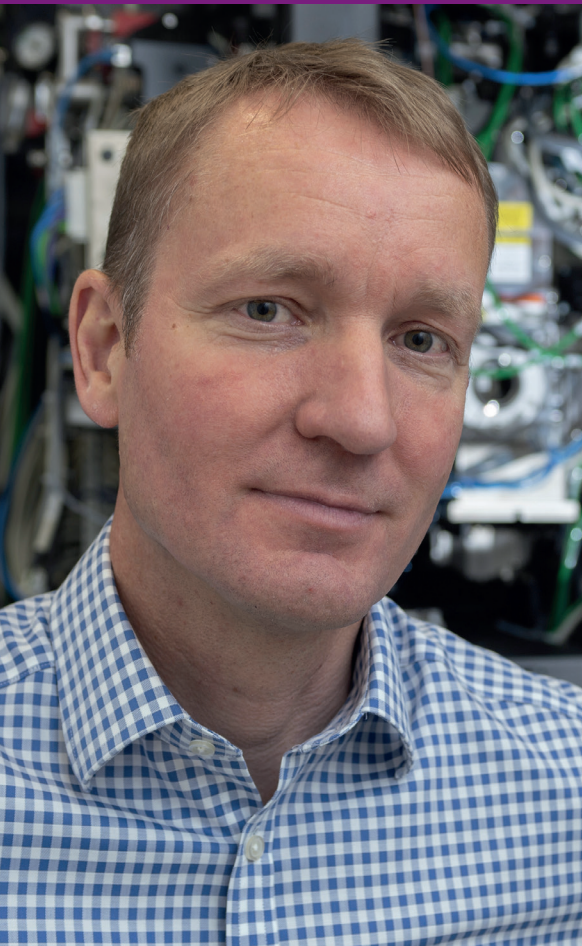
50 Group Leaders

400 postdoctoral/support scientists

100 PhD students

200 support staff

**70 scientists in the University of Cambridge
Molecular Immunity Unit**



“The LMB provides an unsurpassed environment for both new and established researchers. Our scientists are drawn from all over the world, creating a lively international community for the exchange of ideas and technical innovation. Many are inspired by the knowledge that discoveries made at the LMB have made a difference to the world, and will continue to do so.”

Jan Löwe, Director



True innovation

Novel discovery

Long-term impact

What do we do?

World-leading research dedicated to expanding our knowledge of important biological processes at the level of **atoms, molecules, cells, and organisms**

Tackle important, difficult, **long-term**, problems

Why do we do it?

To understand complex systems such as the **immune system** and the **brain**

To solve key problems in **health** and **disease**

LMB research greatly benefits the **UK economy** and has generated over **£700 million** in commercial income

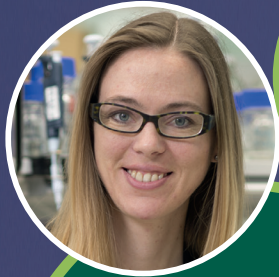
The LMB's origin dates back to 1947, when the MRC funded a unit aiming to determine the structure of proteins

Work by LMB scientists has received numerous awards, including 12 Nobel prizes, for example:

Francis Crick and James Watson, 1962 -
discovery of the structure of DNA

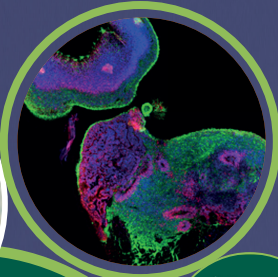
Richard Henderson, 2017 -
development of cryo-electron microscopy

A number of emerging areas of pioneering LMB research are set to benefit human health



USING "MINI-BRAINS" TO STUDY HUMAN BRAIN DEVELOPMENT

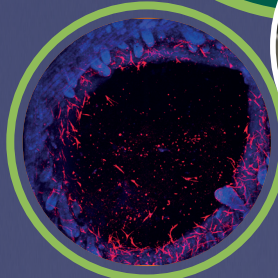
Madeline Lancaster's group aims to improve our understanding of disorders like autism, by studying cerebral organoids



CELL BIOLOGY

BODY CLOCKS AND WOUND HEALING

John O'Neill's group discovered that wounds incurred during the active phase of the circadian cycle (daytime for humans) heal more rapidly



NEW APPROACH TO TREAT ASTHMA

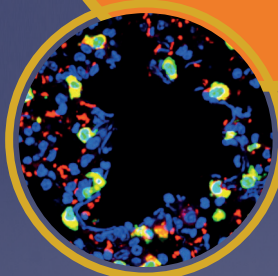
Work by Andrew McKenzie's group identified a new immune cell type that controls the start of allergic asthma, providing a critical first step in developing new treatments



PNAC

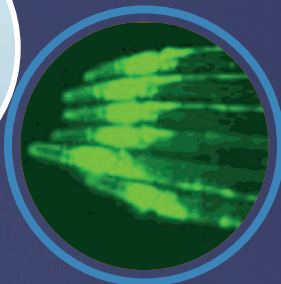
INVESTIGATING THE IMMUNE RESPONSE

Patrycja Kozik's group is studying the processes behind T cell activation by dendritic cells - key in immune responses against pathogens and tumours



UNDERSTANDING AGEING

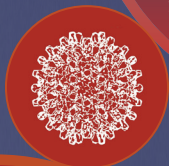
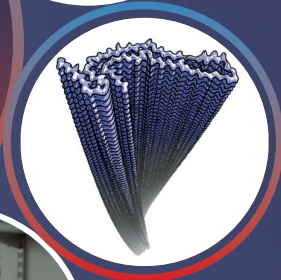
Researchers in Rebecca Taylor's group are investigating how and why misfolded proteins accumulate during ageing, which is important in many diseases



NEUROBIOLOGY

ABERRANT PROTEINS AND ALZHEIMER'S DISEASE

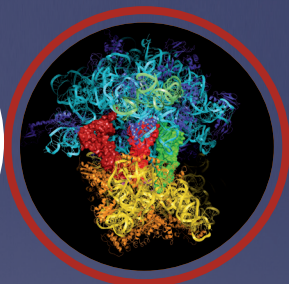
Working together, Michel Goedert's and Sjoer Scheres' groups have solved the structures of the abnormally folded proteins that are associated with disease



STRUCTURAL STUDIES

IMPROVED ANTIBIOTICS FROM RIBOSOME RESEARCH

Work from Venki Ramakrishnan's group helped to solve the structure of the ribosome and is informing work to develop new antibiotics



Over 60 years of discoveries at the LMB



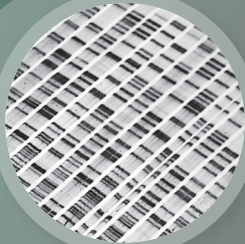
1953: Double-helical structure of DNA elucidated



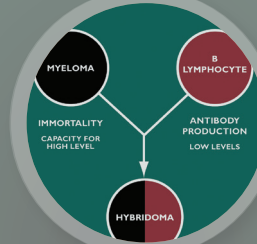
1959: First atomic resolution map of a protein, myoglobin



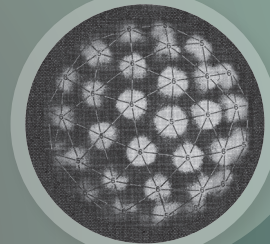
1961: Demonstration of the triplet nature of the genetic code



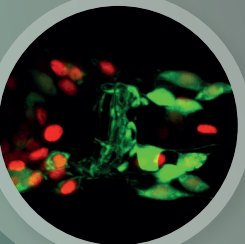
1977: Method for sequencing DNA developed



1975: Monoclonal antibody methodology invented



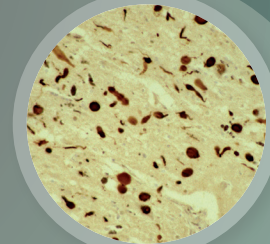
1968: First 3D models of protein structures from electron microscopy



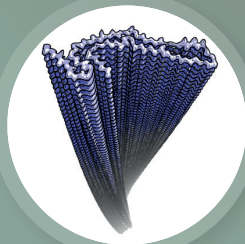
1986: *C. elegans* is the first animal to have its entire nervous system mapped



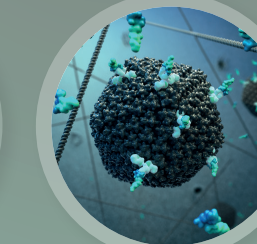
1988: First patient treated with humanised antibody, Campath-1



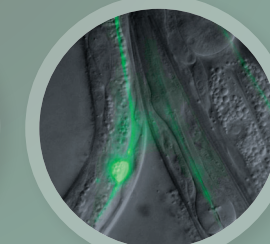
1997: Composition of Parkinson's disease-associated lesions identified



2017-2018: Structures of tau filaments from Alzheimer's and Pick's disease solved



2010: Discovered that antibodies fight viruses within infected cells



1998: *C. elegans* is first animal to have genome sequenced



The LMB and its scientists regularly participate in public events, such as the Cambridge Science Festival and the Royal Society Summer Exhibition

For more details of forthcoming activities see <http://mrc.io/lmbevents>

“For me, the best thing about the LMB is the collaborative ethos that surrounds the lab. I feel very lucky to be part of an institution with so many people willing to invest both time and effort into helping me achieve my goals.”

Alison Inglis, PhD student 2014-2018

“Being in the LMB is eccentric and prestigious. Since my first day I have felt that I should grasp every opportunity to challenge myself and to stretch my potential. Walking down the same hallways as several Nobel laureates and seeing the handwriting of Sydney Brenner on the wall have made me feel even more privileged to do science.”

Soudabeh Imanikia, MRC Career Development Fellow

“It’s the combination of stable long-term funding and technical expertise along with a collaborative spirit and a reputation for curiosity driven research that make the LMB a magnet for the world’s best talent”

Venki Ramakrishnan, Group Leader, winner of 2009 Nobel Prize for Chemistry





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Cambridge Biomedical Campus

Innovation and excellence in science and health

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