

ESP Advanced Training Centre for Paediatric and Perinatal Pathology  
(Coimbra, Portugal)

**Name of the centre:** Centro Hospitalar e Universitário de Coimbra, Coimbra, Portugal

**Address:** Praceta Mota Pinto, 3000-075 Coimbra, Portugal.

**Chair of the centre:** Dr Maria Augusta Cipriano

**Head of the training program:** Dr Raquel Pina

The Centro Hospitalar e Universitário de Coimbra (CHUC) is the most prominent Portuguese hospital having comprehensive research, teaching, and patient-centred care approach. Our mission is to deliver high-quality clinical care in the context of pre and postgraduate training with a strong focus on research, scientific knowledge, and innovation.

The hospital offers comprehensive care across all the leading medical and surgical specialties. CHUC's excellence centres ensure high standard healthcare services (since 1991, more than 1,100 liver transplants). It is a medical institution in Portugal with more accredited reference centres, belonging to 10 European Reference Networks. It encompasses several entities under its umbrella, namely a Paediatric Hospital (the biggest in Portugal) and two major maternities (a third and new one will be added in 2023). Over the years, CHUC has developed a well-recognized international reputation for the care and treatment of all kinds of diseases.

Being an associate partner of InnoSTARS, EIT Health KIC we are developing partnerships with biotech and IT companies implementing the concept of an innovation pioneer hospital. CHUC also belongs to the collaborative network M8 Alliance of Academic Health Centres, Universities, and National Academies that are known for their educational and research excellence. CHUC represents an important part of the Coimbra Health Ecosystem. The Centro Region of Portugal, with Coimbra as a strategic core, is one of the reference sites for active and healthy aging recognized by the European Union. This distinction is the result of a unique ecosystem that is conducive to the development of best practices in healthcare associated with active and healthy aging, founded on the axes of Education/Innovation/Research.

CHUC covers a population of more than 1 million and integrates several regional and supraregional services, including neonatal surgery, oncology (leukaemia and solid tumours), genetics, metabolic diseases, hepatology, and orthopaedic surgery, among others.

Therefore, the Pathology Department has a strong interaction with other departments such as Clinical Genetics, Cytogenetics, Haematology, Molecular Genetics, New-born screening, and Medical Imaging. CHUC has under its umbrella two major maternities, and we have a protocol with a maternity hospital from a nearby town (Leiria).

Our department has about 150-200 foetal autopsies per year. There are also many abortion products, and the foetal placenta is available for pathologic examination. Our autopsy method is performed according to the Royal College of Pathologists with some modifications by our department. During the Fellowship, the resident will observe and execute this method.

The training program will be focused on foetal autopsies, but the applicant may, according to interests, evaluate abortion products and placental specimens.

Our hospital is also a centre of reference for Paediatric Oncology, so the applicant desires may be integrated into the evaluation of these specimens and attend to the monthly multidisciplinary board along with the responsible Pathologist from our Department – one per month tumours and two times per month for the remaining paediatric oncology.

The training schedule may be adjusted/tailored for the needs of each Fellow, but always within the field of Paediatric and Perinatal Pathology.

Dr Raquel Pina is a Graduate Assistant at CHUC, with more than 30 years of experience, with a dedication to paediatric and perinatal pathology, with an emphasis in Feat Autopsy, with a large experience in teaching and the investigation of congenital abnormalities. Dr Raquel Pina is also a member of the Paediatric and Perinatal Pathology Working Groups of the ESP. She was co-founder of the Developmental Pathology Club of the Portuguese Pathology Society in 1998. She was the local organizer of XVI Advanced Course in Paediatric Pathology in 1994 (Vila Nova de Cerdeira, Portugal). She was a member of the Direction of the Portuguese Cytology Society (1996-2011) and was a member of the Portuguese College of Pathology (2006-2010).

The rest of the staff members will also be involved in the training of the fellows. We have a Pathologist Technician with experience and training in autopsies execution and gross examination of abort products and placenta specimens; she will integrate the fellow in her routines. The remaining department has experience in the gross examination of these products and will provide support, as well as paediatric oncologic specimens evaluation. Our department covers several fields in paediatric oncology, and currently, our Pathologists that is responsible for the field is Dr Rui Caetano Oliveira, ESP Giordano Fellow and member of the

ESP Academy and, also a former co-chair of the ESP Trainee Subcommittee.

Our department is currently a national reference for Pathology Trainees in the foetal autopsy, and paediatric and perinatal pathology and receives regularly national trainees.

It should be stressed that this is a very important opportunity for our department. It represents a wonderful prospect for participating in trainee formation, establishing connections, and developing research. The whole department, including Pathologists and Laboratory technicians are supportive and enthusiastic about this possibility.

The department is involved in ongoing research projects, majorly in a multidisciplinary context, and has produced several posters and oral communications in the ESP Congress in the last years. The applicant will be welcome to participate in the department research projects.

**Number of positions offered for each year, expected duration of the training:**

A training program can be offered for a minimum of 2 months and a maximum of 3 months.

The Department can host up to 2 trainees per year, in non-overlapping training slots.

**Specific periods of the year when the visit may be realized:**

January to December each year.

**Contact address for requesting details by the applicant:**

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No charge for training will be raised.

Accommodation & Documents: The applicant will receive help to find a low cost accommodation in the hospital vicinities.

A support to get the necessary visa, insurance or other documents, if required, will be provided.

After completion of the training period the trainee will receive a detailed certificate describing the work.

A letter of invitation for the applicant can be issued if necessary.

No fee will be raised for the training program, but the Department will not fund the accommodation, or any fees incurred in the visa application or criminal records check if required.

**A list of some of the communications and oral/papers is displayed here:**

1. Henriques C, Lai A, Andrade H, Pina R, Marinho-da-Silva A, Pires A. A rare case of pulmonary lymphangiectasia associated with CHD. *Cardiol Young*. 2021 Jun 17:1-3. doi: 10.1017/S1047951121002328. Epub ahead of print. PMID: 34134810.
2. Cavazza MC, Lai AC, Sousa S, Pina R. Dichorionic pregnancy complicated by a twin-to-twin transfusion syndrome. *BMJ Case Rep*. 2019 Oct 30;12(10):e231614. doi: 10.1136/bcr-2019-231614. PMID: 31666254; PMCID: PMC6827921.
3. Rui Caetano Oliveira, Zita Ferraz, Catarina Cerdeira, Raquel Pina "Placental Mesenchymal Dysplasia with Fetal Mosaicism – a case report" (2017) *Ann Med Case Rep* 1: 1009
4. Pedro Louro, Lina Ramos, Conceição Robalo, Cândida cancelinha, Alexandra Dinis, Ricardo Veiga, Raquel Pina, Olinda Rebelo, Ana Pop, Luísa Diogo, Gajja S. Salomons, Paula Garcia: Phenotyping GABA transaminase deficiency: a case description and literature review. *J Inherit Metab Dis* (2016) 39:743-747.
5. Ramos F, Maia S, Branco M, Raposo J, Sá J, Sousa S, Venâncio M, Pina R, Galhano E, Ramos L, Saraiva J. Accuracy of prenatal diagnosis in elective termination of pregnancy: 385 cases from 2000 to 2007. *ISRN Obstet Gynecol*. 2011;2011:458120. doi: 10.5402/2011/458120. Epub 2010 Nov 8. PMID: 21637361; PMCID: PMC3102519.
6. Sousa SB, Pina R, Ramos L, Pereira N, Krahn M, Borozdin W, Kohlhase J, Amorim M, Gonnet K, Lévy N, Carreira IM, Couceiro AB, Saraiva JM. Tetraamelia and lung hypo/aplasia syndrome: new case report and review. *Am J Med Genet A*. 2008 Nov 1;146A(21):2799-803. doi: 10.1002/ajmg.a.32489. PMID: 18837045.
7. Ana Lai, Maria Beatriz Pimentão, Rui Almeida, Helder Moreira, João Fraga,

Carlos Faria, Vânia Almeida, Fátima Ramalhosa, João Gama, Joana Madeira, Rui Oliveira, Catarina Cerdeira, Margarida Venâncio, Raquel Pina  
“Cardiomyopathy in paediatric autopsy: the importance in the diagnosis after death”, “32nd Congress of the ESP / XXXIII International Congress of the IAP” (06 a 08.12.2020)

8. Lai, M.B. Pimentão, F. Ramalhosa, C. Faria, V. Almeida, H. Moreira, R. Almeida, J. Fraga, O. Caetano, C. Cerdeira, R. Pina “Stillbirth and perinatal death: a retrospective study with application of ICD-PM to the autopsies performed between 2007 and 2018 in Coimbra” 31th European Congress of Pathology, Nice, França (07 a 11.09.2019)

9. Carlos Faria, Portugal V. Almeida, F. Coutinho, J. Fraga, J. Bernardes, A. C. Lai, M. B. Pimentão, R. Almeida, H. Moreira, P. Rodrigues, R. Oliveira, C. Cerdeira, R. Pina, M. A. Cipriano. Fetus Acardius. (2018). Virchows Archiv, volume 473, supplement 1

10. Vânia Almeida, Portugal C. Faria, J. Fraga, C. Cerdeira, B. Pimentão, A. C. Lai, H. Moreira, R. Almeida, R. Oliveira, P. Rodrigues, R. Pina, M. A. Cipriano. A new case of foetal fibrochondrogenesis – a diagnostic approach (2018). Virchows Archiv, volume 473, supplement 1

11. J. Fraga, R. Oliveira, A.C. Lai, M.B. Pimentão, R. Almeida, H. Moreira, B. Fernandes, P. Rodrigues, C. Cerdeira, R. Pina “Retrospective evaluation of congenital hearth defects in fetal autopsies and comparison with prenatal ultrasound” – 29th European Congress of Pathology, Amsterdão, Holanda (02 a 06.09.2017)

12. H. Moreira, M. Pimentão, P. Rodrigues, R. Almeida, B. Fernandes, J. Fraga, A.C. Lai, C. Oliveira, R. Pina “Rare chromosomopathies and cardiac anomalies in fetal autopsies” – 29th European Congress of Pathology, Amsterdão, Holanda (02 a 06.09.2017)

13. R. Almeida, A. Lai, M.T. Carminho, M.B. Pimentão, J. Fraga, H. Moreira, B. Fernandes, R. Oliveira, P. Rodrigues, C. Cerdeira, R. Pina “Congenital isolated cardiac anomalies: a retrospective study” – 29th European Congress of Pathology, Amsterdão, Holanda (02 a 06.09.2017)

14. P. Rodrigues, B. Fernandes, C. Oliveira, H. Moreira, R. Almeida, A. Lai, M.B. Pimentão, R. Pina, J. Fraga, C. Cerdeira “Complex congenital hearth anomalies: Correlation and agreement between prenatal diagnosis and routine autopsies” – 29th European Congress of Pathology, Amsterdão, Holanda (02 a 06.09.2017)

15. Bruno Fernandes, M Lopes-de-Almeida, R Almeida, C Oliveira, H Moreira, R Pina, L Prado e Castro “Beckwith Wiedemann Syndrome: A 9 years retrospective analysis” – 28th European Congress of Pathology/XXXI International Congress of the IAP, Colónia, Alemanha (25 a 29.09.2016)