



THE UNIVERSITY OF
MELBOURNE

RF:LLS

7th July 2004

Professor Kwong Lee Dow
Vice Chancellor
The University of Melbourne

Dear Professor Lee Dow

Re: Resubmission to Establish the Centre for R & D Leadership

Following the last Planning and Budgets meeting the proposal for the establishment of the Centre for R & D Leadership was withdrawn to enable a business plan to be completed. Attached is the resubmission of our proposal.

We would appreciate the proposal for the Centre being submitted to Planning and Budget Committee for approval.

Yours sincerely


Richard Frampton
General Manager

cc **Ms J. Mariani, Secretary, Planning & Budget Committee**

Proposal to establish the Centre for R&D Leadership-July 2004

Introduction

The proposed Centre for R&D Leadership will be established within the Faculty of Medicine Dentistry and Health Sciences. The Centre is ideally located at the University of Melbourne, the second largest R&D in Australia, and builds on the excellent research standing and research training capacity of the University, its affiliated Institutes and MDHS.

The Centre's objective is to become a university and national resource for education, training and applied research in the area of R&D leadership broadly conceived. R&D leadership encompasses four interconnected areas: research team processes and leadership; creativity and innovativeness in research; project management and financial management; commercialization and implementation of research discoveries and outputs. The four areas have equal importance in the Centre's teaching and research. They are the foundation subjects in the Certificate course, and are the basis of subjects to be developed and offered in the Diploma and Master's programs. The four areas will also be represented in the non-award courses developed and delivered by the Centre (see below).

The Centre's target population

In the first instance the Certificate course and short courses will complement the intensive research training programs of MDHS and foster knowledge and capabilities to assist the Faculty to maintain its leading, cutting edge position in research and innovation.

For PhD students within the Faculty and the university and in the community at large, the award courses will provide qualifications in the knowledge and skills of managing teams, people and projects in the area of research and innovation. The award courses will provide a deeper understanding of the nature, practice and context of innovative research and the importance and application of innovative research for the world of knowledge and national progress.

For Postdoctoral and research staff the award courses and short courses will provide a step toward career development and preparation for new supervisory and management roles in universities, industry and public research organizations.

For Centre and Institute Directors, senior research staff and laboratory managers in industry, the Centre's courses and activities will provide advanced learning in strategic planning for research and innovation, greater understanding of principles of effective collaboration, and team designs to help foster creativity and methods for effective liaison with key stakeholders.

Organizational structure

The Centre Director will report to the Dean of MDHS. The Centre will also have a reporting line to the Bio 21 Management Committee to maintain links with the wider scientific, innovation and commercialisation community and to other Faculties, Centres and Institutes.

The Centre will have an Advisory Board with representatives from the university, public research organizations, and industry (see below).

The Centre's faculty and members will be responsible for designing and developing the first non award short courses (see below) and the Certificate in R&D Leadership.

Proposed Award courses

Certificate in R&D Leadership (4 units - equivalent 6 months study program)
Admission requirements: PhD candidature or PhD completed. Postdoctoral Fellows. Masters students with strong research record.

Four required subjects

1. Team processes and leadership: communication, cooperation, trust-building, leadership, team roles, team and self-management, team design and functioning.
2. Creativity and innovativeness. Individual, team and organizational supports for creativity. Creativity tools and interventions, Managing creative people and managing for creativity.
3. Project and financial management. Establishing objectives and guidelines. Managing stakeholders, customers, funding agencies, Scheduling project milestones. Reporting.
4. Commercialization, application and implementation
Applying and implementing discoveries and research outputs including new ideas, products, processes, and techniques. Commercialisation of intellectual property. Entrepreneurship: Making research count for public good and commercial purposes.

Proposed Diploma in R&D Leadership (8 units - equivalent 12 month study program) and *Masters in R&D Leadership* (16 units including research thesis – equivalent 24 month study program) to articulate with and build on the Certificate course. To be offered from 2006.

The approach to learning will be consistent with the pedagogical and philosophical underpinnings of the Centre and its courses – namely an emphasis on team-based, project-based learning and on action learning and experiential learning. Instruction will

be offered in flexible formats including intensive courses, some on-line subjects, summer schools, with assessment in case studies, project work and action research.

Award courses: Budget

Certificate of R&D Leadership - annual intake of 60 students @ course fee \$10,000.
Income \$600,000

Estimated cost; Salaries, administrative support, office space, venues, resources and equipment, overheads and on-costs = \$450000. Net profit \$ 150,000 .

Note. A target of 60 PhD and postdoctoral students for the Certificate each year is very feasible. Indeed, there may be considerable unmet demand once the Certificate course is introduced. There are approximately 25 PhD students and Postdocs on average in Australia's 70 CRCs which means that there is pool of approximately 1750 potential CRC students for the Certificate program. All CRCs are expected to provide education-training programs for their PhDs. In anticipation that the Centre will be established, discussions have been held with several CRCs and CRC bidders including CRC Hearing, Polymers, Pest and Animal Control, Microtechnology and Neuro CRC. The CRCs have also indicated interest in award programs for their Research staff. In addition, MDHS has more than 800 PhD EFTSU and over 500 Research-Only staff. Some of whom are attached to CRCs. The university and MDHS constitute a large pool of potential applicants for the Certificate course.

Non award courses budget

Short courses offered in 2004 include R&D leadership and career development, strategic R&D program development, R&D collaborations and alliances, team creativity and innovativeness, communicating research ideas and findings to different audiences.

Approximately 12 short courses will be offered in 2005.

The list for July-December 2004 is:

1. CRC leadership and career development course. August 30-Sept 3. –target 30 participants. @ \$2,700 Income: \$81,000. Est. costs. \$55,000 Net profit \$26,000
2. Strategic planning for R&D programs., Sept 14- plus follow up day. target 40 participants @ \$950 . Income: \$38000 Est. costs \$15,500 Net profit \$22,500
3. Collaborating for success in R&D October 11-14 target 30 participants @ \$2,000
4. Income: \$60000- Est. costs; \$36000 Net profit \$24,000
5. Presentation and report writing skills for researchers. November 3-4. Target 20 participants @ \$950 . Income \$19,000 Est. costs \$13,000 Net profit \$6,000

6. Career development for R&D professionals November 25-26 target 30 participants @ \$950 Income:\$28500 Est. costs \$16000 Net profit \$12,500
7. Creativity and performance for R&D teams December 1-3. target 30 participants @ \$1900 Income \$57000 Est. costs \$29,000 Net profit \$28,000

Total net profit from July-December 2004 short courses \$119,000*

**Note these figures are best case scenario. They assume all courses are fully subscribed, none cancelled, and full fee received. Note also that Director's salary has not been included in the costing. Administration costs have been spread equally across all six short courses*

Research activities

The Centre will also foster the conduct of research projects on a range of topics including knowledge-sharing in teams, innovative R&D organizations, dimensions of knowledge team performance and effectiveness and similar topics related to research innovation.

The Centre will encourage joint enrolments with Faculties and Departments for postgraduate research (including the Master's program) and will seek to have a visiting researchers program. Emphasis will be on case studies that contribute to understanding of exemplary performance in R&D leadership and lessons from teams, projects and collaborations that succeed despite obstacles.

Outreach

There is an opportunity to delivery award and non award courses to international students and to overseas organizations. Faculty members have experience in delivering short courses to the Crown Research Institutes (New Zealand) and LIPI (Indonesian Institute of Sciences – similar to CSIRO). Dr Richard Reeves, Director of the R&D Management Centre, Cranfield University, Bedford, UK, has expressed interest in building a partnership of the short courses in the areas of team processes and leadership, creativity and innovativeness.

Relations with other Faculties and with Institutes

Close links will be maintained with Bio 21 with whom the Centre is already planning education and training programs. The Centre will seek to build close links with Science, Engineering, ILFR, and MBS.

MBS plans to introduce a four subject Certificate in Innovation Management from 2005. Following discussions between MDHS and MBS, agreement has been reached to cross-list subjects and approve credit for one approved unit, toward each Certificate. The proposed MBS Certificate aims to provide an introduction to management, innovation and entrepreneurship for scientists. The MBS Certificate in Innovation Management and the Centre's Certificate in R&D Leadership are compatible initiatives. The Centre views the MBS proposals positively as it reinforces the University's leadership position in

research and innovation. The Centre will also seek to list subjects offered by other Faculties and the School of Graduate Studies suitable for its Award programs.

Faculty members –foundation members

Professor Leon Mann - Director. A senior academic with links to BHERT, CSIRO, and CRCs. He has a research record of ARC linkage and SPIRT project grants with BHP, CSIRO, DSTO, Orica, Motorola, and Sustainable Energy Authority Victoria in areas of R&D team leadership, knowledge sharing, and effective collaboration in research organizations. He is the author of Leadership, management and innovation in R&D teams (Praeger 2004). He chairs the BHERT collaborative R&D awards committee, is a member of the CRC Association Awards committee, and a member of the University of Melbourne-CSIRO collaborative research grants committee.

Proposed Associate Faculty member: Robert Marshall B.Sc M.Pub Pol. (ANU). Director Knowledge Teams International. Formerly Group Manager CSIRO Leadership and Team Development. Associate Professor MBS 1996-2002. Co-Director Monash University-APESMA Master of Technology Course in R&D Management.

Proposed Associate Faculty member: Jane Lowther BA Hons (Melb) MBA (UNSW). Director Knowledge Teams International. She previously was Manager Executive Development, CSIRO. Holder of senior positions with Australian Wheat Board and Rio Tinto Ltd. Consultant to leaders in professional organizations.

The combined experience of the Centre's three foundation members includes working together as a team in the design and delivery of the CRC Leadership Course for PhDs and Postdocs since 1997, CSIRO-BHERT Achievement through Teams course since 1996, and R&D training consultancies for companies and public research organizations.

Advisory Board

An Advisory Board of up to seven members is proposed. Several people have indicated willingness to serve on the Board, including Peter Jonson (Chair Australian Institute of Commercialisation), Geoff Vaughan (Chair CRC Committee), and Anabelle Duncan (Chief of CSIRO Division Molecular Science CSIRO). The Dean MDHS (or nominee) will be on the Board, and invitations will be extended to the Director Bio 21, Dean of School of Graduate Studies, and Megan Clark (VP Technology BHP-Billiton).

Finances at establishment

MDHS will support the Centre by contributing establishment costs including the Director's salary, administrative support, office space, initial IT and web support and overheads. As the Centre begins to deliver short courses from July 2004 and award courses from mid 2005 revenue generated by the Centre's programs and activities will be directed to MDHS. It is anticipated that a small profit to MDHS will be generated in the medium term.