



THE UNIVERSITY  
OF AUCKLAND

NEW ZEALAND

Te Whare Wānanga o Tāmaki Makaurau



Lisa Ho, MBioEnt 2007:  
Business Analyst, Plant & Food Research

"My position at Plant & Food Research within the Business Development team involves defining and engaging in business and project opportunities for the purpose of creating and exploiting intellectual property. The Masters of Bioscience Enterprise degree has given me the practical skills and knowledge required in this role. It has prepared me for working in a sector that requires an understanding of both science and business - a position that gives great job satisfaction."

Tim McCreedy, MBioEnt 2007:  
Business Development Associate, NZTE

"This degree gave me the skills to understand the complexities of the international biotechnology environment, and the contribution New Zealand can offer. The course immerses you in the industry - the networks I've built are immeasurable. My job has allowed me to work locally and overseas with biotechnology companies to facilitate development, and promote New Zealand's value proposition. Having companies say I've added value to their business is a really good feeling."



Megan Barrett-Hamilton,  
MBioEnt 2008: Commercial Analyst, ViaLactia Biosciences NZ

"In my role within the commercial department at ViaLactia, I engage with the multiple facets of R&D commercialisation of bovine and forage technologies. This ranges from financial and market analysis to intellectual property and project management. Armed with the MBioent degree I'm able to leverage my newly acquired business acumen daily in an environment which demands knowledge of the integral science. The MBioent programme has helped me launch a rewarding and prosperous career in the biotech industry."

Mitali Purohit, MBioEnt 2008:  
Research Analyst, Pacific Channel

"The MBioent degree gave me business development, leadership and networking skills that allowed me to secure a role at Pacific Channel, a venture development and investment company for life-science start up and early-stage ventures. The solid foundation in science commercialisation I gained while completing the MBioent degree is proving to be invaluable when assessing investment opportunities and making Pacific Channel's portfolio companies investment ready."



Cameron Sharpe, MBioEnt 2007:  
Regulatory Compliance Engineer, Fisher & Paykel Healthcare

"I really enjoyed my internship through the Bioscience Enterprise programme at FPH, and now I'm here full time. My job involves monitoring customer feedback for opportunities to improve our products, and meeting international quality regulations. Working a lot with other functions (e.g. R&D, marketing, legal), I found the MBioent degree was very useful in giving me an understanding of their different roles, in addition to technical knowledge to help understand our products."



For further information contact:

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[www.biotech.co.nz](http://www.biotech.co.nz)

## Postgraduate Diploma and Masters Degree Bioscience Enterprise 2012



[www.biotech.co.nz](http://www.biotech.co.nz)

## Goals of the programme

Business and science often seem like two different worlds. The Postgraduate Diploma in Bioscience Enterprise and Master of Bioscience Enterprise represent an interdisciplinary programme which aims to give science graduates the skills to move with confidence in both. You will gain skills in the financial, marketing and legal aspects of science which will prepare you for a wide range of job opportunities in science and business enterprises. The programme also offers plenty of networking opportunities for students to meet practitioners and leaders from industry and business. Scientists graduating from this programme will be business-savvy and comfortable in a business environment, and may give a company a competitive edge or be the key to a successful start-up.

## Employment opportunities

Potential opportunities for graduates include marketing, market-analysis, product development, the regulatory and business development aspects of research commercialization in biotech companies, pharmaceutical companies, reagent or devices companies, the food and beverages industry, in technology transfer offices at Universities and Crown Research Institutes, and as analysts and consultants in business development firms, finance and investment firms, and Government agencies.

## Internships and employment examples

Companies and organisations that have offered internships and/or employment include:

- AstraZeneca, Sydney
- Actus
- Auckland Plus
- AFT Pharmaceuticals
- AgResearch
- Baxter's Healthcare
- Biomatters
- BioPacific Ventures
- Box Hill Institute, Melbourne
- CoDa Therapeutics
- Coloplast Ltd, Hongkong
- Cranleigh Merchant Bankers
- Cawthron
- DB Breweries
- Douglas Pharmaceuticals
- Ernst & Young, Mannheim
- Encoate
- Fisher & Paykel Healthcare
- Ingredient Solutions
- IDT
- Johnson & Johnson, Sydney
- KODE Biotech
- Lanzatech
- MoRST
- Mesynthes
- Merck Serano, Sydney
- Neuren
- NZBIO
- NZ Trade & Enterprise
- Pacific Channel
- Plant & Food Research
- Polybatics
- Pulsecor
- Roche (NZ)
- Scion
- Syngenz
- Sygenta, Basel
- Somnaceutics
- Scarlatti
- UniServices
- Unlimited
- Vital Foods
- ViaLactia
- Vodafone
- Watercare

## Enrolment

Candidates for entry in the PGDipBioent must have a bachelors degree related to the life sciences eg. BSc with a major or specialisation in Biological Sciences, Bioinformatics, Biomedical Science, Food Science, Medicinal Chemistry, Pharmacology, or Psychology; or a BE in Biomedical Engineering; or a BPharm; or a BTech in Biotechnology.

Enrolment can be fulltime (first semester start only) or part-time. The latter will appeal to employees who wish to upskill and extend their knowledge base. Most SCIENT classes are held on weekday evenings 4-7pm.

Entry in the Masters programme requires completion of the PGDipBioent with a B+ average in at least 90 points. The Masters programme consists of two compulsory courses and a 6-month internship in a company or Government organisation during which candidates research a science-business project and write a thesis.

## Bioscience Enterprise Forum

Students are required to attend the Bioscience Enterprise Forums which are held on Fridays 4.30 - 6.30pm once a month. These forums consist of a seminar given by senior industry practitioners followed by a social function to facilitate networking between students and corporate people.

## Postgraduate Diploma in Bioscience Enterprise (PGDipBioent) - year one

### Requirement:

90 points: SCIENT 701-706

30 points: electives from a wide range of 700 - level courses related to the life sciences.

### SCIENT 701 (first semester) (15 Points)

#### Accounting and Finance for Scientists

Builds upon scientific numeracy in exploring the: sources, uses and reporting of accounting and financial information in science-based enterprises; application of capital budgeting and valuation theory to science-relevant situations; and key bases for financially informed project and enterprise decision-making and the management of economic resources.

### SCIENT 702 (first semester) (15 Points)

#### Marketing for Scientific and Technical Personnel

Examines the: intermediaries and end-users of technical and research-related applications, products and services; their "customers", "value chain", "marketing", and related concepts in both highly-regulated and open markets; and how effective science-related marketing strategies and promotional efforts are developed and communicated.

### SCIENT 703 (second semester) (15 Points)

#### Frontiers in Biotechnology

An examination of how breakthrough discoveries in contemporary life sciences flow through to commercialisation. Current and emerging applications of biotechnology; includes guests lectures from New Zealand's leading biotechnologists and case studies focused particularly on medical applications.

### SCIENT 704 (first semester) (15 Points)

#### Law and Intellectual Property

An explanation of the legal system including basic concepts of contract and corporate law in a biotechnology context. Emphasis will be upon intellectual property laws in particular patent law and practice and other means of protecting new ideas, discoveries and inventions. Also covered will be technology licensing and basic competition and marketing law.

### SCIENT 705 (second semester) (15 Points)

#### Research Commercialisation

Integrative exploration of common theories, processes and models involved in commercialising scientific research. Topics include technology transfer, technological entrepreneurship, commercial potential, risk, and valuation assessment and related tools. Utilises multiple learning approaches including case studies and a "hands-on" term project.

*Prerequisite: SCIENT 701 and 702*

### SCIENT 706 (second semester) (15 Points)

#### Commercialisation Project

A supervised practical application of the theories, concepts and techniques of commercialisation, covered in courses SCIENT 701-705, to a real research-based opportunity and its related intellectual property estate.

*Prerequisite: SCIENT 701, 702, 704*

*Corequisite: SCIENT 703, 705*

## Master of Bioscience Enterprise (MBioent) - year two

### Requirement:

90 points: SCIENT 794 Thesis

30 points: SCIENT 720, 721

### SCIENT 720 (15 Points)

#### Science Enterprise Research Methods

Students will become familiar with underlying theory and best practices in the principal qualitative and quantitative methods applicable to and useful in thesis research on commercialisation and science based enterprise.

### SCIENT 721 (15 Points)

#### Product Development and Regulatory Environments

Aims to give students an understanding of the stages of product development for therapeutics, diagnostics and medical devices, as well as the regulatory requirements affecting product development in the Life Sciences. Project management tools and processes will also be covered in the context of product development.

### SCIENT 722 (15 Points) (currently not available)

#### Current Issues in Bioscience Enterprise

An exploration of trends and developments of importance to Life Sciences-related enterprises and industries. Utilises multiple learning approaches - e.g., independent readings, case studies, projects, guest speakers, presentations and related discussions.

### SCIENT 794A and B (90 Points)

#### Thesis

Research project addressing a topic relevant to the commercialisation of research. Overseen jointly by both academic and industry supervisors. Subject to approval from the Programme Director, project can be carried out while employed in a science or business enterprise.