



Application for Hosting EACTA/ESA Cardiothoracic and Vascular Anaesthesia Fellowship Programme

Fellowship Information Heart and Diabetes Center NRW, University Hospital of Ruhr-University Bochum

Institution Name Institute of Anesthesiology

Address Georgstrasse 11, 32545 Bad Oeynhausen

Website

Chair Name Prof. Dr. Vera von Dossow, MD

Email vvondossow@hdz-nrw.de

Programme Director

Name Univ.-Prof. Dr. Vera von Dossow

Board Certification(s) Anesthesiology (Germany), Intensive Care Medicine (Germany)

Title/Affiliation University Professor (Ruhr University Bochum), Dr. med. (MD)

Number of original publications 65

EACTA, ESA, or other societies membership **EACTA; ESA; DGAI**

If yes, membership's 102203 (EACTA), 000242890907 (ESA) **number**

Email vvondossow@hdz-nrw.de

Mailing Address Bad Oeynhausen

Street Georgstrasse 11

Country Germany

City/Zip code 32545

Phone +495731971128

Fax +495731972196

Will the Programme director devote sufficient time to provide substantial leadership to the programme and supervision for the fellows? Yes No

Will the Programme director review the fellows' clinical experience logs at least quarterly and verify completeness and accuracy? Yes No

Does the national/international regulatory authority(s) recognizes the institutional CTVA Fellowship Programme? Yes No

If yes, please explain

Completion of the programme will be acknowledged by the Department of Anaesthesia and Intensive Care at the host centre in junction with European Association of Cardiothoracic Anaesthesia (EACTA)

Yes No

Candidate's requirements

The candidates must be board certified or board eligible according to European residency programme standards Yes No

Language requirements: German (B2 level); English

Specific requirements towards the attending fellow:

Candidates for the fellowship program should have finished their residency training or should be at the beginning of the last year of their residency training. The fellow must be board certified or board eligible according to European residency standards and must be proficient German language (B2 level is required) in order to apply for German work –permission as a physician. In addition, German approbation (licence to practice) is obligatory. Otherwise clinical duties as a member of the cardiac anaesthesia team are not possible. ~~The fellow must obtain all working requirements and registrations on his /her own expense.~~



General Programme Information

Aims, goals and objectives of the Fellowship Programme

See the attached OWL- Fellowship -Programme

Preferred Duration 12 months or 24 months (optional ICU year, both is possible)

* Of note, the training period should not be interrupted by frequent and/or prolonged periods of secondment to other divisions / departments.

Preferred Programme Training Start: Month **Programme End:** Month

Number of Positions Per Year

Type of fellowship training available:

- Clinical only
 Clinical / Basic Research
 Clinical / Clinical Research
 Basic Research only
 Clinical Research only

If clinical, will the fellows be allowed to work with the patients under supervision Yes No

Comments

In case of approbation and after completion of the residency programme the fellow can work under supervision. Depending on the fellow's abilities and skills he/she can do on-call clinical duties during night and weekends. There is always a faculty member on call for back-up.

Faculty*

CTV Anaesthesia Faculty - Research Interest and/or Clinical Expertise. * Please, list at least three names.

Name	EACTA member	Certification in Cardiothoracic and Vascular Anaesthesia*	Additional Qualifications	Email	Contact Address
Vera von Dossow	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Intensive Care Medicine	vvondossow@hdz-nrw.de	HDZ Bad Oeynhausen, Ruhr-University Bochum Georgstrasse 11 32545 Bad Oeynhausen
Andreas Koster	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			akoster@hdz-nrw.de	See above
Tobias Kammerer	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Intensive Care Medicine	tkammerer@hdz-nrw.de	See above
Dora Papp	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			dpapp@hdz-nrw.de	See above
Ninos George	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			ngeorge@hdz-nrw.de	See above
<small>Click here to enter text.</small>	<input type="checkbox"/> Yes <input type="checkbox"/> No				

* In Germany, there is no formal certification in Cardiothoracic and Vascular Anaesthesia; however, all of faculty members have deep experience as well as teaching skills in the field of cardiac anesthesia given the huge load of cases at our centre. Some faculty members have TEE certification.

**Publications lists of the faculty's members in PubMed**

- Members of the OWL-Fellowship faculty are listed in more than 150 publications in pubmed.

Resources

Check if each of the following is available at the host centre.

Resource	Yes	Number	Working days/week
Total cardiothoracic and vascular ward beds		500	7/7
Number of ICU beds dedicated to CTV patients		60	7/7
Is there an emergency department in which cardiothoracic patients are managed 24 hours a day?	<input checked="" type="checkbox"/>		7/7
An adequately designed and equipped post-anaesthesia care unit for cardiothoracic patients located near the operating room suite?	<input checked="" type="checkbox"/>	ICU	
Is there monitoring and advanced life support equipment representative of current levels of technology?	<input checked="" type="checkbox"/>		
Hybrid Operating Rooms	<input checked="" type="checkbox"/>	1	
Cardiac Operating Rooms	<input checked="" type="checkbox"/>	8	
Thoracic Operating Rooms	<input checked="" type="checkbox"/>	1	
Vascular Operating Rooms	<input checked="" type="checkbox"/>	1	
Catheterisation Labs	<input checked="" type="checkbox"/>	6	
Electrophysiology Labs	<input checked="" type="checkbox"/>	1	
Pulmonology Labs	<input checked="" type="checkbox"/>	1	5/7
Interventional Vascular Suits	<input checked="" type="checkbox"/>		
Separate CVICU Facility	<input checked="" type="checkbox"/>		
Animal Laboratory for research purposes	<input checked="" type="checkbox"/>		
Outpatient Clinic for perioperative evaluation of patients undergoing cardiothoracic and vascular procedures	<input checked="" type="checkbox"/>		5/7
24-hours acute pain service available for patients undergoing cardiac, thoracic and vascular procedures	<input checked="" type="checkbox"/>		
Meeting Rooms	<input checked="" type="checkbox"/>	5	
Classrooms with visual and other educational aids	<input checked="" type="checkbox"/>	5	
Study areas for fellows	<input checked="" type="checkbox"/>		
Office space for faculty members and fellows	<input checked="" type="checkbox"/>		
Diagnostic facilities	<input checked="" type="checkbox"/>		
Therapeutic facilities	<input checked="" type="checkbox"/>		
24-hour laboratory services available in the hospital	<input checked="" type="checkbox"/>		
Cardiac stress testing	<input checked="" type="checkbox"/>		
Cardiopulmonary scanning procedures	<input checked="" type="checkbox"/>	MRI, CT	
Pulmonary function testing	<input checked="" type="checkbox"/>		
Computers and IT support	<input checked="" type="checkbox"/>		
Appropriate on-call facilities for men and women	<input checked="" type="checkbox"/>		



Clinical Skills and Responsibilities

Will your Programme offer a 12-24 months of fellowship education in fundamental clinical skills of medicine relevant to the practice of CTVA? Yes No

If yes, for each rotation or experience below, specify the duration (in months, four weeks = one month) during the 12-24 months of education in fundamental clinical skills.

Caring for inpatients in:	Number of performed produces/year
Cardiac Surgery using CPB	1500
Cardiac Surgery without CPB	1500
Minimally-Invasive Cardiac Procedures	500
Interventional Cardiac Catheterization (e.g. TAVI, Mitraclip, ASD..)	400
Electrophysiology Lab (e.g. mapping, ablation, pacemakers, ICDs..)	500
Robotic Cardiac Surgery	no
Heart, Lung, and Heart/Lung Transplants	80
ECLS, ECMO, VAD Procedures	200/200/100
Echocardiography Lab	2000
Thoracoscopic Surgery	100
Pulmonary Resection	50
Oesophageal Surgery	no
Tracheo-Bronchial Surgery	5
Interventional Pulmonology Procedures	0
Major Vascular Procedures	250
Neurological monitoring during major vascular surgery	200
Interventional Vascular Procedures	100
Acute and Chronic Pain Management for CTV patients	yes
Basic Research	yes
Clinical Research	yes

Rotations in:	Number of performed produces/year/fellow
Cardiac Anaesthesia	150
Thoracic Anaesthesia	25
Anaesthesia for Major supra-inguinal Vascular Procedures	20
Trans-esophageal and trans-thoracic echocardiography	150
Medical or surgical Critical Care Rotation	6-12 months
Inpatient or outpatient cardiology	optional
Inpatient or outpatient pulmonary medicine	optional
Extracorporeal perfusion technology (CPB, ECMO, Nova-Lung.)	50
Paediatric cardiothoracic anaesthesia	optional
Basic Research	no
Clinical Research	yes

Will all fellows entering the CTVA Programme complete each of the fundamental clinical skills of requirements? Yes No

If no, explain.

In the clinical anaesthesia setting, including nights and weekends, will faculty members at any time direct perioperative CTVA care, involving fellows, for more than two anaesthetizing locations simultaneously? Yes No

If Yes, describe:

Clinical Responsibility:



List any other rotations (along with their duration, in months) offered in the Programme to augment fellows' learning.

Optional rotation of two weeks to the anesthesia department of Herford Hospital (thoracic anesthesia) and Bad Oeynhausen Hospital (vascular anesthesia)

Will advanced subspecialty rotations reflect increased responsibility and learning opportunities?

Yes No

Maximum Time in Non-Clinical Activities

Depending on the fellow and his/her research interest

Financial Statement

An employment contract will be signed with the candidate

Yes No

Accommodation options are provided

Yes No

Transportation/travel options are provided

Yes No

Monthly Salary:

Amount

5658.97

Currency

Euro

This opportunity is not funded by the centre

Yes No

Source of financial support for the candidate:

- Host centre (monthly salary) in case of German approbation and 4. year of residency
- Candidate 's centre
- Scholarship
- Educational grant
- Award
- Candidate's own expenses
- Others

Please, describe

Depending on the candidate. With German approbation and completing residency in anesthesiology, a two-year contract for the fellowship-program (One year cardiothoracic anesthesia and 1 year intensive care) is possible.

Educational and Academic Programme

Didactic Sessions

Will faculty members' attendance be monitored?

Yes No

Will fellows' attendance be monitored?

Yes No

Will attendance be mandatory for faculty members?

Yes No

Will attendance be mandatory for fellows?

Yes No

Who of the following will provide content at conferences? Check all that apply.

Anaesthesiology faculty members from this department	<input checked="" type="checkbox"/>
Anaesthesiology faculty members from other sites	<input checked="" type="checkbox"/>
Non-anaesthesiologists from the primary clinical site	<input checked="" type="checkbox"/>
Non-anaesthesiologists from the participating sites	<input checked="" type="checkbox"/>
Visiting faculty members	<input checked="" type="checkbox"/>
Drug/industry representatives	<input type="checkbox"/>
Fellows	<input checked="" type="checkbox"/>
Others (specify): Click here to enter text.	<input type="checkbox"/>
Others (specify): Click here to enter text.	<input type="checkbox"/>

What will be the frequency of the following educational topics in the programme's schedule?

	Weekly	Bi-weekly	Monthly	Quarterly	Semi-annually	Annually
Critical care appraisal of the literature (i.e., journal club)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Quality improvement (M&M, QA)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Board review (e.g., oral exams, keywords)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Grand rounds	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (specify) Click here to enter text.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (specify) Click here to enter text.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Formal Course Work Available in:

Extra-Institutional Educational Conference Support:

German work group "Cardiac Anesthesia" annual conference meeting

In the Previous 5 Years, Fellows were 1st or 2nd Author On:



Abstracts

Peer-Reviewed Journal Articles

Book Chapters

Other Publications

Dedicated Research Time: 2 Years

Patient Care

Competency Area	Settings/Activities	Assessment Method(s)
Following standards for patient care and established guidelines and procedures for patient safety, error reduction, and improved patient outcomes.	Structured hand-over skills, Serious adverse event reporting Standard operating procedures	SBAR CIRS PDMS
Pre-operative patient evaluation and optimization of clinical status prior to the cardiothoracic procedure.	Daily premedication visit	Premedication evaluation under supervision
Interpretation of cardiovascular and pulmonary diagnostic test data.	Daily morning conference	Clinical case presentation
Hemodynamic and respiratory monitoring.	TEE, Thermodilution, Mechanical Ventilation	Lecture 2 x /month
Pharmacological and mechanical hemodynamic support.	ECMO, IABP, Impella, Catecholamine therapy, inhalative therapies	Monthly lecture
Peri-operative critical care, including ventilatory support and peri-operative pain management.	See ICU part in the fellowship programme	Clinical skills Evaluation
Providing anaesthesia care for patients undergoing cardiac surgery with and without extracorporeal circulation.	See ICU part of fellowship programme	Clinical skills evaluation
Providing anaesthesia care for patients undergoing thoracic surgery, including operations on the lung, oesophagus, and thoracic aorta.	Once /week anesthesia for thoracic surgery	Lectures
Advanced-level peri-operative TEE.	Daily TEE examinations	Lectures
The ability to independently manage intra-aortic balloon counterpulsation and be actively involved in the management of other extracorporeal circulatory assist devices.	ICU rotation, daily	Clinical skills evaluation
Management of cardiopulmonary bypass (CPB).	At least 150/12 month cardiac operating room	Clinical skills evaluation

Medical Knowledge

Indicate the activity(ies) (lectures, conferences, journal clubs, clinical teaching rounds, etc.) in which residents will demonstrate knowledge in each of the following areas. Also indicate the method(s) used to assess competence.

Area of Knowledge	Settings/Activities	Assessment Method(s)
How cardiothoracic diseases affect the administration of anaesthesia and life support to adult cardiothoracic patients.	Weekly lectures	Knowledge Assessment Interview
Embryological development of the cardiothoracic structures.	Self-study	
Pathophysiology, pharmacology, and clinical management of patients with cardiac disease, to include cardiomyopathy, heart failure, cardiac tamponade, ischemic heart disease, acquired and congenital valvular heart disease, congenital heart disease, electrophysiologic disturbances, and neoplastic and infectious cardiac diseases.	Weekly lectures	Knowledge Assessment Interview
Pathophysiology, pharmacology, and clinical management of patients with respiratory disease, to include pleural, bronchopulmonary, neoplastic, infectious, and inflammatory diseases.	Clinical teaching round	Knowledge Assessment Interview
Pathophysiology, pharmacology, and clinical management of patients with thoracic vascular, tracheal, oesophageal, and mediastinal diseases, to include infectious, neoplastic, and inflammatory processes.	Clinical teaching round together with students from Ruhr-University	Knowledge Assessment Interview
Non-invasive cardiovascular evaluation, to include electrocardiography, transthoracic echocardiography, TEE, stress testing, and cardiovascular imaging.	Monthly, rotation to the echocardiography lab	Knowledge Assessment Interview, Echocardiography Logbook EACTA Echo exam
Cardiac catheterization procedures and diagnostic interpretation, to include invasive cardiac catheterization procedures, including angioplasty, stenting, and transcatheter laser and mechanical ablations.	Weekly conference, rotation to the catheter lab	Knowledge Assessment Interview
Non-invasive pulmonary evaluation, to include pulmonary function tests, blood gas and acid-base analysis, oximetry, capnography, and pulmonary imaging.	Monthly conference	Knowledge Assessment Interview, ability to interpret diagnostic tests.



Area of Knowledge	Settings/Activities	Assessment Method(s)
Pre-anaesthetic evaluation and preparation of adult cardiothoracic patients.	Daily examination under supervision	Assessment Interview
Peri-anaesthetic monitoring, both non-invasive and invasive (intra-arterial, central venous, pulmonary artery, mixed venous saturation, cardiac output)	Daily examination under supervision	Assessment Interview, clinical outcome
Pharmacokinetics and pharmacodynamics of medications prescribed for medical management of adult cardiothoracic patients.	Daily examination under supervision	Assessment Interview, clinical outcome
Pharmacokinetics and pharmacodynamics of anaesthetic medications prescribed for cardiothoracic patients.	Daily examination under supervision	Assessment Interview, clinical outcome
Pharmacokinetics and pharmacodynamics of medications prescribed for management of haemodynamic instability.	Daily examination under supervision	Assessment Interview, clinical outcome
Extracorporeal circulation, to include: myocardial preservation; effects of CPB on pharmacokinetics and pharmacodynamics; cardiothoracic, respiratory, neurological, metabolic, endocrine, haematological, renal, and thermoregulatory effects of CPB; and coagulation/ anticoagulation before, during, and after CPB.	Daily examination, bedside-teaching with instructor	Assessment Interview, clinical outcome
Inotropes, chronotropes, vasoconstrictors, and vasodilators.	Daily examination under supervision	Assessment Interview, interactive rounds with the ICU Team
Circulatory assist devices, to include intra-aortic balloon pumps, left and right ventricular assist devices, and extracorporeal membrane oxygenation (ECMO).	Daily examination under supervision	Assessment Interview, interactive rounds with the ICU Team
Pacemaker insertion and modes of action.	Daily examination under supervision	Assessment Interview, interactive rounds with the ICU Team
Cardiac surgical procedures, to include: minimally invasive myocardial revascularization; valve repair and replacement; pericardial, neoplastic procedures; and heart and lung transplantation.	Daily examination under supervision	Assessment Interview
Thoracic aortic surgery, to include: ascending, transverse, and descending aortic surgery with circulatory arrest; CPB employing low flow and or retrograde perfusion; lumbar drain indications and management; and spinal cord protection, including cerebral spinal fluid (CSF) drainage.	Bedside teaching with instructor	Assessment Interview
Oesophageal surgery, to include varices, neoplastic, colon interposition, foreign body, stricture, and tracheoesophageal fistula.	Self-study	Assessment Interview
Pulmonary surgery, to include segmentectomy (open or video-assisted), thoracoscopic or open, lung reduction, bronchopulmonary lavage, one-lung ventilation, lobectomy, pneumonectomy and bronchoscopy, including endoscopic, fiberoptic, rigid, laser resection.	Daily bedside teaching with instructor	Assessment Interview
Post-anaesthetic critical care of adult cardiothoracic surgical patients.	Daily within the ICU rotation	Assessment Interview, interactive rounds with the ICU Team
Peri-operative ventilator management, to include intra-operative anaesthetic s, and critical care unit ventilators and techniques.	Daily within the ICU rotation	Assessment Interview, interactive rounds with the ICU Team
Pain management of adult cardiothoracic surgical patients.	Daily examination	Assessment Interview
Research methodology/ statistical analysis, the fundamentals of research design and conduct, and the interpretation and presentation of data.	Quarterly science colloquium	Presentation of a poster on the annual german congress of anaesthesiology, conferences
Quality assurance/ improvement.	Participation on M&M conferences	
Ethical and legal issues, and practice management.	Daily examination under supervision	

Evaluation of Trainees

1. The Programme Director will give an appraisal for each fellow every 6 months. Yes No
2. The faculty and trainee should agree a joint evaluation both fellow's progress and the training programme, and devise a plan for addressing any perceived difficulties or deficiencies. Yes No
3. Training programmes should encourage fellows to provide a written confidential evaluation of the programme. Yes No
4. The centre will be able to maintain a register of those fellows who have entered and successfully completed a training programme in order to continue its accreditation as a training centre. Yes No
5. At the end of the training period, the centre would acknowledge in writing successful completion of a fellow training. Yes No

Practice-based Learning and Improvement

1. Briefly describe one planned learning activity in which fellows engage to: identify strengths, deficiencies, and limits in their knowledge and expertise (self-reflection and self-assessment); set learning and improvement goals; and identify and perform appropriate learning activities to achieve self-identified goals (life-long learning).

The structure of the Fellowship is comprehensive and will expose the fellow to every clinical aspect of the field of Cardiothoracic Anesthesia. Through direct supervision, the assessment through the supervisor as well as regular assessment interviews; the fellow will be able to objectively define his strengths, deficiencies and limits. After that, a constructive and objective feedback will guide the fellow into his needed learning activities and the supervisor will accordingly concentrate on the „weak points“ of the fellow.

2. Briefly describe one planned quality improvement activity or project that will allow the fellows to demonstrate an ability to analyse, improve and change practice or patient care. Describe planning, implementation, evaluation and provisions of faculty support and supervision that will guide this process.

The fellowship will include several activities to measure the quality of clinical outcome and to reflect this measurement on patient care. Reviews of morbidity or mortality data are held regularly at our center, Case reviews are always encouraged for interesting or challenging cases. Our internal SOPs (Standards of Practice) are always under continuous reviewing and updating. Also, we would regularly review the effectiveness of our teaching programme.

3. Briefly describe how fellows will receive and incorporate formative evaluation feedback into daily practice.

Through regular assessment the fellow will obtain an objective feedback of his/her clinical outcome. The feedback will be followed by a change of the learning environment that fits the needs of the fellow. The feedback will be considered effective only if it was reflected in the appropriate evidence-based practice that would improve patient care.

4. Briefly describe one example of a learning activity in which fellows engage to develop the skills needed to use information technology to locate, appraise, and assimilate evidence from scientific studies and apply it to their patients' health problems. The description should include:

Fellows are encouraged to look for the best evidence available to be implemented into patient care. Our center has subscriptions and connections to most medical databases free of charge and they are always available for fellows.

5. Briefly describe how fellows will participate in the education of patients, families, students, fellows, and other health professionals.

Our Center has a dynamic teaching environment on all levels from the medical student up to the university Professor. Fellows are required to educate and reassure family members of patients. Also, as in every university hospital, medical students are usually attached to fellows in order to get a simple overview of Cardiothoracic Anesthesia.

Interpersonal and Communication Skills

1. Briefly describe one learning activity in which fellows demonstrate competence in communicating effectively with patients and families across a broad range of socioeconomic and cultural backgrounds, and with physicians, other health professionals, and health-related agencies.

The fellow is required at some point to run the pre-anesthetic clinic with a supervisor. He/she will inform the patient and the accompanying family about the flow of the procedure and the possible risk in a professional and compassionate way. The fellow would use a simple approach that fits the patient's social level and cultural background. The fellow will also regularly communicate with other disciplines (Cardiothoracic surgery, Cardiology, Pulmonary diseases and ICU) and run active constructive discussions for the benefit of the patient. After anesthetic care of patients, the hand-over to cardiothoracic ICU is very structured and follows a well-established concept (SBAR).

2. Briefly describe one learning activity in which fellows demonstrate their skills and habits to work effectively as members or leaders of a health care team or other professional group. In the example, identify the members of the team, responsibilities of the team members, and how team members communicate to accomplish responsibilities.

The flow of work in the anesthesia department is well divided between members according to their level and expertise. The fellow is required to work in harmony with other team members in order to get the best possible outcome. A very important activity to implement team work is proper hand-over and team-debriefing process. Daily morning rounds and case presentation of the operating program define the role of each team member including the fellow.

3. Briefly describe how fellows will be provided with opportunities to act in a consultative role to other physicians and health professionals related to clinical information systems.

Fellows are required to provide care to patients on a consultative basis such as postoperative analgesia, difficult airway management and intubation, sedation in the radiology department or difficult peripheral venous access. Also, fellows will be involved in teaching physicians from other disciplines such as cardiac surgery residents, cardiology residents and medical students basic anesthetic skills such as intubation and venous puncture. The fellow will be also included in student lectures as well.

4. Briefly describe how fellows will be provided with opportunities to maintain comprehensive, timely, and legible medical records, if applicable.

Our center is well-equipped with modern electronic patient data systems including anesthesia protocols that are efficient and precise. The fellow will obtain a comprehensive introduction to the electronic patient records system and how to deal with patient information.

5. Briefly describe how fellows will maintain a comprehensive anaesthesia record for each patient, including evidence of pre- and post-operative anaesthesia assessment, an ongoing reflection of the drugs administered, the monitoring employed, the techniques used, the physiologic variations observed, the therapy provided as required, and the fluids administered.



Our center uses a very modern electronic patient data management system (Copro) at all anaesthetic stations and on the cardiothoracic and cardiologic ICU. The fellow will be trained to use this system and to document all relevant anesthetic data.

6. Briefly describe how fellows will create and sustain a therapeutic relationship with patients, engage in active listening, provide information using appropriate language, ask clear questions, provide an opportunity for comments and questions, and demonstrate sensitivity and responsiveness to cultural differences, including awareness of their own and their patients' cultural perspectives.

The fellow will first engage in pre-anaesthetic visits under supervision in order to have an overview of potential difficulties in communication with different cultures. The fellow is required to demonstrate sensitivity and responsiveness to patients' cultural differences as well as worries regarding treatment. All possible risks must be announced in a professional manner and the therapeutic plan must be shared with the patient.

Professionalism

Briefly describe the learning activity(ies), other than lecture, by which fellows demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles, including: compassion, integrity, and respect for others; responsiveness to patient needs that supersedes self-interest; respect for patient privacy and autonomy; accountability to patients, society, and the profession; and sensitivity and responsiveness to a diverse patient population, including to diversity in gender, age, culture, race, religion, disabilities, and sexual orientation.

Fellows are required to adhere to the main principles of professional clinical practice, which are: providing the best available clinical care, maintaining good medical practice by keeping knowledge and skills up to date, willing to get involved in teaching and training as well as assessing others, building good relationships with patients from different backgrounds and respecting their confidentiality, maintaining good working relationships with colleagues and being honest and trustworthy and act with integrity.

Systems-based Practice

1. Describe the learning activity(ies) through which fellows achieve competence in the elements of systems-based practice: working effectively in various health care delivery settings and systems, coordinating patient care within the health care system; incorporating considerations of cost-containment and risk-benefit analysis in patient care; advocating for quality patient care and optimal patient care systems; and working in inter-professional teams to enhance patient safety and care quality.

The fellow is required to work as part of a team, displaying good communication and interpersonal skills, he/she must be able to work in interprofessional teams to enhance patient safety and improve patient care quality. The fellow must interact not only with the patient but also with the patient's family, caretakers, consultants, and fellow members of the medical care team. Fellows will also need to exercise flexibility as situations change. The fellow must understand and weigh the risks and benefits of each procedure, treatment plan, and goal in patient care. The fellow must also be aware of certain costs and be able to alleviate them when needed (by using alternative treatment solutions).

2. Describe an activity that fulfils the requirement for experiential learning in identifying system errors and implementing potential systems solutions.

During M&M conferences, fellows will have the chance to discuss complicated cases and to have an open error environment with staff members in order to identify suboptimal treatments or errors and to provide solutions that would alter practice and improve patient care quality and safety.

EACTA/ESA Biennial Reviewers 'Visit (for 2-days)

Dates proposed for the visit (at least 3)

or

or

or

I hereby accept the regulations of the Hospital Visiting especially to take in charge the travel costs and the hotel accommodation of the 2 reviewers on the most reasonable base.

Yes

No

Other Comments:

To be completed by the Head of department or the authorised deputy.

Please fill in all required fields and send to eacta@mci-group.com

Submit

**Ostwestfalen-Lippe (OWL) – Fellowship Programme in Cardiothoracic and Vascular Anaesthesia and Intensive Care
Ruhr-University Bochum, Germany**

Introduction

Ostwestfalen-Lippe (abbreviation OWL), is a technology region in the German state of North Rhine-Westphalia, with a 2,000-year-old history and culture. Ostwestfalen-Lippe is the eastern part of the region of Westphalia, joined with the Lippe region.

Duration of the Fellowship

The cardiothoracic and vascular anaesthesia fellowship of OWL is offered for duration of two years.

Aim of the Fellowship

The aim of the fellowship program is to provide anaesthesiologists with certain core intellectual and clinical skills for the safe and effective conduction of cardiothoracic and vascular anaesthesia. The fellowship will produce anaesthesiologists with solid clinical and academic experience who are experts in the perioperative management of patients undergoing complex cardiothoracic and vascular procedures including the postoperative intensive care management. After completion of the programme, the fellow will be able to work independently as a consultant in cardiac, thoracic and vascular anaesthesia.

Requirements for Selection as a Fellow

Candidates for the fellowship program should have finished their residency training or should be at the beginning of the last year of their residency training. The fellow must be board certified or board eligible according to European residency standards and must be proficient in German language (B2 Level is required) in order to apply for German Work-Permission as a physician. In addition, approbation is mandatory.

Organization

The OWL Fellowship Programme is based in the Heart and Diabetes Center NRW, Bad Oeynhausen, Ruhr University Bochum, Germany. The fellowship is organized and directed by Univ.-Prof. Dr. med. Vera von Dossow, director of the Institute of Anaesthesiology, in collaboration with Univ.-Prof. Dr. med. Jan Gummert, director of the Department of Thoracic and Cardiovascular Surgery.

In addition, there is collaboration with Prof. Dr. Dietrich Henzler FRCCP (director of the Institute of Anaesthesiology at Herford Hospital) and Dr. Mathias Emmerich DEAA (director of the Institute of Anaesthesiology and Intensive Care at Bad Oeynhausen Hospital) for training and curriculum development in the fields of thoracic and vascular anaesthesia.

Division Heads are:

- Adult and Paediatric Cardiothoracic and Vascular Anaesthesia: PD Dr. A. Koster (EACTA member) and Dr. T. Kammerer (EACTA member); Institute of Anaesthesiology, Heart and Diabetes Center NRW, Bad Oeynhausen.
- Academic Research: Univ.-Prof. Dr. med. U. Schirmer (EACTA member), Director of the Institute of Anaesthesiology, Heart and Diabetes Center NRW, Bad Oeynhausen.
- Head of the ECMO Team and Intensive Care Unit: Dr. med. L. Kizner, Department of Thoracic and Cardiovascular Surgery, Heart and Diabetes Center NRW, Bad Oeynhausen.
- TEE: Dr. N. George (EACTA member), Dr. D. Papp, all EACVI/EACTA certified
- Univ.-Prof. Dr. med. P. Zahn, director of the Institute of Anaesthesiology, Knappschafts Krankenhaus, Ruhr University Bochum.
- Univ.-Prof. Dr. med. D. Henzler, FRCCP, director of the Institute of Anaesthesiology, Herford Hospital, Ruhr University Bochum.
- Dr. M. Emmerich, DEAA, director of the Institute of Anaesthesiology and Intensive Care, Bad Oeynhausen Hospital.

Accreditation

Our Center is one of few European centers accredited to run the EACTA Fellowship Programme. Completion of the programme will be acknowledged by the Institute of Anaesthesiology and the Department of Thoracic and Cardiovascular Surgery (for training in Intensive Care Medicine) at the Heart and Diabetes Center NRW, Bad Oeynhausen, in junction with the European Association of Cardiothoracic Anaesthesia (EACTA). The EACTA accreditation is awarded after successful completion of the competencies set by the EACTA curriculum which was formed by the Education Committee

(EDUCOM EACTA). Acquirement of these competencies is obligatory for the certification process of the fellow and a logbook of all clinical activities should be accomplished and documented.

Obligation of the fellow

The OWL-Fellowship Programme includes pre-, intra- and postoperative care of patients undergoing cardiac, thoracic and vascular operations. The fellow takes part in the clinical routine, clinical case conferences, morbidity and mortality conferences with the Institute of Anaesthesiology, the Department of Thoracic and Cardiovascular Surgery, the Department of Paediatric Cardiac Surgery, the Department of Cardiology and Paediatric Cardiology as well as the Department of Arrhythmology. In addition, transesophageal echocardiography (TEE) and bronchoscopy simulation as well as interprofessional communication skills, structured hand-over protocols (SBAR-concepts) and a concomitant masterclass curriculum are included in the fellowship training. The masterclass curriculum contains lectures and case of the month conferences which allows the fellow to acquire the knowledge to care for the patients. The fellow should at least perform 120 TEE examinations per year. Furthermore, the fellow is involved in academic research projects including preparation and publication of review articles, clinical research as well as book chapters. These academic activities are offered and strongly encouraged. The fellow is responsible for the documentation of the cases and the TEE examinations in the logbook during his fellowship.

Evaluation

Every 3-6 months the fellow's progress will be evaluated and discussed by the programme director and the division heads. The following items will be assessed:

- Professional attitude
- Fund of knowledge
- Practical skills
- Social competence
- Efficiency for patient management
- Critical analysis for any relevant clinical situation
- Involvement in quality assurance and risk management

At the end of the training period, the fellow will receive a testimonial. We will motivate the fellow to attain the EACVI/EACTA TEE certification.

Faculty

The programme directors and division heads have a large experience in cardiothoracic and vascular anaesthesia as well as Intensive Care Medicine.

Univ.-Prof. Dr. med. Vera von Dossow is the programme director and she is responsible for the fellowship program and has an extensive experience in the perioperative care of cardiothoracic and vascular patients. She is EACTA member and would have enough time to direct the programme (at least 10 % of working time). The faculty will devote sufficient time to provide substantial Leadership to the programme and supervision for the trainees. This includes the division heads who are also EACTA members (PD Dr. Koster, Dr. Tobias Kammerer). In addition to the primary coaches of the fellow, further senior members of cardiothoracic and vascular anaesthesia team serve as clinical teachers for the fellows in daily practice. The Institute of Anaesthesiology consists of 25 consultants who are specially trained in cardiovascular and thoracic anaesthesia as well as intensive care medicine. Most of them are EACTA members and some of them are TEE-certified from EACTA and DGAI (German Society of Anaesthesiology and Intensive Care Medicine).

Resources

The Heart and Diabetes Centre (HDZ) NRW is a 500-bed facility, a University Hospital of the Ruhr-University Bochum and a leading international centre that specializes in the treatment of cardiac, vascular and diabetic diseases. With four departments (Thoracic and Cardiovascular Surgery, Cardiology, Paediatric Heart Centre and Centre for Congenital Heart Defects as well as the Diabetes Centre) and three University Institutes (Anaesthesiology, Laboratory and Transfusion Medicine as well as Radiology, Nuclear Medicine and Molecular Imaging), it counts as a centre of competence, which is both a national and an international leader. The Department of Thoracic and Cardiovascular Surgery is a very busy unit that treats a big mixture of cases, which includes all standard and complicated adult and paediatric cardiac surgeries including heart transplantation. As a University Hospital, the centre makes a significant contribution to research and teaching. Our facility operates a Centre for Clinical Research and Development facilitating the translation of clinical knowledge to innovations.

Key Statistics of our Facility:

- With 37.000 patients per year including 14.700 inpatients the HDZ NRW is one of the leading institutions of its kind in Europe.

- HDZ NRW performs 3600 heart operations, 10000 catheter examinations (including 3000 interventions), 800 electrophysiological examinations and the elimination of 1000 congenital heart defects per year.
- Since the HDZ opened its doors, more than 130.000 open-heart operations and 270.000 catheter examinations have been successfully performed.
- Since 1989, more than 2300 hearts have been transplanted and more than 3700 ventricular assist devices were fitted at the HDZ NRW.
- Specialist for implants: the HDZ NRW is one of the largest centres for the implantation of pacemakers and defibrillators
- The HDZ has a total of 500 beds, including:
 - More than 60 intensive care beds for adult cardiac surgery patients.
 - 23 intensive care beds for adult cardiology patients.
 - 16 intensive care beds for paediatric cardiology and cardiac surgery patients.
 - 23 beds for patients with Mechanical Circulatory Support (VAD).

Department of Thoracic and Cardiovascular Surgery

Head of the Department: Prof. Dr. med. J. Gummert, director of the Department of Thoracic and Cardiovascular Surgery, and medical director of HDZ NRW, Bad Oeynhausen since 2009. He is member of all national and international associations of cardiovascular surgery and transplantation. He is author and Coauthor of approximately 400 publications.

General brief description and key competences:

The specialists at the Department of Thoracic and Cardiovascular Surgery perform the entire range of cardiac surgery techniques. The department outperforms all other departments in Germany in the areas of cardiac valve surgery, heart transplantation, artificial heart implantation and cardiac pacemakers/ICD intervention as well as thoracic surgery and lung transplantation. It is a national and international reference centre for mitral valve repair, congestive heart failure, heart transplantation, LVAD assist implantation and Off-pump surgery. Minimally invasive approaches and new technologies are widely used. The specialists at the department cover also the interventional cardiology theatre in cooperation with the department of cardiology to perform TAVI procedures.

Up to 100 thoracic surgeries are performed per year at HDZ NRW. This includes the spectrum of VATS, thoracotomies, sleeve resection, lobectomy, pneumectomy, carina resection as well tracheal surgery. 5-10 lung transplantations are performed per year.

Vascular surgery covers all major and complex forms of aortic surgery (aortic dissection, aorta ascendens surgery, hybrid) at HDZ NRW. In addition, near to HDZ NRW at Bad Oeynhausen Hospital vascular surgery is also well-established and includes endovascular/open surgery procedures of the descending thoracic and abdominal aorta (n= 150/Year), abdominal aneurysm (open surgery and EVAR (n= 50), carotis endarterectomy (n= 25/year) as well as bypass surgery on the lower extremity (n= 60/year).

Facilities HDZ NRW:

- Nine operation theatres equipped with the latest technologies needed to care patients undergoing Cardiovascular and Thoracic Surgery.
- Laboratory of Perioperative Echocardiography (Head: Dr. med. C. Palusciewicz), that is equipped with modern three-dimensional echocardiography and is 24-hours per day on-duty.
- Support of three postoperative intensive care units (total ICU beds: 62), that are equipped with the latest medical equipment and have teams with a long standing expertise in the management of patients after heart surgery
- Outpatient`s clinic for pre and postoperative evaluation, for heart failure, for surgery of arrhythmias and for valvular surgery.

Summary of Surgeries and Interventions

Aortic valve surgery (open/minimal-invasive)	1472
Mitral Valve surgery (open/minimal-invasive)	709
Tricuspid valve surgery (open/minimal-invasive)	223
Revascularisation bypass (On-pump/off-Pump)	1592
LVAD-Implantation/Total artificial heart	97
Extracorporeal support (IABP, ECMO, Impella)	> 200
Heart Transplantation	71
TAVI (transfemoral/transapikal)	396
Lung transplantation	6
Aortic surgery (aortic dissection, aorta ascendens surgery,	286

hybrid etc.)	
CTEPH	< 5
Thoracic surgery (lobectomy, sleeve resection, pneumectomy, VATS, thoracotomy, tracheal surgery)	100
Vascular surgery (thoracoabdominal, open surgery, endovascular repair, EVAR, aneurysm abdominal, carotis endarterectomy)	>250
Mitralclipping	50

Cardiovascular and Thoracic Anaesthesia

Fellows are trained to provide perioperative anaesthetic management for patients with severe cardiopulmonary pathology. The subspecialist in adult cardiothoracic and vascular anaesthesia will be proficient in providing anaesthesia care for patients with cardiac or thoracic diseases undergoing cardiac surgery with and without extracorporeal circulation, surgery on the thoracic and abdominal aorta, pulmonary, chest wall, mediastinal and tracheobronchial surgery, non-operative diagnostic and interventional cardiac, thoracic and vascular procedures as well as electrophysiological procedures.

Clinical Components of the Fellowship:

According to the EACTA curriculum, clinical components of the fellowship include:

- Minimum of 150 cardiac surgery cases with cardiopulmonary bypass done by the trainee himself.
- 25 thoracic surgery cases per trainee per year, the trainee must gain experience in lung isolation techniques, one-lung ventilation, difficult airway management and bronchoscopy in thoracic surgery.
- Training in minimum of 15 interventional vascular procedures:
 - Elective and emergency aortic repair, aortic dissection, abdominal and aortic aneurysm (open and endovascular repair), carotid endarterectomy
- Experience in the preoperative patient evaluation and interpretation of cardiovascular and pulmonary diagnostic test data.
- Experience in the usage and interpretation of current neuromonitoring techniques (pEEG, NIRS, SSEP, MEP)
- Experience with Patient Blood Management and interpretation of Point-of-Care coagulation monitoring (e.g. ROTEM, TEG)
Experience in the anaesthetic management of patients with Mechanical Circulatory Support (MCS) devices including IABP, ECMO, LVAD, BerlinHeart, and TAH such as Cardiowest.
- Experience in the anaesthetic management of patients undergoing interventional procedures (Transcatheter Aortic Valve Implantation (TAVI), cardiac catheterization and cardiac electrophysiologic diagnostic/therapeutic procedures.
- Experience in the anaesthetic management of patients planned for pacemaker and automatic implantable cardiac defibrillator implantation as well as surgical treatment of arrhythmias.

- Education in basic and advanced perioperative echocardiography according to the EACVI (European Association of Cardiovascular Imaging) and EACTA (European Association of cardiothoracic anaesthesiology) guidelines of TEE certification. Certification process includes a theoretical part by passing a written examination and a practical part by submitting a logbook of 125 clinical cases (or 75 if he/she holds a valid TTE certification).
- Each trainee **can do an optional rotation** for a minimum of 12-month rotation managing adult cardiothoracic and vascular surgical patients in the intensive care unit **following the basic training for 12 months**.
- Optional: 1-month rotation in thoracic and vascular anaesthesia at Herford Hospital and Bad Oeynhausen Hospital.
- Optional: 1-month rotation in paediatric cardiothoracic anaesthesia: 15 paediatric cardiac cases (e.g. Switch operation, Fontan procedures, ASD, VSD).
- Additional optional modules: 1-month research module, preparation of book chapter or review, research publication, preparation of case conference etc.
- Didactic curriculum provided through lectures, conferences, workshops will supplement the clinical experience for the two years of the fellowship program

Structure of the Fellowship:

During the first year of the fellowship, the fellow is directly supervised and gets 1:1 supervision with a senior cardiac consultant.

1st Month

- Introduction to the field of cardiothoracic and vascular anaesthesia, coached mainly by programme directors or division heads.
- Anaesthesia management for standard cardiac procedures (elective cardiac surgery).
- Daily premedication visit.

2nd - 4th Month

- Clinical duties as a member of the cardiac team for standard cardiac procedures (isolated CABG, aortic and mitral valve replacement, elective aorta ascendens surgery), under supervision.
- Experience in adult patients for cardiac pacemaker, automatic cardiac defibrillator implantation, and surgical treatment of cardiac arrhythmia as well as cardiac electrophysiological diagnostic therapeutic procedures.
- Daily premedication visit

- Daily participation in intensive care unit rounds and preoperative anaesthesia clinic.
- Acquisition of basic echocardiographic knowledge (books, media, course, teaching in the operating theatre).
- Evaluation of the educational progress of the fellow by program director and division head. Meeting with the fellow, discussion of the evaluation.
- Planning of attendance of related medical education events (40-hour course in cardiovascular anaesthesia, echocardiography courses, annual EACTA Meeting)

5th - 7th Month

- Clinical duties as a member of the cardiac team for standard and advanced cardiac procedures, including Transcatheter Aortic Valve Implantation (transapical, transfemoral), aortic valve bypass and anterolateral mitral valve repairs/ replacements, as well as mitral clip, under supervision.
- Clinical duties as a member of the cardiac team for thoracic surgery cases (lung isolation techniques, one-lung ventilation, paravertebral/epidural blockade)
- Acquisition of basic TEE skills. The fellow learns to obtain the 20 standard views.
- Planning and presentation of clinical case conference.
- On-call duties, under supervision.

8th - 10th Month

- Clinical duties as a member of the cardiac team for standard and advanced cardiac procedures, including Transcatheter Aortic Valve Implantation (transapical, transfemoral), aortic valve bypass and anterolateral mitral valve repairs/ replacements, under supervision.
- Daily self-consistent TEE examination.
- Rotation to Bad Oeynhausen Hospital (1 month):
A minimum of 25 aortic or aorto-iliac vascular cases per trainee /year (abdominal aortic repair, endovascular aortic repair (EVAR/TEVAR with rapid ventricular pacing (RVP)) as well as anesthesia management of peripheral vascular anesthesia and carotis endarterectomy.

11th - 12th Month

During the last part of the first year of the fellowship, the Fellow is working more and more independently but gets a remote supervision. A senior faculty member is immediately available.

- Self-consistent clinical duties as junior anaesthesia consultant in elective cardiac, thoracic and vascular surgical patients.
- On – call duties as a junior consultant, together with a backup senior consultant.

- Self-consistent TEE examination.
- Presentation of a case at the clinical case conference once every 6 months.

Optional second year of the fellowship (12 month) in the ICU

The Fellow will focus on the activity of the cardiac surgery ICU (more than 60 beds). The competencies acquired in this field include:

- Management of postoperative hemodynamics, fluids and metabolism including the manipulation of vasoactive agents.
- Management of pacemakers and chest tubes.
- Invasive and non-invasive ventilator support, the use of nitric oxide, care of patients with percutaneous tracheostomies.
- Fast-Track-Concept, sedation and weaning protocols.
- Intermittent/continuous renal replacement therapy.
- Management of patients with Mechanical Circulatory Support such as VV- and AV-ECMO, IABP, Impella, VAD and total artificial heart.
- Clinical neurological and delirium assessment, and interpretation of neuro-, chest and vascular imaging.

Fellows will follow all the activities of the ICUs under the supervision of senior ICU specialists (Head of the ICU Division: Dr. med. L. Kizner).

Application Process

The applicant should email a cover letter to the programme director stating her/his interest in the position, together with the following documents:

- 1) Current curriculum Vitae (CV)
- 2) The applicant should be Board certified in anesthesiology. English language and B2 level German language is required. The candidate must be board certified or board eligible according to European residency standards. An employment contract will be signed with the candidate. Accommodation options are provided but have to be paid by the fellow. Transportation options are not provided. There is no monthly salary.
- 3) Depending on the individual situation of the applicant, other documents maybe needed.

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