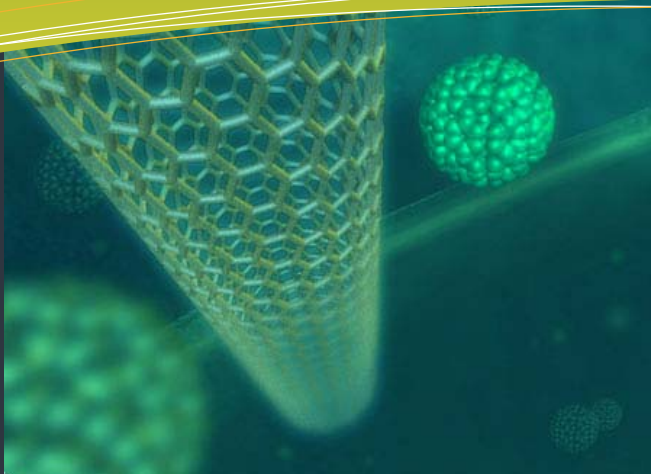


The Australia-China NanoNetwork Information Bulletin



“to promote collaborative research projects and research training ; addressing key contemporary research challenges through nanoscience”

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NanoNetwork launched in South Australia

The formal launch of the NanoNetwork in South Australia was highly successful and well attended by those with an interest in Sino-Australian university linkages, including representation from the Embassy of the People’s Republic of China in Australia, who are highly supportive of such relationship-building and collaboration initiatives.

At the launch ATN Chair, Professor Ross Milbourne, said the research questions that we faced in the 21st century were not the kind that would be solved by academics working in isolation.

“Climate change and the new technologies we will need to adapt to its effects – reliable and efficient fresh water supply for communities across the globe; next-generation energy that is both environmentally friendly and renewable; the big questions in health – the solutions to these problems are by no means simple and it is through cooperation between researchers from diverse backgrounds that they will be found,” he said.

“The NanoNetwork elevates the ATN’s existing collaborative reach to a new level, drawing together researchers from



Prof Ross Milbourne (Chair ATN, Vice Chancellor UTS) shaking hands with Mr Jide Zhang (Second Secretary (Education), Embassy of the People’s Republic of China in Australia)

university networks in two countries, greatly expanding the expertise base and giving its activities a healthy international perspective.

“It will take advantage of ATN and ISTA networking and in turn, enable research teams to tackle those research questions of significance and relevance to our national research agenda.

“A key advantage of the network will be its capacity to bring together researchers with the complementary skills and

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Researcher profile: Dr Dusan Losic

Dusan Losic has broad research interests that interface physical chemistry, electrochemistry, analytical chemistry and surface chemistry. His PhD at Flinders University (1999-2002) involved the study of self-assembled monolayers on gold and their application for building complex nanoarchitectures and biosensing devices.

After completing his PhD he joined the Neurochemistry Research Group at Monash University (Dept of Biochemistry) as a Postdoctoral Research Fellow. He completed his postdoctoral experience at Flinders University working on the diatom project (ARC) where he pursued his research interest in bioinspired materials and nanostructures based devices, in particular related to molecular separation and biosensing.

He received an Australian Research Council Fellowship award (2006) and is currently working at the University of South Australia, Ian Wark Research Institute in Adelaide, South Australia as a Senior Research Fellow

NanoNetwork launched in South Australia

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interests necessary to tackle research questions of substance.”

Establishing long-lasting researcher networks lays down the groundwork for such cooperation. To encourage that goal, Professor Ning Gu and Drs Jianfei Sun and Xin Chen from the Research Centre for Nano-scale Science and Technology at Southeast University, Nanjing visited ATN universities to explore collaborative research opportunities.

Building profile in China

The ISTA Annual General Meeting – Wuhan

The NanoNetwork was represented by numerous partner Chinese universities as well as Neil Furlong (ATN, RMIT) and Tony Tate (Curtin). Neil provided the meeting with an update on NanoNetwork activities and received strong and positive feedback from university Presidents and Vice Presidents in attendance. The NanoNetwork was also recognised via an invitation to Neil from the President of Wuhan University of Technology (WUT) to address around 1500 students. The invitation came with the request – ‘please tell the students the value of international links in education and research’. Such links are increasingly being highlighted across Chinese university policy and it seems the NanoNetwork, even in its current development phase, is viewed in a ‘model worth noting’.

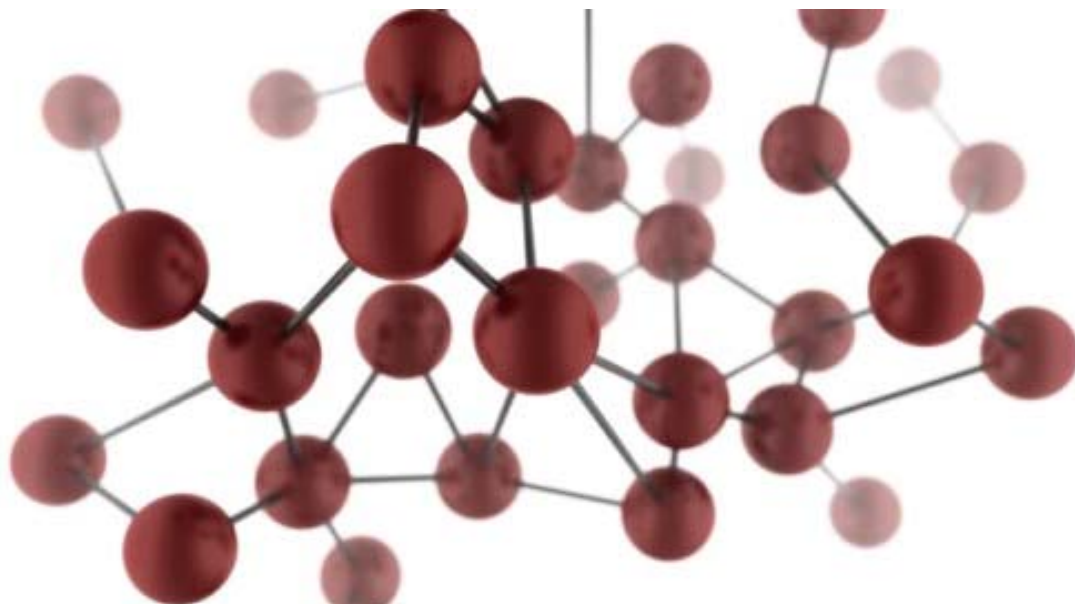
They also participated in the recent Nanomedicine Workshop, at which Professor Gu, one of the foremost nanoscientists in China in the area of functional nanoparticles, was the keynote speaker. The workshop was successful in galvanising thought about areas in which Australian and Chinese universities may have complementary strengths, which will be further developed at the upcoming Nanomedicine Symposium in Suzhou (see upcoming events).

During his time in China Neil also strengthened existing NanoNetwork links with Nanjing, Southeast and Nanjing Aeronautical universities (all in Nanjing) and Tongji University and Shanghai University for Science and Technology (both in Shanghai), as well as establishing new dialogue with Huazhong University and Wuhan University of Technology (both in Wuhan) and Shanghai JiaoTong university. This suite of universities, in what we in the NanoNetwork are now terming the ‘Shanghai corridor’, represents a relevant core group of strong universities with which the NanoNetwork can continue working to establish significant and long-lasting research partnerships.

The Shanghai Expo

The NanoNetwork also participated at the recent Shanghai Technology and Innovation Expo through exhibits describing

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Building profile in China

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nano-research activities across the five ATN universities. This Expo comprises seven vast Pavilions displaying manufacturing technologies and innovations from the massive (e.g. engineering tooling as big as a building and China's new generation commercial jetliners) to the small (e.g. nanodiagnostics), to the very green (e.g. an electric Porsche and intelligent power grids) to the very unusual (e.g. novel forms or people transport).

Companies exhibiting were largely Chinese but many European and North American heavyweights were also high profiling. The NanoNetwork was invited to be part of the ISTA stand and our exhibit was surrounded by those from over 50 research leading Chinese universities. Interspersed amongst these in the University Pavilion were representatives from European and North American universities.



Left to right : Mr Xi Chen, Vice Minister of Education and Deputy Secretary of CPC, Ministry of Education, Dr Zhi-min Li, Director-General, Center for Science and Technology Development, Ministry of Education, Prof. Ming-yang Xue, Director of Shanghai Municipal Education Commission

The NanoNetwork stand was visited by the Chinese Vice Minister of Education who took some time to note the elements of our Australian/Chinese collaborations. Participation at the Shanghai Expo was a valuable opportunity to profile the NanoNetwork amongst various Chinese industry, Government and university constituencies. Hopefully such a profile will pay dividends as the NanoNetwork moves in coming times towards joint applications for funding to Chinese Research Agencies.

Research begins to bear fruit

Building on the launch, researchers involved in the network are showing that their commitment in building the venture is beginning to bear fruit.

In the last round of ARC Discovery Projects, Dr Dusan Losic and Professor Lee White from the University of South Australia, in partnership with Professor Wanlin Guo of Nanjing University of Aeronautics and Astronautics, are to be congratulated for their success in being awarded \$380,000 for a three-year project to study new nanoscience techniques for the separation of biomolecules.

This project is just one of many currently in development for the network, which is currently working on a range of initiatives designed to strengthen and broaden collaborative links between ATN and ISTA universities.

The recent success of the Nanomedicine workshop has given rise to a number of projects which we anticipate will drive further ARC applications going forward.

Partners on both sides are embracing the spirit of collaboration and building valuable relationships, with Southeast University seeking support from Chinese funding sources to enable UniSA researchers to undertake research in China, and ATN partners seeking adjunct appointments for researchers from Nanjing University and Southeast University to further consolidate such links.

Researcher profile: Professor Wanlin Guo

Professor Wanlin Guo is Director of the Institute of Nanoscience in Nanjing University of Aeronautics and Astronautics; and a Professor in solid mechanics in Xian Jiaotong University.

He received his Ph.D degree in solid mechanics in Northwestern Polytechnique University in 1991, his Professorship in solid mechanics at Xian Jiaotong University and won the National Distinguished Young Scientist Foundation in 1996.

He has been a Cheng Kong Scholar in Nanjing University of Aeronautics and

Astronautics since 2000, where he founded its Institute of Nanoscience and led the team in Physical Mechanics at Nanoscale entering the Cheung Kong Scholars Excellent Team Programme of the Ministry of Education of China in 2005.

His main field is in physical mechanics of nano-intelligent materials and devices, efficient energy transition nanotechnology, bio-channels and mimics, and structure strength. He has published more than 300 journal papers and serves as a reviewer for more than twenty journals.

EU nanotechnology code of conduct to be revised

The European Commission is inviting anyone interested in nanosciences and nanotechnologies research to register their views as part of the revision of the Recommendation on a Code of Conduct for Responsible Nanosciences and Nanotechnologies Research and Council Conclusions on Responsible Nanosciences and Nanotechnologies adopted in 2008.

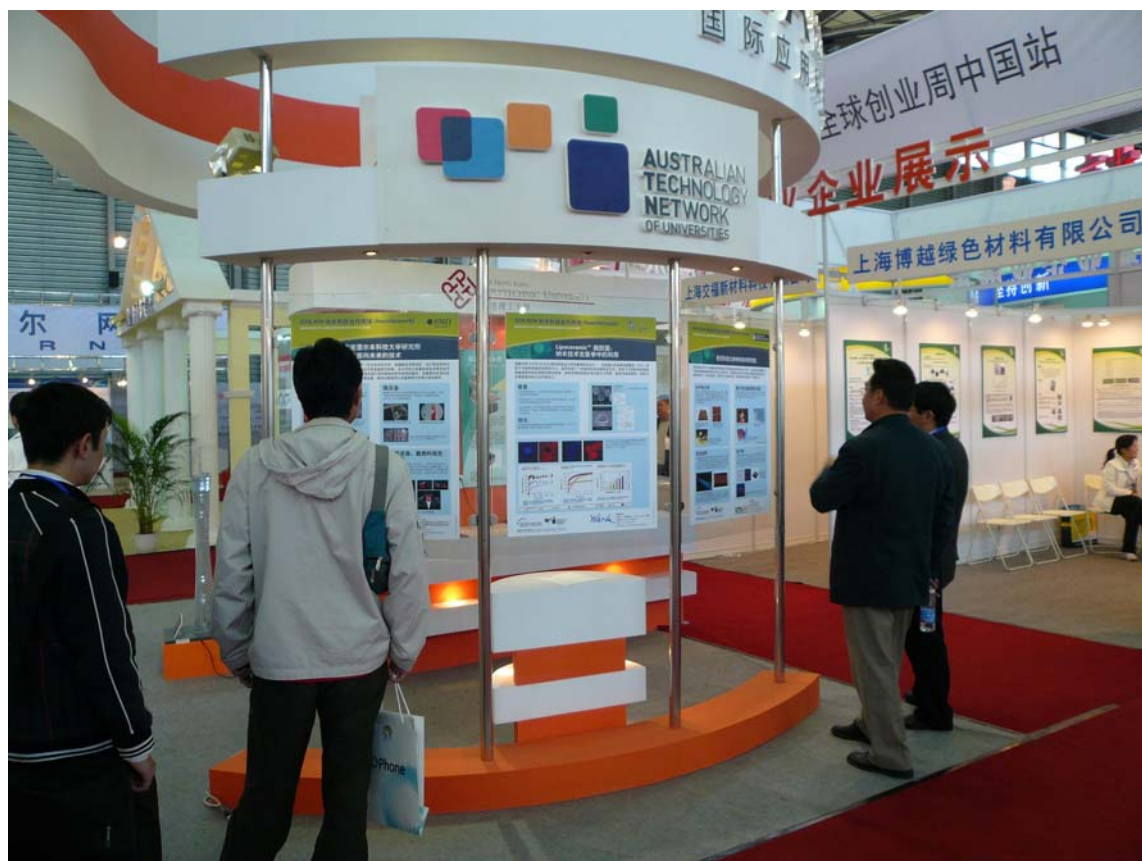
The Commission is particularly interested in input from researchers, policy makers, industry, media and civil society organisations.

Submissions may be made at <http://europa.eu>. The consultation will be open up to Sunday 3rd January 2010.

Upcoming Events

Initial planning has begun on a Nanomedicine Symposium and Graduate Student Summer School to be held in October 2010 at the new Suzhou Research Institute of Southeast University.

The Program will be intended to provide opportunities for graduate students as well as researchers from across the ATN and ISTA universities to engage in facilitated workshop type gatherings. In these workshops students and researchers will be encouraged to learn and understand more of the many challenges and opportunities presented via research in nanoscience.



Delegates peruse the NanoNetwork section of the ISTA stand at the Shanghai Technology and Innovation Expo