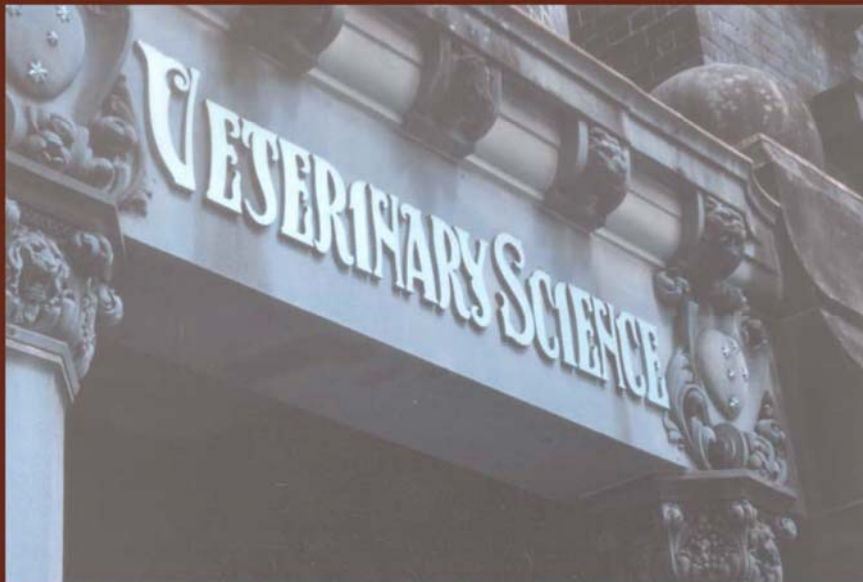


# Academic Board Review Self Evaluation Report Phase 2, 2003



**Faculty of Veterinary Science  
The University of Sydney**



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# Introduction and Faculty Context

## 1. Faculty Strategic Goals

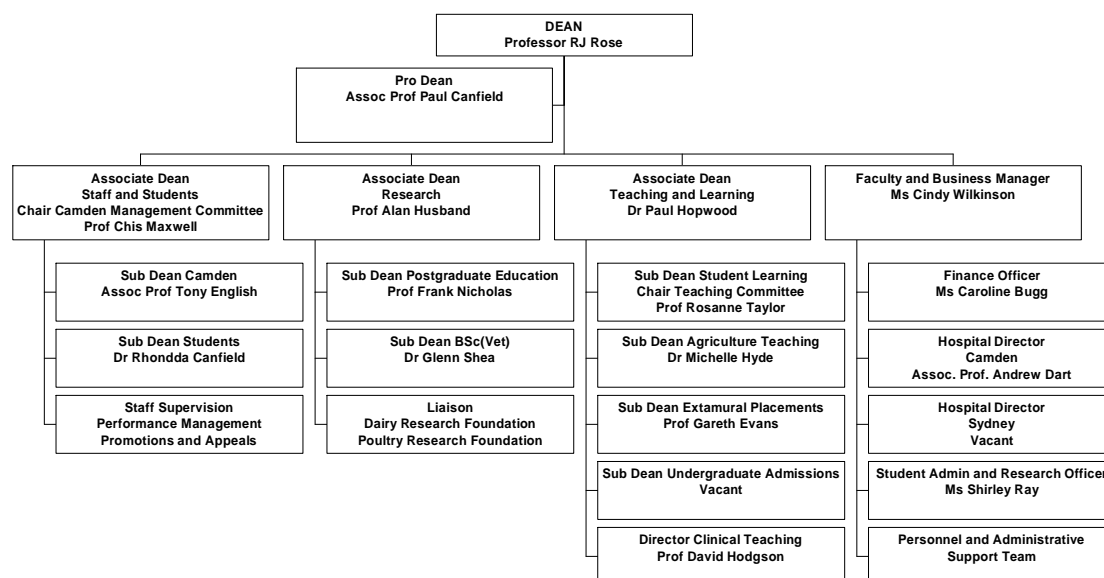
The Faculty strategic goals have been developed to complement and implement the seven goals of University of Sydney. These goals inform and shape the way the Faculty is managed and the way it develops and conducts teaching, research and clinical service. The Faculty Strategic Plan can be found in Appendix 1.1.

The goals are:

- A Shared culture of excellence and scholarship in teaching and learning – *University Goals 1, 2, 3 and 7.*
- Expanding and enhancing quality research and research income – *University Goals 2, 5 and 6*
- Outstanding clinical service, teaching and research through our teaching hospitals, leading to enhanced relationships with the profession and the public – *University Goals 1, 3, 5 and 7*
- Enhanced communication within the Faculty, the University and with the community – *University Goals 6 and 7*
- Financial sustainability of the Faculty through sound financial management and the development of key internal and external relationships – *University Goals 4, 5, 6 and 7*

## 2. Faculty Structure

Following widespread consultation throughout 1999 and 2000, the Faculty implemented a restructure, uniting what had been three departments into a cohesive single unit. Through this process, the Faculty has also been able to consolidate its teaching and administrative resources to deliver its new BVSc curriculum more effectively. In this structure, under the authority of the Dean, Pro-Dean and Faculty Executive, four sections are delineated: Staff and Students, Research, Teaching and Learning and Faculty and Clinic Management.



### 3. Programs

#### Undergraduate programs:

- Bachelor of Veterinary Science (BVSc)
- Bachelor of Science (Veterinary) (BSc(Vet))

The Faculty also teaches significantly within the Bachelor of Animal Science (BAnimSc) and Bachelor of Science in Agriculture (BScAgr) which are administered through the Faculty of Agriculture, Food & Natural Resources (FAFNR).

The Faculty has also recently submitted a preliminary proposal for a new degree in Veterinary or Animal Biosciences to the Senior Deputy Vice-Chancellor, Professor Eltis. This proposal can be found in Appendix 1.2.

#### Postgraduate Research Programs:

- PhD
- Master of Science (Veterinary Science)
- Master of Veterinary Clinical Studies
- Master of Veterinary Science

#### Postgraduate Coursework Programs:

- Master of Veterinary Studies
- Master of Veterinary Public Health Management
- Graduate Diploma in Veterinary Clinical Studies
- Graduate Diploma in Veterinary Science
- Master of Agriculture (FANFR)

Programs administered by the Faculty of Science:

- Master of Applied Science (Wildlife Health and Population Management)
- Graduate Diploma in Applied Science (Wildlife Health and Population Management)
- Graduate Certificate in Applied Science (Wildlife Health and Population Management)

### 4. Student Profile

#### BVSc Program

Class	1998	1999	2000	2001	2002
Year 1	110	111	125	113	126
Year 2	76	106	107	123	115
Year 3	89	78	94	106	125
Year 4	76	82	79	92	109
Year 5	54	73	83	83	87
<b>Total Enrolment</b>	405	450	488	517	562
<b>Graduated</b>	54	72	82	83	86

#### Other Programs

	BSc(Vet)	BAnimSc (FAFNR)	Total
1998	3	0	3
1999	13	0	13
2000	8	0	8
2001	5	0	5
2002	4	22	26

### Interns & Postgraduate Clinicians

Clinic	Interns	Residents	MS	PhD
Sydney	0	1	2	0
Camden	9	0	1	1

### Postgraduate Students

Postgraduate Students Enrolled	Program		
	MS	PhD	Other
<b>Research Areas</b>			
Equine Research	4	6	0
Farm Animal Health & Production	3	12	0
Poultry Nutrition	1	0	0
Ruminant Nutrition	2	4	0
Animal Genetic & Reproductive Technology	2	11	0
Veterinary Immunology	4	2	0
Companion Animals	4	1	0
Wildlife Conservation/ Animal Welfare	1	6	0
<b>Coursework Programs</b>			
MVetStud	3	0	0
Wildlife Health & Population Management	0	0	0
Veterinary Clinical Studies	0	0	6
Veterinary Science	0	0	1
<b>Total</b>	<b>24</b>	<b>42</b>	<b>7</b>

## 5. Staff Profile

In 2001 and 2002 the Faculty recruited a significant number of new academic staff. This has been enabled by success in research funded positions, the establishment of a Faculty staffing profile and the strategic replacement of staff lost during the challenging 8 to 10 years past. This has been a crucial process for the Faculty as accrediting bodies require very high staff/student ratios – and it is a process that continues to be a challenge for the Faculty. One of the strengths of the recent level of recruitment is that the Faculty is building towards a staff profile aligned with the new BVSc curriculum, consisting of many younger academics with outstanding qualifications.

Registrars are veterinarians typically employed at HEO 6/7 (Senior Registrars at HEO 8/9) in the Teaching Hospitals. Often undertaking postgraduate or specialist training, registrars provide hands-on clinical instruction to students within their provision of veterinary services to the clinics.

### Academic Staff numbers (head count) by discipline (as at 1 December 2002)

	Animal Science	Veterinary Anatomy & Pathology	Veterinary Clinical Sciences*	Faculty Total
1998	16	20	35	71
1999	16	19	36	71
2000	15	17	35	67
2001	14	16	36	66
2002	28	16	40	84
Mean	17.8	17.6	36.4	71.8

\*includes Registrars

### Profile of Academic Staff (head count as at 1 December 2002)

Level	# of staff	BVSc	MSc*	PhD	Registered Specialists	Specialist Qualifications
E	11	5	1	11	4	FACVSc, DipACVIM, FACBS, FACSM, FRCVS
D	17	12	4	14	8	FACVSc, MRCPATH, DipACVS, DipACVIM
C	14	13	3	13	6	FACVSc, DipACVS, DipACVA, DipACVM
B	19	11	3	15	1	DipACVIM
A	10	3	2	8	0	
Snr Reg	4	4	2	0	1	FACVSc
Reg	9	9	0	1	0	
<b>Totals</b>	<b>84</b>	<b>57</b>	<b>15</b>	<b>62</b>	<b>20</b>	

\*includes other Masters degrees also

## 6. Research Activities

The Faculty of Veterinary Science strives to maintain its international research profile and is committed to research in a variety of preclinical, paraclinical and clinical disciplines. The Faculty aims to encourage strong research performance and to have outstanding success in attracting competitive research grants, industry-based research contracts and producing research papers of high calibre in internationally recognized refereed journals.

Research strengths in the Faculty are concentrated in the areas of production animal research (especially pigs, poultry, cattle and sheep), immunopathology, reproduction and genetics, companion animal medicine, wildlife conservation biology and performance research in horses.

Success in research-funded positions has been instrumental in the Faculty's appointment of 37 (head count) positions in 2002, assisting the Faculty to build on its collective areas of expertise. Industry supported Chairs have been established in Dairy Science, Farm Animal Health, Poultry Science and Functional Genomics.

## 7. Quality Assurance Systems

The Faculty restructure and the redesign of the BVSc curriculum were developed to establish Total Quality Management in all areas of Faculty activity with particular emphasis on quality teaching and learning. Within each of the four sections of the Faculty (Staff & Students, Research, Teaching & Learning and Faculty Management), authority is both dispersed to the site of activity and situated at Faculty Executive levels, enabling two complementary coordination and review mechanisms. In the area of teaching and learning, for instance,

responsibility for teaching is located with Unit of Study Coordinators as well as the Associate Dean for Teaching and Learning. Year co-ordinators oversee the curriculum year by year in the BVSc.

Community stakeholders are integrated into the quality management system through the Faculty External Advisory Committee and the Veterinary Clinics Advisory Board.

Additional to a Faculty structure designed to manage and monitor quality in all areas, backup systems have been developed to address issues that still arise. Faculty and University systems (for example, Faculty culture surveys, and ITL SCEQ, CEQ and SREQ surveys and External and Clinics Advisory Committees) identify particular areas of need, which are then examined and reviewed and changes implemented within the Faculty structure and action plans.

In addition, the Faculty has acknowledged the need for feedback from employers of graduates to assess the quality of the education it provides by the quality of the graduates it produces. A plan to survey employers has been developed and will be implemented in 2003.

## **8. Benchmarking Activities**

A number of methods, both pro-active and compulsory, ensure the Faculty consistently compares its programs, resources, levels of expertise and facilities to veterinary schools nationally and internationally.

The requirement for accreditation with professional bodies ensures the Faculty is compelled to adhere to strict international standards. Locally, the Faculty is assessed by the Australasian Veterinary Schools Accreditation Advisory Committee. Internationally, the Royal College of Veterinary Surgeons and, more recently, the American Veterinary Medical Association, provide rigorous standards against which the Faculty is measured and measures itself.

The decision by the Faculty to apply for accreditation with the AVMA was a pro-active one following the accreditation of a number of international veterinary schools outside North America. AVMA accreditation is a rigorous process and the body assesses veterinary schools based on 11 exacting standards. The recent availability of AVMA accreditation to schools outside North America is creating an international benchmark for all veterinary education providers. The Faculty's first site visit in April 2003 was an important step in assuring its ongoing viability and position internationally.

Other benchmarking activities take place on a less formal basis. The Faculty maintains regular liaison with the other veterinary schools in Australia and New Zealand and seeks advice on policy and practices from medical schools at the Universities of Sydney and Newcastle. Visiting academics are involved in benchmarking of the curriculum and learning outcomes.

The NSW Board of Veterinary Surgeons is an independent statutory body for the registration, licensing and regulation of veterinarians in NSW. As a result, the Faculty is also regulated by this body, which licenses students as veterinary interns in their period of clinical training.

## **9. Outcomes of Recent Reviews**

In addition to the Academic Board review in 2002, the Faculty has recently received review and feedback from the Veterinary Schools Accreditation Advisory Committee (VSAAC), the Royal College of Veterinary Surgeons (RCVS) and the American Veterinary Medical Association (AVMA). This Self Evaluation Report addresses the issues raised following the Academic Board review in 2002. Briefly outlined here are the issues raised by the three other reviews.

The recommendations of VSAAC emphasized the Faculty's physical facilities and certain

aspects of the new curriculum. In particular, the committee's concerns were:

- Upgrade of the Sydney teaching hospital (*First stage of \$4million cat hospital under construction*)
- Replace/refurbish horse yards at Camden (*Horse yards completed in 2002*)
- Upgrade microscope facilities in clinical pathology teaching (*Sesqui funds are being used to purchase a 10-headed microscope*)
- Upgrade computer laboratory & give more access to computers for undergraduate students (*Access computer being established in 2003*)
- Explore opportunities for students to gain live surgery experience (*Spey clinic at Camden established; New extramural program, including relationship with RSPCA, will provide further experience*)
- Appoint academic pathologist (*Dr M Krockenberger appointed in 2002*)
- Review Professional Practice program (*Review completed and restructured program implemented in Semester 2, 2002*)
- Appoint additional staff member for Professional Practice (*Dr J Bagley appointed 2003*)
- Explore options for students to study topographical anatomy on live animals (*Dr P McCarthy appointed*)
- Arrangements for students to visit abattoirs (*Elective extramural rotations have been established*)

The Faculty's VSAAC report has been included as a separate document to this Self Evaluation Report.

The Dean met with the RCVS in July 2002. The Royal College has specific, measurable criteria for staff/student ratios, theoretical/practical/clinical teaching ratios, necropsy/student ratio, animal/student, clinical accessions/student ratios. In this meeting the RCVS indicated that they:

- Were impressed with the progress of the Faculty and supportive of its future directions
- Understand that facilities are currently being upgraded
- Were concerned that the Faculty's teaching staff/student ratio does not adhere to the 1:7 ratio or better that has been mandated in veterinary schools across Europe – this will need to improve
- Would need to see at least a week of meat inspection experience integrated into the BVSc curriculum.

The Dean's report following this meeting can be found in Appendix 1.3.

The AVMA site visit team visited the Faculty over the 13<sup>th</sup> – 16<sup>th</sup> April 2003. AVMA review is based on the standards of Organisation, Finance, Facilities, Clinical Resources, Library and Information Resources, Students, Admission, Faculty, Curriculum, Research and Outcomes Assessment. The team provided the Faculty with a verbal report of their findings – the Faculty is still waiting for the written report from the AVMA.

The AVMA site visit team verbally outlined some of the Faculty's strengths, which included:

- Students who are mature, highly motivated and enthusiastic
- Impressive system for allowing students to express concerns about the Faculty and curriculum and for these concerns to be addressed quickly
- Outstanding young staff
- Innovative and well implemented curriculum
- Faculty structure that is very supportive of students
- Forward planning and culture of shared responsibility and leadership
- Well maintained physical facilities and plans for future expansion
- Support services, especially the library
- Veterinary Science Foundation

The challenges that were verbally outlined by the AVMA team included:

- Finances – the Faculty needs to continue to look for appropriate non-Government sources of funding
- Physical facilities need to be upgraded, especially clinics and teaching laboratories
- Upgrade Isolation Units in both clinics
- Official University formalin monitoring in anatomy labs to be conducted periodically
- Recruiting and retaining faculty in clinical areas
- Ongoing monitoring of new curriculum to assess whether we are achieving student outcomes
- Continued encouragement and support for new faculty to develop research programs – the team suggested mentoring of young staff in this area

## 10. Committee Structure

Within the four units of the Faculty structure, committees are charged with responsibilities for various areas and activities with oversight at Faculty Executive level.

### **Faculty Executive**

- Faculty Executive Committee
- Faculty Policy Council
- External Advisory Committee

### **Staff and Students**

- Personnel Committee
- Staff Student Liaison Committee
- Camden Management Committee

### **Research**

- Research Committee
- Postgraduate Education and Research Training Committee
- Higher Doctorate Committee

### **Teaching and Learning**

- Teaching and Learning Committee
  - Timetable and Teaching Space Sub-Committee
- Undergraduate Admissions Committee
- Extramural Placements Committee
- Examinations Committee

### **Faculty and Clinic Management**

- Veterinary Clinics Advisory Board
- Information Resources Committee
- Facilities Management Committee
- Committee for Animal Welfare

## Goal 1: Quality Teaching And Learning

*The University of Sydney will maintain and enhance its position as an outstanding provider of high quality undergraduate and postgraduate teaching, both in Australia and internationally.*

This section addresses the recommendations of the Academic Board following phase 1 of the review process that assessed Teaching and Learning in November 2001. The Faculty has been very active in the area of teaching and learning with the implementation of the new curriculum, responding to identified areas of need and developing the Thyne Reid Education Innovation Unit.

Documents that support this section have been included in the appendices. They are:  
 Appendix 2.1 Faculty of Veterinary Science Teaching and Learning Operational Plan 2003  
 Appendix 2.2 Andrew Thyne Reid Teaching Innovation Proposal 2003  
 Appendix 2.3 Budget for Andrew Thyne Reid Teaching Innovation Proposal 2003  
 Appendix 2.4 Thyne Reid Progress Report 2003  
 Appendix 2.5 Details of Leadership Program  
 Appendix 2.6 Faculty of Veterinary Science Cultural Survey Results (2002, 2003) Report  
 Appendix 2.7 Report on SCEQ results  
 Appendix 2.8 Report on USE results

### 1. Undergraduate Teaching and Learning

<b>Recommendation 1</b>	<b>That the Faculty should look at ways to balance the tension between teaching development and research development</b>
<b>Action taken by the Faculty</b>	<p>1. The Faculty has developed a Workload model that forms part of the annual PM&amp;D review for each staff member. The Associate Dean for Staff and Students negotiates the workload balance where required, appropriate to each person, to provide a mix of research, teaching and administration.</p> <p>2. All new staff receive encouragement and mentorship in establishing research and developing their teaching skills. Good alignment of teaching and research interests is encouraged to create synergies.</p> <p>3. A faculty leadership program in 2002 trained 20 staff in shared leadership, including management of workload and effective team work.</p>
<b>Further action planned but not yet implemented</b>	4. Effective preparation, training and support of new postgraduate research supervisors are planned (see Recommendation 4).
<b>Faculty's evaluation of the success of action taken</b>	<p>5. The Workload Model for the Faculty of Veterinary Science was endorsed at a special Faculty meeting in December 2001 and was based on the University recommended proportions of 40:40:20 for teaching, research and leadership. The data gathered from staff in 2002 showed the overall Faculty workload proportions to be Teaching 38%, Research 42% and Leadership 19%. Staff were provided with their own workload data for use in Performance Management and Development review.</p> <p>6. The induction and leadership programs have produced substantial change in culture and facilitated working across boundaries in research and teaching.</p> <p>7. Preparation and support for postgraduate research supervision requires close attention, given the low SREQ results from 2002.</p> <p>8. The Faculty is in the midst of rapid change, renewal and expansion</p>

	in all areas, combining major refurbishments, AVMA accreditation visit, new curriculum implementation and major new research projects. This combination has greatly increased the workload of many of the most productive researchers and leaders in the Faculty.
Review Team's comments (to be completed after the Review)	
Review Team's conclusion (to be completed after the Review)	

Recommendation 2	Communication: Under restructure no clear sense of who has responsibility for mentoring, support, and development of early career staff, who are unsure who to report to. Faculty needs to think about developing seamless process.
Action taken by the Faculty	<p>1. An important new element in the Faculty's planning has been the recognition of culture as the key driver of change. A Faculty culture statement has been developed following a range of workshops and a whole of Faculty retreat. This commits the Faculty to:</p> <ul style="list-style-type: none"> <li>• A strong sense of common purpose supported by open and honest communication</li> <li>• Mutual trust and respect between all staff and students regardless of position</li> <li>• Fairness for all staff and students with recognition and reward for their achievements</li> <li>• A willingness and capability to adapt to internal and external change</li> <li>• Pride in the Faculty's heritage and belief in our core values</li> <li>• Everyone accepting personal responsibility and shared leadership for our future.</li> </ul> <p><b>T &amp; L Objective 3: Attract, recruit, and reward staff with a strong commitment to best educational practice and mentor, support and develop staff skills and professionalism in teaching:</b></p> <ol style="list-style-type: none"> <li>2. Build a Faculty culture of excellence and commitment to professionalism in teaching and learning</li> <li>3. Recruit, induce and support new academic staff, require early training in T&amp;L, postgraduate supervision- commenced in 2002</li> <li>4. Provide support and training for all aspects of teaching and learning appropriate to the needs of academic, general, casual, clinical staff and extramural practitioners- in progress since 2002</li> <li>5. Provide additional staff development in a range of teaching methods including flexible learning, on line learning, assessment best practice and learning through inquiry – in progress since 2002</li> <li>6. Encourage and reward effective, stimulating and challenging teaching through incentives and public recognition.</li> <li>7. Encourage and support staff to apply for University and other teaching awards -2 staff were finalists in University, State and National teaching awards</li> <li>8. Offer Faculty Teaching Prizes for academic, general and clinical staff - awarded 1 academic and 2 general staff teaching prizes in 2002</li> <li>9. Recognise outstanding achievement in Faculty publications - many staff profiled in Faculty's 3 publications in 2002</li> <li>10. Revise workload model to reward achievement -under consideration</li> <li>11. Stimulate research-led teaching and encourage all teaching staff to seek funding to research and improve their teaching. Information on workshops, seminars circulated, series of invited external speakers to Faculty, staff supported to buy T&amp;L books, attend conferences using Scholarship Index funds, apply for TIF and other support for teaching innovations</li> <li>12. New academic job descriptions include commitment to T&amp;L professionalism and innovation, including development and archiving of learning and curriculum resources- in place March</li> </ol>

	<p>2003</p> <p>13. New staff induction program in T&amp;L priorities-conducted in 2002, planned for 2003. T&amp;L mentors appointed for all new staff- in place</p> <p>14. New academic staff to complete 3day, Grad Cert -10 Faculty staff enrolled in Grad Certificate, 2003, provided with books, time release and support for studies since 2002</p> <p>15. Leadership training to create a culture of shared responsibility for leadership in research and teaching across the Faculty- 2002-2003</p> <p>16. Transparent processes for decision making- open access to all Faculty executive and committee minutes, agendas, papers via the Intranet</p> <p>17. Development of more effective, clear processes for management of key tasks in teaching and research- enhanced role for Year coordinators, committees and working groups</p> <p>Casual tutor induction and development program- completed Feb 2003</p>
Further action planned but not yet implemented (if appropriate)	<p>18. Targeted training for general staff- Workshop- July 2002, Survey and report, planning- Feb 2002, Training day planned- July 2003</p> <p>19. Training session in group learning- planned for 2003</p> <p>20. Clinical assessment coaching- In progress- from July 2002-July 2003</p> <p>21. Training for extramural practitioners- training weekend June 2003</p> <p>22. Teaching and Learning Development Days- planned for June, Nov 2003</p> <p>23. Training workshop and coaching in use of WebCT VEIN, OLIVER to support learning through inquiry Thyne Reid Showcase- In progress since 2002</p>
Faculty's evaluation of the success of action taken	<p>24. The strategies outlined above have made a major difference to the way staff, particularly new staff approach teaching, and their understanding of the Faculty's expectation that they should strive for professional development as educators. The Faculty has widened the training net to include ALL those involved in helping students learn, including general staff and extramural practitioners. This will require ongoing effort and commitment for success.</p> <p>25. The Faculty restructure initially resulted in some confusion about reporting mechanisms as the Faculty adjusted to the absence of long-standing boundaries. These mechanisms are gradually being clarified with experience and the improvement of staff induction and administrative structures across the Faculty. Continued effort is required to encourage staff to work across old boundaries on new tasks.</p> <p>26. The combination of leadership training, major refurbishments and new curriculum implementation have been crucial in improving communication/decision-making pathways. Most staff involved in the PM&amp;D process find it very useful for setting personal goals, comparing these with the views of their supervisor/reviewer, communicating their needs and negotiating a career development program. Nevertheless, the PM&amp;D reviews have a limited impact, as they provide a brief snapshot of a staff member's work program for 12 months.</p>
Review Team's comments	
Review Team's conclusion	

Recommendation 3	Re-socialising of students at both ends of program: From HSC to University – from exam passers to learners. Faculty should think about introducing PBL earlier than 3 <sup>rd</sup> year. From University to Practice so that become lifelong learners and professionals. VEIN helps here as available to veterinarians in the community.
Action taken by the Faculty	<p><b>T&amp;L Objective 2: <i>Strive to create and provide outstanding learning resources and facilities with opportunities for use of information technology, engaging students in learning through inquiry</i></b></p> <ol style="list-style-type: none"> <li>1. To provide programs to ensure effective transition from school/work/study and socialise students to learning at University.       <ol style="list-style-type: none"> <li>1.1. Implement First Year Experience initiatives:           <ol style="list-style-type: none"> <li>1.1.1. Early diagnosis and referral of English language deficits to the Centre for English Teaching</li> <li>1.1.2. Develop and implement group learning training in Professional Practice 1 to develop students skills and maturity as independent learners- in progress, April 2003</li> </ol> </li> <li>1.2. Extended program to commence February 2003:           <ol style="list-style-type: none"> <li>1.2.1. Diagnostic assessment task completed and returned to students by week 5 of Semester 1, targeted remediation in English- April 2003</li> <li>1.2.2. Develop and implement training for staff and students on strategies for learning in groups- planned for 2003</li> </ol> </li> </ol> </li> <li>2. Develop and implement innovative resources to support learning through inquiry and integration       <ol style="list-style-type: none"> <li>2.1. Create learning resources on VEIN, WebCT, Oliver for integrative case based learning – by establishing Thyne Reid education innovations unit, purchasing image capture equipment, employing staff through Thyne Reid funds, including educational developer- in progress</li> <li>2.2. Investigate and identify needs for IT development to extend/supplement WebCT- VOILS<sup>1</sup> – in progress - WebCT adopted</li> <li>2.3. Develop and implement learning through inquiry tasks supported by online resources in Year 2 and Year 4 units- in progress</li> <li>2.4. Increase WebCT use across Faculty- coaching in place</li> <li>2.5. Research impact of learning through inquiry tasks on student learning, collaboration with ITL- planned for May 2003</li> </ol> </li> </ol>
Further action planned but not yet implemented (if appropriate)	<ol style="list-style-type: none"> <li>3. Complete, implement and evaluate 20 ICAPs<sup>2</sup>, present outcomes to Faculty at T&amp;L Day- Nov 2003</li> <li>4. Develop, implement and evaluate 10 VOILS modules, present outcomes to Faculty- Nov 2003</li> <li>5. Achieve target of 90% Yr1 to 3 units and 50% Yr4 units using WebCT- Nov 2003 through coaching and support-in progress</li> <li>6. Expand online learning resources in areas of strategic need to support flexible student- centred learning and achievement of Graduate Attributes       <ol style="list-style-type: none"> <li>6.1. Expand VEIN resources in priority areas</li> </ol> </li> </ol>

<sup>1</sup> Veterinary Online Interactive Learning System – conducted within WebCT.

<sup>2</sup> Integrated Case-based Applied Pathology

	<p>6.2. Increase library's video/CDRom/on line veterinary education resources – underway, purchases made</p> <p>6.3. Develop a Virtual Clinical Campus to enable Year 5 students to remain active participants of the University learning community while off campus- in progress. Through an expansion of VEIN it will provide a seamless link through undergraduate study, year 5 clinical training to support new graduates (and life long learning)</p> <p>6.4. Develop teaching resources, assessment tasks, communication tools, to support extramural learning in clinical practice rotations and demonstrate to extramural partner practice workshop- June 2003</p>
<p><b>Faculty's evaluation of the success of action taken</b></p>	<p>7. The Faculty has embarked on an ambitious program to change students' learning strategies from teacher-driven tasks to student centred activities that better prepare them for professional practice. This is supported by Thyne Reid funds for 2003-4. Introduction of learning through inquiry tasks and case based learning has been well received by students and staff, and many staff are contributing to developing outstanding learning resources that students can access on campus or at remote sites. The outcomes of these changes will be researched and reported in 2004. We will be carefully monitoring students' perceptions of the learning resources and learning community scales on SCEQ.</p>
<p><b>Review Team's comments (to be completed after the Review)</b></p>	
<p><b>Review Team's conclusion (to be completed after the Review)</b></p>	

## 2. Postgraduate Research Training

Recommendation 4	PhD supervision and programs: Need to provide a greater sense of community for students. Make aware of resources available, and provide easier access to them. Need to look at developing supervision skills.
Action taken by the Faculty	<ol style="list-style-type: none"> <li>1. Annual seminar has been made assessable</li> <li>2. Other seminars organised regularly</li> <li>3. Arrangements have been made to ensure postgraduate students receive Faculty email information</li> <li>4. Some supervisors enrolled in ITL supervision training</li> </ol>
Further action planned but not yet implemented (if appropriate)	<ol style="list-style-type: none"> <li>5. Greater accountability taken by Faculty's PERT Committee; Development of comprehensive orientation material and training sessions for new postgraduate students and supervisors;</li> <li>6. PERTC to continue to implement the 10-point plan</li> <li>7. Ensuring that each student has access to regular timetabled quality time with supervisor.</li> <li>8. Broadening of community responsibility for research students so that responsibility is not <i>only</i> situated with the supervisor. This includes facilitating active involvement of associate supervisors.</li> </ol>
Faculty's evaluation of the success of action taken	<ol style="list-style-type: none"> <li>9. The Faculty Postgraduate Conference is a great success. However, seminars have had limited success in creating sense of community – Faculty needs to put effort in a number of new directions to develop community, value, positioning and research ambiance for students, and will expect more active participation in these activities from both supervisors and postgraduate students.</li> <li>10. Some students remain unaware of resources that are available to them – comprehensive orientation material needs to be developed to outline resources and systems in the Faculty. Mandatory postgraduate student and supervisor workshops/ training programs will be developed, implemented and evaluated.</li> <li>11. The Faculty needs to assess the resource requirements for research students and develop policies about the levels of resource responsibility that should be provided from core Faculty funds.</li> <li>12. Some students report outstanding supervision while others are very dissatisfied. PERTC needs to capitalise on its expertise, by: conducting supervisor training sessions as required, implementing postgraduate student performance review reports each semester, and developing policies and practices to improve the quality of supervision for all research students throughout their degree.</li> </ol>
Review Team's comments	
Review Team's conclusion	

### 3. Research Training – Response to SREQ

In 2003, the Institute for Teaching and Learning (ITL) supplied the Faculty with results of a Student Research Experience Questionnaire (SREQ). Unlike the Student Course Experience Questionnaire (SCEQ), research students across the University were surveyed for the first time by ITL. The Faculty of Veterinary Science scored particularly poorly in the SREQ.

The Sub Dean for Postgraduate Education, Professor Frank Nicholas, then held two open forums, one at each Campus, for staff and students to discuss the issues associated with the results. The attendance at each of these forums was very low.

Analysis and discussion of the SREQ results has been conducted by the Postgraduate Education and Research Training Committee (PERTC), the Chair of the Teaching and Learning Committee (Associate Professor Rosanne Taylor), the ITL Survey Officer who conducted the survey (Dr Paul Ginns) and by Adjunct Professor and education consultant to the Faculty, Professor Grahame Feletti.

In addition, confidential interviews and discussions with some postgraduate students and supervising staff were undertaken by the Faculty's Project Co-ordinator, Hannah Forsyth and the issues raised were compared to the numeric and open-ended results of the SREQ.

In response to this process of clarification of the issues associated with research training, Professor Feletti has made some recommendations. These will go to a meeting of PERTC on 6<sup>th</sup> May and will form the basis of a strategic plan for 2003 – 2004. While a full version of this strategic plan will not be available for inclusion here before 12<sup>th</sup> May, it is expected that it will be prepared before the Academic Board visit on 4<sup>th</sup> June.

This section summarises the challenges facing research training in the Faculty and outlines a preliminary direction and set of tasks for the Faculty in improving the quality of its research training.

#### 3.1 Challenges for Research Training in the Faculty

##### 3.1.1 Summary of challenges

There is a diversity of student research experiences in the Faculty and, as a result, a diversity of issues that need to be addressed. One mistake the Faculty could make is in identifying 'the' problem with its postgraduate research programs and develop strategies to fix a singular problem. Nevertheless, supervision is clearly central to the research training experience and should receive particular emphasis in planning for change. A summary of the issues is:

- The Faculty could better position and integrate postgraduate students into its community
- Some students feel that supervision of their research is inadequate – systems to ensure good supervision should be developed
- Training in research and generic skills could be developed, including English language skills for NESB students
- Many postgraduate students have insufficient IT equipment and access
- If the method of funding postgraduate research projects is through grants, the grants should be large enough to cover the work they need to do
- Training in the use of specific equipment can be difficult to obtain.

##### 3.1.2 Issues Raised by SREQ Data

Combining the percentages of neutral, disagree and strongly disagree data per item, and re-sorting items in terms of relative importance to postgraduate students, their sense of 'DISSATISFACTION' seems mostly linked to (a lack of) 'community':

Q.25 research ambience stimulates my work: 78%

Q.15 opportunities to be involved in broader research culture: 76%

Q.31 feel respected as fellow researcher within my department: 75%

- Q.23 interaction with other PG students is encouraged: 70%
- Q.8 integrated into discipline's/school's community: 69%
- Q3. opportunities for social interaction with other PG students: 66%
- Q.24 a good seminar program is provided: 64%
- Q.29 department provides supportive working environment: 60%
- Q.20 feel isolated within this department: 57%.

The main dissatisfaction items under Supervision related to

- Q.38 meeting with supervisor and other students in a group (every 2-3 months or more)<sup>3</sup>: 63%
- Q.26 guidance with literature search: 66%,
- Q.24 good seminar program for PGS: 64%.

Overall 'dissatisfaction' with supervision, and with quality of degree experience were both 36%.

### 3.1.2 Issues Raised by SREQ Open-ended responses

As well as the sections of the survey that collected the numerical data summarized above, students were invited to make open-ended responses to two questions. The first was "What are the best aspects of your higher education experience? Please explain why these aspects are good" and the second, "What aspects are in most need of improvement? Please explain why."

While we are most concerned to identify the negative issues that need to be addressed and hopefully resolved, the positive responses can give us an indication of the features that create a satisfactory research experience for students. In summary, these features seem to be (in no particular order):

- Inherent interest in their research project
- Development of generic skills (eg. analytical, statistical, problem, time and project management skills). Problem-solving skills were mentioned with particular frequency.
- Supervisor's support
- Networks, friendships and personal support within the Faculty
- Ownership of their project and independent work

The negative responses, again in no particular order, can be summarized as:

- Infrastructure and financial inadequacies (laboratory equipment, technical staff, chemicals, computers, access to research funding)
- Hierarchy – in which others gain credit with little supervision in return
- Isolation and lack of support
- Lack of supervision
- Lack of knowledge of the department and involvement in teaching
- Lack of a common room
- Lack of access to coursework in unfamiliar discipline areas and in the development of generic skills
- Lack of early assistance with laboratory and research skill development
- More early guidance about expectations and available university resources, especially for students who did not complete undergraduate training in the Faculty or at the University of Sydney
- Students located at different locations do not feel a part of the Faculty
- Personal payment of scholarship money and payment of accounts to suppliers has not always been timely
- Feelings of time pressure and a lack of any time off.

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<sup>3</sup> It is important to note that this question did not distinguish between full-time and part-time students, and between students working on the same campus as their supervisor and students working off-campus under the day-to-day supervision of an associate supervisor.

### 3.1.2 Issues Raised in Discussion

The comments gathered through personal discussion and interview were quite consistent with those seen in the SREQ data and open-ended responses which suggests that these represent the dominant issues for postgraduate research training in the Faculty.

Some students expressed concern about confidentiality – in some students' experience, both the standard processes of review and SREQ involved either handing comments directly to supervisors or being thereafter questioned by their supervisor. It was suggested that the low uptake of responses (around 50%) to the SREQ could have been a response to fears associated with confidentiality issues. This does not need to reflect a general dissatisfaction with supervision in the Faculty, but merely a concern that their feedback should be, in fact, confidential.

**Supervision** – there was substantial divergence between the supervision experiences reported by students. Some students were superlatively happy with the supervision they have received, while others felt that they had received no supervision whatsoever. These latter students indicated that most of their academic support had come from postdoctoral research fellows.

Overall, students indicated that the qualities of valued supervision were; allocation of time and a willingness to make time for students within a busy schedule, especially when there is a problem; assistance with the development of technical skills early in the program; indications of inherent interest in what the student is doing and pro-active concern for their progress; formal recognition of the contribution of postdocs to research outputs.

Some staff suggested that supervisors could be supplied with a handbook that outlines orientation for new students, exactly what is expected of a supervisor in terms of time and skill training, and the values of quality supervision. It was also suggested that supervisors should undertake training through ITL.

**Community** – students expressed feelings of marginalisation – some have less access to Faculty information than others, but generally it was felt that their presence goes largely unacknowledged by the Faculty beyond being assigned a supervisor. This means that any perceived lack of resources is understood by the students as reflective of a Faculty that cares little for them. One student said: "I am sure everyone in the Faculty believes this about their area, but it does seem that we are always on the bottom of the list of priorities". They suggested that it would help if, once a year or so, the Dean wandered through to see what they were doing; if the Faculty provided them with information and respectfully sought their input; and if they could generally be integrated into the Faculty's activities. Surprisingly, some bitterness was associated with the Annual Postgraduate Conference – students believed that they had been treated like children by being told they may not graduate unless they give a token ten-minute presentation at the seminar. Some students said that lab meetings and journal clubs were a really valuable part of their experience. The international students interviewed were very pleased with their experience of both supervision and the Faculty and indicated that they believed that working independently was of particular educational value.

**Skills training** - Again, some students said that their training in research and generic skills, especially at the beginning of their candidature, had been valuable, some valued the opportunity to develop these skills themselves (even if it takes longer) while others described a lengthy and frustrating struggle to develop the skills they required with little support. The differences in these experiences seem not to be just reflecting differences in personality types (although that is certainly present too) but a reflection of the specific skill needs in different research areas. Students who are in the writing-up phase of their research also said that this time is being eaten into by training new students in the relevant skills. They said they don't mind doing this because they remember how frustrating it was to receive no training, but that

it has a difficult impact on their own work. It was strongly suggested that a lab manager, competent in relevant skill areas and with a thorough knowledge of the equipment specific to the different research areas, could train research students.

The students' description of the role of a lab manager was situated within a vision of postgraduate research training in the Faculty. This vision imagines the Faculty's research training as an efficient, consistently well-run enterprises, regardless of which students are present to run the labs and train other students in research skills. They suggested that the efficiencies provided by a lab manager could result in earlier completion times for research degrees, more students and a greater research output.

Some staff suggested that some coursework should be available to postgraduate research students or for students considering entering a research program, to develop skills in areas such as research methods and statistics. It was also suggested that supervision of some international students for whom English is a second language can be quite onerous where supervisors need almost to write the thesis for them. Some students may need additional training in English-writing skills and the Faculty may need to reconsider the level of English required for entry to research programs.

**Financial support** – some staff and students expressed concern that research grants may not be large enough to cover all the needs for postgraduate training. Students said that they regularly spend scholarship money provided for living expenses on consumables, animals and sometimes infrastructure for research. It may be that the size of grants is being reduced, or that grants are being overloaded with students, and some students believed that there was a lack of planning for the needs of postgraduate students within a project. Concern was expressed for international students whose income is often insufficient.

**Administrative support** – for the most part, students were very pleased with the administrative support they receive from the Faculty Office. They did suggest that it would help if one admin staff member could take a general interest in Postgraduate students and, for example, scan the scholarships and grants bulletin from the research office and send regular emails to students updating them on what is going on and when grants are available.

**Technical support** – it was generally felt that there is a lack of technical staff and those that exist are often misused and disinterested. Students said that the lack of technical support results in inefficient research practices for them, where much of their time is spent on tasks that could be done by technical staff. They stressed that they do not feel 'above' these tasks, but that they slow research significantly. While they often need to ask technical staff to complete tasks, students also felt lacking in authority to do so – and moreover felt that this lack of authority is appropriate and that someone more senior should ensure that appropriate technical assistance is provided. Students strongly suggested that laboratory managers rather than technical staff would vastly improve the research experience and would create greater efficiency.

**Infrastructure** - Unlike their experience of the availability of animals and consumables, with some exceptions, students seemed generally satisfied with infrastructure for research, but the availability and functionality of computers was seen to be a real problem. Some students have computers that cannot access email, some with disk drives that are non-functioning and some do not have computers at all. In terms of IT support, students said that they feel, again, at the bottom of the list of the Faculty's priorities.

**Planning, Progress and Evaluation** - A lack of planning by the Faculty was perceived to be a problem. Students felt that the Faculty had failed to plan for their presence and the time that would be required for their training, for equipment that would be needed alongside appropriate space, computers, chairs and funding for consumables. It was also suspected that students had been accepted for a project for which the University did not have facilities

and resources.

Students indicated that they believed the evaluation of their progress by an independent mentor was not working. They said that when they gave feedback in the past nothing happened – a 'someone should do something about this' phenomenon. Also, their mentor was likely to be friends with their supervisor with the perceived result that their comments were likely to be set aside.

### **3.2 Directions for Research Training in the Faculty**

#### **Preliminary Recommendations**

##### **Supervision**

- Students, Faculty and Supervisors must be aware of their specific responsibilities. There can be no excuses for ignorance, since these areas are published in the Postgraduate Research Studies Handbook. It is recommended that this document, and other key resources like the ITL's on-line course 'What is good supervision?' be part of separate Orientation programs for PG students and supervisors. This could be placed on an online orientation site.
- Both PG students and supervisors should also be given an introduction to culturally-relevant issues (eg. different expectations, communication and English expression, personal vulnerability, ways of doing business and research, plagiarism, taking initiatives, disagreeing with supervisor). Again, some might best be done as scenarios, role plays, small group discussion or seminars.
- To ensure all are familiar with important aspects it is recommended using a 'hypothetical, case-based' approach (rather than lecture), utilizing the wisdom of more experienced supervisors to create some scenarios, and incorporating role plays and small group discussion. The PERT Committee should plan or run this event, perhaps with TLC support - if ITL doesn't do similar.
- Encourage PERT committee, on behalf of Faculty, to develop strategies that actively support faculty who must spend substantial periods of time supervising PG students.
- Regular 'quality-time' (weekly) meetings between supervisor and student to review progress and engage in collaborative problem-solving on specific issues. These are best set up as 30 - 60 min. individual sessions. Sporadic, 2-minute 'howzit going', corridor chats are no substitute for this type of interaction. At the end of semester, or after an agreed-on period, a scheduled meeting is held to allow the supervisor to review the PG student's progress with him/her, using a standard form (eg. the Annual Progress Report Form - see Chapter 10, PG Studies Handbook). Record ongoing progress against targets.
- Alternating fortnightly 'Journal Club' or small group meetings for all students are to be aimed explicitly at improving the students' professional development, research skills and familiarity with literature. Some topics or activities could be done in small groups within the Faculty or with ITL support (eg. critical thinking and literature review, research methods and data analysis, data presentation, personal and professional ethical issues, progress and outcome reporting, and utilizing VEIN and on-line information services). Other topics or special seminars utilizing expertise from outside the Faculty or University must also be scheduled and actively promoted, encouraging PG students to meet and link with key researchers or other PG students in relevant fields.

##### **Community**

- Introducing PG students to the Faculty's research community must be an integral part of their Orientation program. This should be held at the start of each semester,

and/or as the occasion arises (eg. if specific researchers are visiting the University, or if PGS can attend relevant conferences or workshops). It is important that PG students identify specific researchers, with whom they will make significant contact during their research development and career. It may also be helpful to email photos and information about new research students and their projects.

- Alternating fortnightly or monthly 'journal club' meetings within the Faculty, research forums or seminars within the University, or once-a-semester informal lunch meeting with the Associate Dean for Research.
- Encourage PG students to develop and sustain regular communication with each other at least on a weekly basis; encourage them to be aware of national and international events of significance, and to participate in forums on research innovations and issues via journals, conferences, seminars and the Internet. Encourage them to establish their own peer support networks for commenting on written drafts of papers, thesis etc.

### **Skills Training**

- Empower the Faculty's PERT committee and clarify its role to be a strong support and resource network for PG students and supervisors. This means identifying key members of Faculty responsible for specific training and support roles for students, as well as mentoring individual or groups of supervisors.
- For new (or maybe for all) supervisors, implementing a mandatory self-evaluation of their needs or concerns as a basis for initial or ongoing support or training (eg. time or resource management, supervision of progress and problem resolution, communication and reporting).
- For PG students, implementing a mandatory self-evaluation of their needs or concerns as a basis for their initial training and ongoing support (including English expression, information literacy).
- Defining minimum competency levels of traditional PG research skills - such as those identified under 'Alternating fortnightly journal club activities' (above). These skill levels may be assessed during the PG Orientation program, after which the supervisor and PG student will work out the most appropriate development and evaluation sequence. This should be linked to development and refining of graduate attributes.
- Encourage specific faculty (with an interest in research supervision) to take on specific projects as part of their own faculty development coursework with ITL, monitoring development of research skills as a quality assurance venture.

### **Planning, Progress & Evaluation**

The PERT Committee is required to:

- Ensure compliance with the University's process for the initial 'probationary period' (typically requiring active monitoring and progress annually).
- Modify or utilize the University's standard Progress Report Form informally (as a basis for discussion between student and supervisor) on a regular (monthly ?) basis, but also more formally at the end of each semester. This progress report goes to the PERT committee chair, or a delegated faculty member. It should also be reviewed by associate supervisors or co-supervisors.
- Monitor the quality of supervision, along with the annual review of PG students' progress, based on an independent agency (eg. ITL surveys and interviews), and

reported to the PERT Chair.

- Monitor the technical support and equipment, and basic research facilities available to PG students each semester. This report, particularly noting any deficiencies at the Camden and Sydney facilities, could be made to the Chair of the PERT Committee by the Faculty Manager.
- Report to Faculty Board on all PG students' progress and, in particular those students at risk, each semester.

## Goal 2: Diversity, Access and Equity

*The University of Sydney will continue to provide access to tertiary study and appropriate support for students from a diversity of backgrounds.*

### 1. Objectives

**Goal 1.** The opportunity for any student to obtain a HECS placement in the Faculty of Veterinary Science will not be reduced by the intake of local and international fee paying students.

**Goal 2.** Entry into Veterinary Science will be from a broad range of student categories including recent school leavers, students with a history of tertiary studies, students with a disability or disadvantaged background, and Aboriginal and Torres Straits islanders.

**Goal 3.** Entry into Veterinary Science will be by students from a broad range of life experiences, cultures and nationalities.

**Goal 4.** Student assessment will be equitable and unrelated to diversity of student origin or route of access to the Faculty

### 2. Policies, Processes and Practices

**2.1** The Faculty access objectives are addressed by a series of admissions quotas. Within different admissions quota categories, different rules apply, but within each quota category, all students are assessed on the same set of criteria.

**2.2** Prior to the introduction of full fee paying positions, the HECS quota number was 70 HECS. With the advent of fees the total quota was increased to 120 so that all full fee paying students, either local or international were accepted as additional students.

**2.3** The HECS quota number of 70 was then divided into two sub-quotas: 45 places for recent school leavers and 25 places for students with tertiary studies history. Recent school leavers are admitted on the basis of UAI. Students with tertiary studies are admitted on a Faculty admissions point score (max score 105) based on Grade Point Average (40 points maximum), Special Tertiary Admissions Test (60 points maximum) and a commitment to veterinary science statement (5 points maximum) Within the total HECS allocation of 70 places, 10 percent of places were reserved for disadvantaged students. The disadvantaged quota was then equally subdivided into a 5 percent allocation each to Broadway students and Cadigal students. Broadway students are assessed by the Student Centre for eligibility into the Broadway programme. Eligible students compete for the Broadway placements on the same criteria as other recent school leavers or students with tertiary studies history and the best 3 applicants admitted each year. Cadigal students are assessed by the Koori centre and their best 3 applicants admitted on the recommendation of the Koori centre.

**2.4** The fee paying quota of 50 is divided into two equal subquotas which are allocated to local and international students. Local fee paying students are assessed on the same criteria as the HECS students, but with a 5 admission point lower cut off, and come from both recent school leaver and tertiary studies history student groups. International students are selected on criteria that approximate the local fee admission criteria. With internationals a degree from a recognised University is accepted for admissions purposes and equivalency scales are used to assess international students coming straight from their country's secondary education system.

**2.5** To further broaden the range of entering-student backgrounds, the Faculty does not prescribe prerequisite subjects. This allows students with arts, law, economics or general science backgrounds to compete for entry. The Faculty does recommend levels of assumed knowledge (HSC or equivalent 2 units Mathematics, Physics, Chemistry), but students can achieve such competencies at Summer School bridging courses or through private coaching.

### 3. Outcomes

	1998	1999	2000	2001
Enrolments - Total	405	450	495	520
Enrolments - International	35 (9%)	41 (9%)	59 (12%)	81 (16%)
Load (EFTSU)	395.5	431.0	482.1	507.8
Attendance pattern - FT/PT as %	97/3	94/6	97/3	98/3
Gender mix - M/F as %	35/65	34/66	31/69	28/72
Age Distribution (%) *	44/45/9	42/46/10	39/45/14	39/44/15
Completions - Total (Hons)	53 (37)	73 (55)	UA	UA
Students:				
with a disability	6	3	4	5
non-english speaking background	13	17	11	9
rural area	43	48	56	50
isolated area	0	0	0	0
low socio-economic background	14	15	19	19
Aboriginal/Torres Strait Islander	2	2	3	4

\*Age distribution shown in the ranges: 17-20/21-25/over 25  
UA = Unavailable at this time

The Faculty has long had a higher percentage of female than male students admitted to the BVSc program. Strong marketing to international students results in ethnic diversity in the Faculty's student population, with a small number of students with language backgrounds other than English. Rural students tend to comprise approximately 10% of the student body and about 3% are from low socio-economic backgrounds.

Of the 5% intake allocation for Broadway and Cadigal schemes, the Broadway positions are always filled but there are rarely sufficient candidates to fill the Cadigal positions.

To maintain equity, the Faculty has developed a policy on conscientious objection that can be found in Appendix 3.1.

### 4. Stakeholder Feedback

**4.1 Students:** An independent facilitator from ITL facilitated a focus group with a representative sample of final year veterinary students in 2002. These students suggested that admissions criteria be reviewed to allow access to students from rural backgrounds with an aptitude for veterinary science. The report from this focus group can be found in Appendix 3.2.

**4.2 Government and Community:** During 2002, the State Government conducted a review of rural veterinary services. Although prompted by community concern about a shortage of veterinary services in regional Australia, the report of the review indicated that veterinary schools were producing sufficient graduates to service rural needs. The Rural Veterinary Review can be found at [www.affa.nsw.gov.au](http://www.affa.nsw.gov.au) and the Faculty's submission to this review can be found in Appendix 3.3.

**4.3 Industry and the profession:** In 2002, a committee of stakeholders, chaired by Dr Bill Gee, was commissioned to undertake a review of the Faculty's admissions policies. This committee consisted of prominent members of the veterinary profession in Sydney, the Director of Elizabeth Macarthur Agricultural Institute (EMAI), a policy manager for NSW Farmers' Association, the Director of the Veterinary Science Foundation and the Faculty's

Associate Dean for Teaching and Learning. This committee recommended the development and implementation of suitability assessment for applicants with a tertiary education. The final report of this committee can be found in Appendix 3.4.

## **5. Evaluation**

**5.1** The Faculty administrative structure is relatively new. First indications are that it is yielding excellent cost benefits. Diversity and access issues are addressed by a complex admissions policy. Equity issues are addressed by a system of checks and counter checks based on delegation of authority to the staff directly involved but with supervisory oversight at Executive level. This ensures prompt action.

**5.2** One of our equity strengths is in the person of the Sub-Dean for Students. This strength is not positional but personal to the present incumbent. Students have an efficient, dedicated and tireless supporter working for fair, timely and compassionate outcomes.

**5.3** Another equity strength lies in the efficient and smooth running Faculty office. Students are assured of prompt and reliable “customer” service in a recently refurbished Faculty office. Systems are in place to ensure that all students are treated fairly and have equal access to Faculty resources and information. The can do culture of the Faculty office is a great credit to the Faculty Manager.

**5.4** An access and equity weakness is perceived to be the number of rural students who gain admission to the BVSc programme. This issue is unresolved. However, the current proposal for a Veterinary Biosciences degree based at Orange may or may not provide an entry portal which is more equitable to country based students. (See Appendix 1.2)

**5.5** An identified access weakness is the Commitment to Veterinary Science Statement for students seeking admission with a history of tertiary studies. Faculty reviewed the admissions process in 2002 by commissioning the Gee Report. The recommendations of the Gee Committee are on hold pending the outcome of the Orange Biosciences degree proposals. The Biosciences degree could provide an alternative tertiary studies stream of students into Veterinary Science making the commitment statement redundant.

## **Goal 3: Excellence in Research**

*The University of Sydney will develop its reputation as an institution where pure and applied research and research training are conducted at nationally and internationally recognised standards, including research relevant to the economic, social and cultural well-being of Australia and the region.*

### **1. Objectives**

The Faculty of Veterinary Science strives to maintain its international research profile and is committed to research in a variety of preclinical, paraclinical and clinical disciplines. The Faculty aims to encourage strong research performance and to have outstanding success in attracting competitive research grants, industry-based research contracts and producing research papers of high calibre in internationally recognized refereed journals. This performance is to be reflected in numbers of postgraduate research students trained in the Faculty, and the subsequent success of these students to excel in their own right in a wide variety of research and higher education endeavours. The Operational Plan for Research and Report of the Research Committee can be found in Appendices 4.1 and 4.2.

### **2. Policies, processes and practices**

**2.1** Research strengths in the Faculty are concentrated in the areas of production animal research (especially pigs, poultry, cattle and sheep), immunopathology, reproduction and genetics, companion animal medicine, wildlife conservation biology and performance research in horses.

**2.2** With both city and rural campuses the Faculty is well-placed to provide the infrastructure required to pursue research in a range of species from both basic cell and molecular biology, to individual animal research models and to the broader issues of herd and flock health management, animal behaviour and the constraints on animal health and production imposed by commercial management systems.

**2.3** The Camperdown Campus has a University Veterinary Centre and other facilities for research primarily in small animals, including a clinical pathology laboratory. It also has excellent facilities for research in anatomy, animal science (genetics, nutrition, reproduction), physiology and pathology. The Camden Campus is also well equipped for research. The University Veterinary Centre Camden, equipped with its own diagnostic laboratories, has been designed to service a wide range of companion and production animals. The Camden Farms provide enviable facilities for research in animal science and disease in production animals. The 1200 hectares of farmland encompass a dairy and research unit, a horse unit, sheep unit, pig and poultry units and associated laboratories.

**2.4** The Faculty offers the following research degrees, Doctor of Philosophy, Master of Science in Veterinary Science, Master of Veterinary Clinical Studies, Master of Veterinary Science and Bachelor of Science (Veterinary).

**2.5** The Faculty encourages research activity through policy development and implementation administered by a Research Advisory Committee chaired by the Associate Dean for Research. A policy has been adopted to ensure research infrastructure funds are distributed preferentially to areas of research strength, that Faculty funded technical staff are allocated to research projects on this basis, and that an administrative infrastructure is provided to assist researchers in meeting their reporting obligations and to keep them abreast of research and research policy developments in the Faculty and the wider academic community. The special needs of junior staff are met by a mentoring system and a continuing review of research grant proposals prior to their submission. In addition Research Training days have been held to assist new staff and appraise all staff of research opportunities and methods to enhance

research performance.

**2.6** Research centres and groupings of researchers into areas of strength has been promoted and now the Faculty has a number of major areas of strength represented by the following groupings: Centre for Veterinary Immunology, Photobiology Research Group, Equine Research Group, Companion Animal Research Group, Poultry Research Unit, Ruminant Nutrition and Dairy Science Group, ReproGen (Centre for Animal Genetics and Applied Reproductive Technologies), as well as two emerging areas of research strength, one in wildlife conservation and welfare which includes the Australian Marine Mammal Research Centre, and the other in Farm Animal Health. Collaborations with other research groups is encouraged and, in particular, industry collaborations are facilitated by the establishment of a Clinical Trials Unit, providing a point of contact and focus for industry partners seeking to have contract or collaborative research undertaken within the Faculty.

**2.7** A new initiative has been the instigation of a Faculty Research Open Day established in 2002 to showcase research by staff and postgraduate students and this has been well attended by industry partners, stakeholders and general public.

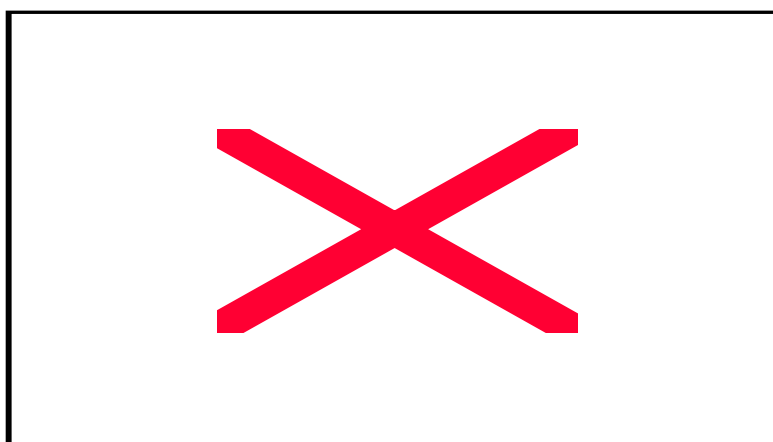
### 3. Outcomes

Research grants totalling almost \$25m have been won over the period 1997-2001 (see Table 1), which includes major partnership in the CRC for Innovative Dairy Products.

**Table 1**

Category 1 grant - National competitive	\$12,727,899
Category 2 grant – Public sector	\$3,512,122
Category 3 grant – Industry	\$2,839,762
Category 4 grant – University	\$4,540,844
Category 5 grant – Scholarship	\$766,741
<b>TOTAL</b>	<b>\$24,397,359</b>

Improved research performance over the past 5 years is demonstrated by the increase in RIBG funds distributed to the Faculty (see Figure 1) totalling over \$550,000 in 2003.



Over the period 1998-2001 a total of 85 postgraduate students have been trained (see Table 2)

**Table 2**

Degree	1998	1999	2000	2001
PhD	14	10	10	8
MScVet Sc	2	1	1	1
MVSc			1	
MVetClinStud	3	3	1	3
MVetStud	1		1	
GradDipVetClinStud	7	7	4	6
GradDipVetSci			1	
<b>TOTAL</b>	<b>27</b>	<b>21</b>	<b>19</b>	<b>18</b>

#### 4. Stakeholder feedback

Continuing flow of income from stakeholder bodies such as Meat and Livestock Australia, Australian Pork Ltd, Dairy Research and Development Corporation, New South Wales Racing Research Fund, indicates satisfaction with research performance in these areas. Good attendance at the Research Open Days by non-University stakeholders also attests to this. Frequent involvement of the Faculty as a point of contact for expert comment for the media and legal professions also reflects the high standing of the researchers in their respective fields of expertise.

#### 5. Quality assurance processes

A Research Inventory is maintained to ensure capture of all research inputs and outputs for evaluation purposes. Information on papers published, grants obtained, students completing higher degrees and conference attendance is recorded and evaluated against individual and group performance expectations.

#### 6. Evaluation

The Faculty maintains continuing evaluation of research activity through the Research Advisory Committee. Performance against inputs is analysed by individual and research groupings criteria and benchmarked historical Faculty performance records as well as against other veterinary schools' performance in Australia and overseas. Effort is devoted to matching research and teaching inventories to ensure that teaching responsibilities are matched to the research interests of staff.

Postgraduate research training was formally evaluated by ITL for the first time in 2002. The low scores achieved by the Faculty in this survey have identified some significant challenges for the Faculty to develop strategies, policies and practices that will ensure high quality research training and experience for all postgraduate research students in the Faculty. This evaluation was made under Goal 1.

## Goal 4: Internationalisation

*The University of Sydney will enhance its position as a university of high standing in the international community of scholars.*

### 1. Objectives

The Faculty's major objective is to promote the Faculty globally and to form links with veterinary schools internationally that will lead to:

- enhancing Faculty research outcomes
- expansion of postgraduate training opportunities
- high quality international students studying in the Faculty at undergraduate and postgraduate levels

### 2. Policies, processes and practices

**2.1** Marketing materials developed and focused on the international market including: videos and CD-ROM, web site targeted at international students, brochures and booklets  
International visits to key areas for student recruitment, particularly Singapore, Hong Kong, UK and Europe. The International Marketing Report 2002 can be found in Appendix 5.1.

**2.2** Ongoing market research to understand the needs of international students. This research has the twin objectives of determining the factors which lead students to choose the Faculty for their studies, and of understanding both the decision-making and the process the student goes through to get to enrolment phase. Our Marketing Program addresses five areas of improvement and preparation in the Faculty marketing process:

**2.2.1** Visibility and awareness of the Faculty in targeted markets of USA, UK, Europe and Hong Kong/Singapore.

**2.2.2** Accuracy and speed of information and content available to candidates, agents and career counsellors.

**2.2.3** Availability of information, ambassadors and academics to answer questions and liaise.

**2.2.4** Aspirational imagery and content – splitting the marketing focus between the course itself and the ensuing career opportunities or lifestyles.

**2.2.5** Preparation of robust technology (web design, databases) aimed at improving costs and efficiency of marketing process, and preparation of appropriate design style and brand image for the longer term.

### 3. Outcomes

**3.1** Appointment of a Sub-Dean for students who has a particular role in focusing on the needs of international students.

**3.2** The Cornell Student Leadership Program, which focuses on research leadership at Cornell University, has been actively promoted by our Faculty. Each year, 3 to 5 students are selected to attend Cornell University during their summer break, and participate in research projects.

**3.3** Special Faculty Orientation session, exclusively for international students, organised in the early part of Orientation Week each year.

**3.4** Meetings each semester with international students for feedback on curriculum and the experience in the Faculty

**3.5** Invitations to leading academics from internationally recognised veterinary schools, for workshops, seminar series and collaborations.

**3.6** Visits by academic and clinical staff to veterinary schools in North America and Europe.

**3.7** Research projects by Faculty members in developing countries, particularly Southeast Asia, supported by the Australian Centre for International Agriculture Research.

## 4. Stakeholder feedback

**4.1** A qualitative major survey, including focus groups, across 25 international students from years one and two at the Faculty of Veterinary Science was conducted throughout April and May 2001 by an independent company (Boundary Consulting). Plans are being made to undertake further feedback from international students during the second half of 2003.

**4.2** When choosing a career the students can be categorised into three major clusters. These are the vocational veterinarians, who decide before the age of ten, the practical veterinarians who springboard from some type of work experience in their teen years and the scientists who study science first and then shift into veterinary science as a practical means to apply their knowledge.

**4.3** On their future these young people are very clear on their direction. Again there are distinct patterns in these directions - the key groups are those who intend to pursue a career in wildlife conservation, those who intend to go into traditional practice and those who intend to marry their new knowledge with existing knowledge to pursue a 'hybrid' career.

**4.4** The students as a group are connected and sophisticated. They are free agents who see a recognised degree as paramount to their own freedom and mobility in the world. These students **first seek the degree** that suits them, and then concern themselves with the location.

**4.5** 100% of students surveyed used the internet as a primary research tool. No student found the University of Sydney Faculty of Vet Science as a result of an initial internet research. This discovery is generally triggered by some other event or person - a career counsellor, a veterinarian, a graduate friend.

**4.6** Once the students start to investigate the Veterinary Science degree at the University of Sydney, we find that there are two distinct experiences. The students who resource their information and contacts from an agent have a very smooth transition through the research and enrolment process. The students who liaise directly with the university find the process complex and confusing.

**4.7** Parents are uniformly concerned about the well-being of their child, both whilst studying and in terms of qualifications for the future. They are also concerned about cost. It is at the point of one-to-one communication with the University that students experienced significant problems in communication and liaison.

**4.8** The research shows that there are truly significant gaps in service with the International Office. These appear to be symptoms of underlying problems such as lack of staff, lack of communication and outdated policy.

**4.9** Payment of fees is the number one problem cited by students who did not enrol via an agency. The university's accounts receivable system appears outdated and not in line with the external image of an international faculty. There are secondary problems which are linked to the key difficulty of fee payment - such as applying for a visa, and applying for accommodation - each are significantly delayed as they depend on proof of enrolment, which depends on payment of fees.

**4.10** The third category of 'difficulty' in enrolment and in dealings with the International office and the Faculty is timeliness and accuracy of information.

**4.11** At a day to day level, on the whole the students are happy, interested and keen to learn. They enjoy their program of study - though many find the workload and timetable onerous. A constant theme is the friendliness, support and helpfulness of staff and academics, "...they really want you to learn this stuff..". The practical structure of the course is very popular and

the students feel as though they are learning how it will be in the 'real world.' However, the students are also aware of the 'newness' of the program and feel somewhat like a test case. Similarly, the comment that the program was a little disorganised was common. There is also a recognition that the Faculty is not wealthy, and that they (the international students) are a significant source of income. They feel justified when making complaints about overcrowding and additional, unknown costs.

**4.12** On the whole the research has shown that the Faculty of Veterinary Science at the University of Sydney is accepted as a respected place to study.

## **5. Quality assurance processes**

As will be indicated from the previous section, the Faculty has worked hard to seek feedback from students, with an independent company assisting in surveys of international students, so that the experience of entering the Faculty can be a positive one. Meetings are also held with international students in Years 1 and 2 each semester, to determine any issues that they wish to raise relating to the formal teaching program.

## **6. Evaluation**

**6.1** The Faculty of Veterinary Science has only developed a strong international focus for undergraduate students in the last 4 years. International student numbers for undergraduate students have increased from about 20 students in 1998 to 110 in 2003. We have put a lot of effort and financial resources into internationalising the Faculty and positioning it as a leader in veterinary education. In particular, the dramatic curriculum restructure was done with the aim of developing a curriculum that was recognised as meeting the needs of the global marketplace. The role of the Faculty as an international leader in veterinary education has clearly been recognised, with very strong increases in the numbers of international students applying to study veterinary science at the University of Sydney. In February 2003, the Dean was invited to speak at the annual American Veterinary Medical Council in Washington DC, outlining the innovative teaching approaches taken by the Faculty.

**6.2** One of the difficulties in evaluating the international student experience and ensuring its quality, is that the Faculty seeks to encourage the international students to become very much part of the student community. Our Faculty evaluates all units of study in all years each semester, to ensure that there is feedback to enable change but no specific attempt is made to separate out the international students. However, we do run focus groups each semester for students in Years 1 and 2, to get direct feedback to the Dean and senior Faculty staff in relation to issues the students feel are important. Issues raised are sometimes administrative and easily fixed or sometimes relate to specific units of study, in which case the issues are taken to the teaching and learning committee for discussion and action.

**6.3** In general, the processes for evaluation and feedback from undergraduate students is satisfactory but we do need to ensure that processes are rigorous enough so that issues are considered by appropriate Faculty staff and action implemented. Documentation of the initiatives is important. The Faculty also reviews its international initiatives each year in its operational planning, which occurs in November/December.

**6.4** The Faculty has individual contacts with veterinary schools throughout Europe, the UK and North America. These include research collaborations and clinical exchanges, where veterinarians working in our teaching hospitals, spend periods of time in veterinary teaching hospitals, usually in the UK or North America. These depend very much on individual research contacts and could be seen to be somewhat ad hoc. However, these types of contacts are difficult to implement at a formal level. The Faculty in the last 2 years has sought a close collaboration with the College of Veterinary Medicine at Michigan State University. This is one of the strongest US schools in the area of farm animal health and production. Exchange visits by the two Deans has occurred in 2002 and in 2003, the Head of the Food

Safety Centre, came to Sydney to participate in our new postgraduate program in Veterinary Public Health Management. We anticipate a formal relationship developing from this between Michigan State University College of Veterinary Medicine and the Faculty of Veterinary Science at the University of Sydney. We are currently also negotiating with the University of Illinois College of Veterinary Medicine about a staff and student exchange program in the senior clinical years of the veterinary course.

## **Goal 5: Engagement With Industry And The Professions**

*The University of Sydney will continue to make a significant contribution to the well-being and enhancement of the wide range of professions with which it engages.*

### **1. Objectives**

**1.1** The Veterinary Science Foundation (VSF) is the fundraising and promotional arm of the Faculty. The Foundation's charter is to raise funds to support a wide range of Faculty projects, to raise the profile of the Faculty and Foundation, to communicate to a wide range of stakeholders including alumni and the profession, industry, staff and students and the wider University community, the media, and the Australian business and general communities.

**1.2** The Veterinary faculty aims to service the veterinary profession through the provision of relevant, high quality continuing education as well as through the development of the Veterinary Education Information Network (VEIN).

**1.3** To engage with industry and the veterinary profession through research and participation in advisory, regulatory and professional capacities. One of the Faculty's longer-term strategic goals is partnering the production animal industries. See Farm Animal Health and Production Strategic Plan 2003-2005 in Appendix 6.1.

**1.4** To engage students with the veterinary profession and related industries throughout the course of their program.

### **2. Policies, processes and practices**

**2.1** The Veterinary Science Foundation stakeholders include alumni, other members of the profession and veterinary and non-veterinary corporations. The Foundation engages with the profession and industry through its regular communication vehicles (Roundhouse, Rumenations) and has developed positive and mutually beneficial relationships with a number of corporations that support the Foundation and its projects.

**2.2** A new postgraduate course work program in Veterinary Public Health Management is being offered for the first time in 2003. This postgraduate program has been formulated in response to changing demands on the veterinary professional workforce, who in the production animal sector have increasing responsibility, given the globalisation of agriculture and the economic impact of emerging and re-emerging diseases such as bovine spongiform encephalopathy and foot-and-mouth disease. The Faculty has recognised the need for veterinarians in the public and private sectors to develop new and improved skills and practices, particularly in the field of veterinary public health.

**2.3** The Post Graduate Foundation in Veterinary Science was established almost 40 years ago to deliver continuing education courses to veterinarians.

**2.4** Launched in 2001, VEIN is the electronic gateway to information services for staff, students, and veterinary and animal scientists in the community. A partnership project of the Library, the Faculty, the Post Graduate Foundation in Veterinary Science and the Veterinary Science Foundation, VEIN provides:

- A platform for the collaborative creation of a rich knowledge resource
- Easy access to high quality scientific information / learning objects
- Ease of integration and a stable infrastructure for future developments
- Support for information literacy and access
- Support for curriculum, transition into practice and lifelong learning

**2.5** Many members of the Faculty are active participants in the Australian Veterinary Association (AVA) as well as advisory and regulatory organizations.

**2.6** Students are exposed to and involved in the veterinary profession from first year of the BVSc – Students spend 8 afternoons at veterinary practices over 1<sup>st</sup> and 2<sup>nd</sup> year as part of the Professional Practice program. Extramural practical work in Animal Husbandry is required with horses, dairy cattle, beef cattle, sheep, poultry, pigs and another industry of their choice. During the third year Public Health Unit of Study, students are required to visit an abattoir, meat works or dairy products factory. Students have always been required to undertake extramural clinical rotations and the new curriculum Extramural Studies (EMS) program will provide significant exposure to the veterinary profession including Rural Lands Protection Boards.

### **3. Outcomes**

**3.1** Through fundraising and promotional campaigns and projects, VSF achievements have included:

- Significant funding from industry for the University Veterinary Centre Sydney building campaign
- Participation - organisational, volunteer and attendance - on an annual basis from an increasing number of undergraduates in Foundation events and activities
- High rate of participation in Foundation new graduate offers (eg supporting membership of the Post Graduate Foundation in Veterinary Science)
- Funding from industry to support veterinary residencies
- Funding support from the Department of State and Regional Development for veterinary students to be a focus of its Country Lifestyles Program (25 students are visiting western NSW in April 2003) with potential for an annual project
- Funding from industry to enable promotion of the University Veterinary Centre Sydney with annual open days
- Funding from industry to support the twice yearly Faculty and Foundation newsletter, Roundhouse

**3.2** Industry support for the establishment of Chairs in key areas in the Faculty.

**3.3** The Postgraduate Foundation has been historically the purveyor of reliable, up to date continuing veterinary education for veterinary graduates. Other centres for continuing education exist in other Australian and New Zealand institutions which house veterinary faculties but none has the depth and breadth or the capacity to attract such a variety of world class veterinary expertise over such a long time.

### **4. Stakeholder feedback & quality assurance processes**

1. Continuation of and increase in funding support from industry for annual events, and positive post-event survey responses
2. Continuation of and increase in funding support from industry for other VSF projects such as newsletters and direct mail campaigns
3. Recognition of increased profiling by the VSF through offers of pro bono support from major advertising, media and publishing companies
4. Increased communication with alumni and the profession leading to expanding database
5. Increase in student requests to join VSF events and projects
  - Fundraising success – setting and achieving specific dollar goals
  - Monitoring attendance at events
  - Ensuring database growth

#### **6. Extramural Clinical Assessment Outcomes**

Following concern expressed by practitioners relating to year 4 and 5 students' ability to handle large animals when they enter their clinical phase of veterinary education, the Faculty

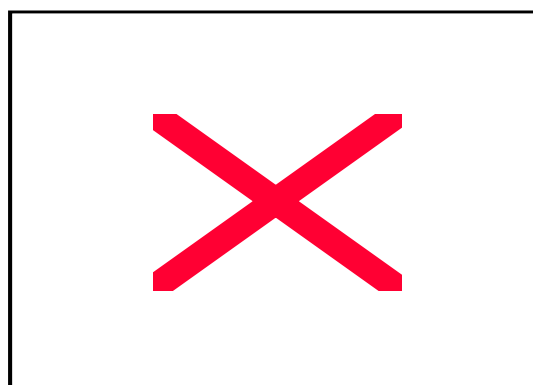
has developed systems within the new curriculum to ensure students are capable in all areas of animal husbandry prior to extramural placement in year 5. Concern had also been expressed about students' communication and professional skills, addressed in the new curriculum Professional Practice program.

Although the results of these initiatives are yet to be seen (new curriculum students have just completed their 3<sup>rd</sup> year in 2002 and have not yet begun clinical training), the Faculty has also begun tracking extramural clinical assessment outcomes according to 7 aims. These are:

1. Animal Handling Skills
2. Case Management Skills
3. Interpersonal Skills
4. Manipulative Skills
5. Problem Solving Ability
6. Ability to Communicate
7. General Professionalism

The results tabled below assess the capabilities of 2002 graduates in these areas as assessed by practitioners during their extramural placements over the past two years. Although the students assessed below have not been trained within the new curriculum, this report has been circulated to all academic staff members with responsibility for clinical training to indicate areas of strength and weakness and promote improvement.

<b>Overall</b>	<b>2001</b>	<b>2002</b>
<b>Aim 1</b> Animal Handling Skills	3.03	2.94
<b>Aim 2</b> Case Management Skills	3.01	2.99
<b>Aim 3</b> Interpersonal Skills	3.32	3.25
<b>Aim 4</b> Manipulative Skills	3.78	2.93
<b>Aim 5</b> Problem Solving Ability	3.05	2.96
<b>Aim 6</b> Ability to Communicate	3.37	3.29
<b>Aim 7</b> General Professionalism	3.28	3.34
<b>Mean Score</b>	3.1	3.03



## 5. Evaluation

**5.1** Need remains to continue to proactively engage alumni – for the Veterinary Science Foundation, this means:

- continuing to access as many alumni as possible for mailing and fundraising lists. This will be significantly assisted by the Foundation's transfer to the new University AIMS database (The Director has been an original and continuing member of the AIMS tender and implementation committee)
- securing speaking engagements with AVA Branches across NSW – this is an on-going task for the Foundation Director

**5.2** Need to develop a streamlined administrative system for Veterinary Public Health Management Program.

**5.3** The new EMS program will require careful monitoring in the early period of its implementation. A Report on the EMS program is in Appendix 7.1.

## Goal 6: Effective Management

*The University of Sydney will improve its position as an efficient, effective and responsible institution, striving to meet the needs of students and staff, and committed to quality in all aspects of its operations*

### 1. Objectives

The management objectives of the Faculty are:

- financial sustainability through sound financial management and planning coupled with income growth through our partnership with the veterinary science foundation and the development of key internal and external relationships.
- Ensuring strong staff commitment to our vision and mission, acknowledging our achievements and promotion of these to the university and the broader community

### 2. Policies, Processes and Practices

#### 2.1 Strategic Planning

The Faculty of Veterinary Science has been involved in ongoing strategic planning since mid 1998, developing strategies to achieve the Faculty's vision: *A world leader in veterinary education, animal science and research, focused on the health and welfare of animals and benefit to the community.*

General and academic staff have participated in a range of workshops, planning sessions and retreats during the second half of 2001, in order to review the Faculty's achievements and agree on the major goals for the next 3 years. An important new element in our planning is the recognition of the significance of Faculty culture as a key driver of change. A Faculty culture statement has been developed with the opportunity for input by all staff:

- *A strong sense of common purpose supported by open and honest communication*
- *Mutual trust and respect between all staff and students regardless of position*
- *Fairness for all staff and students with recognition and reward for their achievements*
- *A willingness and capability to adapt to internal and external change*
- *Pride in the Faculty's heritage and belief in our core values*
- *Everyone accepting personal responsibility and shared leadership for our future*

The Faculty's Operational Plan can be found in Appendix 7.1 and the report of the Clinics Strategic Planning Workshop can be found in Appendix 7.2.

#### 2.2 Diversification and strengthening of funding base

A strength of the Faculty's revenue generation has been its ability to adapt and diversify its revenue streams to maximize the benefits from changing political and social dynamics. Increased revenue from student fees, research grants and clinical services have enabled the Faculty to grow and develop.

One of the major strengths in Faculty revenue since 1997 has been the substantial growth in local and international student fees. In 1997 student fee income totalled \$445,000 and the fee paying student numbers were 43. In 2002 the total student fee income was \$2,979,000 with fee paying student numbers of 189. The Faculty has developed a sound marketing strategy which has enabled it to easily fill its quota of both local and international fee paying students since 1999.

As a result of the resurgence of the Veterinary Science Foundation, the fund raising arm of the Faculty. Major bequest income in 2000 has been followed by continued pledges and a number of successful capital fund raising programs which have led in the generation of funds for re-building and refurbishment programs.

Income from the Scholarship Index in 2002 was 6.5 times that received in 1997. Similarly revenue from grants has increased by 27.5%. Hospital business income has remained steady with an increase from \$4,434,000 in 1997 to \$4,919,000 in 2002, an increase of 10.5%. The demand for services has increased with changing demographics in the Camden area ensuring broad opportunity for growth and there has also been a significant increase in case numbers at the Sydney Hospital.

A number of unique partnerships have been established with production animal industries to ensure the Faculty plays a leading role in meeting future needs for sustainable and cost effective animal production in Australia. Industry supported Chairs have been established in Dairy Science, Farm Animal Health, Poultry Science and Functional Genomics.

### **2.3 Strategies to promote equity, diversity and environmental awareness in staff & student environment**

- A program of quality evaluation and improvement of teaching and learning, based on regular feedback from students, graduates and peers of each unit of study, with agreed action and follow-up
- Measures developed to ensure equity of access for all students while recognising the special community requirements for veterinary graduates
- Promote the value to the profession of the educational support practice network
- Stimulate scholarly enquiry and reflection on learning and use evidence to improve teaching and learning in the Faculty and the veterinary profession

The Operation Plan for Staff & Students can be found in Appendix 7.3.

#### **2.3.1 Staff**

Appointments: Since the restructuring in 2003 47 new academic staff (38 continuing and 9 registrars) have been appointed, enabled by significant success in research funded positions, the establishment of a Faculty staffing profile and the strategic replacement of staff during the past 8 – 10 years.

#### **2.3.2 Planning:**

The recommended Faculty staffing profile is based on the discipline expertise required to deliver the curriculum, the areas of strategic research strength and the workload model for the Faculty.

#### **2.3.3 Appraisal:**

The Faculty took part in the Pilot Program of the University Performance Management & Development Program in 2000 and has since instituted it across the Faculty with both general and academic staff trained in performance reviews procedures.

#### **2.3.4 Development:**

- The Faculty provides opportunities, both internal and external, for veterinarians to gain specialist and postgraduate qualifications.
- Leadership development programs have been established including an “in-house” course to develop staff self-knowledge, understanding of others, successful team work and the ability to operate across traditional boundaries.
- Development of all teaching staff through the provision of training to improve the educational capability of academics, clinicians, nurses, postgraduate students and technical staff
- Develop a Teaching Innovation Unit and improve the teaching infrastructure

#### **2.3.5 Management of physical facilities**

- The Faculty has established a Faculty Facilities Committee with representation from both general and academic staff from both campuses and representatives from FMO and Properties with the brief to ensure continued upgrade and improvement of all

- facilities in a manner which maximises limited resources.
- Nomination of staff in each Faculty building who are responsible for liaising with FMO and regarding the ongoing maintenance of all facilities in their building
- Appointment of Safety and OH&S Officers in each building

### **2.3.6 IT and lab provision**

- The Faculty has traditionally maintained three computer labs, one in the JDStewart Building, one in the Gunn Building and one in the Shute Building at Camden.
- The Faculty currently has plans for an Access Lab with 60+ computers plus small groups teaching rooms with full computer facilities. Funding for this redevelopment has already been approved and work will begin in July 2003.
- The Faculty has a full-time Computer Services Manager at the Sydney Campus and a full-time IT Support Officer at Camden. The Faculty also has a Web Services Coordinator responsible for developing and maintaining all web services including provision of the extramural student data-base online, WebCT, OLIVER (the online library of veterinary images) and VEIN (the online veterinary education information network)

The Faculty's Information Resources Operational Plan can be found in Appendix 7.4.

## **3. Outcomes**

### **3.1 Funds available for major capital works including:**

- New small animal hospital at Sydney
- Refurbishment of the Shute Building
- Redevelopment of the old Path Lab into a 60+ Access Lab
- Redevelopment of the 4<sup>th</sup> Floor Gunn Laboratory into a multi purpose dry lab
- Significant upgrades at the Camden Veterinary Clinic including new yards, refitted surgeries and recovery rooms, new flooring in radiology area.

### **3.2 Business Units developed in each Clinic with individual budgets and monitoring actual results against budgeted on a monthly basis**

### **3.3 Model developed to determine cost of clinical teaching**

### **3.4 Increased caseload at both Clinics including new Primary Care service**

### **3.5 Refinement and improvement of implementation of computerised practice management system AIS to enhance functionality, improve communication and capture charging**

### **3.6 Regular staff meetings held every 3 months at both Campuses and attended by both academic and general staff**

### **3.7 Faculty Intranet developed to provide forum for information:**

- Personnel issues
- Committee advice and minutes
- Policies
- Staff information
- OH&S details
- Building and OH&S offices listed
- News and events

### **Other outcomes include:**

- Faculty website redeveloped to improve accessibility and broaden scope
- Clinic open days held on each site
- Centralised structure which enables close monitoring of income and expenditure
- Financial staff with higher level of expertise appointed
- Re-emergence of the Veterinary Science Foundation as a promotional and fundraising arm of the Faculty
- A Planning Group comprising members of the academic staff developed a series of

key drivers, which they believed would be important over the next three years. This led to a survey of staff and a retreat of the Faculty Executive to develop major strategies.

- The External Advisory Board (a group of prominent veterinarians and business people) and the Faculty Policy Council (approximately 30 appointed or elected members of the Faculty) meets annually to discuss the Faculty's strengths, challenges and opportunities.
- A culture change process was instituted. One of the major issues that became evident was the Faculty's own culture and the need to develop an agreed culture statement. Meetings involving all staff of the Faculty developed an agreed culture statement, vision and values of the Faculty. A three-day retreat involving 105 staff took place in September 2001 to examine the broad context of our next three-year plan and the implementation of our culture statement. A follow-up questionnaire was circulated to all staff in 2002.
- Reinvestment in upgrades and new equipment in UVCC
- Monthly reporting of financial results within Faculty
- Greater understanding of financial issues by Faculty Executive Committee
- Higher level of financial accountability by individual business unit heads
- Staff student liaison committee meetings
- International student meetings with Dean, Sub Dean Student Welfare and Administrative staff
- Unit of Study Coordinators responsible for review of individual subjects
- 70 involved in Leadership Program in 2002, another 16 – 20 in 2003, across both campuses, including both academic and general staff, program to be ongoing.
- Faculty awards recognising contribution to Faculty
- Over 2001 and 2002, 11 out of 14 academic applicants for were successful for promotion
- The Faculty processes undergraduate International applications within approximately one week. Postgraduate applications take approximately two months to process, due to the more complicated approval process.
- Assessment of non recent school leavers undertaken on objective criteria which ensures equity
- Since 1997, Faculty staff have undertaken 162 training courses through ITL
- The Faculty Facilities Committee reviews submissions from staff for upgrades, improvements and OH&S issues of teaching and research facilities.
- Faculty Information Resources Committee addresses Faculty wide issues relating to computer hardware replacement, IT services, desktop support, software provision and implementation and web services.

#### **4. Stakeholder Feedback & Quality Assurance Processes**

The Faculty of Veterinary Science has a single department model that was introduced in 2000 following extensive consultation with staff. The new Faculty structure has led to streamlining and greater openness of administrative processes with all papers including budgets and minutes distributed across the Faculty or placed on the Faculty intranet site for comment and feedback.

Extensive strategic planning is undertaken in consultation with both academic and general staff and students through meetings, focus groups and online discussion. Review of strategic planning goals and strategies against achievements and outcomes carried out on an annual basis.

Regular and diverse meetings with all student groups led to comments at the recent AVMA site visit that Veterinary Science students feel empowered to affect change. This is done through anecdotal feedback, formal questionnaire, regular assessment of Units of Study, and student participation on working parties, Faculty committees and as elected members of the

Faculty.

Financial monitoring and reporting is undertaken on a monthly basis with projections to year end. Detailed financial reports are provided to FEC monthly.

## 5. Evaluation

### 5.1 Weaknesses of management

- Centralised system can be more bureaucratic for those at the periphery
- Over loaded senior management
- Aging facilities require constant maintenance within very limited budgets
- Cost of teaching model identifies how much it costs to undertake clinical teaching but cannot address this cost
- Promotion of academic staff makes the Faculty “top heavy”
- New young staff need even greater support and development opportunities

### 5.2 Strengths of management

- Sound and regular strategic planning has enabled the Faculty to grow and develop
- Regular review of planned outcomes has ensured the Faculty stay on track with goals
- Able to monitor finances more closely compared to days when individual departments with administrative staff undertaking financial processing through HODs
- Staff able to interact and provide feedback to senior executive at regular staff meetings
- Improved financial planning and budgeting with involvement from staff from business units up.
- Leadership development has led to shared responsibility and staff willing to show initiative and take on new challenges
- Physical facilities have been improved which leads to higher morale
- Staff see openness and equity in all Faculty policies and procedures
- Distribution of Faculty funds takes place in an open and transparent manner
- Communication within the Faculty has improved both across traditional boundaries and across Campuses
- Communication with the profession has improved with positive feedback received from practitioners
- Recognition of the importance of developing online facilities has ensured that the Faculty is at the forefront of innovative teaching in veterinary science
- Appointments of new, young staff has re-invigorated the academic staff

## Goal 7: Service to the Community

*By providing knowledge, opportunity and encouragement, the University of Sydney will maintain and enhance its position as a leading contributor to the opinions and ideas, cultures and lifestyles of the many communities it serves locally, nationally and internationally*

### 1. Objectives

1.1 To contribute to public debate, policy and legislation developments and provide education and expert advice to the community

1.2 To provide community leadership in Animal Welfare

1.3 To provide aid and service to developing countries

1.4 To contribute to wildlife conservation in Australia

1.5 To provide leadership and education in public health and food safety

1.5 Provision of outstanding clinical service to the communities local to both campuses:

- To provide a centres of excellence for referral of clinical cases
- Provide outstanding veterinary care for animals
- Educate national and international veterinary undergraduate and postgraduate students.
- Undertake clinically relevant research to improve the health and welfare of animals
- Act as a source of knowledge and expertise for the veterinary community
- answering enquiries from the profession and the public
- performing research that will improve clinical practice and the health of animals in general.
- Providing speakers for local and national meetings such as the Australian College of Veterinary Scientists Science Week, and Continuing Education courses run by the Postgraduate Foundation and others.
- Providing examiners, Board and Council members for the Australian College of Veterinary Scientists.
- Providing public comment on issues impacting on animal welfare such as use of animals for teaching and research.
- Doing interviews and providing case information and interviews for the popular press and other aspects of the media.

### 2. Policies, processes and practices

#### 2.1 Memberships and advisory roles

The following is by no means a comprehensive list, but a small sample of Faculty activity:

- Member of NSW Schools Animal Ethics Committee - *Dr Paul McGreevy*
- Member of NSW Police Dog Welfare and Ethics Committee - *Dr Paul McGreevy*
- Member of WSPA Scientific Advisory Panel - *Dr Paul McGreevy*
- Member of RSPCA (Australia) Scientific Advisory Panel - *Dr Paul McGreevy*
- Memberships of Veterinary Surgeons Board – Associate Professors Nick Sangster and
- NSW industry and government technical advisory committees - *Om Dhungyel, Prof R Whittington*
- All academics in farm animal health engage with farmer representative peak industry bodies to contribute to national policy on animal health
- Member of the NSW Dept of Agriculture Non-Indigenous Animals Advisory

Committee (representing private keepers of reptiles). This committee is the advisory committee to the Minister for Agriculture established under the Non-Indigenous Animals Act. – *Dr Glenn Shea*

- Member of the NSW National Parks & Wildlife Service Native Animal Keepers' Consultative Committee (representing the Australian Herpetological Society). This committee provides advice to the Director of NPWS about issues relating to the keeping of native fauna in captivity – *Dr Glenn Shea*
- Veterinary member of the Australian Museum Animal Care and Ethics Committee – *Dr Glenn Shea*
- Editor of the journal "Herpetofauna" - published by the Australasian Affiliation of Herpetological Societies. Two issues per year – *Dr Glenn Shea*
- Librarian of the Australian Herpetological Society – *Dr Glenn Shea*
- Members of the faculty are contributing, through the Australian Koala Foundation, to the establishment of national guidelines for the health and care of the koala
- Members of the faculty are acting as assessors for NATA (National Association of Testing Authorities, Australia) of government and private veterinary laboratories in order to achieve common national standards for veterinary testing
- Members of the faculty involved in seminar series for Australian Society of Animal Production and NSW Farmers for HSC Agriculture students in conjunction with the Ag teachers Association of NSW
- Book reviews done for the National Parks Journal and reviewing a book manuscript for CSIRO publishing – *Dr S Hemsley*
- Advice to Veterinary Surgeons Board on animal welfare issues relating to AI (artificial insemination) training courses – *Professor Gareth Evans*
- Representation on committees for Animal Health Australia, which is an organisation that determines Animal Health policy for this country – *Dr J Hodgson*

## 2.2 Education and advice to the community

Again, the following is by no means a comprehensive list, but a small sample of Faculty activity:

- Seminars (Australia, US and Europe) to cattle breeders regarding chondrodysplasia (lethal dwarfism) in cattle and basic genetics in its application to animal breeding – *Drs Julie Cavanagh and Imke Tammen*
- Publication of a column for *The Land* newspaper called Vets Diary - a fortnightly newsletter on livestock health matters that aims to address issues of importance to rural communities. Recent eg. the danger of self administration of Ovine Johne's disease vaccine – *Peter Windsor*
- Provide advice regarding farm animal health to farmers and farmer groups in public meetings and agricultural field day – *Professor R Whittington*
- Extension advice to small holder farmers in the Philippines – *Dr Jenny-Ann Toribio*
- Seminars for veterinarians and horse owners for transfer of knowledge to the community – *Associate Professor David Evans*

## 2.3 Animal Welfare

The Faculty:

- Made successful submissions to government that amended the Game Bill 2000 to improve the Bill's emphasis on the welfare of animals under its remit.
- Has supported bans on cosmetic docking of tails of dogs by representations to state and territorial governments when the issue has been brought forward for consideration.
- Has made submissions to support legislative change to the Prevention of Cruelty to Animals Act and Animals in Research Act.
- Is examining the ethics of animal use in xenotransplantation through the National Health and Medical Research Council Working Party on Xenotransplantation.

#### **2.4 Aid and Services in developing countries**

The Faculty makes significant input into China and Mongolia especially. Projects include

- Work on vitamin D deficiencies – *Professor D Fraser*
- Welfare of horses used in Mongolian Nadam Festival races – *Professor R Rose*
- Advice to wildlife conservation society and the UN Eastern Steppe Biodiversity project on the harvesting and conservation of Mongolian gazelle – *Dr Paul Hopwood*

The Faculty has also developed ties with the Mongolian veterinary school and collaborates with its Dean, Dr Orgil.

#### **2.5 Wildlife Conservation**

Associate Professor Tony English has made many contributions in this area and there is now wide acceptance that the veterinary profession has a responsibility to work with wildlife managers, field biologists and others to help reduce the threat to wildlife.

At the curriculum level, the Faculty has included a unit of study in Veterinary Conservation Biology in the second year of the undergraduate course, while at postgraduate level it has worked with the School of Biological Sciences to introduce for the first time in 2001 a Graduate Diploma/Masters in Applied Science (Wildlife Health and Population Management). This provides veterinarians, biologists and natural resource managers with a coordinated approach to recognising and solving problems in field populations. This new program also provides the University with a full partnership in the Pest Animal Control Cooperative Research Centre (PAC CRC).

In order to meet the clinical component of these programs, the Faculty plans to establish a Wildlife Clinic on the Camden campus, which would be part of a new Wildlife Health and Conservation Centre (WHCC).

#### **2.6 Public Health & Food Safety**

A new postgraduate course work program in Veterinary Public Health Management is being offered for the first time in 2003. This postgraduate program has been formulated in response to changing demands on the veterinary professional workforce, who in the production animal sector have increasing responsibility, given the globalisation of agriculture and the economic impact of emerging and re-emerging diseases such as bovine spongiform encephalopathy and foot-and-mouth disease.

The Faculty has recognised the need for multi-skilled animal health professionals equipped to respond to:

- Animal and human health emergencies
- Livestock industry issues
- Changing market requirements

The new course is an interactive distance education program for animal health professionals in :

- Epidemiology
- Food safety
- Endemic and emerging animal diseases
- Zoonotic diseases
- Research
- Management

#### **2.7 Clinical Services**

- The clinics are well equipped “A” class animal hospitals for small animals, horses, cattle and small ruminants providing a 24-hour service to the community.
- Each hospital is staffed by registered specialists in a wide variety of fields and a number of veterinarians undergoing specialist training.

- Undergraduate and postgraduate students participate in the day to day veterinary care of in patients and the diagnosis and treatment of out-patients. Students also participate in the ambulatory services and after-hours treatment and monitoring of patients.
- The staff regularly hold puppy training evenings, short courses and seminars for referring veterinarians and seminars for clients
- The professional staff and postgraduate students publish clinically relevant case reports, prospective and retrospective studies in peer reviewed journals and in breed magazines. Clinical trials funded by veterinary drug companies are also performed regularly. The professional staff and clinic staff collaborate with various medical research groups using animal models.
- The professional staff receive referral work from veterinarians practicing in New South Wales and sometimes interstate. The professional staff are a source of knowledge and expertise for veterinarians nationally seeking advice on cases.
- The professional staff are occasionally asked to serve as expert witnesses for legal matters, as a point of contact for the RSPCA inspectors, provide advice and services to Taronga Park Zoo and other animal facilities.
- The clinics regularly host overseas students for externships
- Professional staff act as reviewers for national and international veterinary journals

A business plan for the Sydney Clinic, drafted in 2002, can be found in Appendix 8.1.

### **3. Outcomes**

- Feedback from clients and referring veterinarians
- Continued patronage
- Financial sustainability
- Completion of undergraduate and postgraduate degrees
- Placement of students in practice
- Specialist registration for trainees
- Results of student questionnaires
- Results of questionnaires from course participants
- Publication of manuscripts, book chapters, theses and proceedings

### **4. Stakeholder feedback**

- Results of University student questionnaires
- Verbal feedback from referring veterinarians/clients
- Continuity in referrals and business

### **5. Quality assurance processes**

- Based on student feedback
- Based on referring veterinarian and client feedback
- Based on feedback from funding bodies for research
- Based on publications

## 6. Evaluation

Our primary stakeholders are our students and clients (primary accession and referring veterinarians).

Unsolicited feedback from clients and referring veterinarians indicates we are providing a good service. This is supported by ongoing referrals and repeat visits from clients. Maintaining levels of service across the clinic is under ongoing review.

Student feedback would suggest we need to continue to improve further in clinical teaching. Areas of concern are slow times during the day, limited access to the patients and insufficient hands on experience. Some of these areas are difficult to address particularly where client animals are involved.

The faculty has been able to get limited registration for the final year students to perform acts of veterinary science under supervision

The University has supported a desexing clinic run by the students under supervision of clinic staff on dogs that are to be rehomed. This provides hands on experience for the students and a service to the community.

We are presently looking to appoint additional teaching staff in the clinic and develop self directed learning packages.

## Evaluative Summary

### **Goal 1 Teaching and Learning**

The Faculty is very active in the area of Teaching and Learning. The development of the new curriculum and the establishment of the Thyne Reid Education Innovation Unit have been part of a larger culture and plan for changing students' learning strategies from teacher-driven tasks to student centred activities. The Faculty is continually monitoring its teaching and learning, measuring it against targets. A significant challenge for the Faculty is in the area of research training. Community, supervision and resources are areas in which the Faculty needs to establish measures and targets and implement strategies for improvement.

### **Goal 2 Diversity, Access and Equity**

Access to the Bachelor of Veterinary Science is limited by its consistently high UAI cut-off scores. Nevertheless, a complex and rigorous admissions policy ensures equity for applicants with the commitment to diversity an integral part of the policy. This policy has been under review and some recommendations have been made regarding the requirement for a Commitment to Veterinary Science Statement for non-recent school leaver applicants. Equity is maintained throughout the program through policy and the Sub Dean for Students. The low percentage of rural students admitted to the BVSc is an unresolved issue for the Faculty.

### **Goal 3 Research**

The Faculty is very successful in attracting competitive research grants, industry-based research contracts and publishing in internationally recognized refereed journals. While the Faculty is proud of the calibre of postgraduate students trained and their subsequent successes in research and other endeavours, the Faculty also acknowledges areas in which its research training needs to improve and is establishing mechanisms for doing so.

### **Goal 4 Internationalisation**

The Faculty has developed a strong international focus for undergraduate students and significant increases in the numbers of international students suggest that the Faculty's international profile is increasing. The Faculty has some difficulty in assessing the experience of international students distinct from all other students – but this also reflects the equity and integration of all students. Collaborations with veterinary schools throughout Europe, the UK, Asia and North America and international accreditation processes have contributed to the perception of the increasing role of the Faculty as an international leader in veterinary education.

### **Goal 5 Engagement with Industry and the Professions**

As a provider of professional education, it is essential that the Faculty maintain strong relationships with the veterinary profession. This has been done successfully for a number of years but has been enhanced since the establishment of the Veterinary Science Foundation and the External Advisory Committee. Through VEIN, postgraduate and continuing education and research that is strategically aligned with industries, the Faculty serves both the veterinary profession and a number of other animal-related industries as well. Undergraduate students engage with the veterinary profession throughout their degree.

### **Goal 6 Effective Management**

The Faculty's structure, strategic planning and leadership development have resulted in a Faculty with a cohesive and ambitious culture, committed to quality outcomes for its strategic initiatives. Nevertheless, the new structure can overload senior staff. The costs of clinical teaching are a challenge for the Faculty, which despite improved financial planning and diversification of income sources, continues to struggle to maintain adequate facilities.

### **Goal 7 Service to the Community**

A wide range of activities are undertaken by individuals with the Faculty constituting an impressive collective contribution to the community. Despite this, the only area in which community service is evaluated is in the quality of clinical services provided through the two teaching hospitals.