

Yangrong Zhang Wins 2010 Baxter Innovation Award



Yangrong Zhang, a postdoctoral researcher in the lab of Professor Guillermo Ameer has been selected to receive the 2010 Baxter Innovation Award for her research in the area of developing a novel extracorporeal bioadsorbent to selectively remove advanced glycation end products (AGEs).

The Baxter Innovation Award program is developed by Baxter Healthcare Corporation (Deerfield, IL) to stimulate and reward research that can be directly used for critical care therapies and the development of medical products that save and sustain patients' lives.

AGEs, formed by nonenzymatic glycation of proteins, accumulate in patients with various inflammatory diseases including chronic kidney disease (CKD), diabetes and cardiovascular disease. AGEs have been shown to be a major contributor to chronic systemic inflammation and play important role in the pathogenesis of diabetic complications. AGEs bind to the receptor for AGEs (RAGE) and initiate a pro-inflammatory cascade within cells, leading to inflammatory activation. AGEs are not efficiently removed by dialysis or the kidney of a CKD patient. To date, there is no safe and efficient approach to reduce the AGEs level in patients.

The goal of this awarded project that Dr. Zhang is working on is to develop a RAGE receptor-based blood filter device as a novel extracorporeal therapy to specifically remove AGEs from human blood and reduce AGEs-induced inflammatory activation, potentially decreasing the morbidity and mortality of patients with inflammatory disease states.