



# Biotech Daily's CEO interview

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## BIONOMICS' DR DEBORAH RATHJEN: THIS IS JUST THE BEGINNING

Bionomics chief executive officer Dr Deborah Rathjen may be slight of build but her sights are set high.

Dr Rathjen has taken a shell company with a board and \$4 million but no staff and little value to a Top 20 company with a market capitalization of \$75 million, multiple \$50 million "big pharma" deals and a broad pipeline based on a small molecule discovery platform.

And according to Dr Rathjen, this is just the beginning.

Born in Broken Hill, Deborah was educated at North Broken Hill Primary School and following the family's move to Adelaide, matriculated from Seacombe High School in chemistry, biology, two maths and English, completing a Bachelor of Science (Hons) in immunology at Flinders University in 1978.

Her first job was as a research assistant to Prof Ian Chubb (now the vice chancellor of the Australian National University) at Flinders' Department of Human Physiology.

The then Deborah Evans married chemist David Rathjen and when he went to work for the Dow Group in Sydney in 1980, she found a job at the Commonwealth Scientific and Industrial Research Organisation, working with one of Australia's first private biotechnology companies, Bioclone, developing monoclonal antibodies .

"CSIRO were quick off the mark," Deborah says. "They developed test kits for measuring hormones and had one of the first monoclonal antibody test kits for pregnancy. That was when I decided I wanted to do a PhD in monoclonal antibodies and then I became a post-doc student."

In 1988 Peptech founder Geoff Grigg "rang up and said 'I have a job for you'" and Deborah set up Peptech's anti-tumor necrosis factor (TNF) program.

She says one of the programs was a around polyunsaturated fatty acids for a range of indications including anti-inflammatory disease and pain.

"It would have made a good biotech company," she says.

She held a range of different jobs within the company ending up in business development and licencing-out.

In 1989 she was granted a patent for 'TNF binding ligands' a way of describing how TNF worked and how it could be modified by monoclonal antibodies.

"Both Johnson & Johnson's Remicade and BASF's Humira infringed," Deborah says. "The case ran from 1997 when the European Union said it would grant the patent to Peptech to 2002."

In June 2000 she was headhunted for the top job at Bionomics by one of the major executive search companies, which in other circumstances would have been wonderful news.

But the Rathjen family was in the middle of renovating the family home in Sydney and one of the conditions of the job was relocating to Adelaide. With three young children a family pact was agreed and Deborah spent seven months commuting from her Monday to Friday job in Adelaide to be with her family in Sydney for weekends.

"I'm just a typical suburban mum," Deborah laughs, noting the extensive travel.

"It was a virtual company with no staff, some very early stage intellectual property in epilepsy genetics from Adelaide's Women's and Children's Hospital and the University of Melbourne. The IP today is unrecognizable by comparison.

"It was like being presented with a blank canvas. The board had about \$4.5 million which was not a lot of money but enough to have a runway.

"In the first six weeks I raised \$5 million and in the second six weeks located a path and the wherewithal for the facility in Thebarton. It was a very productive first three months and then I started hiring people."

Deborah says that in that flurry of activity she wrote a business plan which is "pretty much what you see today" and built a company that "wasn't just genomics but drug discovery for therapeutics.

Bionomics started with validated drug targets in angiogenesis and the first deal was a co-development with Genmab.

"In February 2006 we converted it to a straightforward licence to Genmab with an upfront fee of half a million dollars, \$1 million in preclinical milestones this year and more to go."

"In 2005 we decided that building a company through partnerships and organic growth alone wouldn't give the value increase we were looking for," Deborah says.

Bionomics acquired the Strasbourg-based Neurofit in March 2005 and Melbourne's Iliad in July 2005. Iliad was a Start-Up Australia-backed chemistry company.

"Everything you see in Bionomics dates from then. The chemistry is all the one platform. Deborah presents one of Bionomics investor brochures which has the pipeline pointing vertically instead of across the page.

“The foundation is Bionomics’ biology, cancer vasculature and ion channel, the drugs in development are the walls and the roof is our ‘Multicore’ chemistry – the way we go about our chemistry. “With Multicore we can change the molecular scaffold and it gives us many more combinations of compounds to make.”

From this small molecule platform the company has BNC105 a cytotoxic vascular disruption agent for solid tumors, BNC210 for anxiety and Kv1.3 a target for multiple sclerosis partnered with Merck Serono.

“Bionomics has a broad range of compounds that are highly selective, orally active and suppression the symptoms of multiple sclerosis in animal models,” Deborah says. “Merck Serono can select an undisclosed number of compounds and for each one we get \$US47 million in milestone payments.”

Deborah says BNC105 is in phase I dose escalation trials and the recruitment of up to 30 patients is “on track” and expected to be completed by the end of 2008 with results by June 2009 and possibly earlier.

But the planning for the phase II trial is already underway.

“We know what’s happening [in the phase I trial], we’re encouraged by the enthusiasm of the clinicians in the trial,” Deborah says.

She says the company’s business model is to licence-out compounds and partner for later stage development, with different compounds having different points for licencing and partnering.

Deborah says the company wants to licence BNC210 for anxiety after phase I and BNC105 after it has been taken to phase II.

She says her contract is up for renewal and asked where she sees herself going in the future says: “My thinking is only Bionomics.”

“Getting 105 established in its phase II program is going to be a very important milestone next year, along with cementing the relationship with Merck Serono and getting our anxiety compound into the clinic next year.”

Asked what Bionomics can do that no one else can, the slightly built Dr Deborah Rathjen from Broken Hill via Adelaide doesn’t hesitate:

“Bionomics is making small molecule drugs that fill market needs and they are substantial markets in the pharmaceutical industry, like anxiety. You don’t get much bigger than that!” Dr Rathjen laughs as she packs up to be taken to her next meeting.

Bionomics was unchanged at 32 cents.