



University of Glasgow

This exhibition has been made possible through the generous support of the Chancellor's Fund, University of Glasgow.

IMAGES OF

CIENCE

Glasgow has a rich heritage in the medical, veterinary and life sciences. Across the river sits the University of Glasgow where scientists continue to work to improve human and animal health. Explore this gallery of spectacular images and discover more about their cutting-edge research.

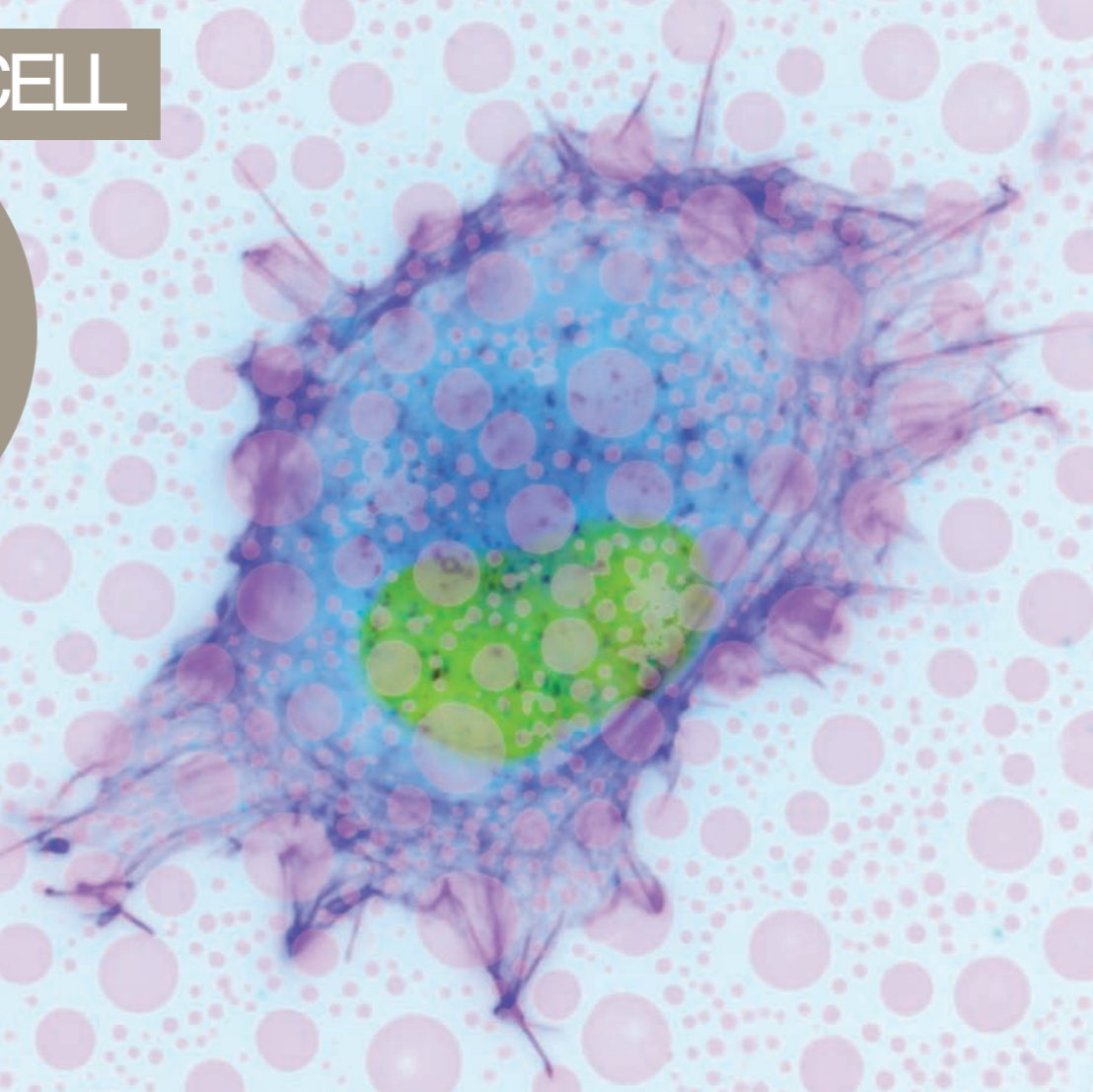


As you explore this gallery you will find QR codes. These 2D barcodes let you listen to scientists describing their images. To begin, scan one using a scanner app on your smartphone.



BONE CELL

A bone cell senses its surroundings with narrow projections. The synthetic surface it is exploring, shown as pink dots, was designed to guide bone and skin cells. When applied to dental implants, it can result in better integration, making longer lasting implants.



The research of Dr. Mathis Riehle at the Centre for Cell Engineering, University of Glasgow is supported by



STEM CELLS

The colourful staining of these stem cells captures their internal structure. These stem cells have the capacity to generate all cell types of the human body. The technologies to grow new cells could lead to therapies that will replace or restore damaged cells or tissues.



The research of Dr. Jo Mountford at the School of Life Sciences, University of Glasgow is supported by

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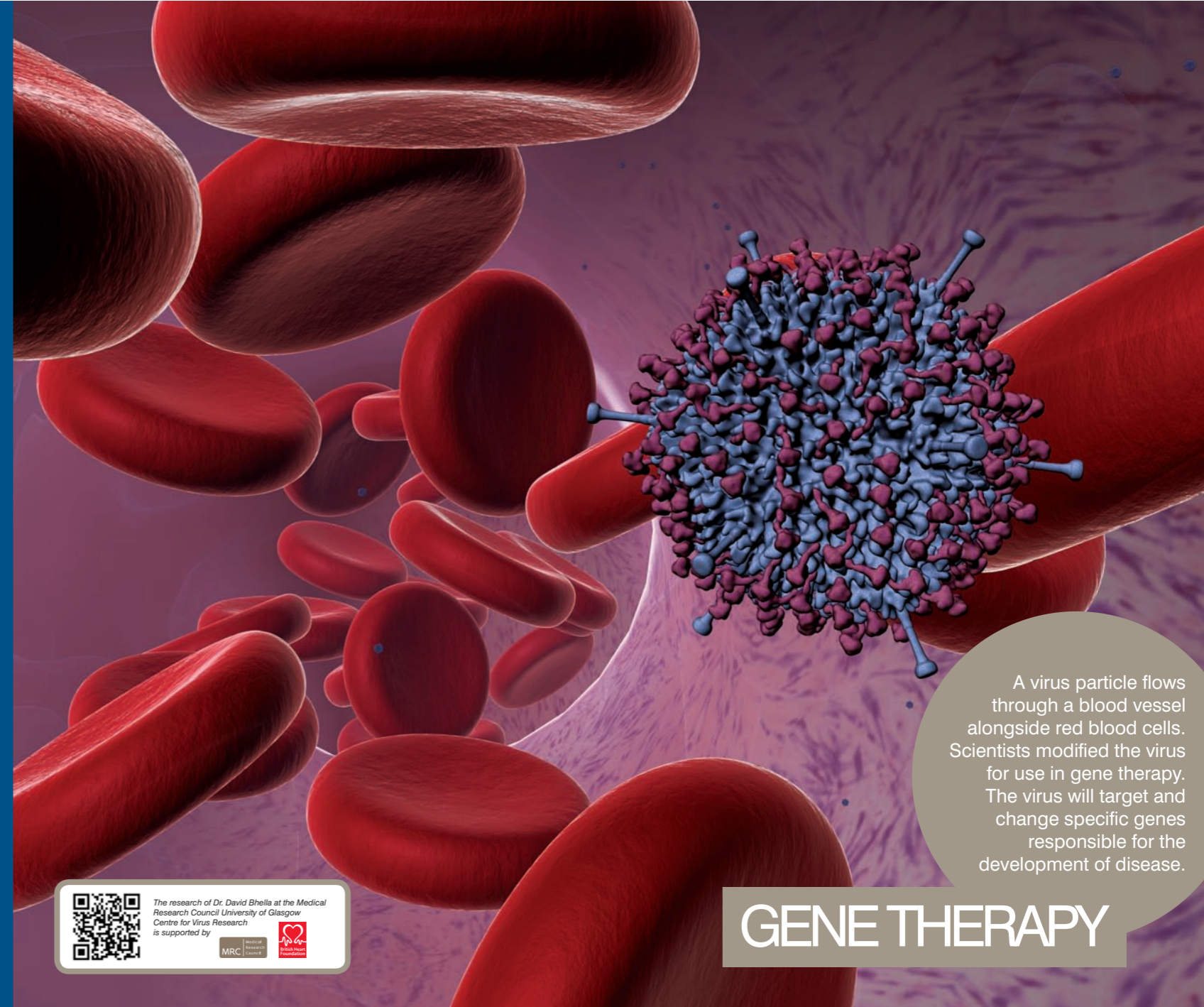
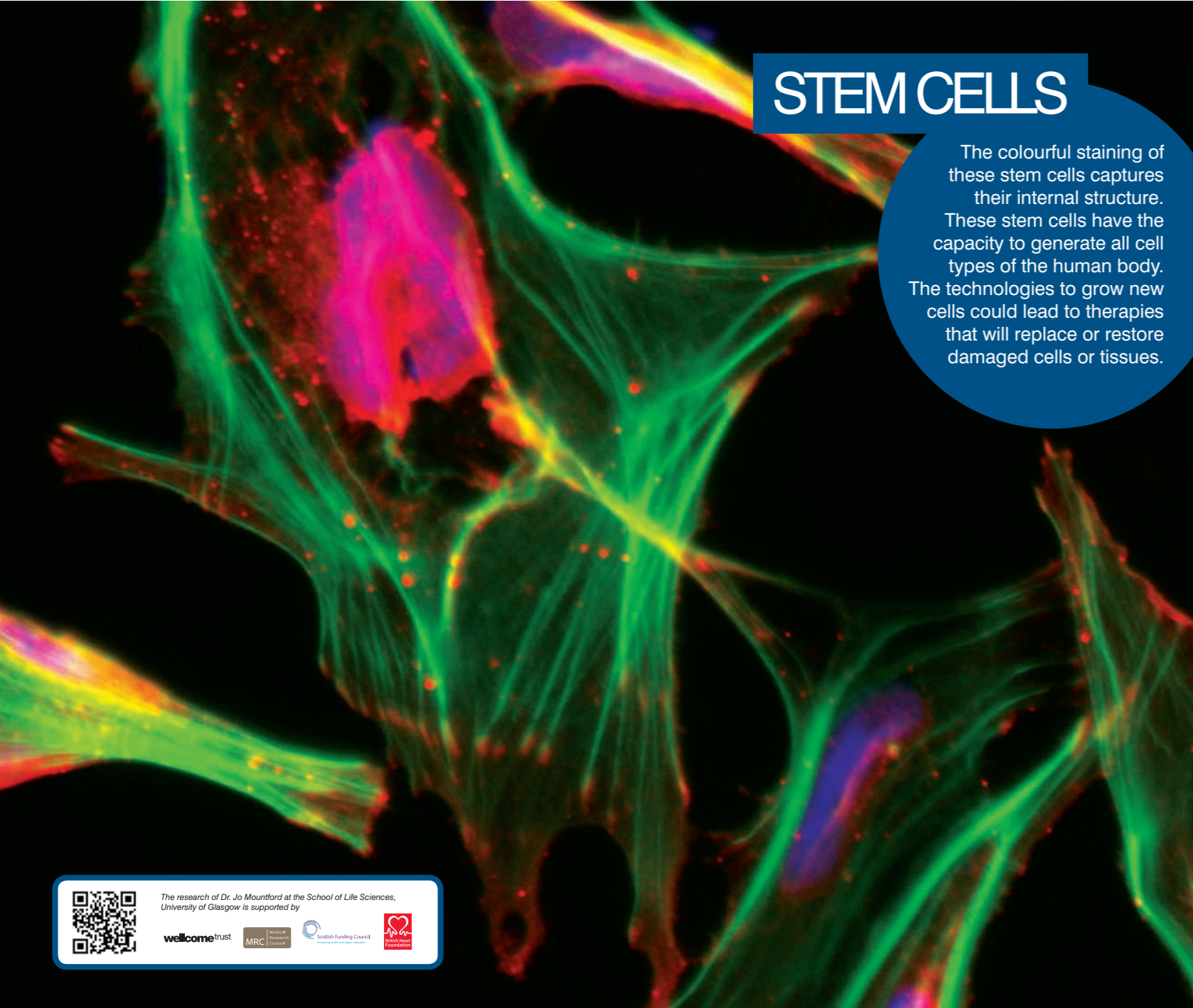
The research of Dr. David Bhella at the Medical Research Council University of Glasgow Centre for Virus Research is supported by

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GENE THERAPY

A virus particle flows through a blood vessel alongside red blood cells. Scientists modified the virus for use in gene therapy. The virus will target and change specific genes responsible for the development of disease.





A tree frog displays its feet, which it uses to climb smooth and wet surfaces. The pattern of toe pads on its feet gives the frog its adhesive ability. Scientists have taken inspiration from this pattern and created wet weather tyres with a frog-like tread.

TREE FROG



The research of Dr. Jon Barnes and Dr. Thomas Endlein at the Centre for Cell Engineering, University of Glasgow is supported by





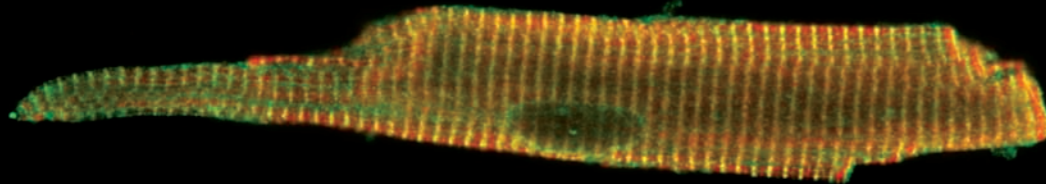
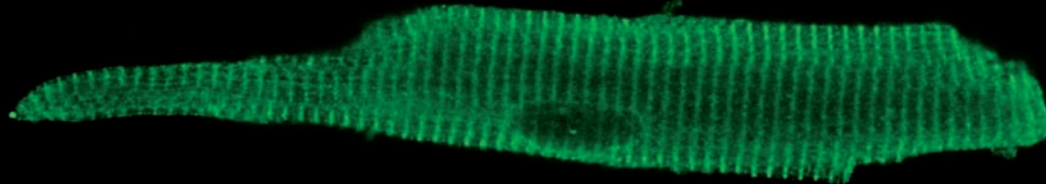
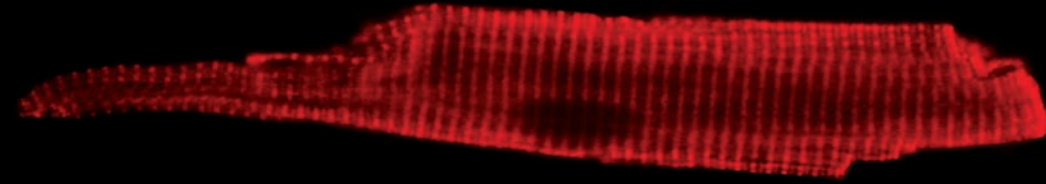
A pied flycatcher bird returns to his nest box with food for his chicks. The nest box houses a video camera so that scientists can identify what types of food are given to the chicks. Food chosen by birds can sometimes contain harmful elements such as parasites.

PIED FLYCATCHER



The research of Dr. Hannah Rowland at the Institute of Biodiversity, Animal Health and Comparative Medicine, University of Glasgow is supported by



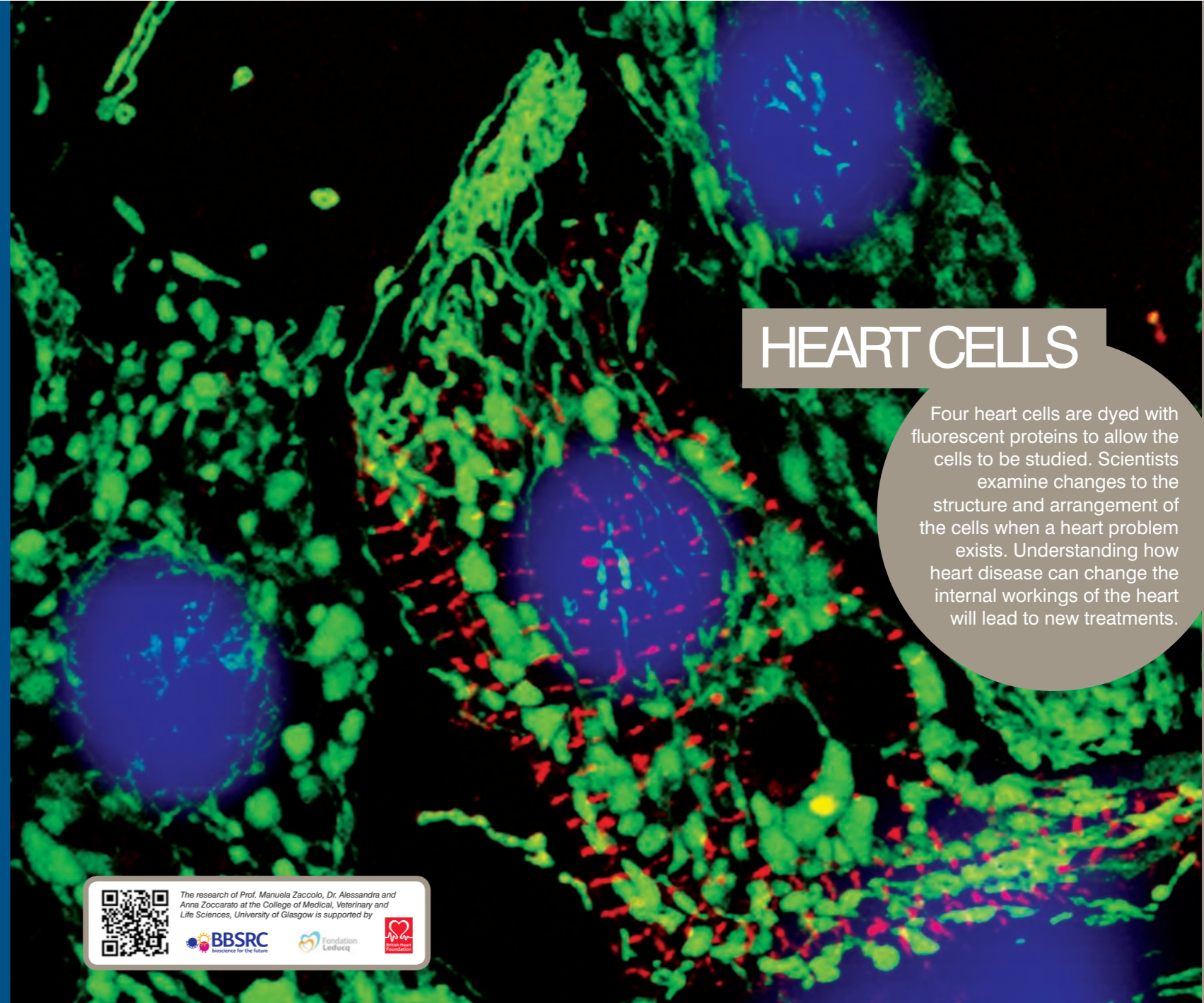



HEART CELLS

Colourful stains reveal different proteins in a heart cell, which allow the heart to contract. Scientists study how these proteins interact and how disease can change these interactions. This research will lead to better treatments for patients with heart and circulatory diseases.



The research of Dr. Helen Edwards and Dr. George Baillie at the College of Medical, Veterinary and Life Sciences, University of Glasgow is supported by



HEART CELLS

Four heart cells are dyed with fluorescent proteins to allow the cells to be studied. Scientists examine changes to the structure and arrangement of the cells when a heart problem exists. Understanding how heart disease can change the internal workings of the heart will lead to new treatments.



The research of Prof. Manuela Zaccaro, Dr. Alessandra and Anna Zoccarato at the College of Medical, Veterinary and Life Sciences, University of Glasgow is supported by



BLOOD VESSEL

A drug on the surface of a blood vessel glows orange to illustrate the location of a cell. Scientists are studying these cells to improve treatments for patients with high blood pressure. The cell is where beta-blocker drugs would act on the blood vessel.



The research of Dr. Craig Daly at the School of Life Sciences, University of Glasgow is supported by



ENZYMES

This intricate arrangement of proteins forms part of an enzyme structure. Found in the human body, this enzyme complex is used in processes that derive energy from food. Defects to these structures are linked to diseases such as diabetes and Parkinson's disease.



The research of Prof Gordon Lindsay at the College of Medical, Veterinary & Life Sciences, University of Glasgow is supported by



KIDNEY

A fruit fly pauses for a moment on the edge of a penny. The kidneys of these insects work in a very similar way to human kidneys. Scientists are taking advantage of these similarities to devise new treatments for disorders such as kidney stones.



The research of Prof. Julian Dow at the Institute of Molecular, Cell and Systems Biology, University of Glasgow is supported by



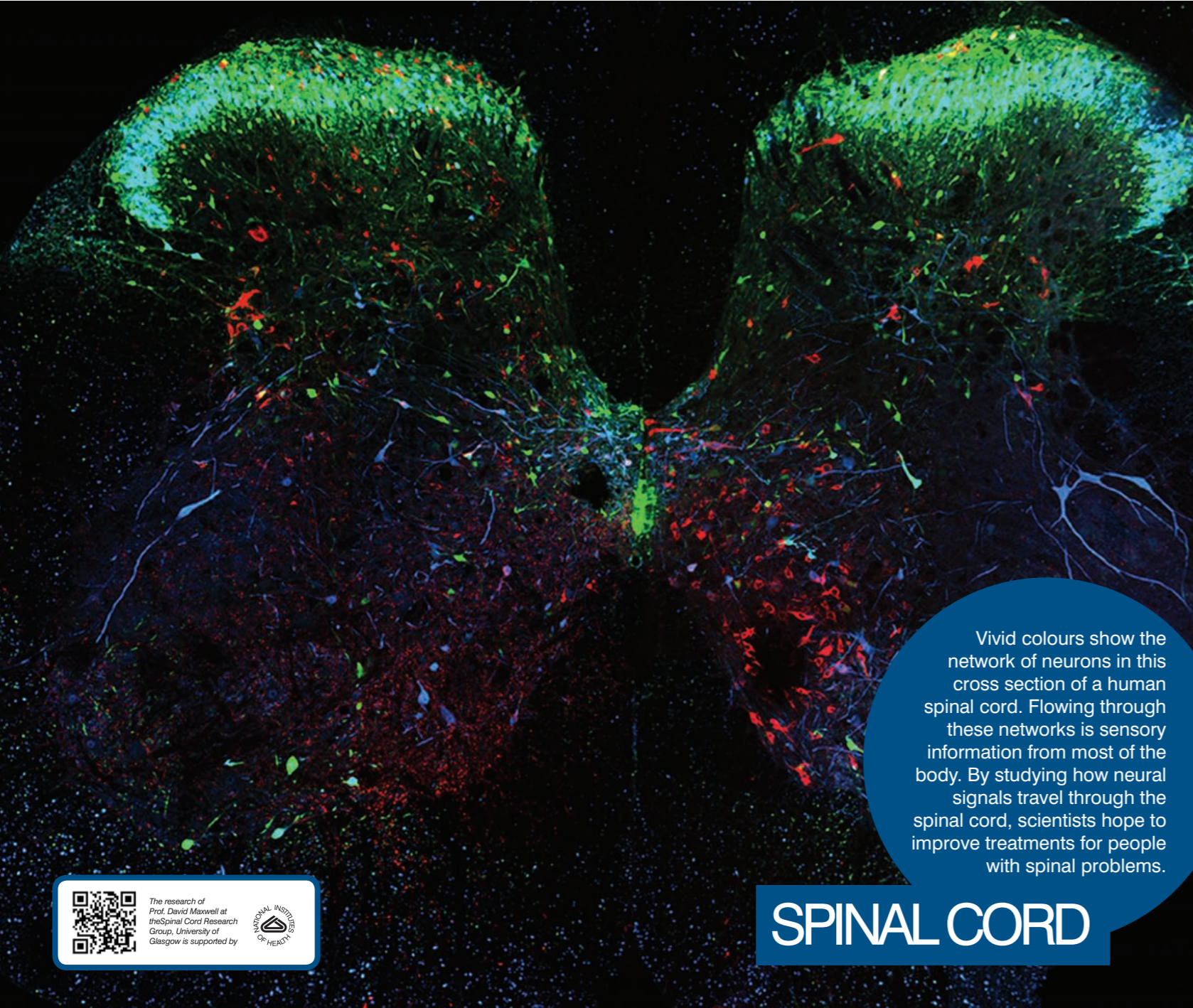
PARASITE

Splitting itself in two, a trypanosome parasite is seen reproducing. In Africa, these deadly parasites infect cattle and humans through bites from tsetse flies. Scientists are studying the genetic makeup of the flies to reduce the spread of disease.



The research of Prof. Mike Turner and Dr. Tansy Hammaron at the Glasgow Biomedical Research Centre, University of Glasgow is supported by





Vivid colours show the network of neurons in this cross section of a human spinal cord. Flowing through these networks is sensory information from most of the body. By studying how neural signals travel through the spinal cord, scientists hope to improve treatments for people with spinal problems.

SPINAL CORD



The research of Prof. David Maxwell at the Spinal Cord Research Group, University of Glasgow is supported by



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