

UNIVERSITY OF MILAN

Selection procedure for recruiting associate professors under art.18, paragraph 1 and 4, of Law No.240/2010 for competition sector 05/E2 - Biologia Molecolare, (scientific-disciplinary sector BIO/11) at the Department of Bioscienze, (announcement published in Official Gazette No.3237/2021 of 23/07/2021) - Competition code 4782

Nuno Miguel Guimaraes de Sa Camboa

CURRICULUM VITAE

(N.B. CV MUST BE OF UP TO 30 PAGES AND INCLUDE THE DETAILS CANDIDATES CONSIDER USEFUL FOR THE ASSESSMENT.

ALL THE TITLES INSERTED BELOW ARE JUST EXAMPLES THAT CAN BE REPLACED, CHANGED OR COMPLETED)

PERSONAL DATA

SURNAME	GUIMARAES DE SA CAMBOA
NAME	NUNO MIGUEL
DATE OF BIRTH	28.07.1983

QUALIFICATIONS

DEGREE

- B.Sc. in Biology. University of Porto, Portugal. September 2006

DOCTORAL DEGREE OR EQUIVALENT QUALIFICATION EARNED IN ITALY OR ABROAD / MEDICAL SPECIALISATION DIPLOMA OR EQUIVALENT QUALIFICATION, FOR THE RELEVANT SECTORS, EARNED IN ITALY OR ABROAD

- Ph.D. in Basic and Applied Biology (GABBA PhD Program). University of Porto, Portugal and University of California, San Diego, USA. February 2013

FURTHER QUALIFICATIONS

- Habilitation for Associate Professorship in:
 - Applied Biology (Italian ASN 05/F1 from 18/09/2018 to 18/09/2024).
 - Molecular Biology (Italian ASN 05/E2 from 12/05/2021 to 12/05/2030).
 - Science of Health Professions and Applied Medical Technologies (Italian ASN 06/N1 from 31/05/2021 to 31/05/2030).
 - Comparative Anatomy and Cytology (Italian ASN 05/B2 from 01/06/2021 to 01/06/2030).
 - Histology (Italian ASN 05/H2 from 14/06/2021 to 14/06/2030).

TEACHING ACTIVITIES

CLASSES AND MODULES

- Invited lecturer - Heart Development (course MED238), University of California, San Diego, USA (2017/2018)
- Invited lecturer - Epicardial Cells in Cardiac Development, University of California, San Diego, USA (2009/2010)

COMPLEMENTARY TEACHING ACTIVITIES AND SERVICE ACTIVITIES TO STUDENTS

MENTORING BACHELOR'S DEGREE, MASTER'S DEGREE, PhD, AND SPECIALISATION SCHOOL DISSERTATIONS AND THESES

Academic year	Name	Degree	Institution
- 2018-to date	Debanjan Mukherjee	PhD	Goethe University Frankfurt and Max Planck Inst. for Heart and Lung, Germany

TUTORING BACHELOR'S DEGREE, MASTER'S DEGREE, AND PhD STUDENTS

Academic year	Name	Degree	Institution
- 2008/2009	Kent Lahm	MD/PhD	University of California, San Diego
- 2009/2010	Holden Groves	MD/PhD	University of California, San Diego
- 2009/2010	Brian Labadie	Molecular Biology	University of California, San Diego
- 2011/2012	Polina Pulyanina	Pharmacy	University of California, San Diego
- 2014/2015	Christopher Zhu	Biology	University of California, San Diego
- 2015/2016	Mariam Samim	Medicine	University of California, San Diego
- 2016/2017	Raymond Wang	PhD in Bioengineering	University of California, San Diego
- 2016/2017	Klaire Zhang	Biology	University of California, San Diego
- 2016/2017	Min Jung Jin	Biology	University of California, San Diego
- 2018 to date	<i>Theresa Gimbel</i>	PhD	Goethe University Frankfurt
- 2019 to date	Giada Cassanmagnago	PhD	Humanitas University, Milan
- 2020 to date	<i>Yi-Hsuan Lin</i>	PhD	Goethe University Frankfurt
- 2021 to date	Sam Schroeter	MD	Goethe University Frankfurt

Additional tutoring activities:

- Career consultant for Chaperone (online career consulting platform). 2020 to present.
- Author and coordinator of the chapter "When do I know I am ready to defend my thesis". Welcoming guide to new students of the GABBA Ph.D. Program (University of Porto). Year 2015.

SEMINARS

- Ospedale San Raffaele, Milan, Italy. Seminar of the Division of Experimental Oncology. Online meeting. February 2021.
"The Role of Perivascular Cells in Homeostasis and disease"
- Leducq Consortium on Cellular and molecular drivers of cardiac fibrosis. Online meeting. May 2020
"Fibroblasts: A cell type at the crossroads between adipose tissue and the cardiovascular system".

- German Center for Cardiovascular Research (DZHK) - Periodic Internal Evaluation of the DZHK. DZHK Headquarters, Berlin. January 2020.
“Deciphering transcriptional networks regulated by TBX18 in cardiovascular disease”
- Scientific Meeting of the Cardio Pulmonary Institute (CPI) Excellence Cluster. Bad Nauheim, Germany. June 2019.
“Transcriptional Mechanisms Driving Pathological Activation of Cardiac Fibroblasts”
- I3S Friday-Noon Seminar Series, University of Porto, Portugal. May 2019.
“Dynamics of distinct cardiovascular cell lineages in embryogenesis and adulthood”.
- German Center for Cardiovascular Research (DZHK) - Meeting with the Scientific Advisory Board. DZHK Headquarters, Berlin. January 2019.
“Deciphering transcriptional networks regulated by TBX18 in cardiovascular disease”
- Leducq Consortium on Cellular and molecular drivers of cardiac fibrosis, Singapore. December 2018
“Using scRNAseq to assess heterogeneity of cardiac stromal cells”
- Cardiology Department Seminar Series, University Hospital of Leipzig, Germany. December 2018
“scRNAseq analyses of cardiac fibrosis”
- German Center for Cardiovascular Research (DZHK) - Scientific retreat of the partner site Rhein Main. Hotel Dorint, Frankfurt. July 2018.
“Deciphering transcriptional networks regulated by TBX18 in cardiovascular disease”
- Cardiovascular Science Conference Series, University of California, San Diego, USA. December 2017
“Dynamics of distinct cardiovascular cell lineages in embryogenesis and adulthood”.
- IFOM Seminar Series, IFOM, Milan, Italy. November 2017
“Perivascular cells in embryogenesis and physiopathology”.
- Humanitas Research Center, Milan, Italy, March 2017
“Dynamics of Distinct Cardiovascular Cell Lineages in Embryogenesis and Adulthood”.
- Leducq Consortium on Cellular and molecular drivers of cardiac fibrosis, Boston, March 2017
“Sources and heterogeneity of activated fibroblasts in a mouse model of cardiac fibrosis”.
- Cardiovascular Fellows’ Research Day, University of California, San Diego, USA. May 2016
“Endogenous pericytes do not behave as mesenchymal stem cells in vivo”.
- Pharmacology Department Seminar Series, University of California, San Diego, USA. October 2014
“Transcription regulation by HIF1a in mammalian cardiogenesis”.

SCIENTIFIC RESEARCH ACTIVITIES

SCIENTIFIC PUBLICATIONS

1. Cattaneo P., Mukherjee D., Spinozzi S., Zhang L., Larcher V., Stallcup W.B., Kataoka H., Chen J., Dimmeler S., Evans S.M., Guimarães-Camboa N. Parallel lineage-tracing studies establish fibroblasts as the prevailing in vivo adipocyte progenitor (2020). Cell Reports, 30 (2): 571-582.
DOI: [10.1016/j.celrep.2019.12.046](https://doi.org/10.1016/j.celrep.2019.12.046)
I.F. = 9.423
Number of citations (Scopus): 20
2. Vidal R., Wagner J.U.G., Braeuning C., Fischer C., Patrick R., Tombar L., Muhly-Reinholz M., John D., Kliem M., Conrad T., Guimarães-Camboa N., Harvey R., Dimmeler S., Sauer S. Transcriptional heterogeneity of fibroblasts is a hallmark of the aging heart (2020). JCI insight 22(4).

DOI: [10.1172/jci.insight.131092](https://doi.org/10.1172/jci.insight.131092)

I.F. = 8.315

Number of citations (Scopus): 28

3. Ng B, Dong J., D'Agostino G., Viswanathan S., Widjaja A.A., Lim W.-W., Ko N.S.J., Tan J., Chothani S.P., Huang B., Xie C., Pua C.J., Chacko A.-M., Guimarães-Camboa N., Evans S.M., Byrne A.J., Maher T.M., Liang J., Jiang D., Noble PW, Schafer S, Cook S.A. Interleukin-11 is a therapeutic target in idiopathic pulmonary fibrosis (2019). *Science translational medicine*, 11(11).

DOI: [10.1126/scitranslmed.aaw1237](https://doi.org/10.1126/scitranslmed.aaw1237)

I.F. = 16.304

Number of citations (Scopus): 59

4. Liu C., Spinozzi S., Chen J.-Y., Fang X., Feng W., Perkins G., Cattaneo P., Guimarães-Camboa N., Dalton N.D., Peterson K.L., Wu T., Ouyang K., Fu X.-D., Evans S.M., Chen J. Nexilin is a new component of junctional membrane complexes required for cardiac t-tubule formation (2019). *Circulation*, 140:55-66.

DOI: [10.1161/CIRCULATIONAHA.119.039751](https://doi.org/10.1161/CIRCULATIONAHA.119.039751)

I.F. = 23.603

Number of citations (Scopus): 15

5. Stroud M.J., Fang X., Zhang J., Guimarães-Camboa N., Veevers J., Dalton N.D., Gu Y., Bradford W.H., Peterson K.L., Evans S.M., Gerace L., Chen J. Luma is not essential for murine cardiac development and function (2018). *Cardiovascular research*, 114: 378-388

DOI: [10.1093/cvr/cvx205](https://doi.org/10.1093/cvr/cvx205)

I.F. = 7.014

Number of citations (Scopus): 14

6. Moore-Morris T.*, Cattaneo P.*, Guimarães-Camboa N., Cedenilla M., Banerjee I., Ricote M., Kisseleva T., Brenner D.A., Gu Y., Dalton N.D., Peterson K.L., Chen J., Pucéat M., Evans S.M. Infarct fibroblasts do not derive from bone marrow lineages (2017). *Circulation Research*, 122(4): 583-590.

DOI: [10.1161/CIRCRESAHA.117.311490](https://doi.org/10.1161/CIRCRESAHA.117.311490)

I.F. = 15.211

Number of citations (Scopus): 40

7. Schafer S., Viswanathan S., Widjaja A., Lim W.W., Moreno-Moral A., DeLaughter D.M., Ng B., Patone G., Chow K., Khin E., Tan J., Chothani S.P., Ye L., Rackham O.J.L., Pua C.J., Zhen N.T.G., Chen X., Wang M., Maatz H., Lim S., Saar K., Blachut S., Petretto E., Schmidt S., Putoczki T., Guimarães-Camboa N., Ko N.S.J., Wakimoto H., Sigmundsson K., Lim S.L., Soon J.L., Chao V.T.T., Chua Y.L., Tan T.E., Evans S.M., Loh Y. J., Jamal M.H., Ong K.K., Chua K.C., Ong B.H., Jose C.M., Seidman J.G., Seidman C.E., Hubner N., Sin K.Y.K., Cook S.A. (2017). IL11 is a critical determinant of cardiovascular fibrosis. *Nature*, 552:110-115.

DOI: [10.1038/nature24676](https://doi.org/10.1038/nature24676)

I.F. = 41.577

Number of citations (Scopus): 193

8. Guimarães-Camboa N., Evans S.M. (2017). Are Perivascular Adipocyte Progenitors Mural Cells or Adventitial Fibroblasts? *Cell Stem Cell*, 20(5):587-589.

DOI: [10.1016/j.stem.2017.04.010](https://doi.org/10.1016/j.stem.2017.04.010)

I.F. = 23.394

Number of citations (Scopus): 17

9. Guimarães-Camboa N., Cattaneo P., Sun Y., Moore-Morris T., Gu Y., Dalton D., Rockenstein E., Masliah E., Peterson K., Stallcup W.B., Adams R., Chen J., Evans S.M. (2017). Pericytes of Multiple Organs Do Not Behave as Mesenchymal Stem Cells In Vivo. *Cell Stem Cell*, 20, 345-359.

DOI: [10.1016/j.stem.2016.12.006](https://doi.org/10.1016/j.stem.2016.12.006)

I.F. = 23.394

Number of citations (Scopus): 248

10. Guimarães-Camboa N., Evans S.M. (2016). Redox Paradox: Can Hypoxia Heal Ischemic Hearts? *Developmental Cell*, 39, 392-394.

DOI: [10.1016/j.devcel.2016.11.007](https://doi.org/10.1016/j.devcel.2016.11.007)

I.F. = 9.174

Number of citations (Scopus): 3

11. Bolt C.C., Negi S., Guimarães-Camboa N., Zhang H., Troy J.M., Lu X., Kispert A., Evans S.M., Stubbs L. (2016). Tbx18 Regulates the Differentiation of Periductal Smooth Muscle Stroma and the Maintenance of Epithelial Integrity in the Prostate. PloS one 11(4):e0154413.

DOI: [10.1371/journal.pone.0154413](https://doi.org/10.1371/journal.pone.0154413)

I.F. = 2.806

Number of citations (Scopus): 7

12. Moore-Morris T., Guimarães-Camboa N., Yutzey K.E., Pucéat M., Evans S.M. (2015) Cardiac fibroblasts: from development to heart failure. J. Mol. Med., 93: 823-830.

DOI: [10.1007/s00109-015-1314-y](https://doi.org/10.1007/s00109-015-1314-y)

I.F. = 5.078

Number of citations (Scopus): 67

13. Guimarães-Camboa N., Stowe J., Aneas I., Sakabe N., Cattaneo P., Henderson L., Kilberg M.S., Johnson R.S., Chen J., McCulloch A.D., Nobrega M.A., Evans S.M., Zambon A.C. (2015) HIF1 α Represses Cell Stress Pathways to Allow Proliferation of Hypoxic Fetal Cardiomyocytes. Developmental Cell, 33: 507-521.

DOI: [10.1016/j.devcel.2015.04.021](https://doi.org/10.1016/j.devcel.2015.04.021)

I.F. = 9.338

Number of citations (Scopus): 66

14. Moore-Morris T., Guimarães-Camboa N., Banerjee I., Zambon A.C., Kisseleva T., Velayoudon A., Stallcup W.B., Gu Y., Dalton N.D., Cedenilla M., Gomez-Amaro R., Zhou B., Brenner D.A., Peterson K.L., Chen J., Evans S.M. (2104) Resident fibroblast lineages mediate pressure overload-induced cardiac fibrosis. JCI 124(7):2921-2934.

DOI: [10.1172/JCI74783](https://doi.org/10.1172/JCI74783)

I.F. = 13.262

Number of citations (Scopus): 322

15. Bruggeman B.J., Maier J.A., Mohiuddin Y.S., Powers R., Lo Y., Guimarães-Camboa N., Evans S.M., Harfe B.D. (2012) Avian Intervertebral Disc Arises From Rostral Sclerotome and Lacks a Nucleus Pulposus: Implications for Evolution of the vertebrate Disc. Dev Dyn 241: 675-683.

DOI: [10.1002/dvdy.23750](https://doi.org/10.1002/dvdy.23750)

I.F. = 2.59

Number of citations (Scopus): 29

16. Harel I., Nathan E., Tirosh-Finkel L., Zigdon H., Guimarães-Camboa N., Evans S.M., Tzahor E. (2009) Distinct Origins and Genetic Programs of Head Muscle Satellite Cells. Developmental Cell 16: 822-832.

DOI: [10.1016/j.devcel.2009.05.007](https://doi.org/10.1016/j.devcel.2009.05.007)

I.F. = 13.363

Number of citations (Scopus): 159

17. Lamghari M., Tavares L., Camboa N., Barbosa M.A. (2006) Leptin effect on RANKL and OPG expression in MC3T3-E1 osteoblasts. J Cell Biochem. 98: 1123 - 1129.

DOI: [10.1002/jcb.20853](https://doi.org/10.1002/jcb.20853)

I.F. = 3.679

Number of citations (Scopus): 44

ORGANISATION, SUPERVISION AND COORDINATION OF NATIONAL AND INTERNATIONAL RESEARCH CENTRES OR GROUPS, OR PARTICIPATION IN THEM

(For each entry, specify year, role, research group, etc.)

a) Supervision and Coordination of International Research Groups:

- **Group Leader** Goethe University, Frankfurt, Germany 08.2018 - Present
Subject: Transcriptional mechanisms regulating properties of perivascular cells in development, homeostasis and disease.

b) Competitive funding as Project Supervisor:

- | | |
|--|--------------------------------------|
| - German Center for Cardiovascular Research (DZHK)
Excellence Program, Junior Research Grant | 9/2018 to 8/2024
1,575,000.00 EUR |
| - Cardio-Pulmonary Institute (CPI) Excellence Cluster (Germany)
Advanced Grant | 1/2020 to 12/2022
360,000.00 EUR |
| - European Research Area Network on Cardiovasc. Diseases (ERA-CVD)
Consortium Grant: Transnational Cardiovasc. Research by Early Career Scientists | 5/2019 to 4/2022
250,000.00 EUR |

c) Participation in International Research Groups:

- | | | |
|---|--|-------------------|
| - Marie Curie Fellow
Subject: Transcriptional control in aortic aneurysms
Supervisor: Prof. Gianluigi Condorelli | Humanitas University, Milan, Italy | 01.2018 - 07.2018 |
| - Postdoctoral Researcher
Subject: Fibrosis, mesenchymal stem cells and tissue regeneration
Supervisors: Profs. Ju Chen and Sylvia Evans | University of California, San Diego, USA | 04.2013 - 12.2017 |
| - PhD Student
Subject: Transcriptional responses to hypoxia in mammalian cardiogenesis.
Supervisor: Prof. Sylvia Evans | University of California, San Diego, USA | 01.2008 - 02.2013 |

SUPERVISION OF OR PARTICIPATION IN PUBLISHING COMMITTEES OF SCIENTIFIC MAGAZINES

- Reviewer for the following journals:
 - PNAS (Proceedings of the National Academy of Sciences) - 01.2019 to date
 - Cell Reports - 04.2021 to date
 - Circulation - 12.2017 to date
 - Circulation Research - 10.2018 to date
 - Cardiovascular Research - 08.2017 to date
 - Journal of Molecular and Cellular Cardiology - 05.2019 - to date
 - PLOS One - 07.2017 to date
 - Life Sciences - 06.2017 to date

HOLDING PATENTS**NATIONAL AND INTERNATIONAL AWARDS AND ACCOLADES FOR RESEARCH ACTIVITY**

- Marie Skłodowska-Curie Individual Fellowship European Commission (EU Horizon 2020). January 2018.
- Manuscript selected to integrate the special issue Cell Stem Cell Best of the Year 2017.
- Victor and Ruth Schulman Award for Outstanding Research. June 2016. University of California, San Diego (USA).

- Award Foundation Engenheiro António de Almeida for the best biology student (class of 2006). May 2007. University of Porto (Portugal)
- Doctoral Fellowship (SFRH / BD / 32983 / 2006). Portuguese Foundation for Science and Technology (1/2007 to 12/2010).

SPEAKING AT CONFERENCES AND CONVENTIONS OF INTERNATIONAL INTEREST

- Hamburg Heart Days, Hamburg, Germany. May 2019
“Targeting fibrosis to promote cardiac regeneration”
- Keystone Conference on Cardiovascular Development and Regeneration, Taos, USA. January 2012
“Genetic pathways required for vascular smooth muscle phenotype”.

MANAGING, ORGANISATIONAL, AND SERVICE ACTIVITIES

MANAGING TASKS AND DUTIES UNDERTAKEN AT COLLEGIATE BODIES AND COMMITTEES, AT CONSIDERABLE PUBLIC AND PRIVATE INSTITUTIONS AND SCIENTIFIC AND CULTURAL ORGANISATIONS, OR AT THE UNIVERSITY OF MILAN OR AT OTHER UNIVERSITIES

(Specify task/duty, institution, date, etc.)

- Member of the DZHK (German Center for Cardiovascular Research) Professors working group responsible for deciding the theme and organizing the annual scientific meeting of the DZHK. 2018 to date.
- Founder and organizer of a cycle of conferences targeted to the lay public called “Biologia à Conversa”, or in English “Talking Biology” - <http://www.neb.up.pt/biologiaconversa.htm>. 2005
- Member of the founding committee of the association of biology students of University of Porto - NEBUP - <https://neb.up.pt/>. February 2004.

CLINICAL-AID ACTIVITIES

Date

25.08.2021

Place

Milano, Italy