Application for Hosting EACTA Thoracic Exchange Training Programme

Institution`s Name	Hospital Clínic de Barcelona

Address	Carrer Villarroel 170		
Department	Anesthesiology, Critical Care	**Website**	www.hospitalclinic.org
City	Barcelona	**ZIP code/Postal code**	08036
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Programme Supervisor

Name / Surname	Ricard Navarro Ripoll (RNR)/ María José Jiménez (MJJ)
Board Certification(s)	Members of EACTA Thoracic Sub-committee, European Diploma of Anaesthesia and Intensive Care, Acreditation for Adult transesophageal echocardiography
Title/Affiliation	Consultant in Anaesthesiology, group of Cardiovascular and Thoracic Anaesthesia

Published Researches in PubMed

- Jaramillo S, Montane-Muntane M, Capitan D, Aguilar F, Vilaseca A, Blasi A, **Navarro-Ripoll** R. Agreement of surgical blood loss estimation methods. Transfusion. 2018 Nov 29.
- Rodríguez, N. Guilera, A. Mases, P. Sierra, J.C. Oliva, c. Colilles, REGISTTRESTENTS GROUP (as part of it, **R. Navarro**). Management of antiplatelet therapy in patients with coronary stents undergoing noncardiac surgery: association with adverse events. British Journal of Anaesthesia 2018, 120(1):67-76.
- iPROVE Network investigators (as part of it, **MJ Jiménez,** R. Navarro-Ripoll), Belda J, Ferrando C, Garutti I.The Effects of an Open-Lung Approach During One-Lung Ventilation on Postoperative Pulmonary Complications and Driving Pressure: A Descriptive, Multicenter National Study.J Cardiothorac Vasc Anesth. 2018 Mar 27. pii: S1053-0770(18)30220-9.
- Yepes-Temiño MJ, Monedero P, Pérez-Valdivieso JR; Grupo Español de Anestesia Toracica (**Jiménez MJ**). Eur J Anaesthesiol. 2016 May;33(5):326-33. doi: 10.1097/EJA.
- Peri L, Vilaseca A, Serapiao R, Musquera M, Cubas G, **Navarro R**, García-Cruz E, Beltran J, Alcaraz A. Development of a pig model for laparoscopic kidney transplant. Exp Clin Transplant 2016 Feb;14(1):22-6.
- **Navarro-Ripoll R**, Córdova H, Rodríguez-D'Jesús A, Boada M, Rodríguez de Miguel C, Beltrán M, Cubas G, Perdomo J, Llach J, Balust J, Gimferrer JM, Fernández-Esparrach G, Martínez-Pallí G. Cardiorespiratory Impact of Transesophageal Endoscopic Mediastinoscopy Compared With Cervical Mediastinoscopy: A Randomized Experimental Study. Surg Innov. 2014 Jan 15.
- Hernández-González F, Lucena CM, Ramírez J, Sánchez M, **Jimenez MJ**, Xaubet A, Sellares J, Agustí C. Cryobiopsy in the diagnosis of diffuse interstitial lung disease: yield and cost-effectiveness analysis. Arch Bronconeumol. 2015 Jun;51(6):261-7. doi: 10.1016/j.arbres.2014.09.009
- Córdova H, San José Estépar R, Rodríguez-D'Jesús A, Martínez-Pallí G, Arguis P,Rodríguez de Miguel C, **Navarro-Ripoll R**, Perdomo JM, Cuatrecasas M, Llach J, Vosburgh KG, Fernández-Esparrach G. Comparative study of NOTES alone vs. NOTES guided by a new Image registration system for navigation in the mediastinum: a study in a porcine model. Gastrointest Endosc 2013;77:102-7.
- Berthet JP, Paradela M, **Jimenez MJ**, Molins L, Gómez-Caro A.Extended sleeve lobectomy: one more step toward avoiding pneumonectomy in centrally located lung cancer.Ann Thorac Surg. 2013 Dec;96(6):1988-97. doi: 10.1016/j.athoracsur.2013.07.011
- **Navarro-Ripoll R**, Martínez-Pallí G, Guarner-Argente C, Córdova H, Martínez-Zamora MA, Comas J, Rodríguez de Miguel C, Beltrán M, Rodríguez-D'Jesús A, Hernández-Cera C, Llach J, Balust J, Fernández-Esparrach G. On-demand endoscopic CO_2 insufflation with feedback pressure regulation during natural orifice transluminal endoscopic surgery (NOTES) peritoneoscopy induces minimal hemodynamic and respiratory changes. Gastrointest Endosc 2012 Aug;76(2):388-95
- Perez J, **Jiménez MJ,** Fita G, Rovira I, Catalan M, Gomar C. Epidural methadona for acute post-thoracotomy pain: An alternative to a ropivacaine plus fentanyl-based patient -controlled epidural regiment. Acute Pain 2007 Dec; 9 (4): 193-199.
- Ribas J, **Jiménez MJ**, Barberà JA, Roca J, Gomar C, Canalís E, Rodriguez-Roisin R.Gas exchange and pulmonary hemodynamics during lung resection in patients at increased risk: relationship with preoperative exercise testing. Chest. 2001

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EACTA/ESA/other societies membership	MJJ and RNR are EACTA Thoracic Subcommittee Member. ESA Members
Email	rnavarr1@clinic.cat / jjimenez@somclinic.cat
Mailing Address	

Street	Carrer de l'encarnació 164 2n		
City	Barcelona	Region	Catalunya
Country	Spain	City/Zip code	08025
Phone	+34 629152924	Fax	Click here to enter text.

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

Language requirements: English or Spanish. (Fluency).

Specific legal or other requirements of an attending trainee:

Anaesthesiology specialists

Preferred Duration	☐ **1 week** x **2 weeks** ☐ **3 weeks** ☐ **4 weeks** ☐ **others**	Please, describe
Preferred Months	X **January** X **February** X **March** X **April** X **May** X **June**	
	☐ **July** ☐ **August** X **September** X **October** X **November** X **December**	
Preferred Seniority Level	☒ **Junior** X **Experienced** ☐ **Very Experienced**	

Number of Positions Per Year

20

Financial Statement

Accommodation is provided	☐ Yes	X No
Transportation/travel options are provided	☐ Yes	X No
This opportunity is not funded by the centre	☐ Yes	X No

Source of financial support for the candidate:

☐ Host centre
☐ Candidate 's centre
☐ Scholarship
☒ Educational grant
☐ Award
X Candidate's own expenses
☒ Others

Please, describe

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Aims, goals and objectives of the Exchange Training Programme

To acquire technical skills in preoperative assessment, anaesthesia, monitoring and postoperative care of thoracic surgery including both conventional thoracic surgery and video-assisted thoracoscopic surgery (VATS). This **two weeks' Training period** as **Observer** has the aim to improve the practical knowledge

Clinical interests

The Anaesthesiologists of the Cardiothoracic Section of Hospital Clinic are a group of Anaesthesiologists who work exclusively with the Thoracic, Cardiac and Vascular surgical patients.

The group is specially focused in:

- Improvement of the perioperative care of Thoracic patients, including the establishment of prehabilitation programme,
- Implementation of ERAS,
- Participation in studies of lung physiology and protective ventilation strategies (PROTHOR-iPROVE).
- Perioperative multimodal analgesia
- Use of ECMO under special circumstances in thoracic patients
- Tracheal resection surgery and high-freqüency jet ventilation
- Interventional pulmonology: EBUS, cryobiopsy, fiberoptic bronchoscopy
- Ambulatory surgery
- Mesotelioma and hyperthermic chemotherapy
- Lung ultrasound and transesophageal echocardiography

Lab interests

We have and are currently participating in multicentric trials endorsed by the ESA and EACTA. New studies of prehabilitation and lung physiology are being designed.

Publications in PubMed

- Sanchez-Lorente D, **Navarro-Ripoll** R, Guzman R, Moises J, Gimeno E, Boada M, Molins L. Prehabilitation in thoracic surgery. J Thorac Dis. 2018 Aug;10(Suppl 22):S2593-S2600.

- Granell M, Parra MJ, **Jiménez MJ**, Gallart L, Villalonga A, Valencia O, Unzueta MC, Planas A, Calvo JM. Review of difficult airway management in thoracic surgery.Rev Esp Anestesiol Reanim. 2018 Jan;65(1):31-40. Doi:10.1016/j.redar.2017.08.001. Epub 2017 Oct 5.

- Arguis MJ, Navarro R, Regueiro A, Arbelo E, Sierra P, Sabaté S, Galán J, Ruiz A, Matute P, Roux C, Gomar C, Rovira I, Mont L, Fita G.Perioperative management of atrial fibrillation.Rev Esp Anestesiol Reanim. 2014 May;61(5):262-71. doi: 10.1016/j.redar.2013.01.004

- Berge Ramos R, Tió Felip M, Sánchez-Etayo Gianoti G, **Navarro Ripoll R**.Inverted takotsubo syndrome in the immediate post-operative period in a patient with morbid obesity.Rev Esp Anestesiol Reanim. 2014 Nov;61(9):533-4

- **Navarro R,** Claramunt A, Valero R, Carrero E, Fabregas N. Unexpected bilateral increase of cerebral regional saturation of oxygen trend values as an early warning sign of air embolism. J Clin Anesth. 2011 Aug;23(5):431-2.

- Sanchez-Lorente D, Gómez-Caro A, **Jiménez MJ**, Molins L.Apnoeic oxygenation on one-lung ventilation in functionally impaired patients during sleeve lobectomy. Eur J Cardiothorac Surg. 2011 Apr;39(4):e77-9. doi: 10.1016/j.ejcts.2010.11.056

- Gómez-Caro A, García S, **Jiménez MJ**, Matute P, Gimferrer JM, Molins L.Lung sparing surgery by means of extended broncho-angioplastic (sleeve) lobectomies.Arch Bronconeumol. 2011 Feb;47(2):66-72. doi: 10.1016/j.arbres.2010.09.010. Epub 2011 Jan 22. English, Spanish. PMID:21256657

- Tena B, Gomar C, Roux C, Fontanals J, **Jiménez MJ**, Rovira I, Fita G, Matute P. Serious mechanical complications associated with pulmonary artery catheters in cardiovascular and thoracic surgery. Rev Esp Anestesiol Reanim. 2008 Oct;55(8):487-92

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Resources

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

Resource	Yes	Number	Working days per week
Total thoracic ward beds		8	7
Number of ICU beds dedicated to thoracic surgery patients		2	7
Post-anaesthesia care unit for thoracic patients	☒	4	7
Monitoring and advanced life support equipment	☒	2	7
Assigned operating rooms for thoracic surgery	☒	1	5
Available varied sizes of fiberoptic bronchoscopes	☒	8	7
Available different tools for lung isolation (double lumen tubes, blockers, ..)	☒	3	7
Available facilities for thoracic epidural/paravertebral blocks, truncal blocks, ultrasound guided blocks		2	7
Pulmonology Labs	☒	1	5
Interventional Pulmonology facility	☒	1	3
Outpatient Clinic for perioperative evaluation of patients undergoing thoracic procedures	☒	1	3
24-hours acute pain service available for patients undergoing thoracic procedures	☒	1	7
Meeting Rooms	☒	3	7
Classrooms with visual and other educational aids	☒	2	7
Study areas for trainees	☒	2	7
Office space for faculty members and trainees	☒	3	7
Diagnostic facilities	☒	1	7
Therapeutic facilities	☒	1	7
24-hour laboratory services available in the hospital	☒	1	7

Clinical Training

Thoracoscopic Surgery	3 hours/procedure	10 /week
Pulmonary Resection	4 hours/procedure	6-8 /week
Oesophageal Surgery	7 hours/procedure	1/month
Tracheo-Bronchial Surgery	4 hours/procedure	0,5 / week
Interventional Pulmonology Procedures	2 hours/procedure	8 /week
Acute and Chronic Pain Management for thoracic patients	30 min/procedure	12 / week

Academic Education

Patient Care

Competency Area	Settings/Activities
Following standards for patient care and established guidelines and procedures for patient safety, error reduction, and improved patient outcomes.	Ok (Surgical check list)
Pre-operative patient evaluation and optimization of clinical status prior to the thoracic procedure.	OK
Interpretation of cardiovascular and pulmonary diagnostic test data.	OK

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Competency Area	Settings/Activities
Haemodynamic and respiratory monitoring.	OK
Pharmacological and mechanical haemodynamic support.	OK
Peri-operative critical care, including ventilatory support and peri-operative pain management.	OK (e.g.. NIV, CPAP, …)
Providing anaesthesia care for patients undergoing thoracic surgery, including operations on the lung, oesophagus, and thoracic aorta.	Ok

Medical Knowledge

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

Area of Knowledge	Settings/Activities
Embryological development of the thoracic structures.	Weekly Clinical Session of Anaesthesiology for specialists and residents. Twice per week residents' teaching
Pathophysiology, pharmacology, and clinical management of patients with respiratory disease, to include pleural, bronchopulmonary, neoplastic, infectious, and inflammatory diseases.	Weekly Clinical Session of Anaesthesiology for specialists and residents. Twice per week residents' teaching
Pathophysiology, pharmacology, and clinical management of patients with thoracic vascular, tracheal, oesophageal, and mediastinal diseases, to include infectious, neoplastic, and inflammatory processes.	Weekly Clinical Session of Anaesthesiology for specialists and residents. Twice per week residents' teaching
Non-invasive pulmonary evaluation, to include pulmonary function tests, blood gas and acid-base analysis, oximetry, capnography, and pulmonary imaging.	Weekly Clinical Session of Anaesthesiology for specialists and residents. Twice per week residents' teaching
Pre-anaesthetic evaluation and preparation of adult thoracic patients.	Weekly Clinical Session of Anaesthesiology for specialists and residents. Twice per week residents' teaching
Peri-anaesthetic monitoring, both non-invasive and invasive (intra-arterial, central venous, pulmonary artery, mixed venous saturation, cardiac output)	Weekly Clinical Session of Anaesthesiology for specialists and residents. Twice per week residents' teaching
Pharmacokinetics and pharmacodynamics of medications prescribed for medical management of adult thoracic patients.	Weekly Clinical Session of Anaesthesiology for specialists and residents. Twice per week residents' teaching
Pharmacokinetics and pharmacodynamics of anaesthetic medications prescribed for thoracic patients.	Weekly Clinical Session of Anaesthesiology for specialists and residents. Twice per week residents' teaching
Oesophageal surgery, to include varices, neoplastic, colon interposition, foreign body, stricture, and tracheoesophageal fistula.	Weekly Clinical Session of Anaesthesiology for specialists and residents. Twice per week residents' teaching
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.	Weekly Clinical Session of Anaesthesiology for specialists and residents. Twice per week residents' teaching
Post-anaesthetic critical care of adult thoracic surgical patients.	Weekly Clinical Session of Anaesthesiology for specialists and residents. Twice per week residents' teaching
Pain management of adult thoracic surgical patients.	Weekly Clinical Session of Anaesthesiology for specialists and residents. Twice per week residents' teaching
Quality assurance/ improvement.	Weekly Clinical Session of Anaesthesiology for specialists and residents. Twice per week residents' teaching
Ethical and legal issues, and practice management.	Weekly Clinical Session of Anaesthesiology for specialists and residents. Twice per week residents' teaching

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Evaluation of Trainees

1. The Programme Supervisor will give an appraisal for each fellow following the observership. ☒ Yes ☐ No
2. The centre will be able to maintain a register of those fellows who have entered and successfully completed a training programme. ☒ Yes ☐ No

Other Comments:

> The group collaborates with the team from the surgical intensive care, lead by Dr. Carlos Ferrando.
>
> The department also participates in universitary degrees (Universitat of Barcelona): "Use of ultrasound as a perioperative tool", "Perioperative care of the cardiac patient" and collaborates in "difficult airway courses".

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

Please fill in all required fields and send to eacta@aimgroup.eu

Submit

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