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Dr John Ballard: Angel of Australia biotech

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Dr John Ballard of Australia wins BioSpectrum Life Time Achievement Award 2012



Veterans in the life sciences industry in Australia distinguish Dr John Ballard as one of the founding and most significant leaders of the country's biotechnology industry. He is co-founder and director of Adelaide-based BioAngels and has successfully played different roles in his career spanning four decades to help the biotechnology industry in Australia reach great heights.

He has taken particular interest in starting innovation centers and seed funding capital to support spin-out companies from universities and other public sector institutions, and was driven by the passion to help start-up companies thrive and grow from scratch.

Recognizing his contributions to Australia's biotechnology industry (see selection criteria), *BioSpectrum* awarded him the BioSpectrum Asia Pacific Bioscience Industry Life Time Achievement Award in 2012 at a ceremony held in Singapore on March 16, 2012.

Dr John Ballard started out as a researcher in the public sector in 1969 and went on to become an inventor of key technologies, co-founder of a successful biotechnology company and CEO of the Cooperative Research Center for Tissue Growth and Repair.

He set up a company GroPep and also mentored many start-up life sciences companies by co-founding them through an angel investment group. Dr Ballard also played a key role in setting up AusBiotech, Australia's lobby group for the biotech industry, and served on the board of the association for many years.

The angel investor

In 2002, Dr John Ballard, along with Mr Paul Flavel, co-founded BioAngels, an association of business executives and entrepreneurs from a wide range of backgrounds who were interested in investing time and capital in promising early-stage life sciences companies. "Together with Paul Flavel, we decided to form a group of investors that would invest in early-stage life sciences companies and work with the investees to add value to those companies," says Dr Ballard about the idea behind BioAngels.

About BioAngelsÃ?Â
BioAngels is an association of business executives and entrepreneurs from a wide range of backgrounds interested in investing time (as mentors) as well as capital in promising early-stage life sciences companies
Website: www.bioangels.org
Ã?Â Start-up Year: 2002

In the last 10 years, BioAngels has established a strong network of individuals to evaluate potential investment opportunities in the life sciences industry of Australia. By creating this platform, Dr Ballard opened a window for entrepreneurs and inventors to seek investment opportunities from the individuals of the group. BioAngels' members currently have invested in 12 early-stage life sciences companies and are working with them to add value to their businesses. BioAngels' investments are targeted at promising early-stage life sciences companies, established by entrepreneurs or inventors who are seeking both capital and mentoring assistance.

The model structure of the company was based on some US angel groups that conduct due diligence on potential investees but each member of the angel group decides whether or not to personally invest in the project. "Paul and I decided that we would restrict investments to companies in the life sciences sector and that membership in the angel group would be focused on a person's current or past experience in that sector. Accordingly, we have a group of about 20 members with backgrounds in university and other public sector research, finance, legal, medical and veterinary practice, intellectual property, international marketing in the life sciences area and company development. With this mix of expertise, we considered that we would be able to make a good evaluation of a potential investment and also provide mentoring to the early-stage company," shares Dr Ballard.

On the learning curve

johnballardDr John Ballard graduated with a PhD in biochemistry from the University of Western Australia and went to the Fels Research Institute in Philadelphia, US as a post-doctoral fellow and subsequently as an assistant professor. At this stage, his goal was to become a successful researcher and then to obtain ongoing funding to maintain a substantial research group. He returned to Australia in 1969 to join the Commonwealth Scientific and Industrial Research Organization (CSIRO) division of Nutritional biochemistry in Adelaide. The CSIRO is Australia's national science agency and one of the largest and most diverse research agencies in the world. While at the CSIRO, he was able to achieve his initial aims and gradually became more focused on the potential outcome of his research for improving human health.

An important turning point in his life came from his research into peptide growth factors in which his group established and played a major role in stimulating growth via the inhibition of protein breakdown within cells. Although this research mostly involved studies in vitro on cells in culture, Dr Ballard had the opportunity to investigate whether a candidate drug might halt or reverse the progression of Duchenne muscular dystrophy in children, possibly by inhibiting muscle protein breakdown (Duchenne subjects lose muscle mass). While this project was not successful, it led to a more general interest in growth

factors and their potential application in the treatment of conditions, such as AIDS.

Starting GroPep

Dr John Ballard's group successfully isolated and characterized a novel growth factor from cow colostrum with the subsequent goal of producing it recombinantly. Because the growth factor (des 1-3 IGF-I) was novel and was substantially more potent than its normal equivalent, insulin-like growth factor I or IGF-I, his group was able to file a patent on the sequence, manufacture and applications of this molecule. It was the commercialization of this invention that set his future career in the biotechnology industry. He set up GroPep in 1988 with the goal of progressing commercialization of the molecule. He is mentioned as an inventor on many of GroPep's patents and coordinated their prosecution and commercialization.

Recalling his early days of entreprenuership, Dr Ballard says, "The most important factor of my growth was my group's discovery, patenting and commercialization of the novel insulin-like growth factor through GroPep."

In 1988, he held two positions, one as a researcher in CSIRO and the second as CEO of GroPep. However, with the success of GroPep as a manufacturer and marketer of growth factors to researchers worldwide, Dr Ballard left CSIRO to become full-time CEO and managing director of the company. Over the 10-year period from when GroPep first commenced selling growth factors, the company grew to annual revenues of $10 million and nearly 100 staff members. The company listed on the Australian Stock Exchange in 2000 with a market capitalization of $100 million. He left GroPep in 2002 to pursue his next goal as an angel investor and to establish BioAngels.

Today, GroPep Bioreagents sells growth factors and associated reagents to universities, institutional and industrial researchers, principally in the insulin-like growth factor area. Its product range consists of over 100 products and has a worldwide network of specialized distributors. In 2006, GroPep was acquired by Danish company Novozymes and became Novozymes GroPep Limited and then Novozymes Biopharma AU Limited. In 2010, GroPep Bioreagents was moved to a new facility managed by BioInnovation.

A dynamic leader

Dr John Ballard has played multiple roles in the Australian life sciences industry. "I was a dedicated researcher in the public sector (CSIRO), including leader of a substantial research group. Meanwhile, I was also playing the role of an inventor of key technologies and the co-founder of a successful biotechnology company," he says. He started his career as a researcher at the Cooperative Researcher Center for Tissue Growth and Repair in Adelaide, Australia. He took the position of CEO of one of the first cooperative research centres (CRC for tissue growth and repair) in 1991, and with all these experiences, co-founded an angel investment group.

With his dynamic experience, he became a leader as board member of a number of early-stage life sciences companies. In addition to these activities, he was a founding director of AusBiotech, a national body of companies and individuals dedicated to the development and prosperity of the Australian biotechnology industry, and served on the board of that association for several years.

Along with BioAngels, he is also a director of BR Angels, Applimex, Neubody and not-for-profit companies such as Australian Proteome Analysis Facility and Australian Institute for Commercialization and also the chairman of AdAlta, a biotechnology company.

AdAlta, a next generation antibody company, is developing its novel shark antibody technology following an investment led by venture capital firm Yuuwa Capital and includes members of Brisbane Angels, the BioAngels in Adelaide and existing AdAlta shareholders. There are currently 23 approved antibody-based products with sales forecast exceeding $50 billion per annum over the next few years. In January 2012, AdAlta signed an agreement with Roche to evaluate and identify shark antibody binders and the company got the US patent for its i-body technology.

Awards and achievements

Dr Ballard is recognized for his multiple achievements and contributions he made to the industry in his illustrious career. In his long and credible path of promoting Australia's life sciences industry, he was honored with AusBiotech Chairman's Excellence Award, in recognition of his work as a long-standing pioneer in the biotechnology industry. He has served as the president of Australian Society of Biochemistry and the vice-president of AusBiotech. He was elected to the Australian Academy of Technological Sciences and Engineering in 1997 and was awarded CSIRO's Business Excellence Medal (in 2001), the Centenary Medal (in 2003) and the ATSE Clunies Ross Medal (in 2004).

In his own words "establishment of GroPep and taking it to a successful ASX listing was my big achievement, and in the last decade, the formation of BioAngels and its important role in supporting the growth of young life science companies was also a big achievement".

He is the author of about 300 scientific publications and has received several research awards and is an inventor of 10 patents. In his entire career, one of his most remarkable contributions has been recognizing the potential companies that have sound capital balance and experienced management, new inventions - product or service that meets the market demand, has recognizable competitive advantages, revenues, and invested in them to make them market leaders of tomorrow.

Dr Ballard, now in his sixties and an industry veteran who saw the growth of the life sciences industry, says that challenges before the industry in Australia are generally similar to the rest of the world and include development of a sustainable company model that can take an early-stage enterprise to commercial success without repeated calls for investment funding. "There is a challenge in finding experienced personnel for employment in life sciences companies and especially availability of seed and follow-on funding for company development," concludes Dr Ballard.