Small molecules excite big pharma

Associate Professor Spencer Williams (School of Chemistry and Bio21 Institute) and Professor Darren Kelly (Department of Medicine) at the University of Melbourne have discovered a new class of drugs to treat fibrosis, an unmet clinical need that is associated with up to 45% of all mortality. Commencing 2006, their laboratories collaborated to establish a medicinal chemistry program to develop targeted therapies to act on the pathological fibrosis occurring in chronic kidney disease as the primary therapeutic indication. Their research led to the discovery of FT011, an antifibrotic drug that prevents the deposition of extracellular matrix into major organs that is the hallmark of the pathology of diabetes.

The researchers established Fibrotech Therapeutics to commercialise their family of antifibrotic compounds, including FT011. FT011 completed a phase 1b clinical trial in 2014 in patients with diabetic nephropathy and showed excellent safety and tolerability. In May 2014, Shire Plc, a major global pharmaceutical company, announced the acquisition of Fibrotech for a $75 million upfront payment and significant additional payments contingent on development and regulatory milestones. Acquisition by Shire (itself subsequently acquired by AbbVie) will provide the capital and expertise needed to bring this innovative therapy to the market.

FT011 – an antifibrotic drug that is being trialled in patients with diabetes