

## FOR IMMEDIATE RELEASE

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### BAXTER PRESENTED EXPLORATORY RESEARCH ON THE REMOVAL OF INFLAMMATION-RELATED MOLECULES DURING EXTRACORPOREAL BLOOD PURIFICATION THERAPY

- In vitro studies concluded that blood purification membranes can remove molecules that have been linked to inflammation
- Research highlights the potential to use extracorporeal blood purification in new therapeutic applications

DEERFIELD, III., Nov. 22, 2016 — Baxter International Inc. (NYSE: BAX), a global leader in renal and critical care innovation, today announced research on the role of extracorporeal blood purification (EBP) in the removal of molecules linked to inflammation that was presented at the American Society of Nephrology's (ASN) annual Kidney Week in Chicago.

"Baxter continues to build on its commitment to contribute meaningful research to advance acute and chronic blood therapies," said Dheerendra Kommala, M.D., vice president, Medical Affairs, Baxter. "This exploratory research adds to the body of knowledge in an important area that is not fully understood – the treatment of inflammation-related conditions in chronic kidney disease and critically ill ICU patients."

EBP is a method of blood purification that takes place outside the body. Blood passes through a membrane within the extracorporeal circuit, which filters harmful molecules or waste products in the blood, returning it to a normal state. This cleaned blood is then returned to the body. This type of therapy is most often used for patients with acute kidney injury, who are unable to clear toxins from their blood due to a sudden loss of kidney function.

Baxter researchers looked at two new areas where EBP may play an expanded role in the future. In one in vitro study (Abstract #PO942), researchers compared different membranes to assess their ability to remove cytokines including IL-6, a molecule that stimulates the body's inflammatory and auto-immune response during trauma or illness. Chronic inflammation can be a concern for end-stage renal disease patients and can lead to complications such as cardiovascular disease.<sup>1</sup> In ICU patients, severe inflammation can lead to organ failure.



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The study reported that membranes included in the analysis can remove IL-6 and certain cell activating molecules, with more porous mid-cut off and high-cut off membranes able to remove these molecules at a higher rate.

In a second in vitro study (Abstract #PO845), researchers evaluated two different classes of membranes, a high-flux dialyzer and a high-cut off (HCO) dialyzer, to assess their ability to clear four mid-sized molecules that may affect a range of biological functions, including inflammation and cardiovascular function. The molecules studied are of potential interest for the treatment of myeloma kidney, a complication associated with multiple myeloma, a blood cancer; sepsis, a potentially fatal inflammatory response to infection; and rhabdomyolysis, a breakdown of muscle tissue that leads to the release of muscle fiber contents into the blood that often causes kidney damage.

After simulating treatment with each dialyzer, researchers concluded that the HCO membrane provided a more efficient removal of the molecules studied, and that a high-flux membrane did not offer the rate of removal that is required in acute care treatment.

"While our findings conclude that targeting these molecules is possible, further research will help us understand the clinical impact of removing these molecules from the blood," said Markus Storr, senior R&D manager, Baxter, and one of the authors of the studies.

In total, Baxter presented 24 abstracts at ASN to support the latest scientific exchange for home, in-center and acute dialysis.

For 60 years, Baxter has been at the forefront of innovation to advance the treatment of kidney disease. In 1956, Baxter collaborated with Dr. Willem Kolff, inventor of the artificial kidney, to design the world's first complete dialysis delivery system, which included the first commercially available disposable dialyzer. Today, Baxter builds on this rich heritage of innovation by developing next generation products for hemodialysis, peritoneal dialysis and continuous renal replacement therapy. Learn more about Baxter's legacy of advancing essential healthcare.

### About Baxter International Inc.

Baxter provides a broad portfolio of essential renal and hospital products, including home, acute and in-center dialysis; sterile IV solutions; infusion systems and devices; parenteral nutrition; biosurgery products and anesthetics; and pharmacy automation, software and services. The company's global footprint and the critical nature of its products and services play a key role in



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expanding access to healthcare in emerging and developed countries. Baxter's employees worldwide are building upon the company's rich heritage of medical breakthroughs to advance the next generation of healthcare innovations that enable patient care.

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<sup>&</sup>lt;sup>1</sup> Akchurin OM, Kaskel F. Update on Inflammation in Chronic Kidney Disease. Blood Purification 2015; 39:84-92.