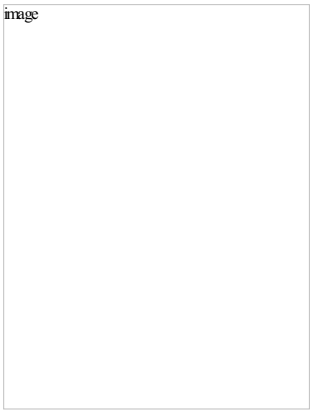

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HYDROSTATIC PRESSURE GRADIENT ULTRAFILTRATION DEVICE: A NOVEL APPROACH FOR EXTRACELLULAR FLUID REMOVAL

Feld Brief title: **A novel approach for extracellular fluids removal**

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The effectiveness of diuretic treatment can decrease over time due to reduced tubular luminal concentrations, distal tubular adaptation, uremia and increased central venous pressure (1). Diuretic resistance is associated with insufficient symptom relief, higher risk of HF worsening, and increased morbidity (re-hospitalization rates) and mortality (2, 3).

To help address the unmet need for effective decongestive therapies, we present a novel approach, in which a permeable absorption chamber is implanted in the peritoneum. A pump induces a negative hydrostatic pressure in the absorption chamber, triggering ultrafiltration of fluid through the peritoneal membranes into the chamber. A micro-catheter draining fluid from the absorption chamber is routed to a percutaneous port. Ongoing work will enable to drain the accumulated extracellular fluid into the urinary system.