# NEWS UPDATE Autumn 2017



# A LOOK AT CENTENARY'S CANCER RESEARCH AND WHY IT IS SO IMPORTANT

The Australian Institute of Health and Welfare's (AIHW) recently released Cancer in Australia 2017 report, is a comprehensive national overview on cancer. Based on current data it estimates that in 2017 1 in 3 males and 1 in 4 females will be diagnosed with cancer by the age of 75. By the age of 85, the risk is estimated to increase to 1 in 2 for both males and females.

Cancer is not one disease - it is a group of more than 100 different and distinctive diseases that have a substantial social and economic impact on individuals, families and our community. At Centenary our scientists are working on a number of these cancers including;

- Blood
- Bowel
- Brain
- Breast
- · Leukaemia
- Live
- Melanoma
- Pancreatic
- Prostate

Our research programs investigating cancer include;

- ACRF Centenary Cancer Research Centre
- Ageing
- Bioinformatics
- DNA Repair (all cancers)
- Gene & Stem Cell Therapy
- Human Viral & Cancer Immunology
- · Immune Imaging
- Liver Immunology
- Liver Injury & Cancer
- Melanoma Cell Biology
- Melanoma Oncology and Immunology
- Molecular Hepatology
- Origins of Cancer
- Structural Biology
- Vascular Biology

# NEW EVIDENCE OF PROMISING TARGET TO TREAT DEADLY LIVER FIBROSIS

Exciting new evidence of a new target that could be the key to treating liver fibrosis, the potentially deadly accumulation of scar tissue that results from ongoing inflammation and the death of liver cells that occurs in most types of chronic liver diseases has been revealed.

In many patients, this process can often lead to the need for liver transplants and progress to deadly liver cancer. In a recent article published in the prestigious publication PLOS ONE, our researchers describe how they identified that the fibroblast activation protein (FAP) could be a safe new target for therapy. The key enzyme is promising as a target for diabetes, liver fibrosis and cancer.

The Cancer in Australia 2017 report (AIHW), has found that liver cancer was the only common cancer where mortality rates had increased.

Associate Professor Mark Gorrell, head of our Molecular Hepatology Laboratory, said "This study brings us much closer to designing safe, effective drugs to target liver fibrosis, and potentially liver and other cancers – potentially saving lives and reducing the need for liver transplantation. Drug safety is a core goal and so important to establish early in our work towards a new liver disease treatment."

This research is highly significant, with liver disease responsible for one quarter of all organ transplants. Fibrosis and non-alcoholic fatty liver disease is an increasing problem, in line with the growing obesity epidemic in Australia. This new research will also be useful in the diagnosis of liver fibrosis, potentially cutting 50% of screening costs.

Visit our website to read the full media release.

SUIT UP! for Science! supports life saving medical research. Australia is home to some of the best and brightest scientific minds in the world. We're Suiting Up like scientists to support their life saving work. All funds raised will support Centenary's brilliant scientists and their research. SUIT UP! for Science! will be held in May and there are some great ways to get involved in 2017.

Visit www.suitupforscience.com.au for more information and to register your interest.



# CONGRATULATIONS TO PROFESSOR CHRIS



Congratulations to Professor Chris Semsarian head of our Molecular Cardiology Program who was awarded an AM in the recent Australia Day honours for his significant service to medicine in the field of cardioloav as a clinician, administrator, educator and to the community.

## MEET SOME OF OUR HUMANS OF MEDICAL RESEARCH

#### DR HELEN MCGUIRE

Helen is a Research Officer, with a very important role investigating melanoma and also working within the Ramaciotti Facility for Human Systems Biology, Charles Perkins Centre.

She's known to her eight nieces and

nephews as "Dr Helly". Helen is one of six siblings, so she has some serious auntie duties! We are very proud of the wonderful work you do at the Centenary Institute Helen!



#### JULIE HUNTER

Julie Hunter is a Research Assistant in our Vascular Biology Program and a mum to four children.

Julie recently shared with us her work with umbical cords.

New mums at the RPA Hospital in Sydney donate the umbilical cords to reasearch just after their babies are born. Julie works on cords sometimes just two hours old, exctracting cells from the vein in the cord, growing these cells for a week or two and then our researchers use these to look at diseases such as atherosclerosis - a condition where fats, cholesterol and other substances build-up in and on the artery walls. We thank you Julie for sharing this wonderful insight with us.



#### **DR JUSTIN WONG**

Justin is leader of our Gene Regulation in Cancer Laboratory and one of the brightest young scientific minds in the country, dedicating his life's work to better understanding disease.

Justin also has a heart of gold. In his spare time, he helps those less fortunate. Amazing. Justin has a strong sense of science and spirit and we love that about him! Thanks for being a kind, smiling, chatty member of 'Team Centenary'.

## FOSTERING CUTTING EDGE COLLABORATION TO IMPROVE LIVES

Centenary is proud to be one of nine independent medical research institutes affiliated with the Sydney Health Partners, one of the first four Advanced Health Research and Translational Centres recoanized by the National Health and Medical Research Council for being a world leader in translating research into better health outcomes for our community.

The Partnership is committed to fostering cutting edge collaboration and using the outcomes of health and medical research to improve the lives of patients and the community faster and more consistently.

## SINCERE THANKS TO OUR DONORS, **FUNDRAISERS AND SUPPORTERS**



The entire Centenary family extends our sincere thanks to our donors, fundraisers, supporters and friends (including facebook, instagram and twitter followers), for your kindness and generosity. Our scientists could not be who they are without you.

Your contribution has allowed our scientists to continue their amazing work, understanding diseases and finding cures for some of the most chronic diseases globally.

If you are able to visit our website (www.centenary.org.au) you may like to view the highlights video featuring some of our activities and advancements from 2016. With the onging commitment of the community, we are looking forward to 2017 being another year of discoveries, novel understandings, breakthroughs and developments in the areas of cancer, inflammation, and cardiovascular.

## SHARE FOR A CURE - HELP CREATE GREATER **AWARENESS**

Help raise awareness and support our scientists towards a better understanding of disease... and finding a cure!! The greatest contribution we can make to the research efforts of our scientists is to create greater awareness, education and financial support for their work.

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