

The New South Wales Expatriate Return Awards Program and the Network of Expatriate Australian Researchers

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The Australian Government is now successfully attracting some high-achieving expatriate researchers back home through the Federation Fellowship program; however this scheme can draw in only a few individuals under quite specific guidelines. There are many more expatriate Australian researchers who have not returned (and will not return) home for personal or professional reasons. The enormous wealth of expertise and knowledge that resides with our expatriate Australian researchers is a considerable and valuable resource.

For a great variety of reasons, our expatriate researchers have chosen to live abroad temporarily or permanently and, despite their skills and experience, Australia has lost contact with much of its diaspora scattered throughout the world. For many researchers, working overseas temporarily is an essential part of their professional and personal development and many Australians have risen to fill very significant, high-profile positions across the globe in their chosen fields of endeavour. Given the high level of global mobility now prevalent in research, it is outdated for us to consider our 'intellectual pool' to be comprised only of those who live in Australia. There needs to be a new paradigm that recognises that the future of Australian leadership in R&D activities will come through identifying Australian-born or Australian-trained researchers (who understand the Australian system and Australian ethos), but who are well-

connected to and comfortable with research activities on a global scale.

For many of Australia's expatriate researchers, despite their strong desire to establish or to re-invigorate research linkages with their colleagues and would-be collaborators in Australia, there are at present only very limited avenues available to make this happen.

The New South Wales Expatriate Return Awards are a joint initiative of The University of Sydney, the NSW Department of Education and Training and initially the CSIRO. The program was originally conceived as a vehicle enabling expatriate researchers to establish and re-establish links to researchers in Australia, to provide expertise and develop longer term collaborative linkages. The awards are available for periods of 3-6 months and provide sufficient funding to cover temporary relocation for the researcher (and his/her spouse and immediate family) to Sydney as well as a living allowance to cover local costs, health insurance etc during the stay in Australia. The approximate cost of the program is about \$40 000 per researcher.

The Expatriate Return researchers have also been heavily involved in an Outreach and Schools Program involving the students and staff in NSW Schools as well as establishing productive research alliances.

The schools program has been coordinated by the NSW Department of Education and the researchers provide 'real-life' examples of successful Australian scientists who are outstanding achievers in many different disciplines. Because school outreach is an integral part of the project, the expatriate researchers have been selected to be excellent communicators and their enthusiasm is inspirational. A review of the Outreach and Schools Program in 2003 was exceptionally positive and indicated that the program provides an excellent means to engage students in sciences and technology by providing real examples of successful Australians who are obviously successful even in the international arena.

The first awards were made in 2003 to Professor Paul Franzon (who is an expert in molecular electronics and developing high-density computer memory based at North Carolina State University) and to Dr Theo ten Brummelaar (who is an astrophysicist and Associate Director of the Centre for High Angular Resolution Astronomy [CHARA] at Georgia State University based at the Mt Wilson Observatory in California). Both visits were enormously successful, not just in the new linkages and research ideas which emerged, but in the very positive impact that these two scientists had on the thousands of school children and teachers who they spoke to and interacted with in the outreach program.

The program continues into 2004, with awards to Professor Ian Gardner (who is Professor of Epidemiology at the University of California, Davis and an expert in animal health and the spread of animal diseases) and to Professor Ken Waldron (who is from Stanford University and an expert in robotics and in particular the development of legged robotic vehicles suited to challenging terrains). Both of these visits will happen in the second half of 2004.

Thinking more broadly, we have proposed a Network of Expatriate Australian Researchers (NEAR) for support by the Federal Government under the ARC Networks Scheme to bring together all Australian researchers living abroad. For additional information visit the website¹. NEAR will provide opportunities for Australian researchers overseas to engage and re-connect with researchers and research groups in Australia and for Australia to benefit from the talent and expertise of its expatriate researchers. NEAR will significantly extend the

program beyond Sydney University to be an Australia-wide enterprise with a longer time horizon permitting multiple visits (perhaps 3 months in each of 2 or 3 successive years). NEAR would also encompass not just the Sciences and Technology disciplines but also medical researchers and researchers in the Social Sciences, Humanities and Performing Arts. The success of the New South Wales Expatriate Return Awards Program suggests that the key to harnessing the resources of the Australian diaspora is to identify opportunities which emphasise mobility and flexibility. To some extent, NEAR will go some way to reversing the 'brain-drain' by providing mechanisms to draw back a real contribution from our very skilled expatriate workforce in a mutually beneficial fashion.

The opportunities offered by the NSW Expatriate Return Awards Program and by NEAR raise the exciting prospect of bringing the best Australian researchers back home, of creating and enhancing connections to the world's top institutions, and providing outstanding educational possibilities for the next generation of Australian researchers. The costs associated with such a program are considerably smaller than what is needed to entice our best researchers to move home permanently.

The expatriate research community does represent a unique portal on the global research scene. Expatriate Australians are well-connected and networked in their own right and forming closer links with our expatriate research community will naturally open up new international linkages for Australian researchers.

Footnote

¹ <http://near.chem.usyd.edu.au>

Challenges to Reversing the Brain Drain so as to Grow and Develop the Australian Biotechnology Industry: A Human Resource Perspective

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There exists a limited talent pool of individuals having specific technical skills to take a therapeutic good through the various stages of commercialisation. More specifically, in the past two years, many Queensland based companies have requested Davidson Group to identify and select clinical research and development, regulatory affairs, validation and quality assurance personnel with at least three to five years relevant industry experience pertaining to the development and manufacture of drugs, diagnostics, vaccines and medical devices. Additionally, synthetic organic chemists, qualified to PhD level and often holding post-doctoral experience from an international institute or university, are regularly sought by emerging Australian biotech companies. Unfortunately, these highly sought after Australian scientists, who play a key role in drug discovery and design programs, often do not return home to Australian start-up companies due to the poor remuneration packages on offer and the enticement of globally-recognised multinationals in Europe and the US that can offer more significant career opportunities and greater financial security. Joining such a global organisation enables an Australian scientist to build a well-branded CV that could not be developed in Australia due to the lack of multinational head offices located in our country.

Another major drawback for the Australian Biotechnology industry is the deficiency in the number of mentors from the upper echelon of science and technology disciplines residing in Australia. Our budding talent are drawn to, for example, the San Francisco Bay Area in California where, expatriate candidates tell me, they attend seminars and symposia alongside Nobel Prize winners with whom they are able to discuss their research and career ambitions and from whom that can obtain guidance and advice.

There is also some aversion displayed by Australian companies to wait for three to four months for a high quality, suitably experienced individual to see out their relevant notice period with their overseas employer before relocating and being able to commence employment in Australia. Australian start-up companies often approach Davidson Recruitment with an 'immediate need' for an expert to join their team so as to achieve an important commercialisation milestone. This often reflects a lack of forward planning and forecasting of human resource needs on the part of Australian biotechnology firms and their management teams.

It is not unknown that a limited talent pool of individuals exists at the senior management, executive and Board levels, possessing adequate management skills required by high-growth start-up companies (refer PMSEIC Working group report - 2002).