Edman
THE NEWSLETTER OF ST VINCENT’S INSTITUTE OF MEDICAL RESEARCH SPRING 2013
IN OUR BONES
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International engagement is a crucial part of our success and this is highlighted in the current edition of The Edman. There is a continuous flow of overseas scientists visiting SVI either individually, such as Paola Divieti Pajevic, or collectively, to a meeting like the Immunology of Diabetes Society Congress being organised later in the year by SVI scientists.

Of course there is also a flow of Australian researchers going overseas, either for brief visits or for longer stays. This reciprocal flow has been termed “brain circulation” and is definitely not a “brain drain”.

Most of us in science would regard this international engagement as one of the most attractive aspects of our career. The ability to find common ground with people from completely different cultural and geographical backgrounds is always inspiring. Receiving recognition from international peers is exciting and Natalie Sims (the Albert Fleisch award) has been very successful in this regard.

Similarly, international researchers receive recognition for their research in Australia, such as Sabine Jurado who was recently awarded the TJ Martin Medal. Sabine, originally from France, has now moved to Vienna after completing her PhD at SVI.

Australian science is well regarded globally and great success can be achieved by well-connected groups working here. Ironically it became popular some years ago to say that the traditional overseas post-doctoral period, which so many of us have seen as a highlight of our careers, is no longer necessary because of Australia’s maturity as a nation and scientific community. This is true but ignores the tremendous benefits that strong international networks bring. Virtual links through skype and email can be productive, but face-to-face relationships that can last a lifetime are even better.

International collaboration and global engagement are among the building blocks of the success of medical research. In order for this success to grow, we need to encourage governments to look beyond the 3 year political cycle to the long-term possibilities, which will have both economic and public good benefits for Australia.

In the lead up to the election campaign it was interesting to hear the emphasis on Australia playing to its strengths and identifying areas in the economy with international competitiveness that might take over from the resources boom and manufacturing. Medical research and related fields such as bioengineering and biotechnology are areas in which Australia is able to stand tall, with the comparative advantages of a long history of success and a very strong health care system.
Arthritis is an umbrella term used to refer to the more than 100 medical conditions that affect the joints. The most common forms of arthritis are osteoarthritis, rheumatoid arthritis and gout.

Osteoporosis is a progressive bone disease characterized by a decrease in bone mass and density, leading to an increased risk of fracture.

Arthritis and osteoporosis are amongst the leading causes of pain and disability in Australia.

Peak bone mass is reached at the age of 25, after that point, our bones start to become thinner and more brittle.

In women over 45 years of age, osteoporosis accounts for more days spent in hospital than many other diseases, including diabetes, myocardial infarction and breast cancer.

More than 60% of the 3.85 million Australians affected by arthritis are of working age. Regular exercise plays a major role in maintaining bone health.

2nd Joint Meeting of The International Bone and Mineral Society (IBMS) and the Japanese Society for Bone and Mineral Research in Kobe, Japan.

Named in honour of the late Professor Herbert Fleisch, the Award recognises outstanding achievement by an IBMS member aged less than 45 years in the field of bone and mineral research.

Natalie is head of SVI’s Bone Cell Biology and Disease Unit and is recognised internationally as one of the new generation of leaders in bone research. Her work focuses on identifying signaling molecules within bone cells with a view to developing new therapeutic pathways for the management of bone and joint disorders such as osteoporosis, rheumatoid arthritis and osteoarthritis.

She says, “Professor Fleisch was a pioneer in osteoporosis therapy, and a charismatic leader - a good role model for any scientist. He developed bisphosphonates, the most commonly used therapy for osteoporosis, and the first therapy capable of stopping further damage to the skeleton.”

Natalie says that she is particularly honoured to receive an Award named in Professor Fleisch’s honour. This is because one of the first projects she worked on at SVI showed that Professor Fleisch’s therapy could also be used to treat the bone destruction that occurs in rheumatoid arthritis.

Natalie hopes that by understanding how bone cells communicate with each other, her team at SVI will be able to find new ways to treat skeletal disorders, and make an impact on patient outcomes, just as Professor Fleisch was able to do.
Dr Farzin Takyar completed his PhD in the Bone Cell Biology and Disease Unit in 2012. He then moved to Yale University to take up his first postdoctoral position.

Where are you working now?
I am working in the laboratory of Professor Wysolmerski in the Section of Endocrinology at Yale School of Medicine, Yale University.

What is your research focus?
My two major projects both extend the interest in signaling mechanisms within bone that I developed during my PhD at SVI. My first project dissects how parathyroid hormone-related protein, discovered by SVI’s Jack Martin, is involved in breast development and cancer. The second looks at the role of a protein called Cathepsin K in bone growth, looking to the development of new therapies for osteoporosis.

What are your reflections on your time at SVI?
Some of my outstanding memories include the scientific rigor, family-like and friendly environment, strong student organisation and support. I was lucky to have a good balance of studying in a world-renowned laboratory under the supervision of exceptional mentors and working with a group of people who were true friends! It was a really fun period.

What did getting a SVI Foundation Top-up scholarship mean to you?
It helped me a great deal to stay focused on the main objective, i.e. tackling the scientific problem at hand.

What are your plans for the future?
I am planning to pursue my post-doctoral scientific training - along with completing my clinical studies - so that I can work as a qualified physician-scientist and have my own laboratory one day.

Latest NEWS

Dr Sabine Jurado, recent SVI PhD graduate, returned to Melbourne from her postdoctoral work in Vienna to accept the T.J. Martin Medal, awarded for the best PhD thesis submitted by a St Vincent’s campus-based researcher.

Dr Hayley O’Neill, who completed her PhD with Bruce Kemp in SVI’s Protein Chemistry and Metabolism Unit at the end of 2012, was nominated as a finalist in the 2013 Victorian Young Achiever Awards.

A/Prof Helen Thomas, along with colleagues Professor Tom Kay and Dr Stuart Mannering, have been recently awarded US$500,000 grant by the Juvenile Diabetes Research Foundation (JDRF) to find new ways to prevent type 1 diabetes.

Dr Jerome Wielens in the Structural Biology Unit was awarded a $25,000 Victorian Infection & Immunity Network Industry Alliance Grant to forward his research into the influenza virus.

A number of Trusts and Foundations have supported SVI research with grants that allow researchers to purchase cutting-edge equipment to carry out their work. Thanks to the L.E.W. Carty Charitable Fund, The Ian Potter Foundation, the Jack Brockhoff Foundation and the Marian & E.H. Flack Trust.
Dr Nicole Walsh from SVI’s Bone Cell Biology and Disease Unit has been well positioned over the last few years to appreciate the difference that philanthropy can make to medical research. Key to the research being carried out by Nicole and her team are a number of instruments that were purchased thanks to philanthropic donations.

Nicole explains, “One great example is SVI’s microCT, which we use to collect data on the structure and density of bones, the progression of bone tumours and in my case, the effects of arthritis on bone in mice. Importantly, the instrument allows us to follow disease progression and also see in real time the effects of treatment. When The Ian Potter Foundation helped to fund the purchase of our microCT in 2010, we knew that it would speed up our data collection, but being able to collect and analyse data in a few minutes on the microCT compared to the painstaking hours, days and even months spent reconstructing the data manually, as we did prior to purchase of the instrument, is just breath-taking.”

The Ian Potter Foundation have again made an important contribution to SVI research, announcing in 2013 a $250,000 donation to help to fund a fluorescence-activated cell sorter, another instrument that will increase the ability of SVI researchers to analyse changes to cells in disease.

Goverors from The Ian Potter Foundation visited the Institute in May and heard from the researchers about the difference that the Foundation’s support has made. Nicole says, “Without philanthropic support for the purchase of key technology, our research would be a lot more difficult to carry out. We are very grateful to all of SVI’s donors, big and small, whose contribution makes a real difference on the lab bench.”
What are your thoughts on government support for medical research?

I strongly believe the government should be spending money in the medical research field to help to ameliorate medical conditions. Investment into research will be offset by reduction in costs to care for the people with illnesses. The government needs to understand that medical research has good long-term benefits compared with other investments. These benefits affect the whole community. It is important that government funding be used in ways to help eliminate or treat ill health. Unfortunately, government funds will never be enough for what is needed and so we need to rely on the generosity of the community to help and to seek its involvement.

How do you think support is best directed?

I also feel that money should be put towards scholarships for students at medical research institutes, because we should be supporting our younger generation. They are the future. Scholarships are a great way to help with this education. It is a long-term process that nurtures the younger generation of scientists so that they are able to sustain this very valuable work.

If you would like more information about SVI’s Scholarship Program, or about how you might be able to support medical research at SVI, contact the SVI Foundation on (03) 9288 2480.
The 10 Tenors are not accustomed to their audience breaking into dance midway through their performance, which is exactly what happened at the 28th Susan Alberti Medical Research Foundation Signature Ball held on Saturday 24 August. The animated audience at Crown’s Palladium Ballroom were reluctant to stay in their seats and eager to dance the night away at the spectacular event.

As in previous years, the evening was a huge success, raising in excess of $400,000. Funds raised will be distributed to SVI and the Walter and Eliza Hall Institute (WEHI) for research into type 1 diabetes and cancer.

SVI’s Chair, Brenda Shanahan, was presented an award on the night for her outstanding contribution to medical research. A well deserved accolade, Brenda has dedicated her services to SVI for over 18 years and continues to do so today.

She received the award alongside WEHI’s Professor Len Harrison who was recognised for his research into type 1 diabetes.

Host Craig Willis entertained the audience with his sharp humour and also found time for some serious discussion about medical research. He introduced SVI’s Dr Andrew Deans who spoke about his research into familial breast cancer, followed by WEHI’s Dr Kylie Mason who shared with guests her inspirational journey of surviving cancer and how that experience inspired her research into leukemia.

SVI sincerely thanks Susan Alberti and her team for an unforgettable evening, an amazing fundraising effort and their ongoing commitment and support towards medical research.

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**2013 Diary**

October 10
SVI Support Group Black Tie Dinner at the Athenaeum Club

October 13
Team SVI runs the Melbourne Marathon

October 28
SVI Charity Golf Day at Albert Park

For more information, contact Madeleine Whiting on (03) 9288 2480.
“My father, George Carson was passionate about medical research. In 2005, we as a family established The George Carson Bequest in memory of dad as a way of supporting medical research at SVI. This support has allowed researchers at the Institute to form closer connections with cardiologists, helping to translate discoveries made at the bench into practical solutions for Australians living with heart disease.” - Ian Carson

SVI is a member charity of the Include a Charity (IAC) campaign. IAC week, held from the 17-23rd of September, is designed to raise awareness of the ease and effectiveness of leaving a gift in your will. If you would like to speak to someone about leaving a bequest to SVI, call us on (03) 9288 2480.

In Research video and images of SVI’s history, dating back to when the Institute was first established in 1958.

By opening our doors, we were able to show and explain to the community the medical research we conduct at the Institute, and the importance of the work we do into the prevention and treatment of diseases. The event was a wonderful success thanks to the help of our tour guides and volunteers over the weekend.

SVI would like to acknowledge those who have recently provided support to SVI, helping to make our cutting-edge research possible.

**Lodge Amicus** and **Seavic Lodge of Freemasons, Victoria** raised $55,000 at their My Fair Lady Ball in February, which will purchase equipment for type 1 diabetes research at SVI.

The **Breakthrough Committee** held a fundraising screening of The Great Gatsby in May. They have so far raised over $5,000 towards the purchase of equipment for cancer research.

SVI supporter **Clare Cooney** hosted a breakfast and raised funds for type 1 diabetes research.

**Patricia and Bill Snell** hosted a fundraising dinner in July, in support of SVI’s Islet Transplant Program.

The **Victorian Women’s Football League** donated the profits raised from their 2013 VWFL Grand Final Luncheon to SVI’s Women in Research Award.

**Freehills Patent Attorneys** raised $1,000 for SVI’s Women in Research Award through the auction of three paintings at their 2013 Women in Science and Technology Lunch.
Getting involved

There are many ways you can support medical research at SVI.

How you can help: (See over for payment details)

☐ Make a donation
☐ Join the Friends of SVI
☐ Join the $10,000 Discovery Fund

Please contact me about:
(complete below and return)

☐ Make a bequest to SVI
☐ Donate in lieu of a gift
☐ Build a corporate partnership
☐ Sponsor an event or publication
☐ Organise a fundraising event for SVI
☐ Give to SVI through Workplace Giving
☐ Donate in Memoriam
☐ Information on the Friends of SVI
☐ Information on the SVI $10,000 Discovery Fund

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SVI respects your privacy. If you do not wish to receive some or all of the supporter information or you wish to remain anonymous, please contact our office on: (03) 9288 2480.

SVI is endorsed as a tax deductible gift recipient.

All donations over $2 are tax deductible.

SVIMR ABN: 52 004 705 640.

Please return to:
St Vincent’s Institute of Medical Research,
9 Princes St, Fitzroy, VIC 3065
DONATING TO SVI

By supporting SVI’s medical research, you can make a difference.

1. Donate now to SVI
I want to make a single donation of:

☐ $25  ☐ $50  ☐ $100  ☐ $250  ☐ $500  ☐ $1000
☐ Other $

2. Become a Friend of SVI
I want to make an annual donation of $1000 for:

☐ 3 years  ☐ 5 years  ☐ Other

3. Join the SVI $10,000 Discovery Fund
An investment in the $10,000 Discovery Fund is an investment in the future needs of the Institute.
For more information contact the SVI Foundation on (03) 9288 2480

4. Leave a bequest to SVI
If you would like to talk to someone about making a bequest to SVI please contact the SVI Bequest Officer on (03) 9288 2480

See our website, www.svi.edu.au if you would like to make periodic payments from your bank account or credit card.

Donation payment details

☐ Cheque (please make payable to St Vincent’s Institute)
☐ Credit card (please tick one of the following cards and complete details)

Card type (please tick)

☐ Diners  ☐ Visa  ☐ Mastercard  ☐ Amex

☐ Other

Expiry date

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