westmead research hub

JUNE 2017

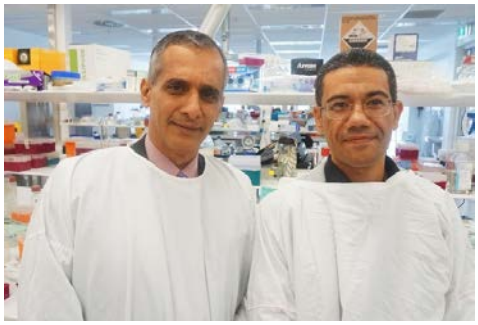
Event Calendar

Get involved! The below events are open to all Hub partners. Click here to find out more info and see what other events are coming up throughout the Hub!

M	Tu	Wed		Fri	S	Su
			01 **12 - 1pm** WIMR Seminar Series (WIMR Seminar Room)	02	03	04
05	06	07 **4pm – 5pm** Flow Cytomety User Group meeting (WIMR)	08	09 **12:30 - 1:30pm** CMRI Seminar: Carbohydrate quality and health – starch an evolution (CMRI Seminar Room)	10	11
12	13 **12 – 1pm** The Westmead Infectious Diseases and Immunology Seminar Series (WIMR Seminar Room)	14	15 **12 - 1pm** WIMR Seminar Series (WIMR Seminar Room) **12:30 – 1:30pm** CMRI Seminar: A synaptic role for SUMO? (CMRI Seminar Room)	16 **12:30 - 1:30pm** CMRI Seminar: RNA Biology and Cancer (CMRI Seminar Room)	17	18
19	**3pm – 4pm** Image Analysis & Microscopy Special Interest Group (CMRI Seminar Room) Scott Page: spage@cmri.org.au	21 **5- 7pm** StResS Iftar Dinner (CMRI Tea Room)	22 **9am – 5pm** 2-day Huygens Professional Workshop (CPC Dry Teaching Labs 1.4 and 1.5 (Microscope), Charles Perkins Centre Hub D17, John Hopkins Drive, Camperdown)	23 **9am – 5pm** 2-day Huygens Professional Workshop (CPC Dry Teaching Labs 1.4 and 1.5 (Microscope), Charles Perkins Centre Hub D17, John Hopkins Drive, Camperdown) **12:30 - 1:30pm** CMRI Seminar: Professor David Huang (CMRI Seminar Room)	24	25
26	27 **12 – 1pm** The Westmead Infectious Diseases and Immunology Seminar Series (WIMR Seminar Room) **5:00 for 5:30pm start - 7pm** Sydney Ideas: How can design-led thinking improve health and wellbeing? (WIMR Conference Room. Please register here)	28	29	30 **12:30 - 1:30pm** CMRI Seminar: CMRI Seminar: Building the Body Plan: Insights from Developmental Spatial Transcriptome (CMRI Seminar Room) **Hospital Week research abstracts due!!!**		

Liver Scarring Protein Study Breakthrough

An international team, led by Professor Jacob George (Westmead Institute for Medical Research (WIMR), Western Sydney Local Health District, USYD) and Doctor Mohammed Eslam (WIMR, USYD) has unequivocally shown that variations in the interferon lambda 3 (INLF3) protein are responsible for tissue damage in the liver.



Pictured: Professor George and Dr Eslam

The research team had previously identified that the common genetic variations associated with liver fibrosis were located on chromosome 19 between the IFNL3 and IFNL4 genes.

Building on this research in their latest study, the team analysed liver samples from 2000 patients with Hepatitis C, using state-of-the art genetic and functional analysis, to determine the specific IFNL protein responsible for liver fibrosis.

The research, which is published in the prestigious *Nature Genetics* journal, demonstrated that following injury there is increased migration of inflammatory cells from blood to the liver, increasing IFNL3 secretion and liver damage.

Notably, this response is determined to a great extent by an individual's inherited genetic makeup.

Lead author of the study, Professor Jacob George, said this was a significant outcome that will help to predict risk of liver disease for individuals, enabling early intervention and lifestyle changes.

"Liver disease is now the fifth most common cause of death in Australia, affecting 6 million Australians, and with significant financial cost to the health system… This important discovery will play a vital role in reducing the burden of liver disease into the future," Professor George said.

Translational Elements

Co-lead author, Doctor Mohammed Eslam, said this discovery holds great promise for the development of effective therapeutic treatments for liver disease.

"There is an urgent need for a safe pharmacologic therapy that can prevent of regress the progression of liver damage. There are currently no treatments available for patients with advanced fibrosis, and liver transplantation is the only treatment for liver failure.

"Now that we've identified IFNL3 as the cause of liver scarring, we can work towards developing novel treatments specifically targeting this gene."

Collaborative Methods

This research breakthrough was made using the Westmead Research Hub Shared Core Facilities while the 700 of the 2000 liver samples were collected at Westmead Hospital and all are stored at the Westmead Institutes Storr Liver Centre. This shows the interconnectedness common to Westmead Research Hub Members, and how each member affiliation can contribute to outstanding research success stories.

Click Here to read the full story…

Hub Success in NSW Health PhD Scholarships Program 2017

The NSW Health PhD scholarship program was open to PhD candidates who work within, or closely with, NSW local health districts (LHDs), Ambulance Service of NSW and specialty health networks (SHNs).

Pictured: Successful scholarship awardees

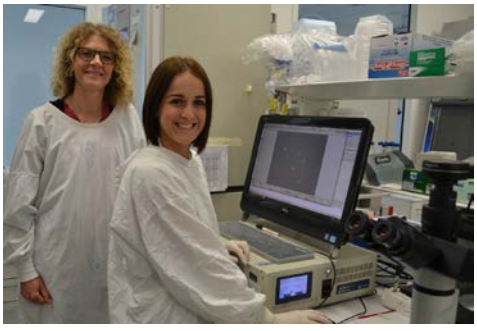
Congratulations to the Hub members who were successfully awarded the grant this year:

Samantha Carlson, (USYD, Sydney Children's Hospital Network), Cristyn Davies (USYD Sydney Children's Hospital Network), Amanda Rush (USYD, Sydney Children's Hospital Network), Taylor Braund (USYD, WIMR), Aedan Roberts (University of Technology, Sydney Children's Hospital Network)

Click here to read more about the scholarship program.

Westmead launches undergraduate opportunities

The University of Sydney officially launched more than 100 applied medical science projects at the Westmead precinct and an applied medical sciences major, a new study option taught entirely at Westmead, commencing in 2018.



Pictured: Amellia Scerri, a current honours student, with her supervisor Dr Dinny Graham from the Westmead Institute for Medical Research.

On Friday May 19 the University of Sydney officially launched more than 100 applied medical science projects at the University of Sydney's Westmead precinct.

The event also celebrated the launch of an applied medical sciences major, a new study option taught entirely at Westmead, commencing in 2018.

Click here to read the full story…

For more information on the Westmead Research Hub, visit westmead.org.au