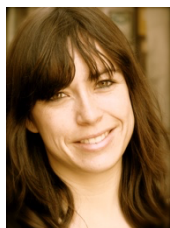


## PERSONAL INFORMATION



## Rita Canas-Marques

 Avenida Maria Lamas, n°37, 3º esquerdo. 2635-434 Rio de Mouro. Portugal

 00351 219218626  00351 965500835  [rcanasmarques@gmail.com](mailto:rcanasmarques@gmail.com)

Sex Female | Date of birth 27/11/1982 | Nationality Portuguese

## WORK EXPERIENCE

(2014-present) Champalimaud Foundation  
Champalimaud Clinical Centre  
Lisbon, Portugal  
Pathologist

(2023-present) UKNEQAS  
Assessor  
London, UK

## EDUCATION AND TRAINING

(2022) Brigham and Women's Hospital  
Boston, USA  
Breast Pathology visitor (one week)

(2021-2022) Post-graduation  
Experto Universitario en Patología Mamaria  
ThinkoHealth/SEAP-IAP/CEU Universidad San Pablo

(2021) Post-graduation  
II Curso de Genética e Genómica para clínicos Faculdade de Ciências Médicas da Universidade Nova de Lisboa (4months)

(2019-present) PhD student – Programa doutoral do Centro Académico Médico de Lisboa (CAML)  
Thesis: Morphological subtypes of lobular lesions of the breast with aberrant expression of E-cadherin: reevaluation of diagnostic criteria and evaluation of outcomes in a single-Institutional series  
Academic years: 2019/2020, 2020/2021, 2021/2022, 2023/2024

(2015) Beth Israel and Deaconess Hospital  
Boston, USA  
Breast Pathology visitor (one week)

(2009-2014) Portuguese Oncologic Institute  
(Instituto Português de Oncologia de Lisboa Francisco Gentil – IPOLFG)  
Lisbon, Portugal  
Pathology residency

(2012) Massachusetts General Hospital (MGH)  
Boston, USA  
Breast Pathology residency (three months)

(2007) Lisbon New University (UNL) – Medical Sciences Faculty (FCM)  
Lisbon, Portugal  
Medical degree (MD)

## REFEREES

- Stuart J Schnitt  
[sschnitt@bwh.harvard.edu](mailto:sschnitt@bwh.harvard.edu)  
Department of Pathology, Brigham and Women's Hospital and Harvard Medical School, Breast Oncology Program, Dana-Farber Cancer Institute, Boston, MA, USA  
- Antonio Lopez- Beltran  
[em1lobea@gmail.com](mailto:em1lobea@gmail.com)  
Biomedical Research Institute Cordoba, University Reina Sofia, UCO, Spain

## ACADEMIC POSITIONS

- (2014-2018) Lisbon Polytechnic Institute (IPL) – Lisbon  
Superior School of Health and Technology (ESTeSL)  
Lisbon, Portugal  
Invited Assistant Professor of Histology
- (2011-2014) Lisbon Polytechnic Institute (IPL) – Lisbon Superior School of Health and Technology (ESTeSL)  
Lisbon, Portugal  
Invited Assistant of Histology
- (2009-2014) Lisbon New University (UNL) – Medical Sciences Faculty (FCM)  
Lisbon, Portugal  
Invited Assistant of Pathology

## PERSONAL SKILLS

Mother language(s) Portuguese

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English*	C*	C*	C*	C*	C*
French	A1	A2	A1	A1	A1

Levels: A1/2: Basic user – B1/2: Independent user – C1/2 Proficient user  
Common European Framework of Reference for Languages

\*Occupational English test (08/10/2022): Final classification B(Listening, Reading, Speaking, Writing)

# ADDITIONAL INFORMATION

## Current areas of interest

1. Breast pathology
2. Artificial intelligence
3. Computational pathology
4. Molecular pathology

## Publications

### Articles

1. **Canas-Marques R**, Schnitt SJ. Ductal carcinoma in situ with and without microinvasion: is there a clinically meaningful difference in outcome? *Br J Cancer*. 2023 Mar;128(5):713-714. doi: 10.1038/s41416-023-02152-x
2. Pinto D, Batista E, Gouveia P, Mavioso C, Anacleto J, Ribeiro J, Sousa B, Gouveia H, Ferreira A, Chumbo M, Vasconcelos M, A, Correia M, **Canas Marques R**, Galzerano A, Brito M, J, Alves C, Cardoso F, Cardoso M, J: Targeted Axillary Dissection after Chemotherapy: Feasibility Study with Clip and Carbon Dye Tattoo – Neotarget Trial. *Breast Care* 2021. doi: 10.1159/000517208
3. Pinto JF, Vasconcelos MA, **Marques RC**, Chumbo M. Breast metastases of eccrine porocarcinoma. *BMJ Case Rep*. 2022 Mar 7;15(3):e247900. doi: 10.1136/bcr-2021-247900. PMID: 35256370; PMCID: PMC8905895.
4. Oliveira, Sara P.; Ribeiro Pinto, João; Gonçalves, Tiago; **Canas-Marques, Rita**; Cardoso, Maria-João; Oliveira, Hélder P.; Cardoso, Jaime S. 2020. "Weakly-Supervised Classification of HER2 Expression in Breast Cancer Haematoxylin and Eosin Stained Slides" *Appl. Sci.* 10, no. 14: 4728. <https://doi.org/10.3390/app10144728>
5. Polónia A, Campelos S, Ribeiro A, Aymore I, Pinto D, Biskup-Fruzynska M, Veiga RS, **Canas-Marques R**, Aresta G, Araújo T, Campilho A, Kwok S, Aguiar P, Eloy C. Artificial Intelligence Improves the Accuracy in Histologic Classification of Breast Lesions. *Am J Clin Pathol*. 2020 Oct 29;aqaa151. doi: 10.1093/ajcp/aqaa151. Epub ahead of print. PMID: 33118594
6. Alves AS, Gaivão AM, **Marques RC**, Matos C. Two Rare Entities in One Patient: Mucinous Tubular and Spindle Cell Carcinoma of the Kidney and Peritoneal Adenomyomas. *Radiol Case Rep*. 2021 Jun 8;16(8):1974-1979. doi: 10.1016/j.radcr.2021.05.004. PMID: 34158877; PMCID: PMC8203568.
7. Rolim I, Henriques V, Rolim N, Blanca A, **Marques RC**, Volavšek M, Carvalho I, Montironi R, Cimadamore A, Raspollini MR, Cheng L, Lopez-Beltran A. Clinicopathologic analysis of upper urinary tract carcinoma with variant histology. *Virchows Arch*. 2020 Jul;477(1):111-120. doi: 10.1007/s00428-020-02745-4. Epub 2020 Jan 16. PMID: 31950242
8. Madan E, Parker TM, Pelham CJ, Palma AM, Peixoto ML, Nagane M, Chandaria A, Tomás AR, **Canas-Marques R**, Henriques V, Galzerano A, Cabral-Teixeira J, Selvendiran K, Kuppusamy P, Carvalho C, Beltran A, Moreno E, Pati UK, Gogna R. HIF-transcribed p53 chaperones HIF-1 $\alpha$ . *Nucleic Acids Res*. 2019 Nov 4;47(19):10212-10234. doi: 10.1093/nar/gkz766. PMID: 31538203
9. Massari F, Ciccarese C, Vau N, Santoni M, Montironi R, Cheng L, **Marques RC**, Scarpelli M, Fonseca J, Matrana MR, Holger M, Cascinu S, Tortora G, Lopez-Beltran A. Emerging Immunotargets in bladder Cancer. *Curr Drug Targets*. 2016;17(7):757-70. doi: 10.2174/1389450117666160201105537. PMID: 26844572
10. Madan E, Pelham CJ, Nagane M, Parker TM, **Canas-Marques R**, Fazio K, Shaik K, Yuan Y, Henriques V, Galzerano A, Yamashita T, Pinto MAF, Camacho D, Vieira A, Soldini D, Nakshatri H, Post SR, Rhiner C, Yamashita H, Accardi D, Hansen LA, Kuppusamy P, Carvalho C, Beltran AL, Gogna R, Moreno E. "Flower Isoforms Promote Competitive Growth in Cancer". *Nature* (in Press)
11. Lopez-Beltran A, Canas-Marques R, Cheng L, **Montironi R**. Histopathologic challenges: the second OPINION issue, *Eur J Surg Oncol*. 2018 Oct 16. pii: S0748- 7983(18)31421-5. doi: 10.1016/j.ejso.2018.09.003.

## Publications

## Articles

12. Lopez-Beltran A, **Canas-Marques R**, Cheng L, Montironi R. Histopathologic challenges: the second OPINION issue, Eur J Surg Oncol. 2018 Oct 16. pii: S0748- 7983(18)31421-5. doi: 10.1016/j.ejso.2018.09.003.
13. Pierconti F, Straccia P, Emilio S, Bassi PF, De Pascalis I, **Marques RC**, Volavsek M, Larocca LM, Lopez-Beltran A. Corrigendum to "Cytological and histological changes in the urothelium produced by electromotive drug administration (EMDA) and by the combination of intravesical hyperthermia and chemotherapy (thermochemotherapy)" [Pathol. Res. Pract. 213 (2017) 1078-1081]. Pathol Res Pract. 2018 Apr;214(4):603.
14. Pierconti F, Straccia P, Emilio S, Bassi PF, De Pascalis I, **Marques RC**, Volavsek M, Larocca LM, Lopez-Beltran A. Cytological and histological changes in the urothelium produced by electromotive drug administration (EMDA) and by the combination of intravesical hyperthermia and chemotherapy (thermochemotherapy). Pathol Res Pract. 2017 Sep;213(9):1078-1081.
15. Lopez-Beltran, A., Cheng, L., Raspollini, M. R., **Canas-Marques, R.**, Scarpelli, M., Cimadamore, A., Montironi, R. (2017). Variants of Bladder Cancer: The Pathologist's Point of View. European Urology Supplements, 2017, 16(12), 210–222.
16. Massari F, Ciccarese C, Vau N, Santoni M, Montironi R, Cheng L, **Marques RC**, Scarpelli M, Fonseca J, Matrana MR, Holger M, Cascinu S, Tortora G, Lopez-Beltran A. Emerging Immunotargets in Bladder Cancer. Curr Drug Targets. 2016;17(7):757-70.
17. **Rita Canas-Marques** and Stuart J. Schnitt. E-cadherin immunohistochemistry in breast pathology: uses and pitfalls. Histopathology, 2016;68(1):57-69. Review.
18. Lopez-Beltran A, **Marques RC**, Montironi R, Reymundo C, Fonseca J, Cheng L. Rare entities in urinary bladder pathology. Anal Quant Cytopathol Histopathol. 2015 Feb;37(1):14-22.
19. Lopez-Beltran A, **Marques RC**, Montironi R, Reymundo marquesC, Fonseca J, Cheng L. Dysplasia and carcinoma in situ of the urinary bladder. Anal Quant Cytopathol Histopathol. 2015 Feb;37(1):29-38.
20. Almeida M, **Canas-Marques R**, Lopez-Beltran A, Rebola J, Lúcio R, Montironi R, Cheng L, Fonseca J. "Small cell carcinoma of the bladder associated with schistosomiasis: a case report." Anal Quant Cytopathol Histopathol. 2014 Dec;36(6):339-44.
21. Horta M, Cunha TM, **Marques RC**, Félix A. Ovarian Sertoli-Leydig cell tumor with heterologous elements of gastrointestinal type associated with elevated serum alpha-fetoprotein level: an unusual case and literature review. J Radiol Case Rep. 2014 Nov 30;8(11):30-41. doi: 10.3941/jrcr.v8i11.2272. eCollection 2014 Nov.
22. **Canas Marques, R** and Félix, A. "Invasive carcinoma arising from sclerosing polycystic adenosis of the salivary gland", Virchow Archives. 2014 May;464(5):621-5. DOI 10.1007/s00428-014- 1551

## Book chapters

1. Antonio Lopez-Beltran, **Rita Canas- Marques**, Liang Cheng, Rodolfo Montironi, Maria Rosaria Raspollini. Chapter 24 - Micropapillary Urothelial Carcinoma of the Bladder versus Gynaecological Tract Carcinomas with Micropapillary Features: Similarities and Differences , Gynecologic and Urologic Pathology - Similarities, Differences, and Challenges, Cambridge, 2019
2. Maria Rosaria Raspollini, **Rita Canas-Marques**, Rodolfo Montironi, Liang Cheng, Antonio Lopez-Beltran. Chapter 35 - Secondary Tumors of the Male and Female Genital Tracts and Urinary Tract: Similarities and Differences , Gynecologic and Urologic Pathology - Similarities, Differences, and Challenges, Cambridge, 2019
3. **Canas Marques, R** and Fonseca, R "Glycogenic Achantosis", Encyclopedia of Pathology, Springer. DOI 10.1007/978-3-642-04978-1
4. **Canas Marques, R** and Chaves, P "Squamous Papilloma, Upper Gastro-intestinal Tract", Encyclopedia of Pathology", Springer. DOI 10.1007/978-3-642-04978-1
5. Antonio Lopez-Beltran, **Rita Canas-Marques**, Maria R. Raspollini, Rodolfo Montironi, Marina Scarpelli, Liang Cheng. "Cysts and epithelial proliferations of the testicular collecting system". Pathology of testicular and penile Neoplasms. Editor: Maurizio Colechia. Springer 2016.

## Presentations

Oral presentations

1. **Rita Canas Marques** and Melinda Fan Lerwill "Incidence of Carcinoma and Atypia in Breast Reduction Mammoplasty Specimens", 2013 Annual Meeting - USCAP, Baltimore, E.U.A. (Modern Pathology (2013) 26 (2): 32A, abstract 126)
2. **Rita Canas Marques**, Fernanda Silva, Ana Félix "Podoplanin expression in cervical squamous cell carcinoma", 23rd European Congress of Pathology, Helsinki, Finland. (Virchows Arch (2011) 459(1): S26-S27)
3. **RC Marques**, R Fonseca, S André, "Metástases de Carcinoma da mama na glândula tireóideia", XVII Reunião da Sociedade Portuguesa de Citologia & XXXIX Reunion Nacional de la Sociedad Española de Citología, 2010, Cascais, Portugal.

Platform

1. Savitri Krishnamurthy, **Rita Canas Marques**, Piotr Borkowski, Justin Cates, Elisabeth Shearon, Gaetan MacGrogan, Qingqing Ding, Pranil Chandra, Emilie Morphew, Rawia Yassin, Keith Sweeney, Hongxia Sun, Michael Riben, Darren Wheeler, Yuval Globerson, Raz Ziv, Sevde Etoz, Maya Grinwald, Manuela Vecsler. Multicenter study evaluating the utility of AI-aided HER2 scoring in the clinically relevant categories. ASCO 2024. May 31 – June 4, Chicago, USA.
2. Joanna Cyrt, Vincent Cockenpo, Elsy El Ala, Stuart J. Schnit, **Rita Canas-Marques**, Gaetan Mac Grogan, Laurent Arnould, Sabine Declercq, Roberto Salgado, Glenn Broeckx, Frederik Deman, Jeanne Thomassin, Marie Brevet, Yuval Globerson, Raz Ziv, Maya Grinwald, Dana Mevorack, Judith Sandbank, Manuela Vecsler, Anne Vincent-Salomon. Multi-Site European Study of a Fully Automated AI Solution for HER2 Scoring in Breast Cancer, ESMO Breast 2024, 15-17May 2024, Berlin, Germany.
3. Cansu Karakas, Sevde Etoz, Shaya Goodman, Judith Sandbank, Manuela Vecsler, Stuart Schnit, **Rita Canas- Marques**. Utilization of an Artificial Intelligence Solution for the Identification of Microinvasive Carcinoma of the Breast. 113<sup>th</sup> USCAP Annual Meeting, March 23-38 2024, Baltimore, USA.
4. **Rita Canas-Marques**, Ana Blanca, David G Pinto; Maria Antónia Vasconcelos. "Aberrant E-cadherin (E-cad) Expression in Lobular Carcinoma in Situ (LCIS): A Comprehensive Evaluation of N-terminal, Extracellular, and C-terminal E-cadherin Domains." International Invasive Lobular Breast Cancer Symposium 2023, September 28th-30th 2023, Pittsburgh, USA.
5. **Rita Canas-Marques**, Stuart Schnit, Anne Vincent-Salomon, Savitri Krishnamurthy, Eugenia Colon, Kanchan Kantekure, Marina Maklakovski, Wilfrid Finck, Jeanne Thomassin, Caroline Rancati, Yuval Globerson, Lilach Bien, Amit Gruber, Shlomtzion Evron, Giuseppe Mallel, Maya Grinwald, Manuela Vecsler, Chaim Linhart, Judith Sandbank. Fully Automated Artificial Intelligence Solution for Accurate HER2 IHC Scoring in Breast Cancer: Multi-Reader Study, ECDP 2023, June 15-17, Budapest, Hungary.
6. **Canas-Marques, R**, Pinto, DG, Vasconcelos, MA, Aberrant E-cadherin Expression in Lobular Carcinoma in Situ, A comprehensive immunohistochemical evaluation of N-terminal, Extracellular, and C-terminal E-cadherin domains. USCAP 2023, March 11 – 16, New Orleans, USA.
7. Krishnamurthy, S, Schnit, SJ, Vincent-Salomon, A, Colon, E, **Canas-Marques, R**, Kantekure, K, Maklakovski, M, Finck, W, Thomassin, J, Rancati, C, Globerson, Y, Bien, L, Gruber, A, Evron, S, Mallel, G, Grinwald, M, Vecsler, M, Linhart, C, Sandbank, J, Clinical Validation of a Fully Automatic Artificial Intelligence System for Accurate HER2 IHC Scoring in Breast Cancer. USCAP 2023, March 11 – 16, New Orleans, USA.
8. **Rita Canas Marques** and Ana Félix "Invasive carcinoma arising in sclerosing polycystic adenosis of the salivary gland", 25th European Congress of Pathology, Lisboa, Portugal. (Virchows Arch (2013) 463: 164, PS-03-015)
9. **Rita Canas Marques**, Fernando Cunha, Patrícia Machado, Fátima Vaz, Saudade André "Male breast invasive lobular carcinoma: report of two cases", 25th European Congress of Pathology, Lisboa, Portugal. (Virchows Arch (2013) 463: 259, PS-17-066)
10. **Rita Canas Marques**, Pedro Simões, Isabel Santana, António Gomes, Ana Francisca Jorge, Ana Félix "Radial Margins Status Impact in Squamous Cervical Cancer Recurrence: A Considerable Prognostic Factor", 2012 Annual Meeting – USCAP, Vancouver, Canadá. (Modern Pathology (2012) 25 (2): 262A, abstract 1100)
11. **RC Marques**, F Silva, S André, A Félix "Synchronous and Metachronous Breast and Endometrial Cancer", 2010 Annual Meeting – USCAP, Washington, DC, EUA. (Modern Pathology (2010) 23(1): 254A, abstract 1138)

## Speaker at Conferences

1. "The Added Value of AI in Breast Cancer" 19<sup>th</sup> European Congress of Digital Pathology, June 14<sup>th</sup>-17<sup>th</sup> 2023, Budapest, Hungary.
2. "Current value of frozen section in gynaecological cancer", (Un)Known Cancer In Young Women, September 21<sup>st</sup> 2018, Champalimaud Centre for the Unknown, Lisbon, Portugal
3. "What have I learned from this case", Videomicroscopy Session, 27<sup>th</sup> European Congress of Pathology, 2015, Belgrade, Serbia.
4. "Special case study and discussion breakthrough - HER2 in Gastric Cancer", Personalized health care", June 16<sup>th</sup>-17<sup>th</sup> 2011, Roche, Amadora, Portugal.

Scientific Journal  
Reviewer

The Breast

## Society Memberships

- |                |   |
|----------------|---|
| (2023-present) | International Society of Breast Pathology (ISBP) – Council member |
| (2023-present) | European Society of Digital Pathology (ESDP)                      |
| (2011-present) | United States and Canadian Academy of Pathologists (USCAP)        |
| (2011-present) | European Society of Pathologists (ESP)                            |
| (2011-present) | Portuguese Society of Anatomic Pathology (SPAP)                   |