

JOANA SILVA

SENIOR SCIENTIST



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ABOUT ME

I am a **molecular biologist** interested in understanding how ribosomes and RNA translation can affect cell fate.

My growing passion for social equity compelled me to **co-found a Green Labs team and co-manage the Diversity, Equity and Inclusion Committee** at The Netherlands Cancer Institute, both of which strive to implement policy changes to ensure the best possible opportunities for everyone.

I am a highly motivated person, with a strong work ethic and a curious spirit. I love working in a team, brainstorm on new ideas and think outside the box.

When I am not at work, you can find me enjoying live concerts, traveling and playing with illustration tools.

RESEARCH EXPERIENCE

Oct 2017 – present

Postdoctoral fellow at The Netherlands Cancer Institute (NKI Amsterdam) – Faller lab

Project: Role of RNA translation and ribosome dynamics in intestinal stem cell fate

EMBO Long-Term fellowship

Jan 2013 – Jun 2017

PhD candidate at the Institute for Research in Biomedicine (IRB Barcelona) – Stracker lab

Project: Functional analysis of a mitochondrial exonuclease in germ stem cell maintenance, aging and metabolism

FCT PhD fellowship

Sep 2008 – Dec 2012

Undergraduate fellow at Portuguese Institute of Oncology (IPO Porto) – Virology lab

Project: Study of genetic polymorphisms and transcriptomic profiles across tumors

Portuguese League Against Cancer fellowship

LANGUAGES

- Portuguese (native)
- English (fluent)
- Spanish (fluent)
- Greek (beginner)

SCIENTIFIC ACTIVITIES

- Co-coordinator of the Diversity and Inclusion Committee at The Netherlands Cancer Institute
 - Organising committee of educational seminar series on Feminism, Mental Health, Bystander Interventions and Gender Disparities in Scientific Studies
- Co-founder of the Green Team at The Netherlands Cancer Institute
- Co-creator of the science-com S.H.I.T. show (Science&Health Informal Talk show)
- Editor and author at the scientific communication blog ivoryembassy.com (*past*)
- Tutor for the Crazy About Biomedicine Outreach Program at the IRB Barcelona (*past*)
- Organizing Committee for several scientific conferences
- Co-supervisor of several bachelor, master and PhD students

COURSES

- Project Management for Scientists
- Applying Design Principles to Schematic Figures
- Manuscript and Grant Writing
- Scientific presentations

TECHNICAL SKILLS

Organoid and cell culture; Ribosome profiling; RNA sequencing; CRISPR screen; Seahorse analysis; Immunoprecipitation; RT-qPCR; Western Blot; Mouse and Drosophila models.

PUBLICATIONS IN PEER-REVIEWED JOURNALS

Molenaar TM, Malik M, [Silva J](#), Liu NQ, Haarhuis JHI, Ambrosi C, Kwesi-Maliepaard EM, van Welsem T, Baubec T, Faller WJ and van Leeuwen F (2022). The histone methyltransferase SETD2 negatively regulates cell size. **J Cell Sci.** 135(19), jcs259856

[Silva J](#), Alkan F, Ramalho S, Snieckute G, Prekovic S, Krotenberg Garcia A, Hernandez-Perez S, van der Kammen R, Barnum D, Hoekman L, Altelaar M, Zwart W, Suijkerbuijk SJE, Bekker-Jensen S and Faller WJ (2022). *Ribosome impairment regulates intestinal stem cell identity via ZAKa activation.* **Nat Commun.** 13(1), 4492

Alkan F, Wilkins O, Hernandez-Perez S, Ramalho S, [Silva J](#), Ule J and Faller WJ (2022). *Identifying ribosome heterogeneity using ribosome profiling data.* **Nucleic Acids Res.** 50(16), e95

Prekovic S, Schuurman K, Mayayo-Peralta I, Manjon AG, Buijs M, Yavuz S, Wellenstein MD, Barrera A, Monkhorst K, Huber A, Morris B, Lieftink C, Chalkiadakis T, Alkan F, [Silva J](#), Gyorffy B, Hoekman L, van den Broek B, Teunissen H, Debets DO, Severson T, Jonkers J, Reddy T, de Visser KE, Faller W, Beijersbergen R, Altelaar M, de Wit E, Medema R and Zwart W (2021). *Glucocorticoid receptor triggers a reversible drug-tolerant dormancy state with acquired therapeutic vulnerabilities in lung cancer.* **Nat Comms.** 12(1), 4360

Martins Garcia T, van Roest M, Vermeulen JLM, Meisner S, Smit WL, [Silva J](#), Koelink PJ, Faller WJ, Wildenber ME, van Elburg RM, Muncan V and Renes IB (2021). *Early Life Antibiotics Influence In Vivo and In Vitro Mouse Intestinal Epithelium Maturation and Functioning.* **Cell Mol Gastroenterol Hepatol.** 12(3), 943-81

Alkan F*, [Silva J](#)*, Pinto Barbera E and Faller WJ (2021). *Ribo-ODDR: oligo design pipeline for experimental-specific rRNA depletion in Ribo-Seq.* **Bioinformatics.** 37(17), 2659-67

[Silva J](#), Aivio S, Knobel PA, Bailey LJ, Casali A, Vinaixa M, Garcia-Cao I, Coyaud E, Jourdain AA, Perez-Ferreros P, Rojas AM, Antolin-Fontes A, Samino-Gene S, Raught B, Gonzalez-Reyes A, Ribas de Pouplana L, Doherty AJ, Yanes O and Stracker TH (2018). *EXD2 governs germ stem cell homeostasis and lifespan by promoting mitoribosome integrity and translation.* **Nat Cell Biol.** 20(2), 162-74

Teixeira AL, Ferreira M, [Silva J](#), Gomes M, Dias F, Santos JI, Mauricio J, Lobo, F and Medeiros R (2014). *Higher circulating expression levels of miR-221 associated with poor overall survival in renal cell carcinoma patients.* **Tumor Biol.** 35(5), 4057-66.

Pereira C, Sousa H, [Silva J](#), Brandao C, Elgueta-Karstegl C, Farrell PJ, Medeiros R and Dinis-Ribeiro M (2014). *The -1995G allele increases the transcriptional activity of cyclooxygenase-2 gene (COX-2) in colon cancer cell lines.* **Mol Carcinog.** 53(1), E92-5.

[Silva J](#), Teixeira AL, Lobo F, Mauricio J and Medeiros R (2012). *DNA Repair System and Prostate Cancer Progression: The role of NBS1 polymorphism (rs1805794).* **DNA Cell Biol.** 31(7), 1182-6.

Fontenete S*, [Silva J](#)*, Pina F and Medeiros R (2011). *Controversies in using urine samples for prostate cancer detection: PSA and PCA3 expression analysis.* **Int Braz J Urol.** 37(6), 719-26.

Lima L, [Silva J](#), Amaro T, Morais A, Lopes C, Medeiros R, Videira PA and Santos L (2010). *IL-4 and TNF- α Polymorphisms Are Associated with Risk of Multiple Superficial Tumors or Carcinoma in situ Development.* **Urol Int.** 87(4), 457-63.

CONFERENCES (AS PRESENTING AUTHOR)

Translation control in cancer development and microenvironment interactions, 17-19 November 2022, Barcelona, Spain (**short talk**)

Ribosome Structure and Function, 10-14 July 2022, Bordeaux, France (**poster presentation**)

1st Dutch RNA Conference, 13-14 May 2022, Leiden, The Netherlands (**poster presentation**)

EMBO Workshop - Protein Synthesis and Translational Control, 7-10 September 2021, Heidelberg, Germany/Virtual (**short talk**)

OncoCode Annual Meeting, 7-8 September 2020, Rotterdam, The Netherlands/Virtual (**short talk**)

EMBO Workshop - Protein Synthesis and Translational Control, 4-7 September 2019, Heidelberg, Germany (**poster presentation**)

Ribosome Structure and Function, 6-10 January 2019, Merida, Mexico (**poster presentation**)

XXIII Developmental Biology Meeting, 18 November 2016, Barcelona, Spain (**short talk**)

2nd IRB Barcelona PhD Retreat, 11-12 November 2016, Barcelona, Spain (**poster presentation**)

Cell Symposium - Aging and Metabolism, 10-12 July 2016, Sitges, Spain (**poster presentation**)

VII GINBAR, 14 February 2016, Barcelona, Spain (**short talk**)

BioMed conference on *Drosophila* as a model in cancer, 15-17 June 2015, Barcelona, Spain (**poster presentation**)

EMBO|EMBL Symposium - Frontiers in Metabolism: From Molecular Physiology to Systems Medicine, 17-20 November 2014, Heidelberg, Germany (**short talk**)

1st IRB Barcelona PhD Retreat, 14-15 November 2014, Barcelona, Spain (**poster presentation**)

IV GINBAR, 5 February 2014, Barcelona, Spain (**short talk**)

The DNA damage response in human disease, 28-30 May 2012, Barcelona, Spain (**poster presentation**)

2nd IRB Barcelona PhD Symposium - Life in Motion: dynamics of molecules and systems, 17-18 November 2011, Barcelona, Spain (**poster presentation**)