



# FIBRES

Connecting ADRI Friends to Research

SPRING 2012

ASBESTOS DISEASES RESEARCH INSTITUTE



## ADRI researchers awarded Young Investigator Award at international mesothelioma conference

Four ADRI scientists were awarded travel scholarships to enable them to attend the International Mesothelioma Interest Group (iMig) meeting held in Boston in September 2012.

Dr Glen Reid's attendance was supported by a Travel Scholarship from Concord Hospital Research Committee. Dr Reid's work on a family of tumour suppressor microRNAs was selected for oral presentation by the conference organisers. Dr Casey Wright was awarded a Vojakovic Fellowship to present a poster at iMig. Dr Wright's work concerns another class of non-protein coding RNAs, the so-called long non-coding RNAs (lncRNAs). Dr Yuen Yee Cheng and Dr Anthony Linton were both selected by the Scientific Committee of the International Mesothelioma Interest Group to present their work as 'Young Investigators' and were recipients of a travel award.

Dr Cheng (*above*) was presented the Young Investigator Award by Kazan, McClain, Lyons, Greenwood & Harley, an American law firm specialising in asbestos litigation. Mr Steven Kazan is pictured on the right.

## Enfield-Croydon Park Sub-Branch of the RSL donated \$30,000 to ADRI

The Enfield-Croydon Park Sub-Branch of the RSL is a small local club supporting the Inner West. On the 24<sup>th</sup> July 2012 Mr John Thornton (President), Mr Ben Fisher (Senior Vice President), and Mr Ronny More (Vice President) attended a morning tea at the ADRI to present a cheque for \$30,000 to Professor Nico van Zandwijk (below) for research into asbestos-related diseases.

Unfortunately Australia has a long history with asbestos and was one of its highest consumers. Through this legacy we are now among the countries with the highest incidence of malignant mesothelioma. The popularity of asbestos is a reflection of its unique thermal and mechanical properties, which led to its use in a multitude of building and industrial products. The armed services were also high users of asbestos with the Navy using it in pipe lagging and insulation and it was also present in many of other products endangering the lives of servicemen and women of the Army and Air Force.

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(L to R) Mr Ben Fisher, Mr John Thornton, Mr Ronny Moore & Professor Nico van Zandwijk  
Mr Frank Fryirs (Hon: Secretary/Treasurer) was unable to attend.

### **Enfield-Croydon Park Sub-Branch of the RSL donated \$30,000 to ADRI continued**

In the past, little attention had been paid to asbestos induced cancers in comparison with other cancers. Through translational research using all the unique opportunities of a modern research facility, the ADRI research staff aims to improve the diagnosis and treatment of asbestos-related diseases. The quality of life of asbestos victims and the development of effective preventive measures for people exposed to asbestos, are other important study targets. The staff of the ADRI thanks the Enfield-Croydon Park Sub- Branch of the RSL for their most generous support of research into asbestos-related diseases.

The Enfield-Croydon Park Sub-Branch of the RSL, small as it may be with only 18 active members, has also generously supported five local schools each year donating \$5,000. They also take up to eighty pupils each year from each of the schools to The Kokoda Track Memorial Walkway and picnic at Concord as part of raising awareness of the military history of Australia, the values of the RSL, and what has been done to preserve these values. They also provide regular lunches, meetings and support for their members and widows. The Club also donates annually to Concord Hospital for purposes relating to veterans and to the upkeep of beautiful The Kokoda Track Memorial Walkway.

### **ADRI Researcher awarded the Premier's Award for Outstanding Cancer Research Scholar**



(L to R) Keynote speaker, Stanford Genetics Professor Atul Butte, Dr Steven Kao, The Hon. Jillian Skinner MP, Minister for Health, and Minister for Medical Research, and Professor David Currow, CEO of the Cancer Institute NSW.

**Dr Steven Kao** was awarded the Premier's Award for Outstanding Cancer Research Scholar. His PhD study concentrated on identifying prognostic markers in malignant pleural mesothelioma. This important work at the Asbestos Diseases Research Institute (ADRI), on the Concord Campus, revealed that the ratio of neutrophils to lymphocytes (two different groups of blood cells) in blood. This simple blood test was able to separate malignant pleural mesothelioma patients with a poor prognosis from patients with a more favourable prognosis. These findings have been confirmed by two independent research groups. Translated into daily practice this means that we now have a tool to individualise the intensity of treatment and that more demanding treatments can be reserved for patients who are more likely to benefit. Dr Kao is currently extending his observations to groups of proteins in blood that may be helpful in predicting disease outcome and response to therapy. The 2012 Premier's Award for Outstanding Cancer Research Scholar was awarded at the Cancer Institute NSW's annual cancer awards night in Sydney on Friday 20<sup>th</sup> July 2012 to honour the work of the state's most innovative and dynamic cancer researchers.

### **Former Labour Politician, Mr Pat Rogan, visited the ADRI**

Mr Pat and Mrs Eunice Rogan visited the ADRI in September to learn more about ADRI's research. Mr Rogan was the Labor Party member of the New South Wales Legislative Assembly for East Hill from 1973 to 1999. He was president of the electoral councils for both his federal seat of Banks and the state seat of East Hills. He worked in the electrical trades and was a senior automation sales engineer; Mr Rogan also served in the Royal Australian Air Force.

## The Swift Family and ANZ Trustees Foundation visit the ADRI

On the 2<sup>nd</sup> October 2012, ADRI received a visit from Mr Andrew Swift and his wife Sabina, together with Mr Lachlan Haughey and his wife Kelly, who came to learn first-hand the progress made by Dr Michaela Kirschner. Dr Kirschner is co-supported by the ANZ Trustees Foundation - Swift Family Bequest in honour of Mr Doug Swift who is currently living with an asbestos-related disease.



Dr Kirschner's research (The Swift Family Bequest & Mr Jim Tully Fellow) has identified a small RNA molecule, known as a microRNA, which is more abundant in the blood of people with mesothelioma than in healthy people. The findings bring scientists a step closer to being able to diagnose mesothelioma earlier than is currently possible.

At present diagnosing mesothelioma depends on the availability of a lung biopsy that contains enough tumour tissue. However suitable biopsies are not always available, which can leave doctors uncertain about the patient's diagnosis, sometimes resulting in a delay to the start of treatment. Dr Kirschner has said that: "If doctors could use a diagnostic marker based on a simple blood test to help with diagnosis, it could circumvent the problem of availability of tumour tissue and help to accelerate the diagnostic process." So far a number of proteins have been proposed as blood-based markers for malignant pleural mesothelioma (MPM); however none of these has so far reached the accuracy required for routine clinical use.

In the new study, Dr Kirschner and colleagues explored whether microRNAs in blood could serve as a diagnostic marker for the disease. Using microarray analysis they identified 17 microRNAs with significantly differential abundance in the two groups. When they then validated these miRNAs in a series of blood samples from 15 patients and 13 controls, these studies

revealed that the level of a particular microRNA known as miR-625-3p was four-fold higher in the blood of mesothelioma patients. Measuring levels of that molecule in blood samples allowed the researchers to discriminate between MPM patients and controls with an accuracy of 82.4%, and this was reproduced in two additional sample sets.

"Detailed analyses of three independent sample series have shown that miR-625-3p performs as well as any previously proposed protein marker for detecting mesothelioma," Dr Kirschner said. "However, like most diagnostic markers, miR-625-3p is not 100% accurate, and therefore there is a chance the assay will produce both false positives as well as false negatives. Further studies on larger series of sample are needed to determine whether the accuracy of miR-625-3p can be confirmed or even turn out to be better than currently observed."

"Should further studies prove that microRNAs in plasma are accurate enough for the diagnosis of malignant pleural mesothelioma, this will lead to the development of a diagnostic test for routine clinical use," Dr Kirschner said. "This test would then represent a relatively simple way to circumvent the problems associated with obtaining a tissue biopsy. For a patient this would mean that appropriate treatment could be instituted at an earlier stage."

(l to r)

Mr Lachlan Haughey (Client Manager, ANZ Trustees Foundation), Mrs Kelly Haughey, Dr Michaela Kirschner (The Swift Family Bequest & Mr Jim Tully Fellow), Mrs Sabina Swift and Mr Andrew Swift (Founder of the Swift Family Bequest)

## ADRI Researcher awarded the 2012 Concord Repatriation and General Hospital Early Career Researcher Prize

This year's finals of the Concord Repatriation General Hospital Early Career Research Awards were held on 22<sup>nd</sup> and 29<sup>th</sup> of October at the ANZAC Research Institute. These awards are co-sponsored by Concord Hospital and the ANZAC Research Institute and are awarded in three categories, 'Undergraduate Students', 'Postgraduate Students' and 'Early Career Researchers'. Dr Michaela Kirschner from ADRI was chosen as one of the four finalists and won the prize in the category of 'Early Career Researchers' for her work on the identification of the miR-625-3p in blood as a potential novel diagnostic marker for mesothelioma.

## ADRI Researcher awarded best poster prize for Early Career Researcher

Five ADRI scientists presented research findings at the Sydney Cancer Conference 2012, which was held on 27-28 September. This meeting featured world renowned cancer researchers from across Australia and international invited speakers. Dr Michaela Kirschner was awarded best poster prize for Early Career Researcher in the basic/biomedical field for her project on microRNAs in the blood as biomarkers in mesothelioma, further underlining the quality of this work.

Yes, I would like to support research into asbestos-related diseases.

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Credit card donations can also be made on our website [www.adri.org.au](http://www.adri.org.au) or by Phone: 02 9767 9800 or Fax: 02 9767 9860.

Donations to the Asbestos Diseases Research Foundation over \$2 are tax-deductible



Thank you for your support



### Ms Elaine Tolley

Elaine died from malignant mesothelioma on the 11<sup>th</sup> November 2011, she was only 69.

As a young women Elaine was married and running her own business as a hairdresser and her husband worked with asbestos. Elaine used to shake out the 'white powder' from his overalls before washing them. Little did she know how fatal this would be?

In her later years Elaine lived at Brian King Gardens at Castle Hill where she was well known by everyone and was always ready to help those in need.

Her good friend, Mrs Pam Taylor said: 'Elaine was the best joker and always saw the funny side of things,' as can be seen in the lovely photograph of Elaine enjoying Melbourne Cup activities at Brian King Gardens in 2009.

During her life Elaine was very close to her mother and their cat called "Puss" who had both died some years ago. Even though Elaine's life had been sad and often difficult she had told her friend Pam that she felt that she had achieved something substantial and very important by bequeathing funds to medical research.

A bequest, such as Elaine's wonderful gift, an 'In memoriam' donation in memory of a beloved family member or friend, will enable us to continue our work and to help give new hope to sufferers and their families of asbestos-related diseases from around Australia and across the world.

The donations are an everlasting gift that could benefit people everywhere and we at the ADRI would like to thank you for your generosity often at a most difficult time.