

DEVICE(S) TO REDUCE PRO-FIBROTIC SIGNALING IN PLATELETS DURING HEMODIALYSIS THROUGH END-CAP MODIFICATION

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BRIEF DESCRIPTION

Chronic kidney disease (CKD) is a highly prevalent and growing global health concern categorized by progressive loss of kidney function and strong correlation to cardiovascular disease (CVD). Dialysis is the gold standard among renal replacement therapies (RRT) for managing kidney failure in CKD patients upon presentation of uremic symptoms; however, dialysis is in itself a strong and independent risk factor for cardiovascular mortality. A lengthy list of uremic retention compounds has been identified as potential toxins driving cardiorenal syndrome because of their inadequate removal during dialysis, but cardiotoxicity from circulatory waste accumulation is insufficient to explain the scope of cardiovascular adverse events observed. The present invention is an end cap for a filter, such as a hemodialysis filter, said end cap comprising an inlet end and an outlet end and an inner space whereby fluid flow and/or the pressure gradient exerted on a fluid flowing from the inlet end to the outlet end from the inlet end to the outlet end gradually converges or gradually diverges

SUGGESTED USES

The invention is to be used for Chronic kidney disease (CKD) which is a highly prevalent and growing global health concern categorized by progressive loss of kidney function

ADVANTAGES

The invention are end caps for hemodialysis filters that are designed to prevent, reduce, or minimize physical stresses exerted on platelets during hemodialysis by providing a pressure gradient profile that gradually changes over the length of the end cap from its inlet its outlet. The end caps described herein minimize and/or reduce abrupt changes in fluid flow between hemodialysis filters and venous tubing (*e.g.*, venous return tubing) connected thereto.

RELATED MATERIALS

CONTACT

Rick Harris
rharris@berkeley.edu
tel: .



INVENTORS

» Vandsburger, Moriel

OTHER INFORMATION

CATEGORIZED AS

» **Medical**

» Devices

» Disease: Blood and Lymphatic System

» Disease: Kidneys and Genito-Urinary System

RELATED CASES

2019-034-0