

# RESEARCH GLOBAL

## Learning from each other

An Australian approach to measuring research impact

Research foundations in the US

Asian research and the media

New network for West Africa



### Research Global

(Formerly *Research Opportunities*)

#### Editorial Team:

Dr John Kirkland, Patrice Ajai-Ajagbe,  
Natasha Lokhun  
(resman@acu.ac.uk)

**Book Listings and Reviews:** Nick Mulhern

**Design:** Chris Monk

#### Printers:

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Woburn House  
20-24 Tavistock Square  
London WC1H 9HF  
Tel: +44 (0)20 7380 6700  
Fax: +44 (0)20 7387 2655

#### [www.acu.ac.uk/researchmanagement](http://www.acu.ac.uk/researchmanagement)

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# The network

This edition of *Research Global* has a special significance. It provides an opportunity to take stock of how the Global Research Management Network (GRMN) has developed in its first two years of operation – and the start of a drive to further expansion.

To say that we are pleased with progress so far is an understatement. In the leaflet enclosed with this brochure, we go to the unusual length of listing all of the institutions whose staff have already signed up for the network. It is a genuinely distinctive combination, of countries with very similar outlooks and those with very different ones.

Membership brings together all five continents (in relatively even numbers) and institutions with a wide range of specialisations and experience. What draws us together is a common desire to collaborate and improve standards. In a world where more and more funding is allocated on an international, project-based and competitive basis, that collaboration is not only in the interest of the research management 'profession' but essential to the success of our own institutions.

Nowhere is the common nature of our problems more evident than in the current issue, which brings together articles from the United States, Mauritius, Australia, Asia, the United Kingdom, Sierra Leone and Europe with news and funding opportunities from literally all over the globe. Many of the problems are universal – the division between gifts and contracts, getting more media interest, measuring research impact, helping academic staff win research grants. Sound familiar? If it doesn't, maybe it should.

The next step is to move from being an *international* network, to one that is fully *global*. For example, a glance at the membership list will show only a small number of members from the United States and mainland Europe. This largely reflects the remit of the Association of Commonwealth Universities, which principally devised the network and which still provides much of its administration. It's a great

# Research Global goes global

starting point – but *only* a starting point.

The involvement of SRA International – who became a partner in the project last year – gives us an excellent opportunity to engage with the huge body of research expertise in the United States. As part of its commitment to the network, SRA has agreed to mail this issue of *Research Global* to its entire US-based membership – some 4,000 individuals. We hope that many will be as inspired as we are at the prospect of ‘going global’ – both as a contribution of developing the profession and a means of developing their own international contacts. We will also be contacting universities throughout Europe with a similar message.

Potential members might take three other factors into consideration. First, the Global Network does not intend to replace, or detract from, the activities of existing national or regional associations in the field. Nor could it! The majority of research funding is still confined to particular countries and regions, each of which has their own rules and regulations. It would not make sense for our network to duplicate the work of, say, the European associations trying to disseminate information about European Union funding mechanisms – except for those opportunities which extend beyond Europe. The involvement of SRA International, and support of other existing networks such as the Australasian Research Management Society (ARMS), Southern African Research and Innovation Management Association (SARIMA) and Association of Research Management and Administrators (ARMA) in the United Kingdom

provides evidence that they see this distinction very well.

Second, we’d like to stress that the network is being run on a non-profit basis. In the event that any surplus does emerge, this will be ploughed back into the programme, or distributed to the professional associations that form the partnership. Either way, funds will go directly back into the promotion of research management and administration. The GRMN has no private shareholders!

Finally, our non-profit basis, and the recruitment success to date, have enabled us to keep dues to a level at which they are fully accessible. This year, we have even been able to reduce them. There is certainly no economic reason why membership of the global network should be seen as competing with that of other bodies.

In fact, in our view there is no reason for anyone involved in university research management – wherever they are based – not to join. And there is, of course, the world to gain. If you are not yet a member, we look forward to welcoming you!

RG

## Dr John Kirkland

Deputy Secretary General (Development)  
The Association of Commonwealth  
Universities

The *International Journal of Technology Management and Sustainable Development* is a refereed academic journal published three times a year. It features case-study articles on technology transfer, technology management and the sustainability of technologies within societies. Articles also highlight the practical aspects of implementing systems and policies within communities. The journal covers a wide range of topics from agriculture and biotechnology through to public health, the environmental sciences and research management.

The current issue, focussing on water, sanitation and sustainability, looks at the viability of some of the schemes to improve sanitation and access to clean water in four different continents – and highlights some interesting points for consideration.



**Join the network** The Global Research Management Network (GRMN) is a partnership between the Association of Commonwealth Universities (ACU) and the Society of Research Administrators International (SRA International) and is dedicated to the development of international collaboration amongst the research management community. The network directly provides regular information, analysis and networking opportunities to individual practitioners and their institutions.

Network members receive *Research Global* magazine, the *International Journal of Technology Management and Sustainable Development*, regular emails, including a monthly international news briefing, and are kept informed of forthcoming international events and other opportunities. Subscription rates start at GBP55 per annum for individual membership for those based at institutions in developing countries and for current SRA International and ACU members.

See [www.globalrmn.org](http://www.globalrmn.org) or email [resman@acu.ac.uk](mailto:resman@acu.ac.uk) for further details.

# Is it really a gift?

## Philanthropic giving to advance the research mission

**Lynne Chronister** highlights some factors for consideration when receiving funds and/or resources for research.

**T**his past December, like Decembers for centuries before, much of the world celebrated new life and new beginnings by giving gifts. This time of the year comes by many names: Christmas, Hanukkah, Ramadan, Kwanzaa, and the Chinese New Year. It is a wonderful tradition that brings warm feelings of closeness to our friends, families and acquaintances. Likewise giving to those in need also has a long tradition. This spirit of giving to others goes back centuries and has survived wars and natural disasters of enormous proportion. If 13th or 14th century storytellers are to be believed, the mythical Robin Hood took giving to new heights by stealing from the rich to give to the poor. He may have been our first recorded philanthropist, albeit a dashing and charismatic outlaw.

Philanthropic gift giving for the purpose of advancing research and scholarly pursuits at universities and other not for profit institutions has a somewhat more recent history. In the Renaissance Age, wealthy men and women became patrons of artists and poets. Support for advancing scientific knowledge was primarily a 20th century innovation. In the US, strong support for research from the government began in the 1940s and 50s. As government support grew, the number of individuals pursuing scientific and engineering research increased as well. At the same time, the advancement of Research and Development became a critical factor for industries to remain nationally and globally competitive. Industry found that universities and non-profit research laboratories were great sources of intellectual capital and ingenuity. Governments and industries worldwide began seeking out the best and brightest researchers and students to enhance R&D. Simultaneously, governments in many countries began offering tax credits to industry for both R&D and philanthropic giving to not for profits. With the tax credit came governing laws, regulations and specific definitions. As a result, for

the past three or four decades, institutions have been trying to figure out 'Is it a gift or is it a contractual relationship?'

### Definitions

The Council for the Advancement and Support of Education (CASE) is a worldwide organization that offers education, information and support for higher education including philanthropic support or, as many universities label it, university advancement. CASE has provided some useful definitions in its *CASE Management and Reporting Standards*:

**'Gift:** a contribution...for either unrestricted or restricted use in furtherance of the institution for which the institution has made no commitment of resources or services...The contribution is a nonreciprocal transfer in that there is no implicit or explicit exchange, purchase or provision for exclusive information.'

**'Contract:** an agreement between the institution and another entity to provide an economic benefit for compensation. The agreement is binding and creates a quid pro quo relationship...'

The National Association of College and University Business Officers (NACUBO) uses the terms 'gift' and 'exchange transaction' to discriminate between something that is purely philanthropic, and a formal, legal transaction.

However, there are grey areas; for example, what is a grant? CASE uses the term to mean a 'gift' that is given by a foundation or entity other than an individual that is nonreciprocal

and irrevocable. Many public and government entities also give grants with the intent that there will be an outcome and that funds will be expended along very well defined guidelines. These grants are revocable if the work is not completed or funds are spent inappropriately.

### Why do we care?

It is all money that we are going to use to advance knowledge, so why do we care if it is a gift or an exchange transaction? The answer is, in part, that governments care. Almost every government has a set of laws governing philanthropic giving and R&D sponsorship by external entities. In the US, it is the Internal Revenue Service (IRS), the Office of Management and Budget (OMB) and a plethora of other agencies with rules and regulations. Included also are the Government Accounting Standards Board (GASB) and the Federal Accounting Standards Board (FASB). In Canada, institutions would look to the Canada Customs and Revenue Agency (CCRA) with help from the Canada Council for the Advancement of Education (CCAE). The Australian Tax Office (ATO) would govern transactions in Australia, while in England, it is HM Revenue and Customs.

In addition to the taxation issue is the concern over ownership of the intellectual property and information that is derived from research. If funds are transferred as gifts, there can be no expectation of ownership or other right to any resulting knowledge or intellectual property, including copyright, patents, trade or service mark or know-how. Imagine if a large electronics company supported research in a nanotechnology laboratory at Global U with the intent that the research would provide them with the next greatest electronic tracking device. The support was in the form of a USD2 million gift to avoid overhead costs. Since the research was supported by gift funds along with government grants, the university could license the technology to a competitor. If this occurred the donor would be understandably upset, the researcher furious and embarrassed, and the university caught in an untenable situation.

**A gift, even a restricted gift, does not generally carry specific guidance on what costs are allowable.**

However, the industry would have had no legal right even to an option for an exclusive license because a gift comes with no strings attached.

Another consideration is the fact that a contract or government grant, and perhaps a private grant, comes with expectation that funds would be spent according to specific criteria. A gift, even a restricted gift, does not generally carry specific guidance on what costs are allowable. In the US and some other countries, overhead or indirect costs are assessed on 'exchange transactions' but not on gifts. This is a great incentive for researchers to seek out 'gift' funds to ensure that all or most of the funds can be used directly in support of the research.

### How do we tell the difference?

Early on in civilisation, we bartered for goods and services in lieu of a monetary system. We didn't worry too much about gifts, we worried about survival. We now have to determine the nature of what we receive from various sources. The challenge is to figure out whether funds are provided as a gift or exchange transaction. In 1994, NACUBO provided members with some guidance on how to classify gifts and exchange transactions. No single criterion will determine classification so it is important to review all of the inclusion/exclusion criteria. Some of these criteria are referenced below.

It isn't a gift if:

- 'Proprietary results belong to the funding organization, in whole or in part, after the work is completed.'
- 'Results of the work have a specific commercial value for the resource provider.'
- 'Benefits to the resource provider are primary and public benefits are secondary.'
- 'Resource provider defines performance objectives such as a detailed report and a timetable for completing results.'



- 'Time and place for delivery of results are specified.'

It may in fact be a gift if:

- 'Proprietary results belong entirely to recipient organisation after the work is completed.'
- 'Resource provider does not receive commensurate value in return for support.'
- 'Recipient determines ownership of the products of the research.'
- 'Funds [are] used to carry out an already existing program of the recipient organization.'
- 'Recipient participates actively in determining how the funds will be spent.'

These are not all of the factors that must be used to classify support but the NACUBO and the CASE documents do provide extensive guidance. With increasing need, institutions, government and industry are partnering to improve economic viability and quality of life internationally. These collaborations bring with them increased confusion in classifying support. For instance, many universities are establishing Industry Affiliate programs. The membership fee for participation generally gives industry benefit. But does the benefit rise to the level of an exchange transaction or is it a gift? In most instances, the benefits to the industries and

institutions derived from the membership are clear enough that they should be classified as an exchange

transaction or contractual arrangement. However, there are many individual variances on the nature of the affiliation, so they should be reviewed carefully against benefits and government laws and regulations and accounting practices.

In summary, there remain many grey areas that leave us with some difficulty in determining if we have received a gift from a generous benefactor or a contract for work to be performed. My gift to you is these parting words: if someone gives a gift to you but you have to give something in return, it isn't a gift, but more likely is barter, a contract or your child wanting to borrow the car! Good luck! **RG**

**Lynne Chronister** is Associate Vice Chancellor for Research, UC Davis, University of California  
Email: [luchronister@ucdavis.edu](mailto:luchronister@ucdavis.edu)

# Innovation management in universities in Africa:

## potential lessons from Asian practice

**Sanjai Parahoo** cites some specific examples of successful research management in Asia, and considers their implications for Africa.

**R**esearch and innovation management in African universities is slowly evolving into a structured and specialised function, amid increased recognition of the contribution of universities in improving the productivity and competitiveness of local industry. As repositories of specialist knowledge and high-level skills, often unparalleled elsewhere in their economies, universities in Africa have both the potential and the responsibility to contribute effectively to national development. In recognition of this fact, the development of research and innovation management in new and emerging institutions was specifically addressed in the last two global research management conferences organised by the Southern African Research and Innovation Management Association (SARIMA) and the International Network of Research Management Societies (INORMS), in collaboration with the Association of Commonwealth Universities (ACU), in 2004 and 2006 respectively.

Unfortunately, as a reflection of their national and regional economic environment, African universities face various resource constraints in optimising their potential in technology transfer to industry. These relate to enduring financial constraints and competing priorities, overstretched human resources, inadequate equipment and infrastructure, and cultural expectations whereby their roles are perceived more as a predominantly free service provider rather than as a business entity. Within a context of globalisation, African universities need to overcome these barriers to fulfil an effective role in enhancing productivity and global competitiveness of their local industry through process improvement, enhanced product design and features, and development of indigenous technology.

In this context, they may look towards Asia

for inspiration, given the significant economic progress driven by research and innovation in Asia over the past decades. In an environment of increasing commercial links and partnerships between Africa and Asia, the time may be opportune to draw lessons from the practice of technology transfer and innovation management in Asian universities. This benchmarking is pertinent as three Asian universities, Tokyo University, Kyoto University and National University of Singapore, ranked among the top 50 in the global league of universities published by *Newsweek* in August 2006.

### Framework in Asian universities

For nearly two decades, universities in Asia have been devoting resources to research management, to transfer innovations developed from their research to industry effectively.

The National University of Singapore (NUS) has set up a sophisticated framework involving a decentralised and specialised approach with each distinct research management function being assigned to a separate office. At the same time, all the offices are synergistically regrouped into an 'Enterprise Cluster', comprising:

- **NUS Consulting**, which furnishes confidential and independent consultancy services to industry and government using NUS resources/expertise to offer its customers quality research
- **NUS Entrepreneurship Centre**, which involves venture support, entrepreneurship education, and research
- **NUS Extension**, which is involved in continuing education beyond the University
- **NUS Industry Liaison Office (ILO)**, which acts as the gateway through which companies, research organisations and government agencies reach out and benefit from

the knowledge, expertise and technologies residing in NUS

- **NUS Enterprise**, which dispenses entrepreneurship education and nurtures talent with a global mindset. It also identifies, protects and commercialises intellectual property, nurtures NUS spin-offs and start-ups, fosters industrial collaboration, and facilitates the dissemination of NUS knowledge to the external community
- **NUS Overseas Colleges**, which seeks to immerse NUS students in leading entrepreneurial and academic hubs around the world. It operates from five global locations where it partners with leading local universities: Silicon Valley (USA), Philadelphia (USA), Shanghai (China), Stockholm (Sweden), and Bangalore (India)
- **NUS Publishing**, which looks after academic publishing at the University
- **NUS Venture Support**, which paves the way for high-tech start-ups, acting as a one-stop entrepreneurship ecosystem and helping businesses from the initial seed stage, to starting up the company, and eventually to venturing into foreign markets.

**...universities in Africa have both the potential and the responsibility to contribute effectively to national development...**

In India, leading universities have been gearing up for the commercialisation of their research breakthroughs for over a decade. According to Ganguli (2005), institutions such as the Indian Institutes of Technology, the Indian Institutes of Science, the University of Delhi and the All India Institute of Medical Sciences seem to have been the leaders in seeking

patent protection for their technological breakthroughs since 1995, and the process has subsequently gathered momentum.

The University Putra Malaysia (UPM) set up a Research Management Centre (RMC) in May 2000 to replace its former Research Unit established in 1992. The objective of the RMC is to mobilise research management, enhance the overall impact of research, and expand alliances and reinforce partnerships with other world-class research universities. The RMC comprises four units: Research Grant Unit, Promotion Unit, Publications Unit, and Knowledge Management Unit.

The International Intellectual Property Training Institute (IIPTI) forms part of the Korean Intellectual Property Office. It was established in May 1987 and relocated from Seoul to Daejeon in 1991, to a campus with state-of-the-art facilities, an Innovation Centre, and hostels. It offers a range of training courses in intellectual property for school and college students, industry and professionals.

### Framework in African universities

A number of African universities have reported having a formal internal structure to manage research and innovation (Lugujjo and Tibarimbasa, 2003). The technology transfer offices in many African universities usually comprise a small central office that manages a wide range of activities. The office tends to be understaffed, although relative exceptions do exist, for example, in Uganda, Kenya and South Africa. Interestingly, as Asian universities were establishing technology transfer offices in the early 1990s, Makerere University in Uganda set up a Technology Consultancy Company (Lugujjo and Tibarimbasa, 2003).

In African universities, there are often no *comprehensive* policies in place to define research management processes, and the sharing of any income generated in a fair and equitable approach. The implementation of such policies is particularly important to motivate and retain

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Participants at the Doctoriale held in Madagascar in 2005

staff given the relatively meagre salaries drawn by staff in African universities. Certain global universities provide access to their policy framework on the internet. The ACU, through the Research Africa project, is developing the Research Management Good Practice Index, by identifying the best research and innovation management practices with African development in mind. Other institutions such as the World Intellectual Property Organisation have published brochures to guide the development of such policies. Therefore, it is possible for African universities to inspire themselves from such works to develop policies that suit their context.

To promote collaborative research, technology transfer and to strengthen collaboration between stakeholders, the University of Mauritius is launching its Research Week under the theme of 'Research and Innovation Challenges' in January-February 2007 (see <http://vcampus.uom.ac.mu/uomrw>). The University also partners with the University of La Reunion and universities in Madagascar to hold 'Doctoriales', one-week residential seminars held every two years in a member country, to prepare PhD students to take up employment in industry.

### Conclusion

Africa undeniably possesses a rich diversity of natural resources, cultural heritage and traditional knowledge. Universities may play a decisive role through scientific research to leverage the latent knowledge in a form that may qualify for protection under the regime of intellectual property rights. The protected rights may then be marketed for the benefit of a wide diversity of local stakeholders, while being a source of income to the universities.

To be able to play this crucial role, universities need to set up the proper internal management structure and supporting framework and policies. Here, useful lessons may be learnt from Asian universities that, over a short period of time, have been able to play a crucial role in contributing to the competitiveness of their local industry.

Finally, it is important to recognise that there is no single best approach to managing university technology transfer processes. Rather, each university needs to operate within its organisational culture, constraints and resources available, and in line with its mission, vision, and objectives.

RG

**Sanjai Parahoo** is Director, Consultancy and Contract Research Centre at the University of Mauritius, Reduit, Mauritius.  
E-mail: [parahoos@uom.ac.mu](mailto:parahoos@uom.ac.mu)

# Measuring the impact of research

In most cases, the traditional assessment of research does not extend beyond the publication of results. However, this trend may change significantly, as the Australian Government considers introducing 'impact' as an additional research quality measure. **Michelle Duryea, Mark Hochman and Andrew Parfitt** discuss.

**O**n 14th November 2006, the Australian Federal Education Minister, the Hon Julie Bishop MP, announced that the Government had decided to proceed with implementing a Research Quality Framework (RQF). The RQF is a research evaluation model similar to the UK Research Assessment Exercise (RAE) and the New Zealand Performance-Based Research Fund (PBRF). Assessment of research under the RQF will inform future public funding decisions.

The RQF differs from existing international research assessment methods by considering research impact in addition to the more conventional quality measures normally used in the academic community. This inclusion has created some controversy. Detractors argue that the inclusion of impact devalues the assessment process by moving beyond the scholarly domain, and that there may be undue emphasis on research that can demonstrably show shorter-term economic or other gains. An alternative view is that the absence of an assessment of impact seriously unbalances the evaluation of research and its importance to national and global priorities.

Nevertheless, the inclusion of impact is, as the Minister called it, a pioneering move which will create a world-first research evaluation measure.

But what exactly is 'research impact'? How can we measure it and what kind of evidence would be adequate to validate that impact as directly attributable to a specific body of research and/or group of researchers?

## Defining impact

'Research impact' is defined within the RQF as the beneficial application of research to achieve social, economic, environmental and/or cultural outcomes. This is not to be confused with impact in the academic domain, which is seen more as an indicator of the intrinsic quality of the research on scholarly or academic measures. The RQF, in its proposed form, will allow both of these considerations to coexist.

In 2005 the ATN (Australian Technology Network of Universities, which includes Curtin University of Technology, University of South Australia, RMIT University, University of Technology, Sydney and Queensland University of Technology) undertook a RQF trial to evaluate how the parameters of the RQF might be implemented. The ATN has an applied research focus and was particularly keen to explore methods for the assessment of research impact appropriate to this focus. An objective was to develop and test a robust and efficient mechanism for the assessment of research impact which was informed by relevant national and international approaches.

In the trial, participating research groups were asked to include impact in the contextualisation of their research, and up to three case study examples of impact were allowed from each group. Parameters around how impact was demonstrated were deliberately left broad in order to allow maximum flexibility for researchers to identify and validate their claims. Researchers were, however, asked to ensure that their claims were verifiable and could be tested by an internationally attuned assessment panel.

Each assessment panel was comprised of both academics and end-users. After assessing over 200 impact case studies, it became clear that researchers were sufficiently able to provide tangible examples of impact to enable an assessment to be made of the depth of that impact. Moreover it was evident that, in many discipline areas, sound qualitative and quantitative evidence was readily available to be drawn on in the case study submissions. Of special significance is the fact that there was a high degree of agreement between academics and end-users on the assessment panels in the rating of impact.

Nevertheless, it also became evident that the differences between 'research outputs', 'research outcomes' and 'research impact' need very clear descriptions to ensure that researchers are able to make their cases for impact in a way that

demonstrates how the impact of their research is achieved and substantiated.

Subsequently, the ATN drew on the considerable literature relating to research adoption and knowledge transfer to develop a model to define the fundamental nature of research impact. It was shown from the information gathered during the trial that impact can be understood in a sequence of stages having increasing benefit (see Figure 1). This model attempts to clarify the differences between research outputs, outcomes and impact.

It is noted that in some cases the stages may not form a continuum. However on the whole, the model is able to convey the meaning of impact in a way that allows research groups to present appropriate evidence for the depth of impact their research has achieved in a variety of domains (ranging from economic and environmental through to social and cultural). While impact occurs in its most direct form at the last stage, it is recognised that earlier or lesser impact can be achieved in the initial stages.

## Measuring impact

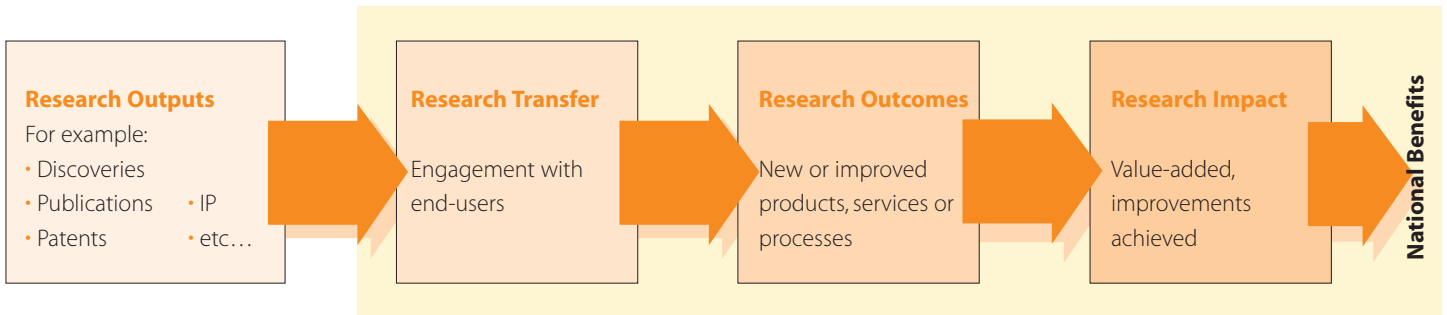
The impact assessment model employs a scale of end-user benefits against which research groups provide verifiable impact claims. The scale spans reciprocal engagement, adoption of research, and creating significant and substantial public value. The methodology for measuring the scale involves the use of case studies, supported by qualitative or quantitative indicators that support the claims.

The trial demonstrated that such indicators were used with varying degrees of effectiveness. To some extent, discipline variations affect the availability and robustness of the indicators, with the commercialisation and economic impact measures being more widely studied and available. Nevertheless, some impact measures other than economic were measured in the ATN trial, and these can be reliably attributed to the different stages of the impact process continuum. Table 1 gives some indicative examples.

The trial also confirmed that, in the absence of available indicators, other forms of evidence such as those shown in Table 2 can assist with validating claims and confirming the extent of the impact. As with the indicators presented in

## Traditional Quality Domain

## Research Impact Scope



**Figure 1: ATN Model of Research Impact Scope**

Table 1, these are by no means exhaustive and suggestions will not be applicable in all cases. In any event, a case would need to be made by the research group that the evidence directly supports any impact claims.

### ATN impact examples

The following three case studies are examples from the ATN RQF trial which demonstrate the various types of research impact achieved.

#### Nanochemistry Research Institute (NRI), Curtin University of Technology – Improving industrial crystallisation

Research into industrial crystallisation within the NRI led to substantial savings for the minerals industry and, through improving efficiency, this has also reduced waste thus benefiting the environment.

An independent assessment was carried out by a consulting group in order to gain a quantitative measure of the impact of NRI's crystallisation research on business performance. The direct benefit realised in the period 1999-2003 is AUD34 million. The anticipated benefit is estimated to exceed AUD350 million.

#### Centre for Sleep Research, University of South Australia – Fatigue risk management policy development

The work undertaken by this Centre informed national and international transport sector policy, which led to new and improved codes of practice and legislation in relation to managing fatigue-related risks more effectively. These codes of practice have demonstrably resulted in improved safety and a reduction in fatigue-related accidents and injuries.

**Table 1: Impact Indicators**

Impact Type	Research Transfer	Research Outcomes	Research Impact
<b>Economic/ Commercial</b>	<ul style="list-style-type: none"> <li>■ Licences, options, assignments (no. and value)</li> <li>■ Royalty agreements (no. and value)</li> <li>■ Pilots, prototypes, clinical trials (no.)</li> </ul>	<ul style="list-style-type: none"> <li>■ New products, services (no.)</li> <li>■ Gross revenue</li> <li>■ Start-ups/spin-outs (no. and revenue)</li> <li>■ Joint ventures (no. and revenue)</li> <li>■ Repeat business (% of contracts with previous clients)</li> </ul>	<ul style="list-style-type: none"> <li>■ Fuel or time savings</li> <li>■ Reduced risk</li> <li>■ Increased productivity</li> <li>■ Reduced costs</li> <li>■ Increased competitiveness</li> <li>■ Improved processes/efficiency</li> <li>■ Increased employment</li> <li>■ Increased investment</li> </ul>
<b>Social/ Cultural/ Environmental/</b>	<ul style="list-style-type: none"> <li>■ Informing government or industry policy</li> <li>■ Engagement in community groups</li> </ul>	<ul style="list-style-type: none"> <li>■ Changed practice in waste management</li> <li>■ Uptake of recycling techniques developed</li> <li>■ New or improved government policy</li> </ul>	<ul style="list-style-type: none"> <li>■ Reduced consumption of natural resources e.g. fossil fuels and water</li> <li>■ Reduced waste</li> <li>■ Improved health and/or wellbeing</li> </ul>

**Table 2: Impact Evidence**

All Stages	Research Transfer	Research Outcomes	Research Impact
<ul style="list-style-type: none"> <li>■ End-user statements</li> <li>■ Third-party surveys, analyses or data</li> <li>■ References/citations in policy documents, regulations etc.</li> <li>■ Media attention</li> <li>■ Presentation invitations</li> </ul>	<ul style="list-style-type: none"> <li>■ National competitive grants with end-user participation</li> <li>■ Cooperative Research Centre participation in end-user sponsored projects</li> <li>■ Supporting testimonials by industry collaborators</li> </ul>	<ul style="list-style-type: none"> <li>■ Transfer of ownership of IP</li> <li>■ Licensing agreements with industry</li> <li>■ Independent valuations of spin-off companies or IP packages</li> </ul>	<ul style="list-style-type: none"> <li>■ Evidence of significant commercial value through product sales, process savings etc.</li> <li>■ Evidence of employment or health outcomes at a population level</li> <li>■ International or national awards</li> </ul>

*continued on page 21*

# Asian universities and the media

Why do academics not use the media more effectively? **Magdeline Pokar** identifies some reasons, and describes a new service for Asian universities.

There is a traditional perception that universities and the media don't really have much in common. The media lives in the public eye with its 24 hour news while universities tinker in laboratories and move in specialist circles. Yet, both industries are made up of individuals who want to make a difference in society.

Lately, however, there has been a subtle change in the relationship between Asian universities and the media. As competition intensifies, universities are showcasing their research prowess as well as their educational merits and the media is looking towards research as a source of exciting new stories for an increasingly demanding public.

Interestingly, this relationship is taking on an international flavour, as the world increasingly turns its attention to Asia. After all, where better to find cutting edge sophisticated stories than with the best minds in the country? Universities too are realising the power of the media in shaping public perception, and to a certain extent boosting their ability to attract new researchers, students and even funding.

The media is not the only route to the public. Public engagement can occur in many other forms such as exhibitions, public lectures and school programmes. For example, in Japan, Keio University's Techno-Mall and Open Research Forum are good events for members of the press and public to see the latest technologies and talk to the scientists.

The internet can also be used to reach the public. Many universities use their websites to promote research and some researchers have highly popular blogs. One example is Universiti Malaysia Sarawak's researchers who uploaded their work on Mammals of Borneo to Wikipedia, a free online encyclopaedia.

However, few can match the power of the media – online, print, radio or television – in reaching the public on a large scale. The public consists of future students, collaborators, investors and decision makers, who can further

develop the innovative new ideas, take them to the mass market or implement them for the good of society.

One interesting example is Hong Kong University of Science and Technology (HKUST)'s radio programme. HKUST launched a popular science programme on Hong Kong's public broadcast Radio Television Hong Kong (RTHK) in August 2006. The weekly one-hour programme features a popular science topic in each episode, with a HKUST Professor explaining in layman's language the excitement and implications of the latest scientific discoveries ranging from nanotechnology to cell death. Afterwards, a print version of the programme is published in two local newspapers – *Sing Tao* and *Ta Kung Pao*.

There are many reasons why research and the media should be 'better friends'. In reality, there are challenges facing Asian universities wanting to reach the public through the media. One is intense competition. Universities compete for the same airtime and print space with wars, diseases, natural disasters, policy changes, political scandals, PR machines of global corporations, celebrities and other media savvy universities.

A good press officer who is able to communicate the university's research effectively is priceless. A top international journalist receives about 100 press releases a day. It is not enough to have just a good piece of research; you need to give the press release an angle, tell the journalists why the research is important and why they should take notice, in a non-specialist language.

Faezah Ismail, Education Editor of the *New*

*Straits Times* in Malaysia, laments, 'Most universities do not tell us about their latest research findings. When they do, the information given is usually too technical making it difficult for us to decipher it. When we do hear of something interesting we would interview the researcher in question and we usually get a good story. In fact, groundbreaking research makes a fantastic news story – but we just don't hear a lot of it.'

The shyness or indifference of some academics with regards to the media can also be a problem. 'We usually fall back on the same person for comments. In order to write interesting and credible stories, we should speak to a variety of experts. But where are they hiding?' asks Faezah.

Another challenge is the language barrier. Most press releases are prepared in the national language which is ideal for the national media but often a problem with the international media. 'Research press releases written in Japanese are routinely released to Japanese scientific journalists. However, few are ever translated into English so the international media rarely notices them. Lack of news in English is a serious problem cited by many international media officers,' says Dr Tadanori Mizoguchi, Senior Advisor for International Affairs, Tokyo University of Science.

Journalists, like many academics, want to make a difference to the world they live in and would write up an interesting piece of research. However, they have bosses to answer to and in the cutthroat world of modern media and business, the story that will increase sales will be published. It is imperative that universities understand and accept these 'rules of engagement'.

The media themselves are not blameless. In some countries, there is a perception that local

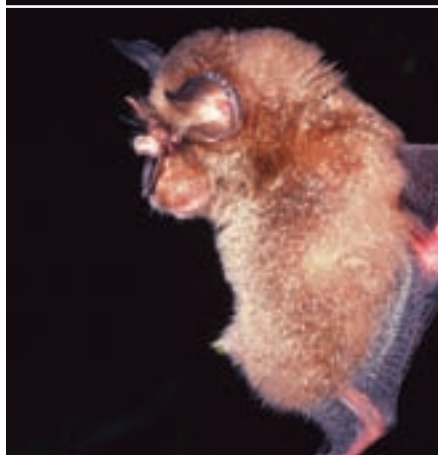
**Universities too are realising the power of the media in shaping public perception, and to a certain extent boosting their ability to attract new researchers, students and even funding.**

universities are just 'not that good'. What a shame, when it is researchers in these local universities who are working towards solutions for their readers and listeners. Getting the facts wrong or 'sensationalism' is unforgivable for some academics and turns them off future engagements with the media. Some universities have learnt to invite politicians to their events to attract media attention. While understandable, it is also unfortunate because rather remarkable research may not receive the media attention it deserves even though its results may have a bigger impact on society than the politician's speech.

Timescales are another source of misunderstanding. Journalists often have to submit their story within hours of receiving the assignment. Meanwhile researchers often work on three- to five-year projects and papers can sometimes take more than a year before being reviewed and published. This can cause problems like researchers taking days to reply to an email, thus resulting in the story being dropped or stories being published before the research has passed through the peer review process.

But, as hinted earlier, the fundamental problem stopping universities in Asia from reaching the media in a big way is lack of information. As one of the few international science journalists working in Asia, Richard Stone, Asia News Editor for *Science Magazine*, covered the 2004 tsunami, landslides in the Philippines, bird flu, the eruption of Mt. Merapi, and efforts to understand the collapse of the Angkor civilisation, in addition to hardcore science stories. However, one of the main challenges he faces is not having enough information or a centralised resource. He says, 'There are many scientific projects that I simply haven't heard about because the information is not readily available. It would be great to have a database of projects.'

In June 2005, ResearchSEA launched at [www.researchsea.com](http://www.researchsea.com) as Asia's first research media platform – a centralised resource for universities to reach the international media and for the media to have easy access to the latest research press releases and top experts. Since our launch, around 650 top journalists in



The *Tarsius bancanus*, *Cynopterus brachyotis* and *Rhinolophus arcuatus* – some of the Borneo mammals now online at Wikipedia

78 countries have registered to use ResearchSEA.

The sheer number of journalist registrations alone dispels the myth held by some Asian universities that journalists are not interested in their research. There are also a growing number of journalists in Asia who are beginning to specialise in research reporting, mainly in science and technology, as evidenced by the formation of the Philippine Science Journalists Association and the Arab Science Journalists Association.



Some of the popular research press releases in 2006 on ResearchSEA were: 'Cheap and safe production of Hydrogen Fuel' from Universiti Sains Malaysia; 'Energy policy for Bangladesh' from International University of Business Agriculture and Technology (Bangladesh); 'Predicting text messaging style in the Philippines' from De La Salle University (Philippines); 'Filipinas' from the University of the Philippines; 'The world's first "carbon nanotubes" using gold, silver and copper catalysts' from Tokyo University of Science; 'Media and Communication relating to Japan' from Keio University; and 'Jatropha curcas L., an excellent source of renewable energy in the dry areas' from International Center for Agricultural Research in the Dry Areas (Syrian Arab Republic).

In order to gain the international recognition they deserve, Asian universities need to engage with the world as aggressively as universities in other parts of the world. The media is a very big part of this public campaign. Asian university research has long been in the shadows. It is time for the universities to take charge and put their research in the public spotlight.

RG

**Dr Magdeline Pokar** is Co-director of ResearchSEA.

Email: [m.pokar@researchsea.com](mailto:m.pokar@researchsea.com)

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# Research foundations for research management

Does university research management need management? **Phil Myers** highlights the various ways in which universities can benefit from research foundations.

**R**esearch foundations are non-profit organisations in support of a parent organisation. The particular states and the Internal Revenue Service of the USA approve their charters for educational and charitable purposes. The charters consist of bylaws and articles of incorporation. These base documents detail the composition of the board, the location of the foundation, its mission, and all of the details to select board members and run board meetings. One of the most important points is the composition of the board since today, with the emphasis on economic development and commercialisation of intellectual property, there are non-university or community directors on the board.<sup>1</sup>

Research foundations exist primarily in state-supported universities to provide specified services to the parent. These services are based on the needs of the parent institution to make research management more flexible. Like the various cultures of our institutions, so with foundations. It is frequently mentioned around the conference table of the University Connected Research Foundations, "If you've seen one research foundation, you've seen one research foundation."

Research foundations and the university served have a memorandum of agreement, sometimes called the management agreement, for defining and coordinating services. Beyond that basic document, the foundation has policies and procedures for expediting research. Full service foundations can do their own hiring of research faculty, technical personnel, and office associates.

They can have their own payroll system and personnel section. They often house the office of sponsored programs (pre- and post-award), the office of technology transfer, and other functional units, such as research compliance, depending on the mission. Since a research foundation creates revenues through grants, contracts, royalties, and investments, it is required to have an annual independent external audit. In addition to a director, from the beginning the foundation needs to have a business manager to manage the accounts, post invoices to sponsors and prepare reports for the board. From those basic positions the foundations can have more employees to staff operations best to accomplish the mission.

Research foundations were founded in the USA to accept funds that the parent structure could not accept. They are fairly common today, especially among the large research-intensive universities. The first research foundation was inaugurated at the University of Wisconsin in the 1920s to accept gifts on behalf of research. But the primary reason was to emphasise and expedite research. That is why many of the prominent foundations grew up in the 1950s during the early years of the Cold War. They expanded in the 1960s and 1970s in the research-intensive universities to provide sound and flexible financial management of grants, contracts and intellectual property.

Beginning in the 1990s, the senior leadership of many lesser research-intensive universities sensed a competitive edge and value-added activity through a research foundation. A number of them have since been chartered to express

the emphasis on increased grant funding, expediting contracts, buying real estate, recruiting faculty, and accumulating more funds through interest gained on held assets. Another advantage is better relations and real-time contract making with industrial partners.

In the USA, the primary sources of funds for the foundation to grow on come through interest based on the federal rate accrued through the bank that serves the foundation. There are no limitations on accumulating interest from awards from private sponsors. However, interest accrued on federal awards must be returned except for a small annual administrative fee.

Nevertheless, funds for operations and to reward research leaders can grow. To actuate this system it is necessary to outsource banking services through the foundation's bidding procedures. In the competitive banking business of today, foundations can determine the bank that will provide the highest return on federal interest rates and the lowest administrative fees. Banks will compete for the business when they realise from the bid package that they will increase their fluidity with several million dollars (or more, sometimes much more) a month. A good banking relationship should also include a vice-president at the bank to advise on federal developments that might impact higher education. It is also important to insure that the bank is maintaining purchase on the latest in digital equipment to provide timely and clear monthly reports. These reports must be reconciled between the foundation and its financial partners.

Finance is therefore at the core of the research foundation's research management responsibilities to provide more support for researchers. The foundation must have detailed and coherent financial procedures for receipts and payments. The foundation must also have an investment policy, congruent with the bylaws, to first make investments, and, second, implement its investment strategy in the long term (five to ten years) as well as the short term. Long-term planning of this nature is very important to insure continued solvency. Other policies

**The scenario of managing centres is an advantage of a foundation because faculty might prefer to keep their enterprise in the institution rather than risk spinning it off into the private sector.**

extend from the nature of the foundation and its partners.

The creation of research foundations has followed several models. The most independent of the parent institution is the full-service foundation. This model is probably the most expensive to charter since it must have significant space and staff to operate a corporate office. The second model, the 'transparent model', is the less expensive to establish. Smaller institutions that cannot fund a large original investment tend to select this model, which takes advantage of existing units in the institution such as the office of research management, technology transfer, grants and contracts accounting, human resources, information technology, the general counsel, and the space already allocated to these units. All of the employees of these units remain university employees with benefits. The accounting function continues as ever with that unit invoicing the foundation for the award money once a month, or as agreed in procedures, and the foundation wires the funds from its bank account.

In the transparent model, to grow interest, overhead (indirect) costs from awards are maintained in a foundation account. Deans can watch their funds grow and can request funds to be wired to their university accounts in support of research. The deans have this additional account and over time become less dependent on purely state funds for supporting research. Faculty researchers perceive this extra funding as a morale builder. This transparent foundation is closely attached to the institution as one would imagine but it saves start-up costs, and separation can occur if the senior institutional leadership approves. Still another model is a foundation set up for a particular purpose. Some of the more common purposes are to provide services to the parent institution for managing technology licensing, contracts,

purchasing real estate, accounting for grants and contracts, or sponsor invoicing.<sup>2</sup>

One good advantage of separation, once the foundation becomes able to stand on its own, is that it is a litigation shield for the university and is capable of providing more flexibility for research management practices. Thus the foundation, rather than the parent institution, would be the operative for a legal suit. This implies that the foundation could afford its own legal arm. Many institutional leaders believe that an unaffiliated status is superior to the transparent model because of the increased flexibility it gives to purchase more research space, hire faculty, expedite bidding for equipment and supplies, and provide for purchases that institutional purchasing prohibits. Research foundations can take equity in start-up companies and act as financial management for research centres. The scenario of managing centres is an advantage of a foundation because faculty might prefer to keep their enterprise in the institution rather than risk spinning it off into the private sector. They prefer to continue using university space, save by not having to hire administrative staff, and they still have the flexibility they need. For example, the research foundation that this author directs has financial responsibility for three research centres. In all of these cases, there is a premium on having the utmost flexibility for buying or renting large vehicles to transport equipment to test sites, for staff air and ground travel, for recruiting clients, for equipment maintenance, and for hiring technical personnel and post-doctoral researchers.

There are other advantages. Even less research-intensive universities have found the research foundation model enhances faculty recruiting – sending the message that research imparts creativity to good teaching, and strengthens the university mission of improving services for the public good.<sup>3</sup>



Phil Myers

This author cannot speculate on the applicability of the research foundation model for research institutions worldwide. There may be models in existence outside of the USA, and if so information exchange would be significant for research management. Once an institution identifies the need for making research more flexible, appropriate laws should be reviewed to see if incorporation is possible, and if so, what the process entails. Interested parties can show how the entities that universities report to can create research foundations to strengthen sponsored research, technology transfer and commercialisation RG

**Phillip E. Myers**, PhD, has directed the Western Kentucky University Research Foundation since its inception in 1998, and has advised others. He has also served as the Director of the Office of Sponsored Programs since 1994. He is a member of the Board of Directors of the Society of Research Administrators International, is co-chairing the annual meeting at Nashville next October, co-chairs the Body of Knowledge project, and is SRA's Archivist/Historian. He is also an active researcher in international relations; his most recent book is *Caution and Cooperation: The American Civil War in British-American Relations* (Kent, Ohio: Kent State University Press, forthcoming, 2007). Email: phillip.myers@wku.edu

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- 1 For more information about the details of chartering a research foundation, see: Phillip E. Myers, "Developing Research Foundations at Predominately Undergraduate Institutions," *The Journal of Research Administration* XXXVI, No. 2 (2005): 28-33. Key chartering documents can be found at: <http://www.wku.edu/research/wkurf.htm> (accessed on 26 December 2006)
- 2 *Ibid.*, 30-31
- 3 A PowerPoint presentation that provides more details is available upon request from this author at: [phillip.myers@wku.edu](mailto:phillip.myers@wku.edu)

# Establishing research management in **West Africa**

Despite the growth in regional and national research management associations in recent years, many regions still lack such a body. A recent conference in West Africa should help to fill one of these gaps, reports **John Kirkland**.

**U**niversity research managers in Western Africa are set to form their own professional association for the first time, following a major conference in Lagos, Nigeria last November.

The conference was the brainchild of Professor Idowu Olayinka, of the Department of Geology at the University of Ibadan in Nigeria. Professor Olayinka said that the idea had first come to him when attending the annual meeting of the Southern African Research and Innovation Management Association (SARIMA) last May. The success of SARIMA, which since its establishment in 2002 has attracted several hundred members from throughout the Southern African region, as well as support from international donors and government recognition, represented a model from which West Africa could learn.

Replicating the SARIMA model in West Africa will be no easy task. In the early days of its development, the Southern African association was able to draw on the time and experience of universities that already have a significant international research profile, good communications and, in many cases, well-established research support offices. None of these conditions exists to the same extent in West Africa.

From the evidence of the November conference, however, the time is right for such an initiative. The fifty or so delegates attending represented over twenty universities, from Ghana and Sierra Leone as well as Nigeria. Reflecting the diverse structures in existence for research management at present, those attending held a variety of different positions, and included several Vice-Chancellors, Deans and senior academics.

Although few universities had well-established central offices for research support, several of the issues faced by research managers internationally were already being considered. Frameworks for government/industry/university collaboration were the subject of papers from Professor Ikenna Onyido, Vice-Chancellor of

the Michael Okpara University of Agriculture (Nigeria) and Professor E K Ogundowole, of the University of Lagos. A further paper, from Professor Valentine Aletor of the Federal University of Technology, Akure (Nigeria), addressed the issue of how endogenous research could be better utilised for national development. E S Nwauche, Associate Professor of Law at Rivers State University of Science and Technology (Nigeria), also presented a framework for the management of innovation and intellectual property issues in the sector.

Despite the depth of thinking that was already taking place, delegates agreed that there was a need both for new structures at the level of the university and for inter-university collaboration. Some funding had already been provided at the levels of individual universities, such as support from the Carnegie Corporation of New York at one Ghanaian and three Nigerian institutions in recent years. Generally speaking, however, these initiatives had not been widespread.

Three international speakers provided practical examples of how this could be achieved. Memunatu Pratt, of the Research and Development Services Bureau at the University of Sierra Leone, described a successful programme of activities to support academic staff with the preparation of external programmes, which appeared to be having some success in the attraction of external funds (*see page 20*). Saudin Mwakaje, of the University of Dar es Salaam, described a mechanism by which several universities in the Southern African Development Community (SADC) region had combined together to develop their expertise in intellectual property management.

Reflecting the desire to learn from the successful experience of Southern Africa, the meeting heard from Dr Tembeka Mpako-Ntusi, President-elect of SARIMA, about the origins, role and achievements of that organisation. One conclusion from the discussion was

that any new body should seek to develop its own communication tools and a small central secretariat as quickly as possible. SARIMA had also found it useful to extend membership beyond universities to those in research institutes, government and even the private sector with an interest in the issues. This represents another issue for consideration by the newly elected committee. In addition, Dr Mpako-Ntusi was able to present first-hand experience from her own institution (Walter Sisulu University for Technology and Science in South Africa) which as a newly merged university was also seeking to develop a new research culture.

In the final session of the conference, attention turned to the question of whether there would be support for a new regional association, and if so how it could be established. There was overwhelming endorsement of the need for such a body to be set up, and for Professor Olayinka as its first chair. An eight-person steering committee has also been appointed, and it is hoped that the University of Ibadan will provide the first base. Profits from the initial meeting, together with support from the Association of Commonwealth Universities, should be sufficient to appoint a full-time organiser for the first year of operation, during which membership and communication structures can be developed further. External support is being sought for additional activities, such as a two-day conference on preparing research applications and relations with donors. It is hoped that the first formal annual meeting and conference will be held by the end of 2007.

As with any organisation, survival during the first year will depend critically on resources, demand from potential members and the enthusiasm of the first committee. Only time will tell whether these will be sufficient. From the evidence of this first meeting, however, the prospects seem bright. **RG**

**John Kirkland** is Deputy Secretary General (Development) of the Association of Commonwealth Universities.  
Email: [resman@acu.ac.uk](mailto:resman@acu.ac.uk)

# Looking to the future:

## UNESCO sets a new agenda for university research

**Liam Roberts** describes the highlights of a major UNESCO colloquium.

The UNESCO Forum on Higher Education, Research, and Knowledge was held at the organisation's headquarters in Paris from 29 November-1 December 2006, bringing together several hundred representatives of universities, university associations, research centres, and industry, from around the world. The theme of the Forum, 'Universities as Centres of Research and Knowledge Creation: An Endangered Species?' enabled delegates to grapple with an array of challenges that universities face in a global research environment.

Dr Arthur Bienenstock, Dean of Research and Graduate Policy at Stanford University (USA), delivered a keynote address on Research Capacity, proposing essential characteristics of research universities. He advocated a higher education system which better integrates senior researchers, junior researchers, and students, arguing that a more competitive institutional environment can help to encourage greater research output. He also praised competitive funding models over direct government funding, saying that the former approach does more to safeguard academic freedom. He also argued that, in lower income countries, such models may force researchers to ask 'What can I do that's important, either to the field, to the country, or to the local region?' Dr Bienenstock also advised that a strong focus on teaching and on engaging students must be maintained to help reinforce any new ambitions to strengthen research capacity.

Dr Imanol Ordorika of the National Autonomous University of Mexico, in the same session, emphasised the social role of universities, and warned that linking universities to market needs poses a serious challenge to the identity and the effectiveness of universities as public institutions. Pure cost-benefit analyses are inappropriate for universities, he argued, saying that contemporary models of assessing research productivity were increasingly biased against



The UNESCO Headquarters in Paris

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academic freedom, basic research, and diversity in global higher education. He encouraged universities in developing world contexts to craft independent research systems to address local needs, while others argued that international collaboration would be made more difficult between countries with vastly different research agendas and protocols.

In other presentations, Dr Joseph Massequoi, UNESCO Regional Bureau for Science and Technology (Kenya), stressed the need for greater regional cooperation among lower income countries, pointing out that academic vacancy rates in Science and Technology in much of Africa was over 30%, and that laboratory equipment and researcher qualifications are too often unfit for purpose. He suggested stronger training schemes within African regions, and jointly-funded regional Centres of Excellence. He highlighted the example of the Consultative Group on International Agricultural Research (CGIAR) in this context. The argument for greater regional cooperation in Africa was also supported by Prof Olusola Oyewole of the Association of African Universities.

Prof Mohamed Jaoua of the University of Tunis at el-Manar encouraged universities in developing countries to support researchers in fields such as applied mathematics, despite the

difficulty in drawing links between this research and regional development objectives. Prof Jaoua argued that isolating national research systems in aim of achieving purely national development objectives could backfire, and that instead, greater regional and international integration would help to expand economies and lead to more opportunities for highly skilled workers in developing economies.

The Forum facilitated an excellent, wide-ranging discussion, with delegates offering competing visions for how universities can best secure themselves at the centre of a globalising research community, and also, how they can best benefit the countries and regions where they are situated.

Papers from the conference are now available for download on the UNESCO Higher Education web page at: [http://portal.unesco.org/education/en/ev.php-URL\\_ID=49850&URL\\_DO=DO\\_TOPIC&URL\\_SECTION=201.html](http://portal.unesco.org/education/en/ev.php-URL_ID=49850&URL_DO=DO_TOPIC&URL_SECTION=201.html)

RG

**Liam Roberts** is Project Officer at the Association of Commonwealth Universities.  
Email: [l.roberts@acu.ac.uk](mailto:l.roberts@acu.ac.uk)

# Institute for Triple Helix Innovation hosts inaugural summit

The increased attention now being paid to relationships between government, industry and universities has been the subject of significant academic study in recent years. A new institute in Hawai'i seeks to add value to this process. **Leigh Jerome** reports.

**R**esearch scientists from government, academia and industry internationally are convening in Honolulu, Hawai'i for the first annual Triple Helix Summit in February 2007. The Institute for Triple Helix Innovation seeks to address the urgent issues of our time by harnessing the complementary expertise of academia, government and industry. The inaugural Summit seeks to initiate new thinking about collaborative systems that facilitate evidence-based development while targeting the social good. The two-day event provides a forum for interdisciplinary visionaries to meet and discuss new systems for innovation and cross-sector collaboration.

The Institute for Triple Helix Innovation has been established to create the organisational structures, practices and technologies necessary to implement these new systems. The primary goal of the Institute is to identify and promote successful applications of triple helix research by serving as a centre for collaboration technologies, a champion of flexible organisational structures, and an arbiter of best practices required to foster this model.

## The triple helix research model

Until the beginning of the last century, research in the United States was accomplished almost exclusively within the university environment, drawing upon a rich tradition of intellectual freedom, specialisation, and scientific independence. In the early 1900s, industry began to initiate its own R&D programs, and profit was introduced as a new research driver. Following World War II, a system of federal laboratories was established to achieve government projects with a focus on national missions and the public good. Academia, industry and government were thus established as the three primary sponsors of research.

A paradigm shift is now underway that

promotes new patterns of collaboration among industry consortia, university linkages and government agencies, with an emphasis on the integration of commercialisation, empirical knowledge and the public good. A triple helix of overlapping spheres can bring about new ways of integrating knowledge, new modes for information flows and the discovery of novel innovation systems. The development of the Institute for Triple Helix Innovation establishes a basis from which to explore critical interfaces, quantify new collaborative models, investigate new paradigms for innovation, and develop strategies to address the risks associated with collaborative relationships.

Successful triple helix collaborations can yield the following outcomes:

- Evidence-based product development
- Transparent processes with guidelines for managing conflicts of interest
- New, organic models for collaborations
- Regional networks and cultural alliances
- Cross-sector value chains
- Global access to scientific expertise
- Improved computational methodologies for achieving economic and social benefit

**The goal is to push the limits of our current ways of thinking and exchanging information.**

## The triple helix Community of Practice

The triple helix model is focussed on identifying networks with trusted partners where trilateral collaborations can harness the complementary expertise of these three domains to facilitate totally new systems for creative development. In this way, we develop opp-

ortunities, ideas and products that can provide long-term economic and social benefit. A triple helix Community of Practice (CoP) has been established to explore new systems for innovation toward fostering global information flows for cross-sector, interdisciplinary collaboration.

The CoP represents a novel, organic structure for time-limited collaboration comprised of cross-disciplinary, cross-sector researchers and innovators. The goal is to push the limits of our current ways of thinking and exchanging information by exploring tacit knowledge, social collateral, quick trust and radical interdisciplinarity. The CoP will work to define a new lexicon for cross-disciplinary, cross-cultural and cross-organisational research; identify inherent barriers and challenges of collaboration; identify tools that encourage knowledge exchange and discovery; and develop best practices for innovation and triple helix processes.

The first year focus will be 'large data sets and pandemics' with second year CoP being defined for exploring alternative and renewable energy and exploration of developing countries' engagement for successful technology integration and entry into global knowledge discussions. Since every locale, each discipline, all sectors and indeed every person has a unique perspective and way of doing things, every CoP will be different. The vision is the development of systems that incorporate flexibility and individualised approaches for achieving solutions.

## New project for triple helix research launched

An initial research project under the umbrella of the Institute for Triple Helix Innovation will begin to quantify the value of triple helix methodologies. Six locales in the Pacific Region have been selected for inclusion in the initial project: Hawai'i, California, Washington, Japan, China, and Singapore. Each of these locales has its own innovation network, demonstrates substantial economic growth in relevant emergent technologies, and reflects a broad range of partnerships in its business innovation systems.

The first two phases of research focus on examining macro- and micro-indicators of successful innovative research environments. Phase 1 data will be used to conduct a time-series megatrend analysis on the six aforementioned locales that focus on four dimensions across a 10-year span (i.e. economic trends, ecological sustainability, technological progress, and demographic development). The calculation of a 10-year Summary Innovation Index will allow for longitudinal comparison of each respective locale. Phase 2 data will be used to evaluate seven types of collaborative research models (i.e. university, industry, government, and combinations of each). A total of 126 research projects will be used as initial data gathering points, representing the different types of research models at each locale. A series of multivariate analyses will result in a set of indices that best represent the various Inputs, Outputs and Impacts of each research model.

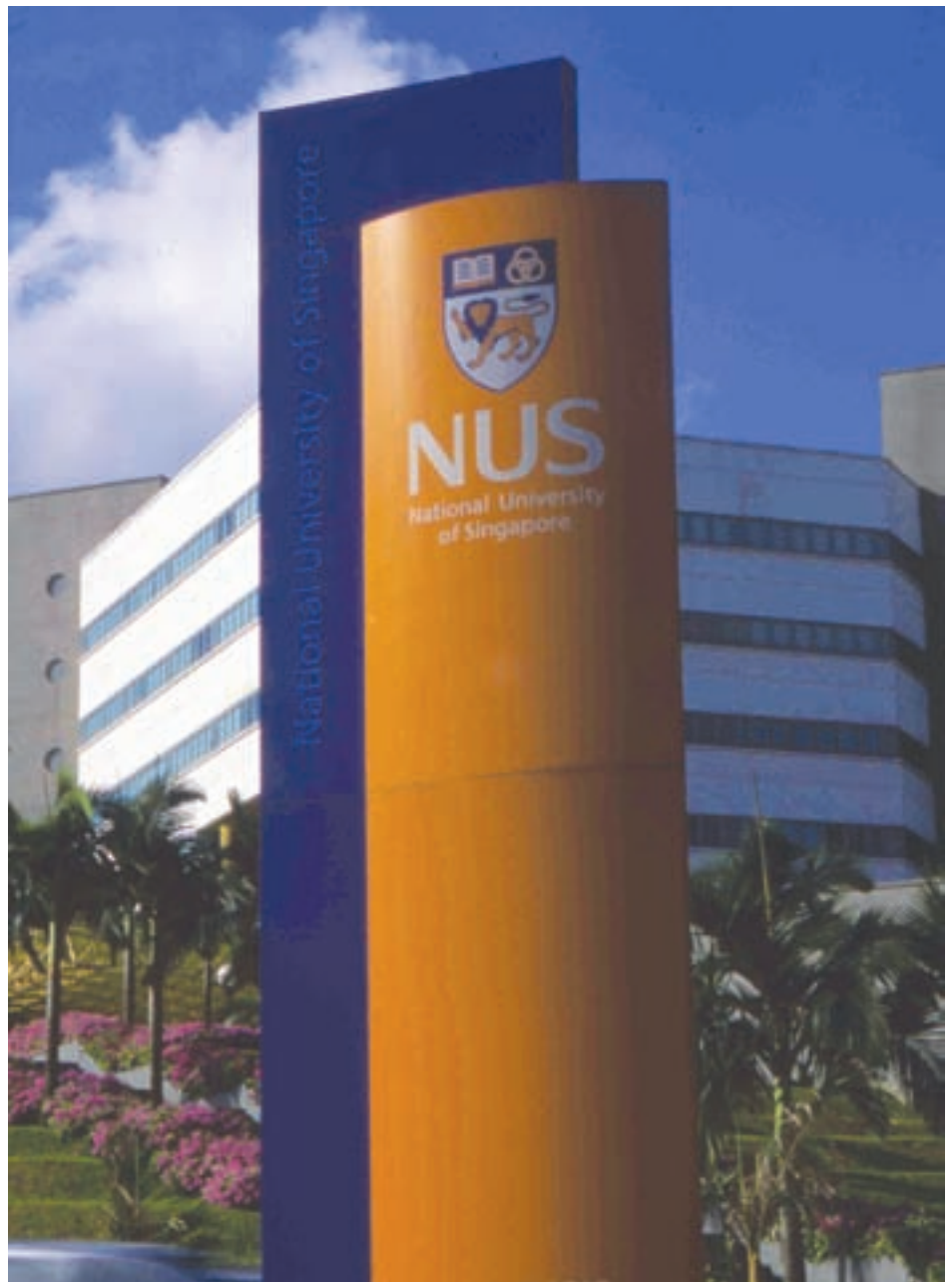
These indices will serve as the basis from which to determine the minimum criteria associated with successful performance of specific types of research models under a variety of conditions. As the Institute's research progresses, new locales and CoP will be included, as appropriate, in order to continually expand new systems for innovation.

RG



**Dr Leigh Jerome** is the Director for the Institute for Triple Helix Innovation in Honolulu, Hawaii.

For more information, visit [www.triplehelixinstitute.org](http://www.triplehelixinstitute.org)



The upcoming international Triple Helix Conference is the sixth in a series of biennial conferences that started 8 years ago to analyse the interaction between University, Government and Industry and its influence on the economic development of specific regions.

The Conference, organized by NUS Enterprise (ETP), will be held in Singapore from 16-19 May 2007 and will deal with 'Emerging Models for the Entrepreneurial University: Regional Diversities or Global Convergence'.

Over 300 participants – academics, policy makers and practitioners – from all over the world will be brought together to discuss and interact on all issues related to the triple helix concept. The aim is to allow debate and exchange of ideas, methodologies and outcomes, in order to innovate and influence practice and policy making.

For further details, please see: [www.nus.edu.sg/nec/TripleHelix6](http://www.nus.edu.sg/nec/TripleHelix6)

# International round up

## Southern African Research and Innovation Management Association (SARIMA)

**The 2007 SARIMA Annual Conference, 9-11 May 2007, will take place at North-West University, Potchefstroom campus, Potchefstroom, South Africa.**

The theme of the conference is 'Research and Innovation Management: Key to Prosperity' and the following sub-themes are proposed:

- The management of Research and Development
- Managing from the academic idea to commercial output
- Best practices in Research and Innovation Management

- Case Studies on Research and Innovation Management

For further information, visit the SARIMA website: <http://www.technoscene.co.za/sarima2007>



## SRA International

**The next Annual Meeting runs from 13-17 October 2007 and will take place at the Gaylord Opryland Resort and Convention Center, Nashville, Tennessee, USA.**

The dates of the next section meetings are:  
**21-25 April 2007**  
SRA 2007 Northeast Section Meeting  
Hyatt Regency Newport, Newport, Rhode Island

**28 April-2 May 2007**  
SRA 2007 Midwest Section Meeting  
The Fairmont Kansas City, Kansas City, Missouri

**28 April-2 May 2007**

SRA 2007 Western Section Meeting  
Hilton Waikoloa Village, Waikoloa, Hawaii

**2-6 June 2007**

SRA 2007 Southern/Canadian Section Meeting  
Westin Rio Mar Beach Golf Resort and Spa,  
Rio Grande, Puerto Rico

For further details contact:  
[info@srainternational.org](mailto:info@srainternational.org)



The Gaylord Opryland Resort and Convention Center



## European Association of Research Managers & Administrators (EARMA)

**The 2007 EARMA Annual Conference will take place from 29 June-1 July, in Warsaw, Poland.**

The main theme of the Conference will be 'Building the European Research Area: The Responsibilities of Research Managers'.

Please see the EARMA website at <http://www.earma.org/> for further details.

## Association of Commonwealth Universities Titular Fellowships 2007/08

ACU Titular Fellowships are offered each year in subject areas or fields of activity in which the needs of developing countries are particularly great. Fellows can come from inside or outside the university sector. The Association wishes especially to encourage the movement of staff in both directions between industry/commerce/public service and universities with a view to forging reciprocally beneficial links.

The programme has been devised for people of proven quality at a crucial stage of their career. It is not an immediately post-doctoral or degree-earning scheme; nor will Fellowships be offered simply for the pursuit of personal

research. The ACU is especially keen to receive nominations of women candidates and for programmes intended to enhance the status and role of women in its member universities.

The purpose of the awards is to enable the universities of the Commonwealth, working together through their Association, to develop the human resources of their institutions and countries, and to do so through the interchange of people, knowledge, skills and technologies. Titular Fellowships are open generally to the academic and administrative staff, or the nominees, of universities in membership of the ACU or of Commonwealth inter-university organisations.

Preference will be given to workers in the following priority subject areas: Agriculture, Forestry and food sciences, Biotechnology, Development strategies, Earth and marine sciences, Engineering, Health and related social sciences, Information technology, Management for change, Professional education and training, Social and cultural development, and University development and management.

Only applicants nominated by the executive head (Vice-Chancellor, President or Rector) of an institution will be considered.

For further details contact [resman@acu.ac.uk](mailto:resman@acu.ac.uk) in the first instance.

## Joint Hewlett/ESRC Economic Development and Population/Reproductive Health (Population/Poverty) Research Scheme

**Specification of call for applications issued 17 January 2007. Deadline for applications: 16:00, 24 April 2007.**

The William and Flora Hewlett Foundation (Hewlett) and the Economic and Social Research Council (ESRC) have formed a strategic partnership to provide a new joint funding scheme. This scheme aims to enhance the quality and impact of social science research addressing the key international development issue of how population dynamics and reproductive health outcomes impact economic growth and poverty reduction. The new scheme will fund world-class scientific research on issues relating to economic development and quality of life in less developed countries,

with the potential for impact on policy and practice for economic development and improved reproductive health.

This joint scheme has a total budget of GBP2 million over four years, allocated to one call announced in January 2007.

Enquiries relating to ESRC research funding rules and application procedures should be addressed to a member of the International Relations and Development team at ESRC:

Steve Morgan, Associate Director (IRD),

Tel: +44 (0) 1793 442 824

Mary Day (IRD),

Tel: +44 (0) 1793 413 078

Lyndy Griffin (IRD),

Tel: +44 (0) 1793 413 135

Email: [Hewlett@esrc.ac.uk](mailto:Hewlett@esrc.ac.uk)

## Association of Research Managers and Administrators (ARMA) UK

**The next annual conference entitled 'Raising Golden Geese: Supporting and Managing Quality Research' will be held at Macdonald Holland House Hotel in Cardiff on 7-8 June 2007.**

The main conference will be preceded by two pre-conference seminars on 6 June at the same venue. These seminars will be on 'Open Access Publishing' and 'Fundamentals of Research Administration'.

Email [events@arma.ac.uk](mailto:events@arma.ac.uk) for further information.

## Graduate Course in IPR and Technology Transfer – India (A partnership between STEM/MIHR/AUTM)

**Date: 19-23 May 2007**

**Venue: Fort Aguada Beach Resort, Goa, India**

This training program is aimed at technology transfer officers and technology management professionals placed in public institutions and private enterprises, senior research and development scientists and IT professionals, who seek a working knowledge of intellectual property management and technology commercialisation through licensing. The program will be useful to senior policy planners from Ministries of Agriculture, Information Technology, Science and Technology and Healthcare engaged in IP policy development and implementation mechanisms. Educators from academia involved in technology creation,

and seeking to understand how management of IP assets impacts value creation will be immensely benefited.

This program will be valuable for product and IP managers from the private sector who seek broader perspectives. Strategists and venture capitalists wanting to explore the latest IP practices and address emerging needs of markets by leveraging access to innovations through technology licensing and transfer will also be benefited.

The intensive four-day program will examine the role of IP as a strategic technology transfer tool using case studies, best practices and interactive discussions. Eminent international faculty, globally experienced senior IP practitioners and decision-makers from prominent public research institutions, regulatory

authorities and international bodies involved in intellectual property management will share their insights and experience on how IP can be leveraged for enhanced and enduring competitive advantage. Participants will have an opportunity to reflect on and apply these principles and practices to their respective institutional environment, policy context and business methods.

For further information, please visit [www.mihir.org](http://www.mihir.org)

Fort Aguada Beach  
Resort, Goa

# Getting research into use: problems

Research teams often lack the time and expertise to bring their findings to key user groups. So can professional extension workers perform this role? **John Kirkland** reports on a recent seminar.

A background paper prepared by the World Bank in advance of their major global conference on science and technology this month provides encouraging evidence of how innovation *can* really impact on the lives of the poor. Using an example from Mayange, Rwanda, it describes how 'substantial increases in crop yields can be generated by fairly simple improvements in cultivation practices, the use of improved seed varieties and fertilisers and low tech water retention/irrigation/soil erosion prevention mechanisms'.

Sadly, such take up is not inevitable – so what are the critical factors that determine success or failure? In Mayange, according to the paper, 'most of the practices were introduced by one well trained, local extension worker', as a result of which nearby villages and farmers, who had originally not taken up new ideas, were now clamouring to participate. The report concludes that 'the main STI capacity building task, at least in Mayange and the surrounding villages, would appear to be one of training and motivating extension agents, providing improved input packages, and diffusing known cultivation techniques to additional villages and farms'.

In the case of Rwanda, the new technologies being diffused were already well established, and the means of transmission did not involve higher education. But the example has implications for those in universities who are trying to get their research results into use. For many universities worldwide, 'community service' is regarded as a third leg of their mission, alongside teaching and research. Yet training and encouragement for those involved in such work, let alone mechanisms for evaluating impact, are thin on the ground.

In the response to this problem, the Association of Commonwealth Universities (ACU), in conjunction with the Commonwealth Scholarship Commission, Economic and Social Research Council and the University of the West

of England, recently convened a seminar to look at current practice, identify the barriers to successful extension work and identify policy implications. The seminar brought together academics in the field of university industry relations, young academics from Asia and Africa currently undertaking doctoral work at British universities, practitioners with first-hand experience of extension projects and policy makers.

A substantial list of barriers was identified, although these were not always the result of resource constraints. Universities often lacked the structures to identify and implement change, exhibiting what Michael Gibbons (former Secretary General of the ACU) termed a 'mode one' style of operating. There was a failure to update and innovate in the curriculum to embrace wider values. Outreach activity was often not sufficiently embedded in the career objectives of academics, or performance indicators, thereby creating a lack of incentive. As a result, extension work was often confined to individual enthusiasts. Too little thought has been given to the training of those involved in extension work, who were often unable to communicate effectively, and thus lacked credibility in the communities that they were seeking to assist.

Other problems came from outside the sector. The reluctance to change in key areas was often deep-rooted and understandable. One example was the reluctance to abandon subsistence methods in farming, which without appropriate guarantees would appear a huge risk. Industries sometimes lacked appropriate representative bodies to articulate and promote good practice. A common problem was the failure by all parties to involve key stakeholders in the process.

Other barriers were the responsibility of policy makers. Often there was an unrealistic expectation about the nature of innovation and knowledge transfer, including a failure to appreciate that this is often necessarily incremental in nature. There was also a failure to recognise that knowledge transfer is essentially a two-way process. Those undertaking extension work often have much to learn from those whose needs they are seeking to address.

Despite this, there was much good practice on which to build. A presentation from the Tanzanian Tea Research Institute described how an effort concentrated on a single industry could pay real dividends, provided that there was national leadership and real stakeholder involvement. In this case, the exercise was industry led.

Despite the barriers, it was agreed that universities, consumers and policy makers would be ill advised to ignore the potential of extension work. There was no single model that could be adopted to meet this potential. Sometimes universities would be well placed to help, either directly or by training practitioners, monitoring or continuation programmes. In other cases, such as that of the Tanzanian Tea Research Institute, stakeholder-led initiatives would be more effective. Whatever the precise model adopted in individual cases, the seminar identified key areas for wider policy action:

## Incentives and empowerment

The first of these key areas can be defined as incentives and empowerment. This required attention at several levels. For university staff, to ensure that extension work is linked to career progression. For students – who played a major role in the successful Indian programmes reported – to ensure that such work is integrated into their assessments. For recipients, there is a need to ensure that the 'offer' is seen as a 'win-win' deal, rather than a high-risk venture.

**...extension work [is] often confined to individual enthusiasts. Too little thought has been given to the training of those involved...**

# and possibilities

## Developing relevant skills

Second, there was a need to develop relevant skills. This could start in the curriculum itself, particularly where students are involved in the process. More training for extension workers themselves is also critical, as is the development of norms and standards that might be expected of a 'profession'. More networking would also be desirable *between* extension workers, allowing common problems to be aired.

## Recognition and credibility

Development of a clearly defined 'extension workers profession' was also vital to recognition and credibility. There was also a need to work with structures that were already tried and trusted, to ensure stakeholder involvement, use communication media that was appropriate to the target audience, and involve key players at the policy formation stage.

## Integration with the wider environment

Finally, there was a need for better integration with the wider environment. Donors and gov-

ernments needed to create an 'enabling environment', in which responsibilities were clearly defined. Problems needed to be addressed from the user standpoint, recognising tacit, as well as codified, knowledge. More creativity was needed in establishing partnerships between universities and other key actors, such as NGOs. Where appropriate, specific extension projects needed to target specific markets and relate to wider policy aims – for example, the need to promote specialisation in agriculture, as opposed to subsistence farming.

As the World Bank paper recognised, the problems of extension activity are deceptively complex. Yet, as the case of Rwanda shows, the potential rewards are substantial. Researchers, universities and policy makers will ignore these at their peril. **RG**

**John Kirkland** is Deputy Secretary-General (Development) of the Association of Commonwealth Universities.  
Email: [resman@acu.ac.uk](mailto:resman@acu.ac.uk)

## Proposed network for extension workers

The Association of Commonwealth Universities (ACU) would like to establish an Extension Workers Network over the next few months. The network would provide a forum for sharing best practice in outreach work, and a platform from which to organise regional seminars and events. The network would be free and open to all researchers, academics and experts involved in extension work.

If you are interested in joining this network, please send your details to [resman@acu.ac.uk](mailto:resman@acu.ac.uk) in the first instance.

*continued from page 9*

## Early Years Research Program, Queensland University of Technology – Evaluation of the 'Preparing for School' trial

This research evaluated the effectiveness of a new full-time, prior to year one, play-based program. A comparison of the progress of children from the trial with children who were enrolled in alternative programs was undertaken.

The research found a benefit to children, in all domains of development, of attending a full-time program, which subsequently led to a change in government educational policy.

## Conclusion

In summary, the ATN found that impact as defined above:

- is an important element in understanding the value of research

- requires a clear definition relating to measurable benefits
- can be described accurately through research group level case studies
- can be measured reliably by an expert panel applying judgement to a combination of the qualitative and quantitative indicators

The ATN trial has shown that the RQF provides an opportunity for Australian researchers to demonstrate the value of both excellent and relevant research. One of the remaining questions will be the extent to which the inclusion of both quality and impact measures in a national research assessment affects the research landscape in the future. Whatever that outcome, a robust and balanced approach to assessing research impact has been shown to be feasible. **RG**



### Professor Andrew Parfitt

is the Director of the Institute for Telecommunications Research at the University of South Australia.

Email: [andrew.parfitt@unisa.edu.au](mailto:andrew.parfitt@unisa.edu.au)



### Dr Mark Hochman

is the Director of Research and Innovation Services at the University of South Australia.

Email: [mark.hochman@unisa.edu.au](mailto:mark.hochman@unisa.edu.au)



### Ms Michelle Duryea

is a Project Officer in the Australian Technology Network of Universities (ATN).

Email: [michelle.duryea@unisa.edu.au](mailto:michelle.duryea@unisa.edu.au)

# Helping academic staff with the preparation of research proposals

University based research and development is critical to the future of many African countries. Increasingly, however, the funding for such work is allocated on a competitive basis, and securing grants has become a skill in itself. From her experience at the University of Sierra Leone, **Memunatu Pratt** identifies some of the key mistakes made.

**R**esearch and Development (R&D) is recognised as a very important tool in achieving national development goals. In this context, Research and Development means 'an investigative and adaptive process using a wide range of methods for deriving and applying knowledge to enhance national development'.

R&D can only act in this catalytic role if its objectives and operations are in line with national development plans. The conduct of R&D requires specially trained people, operating specialised equipment and processes, reading and writing specialised information and drawing on resources which are allocated for special facilities. This suggests a distinctive and unique contribution by academics, which in many African countries represents the main source of such expertise.

Research and Development is hence vital for universities in contributing to development. This cannot be enhanced without a strong foundation in the area of 'preparing research proposals'. Research proposals represent an acceptable mode of seeking funds in a way that sponsors can understand and judge against other possibilities. A good proposal, however, can also help the writer. It can help present project ideas in a systematic way and disseminate research ideas. The key areas include a research title, hypothesis or research questions, methodology, method of data analysis, format of reporting and budget.

Many researches fall short of yielding a desired impact on policy reforms and attracting international donor funding because of poor preparation of research proposals. A well-planned and well-written research proposal is capable of attracting the appropriate funding it deserves, to make the relevant impact on national development.

**Research proposals represent an acceptable mode of seeking funds in a way that sponsors can understand and judge against other possibilities.**

## **Preparation**

Sponsors vary in their needs and procedures. You may be given a topic for research, in which case the decision is already taken for you, but in most cases, you will be asked to select a topic from a list or to decide on a topic yourself. You may have an idea or a particular area of interest that you would like to explore. Before a decision is made about which topic to select, some work needs to be done. You will not have time to read extensively on each topic, but consult the library catalogues to see how much has already been written. Enquire in the library about dissertations and articles which may have been written on similar topics and talk to your colleagues.

Talking through problems and possible topics with colleagues is essential. Their views may differ or even conflict with your own and may suggest alternative lines of enquiry. They may be aware of sensitive aspects of certain topics which could cause difficulties at some stage, or know of recent publications which are not listed in the library catalogues. Early consultation is essential if you are to avoid difficulties later. Prepare the groundwork well and you will save time later. Your discussion and enquiries will help you to select a topic which is likely to be of interest, which you have a good chance of completing, which will be worth the effort and which may have some practical application later on.

Many educational researchers stress the desirability of considering the practical outcomes. Many research proposals begin with the statement of hypothesis. Hypothesis makes statements about relations between variables and provides a guide to the researchers as to how it can be tested. Before you are ready to submit a research proposal an outline of your first thought must be listed. Discussion with colleagues may remind you of important aspects of the research which had not occurred to you.

## **Timing**

There is never enough time to do all the work that seems to be essential in order to do a thorough job. Also, some sponsors will require proposals in a very limited time period. This suggests two things. First, do not wait for sponsors to make formal calls for proposals before developing and writing up your own ideas. Second, the process of writing proposals will require considerable discipline on the part of the writer.

It is unlikely that you will be able to keep rigidly to a timetable, but some attempt should be made to devise a schedule so that you can check progress periodically and, if necessary, move from one stage of the research to the next. One of the most common reasons for falling behind is that reading takes longer than anticipated. Books and articles have to be located, and the temptation to read just one more book is strong. At some stage, a decision has to be made to stop reading, no matter how inadequate the coverage of the subject is. Forcing yourself to move on is a discipline that has to be learnt.

If things go wrong and you are held up on one stage, there may be other ways of overcoming the problems. Talk about it, and ask for help and advice before you become weeks behind with your timetable. Remember, the research outline is for guidance only.

## **Justifying the method**

Potential sponsors will need to be assured not only that your idea is a good one, but also that it can be achieved within the time and resources sought. It is important to be honest about this,

since sponsors are not likely to be sympathetic to requests for further funding which could have been foreseen at the time of the application.

One such issue is access. No researcher can assume access to an institution, an organisation or to material. People will be doing you a favour if they agree to help, and they will need to know exactly what they will be asked to do, how much time they will be expected to give, and what use will be made of the information they provide. Permission to carry out an investigation must always be sought at an early stage.

Many organisations have gone a long way to formalise research and have produced their own guidelines and protocols. Many universities and departments involved in research with human subjects will have ethics committees which have responsibility for ensuring that any research proposal conforms to approved principles and conditions. Certain professional bodies and societies have their own guidelines, which may include issues such as deception concerning the purpose of investigations, confidentiality, safety and care needed. Research ethics is about being clear about the nature of the agreement you have entered into with your research subjects and contacts. No contact, protocol, code, or practice can resolve all problems.

The methodological approach that you intend to take during the research should also be clear from your proposal. References should be collected to confirm that your ideas are practical and to recognise previous work in the field. Methods to be adopted should be specified, appropriate to the problems and groups to be studied, and achievable within the time and resources available. Where you need additional resources, these should be sought in the application, or an indication given of where they will be obtained. This is an area where the regulations of individual sponsors can be complex, so you will need to ensure that your requests meet these.

## References

- Bell, J., *Doing Your Research Project: A guide for first-time researchers in education and social science*, 3rd ed., Buckingham: Open University Press, 1999
- Denscombe, M., *The Good Research Guide: For Small-Scale Social Research Projects*, Buckingham: Open University Press, 1998
- May, T., *Social Research: Issues, Methods and Process*, 3rd ed., Buckingham: Open University Press, 2001



## Preparing your argument

Sponsors vary in their requirements, and it is important to read these in detail before starting to write, and to follow them in detail. For example, if a limit of words or space is given, this should be followed. Additional material, although you may feel it adds value to the argument, may only irritate the reader or, worse still, render your application ineligible.

Whatever the space available, however, sponsors do normally require a clear and consistent argument, typically comprising an introduction, definition of the problem, research hypothesis, research objectives, importance/significance of the study, limitations of the study, methodology, problems encountered and organisation of the work. Increasingly, too, sponsors wish to see plans or ideas for the dissemination of the results once the work is complete. In writing the above, it is also helpful to find out who will read the application – the language used for subject specialists is likely to be very different to that for lay assessors.

As a checklist, it is also worth reading your final application to ensure that you have answered some of the most common questions that sponsors will ask. As a quick guide, these

can be summarised as follows:

- **What** is the problem you are addressing?
- **Why** is it important?
- **How** will you go about solving the problem, and what makes you think that the approach will succeed?
- **Who** will undertake the work, and what are their qualifications to do so?
- **Where** will the work take place?
- **When** will the results be available?

## Presentation

Finally, it is important to remember that the presentation of the proposal is important – many sponsors will be reading lots of proposals, and their patience is likely to be limited! It is important to take time to edit and proofread, check references and, unless forbidden, use sub-headings and other techniques to help ensure that the flow of the argument is understood. Again, unless an alternative instruction is given, it is advisable to use at least 10 pt type. Providing the correct number of copies, and binding where appropriate, is also important.

## Conclusion

There are key steps that one needs to bear in mind for the preparation of research proposals. If these key steps are ignored, your success in securing funds from donors will be limited. You should be prepared for writing and re-writing of draft proposals. This has frustrated many academics in searching for support for research projects. It is therefore pertinent to keep within these guidelines for undertaking research and soliciting funds for accomplishing research projects. Training on preparation of research proposals will be very useful. Universities should endeavour to provide such training for academics with a view to enhancing academic and professional development, as this contributes to the generation of new ideas, impacting positively on national and international development. RG

**Memunatu Pratt** is Director, Center for Peace and Conflict Studies at Fourah Bay College, University of Sierra Leone.  
Email: mprattb@yahoo.com

# Meeting the needs of higher education in the Caribbean and Pacific (ACP) Group

A new programme to support collaboration between ACP countries is about to make its first awards – and another call is set to follow. The **EDULINK Programme Management Unit** reports.

**T**he EDULINK programme, which is managed by the ACP Secretariat and funded by the European Union, was established to identify projects that will increase institutional capacity in the field of higher education in ACP States. The first call for proposals under the EDULINK Programme closed on 15 January 2007 – this deadline marked the first major step in the programme.

EDULINK is an EU-ACP countries' cooperation programme in higher education, which was launched in 2006. The programme is based on the European Commission's communication on 'Strengthening Cooperation with Third Countries in the Field of Higher Education', adopted in July 2001, and the policy directives of the ACP Group focus on the educational sector in achieving sustainable development. The programme aims to improve the effectiveness, management, visibility and impact of ACP-EU cooperation in the field of higher education.

For both the EU and the ACP Member States, higher education is an area which can be used to promote sustainable social and economic development (40 of the ACP States are considered least-developed and 15 are land-locked states). Higher education is a vital part of any sustainable development strategy, as it contributes to the alleviation of poverty and the reduction of inequalities in the ACP States and regions. Higher education does not only empower people for their role in society, but it also provides the highly skilled individuals necessary for the labour market, such as teachers, doctors, civil servants, engineers, humanists, entrepreneurs, scientists, and many more. Even more importantly, these trained individuals develop the capacity and the analytical skills that drive local economies, support civil society, teach children, lead effective governments, and

make important decisions which affect entire societies.

At the same time, higher education institutions (HEIs) in ACP regions face many challenges which include: poor institutional management, inadequate financial resources, lack of sound infrastructure, shortage of academic staff, large intake of students well beyond the institutions' capacity, lack of well-structured postgraduate programmes that are responsive to the needs of populations, and limited research output. These challenges all contribute to the inability of higher education systems in the ACP States to produce the highly skilled individuals that are needed. The state of HEIs in these countries is also a major driver of the 'brain drain' phenomenon – thus prolonging the ACP States' dependence on external know-how and reducing their ability to compete in the global knowledge-based economy.

To combat this trend the EDULINK Programme aims to:

- foster capacity building and regional integration in the field of higher education through institutional networking, and
- support a quality system of higher education which is efficient and relevant to the needs of the labour market, and consistent with ACP socio-economic development priorities.

In concrete terms, the programme's purpose is to strengthen the capacity of ACP higher education institutions at institutional/administrative, academic and research and technology levels. These areas are also central to the future development of most higher education institutions in Europe. To this end, both ACP and EU based HEIs were invited, via the first call for proposals, to take the initiative to identify possible cooperation and networking opportunities. Bringing together universities in ACP States and in Europe in joint activities might aim in

the first place at the 'empowerment' of universities. Project proposals should therefore address policy development and planning as well as the administrative capacity of HEIs, the academic relevance in the regional or sub-regional context and, last but not least, the research and technology development for the improvement of academic and teaching excellence.

The key objective is to set up new (or strengthen already existing) national, regional

**The long-term objective of all projects supported under EDULINK should be the establishment of sustainable, collaborative institutional agreements between HEIs in the ACP regions and institutions in the EU.**

or inter-regional initiatives, such as training programmes for management and administrative staff, planning and evaluation units within higher education institutions, international relations units within higher education institutions, credit transfer systems, and quality assurance and academic accreditation bodies. To foster the academic relevance, HEIs, with the help of EDULINK, should implement new (or support already existing) inter-institutional agreements, such as joint development of curricula, joint degrees and diplomas, development or adaptation of training materials, links with the public sector (e.g. traineeships), postgraduate student training or exchanges, and teacher training or exchanges. The objective to support the research and technology development should be achieved by setting up new or supporting already existing research-planning cells within higher education institutions. Furthermore,

# Education in the African, of States



networks intended to transfer the know-how, and to import, adapt and disseminate innovation related to ACP socio-economic development, should be formed.

In view of these objectives, EDULINK interventions could be twofold:

- First, to develop mechanisms and incentives aimed at promoting innovation in HEIs to ensure that output is competitive in the global economy and relevant to the changing labour market requirements for qualified human capital.
- Second, to improve the quality of higher education by establishing national regulatory frameworks as well as national and regional quality assurance systems for higher education (including online education).

This would advance the necessary policy reforms in the higher education sector that are working to address the problem of the 'brain drain' of skilled personnel from ACP States, as well as support HEIs as pillars of social cohesion, forums of public discourse and contributors to open debate.

The long-term objective of all projects supported under EDULINK should be the establishment of sustainable, collaborative institutional agreements between HEIs in the ACP regions and institutions in the EU. Such a joint systematic approach, aimed at influencing education policy while inducing capacity building and sustainability, should be the cornerstone of ACP-EU cooperation in higher education.

In general, the EDULINK programme should contribute to a better mutual understanding

and cooperation between ACP and EU Higher Education Institutions – because the future of ACP States lies in well-educated societies capable of making good use of the advances in science and technology, as well as being able to guide development efforts strategically within the context of a global economy.

EDULINK, like the Alfa (Latin America) and Asia-Link programmes, can also help achieve a 'new contract' between European HEIs and HEIs outside Europe. In particular, it might enhance the attractiveness of the European Higher Education Area and strengthen cooperation with other parts of the world. This contribution would be based on the principle of sustainable development and would be in accordance with the ongoing international work on developing guidelines for quality provision of cross-border higher education (as agreed at the EU higher education ministers' meeting in Bergen, 2005). Additionally, the creation of an



Erasmus Mundus 'window' for the ACP States will offer more even more prospects, as it complements EDULINK activities and creates synergies with the Bologna Process.

All experiences acquired since the inception of EDULINK and the preliminary results from the first call for proposals reveal clear evidence about the need for such a higher education cooperation programme for the ACP region. The responsiveness, particularly from HEIs in the ACP region, is extremely promising. About 140 participants, from both EU member states



and the ACP region, attended the EDULINK Information Session that was organised for potential applicants by the ACP Secretariat in Brussels, November 2006.

The immense interest in the programme resulted in more than 100 project proposals submitted as a response to the first call. All project proposals are now undergoing a step-by-step evaluation process by an evaluation committee, which of course takes into account their relevance and their quality. The committee is expected to reveal the final results of the evaluation and the decision on the selection of projects in late spring.

All information concerning the first call as well as the second call for proposals, which is expected to be published in April 2007, can be found at the EDULINK website: [www.acp-edulink.eu](http://www.acp-edulink.eu)

RG

**EDULINK Programme Management Unit**

Email: [info@acp-edulink.eu](mailto:info@acp-edulink.eu)

# Where do university research managers come from?

## A GRMN survey

In most parts of the world, university research management was almost non-existent twenty years ago. Now, it is one of the fastest expanding areas of university administration. So where are all the staff coming from? **Patrice Ajai-Ajagbe** reports on a recent survey.

**D**espite the increasing demand for research managers worldwide, there has as yet been little significant analysis of the career background, role and seniority of those in the position. This survey, involving a total of 248 respondents, was intended to provide some tentative answers.

It should be recognised from the outset that our results will have several limitations. The survey was administered to relatively equal numbers at five major research management conferences during 2006 – those of the Association of Research Managers and Administrators (UK),

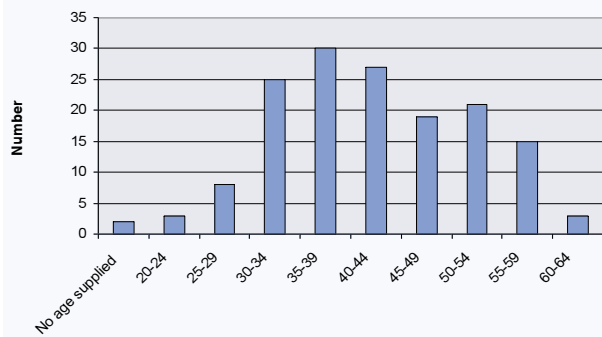
it was necessary to make a qualitative assessment – for example, categorizing the types of offices that respondents worked in.

The disproportionately senior nature of the group can be seen in its age profile. The mean average age for female university research management employees was 41.9 years and the modular average was between 35 and 39 years, as shown in Figure 1a. The mean average age for male university research management employees was 49.2 years and the modular average was between 50 and 54 years, as shown in Figure 1b. Interestingly, however, 62% of the sample

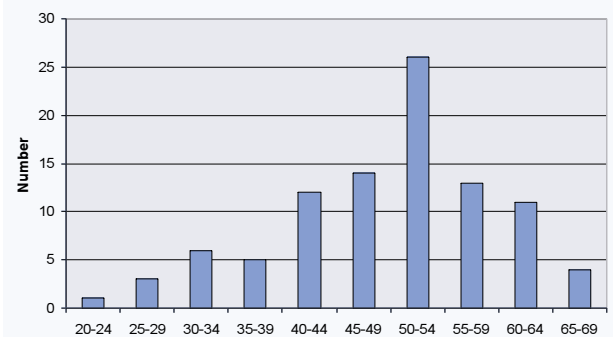
was female. At face value, this raises the question of whether, as a relatively new profession, research management is proving more gender-friendly than more established occupations, although it should also be noted that the females in the sample were, on average, younger than their male colleagues.

For the purposes of this survey, the offices that university research management staff worked in were divided into three categories (see Figure 2). At first sight, comparison between the three types of office suggests remarkable similarity between regions, with the proportion of those working in Group 1 offices varying only between 69% (Australasia) and 50% (in the relatively small Asian cohort). This finding does not easily fit with previous surveys, which suggest that

**Figure 1a University research management staff – female**



**Figure 1b University research management staff – male**



Southern African Research and Innovation Management Association, Australasian Research Management Society, SRA International and the inaugural meeting of the West African Research Management and Innovation Association. This ensured a reasonably international spread, but also meant that the sample was largely self-selecting and reflected those most likely to attend conferences. It is, for example, probably concentrated at the more senior end of the profession. In order to solicit the maximum response, the survey was as brief as possible – a one-page questionnaire, comprising 15 questions. Most of these were closed, i.e. requiring simple one-word or numerical answers. However, we also asked a few open questions, and with these

### Group 1

Those offices that appear to be designated for work on research management and associated issues.

This category includes University Research Offices; 'Enterprise' Offices; IP & Technology Transfer Offices; Innovation Offices, Sponsored Programme Offices and Deputy Vice Chancellor (Research) Offices.

### Group 2

Those offices that do not exist to work specifically on Research Management but are involved in Research Management issues – usually because involvement is required at institutional policy level.

This category includes Vice-Chancellor Offices, Postgraduate School Offices, Offices of Deans of Schools and Faculty Head Offices.

### Group 3

Those offices whose primary function falls outside research management.

This category includes Academic Departments, Legal Offices, Communications Offices, University Libraries and Finance Offices.

**Figure 2**

# gement staff come from?

African and Asian structures remain relatively under-developed. An influencing factor could be that those institutions able to send staff to national (or international) conferences may be untypical of their region as a whole. It was also notable that those working in Group 2 offices were almost exclusively concentrated in Africa.

Also, a very different picture emerges when respondents were asked to estimate the proportion of their time spent on research management issues. Only 12% of the African sample and 10% of the Asians spent 100% of their time on RM, compared to more than 40% in all other regions. The relatively academic nature of research managers in Africa is also emphas-

ised by their academic qualifications. 75% held doctorates, compared with 50% from Asia, but less than 30% in the other three regions. This suggests that research managers in developing countries are more likely to have emerged from (and combine their research management activities with) relatively senior roles in academia. In all regions, however, a significant proportion of those attending the events combined research management activity with other roles. The relative speed with which the profession is expanding could be seen from our question on the length of time that respondents had spent in their roles. Despite our suggestion that those attending major conferences might be disprop-

ortionately senior, over a third (38.31%) of respondents had spent less than five years working in research management, compared with only 33.06% who had spent more than 10 years in research management.

Interestingly the majority of respondents (67.4%) cited other universities as their most recent previous place of work. Many indicated that they had only ever worked in universities. However, out of the group that cited non-universities as their most recent previous place of work, the majority (37.3%) came from the not for profit sector, 24.1% came from the commercial sector and 21.7% came from government institutions (the rest did not provide data for this section). The overwhelming majority of respondents worked in the countries of which they were citizens – only 4.67% worked in countries other than their ‘home’ countries.

**Figure 3a: Proportion of time spent in research management (RM) (%)**

Region	% of respondents spending 100% of time in RM	% of respondents spending more than 75% of time in RM	% of respondents spending 50-75% of time in RM	% of respondents spending less than 50% of time in RM
Africa	11.94	23.88	37.31	26.86
Americas	41.18	20.59	23.53	14.7
Asia	10	20	40	30
Australasia	61.19	17.91	10.45	10.45
Europe	50.77	18.46	15.38	15.38

**Figure 3b: Respondents by types of offices (%)**

Region	% of respondents in Group 1 offices	% of respondents in Group 2 offices	% of respondents in Group 3 offices
Africa	48.52	23.52	27.94
Americas	58.82	2.94	38.24
Asia	50	0	50
Australasia	68.66	1.49	29.85
Europe	67.69	1.54	30.77

**Figure 4: Years in university research management (RM) (%)**

Region	% of respondents with 0-5 yrs in RM	% of respondents with 6-10 yrs in RM	% of respondents with 11-15 yrs in RM	% of respondents with 15+ in RM
Africa	38.57	30	11.42	20
Americas	28.57	31.43	11.43	28.57
Asia	20	0	0	80
Australasia	51.47	30.88	7.35	10.29
Europe	56.71	29.85	8.96	4.48

## Summary

Given our relatively opportunistic method of sampling, and the possibility that those responding were untypical of the profession or region, it is perhaps inevitable that the results above raise more questions than they provide answers. They do appear to confirm, however, that the profession is diverse, involving all levels from Vice-Chancellors and senior academics to relatively junior administrators. They also paint a picture of a quickly developing profession, in which even some senior practitioners have only worked for a short period, and one with an uncertain boundary with academic activity. It suggests that significant regional differences remain, and raises the interesting question of whether, as a relatively new profession, it offers better advancement prospects for women than more established areas of university life.

What our survey does not tell us at all, of course, is what research managers *think* about their profession and the issues that it faces. A survey in this area would be of interest to universities and policy makers alike. Perhaps a topic for further investigation? RG

**Patrice Ajai-Ajagbe** is Programme Officer at the Association of Commonwealth Universities.  
Email: p.ajai-ajagbe@acu.ac.uk

# Recent publications

ACU Librarian, **Nick Mulhern**, summarises.

## Forthcoming

### *How Universities Promote Economic Growth*

A collection of studies acknowledging the role of universities as sources of 'skills, innovation and entrepreneurship', and the development of links between universities and business. It reviews 'some of the most effective policy measures being deployed by national and regional governments, by firms and by universities themselves to enhance the contribution which tertiary institutions can make to economic change'.

[Yusuf, S.; Nabeshima, K. (eds.); 978-0-8213-6751-3; World Bank; 2007 (www.worldbank.org)]

## Africa

### *Facing the Challenges of African Growth: Opportunities, Constraints, and Strategic Directions*

A study of the region's economic growth with policy recommendations. This is one of a projected series of reports; future related titles are to cover financial markets and infrastructure. The report's 'long-term perspective' (1960 onwards) and detailed country analysis are useful as a context for assessing development prospects. Although not focussed on higher education or research issues, it identifies a series of factors influencing growth, including innovation and institutional capacity; 'Investment in higher education is shown to strongly boost competitiveness, partly through allowing better use of ICT'.

[Ndulu, N.; with: Chakraborti, L.; Lijane, L.; Ramachandran, V.; Wolgin, J.; World Bank; 2007 (www.worldbank.org)]

## Australia

### *Collaborating Across the Sectors: The Relationships Between The Humanities, Arts and Social Sciences (HASS) and Science, Technology, Engineering and Medicine (STEM) Sectors (CHASS Occasional Papers series)*

Examines existing collaboration, its benefits and costs, incentives and challenges. In its analysis of successful collaboration, the study acknowledges the value of supportive and flexible organisational structures and the importance of a variety of funding sources. Other significant factors listed are the sharing of research goals, a common language across disciplines, the personality and commitment of the research teams, and also, ultimately, their recognition. Among its proposals, the study recommends an Australian Institute for Collaboration which would 'develop good practice in collaboration' and contribute to a change in research behaviour.

In addition to web-based surveys and a related conference, the study used several case studies and interviews.

[Metcalf, J.; Riedlinger, M.; Pisarski, A.; Gardner, J.; 0-9757701-3-6; CHASS; 2006 (www.chass.org.au)]

## Americas

### *The State of Science and Technology in Canada*

This is the first report of the Council of Canadian Academies; it was commissioned by the Government of Canada to examine the country's strengths in science and technology as a context for policy (though not to make specific policy recommendations). S&T was assessed through an online survey, metrics, international perspectives and a review of relevant publications. The study was overseen by an expert committee.

Among Canada's perceived strengths in science and technology are those related to natural resources, ICT, health and related life sciences/technologies, and the environment. The report also acknowledges, however, some potential weaknesses as implied by the survey (e.g. 'the perceived shortcoming of the financial institution infrastructure to support S&T'), and notes among issues to be addressed 'the difficulty of knowledge transfer from researchers in universities to innovators in industry'.

[Council of Canadian Academies. Committee on the State of Science & Technology in Canada (chair: Dowdeswell, E.); 0-9781778-2-7; Council of Canadian Academies; 2006 (www.scienceadvice.ca/study.html)]

### *Here Or There: A Survey Of Factors In Multinational R&D Location: Report to the Government-University-Industry Research Roundtable (GUIRR)*

A study based on a survey of multinational companies, the majority with home offices in the US or Western Europe, to identify and rank the factors which affect where R&D is conducted. Necessarily various factors were listed, but several were particularly significant, namely: 'output market potential, quality of R&D personnel, university collaboration, and intellectual property protection'. The extent of their influence was dependent on whether 'sites were in developed or emerging economies'. The report acknowledges that 'one of the most novel results to come out of the survey is the important

role of universities in the global innovation system...university factors are as important as costs in emerging economies and more important in developed economies'.

[Thursby, J.; Thursby, M.; 0-309-10184-0; (Government-University-Industry Research Roundtable (GUIRR)); National Academies Press; 2006

(www.nationalacademies.org) (www.nap.edu)]

## Asia

### *India Science Report: Science Education, Human Resources and Public Attitude Towards Science and Technology*

The first such national study, commissioned by the Indian National Science Academy (INSA) from the National Council of Applied Economic Research (NCAER). The India Science Survey (2004), also the country's first such project, was used as the basis of the study. It





presents and analyses statistics and trends on India's science and technology for comparison with international data. [Shukla, R. (principal author); 81-88830-07-0; NCAER for INSA; 2005 (www.ncaer.org)

(www.insaindia.org/India%20Science%20report-Main.pdf)]

## UK

### Gowers Review of Intellectual Property

The report, published December 2006, was commissioned to explore the UK's current intellectual property (IP) framework and outline appropriate recommendations. It reviews the role of IP, influential trends, and the effectiveness of current legislation. IP instruments (patents, copyright, etc.), their operation, and the governance of IP policy are all studied. Although national in its immediate policy recommendations, the Review demonstrates the greater prominence IP now has internationally, given the changing global economy, technological change, and wider markets.

In the context of coherent IP rights, it acknowledges that there is 'considerable disagreement over what sort of IP regime is in the best interests of developing countries'. Among its recommendations, however, is that the UK Patent Office (UKPO) 'should undertake joint working with African patent offices from mid-2007, with the aim of: helping them to take advantage of the flexibilities currently existing in the WTO/TRIPS architecture where appropriate; and encouraging them to make positive use of IP rights through dissemination of information in patents'.

[Gowers, A.; 9-780118-4083-9; HM Treasury; The Stationery Office; 2006 (www.hm-treasury.gov.uk/independent\_reviews/gowers\_review\_intellectual\_property/gowersreview\_index.cfm)]

('Intellectual Property: A Balance (The British Library Manifesto)', issued in advance of the Gowers Review, considers related issues (www.bl.uk/news/2006/pressrelease20060925.html))

### Science And Innovation: Making The Most Of UK Research

Published by the UK's Department of Trade and Industry, this 'highlights examples of knowledge transfer in action', specifically how the academic community and business 'have been able to build upon each others' strengths to produce new and innovative products and services that have a significant impact on the UK's economy'. It summarises various university case studies, structuring these according to research excellence, responsiveness to economic needs, business investment, and science and society. [DTI; 2006 (www.dti.gov.uk)]

## International

### Education Policy Analysis: Focus on Higher Education

Published annually. 'Education Policy Analysis' aims to highlight issues based on recent OECD research. The current 2006 version has as its focus higher education, addressing some of topics raised at the OECD Education Ministers Meeting (Athens, 6/06). Higher education internationalisation is a recurrent theme, though teaching and learning practice in schools is also analysed. Brief comparative figures on R&D expenditure are included, with more detailed statistics being included in specialist OECD titles (e.g. 'OECD Science, Technology And Industry Outlook' (12/06), and 'Education At A Glance: OECD Indicators' (9/06)).

[OECD; 92-64-02269-4; OECD; 2006 (www.oecd.org)]

### OECD Science, Technology And Industry Outlook

A useful summary of trends and policies in science, technology and, specifically innovation, principally in OECD countries. Issued biennially. This is the sixth such study.

It reviews and compares national developments, human resources, and patent licensing, among other issues. A section specifically on the 'increasing internationalisation of R&D' recognises that major global firms 'seem not only to seek to exploit

knowledge generated at home in other countries, but also to tap into worldwide centres of knowledge [so now implying a] genuinely international sourcing of knowledge'. Comparative factors in locating R&D activities in developing and developed countries are reviewed. The problem of co-ordinating national policies with corporate 'globalised knowledge strategies' is also explored.

The study's use of the OECD's various databases, indicators and surveys give perspectives which larger single-focus trend studies can overlook. (The OECD's Global Science Forum on the evolution of student interest in S&T, the Careers of Doctorate Holders Survey, and student mobility studies, for example, here usefully give a broader context for R&D analyses.)

Inevitably effective policies need to be responsive to recent changes in innovation processes, as the report's summary acknowledges. 'The resurgence of public research organisations – universities in particular – as sources of knowledge for innovation will require continued reform of their governance to ensure that they

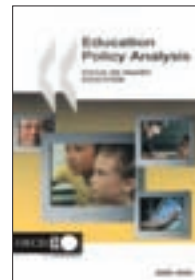
maintain the quality of their output while contributing more to social and economic objectives. The reduction of industry funding of university research may also suggest a need for more efficient mechanisms of knowledge and technology transfer.'

[OECD; 92-64-02848-X; OECD; 2006 (www.oecd.org)]

### Sixty Years of Science at UNESCO 1945-2005

A detailed history of UNESCO's role in co-ordinating and promoting science co-operation. Contributors include current and former staff. It incorporates a listing of UNESCO's 'science milestones' and international science prizes awarded, as well as various essays grouped according to broad themes (environment, engineering, science & society, natural sciences, etc.).

[Editorial Committee: Lamar, J.; Smith, B.; de Padirac, B.; Archibald, G.; 978-92-3-104005-4; UNESCO; 2006 (http://publishing.unesco.org)]



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## PPP to encourage use of stem cells in drug development

(first published 20th December 2006)

The UK government will establish a public-private consortium that will use stem cells in pre-commercial drug development, it announced in the 2006 Pre-Budget Report on 6 December 2006.

The consortium was recommended by the UK Stem Cell Initiative – a high-level review group announced in the 2005 Budget – in its ten-year vision for UK stem cell research. Industry has backed the consortium.

‘This is a win-win situation,’ said Philip Wright, the Association of British Pharmaceutical Industry (ABPI)’s Director of Science and Technology. ‘If stem cells can help improve predictive toxicology, then not only will drug development be more efficient, but it will help reduce the number of animals used in research further down the line.’

Wright said many of the companies involved would want to take a conservative approach at first, because of the ethical issues involved, but he did not think that would slow the consortium’s work.

The ABPI will deliver a report to government on the consortium before the end of the year. ‘It is still at an early stage right now, but we have made good progress on the opportunities available. We expect to make some major announcements in the New Year,’ said Wright.

The consortium will begin work with a series of pilot projects in 2007 to develop the use of stem cells in the production of safer medicines, the government announced in the Pre-Budget Report.

## UK scrapes into top 20 in OECD R&D rankings

(first published 12th January 2007)

The UK ranks 18th in the Organisation for Economic Co-operation and Development (OECD) for domestic R&D expenditure as a percentage of GDP, according to the organisation’s latest Main Science and Technology Indicators. The UK’s expenditure of just under 2 per cent of its GDP on R&D in 2004 puts it below the OECD average.

Sweden, Finland and Japan lead the table, each spending over 3 per cent of GDP on R&D in the same year, with the US in seventh place. The OECD average was just over 2 per cent. The OECD’s figures show that the UK spent USD33 million on R&D in 2004, around 5 per cent of the OECD’s total of USD726 million.

In the UK, 44.2 per cent of R&D – compared to 63.7 per cent in the US – is financed by industry, and 32.8 per cent by the government – around the same as the US figure of 31.0 per cent. In terms of how R&D is performed, 63 per cent of all R&D was carried out by industry, 31 per cent by universities, and 10 per cent by the government.

The UK placed 20th in the 30-member OECD on the number of researchers per thousand and population in employment, with Finland, Sweden, Japan, New Zealand and Denmark recording the highest proportions. The UK had 157,662 full-time equivalent researchers in 2004, accounting for around five employees in 1000.

The UK also falls slightly below the OECD average for the number of patent families – all the patents and patent applications resulting from a specific patent application – with around 0.030 patent families per 1,000 of population

compared to 0.125 in Switzerland.

The OECD’s twice-yearly publication provides a set of indicators that reflect the level and structure of the efforts undertaken by OECD member countries and nine non-member economies in the field of science and technology.

## Mixed reaction to Bush’s new budget request

(first published 06 February 2007)

Some in the science community are emphasising that the US Fiscal Year 2008 budget proposal is good news for the research universities – considering the extremely constrained budget – but others are concerned, especially about the fate of NASA. The president’s budget request for FY08, released February 5, proposes to increase NASA funding by 3.1 per cent in FY08 to USD17.3 billion. However, the agency has a lot on its plate, including preparing to send new missions to the Moon and Mars, replacing the Space Shuttle and launching a mission to repair and upgrade the Hubble Space Telescope.

‘The proposal does nothing to correct the growing imbalance between NASA’s programs and the resources the administration is willing to commit to carry them out,’ said Rep. Bart Gordon, D-TN, Chairman of the House Committee on Science and Technology. ‘Once again, NASA’s budget request is not sufficient to do all the agency is being asked to do,’ he warned. ‘I fear we may be heading for a train wreck if no corrective actions are taken.’

In contrast, the House Science Committee’s ranking Republican, Rep. Ralph Hall, R-TX, hailed the Bush budget as a triumph. ‘It should be no surprise that we are operating in a very tight budget environment,’ he said. ‘As promised, the president has prioritized funding for NASA, which speaks volumes for his dedication to funding American competitiveness and keeping our nation on the cutting-edge of space flight and exploration.’

The Association of American Universities (AAU)’s president, Robert Berdahl, maintained that the FY08 proposal offers ‘much positive news,’ but also raises some ‘very serious concerns.’ In particular, he said AAU’s ‘biggest disappoint-

ment' with the budget request is that it actually would cut funding of the National Institutes of Health (NIH) below the amount that Congress appears ready to approve for the current fiscal year.

'This erosion of the research capacity created just a few years ago by the doubling of NIH is very disturbing,' Berdhal stated. 'We are throwing away research opportunities. It is essential that Congress accomplish what this budget fails to, and not only sustain but increase the nation's investment in NIH research.'

The Federation of American Societies for Experimental Biology (FASEB) was also disappointed with the proposed budget for NIH. 'The President's proposal stands to cause grievous harm to our ability to combat debilitating diseases, from diabetes to Alzheimer's, as well as leaving us woefully unprepared to deal with emerging illnesses or pandemic influenza,' said Leo Furcht, FASEB president. 'Far from nourishing NIH, the FY2008 budget represents further deprivation and attrition of this invaluable agency.'

### AUD2.5m research contract for Ecobiotics and UQ

(first published 13 February 2007)

Queensland biotech company Ecobiotics has established a three-year, AUD2.5 million research contract with the University of Queensland (UQ) to develop new pharmaceuticals from natural products.

Victoria Gordon, Chairman and Chief Executive Officer of Ecobiotics, said the company could profit from a closer partnership with university experts such as Craig Williams from the School of Molecular and Microbial Sciences.

'From a commercial perspective, being able to access world class researchers such as Craig Williams "on our doorstep" has an enormous benefit to a Queensland company like ours that operates in a highly competitive global pharmaceutical R&D market,' Gordon said.

EcoBiotics is a privately owned Australian company that specialises in the discovery and early development of new pharmaceuticals from the unique tropical rainforests of Australia and Melanesia.

### Political advisors call for tighter scrutiny of research funds to combat fraud in China

(first published 15 February 2007)

Political figures in China have called for tighter scrutiny of public research funding after claims that up to half of the money may be wasted or misused, reports the *People's Daily*.

A local advisory body in the Hubei province reports that huge amounts of money earmarked for research is in fact misspent on handing out bonuses or paying costs unrelated to science projects. The advisers call for local authorities to create standard procedures for examining and approving research projects and to monitor allocated funds closely. They call for university departments to monitor research teams who apply for funding, including the quality of applicants' experimental facilities, research plans and experience of team leaders.

The proposals come after a series of high-profile frauds involving the misappropriation of research funds. Shan Ping, former president of a Tianjin university, was expelled from the National People's Congress in December 2006 for misuse of research funds, after being accused of siphoning off CNY100 million (USD12.8m) of university funds to invest in stocks and shares. The advisory body urges officials to develop checks to stop such scenarios happening again, and to protect China's science investment, which in 2006 stood at around CNY71.6 billion (approximately USD9bn).

### First African innovation survey due in 2009

(first published 15 February 2007)

The New Partnership for Africa's Development (NEPAD) has secured funding for a two-year project to produce the continent's first science and technology indicators survey by the end of this decade.

The EUR3.1 million project, funded by the Swedish International Development Agency (Sida), will support national surveys leading to the publication in 2009 of the first African Innovation Outlook (AIO). The survey will then be repeated every other year.

The project will draw on international and continental expertise to draw up indicators

suitable to measure innovation in African countries. Partners include, among others, the African Centre for Technology Studies in Kenya, Wits University in South Africa, Lund University in Sweden and Harvard University in the US.

The data will help international donors and governments track enrolment on science courses, count the number of women in science and monitor progress on the goal to increase science and innovation spending to 1 per cent of GDP. It will also make it possible to identify best practice in science policymaking by comparing the track records of African states with each other, and with the rest of the world.

'African countries need to keep under frequent review their national science, technology and innovation systems... This programme will be the first major African politically authorised effort to generate a comprehensive comparative survey of science, technology and innovation in Africa,' NEPAD says in the project brief. **RG**

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## Michael J Fox Foundation for Parkinson's Research rapid response innovation awards

**Closing Date:** None

**Details:** The Michael J Fox Foundation for Parkinson's Research invites applications for its rapid response innovation awards. The goal of the rapid response innovation program is to support innovative research focused on the cause of and cure for Parkinson's disease. In particular, MJFF is eager to fund high-risk, high-reward projects tackling critical scientific roadblocks that, if successful, can open new avenues for PD therapy development. Research grants of up to USD75,000 are available. Applications may be submitted at any time and will be reviewed on a rolling basis.

### ResearchResearch link:

<http://www.researchresearch.com/getpage.cfm?pagename=FundingOpRecord&lang=EN&type=default&id=177779&orgLang=EN>

## South African Astronomical Observatory observing time

**Closing Date:** 01 April 2007

**Details:** The South African Astronomical Observatory offers its facilities to qualified astronomers. It has 1.9 metre, 1.0m and 0.75m telescopes and instrumentation, and a 0.5m telescope. In addition, the Southern African Large Telescope is available. The SAAO facilities are available to professional astronomers from anywhere in the world who wish to observe.

### ResearchResearch link:

<http://www.researchresearch.com/getpage.cfm?pagename=FundingOpRecord&lang=EN&type=default&id=173061&orgLang=EN>

## Institute of International Education scholar rescue fund fellowships

**Closing Date:** 01 April 2007

**Details:** The Institute of International Education's scholar rescue fund invites applications for fellowships for scholars whose lives and work are threatened in their home countries. These fellowships permit scholars to find temporary refuge at universities and colleges anywhere in the world, enabling them to pursue their academic work. Fellowships from three months up to one year will be considered. Scholars from any discipline and any country will be considered. Preference may be given to established scholars with a PhD or other highest degree and who have been employed at a college or university for an extended period; however junior, independent and non-traditional scholars, writers and artists will also be considered.

### ResearchResearch link:

<http://www.researchresearch.com/getpage.cfm?pagename=FundingOpRecord&lang=EN&type=default&id=173544&orgLang=EN>

## FP7 European Research Council starting independent researcher grant

**Closing Date:** 25 April 2007

**Details:** The European Commission has launched a call for proposals for European Research Council Starting Independent Researcher Grants. The grants will provide support to the independent careers of researchers located in the EU and associated countries. These researchers should be establishing or leading their first research team or programme.

Grants will support projects carried out by teams which are headed by a single principal investigator and will be awarded to the institution hosting the PI.

Funding for the grants will be between

EUR100,000 and EUR400,000 per year for up to five years.

Proposals must be submitted by the PI responsible for the project and may be made in any field of research with particular emphasis on the frontier of science and scholarship. The evaluation process of the proposal will be carried out by means of a structure of high-level panels.

The scheme is open to researchers of any nationality who would like to set up their research activity in any European Union Member State or associated country. ERC-2007-StG. OJ C316 (22/12/06) p7.

### ResearchResearch link:

<http://www.researchresearch.com/getpage.cfm?pagename=FundingOpRecord&lang=EN&type=default&id=176491&orgLang=EN>

## FP7 Specific actions – Marie Curie awards

**Closing Date:** 26 April 2007

**Details:** The European Commission has launched a call for nominations for the Marie Curie Awards under its Framework 7 programme. This call relates to coordination and support actions. This action aims at expressing public recognition of the research excellence achieved by researchers who have benefited from EC mobility support for research training under previous framework programmes. The action gives the opportunity to acknowledge periods of mobility and transnational training in the scientific community and to disseminate the research results achieved.

The prizes are awarded to individuals. Candidates for the prizes can apply directly or can be nominated by others. The candidates shall be among those who have been awarded a Marie Curie fellowship under the sixth framework programme, or have participated in a training or mobility action of one of the previous Framework Programmes, for a minimum period of 12 months, and who have achieved excellent research results. There are nationality restrictions. Each prize is worth EUR50,000. The full budget for this call is EUR250,000. FP7-PEOPLE-2007-5-2-AWARDS. OJ C316 (22/12/06) p7.

#### Research link:

<http://www.researchresearch.com/getpage.cfm?pagename=FundingOpRecord&lang=EN&type=default&id=176508&orgLang=EN>

### Association for International Cancer Research project and pilot study grants

**Closing Date:** 27 April 2007

**Details:** The Association for International Cancer Research invites applications for its three-year project grants and one-year pilot study awards to support research into the causes, mechanisms, diagnosis, treatment and prevention of cancer. The emphasis is on basic rather than clinical research. However, proposals with a mixture of basic and clinical research will also be considered.

The association particularly supports: projects by recently qualified researchers; work in areas that are underfunded or unexplored; pump-priming or preliminary projects; proposals involving international collaboration.

Grants are open to staff at universities and research institutions worldwide. The main applicant should have a PhD or equivalent qualification or research experience.

#### Research link:

<http://www.researchresearch.com/getpage.cfm?pagename=FundingOpRecord&lang=EN&type=default&id=167258&orgLang=EN>

### NIH translational research in eating disorders (R01) PA-06-523

**Closing Date:** 05 February, 05 June and 05 October Annually

**Details:** The National Institute of Mental Health and the National Institute of Child Health and Human Development seek to foster the development of translational research studies that will increase scientific understanding of the etiology and pathogenesis of eating disorders. NIMH would like to encourage research grant applications that will advance understanding of the etiology, early identification, best treatment, and medical sequelae of eating disorders.

This funding opportunity announcement will use the NIH research project grant (R01) award mechanism. Applicants for the R03, R21, and R34 award mechanisms must submit their applications electronically and should respond

to the parent FOAs for these mechanisms (NIH R03-PA-06-180; NIH R21-PA-06-181; and the NIMH R34-PA-06-248). Eligible organisations include domestic and foreign for-profit and non-profit organisations, and public or private institutions. PA-06-523.

#### Research link:

<http://www.researchresearch.com/getpage.cfm?pagename=FundingOpRecord&lang=EN&type=default&id=170599&orgLang=EN>

### Wiener Library Fraenkel prizes in contemporary history

**Closing Date:** 15 May Annually

**Details:** The Wiener Library invites submissions for its Fraenkel prizes for outstanding work in the field of 20th century history in one of the library's fields of interest. These are: the political history of central and eastern Europe; Jewish history; the two world wars; anti-Semitism; the ideologies and movements of political extremism and totalitarianism. The library will award prizes in the following two categories:

- Category A. This is open to all entrants. Works must be between 50,000 and 150,000 words in length. Prizes are worth USD6,000;
  - Category B. This is open to researchers who have yet to publish a major work. Entries must be between 25,000 and 100,000 words. The winners will be awarded USD4,000 each.
- The work must be written in English, French or German and be unpublished in any language.

#### Research link:

<http://www.researchresearch.com/getpage.cfm?pagename=FundingOpRecord&lang=EN&type=default&id=140324&orgLang=EN>

### NIH studies of energy balance and cancer in humans

**Closing Date:** 05 February, 05 June and 05 October Annually

**Details:** The National Cancer Institute invites investigator-initiated research applications on energy balance and cancer in humans. This funding opportunity announcement invites R01 grant applications for studies that focus on research to define factors affecting energy balance and to define mechanisms influencing cancer risk, prognosis, and quality of life. These studies

may range from new analyses of existing datasets to additional collection of data and biological specimens in ongoing investigations. Applicants submitting applications in response to this FOA must have previously collected measures from human subjects on two or more of the following exposures: diet, physical activity, body composition, and related biomarkers, and they should thoroughly address sample sizes and power issues in their applications to ensure the statistical validity of results to be obtained in the proposed studies.

This solicitation will use the NIH R01 investigator-initiated research project grants, and competitive supplements to existing NCI-funded R01, P01, P30, or U01 grant awards. An FOA of identical scientific scope, PA-06-405, that solicits applications under the NIH exploratory/developmental grant (R21) mechanism, runs in parallel to this FOA. Applicants may request up to five years of support for R01 awards with costs appropriately tailored to the proposed work. Domestic and foreign for-profit and non-profit organisations and public or private institutions are eligible to apply. PA-07-176 (replaces PA-06-404).

#### Research link:

<http://www.researchresearch.com/getpage.cfm?pagename=FundingOpRecord&lang=EN&type=default&id=166611&orgLang=EN>

### NIH stem cells and cancer (RO1) PA-07-187

**Closing Date:** 05 February, 05 June and 05 October Annually

**Details:** The National Cancer Institute and the National Institute on Aging are inviting proposals for their stem cells and cancer program. This program is intended to promote research on all aspects of tumour stem cell biology, and on the genes and proteins responsible for the tumour stem cell phenotype. Research studies on the characterisation of tumour stem cells from the broad spectrum of solid and liquid tumours not already examined, on markers potentially shared by tumour stem cells and normal stem cells, and on the biochemical and molecular regulation of normal and tumour stem cell function are encouraged. Studies of the genes regulating self renewal, and studies of regulation of stem cell division by the stem cell niche or microenvironment are also encouraged.

Eligible applicants include domestic and foreign for-profit or non-profit organisations and public or private institutions. This funding opportunity will use the R01 award mechanism. Applicants may request up to five years of support for R01 awards with costs appropriately tailored to the proposed work. PA-07-187.

**ResearchResearch link:**

<http://www.researchresearch.com/getpage.cfm?pagename=FundingOpRecord&lang=EN&type=default&id=148100&orgLang=EN>

**Leakey Foundation special research grants**

**Closing Date:** 15 July 2007

**Details:** The Leakey Foundation invites applications for its general research grants for research into human origins. Recent priorities include research into the environment, archaeology, and human palaeontology; into the behaviour, morphology, and ecology of the great apes and other primate species; and into the behavioural ecology of contemporary hunter-gatherers. Other areas of study are rarely considered.

Grants to doctoral students are in the USD3,000 to USD13,500 range; however, larger grants, especially to postdoctoral students and senior scientists, may be funded up to USD22,000.

**ResearchResearch link:**

<http://www.researchresearch.com/getpage.cfm?pagename=FundingOpRecord&lang=EN&type=default&id=169410&orgLang=EN>

**American Chemical Society type AC research grants**

**Closing Date:** 30 March, 03 August and 30 November 2007

**Details:** The American Chemical Society's Petroleum Research Fund invites applications for its type AC grants. Fundamental research is supported in chemistry, earth sciences, chemical engineering, and in related fields.

This largest of the PRF grant programs usually funds proposals from graduate departments, but undergraduate faculty may apply. The maximum amount is USD150,000 to be spent over three years. While most AC grants will provide USD100,000 over two years, it is expected that 3-5 percent will be for three years. Budgets must

include stipends for graduate students, undergraduates, or postdoctoral fellows, and may include summer salary for the principal investigator, research supplies, conference travel, and fieldwork expenses. Grants are made to non-profit institutions in the United States and other countries.

**ResearchResearch link:**

<http://www.researchresearch.com/getpage.cfm?pagename=FundingOpRecord&lang=EN&type=default&id=174816&orgLang=EN>

**Nutricia Research Foundation international training fellowships**

**Closing Date:** 30 September Annually

**Details:** The Nutricia Research Foundation invites applications for its training fellowships in the field of human nutrition. Training is usually devoted to learning new techniques and performing short research projects not possible at applicants' current institutes. They last for one year and must take place outside the recipient's home country. Funding of up to EUR 25,000 is provided. Two fellowships are normally available annually.

**ResearchResearch link:**

<http://www.researchresearch.com/getpage.cfm?pagename=FundingOpRecord&lang=EN&type=default&id=155438&orgLang=EN>

**International Society of Nurses in Cancer Care small grants**

**Closing Date:** 15 October Annually

**Details:** The International Society of Nurses in Cancer Care invites applications for its small budget research grant programme established to address clinical nursing research. Investigations must focus on topics relevant to nursing care of cancer patients and their families in more than one country.

Applicants must be registered nurses in good standing within their own country, and members in good standing of a member organisation of ISNCC. The awards are given for a 12 month period. The grant is for a maximum of USD5,000.

**ResearchResearch link:**

<http://www.researchresearch.com/getpage.cfm?pagename=FundingOpRecord&lang=EN&type=default&id=155763&orgLang=EN>

**University of Iceland Snorri Sturluson Icelandic fellowships**

**Closing Date:** 31 October Annually

**Details:** The University of Iceland's Sigurur Nordal institute invites applications for the Snorri Sturluson Icelandic fellowships. These are granted to scholars in the field of humanities, from outside Iceland, to enable them to stay in Iceland for a period of at least three months, in order to improve their knowledge of the Icelandic language, culture and society.

The amount of the fellowships is based in principle on travel expenses to and from Iceland, plus living expenses while in the country. Should two equally qualified candidates be under consideration, preference will, as a rule, be given to a candidate from Eastern or Southern Europe, Asia, Africa, Latin America or Oceania.

**ResearchResearch link:**

<http://www.researchresearch.com/getpage.cfm?pagename=FundingOpRecord&lang=EN&type=default&id=156603&orgLang=EN>

**University of Cambridge Centre for Research in the Arts, Social Sciences and Humanities visiting fellowships**

**Closing Date:** 31 October 2007

**Details:** The Centre for Research in the Arts, Social Sciences and Humanities at the University of Cambridge invites applications for its visiting fellowships for the 2008-09 academic year. Up to four fellowships are available in this round to support research on the centre's current theme: cultural transmission and disciplinary change. The theme will provide scope for topics such as the re-embedding of ideas, religions, ethnicities, histories, objects, knowledge-practices, laws, human systems, and aesthetics across time and space. Research is also encouraged on the changing boundaries of academic disciplines; the idea, history, and function of the modern university; the nature of discipline as it operates within and beyond universities; and the university's contribution to the well-being of the community more broadly. Applicants should have an established record of scholarly excellence and be interested in working in an interdisciplinary or multidisciplinary environment.

Fellowships may last up to nine weeks during any one Cambridge term and will provide access to facilities, travel expenses as well as accommodation costs of up to GBP200.

**ResearchResearch link:**

<http://www.researchresearch.com/getpage.cfm?pagename=FundingOpRecord&lang=EN&type=default&id=168437&orgLang=EN>

### JSPS short-term invitation fellowship programme for research in Japan

**Closing Date:** 11 November 2007

**Details:** The Japan Society for the Promotion of Science invites applications for its short-term invitation fellowship program for research in Japan. This allows researchers employed at designated Japanese research institutions and laboratories to invite fellow researchers from other countries to Japan to participate in discussions, attend seminars, give lectures, or similar. All fields of the humanities, social sciences and natural sciences are eligible.

Fellowships are open to senior scientists, university professors, and others with substantial professional experience. They must be citizens of a country that has diplomatic relations with Japan.

The fellowships last 14 to 60 days. Applications for this program must be submitted to JSPS by a host scientist in Japan through the head of the applicant's university or institution.

Awards will include round-trip air travel, a daily maintenance allowance of JPY18,000, domestic research travel allowance of JPY150,000 and a host's cooperation allowance of JPY 50,000.

**ResearchResearch link:**

<http://www.researchresearch.com/getpage.cfm?pagename=FundingOpRecord&lang=EN&type=default&id=168763&orgLang=EN>

### Toshiba International Foundation grants

**Closing Date:** 30 November 2007

**Details:** The Toshiba International Foundation invites applications for its grants program. The foundation's aim is to promote international exchange and understanding of Japan. It supports Japan-related research in scientific and cultural fields at overseas academic institutions

in an effort to achieve this. Activities funded include:

- seminars and symposia;
- programs contributing to the development of communities overseas;
- research and investigation of measures that further overseas understanding of Japan;
- collection and dissemination of information to promote understanding of Japan.

Grants are for projects to be undertaken in a single fiscal year and are not made to individuals.

**ResearchResearch link:**

<http://www.researchresearch.com/getpage.cfm?pagename=FundingOpRecord&lang=EN&type=default&id=160100&orgLang=EN>

### Alexander von Humboldt Foundation Sofja Kovalevskaja award

**Closing Date:** 04 January 2008

**Details:** The Alexander von Humboldt Foundation is inviting applications for its Sofja Kovalevskaja award. The purpose of this award is to support young scientists and scholars from outside Germany with outstanding research records. The aim is to give award-winners an opportunity to concentrate on high-level, innovative research work of their own choice in Germany in order to promote the internationalisation of research in Germany. The award enables its winners to finance their own work groups at German university and non-university research institutions of their own choice and to cover their living expenses.

Recipients will be granted funding up to a total of EUR1.2 million to conduct research of their own choice. The award is intended to sponsor award-winners' research work and may be used to cover all expenses serving this purpose.

The programme is open to scientists and scholars from all

countries and disciplines. The foundation particularly welcomes applications from young qualified female researchers. Applicants should be no more than 35 years of age. They should have completed their doctorates with distinction and published work in prestigious international journals or publishing houses.

**ResearchResearch link:**

<http://www.researchresearch.com/getpage.cfm?pagename=FundingOpRecord&lang=EN&type=default&id=175742&orgLang=EN>

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# Global Research Management

**R**esearch management has a genuinely global dimension. An increasing proportion of research involves international collaboration, or is funded by international funding bodies. It is vital that stakeholders approach their endeavours with a degree of common understanding. And, of course, many of the issues that researchers seek to address have global implications. It is critical that results are disseminated or exploited on a worldwide scale, and according to common standards. A global network is the only way to achieve this goal.

## Why you should join the Global Research Management Network

The network, a joint ACU-SRA International initiative, combines regular information, analysis and networking opportunities to keep you informed and connected to research management activities throughout the globe. It provides a structure relevant both to practitioners in the developing and developed world and is based around five main strands of activity:

### Research Global magazine

Based on the ACU's successful *Research Opportunities* magazine, *Research Global* brings news, articles and funding information to members three times per year.

### Free academic journal

To help provide a more theoretical background to the research management debate, all members of the network will receive a free subscription to the *International Journal of Technology Management and Sustainable Development*. The journal provides analysis and studies from a range of countries.

### Benchmarking & good practice

The network will seek new ways to compare good practice and performance in a constructive manner – helping members to identify policies for implementation in their own work.

### Electronic updates

Those members registering an email address will receive a regular briefing covering news and policy items.

### Events & seminars

Further details on recent and upcoming events can be found at [www.globalrmn.org](http://www.globalrmn.org)

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