

# Standard ECVS Residency Programme LA - general Ghent University

(adapted March 2010)

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## **GENERAL INFORMATION**

### Adress:

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The department of Surgery and Anaesthesiology of Domestic Animals of Ghent University runs a large animal clinic (80% equine, 20% ruminants) and organises a Large Animal (general) ECVS residency program offering the 13 training elements as described in the ECVS training brochure.

Under normal circumstances, a new residency position will be declared open once every 2 years.

### **TRAINING ELEMENT 1: PROGRAMME SUPERVISED BY ECVS DIPLOMATE**

The ECVS resident will be supervised by 3 ECVS Diplomates:

Ann Martens, DVM, PhD, Dipl ECVS  
Frederik Pille, DVM, PhD, Dipl ECVS  
Lieven Vlamincx, DVM, PhD, Dipl ECVS

There will be ample interaction between the diplomates and the trainee in the diagnosis and the treatment of patients. During the first year of training, the diplomate will be primary surgeon for nearly all surgical procedures (with the exception of minor surgeries such as castrations or small wounds or tumour excisions). The trainee will be involved as an assistant secondary surgeon. Over the second and third year of training the resident will gradually become primary surgeon for more and more surgical procedures, depending on the type of intervention and the individual progression of the trainee.

### **TRAINING ELEMENT 2: PRE-RESIDENCY TRAINING**

Prospective residents can be admitted to the Standard LA Residency Programme of Ghent University if they:

- are a graduate veterinarian of a veterinary college recognised by ECVS and licensed to practise in a European country

- have had at least two years of clinical training in a well equipped multi-person large animal practice, or have completed a one-year standard rotating internship recognised by ECVS.
- have a basic command of the Dutch language at the start of the program, followed by a good understanding of the Dutch language within six months of the residency.
- Have a good command of the English language

A basic command of the French language is advised as large part of the clientele of the clinic is French-speaking.

### **TRAINING ELEMENT 3: THREE YEARS FULL-TIME TRAINING**

The standard residency program starts on the 30<sup>th</sup> of July and includes 156 weeks (3 years of 52 weeks) of training (including vacations).

The ECVS resident is inscribed as a student of Ghent University and receives a grant (monthly payment of 1100 euro, tax-free). As the academic year only starts around the 20<sup>th</sup> of September, there will be no payment for the period preceding this date.

### **TRAINING ELEMENT 4: CASE LOAD OF ADEQUATE SIZE, STANDARD AND VARIETY**

The department of Surgery and Anaesthesiology is a busy clinical department and guarantees exposure of each trainee to at least 100 new surgical procedures and 20 in-depth lameness investigations each year. The case-load of the department is however higher and has a good variety of orthopaedic and soft tissue procedures. A more detailed list of the equine and bovine surgeries, as well as the lameness cases is provided in appendix 1.

### **TRAINING ELEMENT 5: > 60% OF TIME IN CLINICAL CASE MANAGEMENT**

At least 96 weeks will be spent on clinical case management at the department of surgery and anaesthesiology, under the direct supervision of an ECVS Diplomate. A more detailed program of each residency year is provided in appendix 2. Limited alterations to this program (e.g. changing external rotations from one year to another) are however possible.

The resident is expected to contribute to the primary tasks of the department: education, research and patient care. He/she will be responsible for:

- receiving clinical appointments
- performing/supervising the daily management of hospitalised patients
- participation in the surgical training of graduate students and interns
- providing optimal clinical service and prompt professional communications.

## **TRAINING ELEMENT 6: 80 HOURS SUPERVISED TRAINING IN ANAESTHESIA**

A total of 4 weeks (160 hours) is devoted to large animal anaesthesiology (first year of residency). During the anaesthesiology rotation the resident participates in:

- the daily pre-operative clinical assessment of the patients for general anaesthesia
- the sedation, local and regional analgesia in patients undergoing standing surgical procedures (laparoscopies,...)
- the premedication, induction of anaesthesia, maintenance of intravenous and gas anaesthesia (including the use of anaesthetic monitoring equipment) and the recovery of patients undergoing recumbent surgical procedures.
- the management of anaesthetic accidents and emergencies
- the postoperative pain management of hospitalised patients
- the journal clubs, book readings and case-presentations organised by the anaesthesia staff members.

The anaesthesia rotation is accomplished within the department of surgery and anaesthesiology and is supervised by two Diplomates:

- Frank Gasthuys, DVM, PhD, Dipl ECVA
- Stijn Schauvliege, DVM, Dipl ECVA

## **TRAINING ELEMENT 7: 80 HOURS SUPERVISED TRAINING IN DIAGNOSTIC IMAGING**

A total of 4 weeks (160 hours) are exclusively devoted to the study of diagnostic imaging. During the first year of residency, 3 weeks will be spent at the department of Diagnostic Imaging of the Faculty. The resident will participate in:

- routine and more specialised diagnostic procedures (radiography, contrast radiography, fluoroscopy, ultrasonography, CT, ...) of the cases presented at the clinic. Both the imaging techniques and the interpretation of the images will be covered.
- weekly film reading sessions of orthopaedic cases.
- the sessions on radiation safety (if the resident did not attend these as a student).

These three weeks are supervised by two diplomates:

- Jimmy Saunders, DVM, PhD, Dipl ECVDI
- Katelijne Peremans, DVM, PhD, Dipl ECVDI

As no large animal MRI facilities are available at the department, one additional week (in the second year of residency) will be devoted to the study of MRI at the Veterinary Clinic "De Bosdreef" under the supervision of Dr. Filip Vandenberghe.

## **TRAINING ELEMENT 8: 80 HOURS SUPERVISED TRAINING IN PATHOLOGY**

A total of 2 weeks (80 hours) are devoted to gross pathology, microscopic pathology and cytology. The first week of pathology is accomplished in the 1<sup>o</sup> year of residence, the next week in the 2<sup>o</sup> year. This training is largely case-oriented and will be performed in the department of Veterinary pathology of the Faculty of Veterinary Medicine of Ghent University, under the direct supervision of 3 diplomates:

- Richard Ducatelle, DVM, PhD, Dipl ECVP
- Koen Chiers, DVM, PhD, Dipl ECVP
- Griet Vercauteren, DVM, Dipl ECVP

## **TRAINING ELEMENT 9: 80 HOURS SUPERVISED TRAINING IN INTERNAL MEDICINE**

Two full-time weeks (80 hours) will be devoted exclusively to the study of internal medicine in the second year of training. These 2 weeks will be spent at the department of internal medicine of the Faculty, where the trainee will actively participate in the examination and treatment of all routine and emergency cases.

Moreover, the trainee is expected to follow the internal medicine examinations of his/her patients over the entire residency period.

The internal medicine training is directly supervised by three diplomates:

- Piet Deprez, DVM, PhD, Dipl ECVIM
- Gunther Van Loon, DVM, PhD, Dipl ECVIM
- Dominique Declerck, DVM, PhD, Dipl ECVIM

## **TRAINING ELEMENT 10: ACTIVE PARTICIPATION IN EMERGENCY SERVICE**

The resident participates actively in the evening-, night- and weekend emergency service of the department. During the first 6 months of the residency, direct supervision of a senior surgeon will be provided. Afterwards, the resident will assume full responsibility in the "first line duties" (care of the hospitalised patients, examination and first treatment of emergency cases, standing surgical procedures, cattle surgery,...). In the last year of residency, full responsibility will also be assumed in the "second line duties" (all surgical cases).

There will be no financial compensation for participation in the emergency service.

## **TRAINING ELEMENT 11: PRODUCE, PRESENT AND PUBLISH CLINICAL RESEARCH**

The resident will be involved in a research project that contributes to the

advancement of veterinary surgery. The subject will be discussed with the trainee at the start of the residency program and sufficient time will be allowed to accomplish the experimental work, prepare the presentations and write the articles for peer reviewed scientific journals. In each residency year, 4 weeks are reserved exclusively for research, but more hours can certainly be devoted to the research work during the other training weeks of the program.

The resident will present the results of his/her research at the ECVS meeting of his second and third year of residency.

Depending on the subject, the original research will result in either one or two first authored publications. In case only one publication can be made from the project, either a case-report should be written or the resident can become second author of an article from a colleague when there is active participation in his/her research.

## **TRAINING ELEMENT 12: PARTICIPATION IN CONTINUING EDUCATION MEETINGS**

These include:

- Journal clubs / Book readings / Case presentations:
  - o The resident will participate actively to the journal clubs, book readings and case-presentations that are held at the department throughout the year.
- Teaching graduate veterinary students
  - o Daily clinical teaching of the last year veterinary students.
  - o Give several practical exercises for the last year veterinary students
  - o Each year, at least 3 clinical case presentations for the 4<sup>th</sup> year students will be given by the resident
- Participation in the Post-graduate teaching
- Continuing education meetings:
  - o the resident should participate to at least 3 continuing education courses.
  - o The costs of a maximum of 4 courses will be paid by the department on condition that the resident reduces travel and accommodation expenses as much as possible
  - o The following courses are advised:
    - Basic and advanced AO courses
    - One arthroscopy course
    - One other course at choice: laparoscopy, advanced arthroscopy, respiratory surgery or participation to a non-ECVS meeting.
- Participation to ECVS annual meetings:
  - o the resident will attend 2 or 3 ECVS meetings during his/her residency. The results of his/her scientific work should be presented on at least one of these meetings.
  - o Costs will be paid by the department on condition that the resident reduces travel and accommodation expenses as much as possible
- External rotations:
  - o A maximum of 8 weeks may be spent on external rotations.

- A one-week rotation in a specialised small animal hospital or a human hospital is scheduled in the first year.
- In the second and third year the resident may exchange with residents from ECVS or ACVS-recognised programmes for a maximum of 7 weeks.

### **TRAINING ELEMENT 13: REPORT TO ECVS**

An electronic database is available to maintain a surgical case log and a resident presentation and activity log that complies with the guidelines of the ECVS. The logs will be reviewed by the Resident Advisor at the 6 month evaluations.

Annual reports should be at the ECVS office by the 31<sup>st</sup> of July.

## **FACILITIES, SERVICES AND EQUIPMENT**

The entire large animal clinic (Department of Surgery and Anaesthesia of Domestic Animals, Department of Obstetrics, Reproduction and Herd Health, Department of Internal Medicine and Clinical Biology of Large Animals) has approximately 120 horse boxes and 60 places for cattle (large boxes and standing slots).

### **Surgery and Anaesthesia facilities**

The clinic of the department of surgery and anaesthesiology of domestic animals has a mixed equine and bovine clientele (80% horses, 20% bovine). Appendix 1 gives a summary of the case-load of both surgeries and lameness exams over a 3 year time period.

Surgeries are performed in 3 surgical theatres (2 horses - 1 ruminants) equipped with 2 tilting operating tables. There are three padded recovery boxes. The surgical section also has a separate room for patient preparation, a central facility for cleaning, autoclaving and storing of surgical instruments and equipment, and a scrub room.

The following equipment is available:

- 4 general anaesthetic apparatus with respirator,
- 4 cardiovascular units, 3 capnographs and 2 pulse oximeters;
- 1 mobile radiographic unit and 1 C-scope.
- 2 electrocoagulation units
- All equipment for fracture repair, arthroscopy and laparoscopy, including power-drilling, shaver, Ligasure,...
- A laser and a cryosurgical unit
- All basic and specialised dental equipment

## Imaging services

Imaging services are provided by the Department of Medical Imaging of Domestic Animals equipped with appropriate equipment for comprehensive diagnostic imaging, including Digital radiography, Ultrasonography and Computed Tomography. Scintigraphy and MRI are performed in collaboration with a neighbouring equine clinic.

## Pathology services

Anatomo-pathology and cytology services are provided by the Department of Pathology. Clinical pathology services are available in the different large animal clinics. Each clinic operates a biochemical laboratory and a haematological laboratory.

## Internal Medicine services

The department of internal medicine has several separate examination rooms with up-to date equipment including:

- Several endoscopes and digital image recording
- Treadmill endoscopy
- Electromyography
- Magnetic stimulator for transcranial magnetic stimulation (examination of neurological patients)
- High quality Doppler ultrasound machines for abdominal, thoracic and cardiac ultrasonography

## Library

The libraries of the different clinics and the library of the faculty contain all commonly used surgical textbooks and periodicals. The residents have free access to this library and to electronic data services for on-line retrieval of scientific publications (access to Internet and Central University Library ).

## Medical records

Medical records are maintained of all cases. These records are stored in a digital archive which is open to all residents.

**APPENDIX 1: Case-load of the Department Surgery and Anaesthesiology of Domestic Animals, Ghent University, Belgium**

	2007	2008	2009	Cumulative
<b>EQUINE SURGERIES</b>				
Abdominal	216	228	211	617
Fracture fixation	27	23	17	67
Wounds/reconstruction	114	98	138	350
Tendon	6	13	8	27
ALD	7	10	11	28
Surgery of the foot	34	36	33	103
Urogenital	118	98	83	299
Ophthalmic	34	23	35	92
Upper respiratory	67	86	69	222
Arthroscopy	109	132	99	340
<b>TOTAL EQUINE</b>	<b>722</b>	<b>733</b>	<b>690</b>	<b>2145</b>
<b>RUMINANT SURGERIES</b>				
Abdominal	127	97	115	339
Fracture fixation	7	2	1	10
Arthrodesis	12	13	11	36
Wounds/reconstruction	3	2	3	8
Tendon	49	34	35	118
ALD	0	0	0	0
Surgery of the foot	11	7	8	26
Urogenital	16	21	13	50
Ophthalmic	0	0	1	1
Upper respiratory	55	35	28	118
Arthroscopy	1	0	0	1
Neuro (Spastic paresis)	37	17	16	70
<b>TOTAL RUMINANT</b>	<b>318</b>	<b>228</b>	<b>231</b>	<b>777</b>
<b>TOTAL SURGERIES</b>	<b>1040</b>	<b>961</b>	<b>921</b>	<b>2922</b>
Lameness horses	865	870	826	2561
Lameness Rum	10	18	17	45
<b>TOTAL LAMENESS</b>	<b>875</b>	<b>888</b>	<b>843</b>	<b>2606</b>

Minor surgical procedures in horses such as standard castrations (206 over 3 years), equine sarcoid excision (113 over 3 years) and minor interventions on the hoof were not included. Laparoscopic surgeries are included in the abdominal procedures.

**APPENDIX 2:** programme per year  
LA (general) ECVS residency program, Ghent University, Belgium

<b>FIRST YEAR OF RESIDENCY</b>	<b>WEEKS</b>
Surgical service rotations	34
Case discussions, seminars and literature reviews	1
Anaesthesiology	4
Diagnostic imaging	3
Pathology	1
External rotation	1
Research	4
Vacation	4

*Surgical service rotations*

A period of 4 weeks will be devoted to the care of the hospitalised patients, 14 weeks to lameness examination in the horse and 16 weeks to general equine and bovine surgery

*External rotation*

This period may be spent in a specialised small animal clinic under the supervision of a small animal ECVS diplomate. The following small animals clinic are willing to accept LA ECVS residents:

- Veterinary clinic "Malpertuus" (Peter Vandekerckhove, DVM, Dipl ECVS)
- Veterinary clinic "Anubis" (Luc Janssens, DVM, PhD, Dipl ECVS)

<b>SECOND YEAR OF RESIDENCY</b>	<b>WEEKS</b>
Surgical service rotations	36
Case discussions, seminars, and literature reviews	2
Diagnostic imaging	1
Pathology	1
Internal medicine	2
External rotation	2
Research	4
Vacation	4

*Surgical service rotations*

A period of 16 weeks will be devoted to lameness examination in the horse whereas 20 weeks will be devoted to equine and bovine surgery

**THIRD YEAR OF RESIDENCY****WEEKS**

Surgical service rotations	37
Case discussions, seminars, and literature review	2
External rotation	5
Research	4
Vacation	4

*Surgical service rotations*

A period of 16 weeks will be devoted to lameness examination in the horse whereas 21 weeks will be devoted to equine and bovine surgery

**APPENDIX 3:** List of residents since the start of the LA ECVS residency program at Ghent University (from September 2002 – March 2010)

- Stefan Cokelaere
  - o Residency program from 2002 – 2005: credentials accepted
  - o 1° examination: July 2006 (failed written)
  - o 2° examination: July 2007: Passed
  
- Frederik Pille
  - o Residency program from 2002-2006: credentials accepted
  - o Examination: July 2007: Passed
  
- Jeroen Declercq
  - o Residency program from 2004 – 2008: credentials accepted
  - o 1° examination: February 2009 (failed written)
  - o 2° examination: February 2010 (failed written)
  
- Tamara Levelt
  - o Residency program from 2006 – 2009: credentials accepted
  - o Examination: February 2010: Passed

During this time period, Lieven Vlaminck who was surgical assistant at our department for several years performed an alternate residency program under the supervision of Prof. Michel Steenhaut (Dipl ECVS). Credentials were accepted in 2007 and he passed the examination successfully in July 2008 (First attempt).