

Standard ECVS Residency Programme LA - general Ghent University

(adapted January 2020)

	page
Content	1
General Information	2
Training element 1	2
Training element 2	2
Training element 3	3
Training element 4	3
Training element 5	3
Training element 6	4
Training element 7	4
Training element 8	5
Training element 9	5
Training element 10	5
Training element 11	5
Training element 12	6
Training element 13	7
Facilities, services and equipment	7
Appendix 1 – Case-load of the past 3 years	9
Appendix 2 – Program per year	10
Appendix 3 – list of residents since start of the program	12

GENERAL INFORMATION

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The department of Surgery and Anaesthesiology of Domestic Animals of Ghent University runs a large animal clinic (85% equine, 15% 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 to 3 years.

TRAINING ELEMENT 1: PROGRAMME SUPERVISED BY ECVS DIPLOMATE

The ECVS resident will be supervised by 4 ECVS Diplomates:

Ann Martens, DVM, PhD, Dip ECVS
Frederik Pille, DVM, PhD, Dip ECVS
Lieven Vlaminck, DVM, PhD, Dip ECVS, Dip EVDC
Maarten Oosterlinck, DVM, PhD, Dip ECVS, Dip ECVSMR

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, 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 completed a one-year standard rotating internship or have at least two years of clinical training in a well equipped multiperson large animal practice.
- Have a good command of the English language
- A basic command of the Dutch language at the start of the program is an advantage, and this should evolve into a good written and spoken command of the Dutch language after the first year of residency training.
- 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 August 1st and includes 156 weeks (3 years or 52 weeks) of training (including vacations).

The ECVS resident is inscribed as a student of Ghent University and receives a grant (monthly payment of 1400 euro, tax-free). As the academic year only starts around the 20th 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 much 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 (e.g. 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, Dip ECVA
- Stijn Schauvliege, DVM, Dip 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, Dip ECVDI
- Els Raes, DVM, PhD, Dip ECVDI

Large animal MRI facilities will be available at the department from mid 2020 on. However, one additional week may be devoted to the study of MRI at another centre with MRI facilities abroad.

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^o year of residence, the next week in the 2^o 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, Dip ECVP
- Koen Chiers, DVM, PhD, Dip ECVP
- Leen Van Brantegem, DVM, PhD, Dip 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 two diplomates:

- Gunther Van Loon, DVM, PhD, Dip ECVEIM
- Ellen Paulussen, DVM, Dip ECVEIM

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/her 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 4th 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 continuing 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 for the ECVS meetings will be paid by the department on condition that the resident reduces travel and accommodation expenses as much as possible
- External rotations:
 - o A minimum of 4 and a maximum of 8 weeks should be spent on

- external rotations.
- The external rotations should preferably be performed in the second and third year of residency training, they should have an international character, and should include supervision by ECVS or ACVS recognised diplomates.

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 31st 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 (85% horses, 15% ruminants). 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 equine - 1 ruminants) equipped with 2 tilting operating tables and a stock for standing surgical procedures. 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:

- 5 general anaesthetic apparatus with respirator for large animals + 3 general anaesthetic apparatus with respirator for foals & small ruminants
- 4 Datex S/5 multiparameter anaesthetic monitors (incl ECG, invasive and noninvasive blood pressure, pulse oximetry, capnography, temperature and respiratory gas analysis)
- 1 Radiometer ABL5 for blood gas analysis
- 1 LiDCO-Plus monitor for measurement of cardiac output
- 1 digital radiographic unit (SoundEklon) and 1 C-scope.
- 2 electrocoagulation units and 1 coblation device

- All necessary equipment for fracture repair, arthroscopy and laparoscopy, including battery-driven power-drilling, shaver, Ligasure, Locking plates,.... All arthroscopy and laparoscopy images are digitally recorded.
- A laser and 2 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. Standing CT and MRI will be available from mid 2020 on.

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 and overground 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 the complete 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

	2017	2018	2019	TOTAAL
EQUINE				
Abdominal	158	184	162	504
arthroscopy - Tenoscopy	130	111	125	366
dental	172	182	139	493
fracture fixation	27	13	15	55
laparoscopy - thoracoscopy	12	12	12	36
ophthalmic	21	25	15	61
tendon	23	19	28	70
upper respiratory (cornage, tracheotomie)	16	16	28	60
urogenital surgery	233	214	226	673
wound - reconstructions	81	78	71	230
Other (foot surgery, experimental)	24	40	32	96
TOTAAL	897	894	853	2644
BOVINE				
AB	92	83	56	231
FF	3	7	5	15
Arthrodesis	9	4	7	20
WR	8	8	8	24
TE	39	30	29	98
AD	0	0	0	0
FT	8	6	8	22
UG	12	7	11	30
OP	2	0	2	4
UR	20	16	15	51
AR	1	0	0	1
Neuro	2	8	4	14
TOTAAL	196	169	145	510
Lameness horses	928	999	938	2809

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

FIRST YEAR OF RESIDENCY	WEEKS
Surgical service & lameness rotations	35
Case discussions, seminars and literature reviews	1
Anaesthesiology	4
Diagnostic imaging	3
Pathology	1
Research	4
Vacation	4

Surgical service & lameness rotations

A period of 5 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

SECOND YEAR OF RESIDENCY	WEEKS
Surgical service & lameness 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 & lameness 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

External rotations

External rotations to private surgical institutions are encouraged. Supervision by and ECVA or ACVS boarded surgeon are mandatory.

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 & lameness 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 – February 2020)

- Stefan Cokelaere
 - Residency program from 2002 – 2005: credentials accepted
 - 1° examination: July 2006 (failed written)
 - 2° examination: July 2007: Passed

- Frederik Pille
 - Residency program from 2002-2006: credentials accepted
 - Examination: July 2007: Passed

- Jeroen Declercq
 - Residency program from 2004 – 2008: credentials accepted
 - 1° examination: February 2009 (failed written)
 - 2° examination: February 2010 (failed written)
 - 3° examination: February 2011: Passed

- Tamara Levelt
 - Residency program from 2006 – 2009: credentials accepted
 - Examination: February 2010: Passed

- Mireia Jordana
 - Residency program from 2008-2011: credentials accepted
 - Examination: February 2012: Passed

- Maarten Oosterlinck
 - Residency program from 2010-2013: credentials accepted
 - Examination: February 2014: Passed

- Helga Gunnarsdottir
 - Residency program from 2010-2014: credentials accepted
 - Examination 2015 till 2020 (failed 2 parts, no further attempts)

- Thomas van Bergen
 - Residency program from 2012-2015: credentials accepted
 - Examination February 2016: Passed

- Julie Brunsting
 - Residency program from 2014-2017: credentials accepted
 - Examination February 2018: Passed

- Eva Declercq
 - Residency program from 2017-2020

- Maarten Haspeslagh
 - Residency program from 2018-2021

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). He is presently also diplomate of the equine dental college.