

# Partnerships solve global health priorities: celebrating three decades of scientific collaboration

## THE PARTNERSHIP



**Professor Zhuang Hui, Peking University (previously Beijing Medical University)**  
Leading expert on viral hepatitis, Prof Zhuang Hui visited Fairfield Hospital regularly in the early 1980s – where he met young virology student David Anderson.

Associate Professor David Anderson with Professor Zhuang Hui, 2010

## IMPORTANCE OF RESEARCH FOCUS – ADDRESSING PRIORITY HEALTH NEED

Hepatitis E causes an acute (short-term) illness and is particularly severe among pregnant women.

Hepatitis E was suspected of being a major problem in many developing countries, but without an accurate test for determining infection little progress was made in addressing its impact. Using molecular biology we cloned and expressed part of the virus and proved that it was the right reagent for accurately diagnosing previous infection, and also diagnosing current infections – this approach now underpins major commercial Hepatitis E diagnostics.



The hepatitis E test being used in an outbreak in Chad, 2007

## RATIONALE FOR COLLABORATION

Built upon a shared interest in viral hepatitis: China had the world's largest burden of disease; Fairfield Hospital's department of virology, from which Burnet Institute arose, was the leading research group in the region and was the WHO collaborative laboratory for Western Pacific region on viral hepatitis.

Collaboration began with hepatitis B and hepatitis A but soon expanded to hepatitis E.

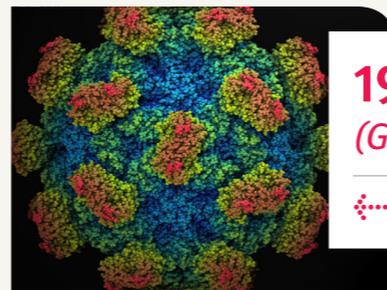
Shared recognition of the medical need: hepatitis E wasn't an issue in Australia, but Burnet's commitment to addressing priority global health needs provided the mandate to begin working with Chinese colleagues on investigating solutions.

## THE JOURNEY



Associate Professor David Anderson meets with Victorian Governor Davis McCaughey, 1987.

**1980s** Collaborative visits to Fairfield hospital and Burnet Institute begin



**1990** Hep E discovered (Genelabs, US)

The hepatitis E virus

**1992** Dr Fan Li visits Burnet Institute, during that year express hepatitis E proteins in the lab

**1993** Demonstrate that proteins are useful for diagnosis (ORF2.1 protein), jointly patented

**1993-2000** Work continues on developing diagnostics

**2003** Select Vaccines Ltd established (spin off company, took responsibility for identifying a manufacturer for hepatitis E test)

**2005** hepatitis E test licensed to Genelabs Diagnostics Asia Pacific, Singapore

**2006** Successful clinical validation trials in select locations throughout China

**2011** Successful phase III trial of hepatitis E vaccine undertaken in China

**2012** SFDA approval of hepatitis E test for Chinese market pending

## MECHANISMS TO BUILD AND SUSTAIN COLLABORATION

- Collaborative visits essential (two way exchanges) to build relationships, trust, a shared agenda
- Long-term academic research visits/exchanges between colleagues with mutual interests
- Joint publications, visiting scholars program, PhD / post doc studies undertaken jointly
- Personal connections and ongoing communication maintained
- Identify complementary work to build upon early success – where is the next priority our joint expertise can contribute to?

## KEY ADVICE TO OTHERS

- Make a personal commitment and follow through with it
- Establish mutual areas of interest but leverage unique capabilities of each partner
- Succession planning – paving the way for the next generation of researchers to continue collaboration

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## FOR MORE INFORMATION:

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