



Haematopoietic

Dendritic Cells



The intelligence of dendritic cells of the immune system, found in every part of the body, including our skin, gut and immune organs (thymus and bone marrow), where our immune cells develop.

Dendritic cells 'collect' parts of pathogens from around the body and take them to the lymph nodes, where many immune system cells can be found.

The dendritic cells show T cells and B cells the pathogen parts and stimulate them to multiply and attack the pathogen. Dendritic cells are also essential in the development of T and B cells.

This image shows dendritic cells (red) with blood vessels (green) in the lymph node.



B Cells

B cells are the ninjas of the immune system, as one of their main jobs is to make antibodies. Antibodies are 'Y' shaped proteins; each one is slightly different so that many germs - or pathogens - can be identified.

Antibodies can also be made in various forms depending on where in the body they need to be, for example in our blood or on our skin. When B cells first develop they produce simple antibodies which respond initially to invading pathogens, but later these antibodies can be improved.

When a virus or bacteria attacks our body, the simple stock of antibodies produced by B cells respond. Then special command units are formed called T-helper cells, where defence attack is planned and co-ordinated. From here improved and more specific antibodies and immune cells are sent out to join the battle.

Using a powerful microscope we can see B cells (blue) in the lymph node.

