



Professor Bruce Robinson is a Professor of Medicine of the University of Western Australia, based at Sir Charles Gardiner Hospital in Perth. He is a member of the National Health and Medical Research Council and a member of the Council's Asbestos working group. He has been involved in the research of mesothelioma for more than two decades. In 2004, he was awarded the Wagner Medal by the International Mesothelioma Interest Group, a bi-annual award acknowledging research leadership in mesothelioma.

Mesothelioma: Diagnostic tests, early detection and new therapies

*A presentation by Professor Bruce Robinson
for the Slater & Gordon Asbestos Research Trust*

On 16 and 17 November 2004, Professor Bruce Robinson presented the most recent research work of his colleagues and himself in relation to mesothelioma.

Professor Robinson gave presentations in Melbourne and Sydney on his way to the Global Asbestos Congress in Tokyo, where he was also a presenter.

Diagnostic Tests & Early detection

Professor Robinson presented the findings of his team on the use of the SMRP molecule as a predictor of mesothelioma.

Professor Robinson's team hypothesised that serological testing could be used as a measure of mesothelioma mass. Such a test could have value beyond assessing the size of tumour bulk or the effectiveness of treatment.



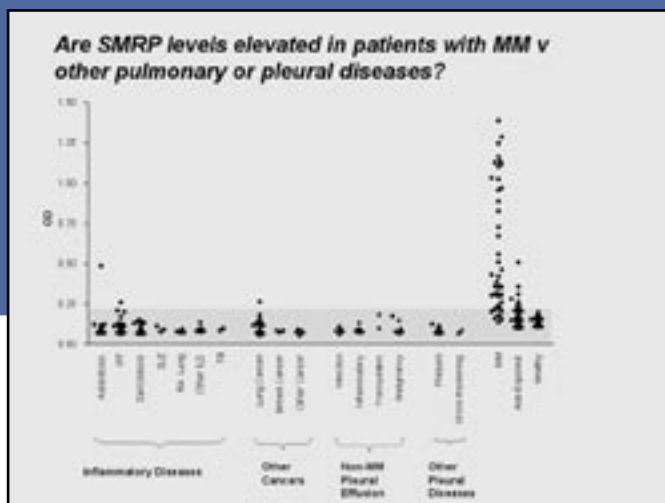


FIGURE 1

A serological test could operate as a diagnostic aid or ultimately as a screening device for at risk groups. Figure 1 shows the levels of the SMRP molecule found by Professor Robinson's team in a series of serological samples collected from persons with a range of pulmonary and pleural diseases. These results suggest that the SMRP molecule could be a specific and sensitive marker for mesothelioma (MM). Figure 2 shows that SMRP levels broadly parallel mesothelioma

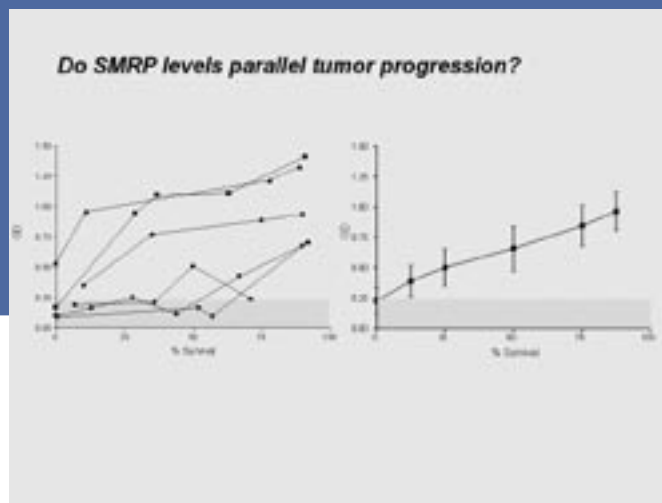


FIGURE 2

tumour growth. The research has also hinted at the predictive power of SMRP with levels in some patients (each of whom was eventually diagnosed with mesothelioma) elevated some months before diagnosis. Professor Robinson's team also studied the use of the CA125 molecule as a marker for mesothelioma mass. That research indicated that CA 125 was not as specific as SMRP. However the team found that the use of both SMRP and CA125 was slightly more specific and sensitive, than SMRP alone. Professor Robinson noted that an SMRP

ELISA assay prepared by Fujirebio is now available for research purposes, both for diagnosis, monitoring and for screening and is soon expected to be available commercially for diagnostic purposes. With the assistance of the assay, the earlier detection of mesothelioma could enable not only earlier evaluation but also earlier (and more effective) treatment. As discussed below, while tumour bulk is small, Professor Robinson's research indicates that adjunct treatments tend to be more successful. Professor Robinson acknowledged that it was premature to consider the assay for commercial screening purposes,

although the assay held promise as an early blood test for the at risk cohort of asbestos exposed. **New Therapies** Based on evidence reported in 1997 showing that some patients spontaneously mount an immune response against their mesothelioma, Professor Robinson has, over the past decade, pioneered immunotherapy for mesothelioma. Professor Robinson presented ongoing research of his team in relation to the effectiveness of multimodality therapy in mesothelioma, incorporating not only immunotherapy,

but also chemotherapy and debulking surgery. Professor Robinson reported that research with mice demonstrated that 80% were 'cured' of mesothelioma 130 days following tumour inoculation when treated first with the cytotoxic agent Gemcitabine and then with FGK-45 (the active agent in immunotherapy). The research also showed that the treatment was more effective as an earlier intervention and not as effective in advanced tumours. In advanced tumours, Professor Robinson's research suggested that as long as 75% of tumour bulk was surgically

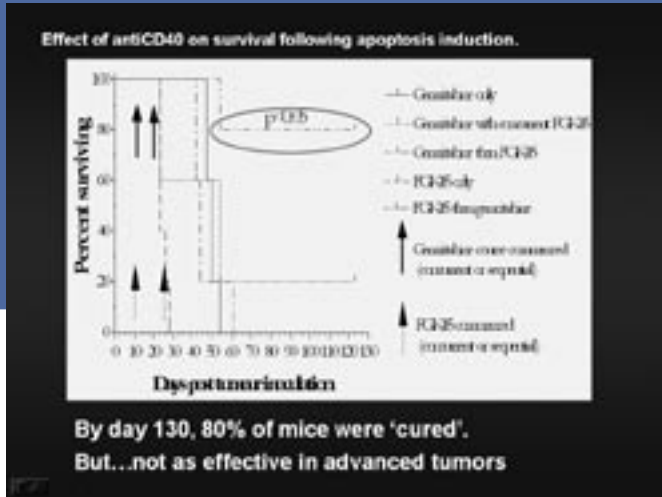


FIGURE 3

resected before adjunct therapy, 6 of 9 mice (treated with Gemcitabine followed by FGK-45) survived more than 100 days following tumour inoculation. Only 2 of 10 survived for 100 days plus with Gemcitabine alone and there were no survivors beyond 60 days with FGK-45 alone.

Unfortunately, Professor Robinson reported that he is currently unable to continue human research trials with this multimodality approach as a result of being unable to source sufficient quantities of FGK-45.

Funding a cure

In closing, at a time when asbestos compensation is very much in the news as a result of the ongoing controversy over compensation for the victims of James Hardie asbestos, Professor Robinson made the case for more funding for mesothelioma medical research. Describing more funding from all sources for research as a clear "win-win", Professor Robinson highlighted the interplay between humanitarian and commercial considerations when he observed that a cure for mesothelioma would not only secure the health of

future victims but at the same time save commercial enterprises like insurers and James Hardie, millions, if not billions, of dollars in compensation.

- Professor Robinson acknowledges the work of his collaborators including Jenette Creaney, Richard Lake, Delia Nelson, Cleo Robinson, Matt Brown, Ingegerd Hellstrom, A Holloway, D Bowtell, C Hous, K Mitchellhill, Bill Musk and Nick DeKlerk.

Slater & Gordon



Asbestos Research Trust

The Slater & Gordon Asbestos Research Trust is a not-for-profit research and educational trust established to fund and support:

1. Medical research into asbestos-related disease, particularly mesothelioma;
2. The sharing of information amongst health professionals with respect to the prevention, treatment and palliation of asbestos-related disease.

The Trust operates under the auspice of the Melbourne Community Foundation. The Melbourne Community Foundation is a not-for-profit foundation that acts as a host organisation for trusts created for philanthropic purposes.

Slater & Gordon has committed a minimum of \$500,000 to the Trust over 5 years.

The first act of the Trust was to donate to Professor A W (Bill) Musk \$50,000 to further his research into the health consequences of Wittenoom.





Vojakovic Fellowship news

The Vojakovic Fellowship provides grants-in-aid to support activities under the broad umbrella of the continuing education of health professionals in the area of asbestos-related disease.

So far the Trust has awarded three Vojakovic Fellowships.

Dr Malcom Feigen, Senior Radiation Oncologist at the Austin Hospital, has been supported to attend the MD Anderson Cancer Centre in Houston, Texas, to study the Centre's use of Intensity Modulated Radiotherapy for mesothelioma patients. It is hoped that this visit will lead to an IMRT program being developed in Australia. Early results reported by MDACC have shown benefits associated with IMRT in patients who have undergone extrapleural pneumonectomy.

Dr James McKeon, Thoracic Physician, presented a paper entitled "Medico-Legal Assessment of Asbestos Related Disease" at the 9th Annual Europe-Pacific Legal Conference in Cortin, Italy. The Fellowship assisted in the preparation and presentation of the paper. Dr McKeon reports that the audience of 104 doctors and lawyers was particularly interested in:

- the differences in exposure profiles between sufferers of mesothelioma and asbestosis;
- the latest information concerning chemotherapy treatments; and
- the recent published work on the serum mesothelin protein as a test for early detection of mesothelioma.

Dr McKeon has also presented to his colleagues at Prince Charles Hospital and the Queensland Branch of the Thoracic Society.

A Fellowship has also been awarded to Ms Natalie Milic, research assistant to Dr Paul Reynolds at the University of Adelaide. Ms Milic has been provided financial assistance to enable her to attend the Annual Scientific Meeting of the Thoracic Society in Perth, this month.

Already the Trust has supported a variety of activities. The Trust is keen to see more health professionals apply for and benefit from Vojakovic Fellowships.

- **Application forms for the Vojakovic Fellowship can be downloaded from the Trust website at www.asbestosresearchtrust.com.au. Alternatively, please contact Kerri O'Toole on (03) 9602 6871 or email kotoole@slatertgordon.com.au.**

Contact us

You can contact the Slater & Gordon Asbestos Research Trust by phoning Kerri O'Toole on (03) 9602 6871, emailing kotoole@slatertgordon.com.au or by writing c/o Slater & Gordon, GPO Box 4864 V V, Melbourne 3001.

You can also visit www.asbestosresearchtrust.com.au which has further details of the Trust and application forms.