In 2014 we moved into the newly formed Peter Doherty Institute for Infection and Immunity.

- a joint venture between the Royal Melbourne Hospital (the Centre’s host) and The University of Melbourne
- brings together over 700 scientists working across multiple disciplines related to infectious diseases and immunity
- located near Melbourne’s city centre

**OUR NEW PREMISES**

**SURVEILLANCE OF SEASONAL HUMAN INFLUENZA**

Geographic location of laboratories sending viruses to the Centre in 2015 and 2016*

- Type and subtype/lineage of viruses received and successfully analysed at the Centre

**TECHNOLOGICAL ADVANCES**

Focus Reduction Assay (FRA) (pictured at right)

- a type of virus neutralisation assay
- introduced as a complement to the haemagglutination inhibition (HI) assay due to challenges in analysing recent A(H3N2) viruses
- increased sensitivity in characterising antigenic change in A(H3N2) viruses compared to the HI assay

Next Generation Sequencing (NGS)

- Life Technologies Ion Torrent Personal Genome Machine has been integrated into our routine surveillance
- increased success rate and efficiency of sequencing viral genes and full genomes
- data are used to calculate Vaccine Effectiveness (VE) estimates

**RESEARCH AND PUBLICATIONS**

Centre publications include:
- papers in Nature and Nature Communications
- a major article in the Journal of Infectious Diseases
- a feature on the cover of Journal of Virology

**EXTERNAL QUALITY**

ASSURANCE PROJECT (EQAP)

- Development of an EQAP to test virus isolation proficiency of National Influenza Centres (NICs) in the WHO Western Pacific Region (WPR) and South-East Asia Region (SEAR).
- Test panels each containing 16 test samples were sent to 14 laboratories in WPR and 7 laboratories in SEAR in September-October 2016.
- Results will be available by the end of 2016.