NICTA start-up company Saluda Medical has been awarded $5M by the New South Wales Government to support the development of its unique technology to manage chronic pain.

The grant comes from the inaugural round of the Medical Devices Fund (MDF), a competitive technology development and commercialisation program funded by the NSW Government through the NSW Ministry of Health. The key objective of the MDF is to promote new and innovative medical technologies within NSW that may have a global benefit. [http://bit.ly/1f3ftFM](http://bit.ly/1f3ftFM)

Dr John Parker, CEO of Saluda, said: “Saluda’s goal is to bring this research to commercial reality and see our technology used in every neuromodulation application in the future. This will benefit potentially millions of people suffering chronic pain and other neuropathic diseases. The valuable support and recognition from the New South Wales Government allows us to begin this commercialisation journey with confidence.”

Existing chronic pain management often relies on medication, which can risk side-effects or addiction if taken over a long period of time. An alternative to medication in these cases is implant technology, where relief can be achieved by electrical stimulation of the patient’s spinal cord. This stimulation, however, is often accompanied by uncomfortable side effects.

This is where Saluda’s proposed system can help, by measuring nerve responses to electrical stimulation and using this information to automatically adjust the stimulation to a level that is comfortable for the patient. Saluda was spun out of NICTA earlier this year after successfully raising $5M in private capital.

An early prototype trial version of the technology has been used by patients at Sydney’s Royal North Shore Hospital. Professor Michael Cousins, Director of the Pain Management Institute (PMRI) of The University of Sydney and Sydney’s Royal North Shore Hospital, conducted the surgeries which allowed the patients to ‘test-drive’ the system.

“The fundamental concepts of this new technology represent a transformational change in neuromodulation methods for the treatment of chronic pain,” Prof. Cousins said.

NICTA’s Karsten Schulz will lead the national roll-out of the GroupX program to increase the number of ICT students and professionals in Australia.

Funded by the Federal Government, GroupX is a four-year program aimed at increasing the number of tertiary ICT students – and, indirectly, the number of ICT professionals – in Australia, by promoting ICT professions and careers.

“Being tasked with the responsibility of rolling GroupX out nationally is a tremendous privilege and I am very much looking forward to the challenges ahead,” said Karsten. “The development of programs for respective States and Territories beyond Queensland is underway. We are also looking to inject additional resources into successful programs already in place that address the very real ICT skills shortage we are experiencing. This is essential if we are to ensure our ongoing competitiveness in the global economy.”

**GroupX National Manager Appointed**

Karsten Schulz, National Manager, Group X
It was my great pleasure to lead a recent Austrade mission to India, to forge and strengthen our relationship with some of the country’s largest ICT companies. I believe that Australia, and NICTA, have a great deal to offer these organisations - significant research partnerships, investment opportunities, great application markets in areas such as infrastructure, resources and services – and I am confident that our mission has sparked some solid investment proposals.

NICTA was represented on the Austrade mission by Pascal van Hentenryck (NICTA’s Optimisation Research Group Leader) and myself. In five days we gave eleven talks with presentations to companies including Infosys, Wipro, Tech Mahindra and Cognizant.

NICTA’s research in optimisation, analytics and software systems, and our business areas in the digital economy and infrastructure, transport and logistics, were of particular interest to many of these companies.

I found that, in India – as in Australia - IT is not just about IT but the application of technology to lots of different problems such as traffic congestion or water management. And although on the surface India and Australia are vastly different countries, we do share a particular way of thinking about technology and education. We also share many of the same problems like disaster and energy management.

We also share innovation challenges and strengths. I was asked recently whether India will ever produce an IT company like Google, Microsoft or Apple. It is my firm view that this will definitely happen, given time, and Australia will be there, part of a high-performing innovation system with India at its centre.

NICTA can play a vital role in engaging the country with India’s ICT powerhouse. It is my hope that NICTA will achieve continuity of Federal funding to support this important regional collaboration. Continuing Federal funding is also vital to guarantee the bedrock of excellent research and wealth creation activities which NICTA delivers to Australia.

Please read on to find out about some inspiring activities and achievements from NICTA during the second half of 2013. A new start-up company, Performance Assurance, was formed; an earlier start-up, Saluda Medical, was awarded significant additional funding from the New South Wales Government, and the national GroupX Digital Careers Program secured a founding manager.

Please enjoy all of the stories in NICTA News and have a safe and happy holiday season.

Hugh Durrant-Whyte
NICTA CEO

Former NICTA student makes prestigious AI list

Every two years, IEEE Intelligent Systems acknowledges and celebrates ten young stars in the field of Artificial Intelligence as “AI’s 10 to Watch.” Nina Narodytska has been named in this year’s international listing. http://bit.ly/12VQ2yt

Nina Narodytska was previously a NICTA/UNSW PhD student, and is now a postdoctoral research fellow at the University of Toronto, Canada. She received an Outstanding Paper Award at AAAI 2011 and an outstanding program committee member award at the Australasian Joint Conference on Artificial Intelligence 2012. The “AI’s 10 to Watch” celebrates accomplished researchers who have completed their doctoral work in the past five years.
For the sixth year running, NICTA has taken its place at CommunicAsia, showcasing nine of its early stage businesses and research projects. The event, which drew over 35,000 attendees, saw visitors to the NICTA stand view transformational technologies for ports, utilities and government.

Demonstrations included NICTA’s AutoMap, a service which automatically analyses video and point cloud data to assemble accurate databases of road signs and other roadside infrastructure for survey and mapping companies and infrastructure operators.

NICTA’s Ship Scheduling project has developed more efficient schedules of ships’ movements through ports and channels to maximise throughput at Australia’s bulk commodity ports. Also on display was Yuruware, a disaster recovery solution for business applications running on Amazon Web Services. Yuruware allows businesses to migrate and replicate running systems and data to alternate geographic regions when a disaster takes out the primary site.

The NICTA delegation also visited Singapore’s Agency for Science, Technology and Research (A*STAR) which oversees 20 consortia of biomedical sciences and physical sciences and engineering research institutes. Discussions centred on data analytics and social robotics.

This was followed by a tour of Fusionworld, A*STAR’s cutting edge in-house and industry collaboration space.

### ePASA ready to go!

Performance Assurance Pty Ltd, NICTA’s 12th start-up, recently announced that their ePASA technology, through a program of empirical research with collaborators in government and industry, is commercially ready.

ePASA technology, which won a 2013 iAward (ACT) in the New Product Category, enables organisations to confidently build, manage and alter the large complex ICT systems that support the delivery of vital services to customers.

ePASA helps users uncover the performance details of large systems and to spot the problem areas that could cause them to fail. Possible changes to an IT system are simulated rapidly so that system alterations and upgrades can be implemented safely, providing more reliable delivery of services and avoiding catastrophic meltdowns.

Commercialisation Australia support will be used to help Performance Assurance commercialise this product and achieve a global software and services organisation and significant export revenue.

### Protecting the environment – bit by bit

Today’s telemetry, remote sensing, open spatial data, and seemingly infinite computational power have opened the way for data analytics to play a vital role as a tool for environmental scientists, resource managers and policy makers.

NICTA’s Security and Environment Business team has been developing environmental analytics capabilities with a range of collaborators. This research was demonstrated at NICTA’s Environmental Analytics Showcase, held in Brisbane in July. The event provided a platform to connect NICTA researchers with potential collaborators in Queensland’s universities, Government agencies and industry.

NICTA showcased projects in geothermal resource characterisation, uncertainty management in groundwater modelling, automated recognition and surveillance of fish species from underwater video, plant disease detection using multispectral imaging, soil management, air quality prediction and more.

It was attended by Geoff Garrett, Queensland Chief Scientist, Claire Moore, Senator for Queensland, and around 60 government and industry representatives.
In July, NICTA and Tip Top Bakeries ANZ took out the Smart Logistics Conference award for Excellence in Transport and Logistics with NICTA’s Intelligent Fleet Logistics project,” said Lis Mannes, Operations Director, Tip Top. "NICTA’s unique technological approach to understanding the complex interrelationship between customer locations and true delivery costs provided us with a deeper understanding of our extensive supply chain network.”

“As a result, through better asset utilisation, we have been able to significantly reduce greenhouse gas emissions and freight travelled.”

Rob Fitzpatrick, Director of NICTA’s Infrastructure, Transport and Logistics Team, said: “This is a great result for a team of dedicated professionals from NICTA and Tip Top. Supply chain logistics have been studied for decades with every operator looking to eke out the last penny in efficiency. NICTA’s optimisation team has entered this competitive space, introducing radically new technology to develop a truly innovative solution with great potential for the wider transport and logistics industry.”

The winning team from Tip Top and NICTA

Cutting-edge technology, start-ups, GovHack competition winners and the launch of a digital innovation challenge were on display at NICTA’s Canberra Innovation Showcase, an eGov Cluster networking event, ‘Connecting vibrant Innovators and Digital Communities in Canberra’.

Officially opened by Senator Kate Lundy, who was at the time Minister Assisting for Innovation and Industry and Minister Assisting for the Digital Economy, the event was held at NICTA’s Canberra Research Laboratory and attracted over 70 attendees.

NICTA demonstrations included the latest on vision processing for the Bionic Eye; NICTA’s ‘Distributed Solar Prediction’ project which predicts the expected power output from rooftop solar energy systems, and ‘The Lens’ project, an open innovation cartography platform to make the world’s innovation system work fairly and effectively.

Canberra’s newest incubator for local start-ups, Entry29, was on hand to provide advice on how entrepreneurs can connect, create and collaborate on new and exciting opportunities.

The winning teams from GovHack2013 embraced the opportunity to engage with industry. The event also provided a rare opportunity to meet one of the recognised global leaders in ‘Creative Innovation’, Dr Ralph Kerle who presented a thought-provoking discussion about ‘The Creative Flow’.

The event also provided the backdrop for the ‘Digital Canberra Challenge’ (DCC), which was launched by Andrew Barr, ACT Deputy Chief Minister, Treasurer, and Minister for Economic Development, Education and Training, and Tourism, Sport and Recreation.

Funded by the ACT Government as part of its ‘Growth, Diversification and Jobs: A Business Development Strategy for the ACT’ program, the $300,000 competition aims to engage ACT innovators and SMEs in the development of new, improved digital government services.

The NICTA-led Australian eGovernment Technology Cluster, consisting of organisations from Government, industry, research and academia, has been appointed by the ACT Government to run the DCC under the strategic guidance of the newly established DCC Program Board.

NICTA and Tip Top ANZ make the most of ‘last mile’ with smart logistics technology

NICTA’s eGov Cluster showcase shines light on ACT innovation

‘Love Me Tender’ project presented by Daniel McNamara, Nous Group, Canberra
Anna Lyons

Falling on her feet...

When asked what led her into the world of ICT, Anna Lyons says: “I kind of fell into it”. And while we don’t doubt the veracity of her response, it’s fair to say that Anna was always destined for a life in which mathematics played a starring role. An excellent maths high school teacher fostered her natural proficiency in the subject and convinced Anna to enrol in engineering rather than design.

And design’s loss has certainly been ICT’s gain. Anna, who is currently completing her PhD at the University of NSW, with the research focus of ‘mixed-critically scheduling for high assurance, general purpose platforms’ is one of 270 PhD students at NICTA. She works in NICTA’s Software Systems Research Group.

Specifically, Anna works on one of NICTA’s trustworthy systems project that is making critical systems safer and more efficient. “Critical systems are systems that, if they fail, will cause people to lose their lives or cause severe damage to the environment. Think of all of the microprocessors in planes and cars - these are critical systems.

“Our aim is to make these systems safer by making the operating system that runs on these microprocessors as trustworthy and correct as possible. By doing this, we can also run more software on fewer microprocessors - making planes and cars lighter and then using less fuel and minimising carbon emissions,” Anna says.

Anna’s research has also led to the area of health, in particular pacemakers, where critical and non-critical software runs side-by-side and there is a clear need to ensure the life-critical software is safe from malfunction or other problems with the non-critical components.

It was the opportunity to undertake research that is close to real-world deployment which led Anna to NICTA. “NICTA is working on research that is cutting-edge and relevant to the real world. Often people are dubious when I tell them I am doing a PhD, and then once I explain the topic they say ‘Wow, that is surprisingly practical’,” she says.

And it’s also the opportunity for collaboration and more face-time with supervisors that is appealing. “NICTA employs a lot of researchers full time. They have no teaching duties, which means more time for PhD students! And with the high number of PhD students, NICTA gives the opportunity for students to work together as a team rather than as individuals.”

So with critical systems, from planes to trains to cars, nuclear power plants and vehicles that drive themselves all under control, what’s next for Anna? A satellite that UNSW will be launching into space in 2015 and a helicopter that drives itself, of course. Although that will have to wait for another edition.
NICTA and Monash join forces in new Lab

Scientists from NICTA and Monash University have joined forces to make advanced computing much more accessible to Australian industry, with the opening of a new NICTA Laboratory at Monash University’s Caulfield Campus.

The new lab was opened in August and is home to 15-20 members of NICTA’s cutting-edge Optimisation research team, whose goal is to enable advanced computer modelling tools to be used by non-experts. Their work will improve business processes and solve important problems in fields such as disaster management, future energy systems, logistics, health, and supply chains.

“Building or using a new tool to optimise a system currently requires a PhD level aptitude,” said Professor Peter Stuckey, Project Leader, NICTA. “We want to help Australian businesses by making this technology much easier to use so that more people can take advantage of it.”

NICTA is regarded as having one of the best teams in the world in Optimisation. This team will join a 60-strong group of scientists across NICTA labs in Victoria, ACT, NSW and Queensland led by leading global expert, Professor Pascal Van Hentenryck.

NICTA computes in Wodonga

In July, NICTA staged a vibrant and informative technology showcase at LaTrobe University’s Albury-Wodonga campus. Technologies for farms, hospitals and small businesses were on show. The former Local Member for Indi, Mrs Sophie Mirabella, attended, along with over 200 students from local secondary schools and journalists from all of the major regional media outlets.

Technology demonstrations included: the latest interactive demonstration of prototype Bionic Eye technology; a remote analysis tool to help doctors monitor people recovering from strokes and measure improvements in their range of movement; a simulator of technology for motor vehicles that will adapt to the mental state of drivers; and software to help emergency response teams plan, respond to, and recover from, natural disasters.

Have you ever wondered...

Socrates said “Wonder is the beginning of wisdom” and certainly that would be a sentiment echoed by the team behind the inaugural ‘Wired for Wonder’ event. Run over two days, the experience was designed to open doors of understanding in the interconnected area of business, technology, life, awe, science and the arts.

The event, of which NICTA was an Innovation Partner, saw attendees have their idea of ‘normal’ challenged, experience new ideas and expand their thinking in relation to innovation, creativity and technological development. The event was delivered as an eclectic program of speakers, workshops and themed breakouts.

NICTA’s CEO, Hugh Durrant-Whyte, jumped on board the conversation jam ‘Where is Science Taking us?’ He kicked off the conversation with a visual metaphor for bridging the gap between science and the arts when he confessed a long-standing wish for a bridge between the Australian Technology Park (NICTA’s headquarters) and Redfern Carriageworks. The bridge would join the digital, technological expertise of our researchers to the artisans and leaders of creative industries on the other side of the railway track.

Karin Verspoor, NICTA’s Director of Health Technologies, took part in a panel that focused on Women in Technology. The panelists discussed issues ranging from starting up your own business and developing new technologies to how we get more females interested in ICT from an early age. Karin stressed the importance of breaking down the perceptions of maths/science/engineering for the next generation of females, and showing them the creative potential of computing and technology.
Congratulations Aaron Carroll – Best Student Paper


Anirban Mahanti - Best Paper Award at the SIGCOMM FmHN2013 Workshop

Anirban’s paper, co-authored with Vengatanathan Krishnamoorthy, Patrik Bergstrom, Niklas Carlsson, Derek Eager and Nahid Shahmehr ‘Empowering the Creative User: Personalized HTTP-based Adaptive Streaming of Multi-path Networks’, was recognized as the best paper at the ACM SIGCOMM 2013 Workshop on Future Human-Centric Multimedia Networking.

Best of CCR paper ACM SIGCOMM 2013

Congratulations to Dali Kaafar and his NICTA NRG team for their selection as one of the best ACM Computer Communications Review papers at the ACM SIGCOMM 2013. Their paper ‘Privacy in Context-Oriented Networking: Threats and Countermeasures’ was co-authored with A. Chaabane (INRIA, France), E. De Cristofaro (PARC, Palo Alto), M. Kafaar (INRIA France, NICTA Australia), and E. Uzun (PARC, Palo Alto).

Congratulations to Marcello La Rosa, Best Paper Award

Marcello La Rosa, Principal Researcher SSRG and co-author of ‘Slice, Mine and Dice: Complexity Aware Automated Discovery of Business Process Models’ won the best paper award at the 11th International Conference on Business Process Management 2013.

John Markham - finalwst WEHI Art of Science

Congratulations to John Markham who was a finalist in the Walter and Eliza Hall Institute of Medical Research Art of Science Awards.

Well done Professor Ivan Mareels

Congratulations to NICTA contributed staff Professor Ivan Mareels, Dean of the School of Engineering at the University of Melbourne, who has been named a Commander in the Order of the British Empire for meritorious services in engineering and science.

Congratulations to Pascal Van Hentenryck

NICTA’s ORG Leader, Pascal Van Hentenryck, has been made an IFORS Distinguished Lecturer. The IFORS Distinguished Lecturer Award recognises distinguished operational research scholars and practitioners. Pascal has also been appointed by the ANU College of Engineering and Computer Science to a Chair in Data Intensive Computing within the Research School of Computer Science.

Congratulations Desmond Wong – Recipient of Marconi Society Young Scholar Award

Desmond’s award is one of only three for 2013, with the other two being awarded to young researchers at Princeton and MIT. Desmond is the first Australian to win this award which recognises outstanding young researchers in the fields of communications and the internet.

Best paper award - Chris McCarthy, David Feng and Nick Barnes

Congratulations to Chris McCarthy, David Feng and Nick Barnes on winning the Best Paper award for ‘Augmenting intensity to enhance scene structure in photometric vision’ at the IEEE workshop on Multi-modal and alternative perception for the visually impaired.

23rd International Joint Conference on Artificial Intelligence (IJCAI) Award

Well done Haris Azig, Sarge Gaspers, Nicholas Mattei, Nina Narodytska and Tony Walsh for winning the award for Best Education Video at the 23rd International IJCAI. Their video was titled ‘Algorithmic Decision Theory @ NICTA’.

Most Influential Paper 10-Year Award – International Symposium on Principles and Practice of Declarative Programming (PPDP 2013)

Well done to Peter Stuckey and Maria de la Banda from NICTA’s ORG team on their Most Influential Paper 10-Year Award at PPDP 2013. Their paper was titled ‘Finding All Minimal Unsatisfiable Subsets’.

Lasker-DeBakey Clinical Medical Research Prize

Congratulations to Graeme Clark who, along with Ingeborg Hochmair and Blake Wilson, was awarded the Lasker-DeBakey Clinical Medical Research Prize from the Lasker Foundation. The award honours investigators whose contributions have improved the clinical treatment of patients.

Congratulations FLL

1-Stop’s Container Control, the first product conceived in NICTA’s Future Logistic Living lab, won the Product Innovation category in the Australian Business Awards 2013.

Discrete Optimisation Massive Open Online Course (MOOC) ranked in the Top 20 MOOCs worldwide

Pascal Van Hentenryck and Carleton Coffrin’s ‘Discrete Optimisation: MOOC’, offered via the Coursera/University of Melbourne, was ranked in the Top 20 MOOCs worldwide according to CourseTalk (which compiles reviews & ratings for MOOCs).

$60K Additional funding for FarmNet

FarmNet received a commitment of $60K from the Australia - China Centre of Water Resources Research. This will fund travel and equipment for two deployments of FarmNet in agricultural research facilities in Shanghai and presentations in various Chinese institutions about surface water and groundwater modelling.

Well done to the following NICTA researchers who were invited to give keynote addresses:

Pascal Van Hentenryck at the 19th International Conference of Principles and Practice of Constraint Programming. His talk was titled ‘Decide Different’.

Guido Governatori from NICTA’s SRRG group, whose lecture ‘The dos and don’ts of business process compliance’ was delivered at the Dagstuhl Seminar on Verifiable Secure Process-Aware Information Systems.

Gernot Heiser at the Asia-Pacfic Workshop on Systems (APSys). His talk was titled ‘Can truly dependable systems be affordable?’

Congratulations NICTA researchers on the following paper publications:

Siyuan Chen and Julien Epps for their paper ‘Blinking: Towards the clinical computing that understands your current task’ in IEEE Pervasive Computing.

Xidong Li, Weihong Wang, Yang Wang, Fang Chen and Yi Wang, for their paper ‘Visual tracking by tracking’ in the NIRA Recognition Journal.

John Markham together with his collaborators for their paper ‘Mutations in GTP Binding Protein Obg Mutations in GTP Binding Protein Obg in Male Gametogenesis’ in the journal PLoS One.

Brian Anderson together with collaborators for their paper ‘Stabilization of linear time-varying systems’ in the Journal of Systems and Control Letters.

Congratulations NICTA researchers, students and their university co-authors on having their papers accepted to or published in the following conferences:


Gerwin Klein, June Andronick, Kevin Elphinstone, Toby Murray, Thomas Schreib, Krzysztof Kurek, and Gernot Heiser who were invited to submit their paper ‘Comprehensive Formal Verification of an OS Microkernel’ at the ACM Transactions on Computer Systems (ACM TOCS).

Kevin Elphinstone and Gernot Heiser’s conference paper ‘From L3 to seL4 – What Have We Learnt in 20 Years of L4 Microkernels?’ at the ACM SIGOPS Symposium on Operating Systems Principles (SOSP), 2013.

Zahra Zamani, Scott Sanner, Karina Delgadillo Validia and Leilane Nunes de Barros for their paper ‘Robust Optimization for Hybrid MDPs with state-dependant noise’ at the International Joint Conference on Artificial Intelligence (IJCAI).

ORG and NRG NICTA researchers M. A. Hakim Newton, Duc Nghia Pham, Goce Ristanoski, Marius Portmann and Abdul Sattar for their paper ‘Stochastic Local Search Based Channel Assignment in Wireless Mesh Networks,’ at CP 2013.

ORG PhD student Kevin Leo with Chris Mears, Guido Tack and Maria Garcia de la Banda for their conference paper ‘Globalising Constraint Models’ at the International Conference on Principles and Practice of Constraint Programming’ (CP 2013).


Ashkan Amirsadri, Adrian Bishop, Lars Petersson along with ANU’s Jochen Trumpf and Jonghyuk Kim, had their paper ‘Consistency Analysis for Data Fusion: Determining When the Unknown Correlation Can Be Ignored’ accepted at the 2013 ICASSP.

Goce Ristanoski, Wei Liu and James Bailey for their paper ‘Time-Dependent Loss Enhanced SVMs for Time Series Regression’ at the ACM International Conference on Knowledge Discovery and Data Mining (SIGKDD).

SSRG PhD student Zhang (Edgie) Li for his paper ‘On the Conceptualisation of Performance Evaluation of iaaS Services’ accepted to the IEEE Transactions on Services Computing conference.

The paper was co-authored with Liam O’Brien, Jason Zhang and Rainbow Cai.

Hao Cheng, Xiaohua Zhang and Dale Schuurmans for their paper ‘Convex Relaxations of Bregman Divergence Clustering’ at the Uncertainty in Artificial Intelligence Conference.


Ehsan Abbaspour, Scott Sanner, Edwin Bonilla and Pascal Poupart for their paper ‘Learning Community-based Preferences via Driftlet Process Mixtures of Gaussian Processes’ at the International Joint Conference on Artificial Intelligence (IJCAI).

Key

CVRG – Computer Vision Research Group
NRC – Networks Research Group
OPS – Optimisation Research Project
SSRG – Software Systems Research Group

NICTA People and Achievements
In September NICTA CEO Hugh Durrant-Whyte wrote an opinion piece for the Australian Financial Review on how IT creates a wealthy Australia. He noted that the critical issue for Australia is to establish its place in this industry, to work out how to innovate and apply ICT to deliver productivity gains, a more effective and globally connected workforce, better health and lives, and a more sustainable use of resources and environment.


The Age celebrated that, for the first time since they lost their sight, Australian patients implanted with a prototype bionic eye have been able to see things in their environment. See how by visiting http://bit.ly/17cDeMb

The SMH and Canberra Times spoke to NICTA’s Machine Learning Research Group Leader, Bob Williamson about his role in leading The Rise of Cyborgs and Post Human Beings, an official National Science Week event, which brought together some of Australia’s top researchers to consider the future of humankind. Bob was also featured in the SMH National Science Week feature on the increasing importance of information technology in science.


Dr John Parker, CTO of NICTA’s start-up Saluda Medical, spoke with Channel Nine’s Peter Overton about the remarkable results Saluda Medical is achieving in patient trials. Patient Michael Winkler joined Dr Parker, speaking about how the implant has changed his life giving him constant relief after a work injury two decades ago. As part of the trial Saluda Medical is using an external stimulator but once commercialised they hope the implant will be self-regulating.

The SMH and The Australian wrote about NICTA’s mission to reverse the decline of ICT graduate numbers with the national rollout of the NICTA’s GroupX initiative.


Hugh Durrant-Whyte appointed Chair of NSW Innovation & Productivity Council

NICTA CEO Hugh Durrant-Whyte has been appointed to Chair the NSW Government’s Innovation & Productivity Council (IPC), a high level policy advisory group which provides guidance on priorities for innovation-led economic development and productivity. Professor Durrant-Whyte has been a member of the IPC since 2011 and has been appointed to Chair the group at least until his first three-year term expires in July 2014.

“The Council has a great opportunity to assist government drive innovation and productivity in NSW. Collaboration, technology, attracting talent and skills, and connecting research to industry outcomes will be key to the future economy and prosperity of the state,” said Prof. Durrant-Whyte.

The appointment reflects the leading role NICTA is playing in the innovation ecosystem. NICTA produces the highest rate of start-up companies across publicly funded research in Australia.[1]

“Hugh Durrant-Whyte is a vital and energetic member of the Innovation and Productivity Council and his appointment as Chair will allow him further opportunity to lead and support projects that drive innovation and productivity in NSW,” said Deputy Premier and Minister for Trade & Investment Andrew Stoner. “Hugh will build on the excellent work of outgoing Chair Steven Harker, CEO of Morgan Stanley Australia, who completed the maximum allowable term of six years last month.”

[1] NICTA averages 6 start-up companies per $100M invested. The Australian average is 0.3 spinouts per $100M invested, as reported in the National Survey of Research Commercialisation Report (http://www.innovation.gov.au/innovation/reportsandstudies/Pages/Library%20Card/2010-11NSRCReport.aspx)

NICTA is funded by the Australian Government through the Department of Communications and the Australian Research Council through the ICT Centre of Excellence Program. NICTA is also funded and supported by the Australian Capital Territory, the New South Wales, Queensland and Victorian Governments, the Australian National University, the University of New South Wales, the University of Melbourne, the University of Queensland, the University of Sydney, Griffith University, Queensland University of Technology, Monash University and other university partners.

NICTA has featured in The Conversation on a broad range of issues this year. Here are a few examples;

When bushfires sound alarms, social media can save lives - http://bit.ly/18vOBzc
By Hanna Suominen, Senior Researcher in Machine Learning,

Evacuation modelling: finding the best time (and way) to get going - http://bit.ly/1gCzio8
By Victor Pillac, NICTA researcher and Pascal Van Hentenryck, Optimisation Research Group Leader,

Big data and big business: it’s what you do with it that matters - http://bit.ly/1gCzUUb
By Bob Williamson, Leader, Machine Learning Research Group,

Online shoppers: before you click that ad, read this - http://bit.ly/19Opc2V
By Dali Kaafar, Principal Researcher in Online Privacy and Security.