



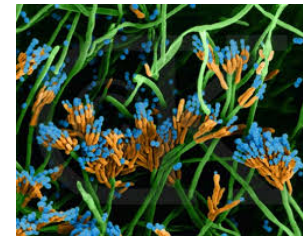
MEETING NEEM BIOTECH

Rob Saunders

BIA and MediWales: Investing in innovation –
The future of life science in Wales

11th Feb 2016

Neem the Garlic people ?



Extracting valuable compounds from Plants



The formal description

- 3 areas of activity
 - R&D on our own pipeline in areas of high unmet medical need and rare diseases (e.g. antimicrobial resistance, immunomodulation and metabolic diseases)
 - Contract research using our expertise, technology and facilities to generate innovative, cost-effective solutions to extraction problems
 - Limited bespoke, small scale manufacturing, manufacture of pilot batches.

The Origin of Neem



St Melons Cardiff Site

1998

Neem is a spinout of Cardiff Chemicals, specialising in small drug like molecules from Plants

Privately owned and started by David Williams and Chandra Pant



The Expansion of Neem



St Melons Cardiff Site

1999

Neem Takes Unit 3
Willowbrook Tech
units for lab space

850 sqft

Patents: 2



The Expansion of Neem



St Melons Cardiff Site

2006

Neem takes units 2 and 3 to use as separate office and production areas.

2550 sqft

Patents: 3



The Expansion of Neem



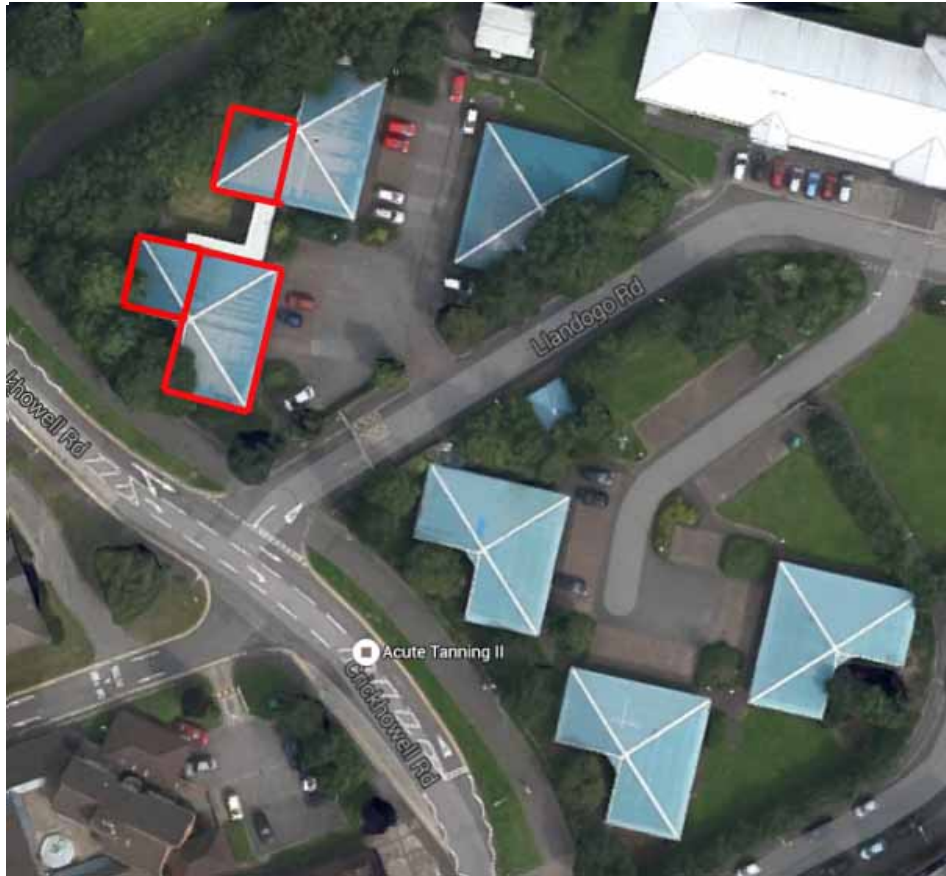
St Melons Cardiff Site

2012

Some additional lab space taken in unit 4.

3400 sqft

2012 Neem Purchased by



New Facility



Abertillery

2015

- A desire to remain in south Wales as Neem has established a strong local network.
- Good Location for existing staff.
- Investment of £250,000 from the Welsh Government

Patents: 5

- 16000sqft
- Interior separate office space and large open shop floor
- Work started on refit late Q4 2015
- Perfect blank canvas



Opening Day of the new Facility



11th June 2015

Commitment of Zaluvida to Invest 20 million into supporting Neem Biotech



The Team from 6 to 18 (in 2015)



Small molecules

Enzymes and
proteins

In-house
microbiology

Pilot scale
production

An assortment of talent and skills including Chemists, Biologist, Project managers, Engineers and Quality. Promoting our culture to mix disciplines and EXPECT creativity.

New facilities and capabilities



- Powder handling and finished goods packing 1013 sqft



- Pilot lab 725 sqft
- Production 2394 sqft



- Analytical Lab 800 sqft



- Chemistry and Biochemistry lab 1200 sqft




- Class 2 Microbiology lab 800 sqft

Production case study

Vetrinol Plus

- A drench to treat subclinical mastitis in lactating cows obviating the need to dispose of the milk from the cow during treatment
- A Garlic based extract
- Developed in conjunction with InQpharm and distributed by InQvet
- Approved by Feed Standards agency Approved by GMP+



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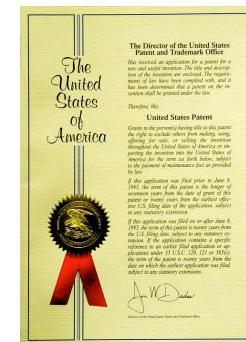
Case study CRO

Project Brief – To reduce the protein and polyphenol content of tobacco in order to reduce the amount of carcinogens in smoke.



Solution - To avoid toxic chemical we undertook a study using subcritical water, this is water heated above boiling point under pressure.

Process patented by BAT in 2014



Case Study Pipeline Project

Animal Health

- Provide a **natural** alternative to prevent and treat Footrot - the most common cause of lameness in sheep
- A viable alternative to carcinogenic chemicals / increasingly ineffective antibiotics
- Our Formulation Shows efficacy of formulation against
 - Anaerobic bacteria *in vitro*
 - Infectious condition *in vivo*
- 100 sheep field trial scheduled for 2016



Case Study Pipeline Project

Bio-pesticide



Aim: To develop a natural insecticide for the control of fly pests of intensive animal rearing.

Fly control in animal units is limited to the use of a small number of synthetic insecticides, which have environmental/health concerns attached to them.

Efficacy already tested at laboratory and mesocosm scales.

First field trial scheduled for May 2016.

Neem plans to register the product as a biopesticide.



Case study Pipeline project

Human health

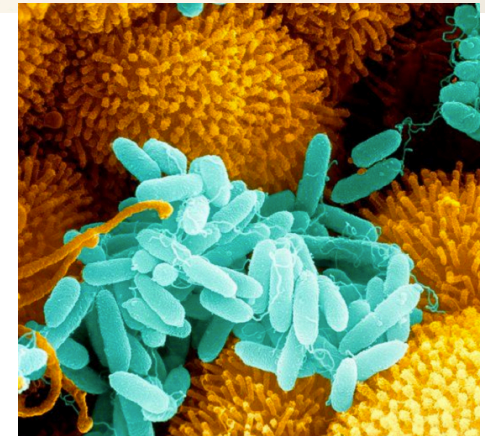


treatment for cystic fibrosis patients suffering with chronic *Pseudomonas* infections.

Tertiary metabolite of garlic-based

Product based on novel mechanisms of action, which can act as a platform technology in human health and animal health.

First human clinical trial is in planning with pre clinical work completing in 2016 and the trial scheduled for 2017.



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