

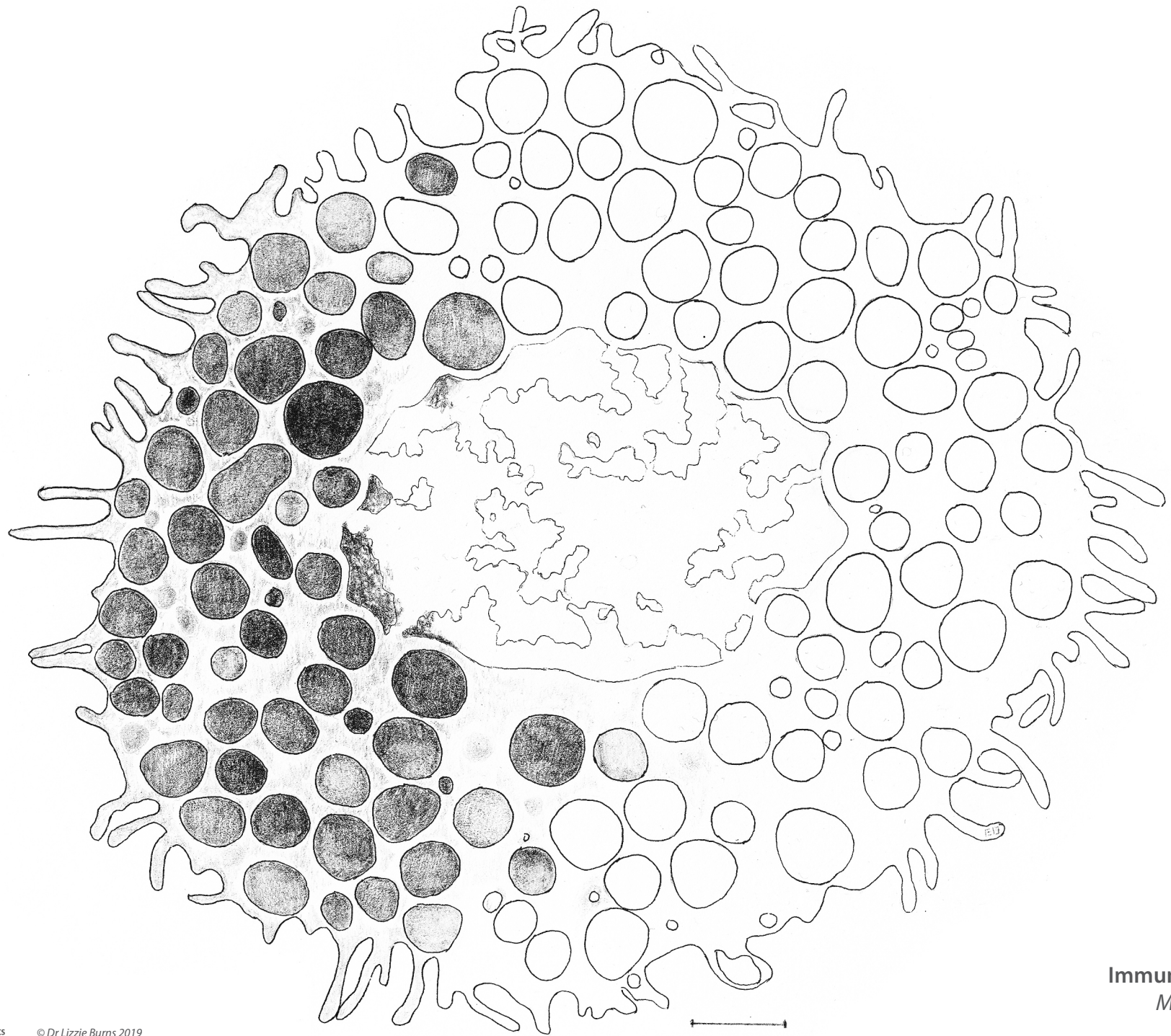
Cells that look after you

You are made of a vast community of cells. Add colour to reveal the intricate beauty of a single mast cell, which is part of the immune system, that protects you from illness.

Mast cells help protect you from parasitic worms that would otherwise make you unwell. Nowadays, these infections are rare so mast cells also react to different things like pollens and foods, resulting in allergies. When you take antihistamines for allergies, you help calm these cells down.

Mast cells are striking, looking like bags of marbles. Each 'marble' is a bubble of chemicals including histamines. When the cell reacts, for example to pollen, chemicals are released. These cause symptoms of allergies including runny nose, itchy eyes and tummy ache.

Add delicate colours to the outside membrane of the cell and the chemical balls. Complete the shading and add bright colours to represent these reactive chemicals. In the centre of the cell is the nucleus, inside which is your DNA. Add shading to the cytoplasm and see the delicate balls of histamine appear. The bar at the bottom represents one micrometre (one thousandth of a millimetre). Around seven mast cells would fit across the width of a human hair.



Immunology
Mast cell