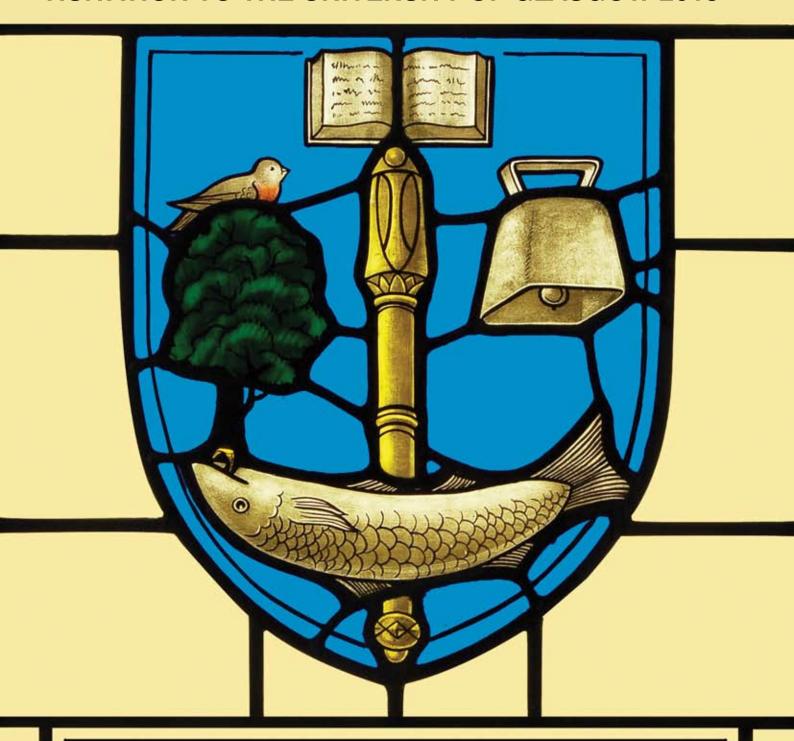


# **VISITATION TO THE UNIVERSITY OF GLASGOW 2013**



GLASGOW



# Visitation to the University of Glasgow

21 - 26 April 2013

Report to the Council of the Royal College of Veterinary Surgeons (RCVS) in accordance with Section 5 of the Veterinary Surgeons Act 1966, and to the Education Committee of the European Association of Establishments for Veterinary Education (EAEVE) in compliance with European Directive 2005/36/EC

Date of report: 16 August 2013







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School of Veterinary Medicine

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**Date of visit** April 21 - 26, 2013

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Dean/Head of School Prof. Ewan Cameron

# Glossary of abbreviations

AVBC Australasian Veterinary Boards Council (Inc)
AVMA American Veterinary Medical Association

BAH Bachelor of Animal Health

BVMS Bachelor of Veterinary Medicine and Surgery

CID Course Information Document
CMS Clinical Management System

COE Council on Education

CPPC College Progression and Promotion Committee

CVG Clyde Veterinary Group
CVR Centre for Virus Research

EAEVE European Association of Establishments for Veterinary Education

GUVMA Glasgow University Veterinary Medical Association

HEIs Higher Education Institutes

IBAHCM Institute for Biodiversity, Animal Health and Comparative Medicine

ISB International Student Barometer

JHL James Herriot Library

MVLS Medical, Veterinary and Life Sciences

NAVLE North American Veterinary Licensing Examination

NAVMEC North American Veterinary Medical Education Consortium

NSS National Student Survey

PDSA Peoples Dispensary for Sick Animals

PSR Periodic Subject Review

RCVS Royal College of Veterinary Surgeons

SAH Small Animal Hospital

SCE Scottish Certificate of Education

SCPAHFS Scottish Centre for Production Animal Health and Food Safety

SFC Scottish Funding Council

SSPCA Scottish Society for the Prevention of Cruelty to Animals

SVM School of Veterinary Medicine
VDS Veterinary Diagnostic Services
VLE Virtual Learning Environment

# Background to the joint international visitation

The visitation to the University of Glasgow was the first international UK visit to be undertaken conjointly between the RCVS, the Council on Education of the American Veterinary Medical Association (AVMA COE), the Australasian Veterinary Boards Council (AVBC) and the European Association of Establishments for Veterinary Education (EAEVE).

The procedure for the visit, including the composition of the visit team and the documentation and criteria to be followed, had been agreed by the International Accreditors Working Group, comprising representatives of each of the accrediting bodies, at a meeting at AVMA's offices in Chicago on 28-29 March, 2011. Following detailed consideration and a comparison of each organisation's accreditation criteria and procedures, it was agreed to follow the AVMA 11 accreditation standards, supplemented by additional information required by RCVS and AVBC, in particular relating to extra-mural studies (EMS), and data relating to the statistical indicators required by EAEVE.

The visit was conducted as a single site visit, with two chairmen – an 'executive chair' nominated by the RCVS, and a second chair nominated by the AVMA. The team stayed together for meetings and tours of the site, and worked together on drafting this report. This report on each of the standards, including the commendations and recommendations, therefore represents the combined agreed views of the whole international team. The report on each of the standards is for consideration separately by each country's accrediting body, which is free to reach its own conclusions on accreditation based on its own national requirements.

An additional, 12<sup>th</sup> standard on EMS has been added to this edition of the report, and the EAEVE indicators and a copy of the visitation timetable have been appended for presentation to RCVS and EAEVE committees. The report has been re-formatted and some spellings anglicised for the sake of consistency with RCVS house-style.

The chairmen and visit team members would like to thank the University and especially the Dean/Head of School, Professor Cameron, and his staff, for their hospitality and cooperation during the visit. The team was also grateful for all the work that the School staff had put into preparing the thorough self-evaluation report, which formed the basis of discussions during the visit.

# Introduction to the University of Glasgow

The University of Glasgow was founded in 1451 and is the fourth oldest university in the English-speaking world. The Glasgow Veterinary College started in 1862 and was incorporated into the University of Glasgow in 1949.

Strengths considered by the School of Veterinary Medicine (SVM) include:

- · Talented and loyal faculty and staff.
- Physical facilities.
- Financial strength and the positive contribution this allows it to make to the College and University.
- Growth in clinical activity and international student recruitment.
- The Research Institutes.
- Strong support from the Head of the College and colleagues within the College of Medical, Veterinary and Life Sciences (CMVLS).
- The intellectually strong, highly committed students.

#### Challenges considered by the School include:

- Recruitment of key clinical staff in some areas due to current environment.
- The funding base for veterinary research in the companion animal sector is limited.
- Competition for international students both home and abroad.
- Embedding of a new curriculum to deliver anticipated outcomes.

## 1. Organisation

#### **Standard**

The school/college must develop and follow its mission statement.

An accredited college of veterinary medicine must be a part of an institution of higher learning accredited by an organisation recognised for that purpose by its country's government. A college may be accredited only when it is a major academic administrative division of the parent institution and is afforded the same recognition, status, and autonomy as other professional colleges in that institution.

The chief executive officer or dean must be a veterinarian, and the officer(s) responsible for the professional, ethical, and academic affairs of the veterinary medical teaching hospital must also be a veterinarian.

There must be sufficient administrative staff to adequately manage the affairs of the college as appropriate to the enrolment and operation.

### **Background**

The School's vision is to create an exciting, innovative and evolving educational experience that prepares its students for a rewarding lifelong career; to conduct high quality animal health and biomedical research in partnership with the research institutes in the College; and to promote knowledge and excellence in the application of veterinary medicine. The aim is to inspire both staff and students and to cherish the values of integrity, creativity, openness and academic freedom.

The University of Glasgow is recognised by all appropriate Government departments at both the UK level and Scottish level. The funding of the University is distributed through the Scottish Funding Council (SFC), an agency of the Scottish Government.

The Royal College of Veterinary Surgeons (RCVS) provides the authority that permits graduates of the School to style themselves Members of the Royal College of Veterinary Surgeons, the essential qualification that all practising veterinarians in the UK must carry. The School was last inspected by the RCVS in 2002 and was found to meet all standards required by the law. Similarly, the European Association of Establishments of Veterinary Education (EAEVE), which conducts conjoint visitation with the RCVS, found the School to meet European-wide standards.

The School is part of the CMVLS and enjoys the same autonomy as other professional schools in the College and University. The CMVLS is composed of three schools and seven institutes and is one of four colleges that make up the University of Glasgow.

The Head of the School, Head of Clinical Services and Heads of Small Animal, Equine and Farm Animal clinics are veterinary surgeons and members of the RCVS.

The School has three academic divisions:

- Small Animal Clinical Sciences (including the Small Animal Hospital)
- Large Animal Clinical Sciences and Public Health (including the Weipers Equine Hospital, Cochno Farm and Research Centre and the Scottish Centre for Production Animal Health and Food Safety)
- Veterinary Biosciences (including Veterinary Diagnostic Services)

#### And two administrative divisions:

- Administration Division
- Undergraduate School

#### School governance committees include:

- School Forum
- School Strategy Group
- Fitness to Practise Committee
- School Executive Committee
- Clinical Services Committee
- Clinical Scholars Residents and Interns
- Ethics and Welfare Committee
- Information Services Committee
- Learning and Teaching Committee
- Admissions Committee
- Programme Board Bachelor of Veterinary Medicine and Surgery (BVMS)
- Programme Board Masters of Veterinary Public Health
- Programme Board Veterinary BioSciences
- Staff Student Liaison Committee
- Research Committee
- Safety Committee

The University is in the process of implementing changes in strategy called 'Glasgow 2020 – A Global Vision'. The changes have resulted in the formation of new research institutes: the Institute of Biodiversity, Animal Health and Comparative Medicine; the Institute of Cancer Sciences; the Institute of Cardiovascular and Medical Sciences; the Institute of Health and Wellbeing; the Institute of Infection, Immunity and Inflammation; the Institute of Molecular, Cell and Systems Biology; and the Institute of Neuroscience and Psychology.

The aim of the new structure is to promote greater collaboration and interdisciplinary approaches to research and teaching. Most staff with significant research activities have been assigned to a relevant institute.

### Commentary

Although the new organisation was created in August 2010, the full effects of the change are still being realised. The Dean/Head of School and faculty are well aware of how the new structure functions, and staff are accepting of the new organisation as being good for research. The reorganisation appears to have had no negative effect on teaching.

As institute-related staff, who previously were associated with the School, leave the University, the future question of whether or not they will be replaced by veterinary-qualified staff remains to be answered.

Students are represented on many of the governance committees and student representatives felt that their opinion was valued and taken account of in these arenas.

#### **Commendations**

 School administrators are commended for promoting a collegial atmosphere characterised by mutual respect and a culture of inclusion that is flexible and responsive to faculty and student needs.

#### Recommendations

The School should continue to monitor the effects of the organisational restructuring on staff
profile to ensure that new staff hired into the research institutes have credentials suitable for
teaching in the professional programme.

## 2. Finances

#### **Standard**

Finances must be adequate to sustain the educational programmes and mission of the college.

Colleges with non DVM undergraduate degree programmes must clearly report finances (expenditures and revenues) specific to those programmes separately from finances (expenditures and revenues) dedicated to all other educational programmes.

Clinical services, field services and teaching hospitals must function as instructional resources. Instructional integrity of these resources must take priority over financial self-sufficiency of clinical services operations.

## **Background**

The University receives an annual block grant for teaching and research from the SFC, an agency of the Scottish Government, and follows the SFC funding formula to pass this income to Colleges and Schools/Institutes. The teaching element of the grant (T-grant) is based on student numbers, which are controlled by the SFC and the band level for student funding. The research element of the grant is based on the quality and volume of research as determined by the rating in the last UK-wide Research Assessment Exercise.

Despite a harsh external economic climate, the University has managed to remain financially robust throughout the period under review, although it was necessary to reduce annual expenditures through a voluntary severance and early retirement programme in 2010/11. The savings achieved through voluntary severance together with increased funding from the SFC has left the University in a strong position and in the last year the University invested in staff across the College including the School.

## **Direct and Indirect Expenses**

		Acadamia	Ctudont	Services of	educational	activity	Spansarad	Other	TOTAL Direct
Year	Instruction	Academic Support	Student Services	Teaching Hospital	Diagnostic Lab	Other	Sponsored research	sponsored activity	Expenses
2007-08	5,283,179	7,635,302	263,769	3,560,234	702,253	455,866	7,629,154	493,047	26,022,804
2008-09	5,623,407	8,281,643	304,760	3,758,236	726,594	488,189	7,660,783	940,388	27,784,001
2009-10	5,772,883	9,894,420	267,257	3,845,341	794,197	799,697	6,286,984	666,168	28,326,946
2010-11	4,898,687	8,376,129	201,903	4,780,594	736,936	508,135	593,161	224,898	20,320,445
2011-12	4,827,173	7,839,392	213,177	4,746,330	761,336	526,844	422,880	202,573	19,539,706

## **College Revenue (Sources of Funds)**

	State		Endowment	Gifts for	Sponsored		Sales and Service			
Year	Approp- riations	Tuition & fees	income (current year)	current use	programme income/ cost recovery	income/ cost Other	Teaching Hospital	Diagnos tic Lab	Other sources	TOTAL Revenue
2007-08	9,634,198	4,197,904	105,402	17,626	7,314,456	88,960	4,048,074	720,661	403,699	26,530,980
2008-09	9,502,564	4,383,312	233,028	148,618	7,513,510	93,455	4,458,974	761,351	399,574	27,494,386
2009-10	8,432,397	4,654,017	164,386	52,399	5,959,070	113,909	4,651,287	792,979	744,855	25,565,298
2010-11	8,394,413	4,168,110	43,791	22,594	781,198	23,339	5,702,980	776,121	430,846	20,435,893
2011-12	5,135,679	5,734,196	57,371	61,698	445,068	8,468	5,392,726	773,019	435,072	18,043,296

#### Notes:

**State appropriations:** SFC - teaching grant decreased from 6m to £4.1m and the SFC - Research grant decreased from £2.4m to £1.1m from 2010/11 to 2011/12.

This reflected both an overall decrease of c.10% in grant funding made available by the state and also the impact of the implementation of the College structure. Under the College structure, it was deemed that a share of the funding should be shared with the research institutes and, as such, income was transferred out of the Vet School and into Research Institutes.

**Tuition & Fees:** As part of the implementation of the College structure, it was also determined that all tuition fees should be allocated to the Schools rather than the Research institutes.

The Vet School's overseas fees increased by £ 1.4m in 2011/12, while Home fees remained flat at c. £ 1.1m. In addition to the change in allocation, there was also a c.4% increase in overseas student numbers in the Vet School.

**Sponsored programme income / cost recovery:** The decrease in Research income from 2009/10 reflects the implementation of the College structure and the transfer of the majority of the Research activity from the Vet School to the newly formed Research institutes.

**Other:** The implementation of the College structure also explains a significant amount of the decrease in this income line over the past five years as the earmarked research grant from the SFC was received by the School until 2009/10 when it was then moved out the Research institutes from 2010/11 onwards.

**Teaching Hospital:** The £ 1.3m increase in teaching hospital income over the past five years comprises a £ 0.9m increase in SAH income and a £ 0.4m increase in income from Equine hospital. Both increases reflect rises across in the period in volume of patient visits and average price per visit.

Diagnostic Lab: The £52k (7%) increase in income from the Diagnostic lab reflects a decrease in volume offset by an increase in average price

University restructuring resulted in Faculty staff, income and costs that were reallocated to either the School or to the relevant research institutes. It is therefore difficult to compare figures from 2005/06 to 2009/10 with 2010/11 figures as the former relate to the Faculty and the latter to the School.

State appropriations have increased by 7% from £7,869k in 2005/06 to £8,397k in 2010/11. This is made up of a 35% increase in learning and teaching funding (the T-grant) from £4,443k to £5,981k offset by a 29% decrease in the R-grant from £3,426k to £2,416k, after the 2008 Research Assessment Exercise. The decrease in the SFC research grant was not due to reduction in the quality or volume of research outputs but increased competition from the rest of the sector. The apparent further reduction in 2010/11 is due to redistribution following restructure and is simply due to years 2005/06-2009/10 reporting Faculty figures and 2010/11 reporting School figures.

Expenditures have risen in line with revenues demonstrating the ongoing investment in all aspects of School activity. Investment in teaching, in clinical operations and in infrastructure has been particularly strong.

Commercial activity associated with the Small Animal Hospital, Weipers Equine Hospital and Veterinary Diagnostic Services represents a major income stream for the School. From 2007/08 through to 2011/12 hospital income has risen by 33% representing an average rise of over 8% year on year. Growth in veterinary diagnostics laboratory income has been 7% over the same period. The significant growth in hospital income is due to major investment in hospital facilities and personnel resulting in a significant expansion in case numbers.

The Head and Senior staff of the School expressed satisfaction with the level of funding provided following the structural change within the University and felt the financial support to veterinary education had improved as a result of the change. In the figures presented above, no account was taken of the financial resource provided to teaching in the veterinary programme by the research institutes.

### Commentary

A vigorous building programme, increased staffing levels, and staff satisfaction support the impression that the School is being well supported by the University and College. Failure to report the contribution to teaching provided by the Institutes means that the full support for the veterinary teaching programme could not be assessed.

#### Recommendation

• The contribution of faculty in the research institutes to the professional teaching programme should be accounted for in future financial reports.

# 3. Physical facilities and equipment

#### **Standard**

All aspects of the physical facilities must provide an appropriate learning environment. Classrooms, teaching laboratories, teaching hospitals, which may include but are not limited to ambulatory/field service vehicles, seminar rooms, and other teaching spaces, shall be clean, maintained in good repair, and adequate in number, size, and equipment for the instructional purposes intended and the number of students enrolled.

Administrative and faculty offices and research laboratories must be sufficient for the needs of the faculty and staff.

An accredited college must maintain an on-campus veterinary teaching hospital(s), or have formal affiliation with one or more off-campus veterinary hospitals used for teaching. Appropriate diagnostic and therapeutic service components, including but not limited to pharmacy, diagnostic imaging, diagnostic support services, dedicated isolation facilities, intensive/critical care, ambulatory/field service vehicles, and necropsy facilities must be provided to support the teaching hospital(s) or facilities with operational policies and procedures posted in appropriate places.

Facilities for the housing of animals used for teaching and research shall be sufficient in number, properly constructed, and maintained in a manner consistent with accepted animal welfare standards. Adequate teaching, laboratory, research, and clinical equipment must be available for examination, diagnosis, and treatment of all animals used by the college. Safety of personnel and animals must be assured.

### **Background**

The Garscube Campus is home to a major part of the MVLS including the School. The Garscube Campus also houses the Wolfson Hall of Residence, which accommodates many veterinary students, particularly in their early years of study, as well as the University's main sporting facilities.

The majority of veterinary teaching and clinical activities are delivered on the Garscube Campus. Elements of early-year teaching, particularly in Biomolecular Sciences and Physiology, are delivered in lecture theatres and laboratories on the main University campus at Gilmorehill, four miles from Garscube. Extensive use is also made of the University-owned Cochno Farm located six miles from Garscube. Supplementary clinical instruction in food animals is delivered at the Clyde Veterinary Group and for small animals at the People's Dispensary for Sick Animals (PDSA) Glasgow, the Dogs Trust Uddingston and the Scottish Society for the Prevention of Cruelty to Animals Clinic (SSPCA). Additional clinical experience is provided at Dermatology Referrals.

The Garscube veterinary campus comprises the following facilities, which are divided into four main geographical areas:

The McCall Building is the main administrative centre for the School. It has:

- Three floors and houses two lecture theatres; five seminar rooms; the clinical skills facility (details below); the small mammal unit; the post-mortem unit; a student computer cluster; and administration, and staff offices.
- An integrated annex also houses; student locker rooms; student showering facilities; the James Herriot Library; one seminar/meeting room and staff offices.

The **Clinical Skills Facility**, established in 2004 and recently expanded in the former Small Animal Clinic, provides students with a learning environment for clinical skills. It contains:

- One main teaching laboratory
- · One small teaching laboratory
- Pharmacy
- · Surgical theatre, preparation and scrub area
- Consulting room
- Diagnostic imaging room
- Reading room with computer access for students
- Radiology film library
- Audio-visual room
- Communication skills suite
- Two multipurpose rooms
- Small mammal unit

The facility is used in the curriculum five days per week, but only one day per week for students in their clinical years and use after hours is limited primarily for health and safety reasons.

The **Small Animal Hospital (SAH)** is a two-storey building which opened in 2009. It is an RCVS Tier 3 accredited hospital.

- There are 14 consulting rooms and a spacious and bright reception area with a separate cat waiting area.
- The central treatment area is used for all non-sterile procedures and acts as the main hub of the hospital.
- There are four main dog wards and a separate cat ward. In addition there is a mixed day-care
  ward, exotic animal ward and isolation wards (two for infectious diseases and one for
  neutropenic patients).
- The diagnostic imaging area comprises six rooms with MRI, CT, digital radiography, and general and cardiac ultrasound machines. The hospital has fully integrated MRI and CT scanners and a linear accelerator.
- There are four surgical theatres and a prep room as well as designated changing and scrub areas and facilities for in-house sterilization of equipment and sterile stores.
- The Wellness Centre provides facilities for all aspects of physiotherapy including hydrotherapy.

- The comparative oncology suite houses the radioactive iodine cat ward as well as providing rooms for the safe administration of chemotherapy. The suite also contains a linear accelerator maze and control room.
- There are high ceilings in the kennels with open access to plumbing and electric wiring.
- The upper floor of the SAH contains office space for administrative staff, clinical scholars and clinicians as well as student facilities including two seminar rooms, a student computer centre, and a staff/student social area.

The **Weipers Centre and Animal Health & Technology Complex** contains the equine clinical and teaching unit. It is also an RCVS Tier 3 accredited hospital.

- The Weipers Centre for Equine Welfare houses the equine hospital; one lecture theatre; and staff offices. Two surgery suites, a radiology suite, a nuclear medicine suite and indoor lunging (exercise) area are located in the Centre. The complex was completed in 2003.
- The James Armour Stable blocks have 20 hospital boxes (stalls) in two barns together with a staff room, in-house laboratory, nurses' office, pharmacy, clinical records room and examination area and an eight PC computer room for students. There was no comprehensive animal/case identification on stalls in the Weipers Equine Centre.
- The Indoor Riding Arena and the large animal isolation unit provides secure isolation facilities for both food and equine species.
- Feed is stored in a temporary container outside the barn

The **Scottish Centre for Production Animal Health and Food Safety** – opened in 2009, comprises the Galloway Building (a purpose build) and renovation of existing facilities. The facility is RCVS accredited. It contains:

- Accommodation for approximately 30 adult cattle or a larger number of small ruminants, including two secure bull pens. Each pen is equipped with a crush for clinical examination.
- A separate area for pigs, with three pens that can accommodate up to 15 finishing weight pigs.
- Two areas for clinical examination classes with flexible access crushes and race facilities for safe handling of all sizes of cattle, including bulls.
- A separate teaching area with flexible provision of up to eight crushes for handling of adult cattle.
- Boot wash and non-adjacent hand wash area.
- A preparation room, where students can access clinical case records, and complete paperwork. It also serves as the central area for organisational purposes.
- · A pharmacy.
- A laboratory, used primarily for reproduction teaching.
- Three seminar rooms, two designated as clean areas (no boots or waterproofs allowed) and one designed as a dirty area immediately adjacent to the teaching area in the main animal accommodation building.
- A 15-PC cluster for general access and teaching.
- A clinical office space open plan, currently home to one academic clinician, two interns and two residents, with occasional visitors.

- A biozone for cleaning equipment.
- A changing and locker room for students.
- A changing and locker room for staff.
- A laundry.
- Four fully equipped vehicles available for transporting students and staff on farm visits.

The **Research Complex** comprises five linked buildings that house both teaching and research functions. It consists of:

- The Jarrett Building contains one lecture theatre; two teaching laboratories; the diagnostic support laboratory; the animal dissection room; reptile teaching accommodation; microscopy facility; research laboratories; and staff offices.
- The Henry Wellcome Building for Comparative Medical Sciences was opened in 2004 and contains research laboratories; one seminar room/meeting room; staff resource centre with cafeteria; insectary facility; and staff offices.
- The Urquhart Building for Parasitology houses research laboratories; one seminar room and staff offices.
- The Botham and MacRobert Buildings both house research laboratories and staff offices.

The **Campbell Building** is a two-storey facility housing the refectory and social space on the first floor. The ground floor has the Glasgow University Veterinary Medical Association (GUVMA) common room with a multi-faith prayer room and several side-rooms with PC clusters.

There are also residential houses, North and South Lodge (two persons each), Home Farm House (four persons) and Home Farm Cottage (four persons), within the Estate, which provide accommodation for duty interns.

Off-site facilities include:

#### **Cochno Farm and Research Centre** (15-minute drive)

- Cochno Farm this is a commercial upland pastoral farm extending to 850 acres and rising from 300 feet to above 1200 feet. Its livestock enterprises comprise approximately:
  - 60-cow dairy herd of Holstein-Friesians plus dry cows and youngstock
  - 25-cow beef herd of Hereford x and Aberdeen Angus x plus youngstock and stud bulls
  - 450 crossbred breeding ewes and 30 purebred Texel ewes plus rams.
  - There is also a small number of poultry (laying hens), pigs and ponies to facilitate animal handling and husbandry teaching
  - A small number of bee hives are also present as a resource for apiculture, public health and food safety teaching
- The farm is used extensively to facilitate all aspects of production animal management and husbandry. This includes a handling and restraint facility for 20-30 cows used in teaching exercises.

- Cochno Research Centre (UK Government [Home Office] licensed premises) this facility
  comprises 12 animal accommodation units, two cattle courts, sheep barn and pens, three
  controlled environment poultry accommodation units, laboratories and the farm office.
- Cochno House this is a listed seven-bay pavilion roofed mansion built in 1757. In recent years it was used extensively for teaching, small conferences and workshops. Upper floors of the house are currently out of use awaiting major refurbishment. At present the basement of the house provides the following resources: lecture theatre (capacity 30); meeting room; two small self-study rooms; four changing rooms; toilet facilities; and kitchen facilities. All the areas of the house in use have internet/Wi-Fi.

#### Clinical Teaching Premises (including distances/travel times from Garscube campus):

- Clyde Veterinary Group (CVG) is a large rural ambulatory practice in custom-built premises from where it services 560 farm businesses (30 miles – 45 minutes).
- PDSA Shamrock Street is a very busy small animal clinic run by a national humane society (6 miles 15 minutes).
- SSPCA Clinics are busy animal shelters for abandoned dogs and cats for adopting (6 miles 15 minutes).
- Dermatology Referrals is a specialist small animal clinic which is privately owned (10 miles 25 minutes).
- Dogs Trust adoption centre (15 miles 25 minutes).

In accordance with the provisions of the Health and Safety at Work Act 1974 and its associated legislation, the University of Glasgow complies with current UK Health and Safety legislation ensuring the health, safety and welfare at work of its employees, students and others who may be affected by its undertakings. The School of Veterinary Medicine Health & Safety Committee is responsible for ensuring the School complies with Health and Safety regulations laid down by the University Safety and Environmental Protection Services and Health & Safety governing bodies. The committee is responsible for ensuring that the safety policies for both facilities and equipment are maintained and adhered to and that standard operating procedures are in place and adhered to. The committee makes recommendations to the School Executive on Health and Safety matters and is responsible for seeing that equipment inspection processes are carried out.

The School provided a listing of individual accident reports, but evidence of health recommendations for affected individuals was not evident.

## **Commentary**

The School should be commended for the purpose-built small animal hospital which is well laid out and well suited for its purpose. One concern in the SAH is access to area above kennels and below ceilings to keep it sufficiently clean.

The clinical skills lab has very spacious rooms suitable for their purpose, but its potential has not yet been fully realised for clinical students.

Several outdated medications were found in one of the pharmacies and a generalised lack of cleanliness was noted in one of the farm animal equipment stores/pharmacy and ambulatory vehicle on one of the sites. The equipment and medications were stacked high behind the rear seat of this vehicle.

Post-mortem examinations on large animals are done on the floor in the necropsy facility.

The access for large animals for in situ demonstration in the dissection hall was difficult.

Work on a new learning and social facility has begun (GLaSS Building).

#### **Commendations**

- Physical facilities on the Garscube campus are generally spacious, clean, and well-maintained.
- The new Small Animal Hospital provides an outstanding environment for student learning.

#### Recommendations

- The School is encouraged to review its biosecurity programme to ensure best practices are in place.
- The School should review its accident response and reporting procedure to ensure timely treatment of affected individuals and mitigation of identified risks.
- The School must ensure that all external sites used for core farm animal student training adhere consistently to the RCVS Practice Standard Scheme, Tier 2, farm animal practice.
- The School is encouraged to provide more comprehensive animal/case identification on stalls in the Weipers Equine Centre.

- The School is encouraged to expand use of the excellent Clinical Skills facility.
- The School is encouraged to implement plans to install a hydraulic postmortem table in the large animal necropsy facility.
- The School should establish guidelines for vehicle safety to prevent objects from flying around in the car during emergency braking.
- The temporary building for equine feed should be replaced with a more suitable solution.

## 4. Clinical resources

#### **Standard**

Normal and diseased animals of various domestic and exotic species must be available for instructional purposes, either as clinical patients or provided by the institution. While precise numbers are not specified, in-hospital patients and outpatients including field service/ambulatory and herd health/production medicine programmes are required to provide the necessary quantity and quality of clinical instruction.

It is essential that a diverse and sufficient number of surgical and medical patients be available during an on-campus clinical activity for the students' clinical educational experience. Experience can include exposure to clinical education at off-campus sites provided the college reviews these clinical experiences and educational outcomes. Further, such clinical experiences should occur in a setting that provides access to subject matter experts, reference resources, modern and complete clinical laboratories, advanced diagnostic instrumentation and ready confirmation (including necropsy). Such examples could include a contractual arrangement with nearby practitioners who serve as adjunct faculty members and off-campus field practice centres. The teaching hospital(s) shall provide nursing care and instruction in nursing procedures. A supervised field service and/or ambulatory programme must be maintained in which students are offered multiple opportunities to obtain clinical experience under field conditions. Under all situations students must be active participants in the workup of the patient, including physical diagnosis and diagnostic problem oriented decision making.

Medical records must be comprehensive and maintained in an effective retrieval system to efficiently support the teaching, research and service programmes of the college.

### **Background**

The SAH has a significant number of referral cases both during and outside of normal hours. The new out-of-hours emergency service for first opinion practices has increased the first-opinion case-load of the hospital. This, combined with the first opinion case load attending the PDSA clinic, provides an adequate number of cases for the teaching of small animal medicine and surgery. In addition, students attend the Dogs Trust Centre in Uddingston and the SSPCA where they carry out neutering procedures under supervision. The numbers of caged pet birds and small mammals attending the teaching hospital are limited; however, students see such cases at the PDSA. Students in Years 1 and 2 undertake scheduled classes for practical handling and examination of small mammals and reptiles which are housed and maintained on site.

Food Animal teaching makes maximum use of a hospitalised case-load of diseased animals, purchased by the School for teaching purposes. Local practices provide a good case- load where ante-mortem and post-mortem diagnostics are carried out as a support to herd or flock investigations. These cases are utilised as a teaching resource, with students directly involved in ante-mortem

diagnosis, clinical discussion, case management decisions, administering medical and surgical treatments as well as communication with referring farmers and veterinarians. When an animal goes for post-mortem examination, students are able to follow their cases through the process. The individual animals presented in the Scottish Centre for Production Animal Health and Food Safety (SCPAHFS) are utilised to initiate herd health discussions and when appropriate a follow-up visit to the farm of origin is undertaken.

Under the new curriculum students will extend their time in both the PDSA and CVG. New contracts for these placements are being negotiated.

**Veterinary Teaching Hospital** 

Animal species	Number of patient visits	Number hospitalised	Number of hospital days
Bovine			
2007-2008		89	5,696
2008-2009		112	7,168
2009-2010		84	5,376
2010-2011		106	6,784
2011-2012		85	5,440
Canine		-	
2007-2008	9,798	2,169	8,468
2008-2009	9,859	2,231	7,412
2009-2010	9,448	2,316	7,412
2010-2011	9,446	2,465	6,881
2011-2012	11,290	2,685	7,137
Equine			
2007-2008	660	323	2,439
2008-2009	676	298	2,180
2009-2010	604	310	2,301
2010-2011	732	361	2,429
2011-2012	752	316	2,014
Feline		-	,
2007-2008	1,212	351	2,345
2008-2009	1,429	379	1,954
2009-2010	1,233	353	1,954
2010-2011	1,129	373	1,931
2011-2012	1,456	409	2,363
Ovine	·	·	
2007-2008		66	4,224
2008-2009		51	3,264
2009-2010		26	1,664
2010-2011		13	832
2011-2012		31	1,984
Porcine	·	·	
2007-2008			
2008-2009		4	256
2009-2010		4	256
2010-2011		3	192
2011-2012		18	1,152
Caged pet mammal	ls		
2007-2008		4	
2008-2009	9	1	3
2009-2010	4	1	3
2010-2011	6		
2011-2012	20	414	5

Animal species	Number of patient visits	Number hospitalised	Number of hospital days
Other-reptiles			
2007-2008			
2008-2009	2		
2009-2010	5		
2010-2011			
2011-2012	4		
Other			
2007-2008			
2008-2009		1	64
2009-2010		2	128
2010-2011			
2011-2012			
Wildlife mammal			
2007-2008			
2008-2009			
2009-2010	1		
2010-2011			
2011-2012			

NOTE: Caprine, caged pet birds, avian wildlife and wildlife mammals are sporadic occasional cases only.

**Herd/Flock Health Programme** 

neid/Flock nealth Frogramme							
		ealth programmes ough institution/state- als	Herd/Flock health programmes provided through privately-owned animals				
	Yes/No	# of Sites	Yes/No	# of Sites			
Dairy	Yes	2	Yes	4			
Beef Feedlots	No	0	No	0			
Cow-Calf	Yes	1	Yes	2			
Small	Yes	1	Yes	1			
Ruminants							
Swine	No	0	No	0			
Poultry	Yes	1	No	0			
Fish	No	0	No	0			
Equine	No	0	No	0			

**Ambulatory/Field Service Programme** 

Ambulatory/Field Service Animal species	# of Farm (site) visits	# of animals
		examined/treated
Bovine		
2007-2008	6,900	105,000
2008-2009	5,400	80,000
2009-2010	5,060	51,188
2010-2011	5,138	39,958
2011-2012	5,190	45,818
Caprine		
2007-2008	4	15
2008-2009	4	15
2009-2010	4	15
2010-2011	4	5
2011-2012	10	15
Equine	•	
2007-2008	22	150
2008-2009	24	170
2009-2010	36	250
2010-2011	20	125
2011-2012	30	200
Ovine and Poultry	•	
2007-2008	1,075	516,000
2008-2009	500	400,000
2009-2010	510	350,225
Ovine		
2010-2011	480	3,026
2011-2012	325	5,125
Porcine		
2007-2008	10	50
2008-2009	10	40
2009-2010	10	50
2010-2011	10	5
2011-2012	18	30
Other		
2007-2008	0	0
2008-2009	0	0
2009-2010	0	0
2010-2011 (poultry)	10	320,000
2011-2012 (camelids)	2	3

NOTES: In its annual returns to AVMA and RCVS, the School has historically included CVG under the ambulatory/mobile clinic heading. The tables above are based on these returns; however, in future the presentation of the data will change. CVG no longer services the poultry unit hence the reduction in case numbers in 2011/12.

Students on farm animal rotations are involved in first-opinion case work on an increasing number of beef and dairy farms, including the University's Cochno farm. A more than adequate number of food animal first-opinion cases are seen when the students attend the CVG. Throughout the programme the students have access to healthy animals housed at Cochno Farm and specific scheduled practical classes cover issues such as condition scoring, lambing and cattle pregnancy diagnosis.

Referred equine cases (in-patient and out-patient) are received on site at the Equine Hospital. The Scottish Performance Horse Clinic is a service offered by the equine hospital which provides on-farm dynamic respiratory endoscopy, exercising ECG and echocardiography throughout Scotland and northern England. Typically the diagnostic service provides visits to about six performance horse yards each month and these are attended by undergraduate students during equine clinical rotations.

Students get limited exposure to routine entry level (first opinion) equine cases.

The number of external case samples received by VDS remains sufficient to provide first-opinion clinical pathological material for student teaching. The number of gross post-mortem examinations has decreased over the past five years but remains sufficient for undergraduate teaching.

Students do not perform anatomical dissection of whole equine or bovine specimens but do dissection of partial specimens as they apply to the different systems. The anatomy lab is not equipped to manipulate whole mature bovine and equine carcasses.

In the final year students are assigned their own cases for which they work closely with the clinician, helping to formulate and deliver a management plan. During their small animal, equine and food animal clinical rotations, final-year students are responsible for all aspects of case investigation, management, treatment, care of patients and interaction with clients, including:

- Initial consultation with clinician present history taking, physical examination
- Diagnostic tests sampling for clinical pathology, performing radiography, interpreting radiographs, assisting with ultrasound, CT, MRI
- In-patient care including daily clinical examinations and records. Night duties when on the 'Hospital Care and Emergency' and equine rotations includes caring for patients in the intensive care units and dealing with first opinion emergencies as part of the out-of-hours service provided to local practices
- Participation in daily clinical rounds
- Client communication at initial consultation, updating clients on the patient's progress, communicating discharge instructions
- Assisting with anaesthesia and surgery
- Participating in triage decision-making to develop competence in planning and management of emergency cases
- Performing and assisting with post-mortem examinations and related investigations
- In food animal rotations, students are given support with selected cases to contact the referring veterinarians to inform them of the outcome of the cases.

At the PDSA first-opinion clinic, the students have delegated responsibility for consultations, formulation of problem lists and therapeutic plans, with supervision from the University Clinician/Teacher in attendance. At the Dogs Trust and SSPCA the students will undertake at least

one bitch spay and in some cases a dog castration and cat spay under supervision of the University Clinician (Dogs Trust) or senior veterinarian (SSPCA). The students will also induce and maintain general anaesthesia on these rotations and have the opportunity to undertake health checks on the housed animals.

A Clinical Management System (CMS), Exelicare, is currently used to store clinical data from SAH. Case details are entered into a Patient Admission System, AT-Systems, in the hospital reception. It is linked to the CMS. Clinical data are entered directly onto the CMS using an Electronic Patient Record. The system is linked to the imaging and clinical pathology databases to ensure that the complete case details can be viewed on any computers. The equine hospital maintains paper records and technicians enter financial information into the AT-Systems. Case summaries are kept on an electronic folder and can be searched for past cases. Paper records can then be retrieved for retrospective studies. The Farm Animal Hospital also maintains paper records. A brief case summary is kept in a searchable excel spreadsheet and electronic case information (pictures, lab data, PM summary) is stored in folders searchable by case number. All other records are retained in paper format by case number. Field records are kept in an electronic record by farm name. The School is presently investigating an electronic system named Tristan to maintain records for all hospitals.

Currently the School is required by RCVS to provide students with five days' practical experience in Veterinary Public Health/Food Hygiene, and exposure to a variety of experiences (for example, white meat and red meat slaughter and processing) is recommended. Not all students have an opportunity to visit a white meat slaughter plant.

#### Commentary

Student exposure to equine cases appears insufficient to provide opportunities for all students to master core equine competences described by the School.

The new curriculum is scheduled to commence in June 2013, but long-term contracts with all core clinical sites are not yet in place. This results in uncertainty about availability of clinical resources.

Experience in a white meat slaughter plant would strengthen the public health experience.

#### **Commendations**

- Clyde Veterinary Group provides excellent access to livestock with medical problems commonly encountered in rural veterinary practice.
- PDSA provides access to an excellent first opinion small animal medicine and surgery caseload.
- The Cochno Farm provides a broad range of farm animal species for pre-clinical instruction.

### Recommendations

- The School must carefully monitor equine caseload to ensure all students are able to attain Day One clinical skills.
- The School must complete contract negotiations with all core distributed clinical sites to ensure the long term case-load needed for student learning.
- The School is encouraged to improve access to a white meat slaughter and processing plant so that all students have the opportunity to experience this activity.

## 5. Library and information resources

#### **Standard**

Libraries and information retrieval are essential to veterinary medical education, research, public service and continuing education. Timely access to information resources, whether through print, electronic media, or other means, must be available to students and faculty. The library shall be administered by a qualified librarian. The college shall have access to the human and physical resources necessary for development of instructional materials.

## **Background**

The James Herriot Library (JHL) is the branch library for the School. Located on the Garscube Campus, it offers seating for 130 students and access to 6,200 books, as well as eBooks; approximately 40,000 electronic and bound journal titles; DVDs; and CD-ROMs.

Funding for library materials is devolved to the School. Requests for new additions are considered by the Veterinary Information Services Committee, a committee comprising representatives of undergraduate and postgraduate students, academic staff, librarians and IT support staff. The budget for 2011-12 was £132,763.40, a year-on-year increase of around 6.5% since the last AVMA-COE accreditation visit.

The University of Glasgow has adopted the Moodle platform as a virtual learning environment (VLE) for the distribution of presentations, lecture notes and handouts to students, Moodle is accessible from any networked computer on campus (including wireless), while off-campus students connecting to the internet can access Moodle through a standard web browser.

Within the library there is a cluster of 10 PCs allowing ready-access to the VLE, electronic information retrieval resources and the library catalogue. One of the computers is a catalogue-only terminal, which allows students to look quickly for library items. Electronic information retrieval resources are hosted by the library and provide students with access to thousands of e-journals, including 124 specialist veterinary and allied journals and online subject-specific bibliographic databases such as CAB Abstracts. Wireless access, self-service printing, and photocopying facilities are also available in the library. A self-checkout machine has been installed in the library, allowing students to borrow and return items outside staff hours.

The JHL is staffed permanently by a Senior Library Assistant who is part of the College Library Support Team. The Team supports all Branch and Departmental Libraries. A subject librarian, who has a postgraduate qualification in Librarianship, is based in the main University Library. With expertise in biomedical information, the subject librarian is available to meet with staff and students on a group or individual basis, to help with literature searching, provide information skills training and assist with other information requirements in the support of learning, teaching and research. The

Library offers dedicated training sessions for postgraduate students through the College Graduate School research training programme.

The JHL is accessible from 7:15 a.m. until midnight every day of the week and is staffed from 9:00 a.m. until 5:00 p.m. Monday to Friday by a permanent member of staff. The main Library (Gilmorehill) is open from 7:15 a.m. until 2:00 a.m. every day except for the Christmas and New Year Bank holidays, and staffed between 9:00 a.m. and 7:55 pm. The main University Library offers a free, online document delivery service for items not in-stock within Glasgow University, a special needs service for students with disabilities, and a range of information skills training courses from undergraduate to postgraduate level. Library staff are working closely with IT personnel to enhance information access through Moodle and / or a Google-specific interface. Students have access to a student version of EndNote for bibliographic referencing.

There are 94 PCs distributed throughout the campus for student use: 25 in the Teaching Computer Centre, with distributed clusters; 26 in the Student Facility, 10 in JHL; 15 in the SCPAHFS; 10 in the SAH; and eight in the Weipers Centre. Additionally printing facilities have been upgraded across campus and charging points installed at multiple locations across campus to accommodate increasing use of student laptops The Dogs Trust has no student computer or wireless access.

### **Commentary**

The Library and IT staff appear responsive to students needs and are advancing the options to enhance faculty, staff, and student needs for information access. The university has a comprehensive holding of online resources easily accessible via the James Herriot Library.

Internet access for students on rotation at the Dogs Trust would enhance student learning and is a requirement for RCVS core 'distributed' training sites.

#### **Commendations**

- The JHL provides an impressive electronic journal collection for use by students and faculty.
- Library and Information Resources staff are responsive to student and faculty needs.
- Information Resources and academic staff collaborate to make effective use of instructional technology.

#### Recommendation

 The School must ensure that internet access is readily available for students on rotation at the Dogs Trust.

## 6. Students

#### **Standard**

The number of professional degree students, or equivalent, must be consistent with the resources and the mission of the college.

Colleges should establish post-DVM/VMD programmes such as internships, residencies and advanced degrees (e.g. MS, PHD), that complement and strengthen the professional programme.

Student support services must be available within the college or university.

In relationship to enrollment, the colleges must provide accurate information for all advertisements regarding the educational programme by providing clear and current information for prospective students. Further, printed catalogue or electronic information must state the purpose and goals of the programme, provide admission requirements and procedures, state degree requirements, present faculty descriptions, clearly state information on tuition and fees along with procedures for withdrawal, give necessary information for financial aid programmes and provide and accurate academic calendar. The information will include national and state requirements for licensure.

Each accredited college must provide a mechanism for students, anonymously if they wish, to offer suggestions, comments and complaints regarding compliance of the college with the Standards of Accreditation. These materials shall be made available to the Council annually.

### **Background**

The School aims to recruit around 120 students into the first year of the course. At present around 70 students in the year are state funded (Scottish/EU) or state subsidised (rest of UK) with the balance being full cost overseas and graduate students. There has been a gradual increase in total student numbers since the decision to have a target entry of 120 students was made. However, over recruitment of full fees students in the past two to three years has resulted in numbers in excess of this figure. If there is capacity the School will admit graduates with an appropriate degree into the second year of the course but this is dependent on the number of students advancing into second year.

The School has established postgraduate courses, including internships, residencies, Masters and PhD.

A student who has completed the first three years of the curriculum for the BVMS degree and has achieved grade D3 or better in the Degree examinations prescribed for these courses may be recommended for the award of the Degree of Bachelor of Animal Health (BAH). Students graduating with the Degree of BAH may not be a candidate either for the Degree of Bachelor of Science in Veterinary Science or for the Degree of Bachelor of Veterinary Medicine and Surgery of the University of Glasgow on a future occasion.

## **Students Veterinary Medical Programme**

Class	2007-08	2008-09	2009-10	2010-11	2011-12
First year	137	127	135	149	148
Second year	113	128	126	123	140
Third year	114	109	120	125	115
Fourth year	121	111	106	103	125
Final year	99	115	101	104	97
# Graduated	99	115	100	104	97

## 2007-08 Interns, Residents and Graduate Students

Department	# Interns	# Residents	# Residents-MS	MS	PhD
Small Animal	7	13	2		
Equine	0	3	1		
Farm Animal	1	3	0		
Pathology	0	0	0		
Faculty of				5	38
Veterinary					
Medicine					

## 2008-09 Interns, Residents and Graduate Students

Department	# Interns	# Residents	# Residents-MS	MS	PhD
Small animal	3	16	4		
Equine	0	2	1		
Farm animal	3	1	0		
Pathology	0	0	0		
Faculty of				12	43.5
Veterinary					
Medicine					

### 2009-10 Interns, Residents and Graduate Students

Department	# Interns	# Residents	# Residents-MS	MS	PhD
Small animal	6	16	3		
Equine	0	2	3		
Farm animal	2	1			
Pathology	0	2			
Faculty of				9.5	41
Veterinary					
Medicine					

#### 2010-11 Interns, Residents and Graduate Students

Department	# Interns	# Residents	# Residents-MS	MS	PhD
Small animal	10	16	1		
Equine	0	2	2		
Farm animal	3	1			
Pathology	0	2			
Faculty of				18	44
Veterinary					
Medicine					

#### 2011-12 Interns, Residents and Graduate Students

Department	# Interns	# Residents	# Residents- MS	MS	PhD
Small animal	12	21			
Equine	1	1	4		
Farm animal	3	1			
Pathology	0	4			
Faculty of				2	15
Veterinary					
Medicine					

#### **Other Educational Programmes**

	Activities						
Year	Additional clinical year students number enrolled	Veterinary technician programme number enrolled	Undergraduate programmes number enrolled	Other number enrolled			
2007-08	0	48	N/A	12			
2008-09	0	42	21	15			
2009-10	0	53	25	16			
2010-11	0	60	26	13			
2011-12	0	60	26	12			

Student Support Services provide pastoral care through the Student Support Office, located within the Undergraduate School. In addition to the student support staff, each student has an allocated Mentor, and the Chief Student Advisor for the five-year programme oversees the mentoring system. Where appropriate, support staff endeavour to provide solutions from within the School but where this is not possible students are referred to University Support Services for: counselling, health, chaplaincy, financial support, accommodation or other areas. Under certain circumstances of severe financial difficulties crisis loans or awards may be made from the Student Hardship Fund.

A variety of student support services are provided at the University level including: Student Counselling and Advisory Service; Student Disability Service; and the International Office. A peer mentoring system (The Big Vet/Wee Vet system) provides additional support.

Student interests within the University are represented at all levels including Senate and Court through the auspices of the Students Representative Council that represents and supports individual students.

Health and safety briefings for students are given at appropriate intervals from initial induction, at strategic intervals during the course, and prior to commencing EMS.

Changes in the academic timetable are not always communicated to affected students in a timely manner.

Additional student services include clubs, organisations, and the GUVMA, which represents the interests of veterinary students on various School committees, organises yearly social events, and raises money for charity.

Students provide feedback through a formal AVMA anonymous system. Student representatives for each class year also provide feedback through the Staff/Student Liaison Committee. In addition, the Course Coordinators, the Dean/Head of School, and the Associate Heads of School operate an open-door policy by which students can express their concerns.

Mechanisms for feedback are present for students, with the opportunity for anonymity if desired.

## **Commentary**

While the number of students has increased from the initial target of 120 students per class, the School appears to manage the current over-enrolment within current resources.

Changes in the academic timetable that are not always communicated to affected students in a timely manner may result in ineffective use of time.

#### **Commendations**

- The welcoming environment promoted by School administrators, faculty, and staff fosters a sense of community that is evident throughout the professional programme.
- Students are pleased with the educational experience and active support provided by the administration and staff.
- The peer mentoring programme ("Big Vet/Wee Vet") is effective and greatly appreciated by international and domestic students.

## Recommendations

- The School should develop a method to consistently match the number of admitted students with enrolment targets.
- The School is encouraged to ensure that changes in timetable be communicated to students in a timely manner.

# 7. Admissions

#### **Standard**

The college shall have a well defined and officially stated admissions policy. The policy shall provide for an admissions committee, a majority of whom shall be full-time faculty members. The committee shall make recommendations regarding the students to be admitted to the professional curriculum upon consideration of applications of candidates who meet the academic and other requirements as defined in the college's formal admission policy.

Subjects for admission shall include those courses prerequisite to the professional programme in veterinary medicine, as well as courses that contribute to a broad general education. The goal of preveterinary education shall be to provide a broad base upon which professional education may be built, leading to lifelong learning with continued professional and personal development.

Factors other than academic achievement should be considered for admission criteria.

## **Background**

There are five routes for admission.

- 1. Scottish Certificate on Education (SCE) normally five SCE Highers, three at band 'A', one of which should be in Chemistry, and two at band 'B'. Subjects must include Chemistry, Biology and either Mathematics or Physics, and all five Highers must be passed at one sitting of the examination. Candidates are then expected to complete a sixth year at school and generally offers will be made conditional upon them achieving high grade passes in their sixth year subjects at Higher, Advanced Higher, or 'A' level as appropriate.
- 2. General Certificate of Education normally three 'A' level passes in Chemistry, Biology and either Physics or Mathematics, grades AAA.
- 3. The School supports a Scottish initiative to offer an alternative route of entry to talented individuals who wish to re-enter Higher Education to follow a professional career (SWAP West). This route is shared with the other health professions (medicine, dentistry, nursing and pharmacy). Following a competitive selection process candidates follow an intensive one year course in basic sciences. Success in this course allows individuals to be considered in the selection process for an interview. In addition, the School is actively involved in Reach Scotland, a national project that aims to raise awareness and to encourage, support and prepare secondary school pupils from S4-S6 wishing to pursue a professional degree at one of the following Universities: Aberdeen, Dundee, Edinburgh, Glasgow and St Andrews.

- 4. Graduate entrants are expected to have an Upper Second Class or First Class Honors Degree in an appropriate subject area such as Animal Science, Zoology, Biochemistry or Physiology.
- Candidates from North America will normally be considered for admission after they have satisfactorily completed three years of a college course, which includes Inorganic Chemistry, Organic Chemistry, Biology, Physics or Mathematics. An analogous standard is sought from other nationalities.

The School has an Admissions Committee composed of 24 members of academic staff, and 20 veterinary practitioners, and a student representative. The Committee membership changes only as members retire off the Committee. There are no formal arrangements for set appointment periods. The Dean/Head of School acts as an ex officio member of the Committee. The Admissions Committee is convened by the Student Services Manager, who is a senior member of administrative staff within the Undergraduate School. The Admissions Convener is responsible to the Associate Head of School, Learning & Teaching, who in turn is responsible to the Dean/Head of School.

All UK and overseas applications, with the exception of those from North America, are made through the Universities and Colleges Admission Service (UCAS). Since 2002, all North American applications are made through Veterinary Medical Colleges Admissions Service. On receipt of the UK application forms, courses of study and qualifications are verified. Applicants with unsatisfactory subject combinations, poor examination results and/or poor predictions in pending examinations are rejected. Remaining applications are scrutinised by members of the Admissions Committee and approximately 250 are called for interview. North American applications are scrutinised by the Admissions Convener and the Associate Head of School, Learning & Teaching and approximately 120 are called for interview in the United States in February. A presentation to applicants is held each morning. This includes a question and answer session and parents/friends are invited to attend. Telephone interviews for other overseas applicants are conducted in exceptional circumstances at the discretion of the Committee. Overseas applicants sometimes take the opportunity to visit the School before finalising their decision.

**Applications to the Veterinary Medical Programme** 

Year	UK and	other EU	UK Graduates		Overseas		Total	
	A/P	O/A	A/P*	O/A	A/P*	O/A	A/P	O/A
2008	643/72	114/72	65/3	13/3	283/40	108/42	991/115	235/117
2009	597/72	116/72	61/5	15/5	304/50	104/64	949/127	235/148
2010	604/72	109/72	61/6	22/12	291/58	121/64	956/136	252/148
2011	844/72	100/72	42/2	6/2	288/62	126/67	1,174/136	232/141
2012	905/72	102/72	67/11	20/12	274/50	123/51	1,246/133	245/135

A/P Applications/Positions available

A/P\* Applications/Positions filled (target variable)

O/A Offers made/Acceptances

The UK interview panels consist of the Convener/Admissions officer or a Senior Member of Academic staff and one other member of the Admissions Committee plus a practising veterinary surgeon. The interview panel in the USA consists of a senior member of academic staff and Admissions Convener, or a senior member of academic staff and the Admissions Officer. In the course of the interview, which takes approximately thirty minutes, the panel looks for evidence of motivation, assesses the candidate's communication skills and seeks his/her opinion on ethical and/or controversial veterinary matters. Results of their application are communicated to candidates by email within four weeks of interview.

Applicants are required to demonstrate that they have acquired a certain level of practical experience that ensures their knowledge of the veterinary profession, and provides the selection committee with evidence of the candidate's motivation. Practical experience should be as varied as possible and in addition to at least two weeks' work experience with a veterinarian, it should include a selection of the following: specialist veterinary practice (small animal, food animal, equine); farming experience (beef, sheep, pigs, poultry); lambing experience; stables; kennels/cattery; veterinary investigation laboratory; and abattoir. However, the volume of experience is judged against opportunity to ensure those with less access are not disadvantaged.

The Admissions Committee also takes into consideration a variety of achievements, interests and skills not directly related to the applicant's vocational aspirations, for example, charity work, Duke of Edinburgh Awards, or who are highly accomplished in sport and/or music. The School provided the site team with the scoring sheets for background experience and the interview; however, the sheets do not include reviewer assessment rubrics. There is little evidence the Admissions Committee uses outcomes data to inform continuous improvement of the admissions process.

The stated target number of undergraduate students is 120 per year. The table shows the actual figures to be greater than this.

#### Commentary

The annual intake of students is inconsistent with the stated target and during the last four years the intake has exceeded the stated target by up to 24%.

Members of the Admissions Committee were very experienced in the selection process; all members had been through training to perform their duty. However, change of committee membership is not done in a systematic way.

The criteria for selection of candidates for interview and grading of interviews are not clearly advertised to applicants.

Background and interview forms do not include reviewer assessment rubrics.

The full admissions criteria are not clearly organised and consistently described on the University and School websites.

#### Recommendations

- The School should develop a system to ensure regular rotation of Admissions Committee members.
- The School and University should provide unified and consistent information on its admission criteria to ensure a fair and unbiased selection process.
- The School should continue to explore methods to standardise the scoring of applicant background and interviews.
- The Admissions Committee is encouraged to use outcomes data to inform continuous improvement of the admissions process.

# 8. Faculty

#### **Standard**

Faculty numbers and qualifications must be sufficient to deliver the educational programme and fulfil the mission of the college. Participation in scholarly activities is an important criterion in evaluating the faculty and the college. The college shall give evidence that it utilises a well-defined and comprehensive programme for the evaluation of professional growth, development, and scholarly activities of the faculty.

Academic positions must offer the security and benefits necessary to maintain stability, continuity, and competence of the faculty. Part-time faculty, residents, and graduate students may supplement the teaching efforts of the full-time permanent faculty if appropriately integrated into the instructional programme.

# **Background**

Academic staff numbers have modestly increased since the last visits. In preparation for the new curriculum, the School has appointed, or is in the process of appointing, new posts resourced from existing vacancies and an increase in the salary budget to fund three new posts including: three species specific clinical teachers; a post in disease investigation to teach disease identification and surveillance in partnership with Scotland's Rural College; two farm animal and public health positions; a veterinary educationalist; a learning technologist to enhance and develop e-learning and assessment; and an additional support staff member for curriculum development and course organisation to help implement and coordinate the new programme.

#### **Veterinary surgeons**

Title	Vet Degree (only)	Vet Degree & Masters	Vet Degree & RCVS Cert	Vet Degree & EU/RCVS Diploma*	Vet Degree & PhD	Vet Degree & RCVS Cert & PhD	Vet Degree & Masters & PhD	Vet Degree & EU/RCVS Diploma & PhD*	Higher Degrees & Fellows†
Dean/									
Head of					1				
School									
(1)									
Professor (9)				1	1			6	1
Senior									
Lecturer/	1			7	4	3		5	1
Clinician	'			,	7	3		3	'
(21)									
Lecturer/									
Clinician (15)	1	2		5	4	1	2		1
Junior									
Clinician‡	3		2						
(5)									
Research									
Assistant			1						
(1)									

- \* Some of these individuals also possess certificates and Masters degrees
- ‡ Includes University teachers
- † Includes higher degrees, for example, DVM and fellows of the RCVS, Royal College of Pathologists, and Royal Society of Edinburgh

#### **Non-Veterinary surgeons**

Title	Bachelor/ MA Degree (only)	Bachelor/ MA Degree & Masters	Bachelor/ MA Degree & PhD	Bachelor/ MA Degree & Masters & PhD	Bachelor/ MA Degree & PhD & Diploma	Higher Degrees & Fellows
Professor			1			
Senior Lecturer			3			
Lecturer			3			
University Teacher	1					
Learning Technologists		1				
Diagnostic Imager	1					
Vet Nursing Tutor	1					
Radiotherapist		1				
Physiotherapist		1				

Does not include staff who have restricted duties, for example, research staff

# **Support Staff**

Area	Management & Administration	Nursing & Animal Care*	Technical & Laboratory Support*	Total
School Administration	11 (9.2 FTE)			11 (9.2 FTE)
Undergraduate School	11 (8.0 FTE)		8 (8.0 FTE)	19 (16.0 FTE)
Small Animal Clinical Sciences	12 (9.6 FTE)	38 (34.9 FTE)		50 (44.5 FTE)
Large Animal Clinical Sciences & Public Health	2 (1.4 FTE)	16 (13.2 FTE)	1 (1.0 FTE)	19 (15.6 FTE)
Veterinary Biosciences (VDS)	5 (3.0 FTE)		14 (14.0 FTE)	19 (17.0 FTE)
Total	41 (31.2 FTE)	54 (48.1 FTE)	23 (23.0 FTE)	118 (102.3 FTE)

<sup>\*</sup> Includes staff in these areas with management responsibilities

Tenure no longer exists within the British University system and staff are employed on open-ended or fixed-term contracts. The majority of academic appointments are open-ended and underpinned by stable core funding. New academic staff undergo a three-year probationary period, which includes induction, training and annual assessment of progress.

There is a promotion round each year and the system is based on self-application, accompanied by a statement from the Dean/Head of School. This is forwarded to the College Progression and Promotion Committee (CPPC), which comprises the Vice-Principal/Head of College, College Deans, Heads of School and Directors of Research Institutes (as appropriate), two Senate Assessors and the College HR Manager. The CPPC provide recommendations to the University-level Board of Review to assess. Academic staff are assessed under the headings: research outputs and scholarship; external income; postgraduate supervision; knowledge exchange and impact; teaching and learning; leadership and management; and esteem.

The Staff Development Service of the University offers an extensive range of courses and skills training free to members of academic and support staff. In addition to classroom courses there are elearning opportunities and a range of videos/DVDs and books available for loan. The School has set aside a budget for tailor-made training programmes and conference attendance when alternative funds cannot be secured. The School is committed to postgraduate professional training.

Staff at all levels in the School and College understood the nature of the University restructure and appeared to see the advantages and opportunity for improvement in research and personal advancement that the change has enabled.

## Commentary

Major structural changes have occurred with the dissolution of the Faculty of Veterinary Medicine and formation of the School. There also has been major curriculum review and revision. Staff appeared to be dedicated to the School and satisfied with their employment conditions. They expressed satisfaction with workloads and their ability to obtain further education and opportunities for advancement among academic and support staff throughout the School and Research Institutes. Students from all course years, recent graduates, postgraduate students, interns and residents universally commented positively on the support in academic and personal matters provided by the academic staff.

As the numbers of FTE veterinary staff involved in teaching is below the suggested range in the EAEVE indicators, the School is encouraged to ensure that this number does not decline further.

#### **Commendations**

- Staff are commended on demonstrating their interest in and support for students.
- College and School senior staff are commended for their effective leadership during a time of major change.

# Recommendation

• The School must not allow any further decline in the number of veterinary qualified staff involved in teaching and should develop a strategy to meet the RCVS guidelines.

# 9. Curriculum

#### **Standard**

The curriculum shall extend over a period equivalent to a minimum of four academic years\*, including a minimum of one academic year of hands-on clinical education. The curriculum and educational process should initiate and promote lifelong learning in each professional degree candidate.

The curriculum in veterinary medicine is the purview of the faculty of each college, but must be managed centrally based upon the mission and resources of the college. There must be sufficient flexibility in curriculum planning and management to facilitate timely revisions in response to emerging issues, and advancements in knowledge and technology. The curriculum as a whole must be regularly reviewed and managed by a college curriculum committee. The majority of the members of the curriculum committee must be full-time faculty. Curriculum evaluations should include the gathering of sufficient qualitative and quantitative information to assure the curriculum content provides current concepts and principles as well as instructional quality and effectiveness.

The curriculum shall provide:

- a. an understanding of the central biological principles and mechanisms that underlie animal health and disease from the molecular and cellular level to organismal and population manifestations.
- b. scientific, discipline-based instruction in an orderly and concise manner so that students gain an understanding of normal function, homeostasis, pathophysiology, mechanisms of health/disease, and the natural history and manifestations of important animal diseases, both domestic and foreign.
- c. instruction in both the theory and practice of medicine and surgery applicable to a broad range of species. The instruction must include principles and hands-on experiences in physical and laboratory diagnostic methods and interpretation (including diagnostic imaging, diagnostic pathology, and necropsy), disease prevention, biosecurity, therapeutic intervention (including surgery), and patient management and care (including intensive care, emergency medicine and isolation procedures) involving clinical diseases of individual animals and populations. Instruction should emphasise problem solving that results in making and applying medical judgments.
- d. instruction in the principles of epidemiology, zoonoses, food safety, the interrelationship of animals and the environment, and the contribution of the veterinarian to the overall public and professional healthcare teams.
- e. opportunities for students to learn how to acquire information from clients (e.g., history) and about patients (e.g., medical records), to obtain, store and retrieve such information, and to communicate effectively with clients and colleagues.
- f. opportunities throughout the curriculum for students to gain an understanding of professional ethics, delivery of professional services to the public, personal and business finance and management skills; and gain an understanding of the breadth of veterinary medicine, career opportunities and other information about the profession.
- g. knowledge, skills, values, attitudes, aptitudes and behaviours necessary to address responsibly the health and well being of animals in the context of ever-changing societal expectations.
- h. fair and equitable assessment of student progress. The grading system for the college must be relevant and applied to all students in a fair and uniform manner.

(\* to meet RCVS and EU requirements, the course should normally cover five years of study)

## **Background**

The School is introducing a new five-year programme to commence in October 2013, with the first year class. Concurrently, the 5th year will change for the students entering Year 5 in June 2013.

The objective of the current five-year curriculum is to provide a quality educational programme, in a research rich environment, that will prepare students for future careers as veterinary professionals in an international context.

The new curriculum will have three phases related to the development of students from entry level to attainment of the competences expected by the accrediting bodies at graduation and satisfaction of the University requirements in recognizing the degree as Scottish Credit and Qualification Framework level 11 (Masters). These phases are:

- The Foundation Phase that occurs in the first and second years and aims to provide deep seated knowledge and skills as a foundation for further clinical study, integrating concepts of structure and function, health and disease in contexts which emphasise the clinical and societal implications of this knowledge and encourage the development of the skills for lifelong learning. There are three themes in this phase: Veterinary Professional and Clinical Skills; Case-based body systems; and Principles of Veterinary Science.
- The Clinical Phase that occurs in the third and fourth years aims to build on the previous phase to provide broad training in key elements of veterinary professional practice, with a focus on common and important problems and presentations encountered in veterinary work. Realistic scenarios and cases form the basis for integrating clinical and scientific perspectives of veterinary practice. The approach will emphasise complexity and the role of clinical reasoning, as well as continuing to develop skills and attitudes required to work in the clinical environment and to take a greater responsibility for learning in the final phase of the programme. There are three themes in this phase: Veterinary Professional and Clinical Skills; Principles of Clinical Practice; and Public Health.
- The Professional Phase occurs in the fifth year and aims to develop the competences required to enter the profession as a new graduate. It recognises that individual aspirations and interests vary. The emphasis is on experiential learning and developing autonomous learners, who can continue to monitor and maintain their professional competence throughout their careers. This is achieved through a combination of core and selective rotations which, in some cases, offer depth and sequential development of skills beyond the core, and in others add breadth beyond the core species.

The development of the new curriculum is a culmination of efforts initiated in 2009. The School incorporated input from external consultants, stakeholders (employers, professional bodies, staff, students, recent graduates, and NAVMEC), external benchmarks, and a curricular map that was linked to AVMA, RCVS, and European competences. A curriculum change group established in 2011 developed the final plan.

Assessment is governed by University policy, with variations peculiar to the School and to specific courses in the individual course information document (CID). In general an individual student is associated with the version of the University Calendar in effect at their initial enrolment. CIDs are updated annually. Assessment is made against descriptors of performance. In programmes in which assessments are primarily objective and use objective instruments of assessment these descriptors are mapped to scores derived from the assessments. There are two schedules for assessment: written work, and practical competences. These must be separately passed in order for a student to make progress in the programme.

Currently students on clinical rotations receive variable feedback on their performance during each rotation -- in person, electronically, or in writing.

See Section 12 below for comments on extra-mural studies.

## **Commentary**

The School is commended for the thought and planning that has gone into the creation of its new outcome-based curriculum.

All students will be exposed to first-opinion practice in small animal and food animal distributed sites, however, adequate exposure to first opinion equine cases is not clear in the proposed new curriculum.

There is no consistent approach to delivery of feedback to clinical students on rotations.

There is some evidence from annual monitoring reports of concern on the part of course leaders over staffing small group teaching and assessments in particular. It will be important that this is considered carefully as the new curriculum with its greater emphasis on teaching other than lectures is rolled out.

#### Commendation

 The School is commended for developing an innovative, vertically and horizontally integrated curriculum mapped to established learning objectives based on RCVS, AVBC, and AVMA COE clinical competences.

#### Recommendation

 The School is encouraged to ensure that Day One competences are achieved and documented equally well across all species in the core rotations.

- The School is encouraged to develop a consistent approach to formative feedback across all rotations.
- The School is encouraged to monitor staff deployment in relation to the demands of the new curriculum to ensure that course leaders are fully supported in curriculum delivery.

# 10. Research

#### **Standard**

The College shall maintain substantial research activities of high quality that integrate with and strengthen the professional programme.

# **Background**

In August 2010 the University underwent a restructure. About 40% of the academic staff within the former Faculty of Veterinary Medicine was assigned to institutes within the College of Medical, Veterinary and Life Sciences, mostly into the Institute for Biodiversity, Animal Health and Comparative Medicine (IBAHCM) and the Institute for Infection, Immunity and Inflammation. The re-assigned staff, continue to contribute to the business of the School. The goal of the restructure is increased incentive and opportunities to develop research programmes. Staff remaining in the School who wish to be research-active have Associate status with one (or more) of the research institutes. The University is committed to strengthening research in veterinary science across the administrative boundaries of the Institutes, which is reflected in its strategy for the 2014 Research Excellence Framework.

Areas of research emphasis include:

Quantitative analysis of disease ecology—Active researchers in this area include molecular biologists, ecologists, epidemiologists, food animal veterinarians with a strong clinical and veterinary public health orientation as well as mathematicians, engineers and physicists. The multi-disciplinary nature of much of the work in this area is underpinned by the Boyd Orr Centre for Population and Ecosystem Health. Major projects being conducted by members of the Boyd Orr Centre include the improvement of surveillance for bovine tuberculosis, vaccination for foot and mouth disease, control of rabies and bovine malignant catarrhal fever in Africa, and the modelling of blue tongue and African horse sickness in the UK. An important initiative that involves a substantial number of Glasgow researchers is the EPIC project, in collaboration with Scotland's Rural College, the University of Edinburgh and the Scottish Government. EPIC is about expanding the capacity of the Scottish Government to manage outbreaks of exotic and emerging livestock diseases, as well as endemic diseases of economic significance.

Virology and oncology—The Medical Research Council-Glasgow University Centre for Virus Research (CVR) was formed in 2010 and construction is planned to commence in 2013, with a total external investment exceeding £ 30 million. This Centre is led by a veterinarian and its existence owes a lot to the former Faculty's strong research focus on veterinary viruses and cancer. This included work that identified the viral agents of feline leukaemia and bovine alimentary cancer, and paved the way for the development of diagnostic products and vaccines against the causative agents. CVR studies integrate molecular and structural virology, cell biology, pathogenesis, epidemiology and

mathematical modelling. There are nine research groups within the CVR: virus structure, epidemiology and evolutionary dynamics, arboviruses, animal retroviruses, intrinsic immunity to virus infection, emerging viral diseases in Africa, human and animal papillomaviruses, biology and pathogenesis of human herpes viruses, and hepatitis C virus.

Parasitology—Three major streams of veterinary parasitology research occur at Glasgow that aim to have researchers address veterinary problems working with general and human medical parasitologists. One stream of research uses *Caenorhabditis elegans* as a comparative tool to investigate the biology of parasitic nematodes. Another stream is involved in research on the apicomplexan parasite of cattle, *Theileria annulata*, as a model system to investigate how intracellular parasites alter the behaviour of the infected cell. Finally, The Wellcome Trust Centre for Molecular Parasitology was established in 1987 and has enjoyed continuing high level support since then, moving into new purpose-built premises in 2006. The remit of the Centre was to study basic features of parasites, using genetic and molecular technology allied with the study of parasites as whole organisms, and exploit this to develop new approaches to control disease. The emphasis of the Centre has been on trypanosomes, leishmanias and more recently Plasmodium. For African trypanosomes, which cause wasting and death in humans and livestock, studies have concentrated on antigenic variation leading to the identification of a new DNA recombination pathway. In addition, this work has identified many of the specialised components of cell cycle control, cell division and has defined field population structures.

**Reproductive Biology**—three areas of research interest in the Reproductive Biology Group are gonadal development, ovarian function and regulation of hypothalamic gonadotrophin-releasing hormone (GnRH) secretion.

Scottish Centre for Production Animal Health and Food Safety (SCPAHFS)—forms a link between the research requirements of industry, undergraduate teaching and clinical activity in production animal health. It engages in research from basic to translational, but always ensures relevance to production animal industry needs. This group applies biotechnology and advanced statistical methods to understand and control major disease and production problems in livestock. The researchers within this group are members of the Boyd Orr Centre for Population and Ecosystem Health, and collaborate closely with researchers at the Moredun Research Institute. Several members of the group work on control of economically important parasites of farm livestock. One area of work is the application of targeted strategic treatment regimens to delay the emergence of anthelmintic resistance in sheep and cattle. A second topic is the improvement of host resistance in sheep and cattle to reduce the need for anthelmintic and acaricide treatments. Another area of research is the interaction between immune function and the occurrence of production and nutritional diseases. Finally, there is strong interest in acute phase proteins and other biomarkers of inflammation and immunity in farm livestock for diagnosis of disease and to improve the understanding of disease processes. All projects use advanced techniques in genomics, proteomics and bioinformatics.

Clinical and Translational Studies—much of this research is translational in nature and conducted by clinical residents or PhD students with clinical academic supervisors. Areas include investigation of hen egg quality and the molecular basis of several diseases affecting small animals. One productive area has been in arthritis of dogs and cats, where the focus is on understanding cellular aging, identifying novel therapeutic targets and the application of gene therapy to control inflammation and

cartilage degradation. The Pain and Welfare Research Group have contributed to the identification and measurement of pain in the domestic species. A collaboration with the University's Dental School, provides funding to study oral diseases in dogs, cats and horses. Another area of clinical research focus in small companion animals has been the neuropathology of infectious and congenital disorders. Translational research is a major feature of the Weipers Centre for Equine Welfare, where current research programmes include work on the epidemiology of musculoskeletal injuries in racing Thoroughbreds, development of exhaled gas analysis for gastric and respiratory disease, dynamic, gait analysis, non-steroidal anti-inflammatory drug use and the sustainable control of equine parasites.

Several structured activities are designed to increase undergraduate veterinary students' involvement in research activities. A summer research project, generally undertaken following third year BVMS involves students spending between six and ten weeks in the lab and/or clinic of an academic staff member carrying out research projects. Some students also carry out research projects overseas. Over the last five years, 76% of these projects have received funding from external sources (range 65 to 80% in each year), competitively won, although the School also funds most relevant projects that are not successful in obtaining external funding. In 2010, 38 students carried out a summer project; in 2011, 30 students; and in 2012, 26 students. By the time of graduation approximately 20% of students have undertaken summer research projects, giving them direct experience of a research environment.

In the BVMS programme there are two summative assessments related to the understanding of research methodology. In BVMS 3, students undertake a critique of a published journal paper (Critical Assessment Exercise) in which they are required to submit an essay reflecting on the construction of the contribution in the context of hypothesis, approach and appropriateness of conclusions. In fourth year the task is broadened with the Veterinary Independent Learning Assignment. This is undertaken as part of the Companion Animal Sciences course and a pass is prerequisite for enrolment in the professional degree examination. Students are encouraged to work in small teams but each student must submit an independent referenced report. A clinical dilemma such as may be encountered in a practice situation is posed. Students are required to establish what is known and what is unknown by creating a set of questions. They are asked to investigate the questions they pose through exploration of a variety of information resources. The quality of each resource used must be judged. This activity exposes students to literature research methodologies and the types of research which can contribute to evidence-based veterinary practice.

The School also recruits veterinary graduates to undertake PhD projects and residents undertake a research project, sometimes as part of a Masters study resulting in publication. These activities ensure the School is contributing to the training of the veterinary academics of tomorrow. Throughout the course several modules and events require research-active staff to contribute towards the education of students.

The College of Medical, Veterinary and Life Sciences established a Head of College Scholar's List Scheme in 2012. The goal of this Scheme is to recognise the top 10% of students in Level 2 and Level 3 in all schools. These students will take part in extracurricular activities with the goal to foster the next generation of biomedical scientists.

# **Commentary**

The new research structure in the College of Medical, Veterinary and Life Sciences with a strong emphasis on the Research Institutes provides the potential opportunity for the School to increase the number of students participating in research projects.

#### Recommendation

• The School is encouraged to consider introducing a requirement for all students to undertake a research project, as recommended by the RCVS.

# 11. Outcomes assessment

#### **Standard**

Outcomes assessment measures that address the college mission must be developed and implemented. Outcomes assessment results must be used to improve the college programmes.

# **Background**

The outcome of course assessments are considered by the course team and reported in the annual Course Monitoring Reports, which form part of the School Monitoring report. The School Monitoring report is reviewed by the School Learning & Teaching Committee and reported to the College Learning & Teaching Committee to form part of the College Monitoring report. This is considered by the University Senate Office and triangulated with the reports of external examiners, which are received directly by the Senate Office and forwarded to the School. Where necessary the School is required to respond to critical comment.

Course outcomes summarise overall performance over the sample of Intended Learning Outcomes and specific competences are not identified and reported separately. Students and staff develop a perspective of individual student progress through regular formative assessment in addition to year end summative assessments. With the introduction of the Veterinary Professional and Clinical Skills courses in BVMS 1-3 each student undertakes two formative and one capstone competence assessment in years 1-3.

In the new curriculum, summative assessments will continue to include Objective Structured Clinical Examinations (OSCEs), and be expanded to include Directly Observed Procedural Skills (DOPS), and Professional Portfolio assessments. Each student is required to demonstrate competence in at least 12 DOPS across all core rotations.

#### **NAVLE Results**

Year	Cohort score data (mean SD)		Cohort pas	ss data (%)	Cohor	t size
	All	Glasgow	All	Glasgow	All	Glasgow
2006/07	507 (66)	441 (57)	90	58	2,841	12
2007/08	526 (67)	498 (53)	97	95	2,903	22
2008/09	523 (64)	508 (65)	97	87	3,009	38
2009/10	536 (68)	503 (58)	96	86	3,061	28
2010/11	534 (64)	518 (49)	98	97	3,239	39
2011/12	522 (64)	489 (57)	96	91	3,465	34

The cohorts taking the NAVLE are relatively small and thus prone to distortion by individual performance. The style of the NAVLE is different to most of the assessments used in the BVMS

programme and therefore the students have less experience with the style of assessment. The School was sufficiently concerned by the outcome of the 2006/7 NAVLE to invest in subscription to a NAVLE support service for all senior students (VetPrep available from Autumn 2008). Broadly, the trend is for the mean score for Glasgow candidates to be below the mean for the general cohort but not statistically significantly below. The School believes that this reflects the practice of the majority of the students to take the NAVLE during the December session, which is about six months before the end of the programme.

#### **Student Attrition Rates**

Entering	ring Attrition* Reason for Relative attrition		Absolute attrition**		
class	Attrition	Academic	Personal	Number	Percentage
1	11	8	3	1	0.67%
2	5	5	0	2	1.6%
3	5	4	1	1	0.8%
4	5	3	3	1	0.97%
5	0	0	0	0	0

<sup>\*</sup> Students that are either withdrawing from the programme or moving to a different (earlier) class

Compared to other University programmes, attrition rates are low in the Veterinary Course.

The one year destination of graduates of UK Higher Education Institutes (HEIs) is recorded in the Destinations of Leavers of Higher Education survey which is undertaken at six months post-graduation. This survey records outcomes for UK/EU domiciled individuals. Over the period 2006 to 2011 the mean percent of year one graduates in employment or study was over 90%.

There has been a rolling programme for surveying alumni since 2006. Year 1 graduates have been surveyed annually and a proportion of graduate cohorts are surveyed at three and five years post-graduation. The School recognised that it primarily garnered feedback from individuals practising/based in the UK. As the numbers of graduates practising/based outside the UK has grown during this period, reflecting admissions policy and the resultant student population, the School endeavoured to increase the reach of the survey from 2009 to include all Year 1 graduates through a contact programme based on the University's graduate contact database with the survey offered online as well as through the Veterinary Defence Society reunion. Approximately one third of the respondents of the 2012 survey were from outside the UK/EU.

Over the inter-accreditation period the perception of recently graduated alumni has consistently reflected satisfaction in the professional programme and the delivery of the educational experience, with graduates who feel equipped to function in the professional environment. Course satisfaction and job satisfaction in graduates of the BVMS programme have remained stable over this interaccreditation period.

Employers have been surveyed in 2010 and 2012 using contact details generated from the graduate surveys. Permission was sought from graduates to contact their employers. Of the 127 graduates who responded in 2010 (one, three and five years postgraduation) 58 provided employer contact details. Responses were received from 31 employers. Overall, employers were satisfied with the graduates

<sup>\*\*</sup> Students who leave and never return.

from Glasgow. In general, the attributes of graduates were rated similarly to the last survey (2006) with knowledge, knowing when to seek advice and communication skills (with both clients and colleagues) being particularly recognised. Employer feedback on the graduates' understanding of business rated the majority of graduates as average or good.

In 2012, 12 employers completed the survey. The survey was redesigned in tandem with the graduate survey in 2012. Overall employers were satisfied with graduates from Glasgow. The attributes of graduates were rated similarly to the last surveys (2006 and 2010) with knowing when to seek advice and communication skills (with both clients and colleagues) being particularly recognised. Though employers generally perceive the business skills of new graduates as their least well developed attribute, the revised version of the survey reveals that they also perceive this attribute as less significant than other personal attributes such as client and staff communication skills and ability to be flexible. Alumni and employers noted communication skills of graduates were very strong.

The Course Monitoring cycle requires course teams to comment annually on the infrastructure, staff resources, organisation and student attainment related to the educational environment. The comments of course teams are reviewed at School, College and University level. The Head of College is required to respond to the outcomes of the annual monitoring cycle.

The National Student Survey (NSS) covers all publicly funded HEIs in the UK and is carried out by Ipsos MORI on behalf of the Higher Education Funding Council of England and relevant devolved bodies. It is completed by students in their final year regardless of the programme being undertaken. The questions are generic and there are potential issues around the interpretation in relation to specific programmes. The NSS is completed by a significant proportion of the BVMS 5 students. Respondents indicate an overall satisfaction with the programme at 93% in 2012.

The International Student Barometer (ISB) tracks decision-making, expectations, perceptions and intentions of international students from application to graduation; providing global, regional and customised benchmarks. The ISB is provided by iGraduate. Although it gives generic feedback to Institutions it does not provide programme-specific information.

The University is benchmarked in its educational mission at a national level through the Enhancement Led Institutional Review, which occurs every five years. The educational programmes offered by the School are reviewed by the University through the process of Periodic Subject Review (PSR) every five years and this process contributes to the Enhancement-Led Institutional Review. The latest PSR for Veterinary Medicine was December 2012. Exit feedback was very positive but the School has not yet received a formal written report from the Senate Office. In addition, there was evidence of some delay in the School receiving external examiner's reports.

#### Commentary

The School has a robust system of outcome assessment including direct observations of clinical competences. The assessment programme is further strengthened in the new curriculum. Outcome assessment data are used effectively to improve the curriculum.

Delay in the School receiving external examiner's reports may impede the process of quality enhancement.

In 2012, only 12 employers completed the employer satisfaction survey. This response rate is too low for statistically significant results.

The School uses outcome data to improve the curriculum. One example is the approval of hiring of small animal support staff after lack of support in this area had been identified.

#### Commendation

 The variety and quality of outcomes assessment methods provide outstanding tools for curricular evaluation and are used for continuous programme improvement.

#### Recommendations

- The School must develop and implement a plan to increase the response rate to recent graduate employer surveys.
- The University should review its relevant quality assurance processes to improve the speed of response and ensure incorporation of beneficial changes for students.

# 12. Extra-mural studies

#### **Standard**

Extra-mural studies (EMS) must be an integral and structured part of the education and training of veterinary students. Veterinary schools will need to be able to demonstrate how it is built into the overall curriculum. Students must undertake a total of 38 weeks of EMS before they graduate.

Twelve weeks should normally be devoted to animal-husbandry-related EMS so that students gain experience of the behaviour of normal animals in their own environments.

Clinical EMS must comprise at least 26 weeks across a broad range of areas.

Students must keep a log of their learning and experience throughout their EMS.

There must be a system in place to enable EMS providers to report back to the school on their assessment of the performance of students during EMS.

The student's experience log and the feedback from EMS providers must form a part of the student's formative assessment against the RCVS's Day One competences.

There must be a member of the academic, or academically-related staff, responsible for the overall supervision of all types of EMS, including liaison with EMS providers.

There must be a mechanism to enable students to formally report on the quality of the instruction and experience of EMS placements.

Students must have access to a suitable database of EMS placements, and must be able to seek and obtain advice and guidance on the suitability of EMS placements.

# **Background**

Twelve weeks are devoted to animal-husbandry-related EMS for students to gain experience of the behaviour of normal animals in their own environment. Clinical EMS comprises 26 weeks across a broad range of areas.

Under the University regulations, EMS is not an integral part of the curriculum, and thus students have up to now been able to sit their final examinations whether they have completed their EMS requirements or not. Completion of EMS is, however, a requirement for graduation.

Students use a portfolio to record placements and write a reflection on each of these. The portfolio is reviewed twice yearly by mentors of whom all are members of the RCVS. EMS providers report back to the School through the use of standard feedback forms given to them by the student on the placement. These efforts are monitored through the EMS office and any concerns regarding a placement or raised by a provider are brought to the attention of the EMS co-ordinator.

The School has an EMS office responsible for monitoring the system and communicating with providers. The office reports to the EMS co-ordinator. Mentors are assigned a small group of students who they meet twice a year to review reflections on placements as well as setting objectives for upcoming ones.

Students keep records of their experiences and quality of the placement electronically. The EMS office holds an EMS database detailing students placements including contact details for practice placements. Students are not given direct access to this database due to data protection concerns, although information on practices can be made available for students on request.

Students can undertake EMS globally, but are encouraged to spend at least part of the clinical EMS period in the UK.

## **Commentary**

Alumni report considerable interest of US placement providers in the EMS system and a desire for fuller information on its purpose and how it works.

The anticipated changes, to include EMS in the portfolio recording system as an integral part of the University curriculum, may address the current situation whereby completion of EMS is a requirement for graduation, but non-completing students may still sit the degree examinations.

The EMS structure is clearly described in the Self-Evaluation Report and the School's VLE; however discussions with students indicated that not all were aware of guidance documents such as the "EMS driving licence" (available on the RCVS website amongst others places). Some felt that they would benefit from receiving the EMS objectives list earlier in the course. Direct student access to a database of EMS providers was not available, although the EMS office kept this information and could assist students to find placements if necessary.

The course appears to comply with the RCVS requirement for 12 weeks' preclinical and 26 weeks' clinical EMS.

#### Recommendation

The School should consider reviewing its approach to students booking EMS and the
information available to international providers so that providers can receive details of the
School's and student expectations of EMS and be in a position to provide the best possible
learning experience.

# Summary of strengths

# 1. Organisation

 School administrators are commended for promoting a collegial atmosphere characterised by mutual respect and a culture of inclusion that is flexible and responsive to faculty and student needs.

#### 2. Finances

# 3. Physical facilities and equipment

- Physical facilities on the Garscube campus are generally spacious, clean, and wellmaintained.
- The new Small Animal Hospital provides an outstanding environment for student learning.

#### 4. Clinical resources

- Clyde Veterinary Group provides excellent access to livestock with medical problems commonly encountered in rural veterinary practice.
- PDSA provides access to an excellent first-opinion small animal medicine and surgery caseload.
- The Cochno Farm provides a broad range of farm animal species for pre-clinical instruction.

# 5. Library and information resources

- The JHL provides an impressive electronic journal collection for use by students and faculty.
- Library and Information Resources staff are responsive to student and faculty needs.
- Information Resources and academic staff collaborate to make effective use of instructional technology.

#### 6. Students

 The welcoming environment promoted by School administrators, faculty, and staff fosters a sense of community that is evident throughout the professional programme.

- Students are pleased with the educational experience and active support provided by the administration and staff.
- The peer mentoring programme ("Big Vet/Wee Vet") is effective and greatly appreciated by international and domestic students.

#### 7. Admission

# 8. Faculty

- Staff are commended on demonstrating their interest in and support for students.
- College and School senior staff are commended for their effective leadership during a time of major change.

#### 9. Curriculum

 The School is commended for developing an innovative, vertically and horizontally integrated curriculum mapped to established learning objectives based on RCVS, AVBC, and AVMA COE clinical competences.

# 10. Research programmes

#### 11. Outcomes Assessment

• The variety and quality of outcomes assessment methods provide outstanding tools for curricular evaluation and are used for continuous programme improvement.

# Recommendations

Non-compliance for a standard will be indicated by \*

Substantial compliance for a standard will be indicated by †

No designation indicates a recommendation for improvement of the quality of the programme

# 1. Organisation

The School should continue to monitor the effects of the organisational restructuring on staff
profile to ensure that new staff hired into the research institutes have credentials suitable for
teaching in the professional programme.

#### 2. Finances

 The contribution of faculty in the research institutes to the professional teaching programme should be accounted for in future financial reports

## 3. Physical facilities and equipment

- The School is encouraged to review its biosecurity programme to ensure best practices are in place.
- The School should review its accident response and reporting procedure to ensure timely treatment of affected individuals and mitigation of identified risks.
- The School must ensure that all external sites used for core farm animal student training adhere consistently to the RCVS Practice Standard Scheme, Tier 2, farm animal practice.
- The School is encouraged to provide more comprehensive animal/case identification on stalls in the Weipers Equine Centre.
- The School is encouraged to expand use of the excellent Clinical Skills facility.
- The School is encouraged to implement plans to install a hydraulic postmortem table in the large animal necropsy facility.
- The School should establish guidelines for vehicle safety to prevent objects from flying around in the car during emergency braking.
- The temporary building for equine feed should be replaced with a more suitable solution.

#### 4. Clinical resources

- The School must carefully monitor equine caseload to ensure all students are able to attain Day One clinical skills.
- The School must complete contract negotiations with all core distributed clinical sites to ensure the long term case-load needed for student learning.
- The School is encouraged to improve access to a white meat slaughter and processing plant so that all students have the opportunity to experience this activity.

## 5. Library and information resources

 The School must ensure that internet access is readily available for students on rotation at the Dogs Trust.

#### 6. Students

- The School should develop a method to consistently match the number of admitted students with enrolment targets.
- The School is encouraged to ensure that changes in timetable be communicated to students in a timely manner.

#### 7. Admission

- The School should develop a system to ensure regular rotation of Admissions Committee members.
- The School and University should provide unified and consistent information on its admission criteria to ensure a fair and unbiased selection process.
- The School should continue to explore methods to standardise the scoring of applicant background and interviews.
- The Admissions Committee is encouraged to use outcomes data to inform continuous improvement of the admissions process.

# **Faculty**

 The School must not allow any further decline in the number of veterinary-qualified staff involved in teaching and should develop a strategy to meet the RCVS guidelines.

#### 8. Curriculum

- The School is encouraged to ensure that day one competences are achieved and documented equally well across all species in the core rotations.
- The School is encouraged to develop a consistent approach to formative feedback across all rotations.
- The School is encouraged to monitor staff deployment in relation to the demands of the new curriculum to ensure that course leaders are fully supported in curriculum delivery.

# 9. Research programmes

• The School is encouraged to consider introducing a requirement for all students to undertake a research project, as recommended by the RCVS.

#### 10. Outcomes assessment

- The School must develop and implement a plan to increase the response rate to recent graduate employer surveys.
- The University should review its relevant quality assurance processes to improve the speed of response and ensure incorporation of beneficial changes for students.

#### 12. Extra-mural studies

The School should consider reviewing its approach to students booking EMS and the
information available to international providers so that providers can receive details of the
School's and student expectations of EMS and be in a position to provide the best possible
learning experience.

# Appendix 1 – EAEVE indicators

Parameter addressed		Indicator (ratios)	Data	Ratio	Established range of denominators
	R1:	no. total academic FTE in Veterinary Training	81.69	0.12	8.05
		no. undergraduate veterinary students	658		(8.85 – 10.42)
	R2:	no. FTE total Faculty 1)	81.69	0.11	9.17
		no. undergraduate students at Faculty	749		8.75 – 12.54
Teaching capacity (see Annex 3,	R3:	no. VS FTE in Veterinary training	53.49	0.08	12.30
Tab 10.3)		no. undergraduate Veterinary students	658		(10.62 – 12.62)
	R4:	no. VS FTE in Veterinary training	53.49	0.55	1.81
		no. students graduating annually	97		(4.91 – 7.21)
	R5:	no. total FTE academic staff in veterinary training	81.69	0.80	1.25
		no. total FTE support staff in veterinary training	102.4		(0.53 – 2.20)

Types of training (see Annex 3, chapter 4.1.3)	R6:	Theoretical Training	1571.5	1.27	<b>0.79</b> (0.51 – 0.36)
chapter 4.1.3)		Supervised practical training	1239.5		(0.31 – 0.30)
	R7:	clinical work Laboratory and desk based work + non clinical animal work	806 433.5	1.86	<b>0.54</b> (1.88 – 2.21)
	R8:	self directed learning teaching load	387 2839	0.14	<b>7.35</b> (0.51 – 7.87)
Training Food Hygiene/Public Health	R9:	Total no. curriculum- hours Food Hygiene/Public Health	235	0.08	12.08
		Total no. hours vet. curriculum	2839		(6.00 - 42.26) (EAEVE 2011)
	R10:	Total no. curriculum- hours Food Hygiene/Public Health	235	6.71	0.15
		Hours obligatory extramural work In veterinary inspection	35		(0.05 – 0.82) (EAEVE 2011)
Animals available for	R11:	no. students graduating annually	97	0.01	<b>69.87</b> (2.47 – 1.73)
clinical education (see Annex 3, Table 7.5)		no. of food-producing animals seen at Faculty	6777		, ,
	R12:	no of students graduating annually	97	0.02	54.95
		no of individual food- animals consultations outside the Faculty	5330		(2.56 –1.02)

R13:	no of student graduating annually no of herd health visits	97 108	0.90	<b>1.11</b> (0.20 – 0.09)
R14:	no of students graduating annually no. of equine cases	97 752	0.13	<b>7.69</b> (1.78 – 0.92)
R15:	no of students graduating annually no. of poultry/rabbit	97 4	24.25	<b>0.04</b> (0.58 – 0.37)
R16:	no of students graduating annually no of companion	97 12771	0.01	<b>131.66</b> (48.74 – 37.94)
R17:	no. of students graduating annually  poultry (flocks)/rabbits	97	97.00	<b>0.01</b> (0.07 – 0.02)
	no. of students graduating annually	97	0.37	<b>2.68</b> (0.75 – 0.46)
R18:	no. necropsies food producing animals + equines	260		(0.75 - 0.40)

Necropsies available for clinical education (Table 7.6)	R19:	no. students graduating annually no. poultry/rabbits	97 144	0.67	1.48 (0.26 – 0.12)
	R20:	no of students graduating annually necropsies companion animals	97 460	0.21	<b>4.74</b> (1.26 – 0.89)

R15 - The number of poultry and rabbit cases is very low. The University is negotiating with another organisation to provide additional exotic animal clinics at Glasgow which will increase the number of rabbit cases.

# Appendix 2 – Visit timetable

# **DAY 1 - Sunday 21 April 2013**

Time	Meeting
4.00pm – 6.00pm	Private meeting of site team members at Hotel
7.00pm	Private site team dinner at Hotel

# **DAY 2 – Monday 22 April 2013**

Time	Meeting	Participants
8.00am	Site team depart from Hotel	
8.15am	Welcome to the School and brief overview, Seminar Room 2, Small Animal Hospital*	Prof Ewan Cameron, Dean/Head of School Dr Maureen Bain, Deputy Dean/Head of School Ms Sarah Chiodetto, Head of School Administration Mrs Caroline Hutchinson, Visit Co-ordinator
	Commence tour of facilities (Protective clothing & footwear will be provided	as necessary)
8.45am	Small Animal Hospital* (Visiting group will be met in reception)	Prof Clare Knottenbelt, Director, Small Animal Hospital Mr Adam Auckburally, Senior Veterinary Clinician Mrs Pam McComb, Head Veterinary Nurse
10.00am	Weipers Centre for Equine Welfare* (Visiting group will be met in reception)	Prof Sandy Love, Director, Weipers Equine Hospital Mr Adam Auckburally, Senior Veterinary Clinician Ms Mary Gatherer, Head Equine Nurse

11.00am	Food Animal & Equine Isolation Facilities	Prof Sandy Love, Director, Weipers Equine Hospital Prof Dom Mellor, Head, Large Animal Clinical Sciences & Public Health Mr Adam Auckburally, Senior Veterinary Clinician Ms Mary Gatherer, Head Equine Nurse
11.20am	Clinical Skills Training Suite	Ms Lissann Wolfe, Clinical Skills Co-ordinator Ms Jenny Hammond, Veterinary Educationalist
11.40am	Break - Tea/Coffee - Lomond Room*	
12.00noon	Computer Laboratory (Top Floor, McCall Building)	Mr Graeme McCombe, IT Specialist
12.05pm	McCall Lecture Theatre	Mr Graeme McCombe, IT Specialist
12.10pm	James Herriot Library	Ms Kirsteen Valenti, College Library Support Team Manager Mr Craig Brennan, Branch Librarian
12.20pm	Scottish Centre for Production Animal Health and Food Safety (Visiting group to be met at changing room)	<b>Prof Nick Jonsson</b> , Director, Scottish Centre for Production Animal Health & Food Safety Prof Dom Mellor, Head, Large Animal Clinical Sciences & Public Health Mr Adam Auckburally, Senior Veterinary Clinician
12.55pm	Post-Mortem Room	Dr Pam Johnston, Veterinary Biosciences Mr Richard Irvine, Veterinary Biosciences
1.10pm	Henry Wellcome Building* Research laboratory, Level 3, HWB	Prof Massimo Palmarini, Director of Centre for Virus Research
1.20pm	Lunch - Resource Centre, Henry Wellcome Building*	
2.00pm	Histopathology Teaching Laboratory	Dr Maureen Bain, Institute of Biodiversity, Animal Health and Comparative Medicine
2.10pm	Anatomy Dissection Laboratory	<b>Dr Maureen Bain</b> Dr Alison King, Small Animal Clinical Sciences
2.25pm	Depart from outside Jarrett Building for Cochno Farm & Research Unit	

2.45pm	Arrive Cochno Farm & Research Unit* (Protective clothing will be available in the Basement Changing Rooms, Cochno House)	<b>Dr Peter Hastie</b> , Director, Cochno Farm & Research Centre Prof Nick Jonsson, Director, Scottish Centre for Production Animal Health & Food Safety Prof Dom Mellor, Head, Large Animal Clinical Sciences & Public Health Mr Tim Geraghty, Large Animal Clinical Sciences & Public Health
3.40pm 4.00pm	Depart Cochno Visitors private meeting at Hotel	
5.50pm	Depart Hotel	
6.00pm	Tour of Main Campus, including Library and University Tower (time/weather permitting)	Ms Kirsteen Valenti, College Library Support Team Manager Mr Paul Dragsnes, Deputy Bedellus Ms Laura Stockwell, SRC Tour Guide
From 6.45pm 7pm for 7.30pm	Drinks (Turnbull Room) followed by Dinner (Melville Room), University of Glasgow	

# **DAY 3 – Tuesday 23 April 2013**

Time	Meeting	Participants
7.10am	Site team depart from Hotel	
7.30am – 8.30am	Visit and tour of PDSA Standards: Physical Facilities & Equipment (3); Clinical Resources (4)	Ms Jenny Hammond, Veterinary Educationalist Mrs Kay Falconer, Senior Veterinary Clinician Professor Jim Anderson, Associate Head of School (Learning & Teaching) Ms Sarah Chiodetto, Head of School Administration
8.30am – 10.00am	Travelling time - Travel to Clyde Veterinary Practice	
10.00am – 11.15am	Visit and tour of Clyde Veterinary Practice Standards: Physical Facilities & Equipment (3); Clinical Resources (4)	<b>Prof Nick Jonsson</b> , Director, Scottish Centre for Production Animal Health & Food Safety Mr Neil Laing, Senior Veterinary Clinician Professor Ewan Cameron, Dean/Head of School
11.15am - 12.45pm	Travelling time	

12.45pm - 1.45pm LUNCH - with Year 1 and Year 2 students Ruth Greening, GUVMA Co-President Tom Underwood, GUVMA Co-President (Seminar Room 1 (or 2), SAH) Max Hannan, 1<sup>st</sup> Year class representative Sarah Povilauskas, 1<sup>st</sup> Year class representative Alex Andryszak, 2<sup>nd</sup> Year class representative Kristina Hewitt, 2<sup>nd</sup> Year class representative Alex Gautille, 1st Year SCAVMA Representative Kristin Yang, 1<sup>st</sup> Year, SCAVMA Junior Delegate Steven Centola, 2<sup>nd</sup> Year SCAVMA Representative Conference with Dean/Head of School and Prof Ewan Cameron. Dean/Head of School 2.00pm - 3.00pmDr Maureen Bain, Deputy Dean/Deputy Head of School school's senior management team/ selected Prof David Bennett, Associate Head of School (Clinical Operations) administrators Professor Nick Jonsson, Director of Research Standard: Organisation (1) Prof Jim Anderson, Associate Head of School (Learning & Teaching) Standard: Finances (2) Ms Sarah Chiodetto, Head of School Administration Mr Henry Watson, Senior Financial Analyst Break - Tea/Coffee 3.00pm - 3.20pmConference with Associate Head of School 3.20pm - 4.30pm**Prof Jim Anderson**, Associate Head of School (Learning & Teaching) (Learning & Teaching), Convener of the Mrs Joyce Wason, Admissions Convener & Student Services Manager Admissions Committee, selected members of Prof Eileen Devaney, Admissions Committee the Admissions Committee, and the Chief Mrs Anne Logan, Admissions Committee Adviser of Studies Mrs Lorna Evans, Admissions Committee Mr Billy Steele. Admissions Committee Standards: Students (6); Admissions (7) Mr Alan Shearer, Admissions Committee Professor Neil Evans, Admissions Committee Dr Lance Voute, Deputy Associate Head of School (L&T) & Chief Adviser of Studies **Depart School** 4.30pm 5.00pm Visitors private meeting at Hotel 7.00pm Visitors dinner at hotel, followed by private

meeting/report writing

# DAY 4 – Wednesday 24 April 2013

<b>Time</b> 8.00am	Meeting Site Team depart from Hotel	Participants
8.15am – 10.15am	Conference with Head of School (Learning & Teaching), and selected members of the Learning & Teaching Committee, and the School Programme Boards  Standard: Curriculum (9)	Professor Jim Anderson (General overview) Dr Maureen Bain (Basic Sciences) Professor Neil Evans, Institute of Biodiversity Animal Health & Comparative Medicine Professor Eileen Devaney, Institute of Infection, Immunity & Inflammation Professor Martin Sullivan (Clinical Sciences) Mr Billy Steele, Large Animal Clinical Sciences & Public Health
8.15am – 8.45am 8.45am – 9.15am	General overview Basic Sciences	Professor Ian Ramsey, Small Animal Clinical Sciences  Prof Dom Mellor (Veterinary Public Health & Food Safety)
9.15am – 9.15am 9.15am – 9.45am 9.45am – 10.15am	Clinical Sciences Veterinary Public Health & Food Safety	Ms Noelia Yusta, Large Animal Clinical Sciences & Public Health Dr Tim Parkin, Large Animal Clinical Sciences & Public Health Ms Jenny Hammond, Veterinary Educationalist
10.15am - 10.35am	Break - Tea/Coffee	
10.35am – 11.35am	Conference with Outcomes Officer(s): Outcomes Assessment of Curriculum, including assessment/examination policy and practice Standard: Outcomes Assessment (11)	Prof Jim Anderson, Associate Head of School (Learning & Teaching) Dr Lance Voute, Deputy Associate Head of School (Learning & Teaching) & QA Officer Ms Sarah Chiodetto, Head of School Administration Ms Jenny Hammond, Veterinary Educationalist
11.35am – 12.05pm	Conference with EMS Convener and Administrator(s): Standard: Curriculum (9) and RCVS Chapter 14	Prof Martin Sullivan, Co-ordinator of Extra-mural Studies Dr Lance Voute, Deputy Associate Head of School (L&T) & Chief Adviser of Studies Ms Arlene Macrae, Undergraduate School Manager Mrs Joyce Wason, Admissions Convener & Student Services Manager Ms Grace Carmody, EMS Administrative Assistant
12.05pm – 12.45pm	Conference with Section Leaders Standards: Physical Facilities & Equipment (3); Clinical Resources (4); Curriculum (9)	Prof Sandy Love, Director, Weipers Equine Hospital Prof Nick Jonsson, Director, Scottish Centre for Production Animal Health & Food Safety Dr Peter Hastie, Director, Cochno Farm & Research Centre Professor David Bennett, Acting Head of Veterinary Diagnostic Services Dr Jo Morris, Head of the Oncology Service Mr Gerard McLauchlan, Head of Out of Hours Emergency Service Prof Jacques Penderis, Head of Clinical Neurology Ms Lissann Wolfe, Clinical Skills Co-ordinator

12.50pm – 1.10pm	Conference with technical and support staff Standard: Faculty (8)	Mr Brian O'Neil, Administration Manager Ms Arlene Macrae, Undergraduate School Manager Mrs Pam McComb, Head Nurse, Small Animal Clinical Sciences Mrs Janis Hamilton, Senior Nursing Tutor Ms Mary Gatherer, Head Equine Veterinary Nurse & Equine Hospital Administrator Mr Richard Irvine, Post Mortem Room Technician Mr Michael McDonald, Laboratory Manager
1.15pm – 2.15pm	Lunch with Years 3 – 5 students (Seminar Room 1 (or 2), SAH)	Ruth Greening, GUVMA Co-President Tom Underwood, GUVMA Co-President Gregor Adamson, 3 <sup>rd</sup> Year Class representative Alannah Norton, 3 <sup>rd</sup> Year Class Representative Jenny Brown, 5 <sup>th</sup> Year Class Representative Jamie McColl, GUVMA Co-President elect Katie Morton, 3 <sup>rd</sup> Year, GUVMA Social Representative Ashley Forti, 3 <sup>rd</sup> Year, GUVMA Zoological Society Representative Brandon Cohen, 3 <sup>rd</sup> Year, SCAVMA President Megan Usiak, 3 <sup>rd</sup> Year, SCAVMA Vice-President Nicole Walrath, 3 <sup>rd</sup> Year, SCAVMA Treasurer Steven Beil, 3 <sup>rd</sup> Year, SCAVMA Senior Delegate
2.15pm – 2.45pm	Conference with Research Convener, the Research Committee and the University Veterinarian  Standard: Research Programmes (10)	Prof Nick Jonsson, Research Convener Dr Michael Wilkinson, Biological Services Veterinary Research Facility Dr Tim Parkin, Convener, Veterinary Ethics & Welfare Committee Dr Lesley Nicolson, Vacation Research Studentship Coordinator Dr Jacques Penderis, Small Animal Clinical Sciences Dr Jane Robinson, Institute of Biodiversity, Animal Health & Comparative Medicine Prof Brian Shiels, Institute of Infection, Immunity & Inflammation Dr Matt Denwood, Large Animal Clinical Sciences & Public Health Dr Chris Loughrey, Institute of Cardiovascular and Medical Sciences Prof Willie Donachie, Moredun Research Institute
2.45pm – 3.00pm	Conference with Library and Learning Resources staff Standard: Library & Information Resources	Dr Lesley Nicolson, Convener, Information Services Committee Prof Brian Willett, Centre for Virus Research Tom Muir, College IT Manager Graeme McCombe, IT Specialist Kirsteen Valenti, College Library Support Team Manager Susan Ashworth, Deputy Director of Library Services

Ms Jenny Hammond, Veterinary Educationalist Dr Fiona Dowell, Veterinary Biosciences Gordon McLeod, Veterinary Learning Technologist

3.00pm - 3.30pm	Confidential meetings with students
3.30pm – 3.45pm	Break - Tea/Coffee
3.45pm – 4.15pm	Confidential meetings with staff
4.15pm – 5.00pm	Site team revisits/report writing
5.00pm	Visitors depart to return to Hotel
5.15pm – 6.15pm	Visitors private meeting at Hotel
7.00pm	Visitors private dinner at Hotel, report writing/meeting

## DAY 5 - Thursday 25 April 2013

Time	Meeting
8.00am	Site Team depart from Hotel
8.15am – 9.30am	Breakfast & Conference with Alumni and EMS providers All Standards

Mr Ivor Lough, EMS Provider
Mrs Freda Scott-Park, EMS Provider
Mrs Catherine Wilson, EMS Provider
Mr Leslie Snadden, EMS Provider
Mr Robert Adamski, BVMS 2008
Mr Carl Winch, BVMS 2008
Ms Jessica Gaudy, BVMS 2010
Mr Rory Gormley, BVMS 2011
Ms Alexandra Pivoda, BVMS 2012
Mr Alistair Greenhill, BVMS 2012
Mr James Phillips, BVMS 2012

9.30am – 10.00am	Conference with select University faculty (non Professorial) Standards: Faculty (8)	Dr Dorothy McKeegan, Institute of Biodiversity, Animal Health & Comparative Medicine Dr Collette Britton, Institute of Infection, Immunity & Inflammation Dr Kathryn Ellis, Large Animal Clinical Sciences & Public Health Mr Andrew Bell, Small Animal Clinical Sciences Dr John Marshall, Large Animal Clinical Sciences & Public Health Dr Pat Pawson, Small Animal Clinical Sciences Ms Noelia Yusta, Large Animal Clinical Sciences & Public Health Dr Francesco Marchesi, Veterinary Biosciences
10.00am – 12noon	Conference with department heads Standards: Organisation (1); Faculty (8)	Prof David Bennett, Associate Head of School (Clinical Operations) Professor Dom Mellor, Head, Large Animal Clinical Sciences & Public Health Professor Clare Knottenbelt, Head, Small Animal Clinical Sciences Prof Lubna Nasir, Head, Veterinary Biosciences Prof Nick Jonsson, Research Convener Prof Jim Anderson, Associate Head of School (Learning & Teaching) Prof Dan Haydon, Director, Institute of Biodiversity, Animal Health & Comparative Medicine Prof Iain McInnes, Director, Infection, Immunity & Inflammation - TBC Prof Rhian Touyz, Director, Institute of Cardiovascular & Medical Sciences - TBC Prof Ian Ramsey, Safety Committee Convener Ms Sarah Chiodetto, Head of School Administration
12noon – 1.00pm	Lunch with postgraduate students, interns and residents	Marco Duz, Postgraduate Student, Large Animal Clinical Sciences & Public Health Kiterie Faller, Resident, Small Animal Clinical Sciences (Neurology) Marlene Finck, Resident, Small Animal Clinical Sciences (Imaging) Eleanor Holden, Resident, Small Animal Clinical Sciences (Anaesthesia) Alex Raftery, Resident, Large Animal Equine (Surgery) Mary Flook, Postgraduate Student, Large Animal Clinical Sciences & Public Health Julien Guevar, Resident, Small Animal Clinical Sciences (Neurology) Intan Shafie, Postgraduate Student, Small Animal Clinical Sciences Yao Qi, Postgraduate Student, Veterinary Biosciences Chris Corbett, Postgraduate Student, Large Animal Clinical Sciences & Public Health
1.00pm – 5.00pm	Visitors consider supporting documentation in base room; private meeting; report writing; re-visits if required.	
5.00pm	Visitors depart to return to hotel	

5.30pm Visitors private meeting at hotel
 7.00pm Visitors private dinner at hotel, further meeting/report writing

## **DAY 6 - Friday 26 April 2013**

Time	Meeting	
9.00am	Visitors depart Hotel	
	Robing Room booked for storage of luggage	
9.30am – 10.00am	Exit interview with Dean/Head of School (Melville Room, University of Glasgow)	Professor Ewan Cameron
10.00am – 10.30am	Exit interview with university administration (Melville Room, University of Glasgow)	Professor Anton Muscatelli, Vice-Chancellor and Principal Professor Andrea Nolan, Deputy Vice-Chancellor and Senior Vice-Principal Professor Anna Dominiczak, Vice-Principal and Head of College of Medical, Veterinary & Life Sciences Professor Ewan Cameron, Dean/Deputy Head of School



#### AM/DAK

Mrs Freda Andrews Director of Education Royal College of Veterinary Surgeons Belgravia House 62-64 Horseferry Road London SW1P 2AF

12 September 2013

Dear Mrs Andrews,

The University of Glasgow welcomes the main findings of the RCVS/AVMA/EAEVE/AVBC report arising from the joint visitation to the School of Veterinary Medicine on 21-26 April 2013. The University firmly believes that such visitations are an immensely valuable experience and underpin our primary objective to provide an excellent education and training experience for our students. We would like to thank the members of the visitation team for their highly professional, fair-minded and positive approach to the visitation. The University notes with pleasure the many commendations within the report and in particular we are pleased that the party recognised the strong collegiate and supportive environment that underpins a sense of community within the School and the College. We were also greatly encouraged that the visitors commended the high quality of our clinical facilities and the work that has gone into our innovative new curriculum, including the development of assessment processes to support our primary aim of continuous improvement.

It is my understanding that the visitors have been meticulous in their approach and we thank the party for their useful suggestions. The School have already acted on, or are in the process of implementing many of these. The detailed responses to the recommendations have been provided by the School and are attached below.

We are aware that this visitation was treading new ground for the accreditation process in Europe involving a joint visit from RCVS, the Council on Education of the American Veterinary Medical Association (AVMA COE), the Australasian Veterinary Boards Council (AVBC) and the European Association of Establishments for Veterinary Education (EAEVE). As each organisation traditionally has had their own distinct approach and criteria for assessment we would like to record our gratitude to the respective Chairs, and to you, who with Dr Granstrom, did so much to bring this group together and make the visit possible. Allowing us to prepare for a single visitation that took an overarching approach to the School's provision was beneficial and greatly appreciated.

From the Principal **Professor Anton Muscatelli** FRSE AcSS

University of Glasgow, Glasgow G12 8QQ Tel: +44 (0)141 330 5995/4250 Fax: +44 (0)141 330 4947 Email: Principal@glasgow.ac.uk



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We hope that the Glasgow experience helps to further the desire for international cooperation and a unified approach to standard setting and assessment in the future.

Finally we are grateful for the support of the RCVS during this process and to you for all the advice and help you have given the School in the preparation for the visit and throughout.

Yours sincerely,

# Response to the RCVS / AVMA-COR/ EAEVE /AVBC Visitation to the University of Glasgow, School of Veterinary Medicine, College of Medical Veterinary and Life Sciences – August 2013

The School of Veterinary Medicine would like to express its gratitude to the site visiting party for the manner in which the visitation was conducted, for the commendations it received and for the important observations and advice on its current provision. The management and staff of the School found the visitation to be a constructive experience and the process of self-study and reflection an important discipline in ensuring the School continues to drive forward high standards. Faculty and staff have worked exceedingly hard on the development of the new curriculum and to enhance the student experience, and we are very pleased their efforts have been recognised by the visitation team. The responses to individual recommendations are organised by section.

We appreciate the considerable effort in organising this visitation and the work that was carried out to allow the School to be assessed using a common set of standards. We would particularly like to thank the respective co-Chairs, Mrs Lynne Hill and Dr Frederik Derksen, and the staff Mrs Freda Andrews and Dr David Granstrom.

#### 1. Organisation

The School should continue to monitor the effects of the organisational restructuring on staff profile to ensure that new staff hired into the research institutes have credentials suitable for teaching in the professional programme.

The School and College will continue to monitor the staff profile and range of expertise in both the School and its primary partner institute (the Institute of Biodiversity, Animal Health and Comparative Medicine - BAHCM) to ensure it meets the breadth of provision in both the basic and applied sciences as well as the clinical dimension. We believe that restructuring will actually enhance the student experience by increased contact and interaction with a large cohort of staff with wide ranging interests and expertise. The great majority of staff teaching on the BVMS programme now reside either in the School or within BAHCM and the respective Heads of School and Institute work together to ensure the teaching and research strategy are closely aligned.

#### 2. Finances

The contribution of faculty in the research institutes to the professional teaching programme should be accounted for in future financial reports.

Since the visitation the College has developed a financial model to allocate teaching income to schools and institutes, this allows the recognition of teaching contribution from institute staff to the BVMS programme to be quantified and clearly reported.

## 3. Physical Facilities and Equipment

- i. The School is encouraged to review its biosecurity programme to ensure best practices are in place.
- ii. The School should review its accident response and reporting procedure to ensure timely treatment of affected individuals and mitigation of identified risks.
- iii. The School must ensure the external provider for first opinion farm animal practice consistently adheres to the RCVS Practice Standards Scheme, Tier 2.
- iv. The School is encouraged to provide more comprehensive animal/case identification on stalls in the Weipers Equine Centre.
- v. The School is encouraged to expand use of the excellent Clinical Skills facility.

- vi. The School is encouraged to implement plans to install a hydraulic postmortem table in the large animal necropsy facility.
- vii. The School should establish guidelines for vehicle safety to prevent objects from flying around in the car during emergency braking.
- viii. The temporary building for equine feed should be replaced with a more suitable solution.
- i. The School believes that this recommendation primarily refers to the open space above some of the kennels in the Small Animal Hospital. The Infection Control and Prevention Group (ICPG) have considered this issue and have recommended periodic high-intensity cleaning of the roof space to remove dust and dirt. In addition this area will be part of the on-going routine bacteriological monitoring. The installation of a false ceiling in this area is being investigated.
- ii. Our protocols for accident reporting are determined by University policy that is in turn informed by professional staff who advise the University on the interpretation and implementation of UK legislation. There is provision for management of health risks and for the review of cases that can inform local working practices but this does not apply to every recorded accident as many are already covered by policy and do not necessitate further review or feedback to the affected individual. In the event of an incident, the University has a system of first aiders across the organisation that can be immediately called upon as appropriate. The current version of the *Injury or Dangerous Occurrences Report Form* requires completion of a specific section highlighting action to prevent recurrence.
- iii. In accordance with Annex 7 of the RCVS guidelines external providers must be compliant with RCVS Tier 2 status and the reported deficiencies are inconsistent with this standard. At the time of the visitation the School was tendering for first opinion farm animal teaching provision. The contract now has been awarded and compliance with RCVS Annex 7, including maintaining the standards of Tier 2 status, is a condition of the contract.
- iv. There was previously a policy of having no identification on stall doors as this is a public area and there are issues of client confidentiality. The protocol has been revised and case number identification is now posted on the stable doors. Students and staff can access animal identification and clinical file, including treatment instructions, at the work station and link this to the relevant case number. All hospitalised horses/ponies/donkeys are always identified by a name/number tag incorporated into the animal's mane.
- v. A major theme of the new curriculum is the Professional and Clinical Skills course that runs vertically throughout the programme. This new course will make extensive use of the clinical training facility significantly expanding current usage. We recognise the value of this facility and we will continue to invest in this area to meet the requirements and outcomes of the new programme.
- vi. The School has placed an order for a bespoke ergonomically designed large animal post-mortem table.
- vii. Those responsible for ambulatory vehicles, both on site and at our external providers, have been made aware of this recommendation and charged with ensuring the safe storage of drugs and other loose materials.
- viii. Arrangements are being made to change the location of the food store.

#### 4. Clinical Resources

 The School must carefully monitor equine caseload to ensure all students are able to attain day one clinical skills.

- ii. The School must complete contract negotiations with all core distributed clinical sites to ensure the long term case load needed for student learning.
- iii. The School is encouraged to improve access to a white meat slaughter and processing plant so that all students have the opportunity to experience this activity.
- i. Much of the referred material to the Equine hospital is sent without having undergone any diagnostic procedures or treatment and staff are of the view that the cases are well utilised for teaching. Nevertheless we acknowledge that greater exposure to routine clinical cases would supplement the hospital based clinical teaching. In the longer term the School will investigate opportunities, either through development of a School-based extended ambulatory clinic or via an external provider; to improve the number of first opinion cases the students have access to during core teaching.
- ii. At the time of visitation the School was engaged in a formal procurement process to secure first opinion farm animal experience. This process is now complete and the contract has been awarded. Long term contracts/agreements with all core clinical sites are being finalised and the School has made it a priority to ensure all agreements and contracts are up to date and fit for purpose.
- iii. The School fully acknowledges the importance of student exposure to white meat slaughter processing. Due to the location of such facilities and restrictions on student numbers at the sites, achieving this goal is not without its challenges. However in the 2013/14 academic year arrangements have been made to significantly increase the number of final year students experiencing white meat slaughter. The School will continue to explore ways to maximise opportunities in this area.

## 5. Library and Information Resources

The School must ensure that internet access is readily available for students on rotation at the Dogs Trust.

Plans are in place to ensure there is a computer with internet access at the Dogs Trust for students on this placement.

## 6. Students

- i. The School should develop a method to consistently match the number of admitted students with enrolment targets.
- ii. The School is encouraged to ensure that changes in timetable be communicated to students in a timely manner.
- i. In the near future the School will be reviewing this important area to ensure that (within an acceptable margin) the School recruits to target.
- ii. The School is aware of this issue and is taking steps to improve communication with the student body and where possible ensure that maximum notice is given when changes are unavoidable. The University has introduced timetabling software which we expect will mitigate some of the issues that can arise and staffing resources have been prioritised to support this.

#### 7. Admission

i. The School should develop a system to ensure regular rotation of Admissions Committee members.

- ii. The School and University should provide unified and consistent information on its admission criteria to ensure a fair and unbiased selection process.
- iii. The School should continue to explore methods to standardise the scoring of applicant background and interviews.
- iv. The Admissions Committee is encouraged to use outcomes data to inform continuous improvement of the admissions process.
- i. The School agrees with and accepts this point entirely. Whilst there is a widespread view that it has been served very well by the current members of the committee, the School accepts that it is good practice to formally rotate members to ensure appropriate representation and a fresh perspective. At a meeting on 26 June 2013 the School Executive took the decision to establish a fixed term of office for committee members and to ensure recruitment of new members.
- ii. The relevant University websites are being revised to address these issues.
- iii. We are revising the interview scoring form, which will be used for the next round of admissions and will contain reviewer assessment rubrics.
- iv. The School has embarked on a more far reaching review of the admissions process and even before the visitation has been exploring alternative, more evidence-based, approaches to student recruitment. To ensure that this is optimised, based on best practice and appropriately resourced, it is likely that substantial change will not be instituted until 2014.

#### 8. Faculty

- i. The School must not allow any further decline in the number of veterinary qualified staff involved in teaching and should develop a strategy to meet the RCVS guidelines
- i. Recruitment has been focused on veterinary qualified staff in recent years both to ensure that vertically-integrated, clinical-based teaching throughout the new programme is taught by clinically experienced staff and to maximise teaching material. This trend is in line with our strategic objectives. The School notes that the use of a percentage in this requirement takes no account of individual staff teaching load and a too literal interpretation could actually reduce the diversity of staff engaged in student education.

## 9. Curriculum

- i. The School is encouraged to ensure that day one competences are achieved and documented equally well across all species in the core rotations.
- ii. The School is encouraged to develop a consistent approach to formative feedback across all rotations.
- iii. The School is encouraged to monitor staff deployment in relation to the demands of the new curriculum to ensure that course leaders are fully supported in curriculum delivery.
- i. See response under Clinical Resources 4i.
- ii. May 2013 saw the introduction of the new final year curriculum. An important theme of the new final year is formal assessment of student performance based on knowledge, skills and professionalism. Given the new approach to student assessment in the 2013 curriculum we believe this will significantly enhance student understanding of their own development within the context of the given rotation.
- iii. The quality of the student experience is one of the School's top priorities and we have already devoted additional resource to this area in preparation for the new curriculum. The Phase Leaders for the

Foundation, Clinical and Professional Phases of the new curriculum all hold senior positions in the School, sit on the School Executive and have been given a mandate to ensure staffing resources are appropriate for teaching requirements. Decision making in this area will be assisted by the introduction of University-wide work load modelling next year.

#### 10. Research Programmes

- i. The School is encouraged to consider introducing a requirement for all students to undertake a research project, as recommended by the RCVS.
- i. The School has provided considerable research opportunities for individual students and has pledged to support every student summer project where external funding is not available. In designing the new curriculum the School gave very careful thought to research exposure and training including the introduction of a blue skies lecture series, training in research methods, theory and ethics. The BVMS Programme Board will give further consideration to the introduction of compulsory projects for all students and bring recommendations to the School Executive.

#### 11. Outcomes Assessment

- i. The School must develop and implement a plan to increase the response rate to recent graduate employer surveys.
- ii. The University should review its relevant quality assurance processes to improve the speed of response and ensure incorporation of beneficial changes for students.
- i. The School agrees with this point but would like to note that staff do try and obtain this information and that the response rate is largely outside their control. Allowing UK schools access to the RCVS registration database of their graduates would facilitate communication with alumni and their employers and improve this aspect of outcome analysis.
- ii. We feel this is a slight misinterpretation and believe this may relate to the interval between the 1<sup>st</sup> diet examinations and when external examiners submit their reports. The Head of School and the relevant course leader are forwarded external examiners reports promptly from the Senate Office. The Senate Office independently reviews these reports and subsequently relevant comments are forwarded. The responses to external examiner comments are formally considered as part of the Annual Course Monitoring process.

#### 12. Extra Mural Studies

The School should consider reviewing its approach to students booking EMS and the information available to international providers so that providers can receive details of the School's and student expectations of EMS and be in a position to provide the best possible learning experience.

The School is in the process of appointing a new EMS coordinator and will take this opportunity to review its whole approach to EMS with the intention of maximising the exchange of information and understanding in both directions.

