



Architects Registration
Board of Victoria
hereby certifies that:

Frank Etna

Registration Number

4294

is a registered practising architect
in the State of Victoria
for the period ending
30th June 2003

M. M. M. M.
Registrar



BioDiem

BioDiem Ltd
Level 10, South Tower, 459 Collins Street
Melbourne Vic 3000, Australia
Phone: 61 3 9613 4100 Fax: 61 9613 4111 Mobile: 0414 460 484
Email: rborland@biodiem.com Web: www.biodiem.com

Emeritus Professor Robert Borland
D.Med.Sc (Hon), Ph.D.,
M.A. (Cantab), F.R.C. Path
Director

15th October 2007

To Whom It May Concern,

RE: Professional Referral (Mr. Frank Etna, Architect)

Frank Etna has been known to me for more than 20 years, having first met him when I was seeking for an architect to take part in a Biotechnology initiative being developed as a bicentenary project.

I have been closely involved with biotechnology and pharmaceutical development projects over the past 30 years and as Professor of Applied Biology and Biotechnology and subsequently as Foundation Dean of the Faculty of Biomedical and Health Sciences at RMIT University, established the first undergraduate degree program in Biotechnology.

In an effort to focus biotechnology research in the 1980s, an attempt was made to establish a Biotechnology Precinct in Victoria and Mr. Etna was in charge with the design. Given the complex, multidisciplinary nature of biotechnology, this was demanding of a completely novel and imaginative approach to the design and construction.

Notwithstanding the difficulty and lack of precedent, Frank Etna produced a highly imaginative, functional, flexible, and cost-effective design capable of accommodating the wide range of disciplines involved at that time. Namely, animal, aquatic and plant biology; analytical and biological chemistry; microbiology (bacteria, fungi and viruses); chemical engineering and toxicology testing. In addition, he was able to incorporate general shared support facilities which included zonal air conditioning, animal and plant housing, specialized electron microscope facility, centrifuge unit, refrigeration storage (+4°C to -190°C), plastic and glassware preparation area and a media unit.

In my opinion as a potential user, Mr. Etna produced an outstanding concept and a brilliant piece of design. Over the past ten years, the field of biotechnology has expanded exponentially and Biotechnology Parks can be found in many countries – Europe, UK and North America. Having visited a number of them, I must confess that I have not seen a single building or a precinct designed as well as that produced by Mr. Etna and certainly none had the flexibility and innovation of his design.

Today and over the next 20 years, biotechnology research and development will need to support diverse areas including:

- Stem Cell Technology (compatible tissue replacement)
- Cell and Tissue Culture
- Live Attenuated Vaccines (disease prevention and control)
- Drug/Vaccine Production (using living cells in culture)
- Biocomputing (utilizing neurons)
- Plant/animal genetics (higher yields, disease and drought resistance)
- Nanotechnology
- Materials (light weight, high strength, non-reactive prostheses)
- Proteomics (new drugs)

Many projects will require a combination of various disciplines and therefore highly flexible, innovative design will be imperative in a state of the art biotechnology precinct for the 21st century. Truly a challenge and I can think of no one better qualified to take up such a brief than Mr. Frank Etna.

Brief C.V. (relevant positions ONLY)

EMERITUS PROFESSOR ROBERT BORLAND,

D. Med. Sc. (HON), F.R.C. Path,

M. A. (Cantab.), Ph.D., B.V.Sc.

- University Lecturer in Pathology and Fellow of Darwin College, Cambridge University, England 1965-1975
- Director, Veterinary Research Institute, Parkville, VIC, Australia 1976-1979
- Professor and Associate Head, School of Life Sciences, University of Technology Sydney, N.S.W. 1980-1981
- Professor and Head Department of Applied Biology and Biotechnology, and Foundation Dean, Faculty of Biomedical and Health Sciences, Royal Melbourne Institute of Technology University, Melbourne, VIC, Australia 1980-1995
- Research Director/Director, Biodiem Ltd., Melbourne, VIC, Australia.

Published over 100 research papers, delivered 25 invited lectures and been associated with the development of vaccines for man and animals (including a live attenuated influenza vaccine) and new antimicrobials for human and animal use as well as development of two nutraceuticals.

In my opinion, Mr. Frank Etna would be an outstanding person to design: "Tomorrow's Biotechnological Precinct – A Biotechnology Precinct for the 21st Century".



EMERITUS PROFESSOR ROBERT BORLAND,
D. Med. Sc. (HON), F.R.C. Path,
M. A. (Cantab.), Ph.D., B.V.Sc.