

Susana Santos Lopes CV

PERSONAL INFORMATION

Name: Lopes, Susana Santos

e-mail: susana.lopes@fcm.unl.pt

ORCID ID: <http://orcid.org/0000-0002-6733-6356>

Date of birth: 01-11-1970

Nationality: Portuguese

URL for web site: <http://cedoc.unl.pt/cilia-regulation-and-disease/>

EDUCATION

1999–2003 PhD Department of Biology and Biochemistry, University of Bath, UK.

1996–1997 MSc. Department of Biology, University of Plymouth, UK.

1990–1995 Degree (5 years) Marine Biology and Fisheries, University of Algarve, Portugal

CURRENT POSITION

2012–present FCT Investigator

Principal Investigator at Chronic Diseases Research Centre, CEDOC, NOVA Medical School / Nova University of Lisbon, Group leader of the 'Cilia Regulation and Disease' laboratory currently hosting 2 Postdocs, 2 PhD students, 1 technician and 2 Master students.

PREVIOUS POSITIONS

2006–2010 **Postdoctoral fellow** Institute of Molecular Medicine IMM, Faculty of Medicine, Lisbon, Portugal.

2004–2006 **Postdoctoral fellow** Institute of Molecular Medicine IMM, Faculty of Medicine, Lisbon, Portugal.

FELLOWSHIPS AND AWARDS

2014 Young PI Travel award to attend the PI fish meeting in Israel, award received from EuFishBioMed 500€.

2012 Internal award from FCM-CEDOC 10,000€

2007 Postdoc Transition Fellowship Instituto Gulbenkian de Ciência 4,500€

2010 Travel grant to attend Keystone symposia. Fundação Calouste Gulbenkian 1,500€

2007–2012 Postdoc fellowship SFRH/BPD/34822/2007, FCT, Lisbon Portugal

2003–2007 Postdoc fellowship SFRH/BPD/14644/2003, FCT, Lisbon Portugal

FUNDING

2012–2016 FCT-ANR/BEX-BID/0153/2012- Quantitative analysis of asymmetric gene expression in the left-right organizer in response to flow forces: what comes downstream of cilia driven flow? Ongoing. 249,000€

2008–2013 PTDC/SAU-OB/103981/2008 - Investigation of a new signaling pathway linking deltaD to ciliogenesis and its impact on left-right development. 2010–2013. 140,000€

SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS

From 2007 to present time I have supervised 2 Postdocs, 3 PhD students and 7 Master Students.

ORGANISATION OF SCIENTIFIC MEETINGS

- 2016 Upcoming Zebrafish PI meeting March, Lisbon, Portugal
2013 Workshop on Biophysics of the Left-right organizer IGC/CEDOC, June, Oeiras, Portugal
2008 Workshop on Biophysical Mechanisms of Development IGC, May 24-27, Oeiras, Portugal

PUBLICATIONS

I have published 11 articles, from which 8 are totally independent from my PhD supervisor and 4 from my Postdoc supervisors. Since the start of my independent career in 2012 I have published 4 articles, 2 in high impact journals.

- 2015 Quanlong Lu, Christine Insinna, Carolyn Ott, Jimmy Stauffer, Petra Pintado, Juliati Rahajeng, Ulrich Baxa, Vijay Walia, Adrian Cuenca, Yoo-Seok Hwang, Ira Daar, **Susana S. Lopes**, Jennifer Lippincott-Schwartz, Peter Jackson, Steve Caplan, and Christopher Westlake". Early steps in primary cilium assembly require EHD1/EHD3-dependent ciliary vesicle formation". *Nature Cell Biology*. Accepted 13th January 2015.
- 2014 Pedro Sampaio, Rita R. Ferreira, Adán Guerrero, Petra Pintado, Bárbara Tavares, Joana Amaro, Andrew A. Smith, Thomas Montenegro-Johnson, David Smith and **Susana S. Lopes**. Left-Right Organizer Flow Dynamics: How Much Cilia Activity Reliably Yields Laterality? **Developmental Cell**, Vol. 29, Issue 6, p716–728. Impact factor 10.366.
- 2014 Smith Dj, Montenegro-Johnson T, **Lopes S.S.** Organized chaos in Kupffer's vesicle: How a heterogeneous structure achieves consistent left-right patterning. *May-Jun;4(3):119-25. Bioarchitecture* doi: 10.4161/19490992.2014.956593.
- 2014 Cristina Casalou, Cecília Seixas, Ana Portelinha, Petra Pintado, Mafalda Barros, José S Ramalho, **Susana S Lopes**, Duarte C Barral. Arl13b and the non-muscle myosin heavy chain IIA are required for circular dorsal ruffle formation and cell migration. **Journal of cell science**, jcs. 143446
- 2013 Bárbara Tavares and **Susana S Lopes**. Importance of Zebrafish in Biomedical Research. **Acta Med Port**. Sep-Oct;26(5):583-592
- 2010 **Lopes SS**; R. Lourenço; Pacheco, L; Moreno, N.; Kreiling J. and Saúde, L. A novel role for Notch signalling in left-right determination through ciliary length control. **Development**. Nov;137(21):3625-32. Impact Factor 6,273 (Recommended by the Faculty 1000).
- 2010 R Lourenço, **SS Lopes**. Left-right function of *dmrt2* genes is not conserved between zebrafish and mouse. **PLoS one** 5 (12), e14438. Impact factor 3,534
- 2009 Rocha SF, **Lopes SS**, Gossler A, Henrique D. Dll1 and Dll4 function sequentially in the retina and pV2 domain of the spinal cord to regulate neurogenesis and create cell diversity. **Developmental Biology**. Apr1; 328(1): 54-65. Impact factor 3,637.
- 2008 **Lopes SS**, Yang X, Müller J, Carney T, McAdow AR, Rauch G, Jacoby AS, Hurst LD, Delfino-Machin M, Haffter P, Geisler R, Johnson SL, Ward A, Kelsh RN. Leukocyte tyrosine kinase functions in pigment cell development. **PLoS Genetics** 4(3):e1000026. Doi: 10.1371/journal.pgen.1000026. Impact Factor 8,167.
- 2000 DM Parichy, EM Mellgren, JF Rawls, **SS Lopes**, RN Kelsh, SL Johnson. Mutational Analysis of Endothelin Receptor b1 during Neural Crest and Pigment Pattern Development in the Zebrafish *Danio rerio*. **Developmental biology** 227 (2), 294-306.
- 2001 Kirsten A Dutton, Angela Pauliny, **Susana S Lopes**, Stone Elworthy, Tom J

Carney, Jörg Rauch, Robert Geisler, Pascal Haffter, Robert N Kelsh Zebrafish colourless encodes sox10 and specifies non-ectomesenchymal neural crest fates **Development** 128 (21), 4113-4125.

ORAL COMMUNICATION

Total of **8** oral communications, 5 at national level and 3 internationally, including **2 invited seminars** last year, one from the Spanish Society of Developmental Biology in Madrid 2014 and one invitation to speak at the 2015 Gordon Conference on Cilia, Mucus & Mucociliary Interactions in Galveston, TX, USA.

INSTITUTIONAL RESPONSIBILITIES

- 2015 CEDOC Fish facility
- 2014 Organizer PI ChalkTalk seminar series, CEDOC/ NOVA University of Lisbon, Portugal
- 2014 Head of the Primary Ciliary Dyskinesia diagnostic service - High speed videomicroscopy
- 2013- Organizer of Chronic diseases module from PhD Programme ProRegM running between the University of the Algarve and NOVA Medical School, Nova University of Lisbon.
- 2013- Lecturer at the Developmental Biology module from PhD Programme ProRegM running between the University of the Algarve and NOVA Medical School, Nova University of Lisbon.

JOURNAL PEER-REVIEWING ACTIVITIES

Developmental Cell / Mammalian Genome / BMC Developmental Biology/ Cilia journal

MEMBERSHIPS OF SCIENTIFIC SOCIETIES

Portuguese Society of Developmental Biology/ EuFishBioMed European Network /ERA-EDTA

MAJOR COLLABORATIONS

- Ivo Telley Micromanipulations and fluidics. **Instituto Gulbenkian Ciência**, Oeiras
- Adán Guerrero 3D flow Imaging. **Laboratorio Nacional de Microscopia Avanzada**, Mexico
- Thomas Johnson-Montenegro Simulations for cilia beating and flow. **Cambridge University**, UK
- Christopher Westlake Regulation of primary cilium assembly. **NCI-Frederick National Laboratory**, USA.
- Julien Vermot, What is downstream of the nodal flow? **IGBMC**, France
- David Smith Simulations of nodal fluid flow. **School of Mathematics**, University of Birmingham, UK
- Carla Quintão Department of Physics from Faculty of Sciences and Technology (**FCT**) – UNL, Portugal

CAREER BREAKS

- 2001 Maternity leave 1st child (April to September)
- 2003 Maternity leave 2nd child (March to September)