What is Adacolumn®
Adacolumn® is an adsorptive type leukocytapheresis column, that contains cellulose acetate beads bathed in physiologic saline. As blood passes through the Adacolumn®, granulocytes and monocytes/macrophages that are known to promote inflammatory bowel disease are selectively adsorbed to the beads.

What is treatment with Adacolumn®
The Adasystem, consisting of Adacolumn®, Adamonitor and Adacircuit, is needed to perform the treatment. Adacolumn® was CE-marked in 1999.

For treatment with the Adacolumn®, blood access is made via a simple venopuncture in one of the patient’s arms. The blood passes through the Adacolumn® where activated granulocytes and monocytes/macrophages are removed and the blood returns to the patient via a venopuncture in the opposite arm. The extracorporeal flow rate is 30 ml/min and the duration of one treatment session is 60 min. A small dose of heparin is used as an anticoagulant.
How does Adacolumn® work
Adacolumn® selectively adsorbes granulocytes, monocytes/macrophages with the help of Fcγ and complement receptors. Approximately 65% of granulocytes and 55% of monocytes from the blood that passes through the column, are adsorbed. However the count of blood cells will not go down below the healthy level as the entrapped activated cells are rapidly replaced by mobilisation of inactive, CD10-negative leukocytes. This means that apheresis with Adacolumn® has rather a qualitative than quantitative effect, i.e. activated leukocytes are replaced by inactive cells. Additionally, Adacolumn® leukocyte adsorption is associated with sustained down-modulation of pro-inflammatory cytokines like TNF-α, IL-1β, IL-6 and IL-8 released by blood leukocytes together with down-modulation of L-selectin and the chemokine receptor CXCR3 which mediate migration of leukocytes from blood into the inflammatory tissue.