My name is David Kluth. I am a senior lecturer in nephrology in the Centre for Inflammation Research. I am interested in acute kidney injury. Acute kidney injury is a major cause of renal failure in patients in hospitals, leading patients to requiring dialysis. We currently have no specific therapies. I am researching the role of macrophages in acute kidney injury and in particular whether macrophages can be a target for therapy. We have shown that macrophages modified to express the gene heme-oxygenase-1 were localised to the injured kidney in the experimental models and protect from the development of renal failure. We are now developing this approach in humans, using both macrophages isolated from blood and also macrophages derived from human stem cells. Ultimately, our aim is to develop macrophage cell therapy in the treatment of acute kidney injury and other forms of inflammatory disease. Furthermore, we have shown that specific drugs can upregulate macrophage heme-oxygenase-1 in the kidney. These drugs will also protect from the development of acute kidney injury. We are now undertaking Phase II studies in patients to show that these drugs are capable of upregulating macrophage HO1 in the kidney and can promote recovery from acute renal failure.