

# The Society for Free Radical Research

# **NEWSLETTER (November 2012)**

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# **News Items Wanted**

Please send any news items or articles for the newsletter to the Secretary. Also, we have redeveloped the Society website (<u>www.sfrra.org</u>), and are looking for any news, notices, links and other items of interest to Society members that can be added.

# Update from Christchurch

On Nov 26<sup>th</sup>, 21 months after the most destructive of the Christchurch earthquakes, the Centre for Free Radical Research moved back to their University of Otago, Christchurch campus. The main building has undergone major repair and strengthening work since Feb 2011. Members of the Centre were excited at the return, and hopeful that this would be the last move for many years.

Prof Tony Kettle says he has been incredibly impressed with the fortitude staff had shown over the



past year or so. "Everyone has worked well and without complaint in cramped conditions, with a fractured support system, and often without good access to necessary experimental equipment.

"We are keen to get back to our laboratories and to renew our associations with other University of Otago, Christchurch, research staff and clinical colleagues at the hospital. Their collegiality has sorely been missed."

Assoc Prof Mark Hampton wished to express his gratitude to national and international colleagues for their offers of help, support and resources, and their goodwill and patience during the last two years. He was looking forward to a fresh start in 2013.

Despite the challenges, 2012 was a year of milestones and successes for the group. Prof Christine Winterbourn stood down as the Director of the Free Radical Research Group, and the group reformed itself as a Centre with four principal investigators: Kettle, Hampton, Winterbourn and Assoc Prof Margreet Vissers. This restructuring was accompanied by the award of Programme Extension from the Health Research Council of New Zealand (\$4.2M over 3 years).

During July Prof Winterbourn toured New Zealand, presenting the 2012 Royal Society of New Zealand Rutherford Lecture "Life with Oxygen: a Battle against Free Radicals". She was also awarded the Companion of the New Zealand Order of Merit in the Queen's Birthday Honours list for her services to Science.

Prof Kettle was elected as a Fellow of the Royal Society of New Zealand in 2012, Assoc Prof Vissers was presented with the New Zealand Society of Biochemistry and Molecular Biology Life Technologies Award, and Assoc Prof Hampton was awarded the University of Otago Christchurch Gold Medal for Research.

# **Conference Reports from SFRRI meeting London, July 2011**

#### Dr Zaklina Kovacevic - Department of Pathology and Bosch Institute, University of Sydney

The 16<sup>th</sup> Biennial Meeting of the Society for Free Radical Research International took place in London from the 6<sup>th</sup> to 9<sup>th</sup> September 2012. It was held at the Imperial College London, which was a wonderful venue located in the heart of London. The conference was attended by hundreds of delegates from all over the world and it was especially great to see such a wide diversity of scientists come together to talk about free radicals!

The talks were of exceptional quality, with lectures being given by leaders in the field of free radical research such as Prof. Lester Packer, Prof. Kelvin J. A. Davies, Prof. Dame Linda Partridge and Prof. Kathy Griendling, among many others!

Indeed, I found myself learning a great deal about subjects I knew little or nothing about previously, such as the amazing power of phytochemicals and their role in redox signaling. I was especially intrigued to learn that phytochemicals, such as those found in chocolate, are able to protect against inflammation, cancer, heart failure, diabetes and even neurodegeneration! It was wonderful to learn how the food that we eat impacts our body at the biochemical level, with many speakers describing the molecular pathways that are affected by phytochemicals. I found the talk of Dr. Franciso Villarreal especially interesting as he described some remarkable data of patients with heart failure responding incredibly well to 5g of dark chocolate per day as their only medication.

It was also interesting to learn about the role of Nrf2 signaling in exercise and the molecular pathways that are affected by this important molecule. In fact, I learnt the benefits of broccoli and fermented milk in both improving exercise endurance and reducing muscle tissue damage from oxidative stress!

However, one of the most intriguing talks for me was by Prof. P.J. Thornalley, who described the oscillation of Nrf2 between the nucleus and cytoplasm and how this incredible phenomenon is crucial for the activity of Nfr2. Indeed, this is something I have never come across before and will certainly take this into consideration with my own research.

Another interesting topic that was covered at this years' conference was the controversy of whether antioxidant supplements are beneficial or harmful. This was nicely addressed by Prof. Christian Gluud, who presented work examining the many clinical trials that examined the effects of antioxidant supplements on lifespan. I was surprised to learn that antioxidant supplements are indeed harmful and may markedly reduce lifespan. In fact, to increase lifespan and reduce ageing, I was surprised to learn that calorie restriction is the way to go! This was nicely presented by Prof. Michael Ristow, who showed that calorie restriction and exercise, both of which transiently induce an increase in ROS production, also markedly increase lifespan.

The talks mentioned above were only a small part of a very interesting conference! I found that whole experience to be very educational and informative. Moreover, I will certainly be taking the knowledge I acquired during this conference back with me to apply to my own research.

In addition to the informative talks, I also had the opportunity to meet with many scientists and discuss my work with them. I was given the opportunity to present my work as a poster and as a result was able to meet other scientists that were interested in my work and were working on related areas. I also enjoyed the Gala Dinner that was held on Saturday night at the beautiful Grand Connaught Rooms, where I made many new friends and had a wonderful time!

Overall, the SFRRI London conference was a wonderful experience that both educated and inspired me! I would like to kindly thank the SFRRA for supporting me through a Travel Award, which made it possible for me to attend this meeting.

#### Jana Paulech - School of Molecular Bioscience, University of Sydney

In September I had the opportunity to attend the 16<sup>th</sup> Biennial meeting of the Society for Free Radial Research International held at the Imperial College, London. I was one of more than 560 registered delegates to attend, with the majority from the UK and Europe, although, I was pleased to see, a considerable number had braved the 24 hr flight to attend from Australia.

The conference program split the day into to two parallel themed symposia at morning and lunch time and three parallel sessions in the afternoon per day. Symposia covered diverse topics such as mitochondrial redox signalling, antioxidant and selenoproteins, phytochemicals, zinc signals and numerous sessions dedicated to the paradoxical roles of ROS in both health and disease. Of particular interest to my work was the excellent Saturday morning session themed "RNS/ROS in cardiac myocyte signal transduction" where new insights into the generation of ROS/RNS in the myocardium were discussed as well as their roles in the regulation of phosphorylation and calcium pathways and tools for their *in vivo* detection were highlighted. Highly intriguing also was the session themed "ROS revisited: promoting lifespan by low-dose ROS" (Friday) where the 'softer side' of ROS was examined. Particular highlights from this session were: i) data presented favouring a hyperfunction model of aging versus the free radical theory of ageing in *C.elegans*, and, ii) the proposition from epidemiological studies that exogenous antioxidants (such as those in your morning multivitamin) may actually contribute slightly to mortality in healthy humans.

Added to these seminars were several award and plenary sessions dispersed throughout the program and six poster presentation sessions held at lunches and prior to dinner – making a schedule packed with some really fascinating free radical research! However there were also some excellent opportunities for socialisation with a welcome reception, afternoon drinks (with posters) and of course the Gala Dinner held at the beautiful and historic Grand Connaught Rooms. This interesting and diverse program helped to make the 16<sup>th</sup> Biennial SFRRI meeting a true success for me and I thank the SFRRA for the funding it provided to help me attend.

# Dates for your Diary

# 2013

#### January 30 - February 01, 2013

International conference on Advances in Free Radicals, Redox Signaling and Translational Antioxidant Research & XII Annual meeting of the Society for Free Radical Research, India Location: Lucknow, Uttar Pradesh, India Further information: www.sfrrstar2013.org/

#### May 22-24, 2013

Fifth International Congress of the Federation of the European Societies for Trace Elements and Minerals: Bridging between New Advances and Public Health Issues Location: Avignon, France Further information: <u>www.festem.eu/festem/congresses/symposium-home/index/html</u>

#### June 5-7, 2013

5th International Symposium on Nutrition, Oxygen Biology and Medicine Oxygen Club of California and SFRR(France) Location: Paris, France Further information: <u>www.oxyclubcalifornia.org</u>

#### August 25-26, 2013

QMB Redox Location: Queenstown, New Zealand Further information: <u>http://www.qmb.org.nz/</u>

#### September 9-12, 2013

8th International Human Peroxidase Meeting Location: Mercure Hotel, Sydney, Australia Further information: Email: Mike.Davies@hri.org.au

#### September 12-14, 2013

21st Annual Meeting of the Society for Free Radical Research – Australasia Location: Mercure Hotel, Sydney, Australia Further information: Clare.Hawkins@hri.org.au

#### September 23-25, 2013

Society for Free Radical Research – Europe Meeting Location: National Hellenic Research Foundation, Athens, Greece Further information: <u>http://www.sfrr-europe2013.gr/</u>

#### October 16-19, 2013

6th Biennial meeting of SFRR Asia 2013: Oxidative Stress and Mitochondrial Alterations in Ageing and Disease Location: Taiwan Further information: <u>http://www.sfrr-asia2013.org/</u>

#### November 20-24, 2013

Society for Free Radical Biology and Medicine 20th Annual Meeting Location: San Antonio, Texas, USA Further information: <u>http://www.sfrbm.org/sections/annual-meeting/information</u>



# 2014

#### March 23-26th, 2014

17th Biennial Meeting of Society for Free Radical Research International (SFRRI 2014) Location: Kyoto International Conference Center (ICCKyoto), Kyoto, Japan Further information: <u>www.sfrr.org</u>

#### **MINUTES OF 2011 AGM**

Held on Friday 2<sup>nd</sup> December 2011, 1 pm. Medical Foundation Building, University of Sydney, Australia

**Present:** Clare Hawkins, SFRR(A) President-Elect, David Pattison, SFRR(A) Treasurer, Paul Witting, Mike Davies, Gus Maghzal, Greg Anderson, Jiri Neuzil, Tessa Barrett, Philip Morgan, Robyn Midwinter, Aldwin Suryo Rahmanto, Emma Collinson, Polina Nedoboy. The meeting was chaired by Clare Hawkins.

#### 1. Apologies:

Chris Easton, SFRR(A) President, Mark Hampton, SFRR(A) Secretary, Trevor Mori, Guy Jameson, Alfons Lawen

#### 2. Minutes from 2010 AGM

The minutes from the last meeting, as circulated in the SFRR(A) newsletter, were accepted. No matters arising from the minutes were discussed.

#### 3. Treasurer's Report – David Pattison

#### **Membership Summary**

#### Current Financial Members as of 16/11/2011:

- **2011:** TOTAL, 102 (64 full, 38 student); Country of Origin, 51 Australia, 43 New Zealand, 3 Poland, 2 USA, 1 each from UK, Brazil and South Korea
- 2010: TOTAL, 143 (94 full, 49 student); Country of Origin, 95 Australia, 19 New Zealand, 18 Japan, 4 South Korea, 1 each from India, Brazil, China, USA, Singapore, Switzerland and Hong Kong

#### **Comments**

1) Membership numbers are down from 2010, but still very healthy. There was a good attendance at last year's Akaroa conference, with SFRR(A) membership included in registration. I would like to thank those members that did not attend the Akaroa meeting for rejoining the Society again this year, and those that have already paid their membership fees for 2012.

2) *REMINDER:* With the cancellation of the 2011 meeting, membership fees for 2012 are now due for all members (Full, A\$40/NZ\$45; Student, A\$20/NZ\$22); membership forms and

payment details will be available on the website (www.sfrra.org) or by contacting David Pattison (pattisond@hri.org.au) or Mark Hampton (mark.hampton@otago.ac.nz).

# Summary of Accounts Activity (as of 1st November, 2011)

# **<u>1. Cheque Account Bearing Interest</u>**

Deposits		
Membership fees:	Direct payments for 2011 and 2012	\$536.00
Interest Accrued:	from Term Deposit	\$1,425.00
<u>Tota</u>	<b>l Income</b> (1/11/10 – 31/10/11):	<u>\$1,961.00</u>
Expenditure		
SFRR(I) 2010 Dues (January 2011)		\$858.92
1 SFRR(I) Travel Award, Orlando (1 @ \$1000)		\$1,000
(further award	to NZ recipient covered by profits of Akaroa meeting)	
8 SFRR(A) Travel A	Awards, Akaroa (8 @ \$500)	\$4,000
Submission of Finar	ncial Statements (2004-2010)	
to NSW Office of Fair Trading		\$553.00
Austbrokers Liabilit	y Insurance (November 2010)	\$629.11
Engraving for Distin	nguished Services Award	\$32.00
Transfer to Term De	eposit	\$15,000
Account Service Fee	es (as of 31/10/11)	\$120
Tota	<b>l Expenditure</b> (1/11/10 – 31/10/11):	<u>\$22,193.03</u>
<u>2. Term Deposit</u>		
<b>Opening Balance</b> (a	as of 1/11/10):	\$30,000
On 23/01/11: Interest paid into cheque account		\$1425.00
	r with \$15,000 from cheque account for 10 month	s at 6.3%
		<u>\$1,425.00</u>
3. Overall Summar	ry of Australian Accounts (1/11/10 – 31/10/11)	
<b>Opening Balance</b> (2)	1/11/10) of Australian accounts:	<u>\$57,081.42</u>
Cheque Acce	ount Bearing Interest:	\$27,081.42
Term Depos	it	\$30,000
Total Income:		\$1,961.00
Total Expenditure: (excluding \$15,000 transfer from cheque account to term deposit) \$7,193.03		
Balance (Income – Expenditure):		- \$5,232.03

Closing Balance (31/10/11) of Australian accounts:	<u>\$51,849.39</u>
Cheque Account Bearing Interest:	\$6,849.39
Term Deposit	\$45,000
4. Summary of Holding Account in New Zealand	
<b>Opening Balance (1/11/10) of New Zealand account:</b>	<u>NZ\$107.28</u>
No deposits or expenditure	
Balance (Income – Expenditure):	<u>NZ\$0.00</u>
Closing Balance (31/10/11) of New Zealand account:	<u>NZ\$107.28</u>
5. Items outstanding since 31/10/11:	
<b>5. Items outstanding since 31/10/11:</b> Balance (31/10/11) of Australian accounts:	<u>\$51,849.39</u>
	<u>\$51,849.39</u>
Balance (31/10/11) of Australian accounts:	<b>\$51,849.39</b> \$2,361.21
Balance (31/10/11) of Australian accounts: Deposits	
Balance (31/10/11) of Australian accounts:DepositsInterest Accrued:from Term Deposit	\$2,361.21
Balance (31/10/11) of Australian accounts:   Deposits   Interest Accrued: from Term Deposit   2012 membership fees	\$2,361.21
Balance (31/10/11) of Australian accounts:DepositsInterest Accrued:from Term Deposit2012 membership feesExpenditure	\$2,361.21 \$160.00

Term Deposit: \$45,000 reinvested on 23/11/11 for 7 months at 5.4%

Balance (31/10/11) of New Zealand account:	<u>NZ\$107.28</u>
2011 membership fees from 2010 Akaroa meeting	NZ\$3,268.00
Profit returned from 2010 Akaroa meeting	NZ\$4,485.54
Current Balance of New Zealand account (26/11/11):	<u>NZ\$7,860.82</u>

#### 6. Budget Considerations for 2012

Estimated Income for 2012:	
- membership fees (based on membership of ca. 80 members)	\$2,500
- estimated interest from term deposit	
1 year @ 5% average interest rate ca	. \$2,000
TOTAL INCOME ca	. \$4,500
Estimated Expenditure for 2012:	
- Affiliate Membership ASMR (July 2011-June 2012)	\$150
- Account service fees	\$120
- Lodgement of 2011 Financial Statement	\$50
- SFRR(I) 2010 membership fees (due Jan 2011)	
102 members x US\$7 (ca. A\$7) ~ US\$700	\$700
- Refundable advance for organisers of 2012 meeting	upto \$5,000
- Upgrade and upkeep of SFRR(A) website (now in Christchurch)	NZ\$1000
TOTAL EXPENDITURE upto	\$6,000 + NZ\$1,000
Estimated Balance of Australian accounts (Nov 2012):	\$52,000
Estimated Balance of New Zealand account (Nov 2012):	NZ\$6,500
(without any funds for travel awards considered)	

#### Travel awards required for:

SFRR(International) meeting in London (September 2012) SFRR(Australasia) meeting in Brisbane (end of 2012)

#### 4. Travel Awards for 2012

Paul Witting proposed a motion to increase the number of travel grants offered to students to attend the 2012 meeting in Brisbane to encourage strong attendance from the younger members of the Society. After some discussion, it was proposed to offer at least 10 travel awards, with the value of each award determined by the geographical location of the applicant with respect to Brisbane, with up to \$6000 to be made available by SFRR(A). It was also proposed to offer 2 travel awards of \$2000 to assist with the costs associated with attending the biennial meeting of SFRR(International), which will be held in London – 1 award for a PhD student, 1 award for a postdoctoral scientist of less than 5 years experience post PhD. Travel grants will be awarded after assessment by a selection committee to current financial members of the Society.

#### **5. Future Meetings**

#### SFRR(A) 2012 – Brisbane

Greg Anderson reported that organisation of the meeting is underway – the proposed dates are Thursday 29<sup>th</sup> November to Saturday 1<sup>st</sup> December. The meeting will be held at the Queensland Institute of Medical Research (QIMR), which houses 2 auditoriums and can provide assistance with handling registrations / abstracts etc. The organising committee of Greg Anderson, Martin Lavin and Jiri Neuzil welcome suggestions for invited speakers. Greg reported that he would be unlikely at this stage to take up the offer of \$5000 start up funding from SFRR(A).

#### SFRR(A)+(J) Joint Meeting – 2013

Clare reported that the Japanese Society have indicated a preference for the 2013 meeting to be held in Australia rather than Japan, with a suggested venue of Cairns (first choice) or Perth (second choice). Discussion followed regarding the feasibility of back to back meetings in Queensland. It was decided to seek feedback from the wider Society by way of a survey before making a final decision. A suggestion was also made to invite the Japanese Society to participate in the 2012 meeting in Brisbane.

#### 6. Other Business

David Pattison informed the meeting that the hosting of the Society website was in the process of being moved from the University of South Wales, to the University of Otago, Christchurch, with Rufus Turner kindly offering to be the website coordinator. This process will hopefully be completed by early 2012. Once this has been finalised, the website content and design will be upgraded, coordinated by Rufus Turner and Mark Hampton in conjunction with the Executive.

Meeting closed: 1.30 pm (Minutes taken by Clare Hawkins)

## Society for Free Radical Research (Australasia) 2013 MEMBERSHIP APPLICATION/RENEWAL FORM

Title:	Name:
	Fax:
E-mail:	
<b>Annual Fees:</b> Note: All delege of the Society for 2013.	gates of the 2012 SFRR(A) meeting in Brisbane are financial members
[ ] Full Membership Aus\$4	0 / NZ\$45 [ ] Student Membership Aus\$20 / NZ\$22
[ ] Electronic Funds Transfe	er Account name: SFRR Australia Account number: 06 2284 10178136 Commonwealth, Univ of Sydney, NSW (BSB: 06 2284)
OR	Account name: SFRRA Account number: 02 0800 0858347 000 BNZ, New Zealand (BKNZNZ22)
11 1	ox above to indicate category of membership. For payment please make preferred option) to the account detailed above.

Alternatively, please send a cheque payable to "Society for Free Radical Research (Australasia)" to the Treasurer (announced following the 2012 AGM).

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

(Student membership only - ask your supervisor to complete the declaration below)

I confirm that the above applicant is at present a student under my supervision.

Name:	Signature:
Institution:	Date: