European Association of Cardiothoracic Anaesthesiology

Application for Hosting EACTA Cardiothoracic and Vascular Anaesthesia Fellowship Programme

Fellowship Information **Cardiac Anaesthesia Fellowship**

Institution Name Heartcenter Leipzig

Address Struempellstrasse 39, 04289 Leipzig

Website www.helios-gesundheit.de/kliniken/leipzig-herzzentrum/anaesthesiologie/fellowship-program/

Chair Name Email Prof. Dr. med. habil. Jörg Ender/ joerg.ender@medizin.uni-leipzig.de

Programme Director

Name Ms. Dr Anna Flo Forner Dr Rajni Singh

Board Certification(s) Spanish Board MCI India

Title/Affiliation Dr med

Number of original publications 6 2

EACTA, ESA, or other societies membership EACTA, DGAI EACTA / DGAI

If yes, membership's number EACTA 101012 / DGAI

Email anna.floforner@medizin.uni-leipzig.de rajni.singh@medizin.uni-leipzig.de

Mailing Address Anaesthesia and Intensive care, Heartcenter Leipzig

Street Struempellstrasse 39

City Leipzig Region 04289, Saxony

Country Germany City/Zip code

Phone 0049341865251439 Fax

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 EACTA accreditation

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 followed by a medical language test by the Saxony medical association

Specific requirements towards the attending fellow:

A completed specialisation in anaesthesia from home country or an eligibility for the same is mandatory for the programme
The candidate has to acquire the required level of german (presently B2 with a medical language examination conducted by the Saxony medical association in Dresden Germany) and complete other requirements for acquiring the german "Berufserlaubnis" and a work visa at his/her own expense, before the final fellowship contract can be signed. During this period the candidate is guided by the fellowship director (per email and Skype) as well as the office of the departmental chair.
C1 language proficiency is required before starting the Fellowship Program.

General Programme Information

Aims, goals and objectives of the Fellowship Programme

Participants of the programme will learn the basic and advance skills in cardiovascular anaesthesia. The programme will cover all areas of cardiovascular anaesthetic care including preoperative diagnostics and postoperative care. They will be prepared actively for acquiring the EACTA TEE certification in the course of the fellowship. After completing the programme the participant will be able to provide anaesthesia in complex cardiovascular surgical procedures.

Preferred Duration ☐ **12 months** ☒ **24 months** Depending on the Application from Fellow and acceptance from Director

	One obligatory training year in Cardiac Anaesthesia followed with an "**optional**" **second year** in Advanced Cardiac Anaesthesia, ICU and paediatric cardiac anaesthesia

* 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: Jan/Oct **Programme End:** Month: Dec/Sep

Number of Positions Per Year 2

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 The candidate will be supervised with 1:1 coverage till the time the communication as well as clinical abilities allow him or her to work independently under indirect supervision (minimum of 3 months direct 1:1 and 3 months indirect supervision). The candidate will be given increasing responsibilities with the aim of him/her being able to handle all complex cardiac cases independently at the completion of the fellowship. The fellow will be posted for night and weekend calls when he is deemed fit to work independently with indirect supervision. At all times the fellow will be supervised directly or indirectly.

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
Anna Flo Forner	☒ Yes ☐ No	No		Anna.floforner@medizin.uni-leipzig.de	Anaesthesia and intensive care, Heartcenter Leipzig, Strümpellstrasse 39, 04289, Leipzig, Germany
Rajni Singh	☒ Yes ☐ No	yes		Rajni.singh@medizin.uni-leipzig.de	Same as above
Anirudha R Janai	☒ Yes ☐ No	yes		AnirudhaRamesh.Janai@medizin.uni-leipzig.de	Same as above
Carmine Bevilacqua	☒ Yes ☐ No	no	Certification in Intensive care	Carmine.Bevilacqua@medizin.uni-leipzig.de	Same as above
Jörgen Banusch	☒ Yes ☐ No	no		Joergen.Banusch@medizin.uni-leipzig.de	Same as above
Arne Käthner	☒ Yes ☐ No	no	Certification in Intensive care	Arne.Käthner@medizin.uni-leipzig.de	Same as above
Nadeen khalil	☒ Yes ☐ No	yes		Nadeen.Khalil@medizin.uni-leipzig.de	Same as above
Waseem Zakhary	☒ Yes ☐ No	yes		WaseemZakariaAziz.Zakhary@medizin.uni-leipzig.de	Same as above
Sven E Gudehus	☒ Yes ☐ No	no	Certification in Intensive care	Sven.Gudehus2@medizin.uni-leipzig.de	Same as above
	☐ Yes ☐ No				

Publications lists of the faculty's members in PubMed

About 30 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		440	7/7
Number of ICU beds dedicated to CTV patients		24	7/7
Is there an emergency department in which cardiothoracic patients are managed 24 hours a day?	☒		7/7
An adequately designed and equipped post-anaesthesia care unit for cardiothoracic patients located near the operating room suite?	☒		5/7
Is there monitoring and advanced life support equipment representative of current levels of technology?	☒		
Hybrid Operating Rooms	☒	2	5/7
Cardiac Operating Rooms	☒	7	7/7
Thoracic Operating Rooms	☐		
Vascular Operating Rooms	☒	1	5/7
Catheterisation Labs	☒	4	7/7
Electrophysiology Labs	☒	4	5/7
Pulmonology Labs	☒	1	5/7
Interventional Vascular Suits	☒	1	5/7
Separate CVICU Facility	☒	1	7/7
Animal Laboratory for research purposes	☒	1	5/7
Outpatient Clinic for perioperative evaluation of patients undergoing cardiothoracic and vascular procedures	☒	1	5/7
24-hours acute pain service available for patients undergoing cardiac, thoracic and vascular procedures	☒		
Meeting Rooms	☒	4	
Classrooms with visual and other educational aids	☒	3	
Study areas for fellows	☒	1	
Office space for faculty members and fellows	☒	5	
Diagnostic facilities	☒		
Therapeutic facilities	☒		
24-hour laboratory services available in the hospital	☒		
Cardiac stress testing	☒		
Cardiopulmonary scanning procedures	☒		
Pulmonary function testing	☒		
Computers and IT support	☒		
Appropriate on-call facilities for men and women	☒		

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	2279
Cardiac Surgery without CPB	509
Minimally-Invasive Cardiac Procedures	207
Interventional Cardiac Catheterization (e.g. TAVI, Mitraclip, ASD..)	1083
Electrophysiology Lab (e.g. mapping, ablation, pacemakers, ICDs..)	1393
Robotic Cardiac Surgery	
Heart, Lung, and Heart/Lung Transplants	9
ECLS, ECMO, VAD Procedures	89
Echocardiography Lab	3000 plus

European Association of Cardiothoracic Anaesthesiology

Thoracoscopic Surgery	
Pulmonary Resection	
Oesophageal Surgery	
Tracheo-Bronchial Surgery	
Interventional Pulmonology Procedures	
Major Vascular Procedures	
Neurological monitoring during major vascular surgery	
Interventional Vascular Procedures	
Acute and Chronic Pain Management for CTV patients	
Basic Research	
Clinical Research	

Rotations in:	Number of performed produces/year/fellow
Cardiac Anaesthesia	200
Thoracic Anaesthesia	
Anaesthesia for Major supra-inguinal Vascular Procedures	25
Trans-esophageal and trans-thoracic echocardiography	120
Medical or surgical Critical Care Rotation	6 months **(optional in case of 2 year fellowship**)
Inpatient or outpatient cardiology	
Inpatient or outpatient pulmonary medicine	
Extracorporeal perfusion technology (CPB, ECMO, Nova-Lung.)	
Paediatric cardiothoracic anaesthesia	3 Months (optional in case of 2 year fellowship)
Basic Research	variable
Clinical Research	variable

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: Extension of clinical tasks and responsibilities (ie. Working under indirect supervision) will depend on the fellow's individual clinical performance.

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

ICU: 6 months, **Paediatric cardiac anaesthesia**: 3 months Optional

Will advanced subspecialty rotations reflect increased responsibility and learning opportunities? ☒ Yes ☐ No

Maximum Time in Non-Clinical Activities 10% of working time

Financial Statement

An employment contract will be signed with the candidate ☒ Yes ☐ No 6 months probation period

Accommodation options are provided ☐ Yes ☒ No

Transportation/travel options are provided ☒ Yes ☐ No

Monthly Salary: **Amount** 4250 in first year
4500 in second vear **Currency** Euros

This opportunity is not funded by the centre ☑ Yes ☒ No Funded by Center

Source of financial support for the candidate:

☒ Host centre (monthly salary)
☐ Candidate 's centre
☐ Scholarship
☐ Educational grant
☐ Award
☐ Candidate's own expenses
☐ Others

Please, describe

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	☒
Anaesthesiology faculty members from other sites	☒
Non-anaesthesiologists from the primary clinical site	☒
Non-anaesthesiologists from the participating sites	☐
Visiting faculty members	☒
Drug/industry representatives	☐
Fellows	☒
Others (specify): Residents/specialists	☒
Others (specify): Click here to enter text.	☐

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)	☐	☐	☒	☐	☐	☐
Quality improvement (M&M, QA)	☐	☐	☒	☐	☐	☐
Board review (e.g., oral exams, keywords)	☐	☐	☐	☐	☐	☐
Grand rounds	Yes☐	☐	☐	☐	☐	☐
Other (specify) departmental CME	☒	☐	☐	☐	☐	☐
Other (specify) Fellowship teaching rounds/ TEE Rounds	☐	☐	☒	☐	☐	☐

Formal Course Work Available in:

Extra-Institutional Educational Conference Support: EACTA TEE Course and Annual Conference Financial support from HCL

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

Abstracts 6 **Peer-Reviewed Journal Articles** 5

Book Chapters 1 **Other Publications**

Dedicated Research Time: Accoring to requirements for specific projects

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.	Self-study of institutional protocols	
Pre-operative patient evaluation and optimization of clinical status prior to the cardiothoracic procedure.	Participation in pre-operative screening process	Clinical Skills Evaluation
Interpretation of cardiovascular and pulmonary diagnostic test data.	On site training and fellowship teaching	Clinical Skills Evaluation
Hemodynamic and respiratory monitoring.	On-site training, fellowship teaching	Clinical Skills Evaluation
Pharmacological and mechanical hemodynamic support.	On-site training	Clinical Skills Evaluation
Peri-operative critical care, including ventilatory support and peri-operative pain management.	On-site training in PACU and during ICU Rotation	Clinical Skills Evaluation
Providing anaesthesia care for patients undergoing cardiac surgery with and without extracorporeal circulation.	Clinical teaching in OR, revision/discussion of the important topics in the fellowship teaching rounds	Clinical Skills Evaluation

Competency Area	Settings/Activities	Assessment Method(s)
Providing anaesthesia care for patients undergoing thoracic surgery, including operations on the lung, oesophagus, and thoracic aorta.	On-site training	Clinical Skills Evaluation
Advanced-level peri-operative TEE.	On-site training, department funded and supported departmental and external (EACTA) TEE courses	EACTA TEE Examination
The ability to independently manage intra-aortic balloon counterpulsation and be actively involved in the management of other extracorporeal circulatory assist devices.	On-site training in the ICU Rotation and fellowship teaching	Clinical skills evaluation
Management of cardiopulmonary bypass (CPB).	On-site training and fellowship teaching	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.	Clinical teaching rounds	Clinical Skills Evaluation
Embryological development of the cardiothoracic structures.	Self study	Clinical Skills Evaluation
Pathophysiology, pharmacology, and clinical management of patients with cardiac disease, to include cardiomyopathy, heart failure, cardiac tamponade, ischeamic heart disease, acquired and congenital valvular heart disease, congenital heart disease, electrophysiologic disturbances, and neoplastic and infectious cardiac diseases.	Clinical teaching rounds	Clinical Skills Evaluation
Pathophysiology, pharmacology, and clinical management of patients with respiratory disease, to include pleural, bronchopulmonary, neoplastic, infectious, and inflammatory diseases.	Clinical teaching rounds	Clinical Skills Evaluation
Pathophysiology, pharmacology, and clinical management of patients with thoracic vascular, tracheal, oesophageal, and mediastinal diseases, to include infectious, neoplastic, and inflammatory processes.	Clinical teaching rounds	Clinical Skills Evaluation
Non-invasive cardiovascular evaluation, to include electrocardiography, transthoracic echocardiography, TEE, stress testing, and cardiovascular imaging.	Clinical teaching as well as hands on on TEE/TTE/FAST simulator Monthly TEE Rounds	Participation in EACTA TEE examination
Cardiac catheterization procedures and diagnostic interpretation, to include invasive cardiac catheterization procedures, including angioplasty, stenting, and transcatheter laser and mechanical ablations.	Clinical teaching on case by case basis, Presentations and discussion in the weekly departmental teaching	Clinical skills evaluation
Non-invasive pulmonary evaluation, to include pulmonary function tests, blood gas and acid-base analysis, oximetry, capnography, and pulmonary imaging.	Clinical teaching on case by case basis	Clinical Skills Evaluation
Pre-anaesthetic evaluation and preparation of adult cardiothoracic patients.	Clinical teaching on Site (PAC Clinic)	Clinical Skills Evaluation
Peri-anaesthetic monitoring, both non-invasive and invasive (intra-arterial, central venous, pulmonary artery, mixed venous saturation, cardiac output)	Clinical teaching rounds as well as on site teaching	Clinical Skills Evaluation
Pharmacokinetics and pharmacodynamics of medications prescribed for medical management of adult cardiothoracic patients.	Clinical teaching rounds and bedside discussion	Clinical Skills Evaluation
Pharmacokinetics and pharmacodynamics of anaesthetic medications prescribed for cardiothoracic patients.	Clinical teaching rounds and bedside discussion	Clinical Skills Evaluation
Pharmacokinetics and pharmacodynamics of medications prescribed for management of haemodynamic instability.	Clinical teaching rounds and bedside discussion	Clinical Skills Evaluation
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.	Clinical teaching rounds and bedside discussion	Clinical Skills Evaluation

Area of Knowledge	Settings/Activities	Assessment Method(s)
Inotropes, chronotropes, vasoconstrictors, and vasodilators.	Clinical teaching rounds and bedside discussion	Clinical Skills Evaluation
Circulatory assist devices, to include intra-aortic balloon pumps, left and right ventricular assist devices, and extracorporeal membrane oxygenation (ECMO).	Clinical teaching rounds and bedside discussion	Clinical Skills Evaluation
Pacemaker insertion and modes of action.	Clinical teaching rounds and bedside discussion	Clinical Skills Evaluation
Cardiac surgical procedures, to include: minimally invasive myocardial revascularization; valve repair and replacement; pericardial, neoplastic procedures; and heart and lung transplantation.	Clinical teaching rounds and bedside discussion	Clinical Skills Evaluation
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.	Clinical teaching rounds and bedside discussion	Clinical Skills Evaluation
Oesophageal surgery, to include varices, neoplastic, colon interposition, foreign body, stricture, and tracheoesophageal fistula.	Not applicable	
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.	Not applicable	
Post-anaesthetic critical care of adult cardiothoracic surgical patients.	ICU Rotation and clinical teaching rounds	Clinical Skills Evaluation
Peri-operative ventilator management, to include intra-operative anaesthetic s, and critical care unit ventilators and techniques.	PACU and ICU Rotation	Clinical Skills Evaluation
Pain management of adult cardiothoracic surgical patients.	Pain visits and clinical teaching rounds	Clinical Skills Evaluation
Research methodology/ statistical analysis, the fundamentals of research design and conduct, and the interpretation and presentation of data.	Participation in clinical research encouraged in the second year	Oral/Poster presentations in national /international meetings
Quality assurance/ improvement.	Participation in monthly M and M conference	Assessment by faculty
Ethical and legal issues, and practice management.	Introductory 2 day course for all new employees	Assessment by faculty

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).

   Daily morning rounds act a discussion of the important clinical queries on the previous days cases as well as the day to come. Important diagnostic, monitoring and treatment options are discussed. Important diagnostic imaging findings are reviewed and possible clinical implications evaluated. The process involves a self-reflection with stress on self as well as collective improvement

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.

   Attendance and active participation in M and M meetings where complications are discussed and alternatives to the given course of treatment discussed in an interdisciplinary setting.

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

   The candidate will get the opportunity to discuss the daily cases on an informative basis with a member of the faculty and will get a personal feedback at the end of the day. A 360 degrees feedback will take place after 6 months and results will be discussed then

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:

The fellow will be assigned to review topics of importance for the clinical teaching rounds, with active help and review by the mentor during the preparation and presentation.

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

The fellow will actively engage with the patient and family during rotation in the PAC Clinic, at the beginning with direct followed by remote supervision. He will be encouraged to participate in clinical teaching of students and interns once he has acquired the requisite training and mastery of the relevant teaching areas

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 encouraged to participate in the monthly M and M meetings and to present and discuss cases conducted by him with support of the supervising faculty

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.

With increasing skills and experience fellow will be handling the fast track PACU where he will lead a team of nurses and will be actively engage with the supervisors as well as members of other clinical specialities (radiology, surgery, etc) to diagnose and manage all complications arising in the acute postoperative phase

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.

With progress in his training the candidate will be asked to act as a consultant if consultancies are requested by other disciplines. A staff member on-call will be available as a back-up.

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

The fellow will be advised and trained in comprehensive perioperative documentation archiving system for the intraop anaesthetic and TEE records as well as saving of the TEE studies in the departmental TEE archives (Tom Tec)

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.

By reviewing each intraoperative anaesthesia protocol before saving it electronically after completion of every case

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 candidate will be involved in the pre-operative screening process by attending the consultation hours. After an initial period where the candidate will be accompanied by a member of the staff the candidate will be expected to work independently with a back-up on call.

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.

The candidate will stepwise become responsible for the whole process in accompanying a patient through the perioperative process. During this process she or he will be continuously indirectly or directly supervised by an experienced member of the staff or his mentor.

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 candidate will be regularly informed of and encouraged to follow changes in practices as and when recommended by inter-hospital speciality groups incorporating the principles of evidence based medicine as well as cost effectiveness in a way to improve patient outcomes as well as risk benefit results

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

Attendance and active participation in M and M meetings

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@aim-group.eu

Submit

EACTA Cardiac Anaesthesia Fellowship, Leipzig Heart Centre

Aim and Objectives of the Fellowship

The Department of Anaesthesiology, Intensive Medicine and Pain Management at Leipzig Heart Center Leipzig offers a Cardiac Anesthesia Fellowship for an obligatory period of 12 months with an optional Advanced cardiac anaesthesia fellowship for further 12 months, which includes, in case of a second year of training, an optional 6 months rotation in the Department of Intensive Care Medicine and 3 months in Paediatric cardiac anaesthesia.

Leipzig Heart Centre is an equal opportunity employer encouraging applications from all over the world and thereby encouraging applicants and considering applications without concern to, race, colour, religion, sex, national origin, sexual orientation, disability or veteran status. The Fellowship program is an internationally acclaimed programme and applications are invited from doctors around the world.

Aim of the Fellowship Programme is to train anaesthesiologists who have finished their residency training, to become proficient in cardiac anaesthesia, both in a clinical and research setting, with a solid clinical and academic experience to become experts in the perioperative management of patients undergoing complex cardiac and vascular procedures.

After completion of the programme the fellow will have acquired the knowledge and skills to work independently as a consultant in cardiac anaesthesia and cardiac intensive unit with advanced expertise in adult perioperative transoesophageal echocardiography (including preparation for EACVI certification)

Leipzig Heart Centre is a specialty clinic of the University of Leipzig and is one of the major referral centres in the country. The centre is specialised for Cardiac surgeries for adult, paediatric and the newborn population. The centre has 420 Beds (25 surgical ICU, 24 cardiology ICU, 28 surgical intermediate care, 12 cardiology intermediate care, 10 paediatric ICU and 6 paediatric intermediate care), 7 Operating Rooms, 2 hybrid ORs, 4 cardiac catheter laboratories, 4 electrophysiology labs. More than 4000 cardiac operations and around 3000 intra-operative transoesophageal echocardiography (TEE) examinations are performed every year.

The candidate will have extensive exposure not only to conventional modes of cardiac surgery but also in surgeries with complete circulatory arrest using deep hypothermic techniques, different models of Ventricular Assist Devices and Artificial Hearts, heart and lung transplantation and to the pioneering techniques in cardiac surgery, including surgeries for heart failure, surgical modalities for treatment of rhythm disturbances and catheter-based valve repair and implantation.

The Fellowship it is designed to meet the Fellows individual needs as well as maximal exposure to the clinical caseload available within our centre.

The fellowship programme in Heart Centre Leipzig is organised and directed by Dr Anna Flo Forner (co-director) and Rajni Singh (co-director), senior consultant anesthesiologists, and Prof Dr Joerg Ender, director of department of anaesthesiology and intensive care medicine as supervisor of the fellowship programme. Further senior faculty members of the department serve as clinical teachers for the fellows in daily clinical practice: Carmine Bevilaqcua, Dr Joergen Banusch, Sven Gudehus, Dr Anirudha Janai, Dr Arne Käthner DEAA, Priya Menon, Nadeen Khalil and Waseem Zakhary. All of them are EACTA members and most are TOE certified from EACTA or DGAI.

Obligation of the Fellow

The programme includes pre, intra and postoperative care of patients undergoing cardiac surgery and all kind of transcatheter cardiac and vascular treatment. The fellow takes part in the clinical routine as well as in clinical conferences with the Departments of Anaesthesiology and Intensive Care Medicine, Cardiology and Cardiac Surgery. The Fellow takes part in preparation and presentation of case conferences and department educational training. The didactic curriculum is provided through lectures and conferences and allows the fellow to acquire the knowledge to care for the patients.

The Fellow will spend 12 months in the Department of Anaesthesiology, including preoperative assessment and PACU for the Fast-Track patients.

The Fellow is expected to perform around 150 cardiac surgery procedures per year independently and 25 interventional vascular procedures.

The Fellow has the option to train in the Intensive Care Department for a period of 6 months, and in the pediatric cardiac OR for 1 to 3 months (in case of a two year advanced fellowship)

The Fellow is trained in transoesophageal and transthoracic echocardiography as well as lung ultrasound by formal courses, teaching on simulator, in the operating room, PACU and the intensive care unit.

The Fellow is encouraged to achieve the EACVI/EACTA TEE certification.

The Fellow is encouraged to take part in academic projects including preparation and publication of review articles, book chapters, manuals for teaching and clinical practice or clinical research.

The fellow’s progress will be evaluated and discussed with the fellow every 3-6 months by the programme directors and the faculty members. The fellow’s knowledge, professional

attitude, and clinical judgment will be assessed as well as his/her practical skills, social competence and efficiency for patient management and critical analysis in all relevant situations.

At the end of the training period, the fellow will receive a testimonial of the Department of Anaesthesiology and an EACTA certification if the fellow fulfils and completes the fellowship programme.

General information

Heart Centre Leipzig offers a Fellowship in cardiac anaesthesia for a 1 year with an optional second year in advanced cardiac anaesthesia.

Every year 2 Fellows will be accepted, upon successful completion of the supervised assessment, lasting for a period of 6 (six) months from the date of joining. The contracts are signed at the beginning of the training, the six months mentioned is the probation period (as for all other employees). Within this period the contract can be terminated by both sides without any notice period. After 6 months it is not possible to terminate without a notice period.

The Fellowship program will start preferably in January, July and October every year.

Medium of Instruction for the Fellowship Program is German. The required German level to apply for an employment permit is B2. To acquire a professional and employment permit it is required to pass an additional C1 medical examination at the medical association of Sachsen.

The scheduled work hours are 48h/week (including night and week-end shifts). The remuneration (before tax and insurance) for the program will be 51,000 Euros per year. During the second year of the Fellowship the Candidate will be paid 54,000 Euro. The above remuneration will be paid equally on a monthly basis. There is a provision for an additional 7200 Euros per annum subject to additional working hours by providing on-call services.

Health Insurance needs to be purchased for a month before leaving their home country. After arrival German health Insurance needs to be purchased and can be paid on a monthly basis. Assistance and Information in details will be provided upon request .

Structure of the Fellowship Programme and Learning objectives

1. **Planning of for the Fellowship:**

- Attendance at medical education programme in the field of CTVA organized for the DGAI (scientific working group in cardiac anaesthesia of the german society of anesthesiology and intensive care medicine) (40 h course during 5 days in cardiovascular anesthesia organized once a year)
- Attendance at the department education sessions:

    - daily – 15 min discussion about nightshift features, preoperative features of the daily programme and short brief of cases from last day with discussion of relevant points for future reference.
    - weekly – clinical sessions based on DGAI curriculum and journal club discussions (40 min)
    - twice monthly –interdisciplinary morbidity & mortality session together with the department of surgery/cardiology (2h)
    - monthly – research and investigation session
    - monthly – echocardiography (TEE and TTE) session (2h)
- Attendance at monthly fellowship teaching session (2h)
- Attendance once yearly at cardiac life support (4h) and general anesthesia training (8h) in the in-house simulator courses
- Attendance at echocardiography in-house courses
    - One introductory and one advanced in-house TEE courses pro year available
    - Annual EACTA-ECHO meeting (once)
    - EACTA TOE examination
- Attendance and participation in national/international cardiothoracic conferences for presentation of scientific content (EACTA, SCA, DGAI meetings)

2. Structure of the Fellowship Programme

During the first 3 months of the Fellowship, the Fellow will be directly supervised on 1:1 ratio at all times with a senior cardiac consultant mainly by one of the programme directors.

- **First** two **days -** Introductory two-day course for all new employees: hospital organization, Ethical and legal issues, and practice management.
- **Rest of first week** – Introduction to department organization and standard flow, familiarization with ventilators and monitoring function, internet and intranet access, access to patient's clinical history, lab and supplementary investigations.
- **First three months**
    - learning and familiarization with the standard anaesthesia process and protocol in our department (pre-anaesthetic protocol evaluation, anaesthesia management for standard cardiac procedures and patient's transfer to PACU or ICU)
    - In informal talks, assessment of the basic theoretical knowledge of the fellow (lung, heart, renal, liver physiology, monitoring and clinical evaluation, neurological assessment, Coagulation physiology and disorders evaluation). If there is some lack of knowledge, the theme will be prepared and in formal sessions discussed
    - Indications and strategies for one lung ventilation, and introduction to MIDCABG
    - Assessment of fellow's skills in team communication (language comprehension and difficulties when German is a foreign language)
    - Introduction to preoperative assessment unit

- Two complete days with perfusion's team
- Introduction of TEE simulator
- Begin with easy valve pathology with a short discussion before the case about the physiopathology and anesthetic strategy. Additionally, with the incorporation of TEE knowledge, discussion of the TEE findings pre and post CPB
    - **As objective** the fellow should be able to perform CABG with and without CPB for him/herself and to understand the basics of valve surgery

- **4-6 months**

  The fellow will be performing simple CABG cases with and without Cardiopulmonary Bypass independently. He/she will be introduced to TOE in OR under direct physical supervision of one of the fellowship faculty members. With rigorous theory discussions and hands-on training , the fellow is expected to be able to perform a comprehensive TOE exam independently at the completion of 6 months. Introduction to PACU with 3 days 1:1 supervision of the senior consultant responsible in the PACU. The fellow will learn the fast track protocol and the procedure in case of complications. The fellow will be taught on basic cardiac and lung TTE. During his/her duties in PACU the fellow will be with a more experienced colleague and always with an accessible Supervisor

- **4-12 months**
    - Progressive introduction of more complex valve pathologies and specific TOE training particular to them
    - Isolated valves
    - Combined valves
    - Endocarditis
    - Re-operations
    - In vascular surgery cases the trainee will gain experience in elective and emergency aortic repair, aortic dissection, abdominal and aortic aneurysm (open and endovascular repair), carotid endarterectomy.
    - During this period the Fellow will be 1:1 supervised during the TEE examination and for the rest of the time progressively less supervised in the easy cases
    - To introduce the different complex cases the fellow will be 1:1 supervised at least 1/ week

As objective the fellow should be able to properly evaluate the preoperative state of any kind of cardiac illness, to perform adequately the anesthetic management and to perform and evaluate correctly a comprehensive TOE exam. The fellow should be able to identify the fast track indication and to carry out a standard postoperative treatment for fast track cardiac patients, as well as to perform and properly basic cardiac and lung TTE.

12-24 months (in case of second year excluding rotation in ICU and paediatric cardiac OR)

- Cases with increasing complexity with regard the patient status as well as complexity of the cases
- In case of TAVI, Mitra- and Tricuspid-Clip, LVAD, RVAD, BIVAD and HTX / LTX the supervision will be 1:1 till the end of the fellowship.

3. Optional Rotations (in case of a 2 year Fellowship)

a. 6 months ICU Rotation

- The fellow will be posted in the ICU to learn the management of the postoperative complex cases especially those requiring ECMO or MCS under supervision by ICU consultants (at least 1 anesthesiologist and 1 surgeon senior consultant)

b. 3 months Pediatric cardiac anesthesia

- The aim is to acquire theoretical knowledge about pathophysiology of heart defects and the corresponding anaesthetic management, including practical skills (for example, procedures including intubations, peripheral lines, arterial lines, central vein catheters in infants and children under supervision).
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4. Learning objectives for the Fellowship:

- Acquisition of knowledge and skills of patient's preoperative evaluation and optimisation
- Acquisition of knowledge of cardiac, lung and renal physiology and physiopathology relevant to cardiac surgical patients, and management of commonly encountered co-morbidities
- Acquisition of knowledge of valvular heart disease with the different possible surgical or interventional treatment and the adequate anesthetic management
- Acquisition of knowledge of cardiac insufficiency with the different possible surgical or interventional treatment options and the optimal anesthetic management
- Acquisition of knowledge, skills and practice in advanced haemodynamic monitoring (PAC, Pulse Contour,, O2 balance, sonographic vascular access, multiple arterial pressure measurements, CSF/CPP monitoring, partial CPB, ECMO and MCS)
- Acquisition of knowledge, skills and practice of neuromonitoring techniques and interpretation of results
- Acquisition of knowledge, skills and practice of point-of-care coagulation testing, interpretation of results and appropriate therapy
- Acquisition of knowledge, skills and practice to perform independently a comprehensive TEE with a complete assessment and interpretation of

the findings and adequate communication of the findings to surgical colleagues
- Acquisition of knowledge, skills and practice to perform the perioperative anaesthetic management of the complete spectrum of cardiac surgical procedures
- Acquisition of knowledge, skills and practice to perform a basic cardiac and lung TTE to assess all possible complications in the immediate postoperative period
- Acquisition of knowledge, skills and practice of the postoperative management of the fast track procedure (and to evaluate and distinguish the patients who need a longer management in ICU)
- To develop a caring attitude towards patients and families in their time of greatest need

Application Process:

Applications are welcome throughout the year.

The mandatory requirements for acceptance to the programme are:
1. A completed specialization in anaesthesia or eligibility for the same
2. Knowledge of German language upto B2 (followed by test of "medical german " in the medical College Sachsen)

If the language requirement is not fulfilled at the time of application, a provisional position for the fellowship programme can be offered after evaluating the application and conducting a Skype interview.

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

1. Application form (http://www.helios-kliniken.de/klinik/leipzig-herzzentrum/kliniken-zentren/abteilung-fuer-anaesthesiologie/aerzteinformationen/cardio-thoracic-vascular-anaesthesia-fellowship-programme.html)
2. Curriculum Vitae
3. Scanned copies of MBBS/Graduation, MD/Postgraduation, Medical Council Registration
4. Three reference letters

For further information, please feel free to contact us:

Dr Anna Flo Forner anna.floforner@helios-gesundheit.de

Rajni Singh rajni.singh@helios-gesundheit.de