

# FIBRES

Connecting ADRI Friends to Research

**AUTUMN 2011**

**ASBESTOS DISEASES RESEARCH INSTITUTE**



## KOREAN GOVERNMENT SEEKS ADVICE FROM ADRI

The international reputation of the Asbestos Diseases Research Institute continues to grow, with the recent visitors being a high-level delegation from the Korean Government.

ADRI Director, Professor Nico van Zandwijk, welcomed the group recently by praising Korea as one of the nations, which along with Australia, which has placed a total ban on the use of asbestos.

cont. p3

## FROM THE DIRECTOR

It is with a feeling of pride that I'm introducing the first Asbestos Diseases Research Institute (ADRI) newsletter. Two months ago ADRI has celebrated its second anniversary and this organization has been able to grow to a busy place with important research projects such as drafting guidelines for malignant mesothelioma and the establishment of the ADRI Biobank. The mesothelioma guidelines are kindly supported by the Biaggio Signorelli Foundation [www.biaggiosignorelli.org.au](http://www.biaggiosignorelli.org.au)

We have also involved patients and their families in drafting project plans knowing how vital their input is in defining the priorities for ADRI. We shouldn't forget that prevention is one of the most important issues when asbestos is concerned. The built environment in Australia is heavily contaminated with asbestos and there is more. What has happened with all the asbestos waste in the past? Are our practices to avoid exposure to asbestos watertight? Knowing exactly where the danger is will help to save lives. The enormous amounts of asbestos processed in our country make every Australian a client of the ADRI.

Together we must strive to increase awareness and to increase the momentum for education about the dangers of asbestos.



Research into better treatment and diagnostics is time consuming and costly. Please note that the ADRI staff is dedicated to give 110% realizing the immense unmet needs of asbestos victims. I very much hope that you will enjoy reading this first newsletter. If you have suggestions for the next one please send us an e-mail or a letter.

Professor Nico van Zandwijk

## ADFA RACE DAY



ADRF - Asbestos Diseases Foundation of Australia held their second Race Day on the 20th November 2010 at Rosehill Race Course. The Asbestos Diseases Research Institute Handicap was won by Scarf. The day raised awareness and much needed funds to support medical research and victims of asbestos related diseases.



## Dr Glen Reid SENIOR RESEARCH SCIENTIST



Dr Glen Reid was appointed as ADRI's Senior Research Scientist in April 2009. He has since equipped the labs and established a small team to investigate two main projects: new markers and new therapeutic targets for mesothelioma.

The biomarker project is aiming to identify microRNAs (small regulatory genes) that are characteristic of mesothelioma, and to see whether these can be used to assist with diagnosis in biopsies. As these genes are also released from tumours and found in the blood, there is also a possibility that they may represent a promising blood marker. This work is part of a collaboration with researchers in Western Australia.

The second study is aiming to identify new targets for mesothelioma therapy, and is making use of RNA Interference (RNAi) to inhibit genes using small RNAs that are specific to the sequence of the target gene. In this way, it is possible to decrease the function of genes and study the effects of this on mesothelioma cell growth. This project has identified targets that are being further developed in cell culture and pre-clinical models. The work is building on the work he did as a Principal Investigator at Genesis Research & Development Corporation in New Zealand, where he led a cancer RNAi discovery program.

### ONE STEP CLOSER TO TREATING PATIENTS WITH MESOTHELIOMA

New research conducted by the Asbestos Diseases Research Institute (ADRI) (the world's largest stand-alone research facility dedicated to asbestos-related diseases) has identified a new tumour marker for mesothelioma – a breakthrough toward better treating patients with a disease that has an average survival time of only 6-18 months after diagnosis.

Although cancers are characterized by uncontrolled growth of tumour cells, the rate of growth of tumour cells can differ significantly from one patient to another making effective treatment of the cancer difficult. However, recent oncological research conducted at the ADRI has shown certain markers in blood or tumour tissue can reflect the aggressiveness of the disease.

Professor Nico van Zandwijk, Director of the ADRI said, "This is a significant research outcome. These markers become important in the treatment of malignant diseases such as mesothelioma by assisting clinicians in making a treatment plan.

"By enabling us to individualise treatment we can now avoid demanding therapy in some cases and advise radical treatment in other cases," said Professor van Zandwijk. "With the findings currently validated in a new series of patients, this is an important step forward in offering better treatment selection for patients while bringing our researchers closer to

understanding the mechanisms and origin of disease progression," he said. Australia has the world's highest incidence of malignant mesothelioma per capita, with more than 700 new cases expected in 2011. It is estimated that the incidence of malignant mesothelioma will continue to increase for the next 10 to 20 years.

With the aim of improving the diagnosis and treatment of asbestos-related diseases and also searching for new preventative measures, the ADRI covers a broad area of research and is located in the Bernie Banton Centre (Concord Hospital Campus) which opened on the 21st January 2009.

"After a period with almost no progress in asbestos-related diseases, there is now appears some light on the horizon and the ADRI is committed to making further progress in this important research area," said Professor van Zandwijk.

The Asbestos Diseases Research Institute is governed by the Asbestos Diseases Research Foundation, a charitable, not-for-profit foundation dedicated to paving a better future for all those Australians exposed to asbestos fibers while being instrumental in determining effective preventative measures.

#### Dr Steven Kao PhD Student

Dr Steven Kao is an Oncology Fellow at Concord Hospital and is a PhD student at ADRI. He is currently in the process of writing up his PhD thesis which focuses on predictive and prognostic factors in malignant Mesothelioma. Steven is also instrumental in collecting data from a cohort of recently diagnosed patients with malignant mesothelioma in NSW to reveal the current practice of diagnosis and treatment. From Steven's research he has published 9 articles in peer-reviewed journals. This project is funded by the Dust Diseases Board.



## KOREAN GOVERNMENT SEEKS ADVICE FROM ADRI cont.

The Korean delegation included senior staff from the Prime Minister's office, and from the Ministries of the Environment, Health and Welfare, and Employment and Labor, along with medical scientists from Korean research centres. Prof van Zandwijk told the visitors that while Australia this year expected more than 700 new cases of deadly mesothelioma caused by exposure to asbestos, the developing world was yet to confront this medical crisis. "More than 10,000 cases of asbestos linked cancer can be expected in China each year," he told them. "In the coming decade it is likely there will be more than 100,000 cases in China, and India will have a similar problem. Unfortunately malignant mesothelioma is not always recognised in developing countries."

**RAISING AWARENESS** - if you are looking for a guest speaker at your next meeting or event, why not contact the Asbestos Diseases Research Institute. We will be happy to provide a senior member of the Institute to address your group on the research being conducted at ADRI and on the dangers of asbestos. Please contact Kim on 02 9767 9800 to make arrangements.

## Launch of the Australian Mesothelioma Registry

The ADRI was initiated the consortium to revive the Australian Mesothelioma Registry which was previously a voluntary system. The Australian Mesothelioma Registry was launched at the ADRI on the 30th April 2010 by the then Deputy Prime Minister, the Hon Julia Gillard. The Registry collects all notifications of new cases of mesothelioma from the state and territory cancer registries and detailed information on the past exposure to asbestos of mesothelioma patients. The registry is managed by the Cancer Institute of NSW and ADRI and others will provide scientific and medical advice. The Monash Centre for Occupational and Environmental Health will be responsible for collecting information from the consenting patients diagnosed with mesothelioma and their occupational and residential history and past exposure to asbestos. Notification of new cases of mesothelioma to the Registry and the collection of information on asbestos exposure commenced in September 2010.



(above) Ms Sylvia Kidziak AM, ADRF Board Member, the Prime Minister, the Hon Julia Gillard MP, the former Premier NSW, the Hon Kristina Keneally MP.



Last month Chris Reay organised a charity event, AsbestoShave 2011, in honour of his late Father, Mr Canute (Ken) Douglas Reay. Chris' outgoing personality, exuberant enthusiasm for the cause and his 'event management skills' contributed to a wonderful outcome. Due to Chris' enthusiastic approach this event became too large for his backyard and was moved to the Jamieson Way Community Centre at Point Cook.

Chris energetic attitude inspired others to join him in AsbestoShave 2011 and they raised more than \$5000 for asbestos research at the Asbestos Diseases Research Institute. Chris provided lots of other entertainment during the day including face painting for the children, dancing, a sausage sizzle and raffles. The event was sponsored by a

number of local businesses and supported by family and friends.

Chris' father, Ken died on the 3rd August 2007 of a asbestos-related disease. In an emotional word of thanks Chris said: "Dad certainly would have been proud of today's event, not just because it was in his honour, but because we've had a small hand in supporting all those with an asbestos-related disease." We at the ADRI think that Ken would have been extremely proud of his son for organizing this event.

The staff of the ADRI would like to sincerely thank Chris for his enthusiasm and initiative; his family, friends and sponsors of AsbestoShave 2011 for their participation and wonderful show of support.

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

### 1. Your details

Title \_\_\_\_\_ First name \_\_\_\_\_

Surname \_\_\_\_\_

Company \_\_\_\_\_

Address \_\_\_\_\_

\_\_\_\_\_

State \_\_\_\_\_ Postcode \_\_\_\_\_

Phone \_\_\_\_\_

Home  Work  Mobile (Please Tick)

Email \_\_\_\_\_

### 2. Indicate the amount you wish to donate

\$35  \$50  \$75  \$100  \$250  \$500  or another  
amount you wish to give \$

### 3. Payment details - Choose whether you are donating by

**Credit Card**, please debit my:  Visa  Mastercard  Amex  
Card No. \_\_\_\_\_ Expiry Date \_\_\_\_\_

Name on Card \_\_\_\_\_

Signature \_\_\_\_\_

**Cheque**, made payable to the Asbestos Diseases Research Foundation,  
is enclosed

### 5. Send payment

Please enclose this form with your cheque or money order and post it to:

**Asbestos Diseases Research Foundation**  
PO Box 3628  
Rhodes NSW 2138

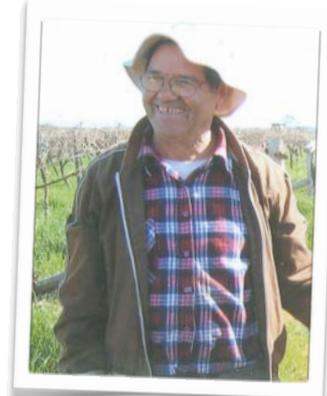
Credit card donations can also be made on our website [www.adri.org.au](http://www.adri.org.au) or  
by Phone: 02 9767 9800 or Fax: 02 9767 9860.

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



Thank you for your support

## Last year over 700 Australian families were devastated by mesothelioma



Mr Giuseppe Zappia 1936 -2008

Like so many others Mr Giuseppe Zappia migrated to Australia from Italy for a better life. Times were tough and to get ahead he worked hard for his family. One of his jobs in the late 50's was working at the asbestos factory at Camellia for James Hardie. Mr Zappia worked for 28 months in small unventilated room called the blower room, sweeping up asbestos powder into wheel barrows to be then mixed with liquid plaster to make asbestos products. Asbestos can form a fine airborne dust which is made up of tiny fibres. These airborne fibres can be easily breathed in and the lung's natural cleaning process does not clear these small elongated shaped fibres which may cause serious health problems 30-40 years later. Inhaled fibres can penetrate the airways and work their way through the lung tissue to reach the membrane that surrounds the lungs. Once there the bio-persistent fibres cause chronic inflammation, which eventually could lead to lung cancer or mesothelioma (cancer of the membranes lining the lung or abdominal organs).

Asbestos was mined in Australia for over 100 years until 1983 and in December 2003, the use and importation of all forms was prohibited, resulting in Australia as the world's highest user per-capita of asbestos. This high rate of usage was in part the reflection of the unique thermal and mechanical properties of asbestos which led to its use in a multitude of building and industrial products.

Today asbestos is responsible for an increasing number of deaths in Australia. Last year over 700 Australian families were devastated to learn that a loved-one had been diagnosed with Mesothelioma. Experts have estimated that there were at least another 1,500 Australians with lung cancer caused by asbestos.

Early 2008 Giuseppe was one of these Australians, losing his life to mesothelioma. He was much loved by his family and by his small rural community of Robinvale on the Murray River in Victoria. In memory of her Father-in-law Pierina Zappia decided to do something to raise awareness of asbestos related diseases. She had pens embossed with 'In Memory of Giuseppe Zappia' and 'Asbestos Diseases Awareness'. With the support of the Robinvale community Pierina sold the pens raising \$3,500.00 for the Asbestos Diseases Research Institute.

The ADRI is extremely grateful to Pierina not only for raising much needed funds for research but knowing that she has also raised awareness of this most dangerous product. At ADRI we aim to improve the diagnosis and treatment of asbestos-related diseases through translational research. To achieve our aims we need your support to ensure that the much needed research into these hideous man-made diseases will successfully continue. For further information about ADRI's research please visit our website at [www.adri.org.au](http://www.adri.org.au) or you can contact us on 02 9767 9800.