

## ESP Advanced training center for Breast pathology (Barcelona, Spain)

**a) Name of the centre, address,**

Dept. of Pathology, Hospital Clínic and University of Barcelona, Villarroel 170, Barcelona 08036, Spain

**b) Chair of the centre,**

José Ramirez Ruz, MD, PhD

**c) Head of the training programme,**

Pedro Luis Fernández, MD, PhD

**d) Details about specific areas in which training can be offered (particular method, field of subspecialty - e.g. kidney transplantation, etc.)**

*Breast Pathology:*

Our center is a third level hospital with a strong workload in Oncology of which a significant percentage corresponds to mammary neoplasms. Moreover, it is involved in population screening programs and is a referral center for breast cancer. Our department processes and diagnoses some 300 new cases of mammary carcinoma per year, which include initial biopsies and surgical specimens, as well as recurrences and non-neoplastic pathologies for a total of more than 1000 cases. Besides, more than 200 consultation cases are referred to our department from other hospital for second opinion or patient transfer. Our tight collaboration with the medical Oncology department allows us to take part in many national and international clinical trials. Also, we have access to the most modern diagnostic, prognostic and predictive tools for breast cancer (Nanostring/PAM50, NGS, molecular staging by OSNA, digital pathology, immunohistochemistry, in situ hybridization, etc). We want also to stress our weekly involvement in the Breast Pathology Committee, where most breast cancer cases are multidisciplinary discussed and in the renowned *Master in Breast Pathology* of the University of Barcelona, in which we have taught for the last 25

years. Finally, we have at the applicants' disposal a teaching collection of interesting breast pathology cases for consultation and review as well as the possibility to collaborate in different research projects and publications, of which we herein enclose some from the last 10 years (annex 1):

**e) Number of positions offered for each year, expected duration of the training .**

2 applicants, for 3-4 months each, every year and not simultaneous

**f) Specific periods of the year when the visit may be realized (should be defined in direct contact between b1) and the applicant**

Spring and Autumn

**g) Contact address for requesting details by the applicant (accommodation options, travel possibilities, etc.)**

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Our hospital Visitors' Office can help with all kinds of paperwork as well as with accommodations

## Annex 1:

1. Velasco M, Santamaría G, Ganau S, Farrús B, Zanón G, Romagosa C, Fernández PL. MRI imaging of metaplastic carcinoma of the breast. *AJR Am J Roentgenol* 184:1274-8,2005.
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6. Santamaría G, Velasco M, Farrús B, Zanón G, Fernández PL. Preoperative MRI of pure intraductal breast carcinoma. A valuable adjunct to mammography in assessing cancer extent. *Breast* 17:186-94, 2008.
7. Santamaría G, Velasco M, Bargalló X, Caparrós X, Farrús B, Fernández PL. Radiologic and pathologic findings in breast tumors with high signal intensity on T2-weighted MR images. *Radiographics* 2010 ;30:533-48
8. Sanz-Pamplona R, Aragüés R, Driouch K, Martín B, Oliva B, Gil M, Boluda S, Fernández PL, Martínez A, Moreno V, Acebes JJ, Lidereau R, Reyat F, Van de

- Vijver MJ, Sierra A. Expression of endoplasmic reticulum stress proteins is a candidate marker of brain metastasis in both ErbB2-positive and -negative primary breast tumors. *Am J Pathol.* 2011;179:564-79
9. Santamaría G, Velasco M, Farrús B, Caparrós FX, Fernández PL. Dynamic contrast-enhanced mri reveals the extent and the microvascular pattern of breast ductal carcinoma in situ. *Breast J.* 2013; 19:402-10
10. Calvo J, Sánchez-Cid L, Muñoz M, Lozano JJ, Thomson TM, Fernández PL. Infrequent Loss of Luminal Differentiation in Ductal Breast Cancer Metastasis. *PLoS ONE* 2013; 8: 1-12
11. Garcia-Recio S, Fuster G, Fernandez-Nogueira P, Pastor-Arroyo EM, Park SY, Mayordomo C, Ametller E, Mancino M, Gonzalez-Farre X, Russnes HG, Engel P, Costamagna D, Fernandez PL, Gascón P, Almendro V. Substance P Autocrine Signaling Contributes to Persistent HER2 Activation That Drives Malignant Progression and Drug Resistance in Breast Cancer. *Cancer Res.* 2013 ;73:6424-34.
12. Sagasta A, Saco A, Rodríguez-Carunchio L, Rull R, Ruiz A, Carrió A, Falcón-Escobedo R, Fernández PL. Exuberant complex metaplastic carcinoma of the breast with sox2 expression: covering the full spectrum of ductal neoplasia of the breast. *Revista Española de Patología* 2014, doi: 10.1016/j.patol.2014.10.002