

THE BULLETIN

THE ROTARY CLUB OF INVERLOCH Inc.

VOLUME 22, NUMBER 42,
Wed. 16th of April 2008.

TONIGHT'S MEETING

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| <u>Venue:</u> | Inlet Hotel 6:30pm |
| <u>Chairman:</u> | Ian Monro |
| <u>Sergeant @ Arms:</u> | Bruce Mitchell. |
| <u>Program:</u> | Club night with a viewing of some Rotary International information videos |
| <u>Fellowship:</u> | 6:15 for a 6:30 start. Come early and enjoy fellowship with the Inverloch Rotarians. |

LOOKING AHEAD

| DATE | PROGRAM | CHAIR |
|----------------------------|--|---|
| Wed 23 rd April | Dr. David Solomon, <small>AM PhD DScFAA FTSE</small> Developer of our polymer banknotes. | Judy R. Partners & Guests welcome |
| Wed 30 th April | TBA | |
| Wed 7 th May | Hon. Alistair Nicholson AO, QC | Partners & Guests |

LAST MEETING: Wednesday 9th April 2008

Venue: Inlet Hotel, Inverloch.

Sergeant @ Arms Bruce Mitchell

Chairman: Ian Monro

Program: Club night followed by a board meeting

Apologies : Gerry Lonergan, Marcus Hall, Patrick Barry, Isabella McLean, Robin Warren

Attendance : 14 out of 19 for 74%

Heads and Tails: unknown

Guests: unknown

Ongoing Reminders: Ian needs more suggestions for Guest Speakers.

Rotarians need to continue their approaches to donors for our Dinner Auction in May

Operation "UPLIFT FIJI". All used bras to Ken Leamann, The bigger the better. Ross Wise has offered to be "Quality control inspector"

Condolences to: Ivan Fell and family on the passing of his brother Bob.
Ken Fisher and family on the passing of Ken's mother Jean.

Congratulations: none listed

A QUICK PREVIEW OF NEXT WEEKS SPEAKER

(Very interesting so remember to invite partners and guests)

“THE 2006 VICTORIA PRIZE”

The scientist who invented the world’s first plastic banknote was announced the winner of Victoria’s most prestigious science award, the Victoria Prize.

World renowned polymer scientist, **Professor David Solomon**, was presented with the \$50,000 Victoria Prize by the Lieutenant-Governor of Victoria, the Honourable Justice Marilyn Warren at a function at Government House.

Minister for Innovation, John Brumby, applauded Prof Solomon’s research and said that Professor Solomon’s development of a polymer banknote in the early 1970s increased the durability and security of Australia’s currency.

Prof Solomon’s work has now been applied to paints, computer chips and medical devices that enable the controlled release of drugs with the patent covering his work the most cited in the world in 2002.

The Victoria Prize was complemented for the fifth year running by the \$100,000 Anne & Eric Smorgon Memorial Award from the Jack and Robert Smorgon Family’s Foundation. This year, the award was presented to the **University of Melbourne** for supporting Professor Solomon’s work.

Six winners of the Victoria Fellowships – an initiative to assist emerging leaders in science, engineering and technology – were also announced.

Each Fellow received an \$18,000 travel grant to undertake a short-term international study mission to receive specialist training or to develop commercial ideas.



Australia’s \$100 plastic banknote.

The world’s first polymer banknote

The CSIRO helped develop the world’s first polymer banknote, creating the most secure currency in the world.

- **What CSIRO did**
- **The outcomes**
- **About our researchers**

For hundreds of years, banknotes have been made from rag-based paper. Today, banknote issuers are faced with the challenge of increasingly sophisticated counterfeiting techniques and there are serious doubts that paper remains a viable material for secure banknotes.

With this in mind CSIRO and Note Printing Australia Limited, a subsidiary of the Reserve Bank of Australia, set out to improve the security and durability of Australia’s currency.

WHAT CSIRO DID

CSIRO's expertise in polymer and synthetic chemistry was used to develop a non-fibrous and non-porous plastic film, which the banknotes are printed on. This substrate gives high tear initiation resistance, good fold characteristics and a longer lifetime than paper.

The substrate and the specially-developed protective overcoat prevent the absorption of moisture, sweat and grime so that the polymer banknotes stay cleaner.

CSIRO has also developed a variety of overt and covert security features for use on polymer banknotes. These security features are produced from a combination of spectroscopic techniques, synthetic chemistry, nanotechnology, surface science microstructure manipulation and polymer chemistry.

First circulated in Australia in 1988, polymer banknotes are now used in 22 countries.

THE OUTCOMES

The result is the world's first non-fibrous polymer banknote. As well as being more secure, the banknote is four times more durable than rag paper notes.

Polymer banknotes are also in use overseas either as commemorative or circulating notes.

Currently there are over thirty different denominations totalling some 3 billion polymer notes in service in 22 countries worldwide.

In addition, a press-ready polymer substrate (Guardian™) is available for countries with their own note printing facilities. Guardian™ is produced by Securrency Pty Ltd, a joint venture between the Reserve Bank of Australia and Innovia Films PLC, a European-based manufacturer of polypropylene films.

'Irrespective of your industry, counterfeiters are the fiercest competitors a business will ever face,' says Dr Gerry Wilson of CSIRO Molecular and Health Technologies Division. 'The challenge is to keep one or more steps ahead of them.' Having dramatically slashed the rate of counterfeiting in Australia, CSIRO is using the skills and networks gained during the development of the polymer banknote in the fight against identity theft and counterfeit pharmaceuticals.

ABOUT OUR RESEARCHERS

The researchers involved in this project were:

- Dr Gerry Wilson, CSIRO Molecular and Health Technologies
- Dr Albert Mau, CSIRO Molecular and Health Technologies
- Prof. David Solomon, CSIRO Molecular and Health Technologies (retired).



David Solomon wins the 2007 NES Award for Novel Engineering Solutions by the Institution of Chemical Engineers (IChemE)

David Solomon, a professorial Fellow in the Department of Chemical and Biomolecular Engineering at the University of Melbourne has been awarded the NES Award for Novel Engineering Solutions by the Institution of Chemical Engineers (IChemE).

Solomon led the team which worked with the Reserve Bank of Australia to develop the first plastic banknote, first issued in 1988.

The award is designed to recognize tangible, real applications of chemical, biochemical and process engineering skills where winners have addressed important economic, environmental or social issues.

The banknote put Australia at the forefront of secure currency production and the technology has been exported to more than 20 countries around the world since its inception.

Made from biaxially-oriented polypropylene rather than paper and cotton, the banknotes are harder to tear, resistant to moisture and dirt, and can be recycled once they have come to the end of their useful lives.

The IChemE awards ceremony is designed to highlight cutting-edge innovation and excellence in chemical engineering and coincides with the Institution celebrating the 50th anniversary of receiving its Royal Charter status. The event was attended by over 400 chemical and process engineers and their guests at London's Hilton Metropole hotel.

"Chemical and process engineers across a huge range of industry sectors are working hard to develop a cleaner, greener and more sustainable world for generations to come," said David Brown, chief executive, Institution of Chemical Engineers. "Our awards, in this our 50th anniversary year, highlight some of the groundbreaking work that is going on across the globe in all types of organisations, from centres of academia, to SMEs and large global brands."