

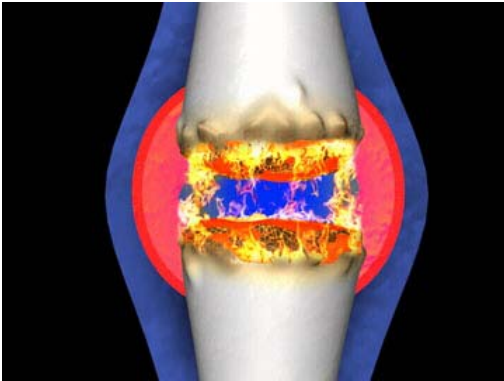
# Rituximab and Rheumatoid Arthritis Images

1.



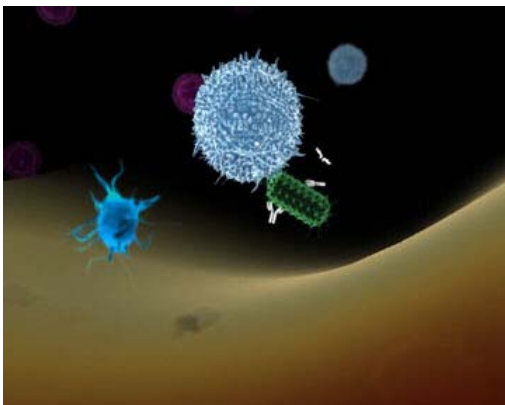
Rheumatoid arthritis particularly affects the small joints of the hands and feet. The knuckle joint shown here is inflamed and swollen, and the range of movement and strength of the joint are greatly reduced compared with a healthy joint

2.



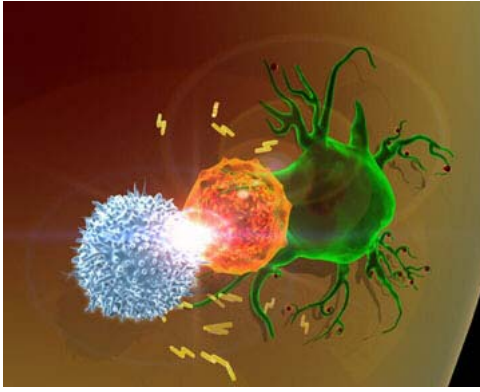
The disease process starts with inflammation of the lining of the joint - the synovium - and is followed by destruction of the underlying cartilage, and then the bone itself

3.



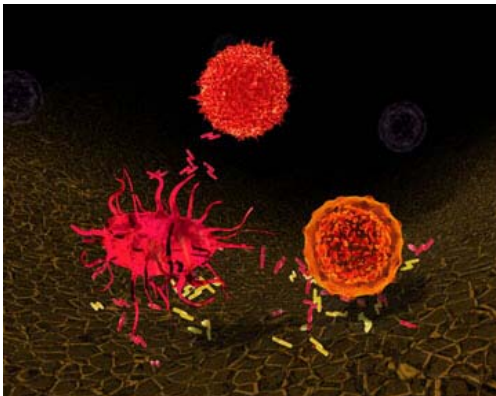
B cells form part of the normal immune system, and are responsible for recognising foreign antigens, such as viruses or bacteria, and producing antibodies against these to protect against infection

4.



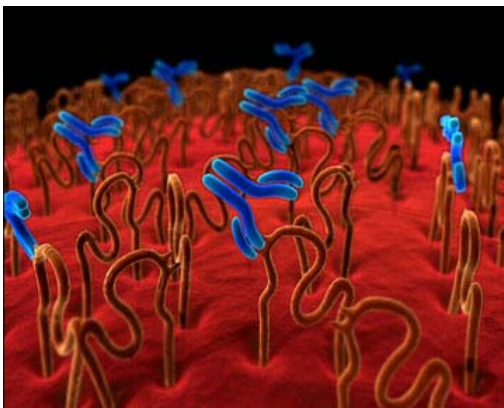
B cells play several important roles in controlling and orchestrating the inflammation characteristic of rheumatoid arthritis. They become activated through interaction with other cells of the immune system

5.



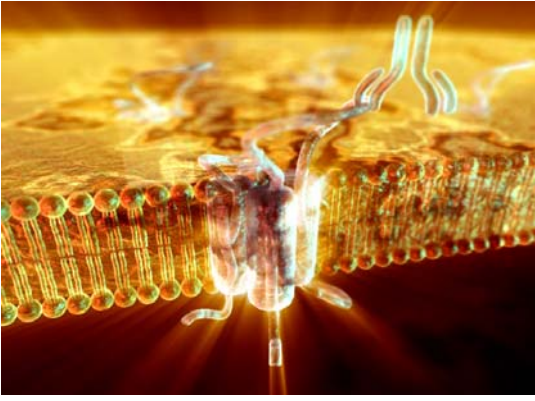
B cells communicate via cytokines with other inflammatory cells, such as T cells and macrophages, to maintain and amplify the cycle of inflammation

6.



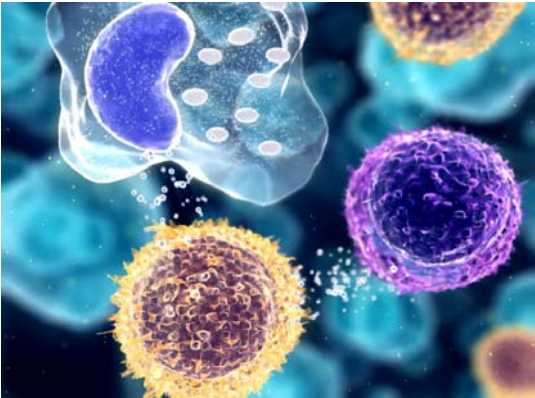
Rituximab binds specifically to a cell-surface marker known as CD20, found on developing B cells and mature B cells, but not on stem cells or plasma cells. When rituximab binds to CD20, it triggers mechanisms that result in targeting this select B cell population.

7.



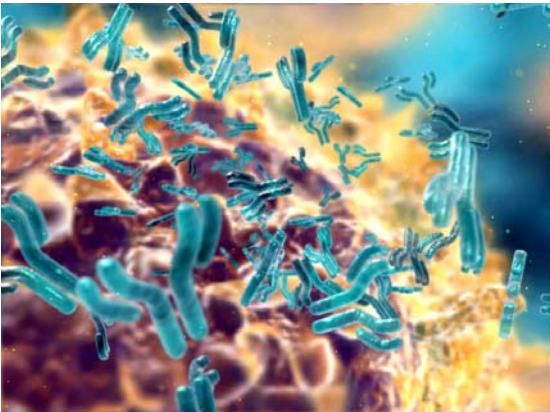
Rituximab binding to CD20 on the B cell

8.



The cycle of inflammation

9.



Rituximab targets B cells