



Decomposing cells: At the site of an infection, neutrophil granulocytes (dyed yellow) move out of the blood vessels (dyed blue) into the tissue. These neutrophil granulocytes are the largest group of white blood cells and form the front line in the defensive reactions of the immune system. They release enzymes that split proteins, causing invading pathogens to decompose and rendering them harmless. An international team working with Dieter Jenne and Kai Kessenbrock from the Max Planck Institute for Neurobiology in Martinsried has now discovered that

granulocytes might also play a crucial role in chronic inflammation that is not caused by infections, and also in autoimmune diseases. This is because two of the enzymes they release also split the body's own anti-inflammatory protein and stimulate chronic inflammation, which destroys the surrounding tissue, as is the case, for example, with rheumatic diseases. It is hoped that these findings will lead to drugs that suppress the damaging effect of the neutrophil granulocytes in chronic inflammatory processes.

PHOTO: MPI FOR NEUROBIOLOGY

