

# ALICIA L. BRUZOS, PhD

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## PERSONAL INFORMATION

*Date of birth:* 29-March-1993 (32 years old)

*Nationality:* Spain

*Address:* Rua Maria Casares, 5 - 1°C. 15706, Santiago de Compostela (A Coruña), SPAIN.

*Phone:* +34 644 957 498

## EDUCATION

- Sep 2016 - Sep 2022 **PhD in Molecular Medicine**, Universidade de Santiago de Compostela, SPAIN.  
Title: "*Evolution of bivalve transmissible cancers*". *Cum laude*<sup>1</sup>. International mention.
- Sep 2023 - Feb 2025 **MSc in University Teaching**, Universidad Europea de Madrid (*online*), SPAIN.
- Sep 2015 - Jul 2016 **MSc in Bioinformatics**, Universitat Autònoma de Barcelona, SPAIN.
- Sep 2011 - Jul 2015 **BSc in Biology**, Universidade de Santiago de Compostela, SPAIN. Erasmus year at Université Libre de Bruxelles, BELGIUM.

**Languages:** English C1\* (*IELTS* certification in July 2021, *CAE* in December 2014); French B2\* (*DELTA* certification in May 2020); German A2\*; Galician C1\* (*Celga* certification in July 2011); Spanish C2\* (native).

\*According to *The Common European Framework of Reference for Languages*

## ACADEMIC POSITIONS

- Sep 2025 - on hold **Junior PI researcher (Minerva Fast Track fellowship)**. Max Planck Institute for Marine Microbiology, GERMANY. *Symbiosis Dept.*
- Jul 2023 - ongoing **Postdoctoral researcher (Marie Skłodowska-Curie fellowship)**. *Current position*. Université de Caen Normandie, FRANCE. *Supervisors:* Camille Détrée and Pascal Claquin. *BOREA Lab.*
- Sep 2021 - Apr 2023 **Research scientist**. The Francis Crick Institute, University College London, UNITED KINGDOM. *Supervisor:* Veronica Kinsler. *Precision Medicine Lab.*
- Sep 2016 - Sep 2021 **Predoctoral student (Spanish national predoctoral fellowship)**. University of Santiago de Compostela and University of Vigo, SPAIN. *Supervisor:* Seila Díaz. *Mobile genomes lab* led by Jose Tubio.

## SHORT RESEARCH STAYS AS A VISITING SCIENTIST

- 2024, Jul-Aug **Centro de Ciências do Mar (CCMAR)**, Algarve, PORTUGAL. Lab led by Ana M Amaral. *Funding:* AquaExcel TNA grant.
- 2021, Jan-Apr **Korea Advanced Institute of Science and Technology (KAIST)**, Daejeon, SOUTH KOREA. Lab led by Youngseok Ju. *Funding:* grant of Boehringer Ingelheim Fonds.
- 2020, Sep-Dec **Universidade de Vigo**, Vigo, SPAIN. Lab led by David Posada.
- 2019, Mar-Apr **University of Galway**, Galway, IRELAND. Lab led by Mark Johnson. *Funding:* Assemble Plus (grant agreement no. 730984).
- 2018, Sep-Dec **Pacific Northwest Research Institute (PNRI)**, Seattle, USA. Lab led by Michael Metzger. *Funding:* Spanish Ministry of Science (ref. BES-2016-078166).
- 2014, Jun-Jul **Université Libre de Bruxelles**, Brussels, BELGIUM. Summer internship at the Evolutionary Biology and Ecology Unit. *Supervisor:* Prof Patrick Mardulyn.

## MAJOR RESEARCH INTERESTS

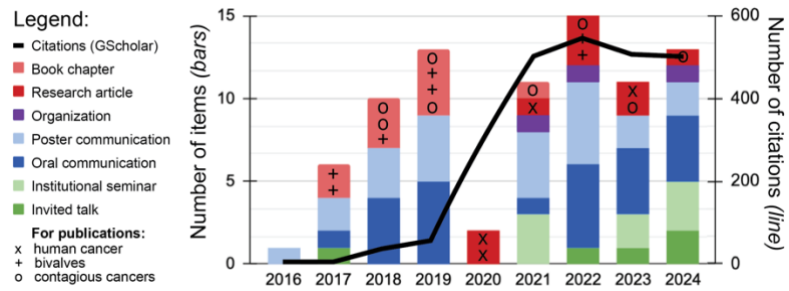
- Evolution of marine contagious cancers
- Cancer genomics and imaging
- Development of cell lines

<sup>1</sup> In Spain, doctoral theses that are graded as '*excellent*' may also be awarded a '*cum laude*' mark which requires unanimous agreement among the members of the evaluation board (secret ballot).

SCIENTIFIC PUBLICATIONS<sup>2</sup>

ORCID: 0000-0003-4362-545X

I have authored 10 peer-reviewed JCR Q1 publications (8 of which are D1, international SCI journals), and 10 book chapters with ISBN (6 of which as first author). Notably, I am first author on 4 publications, the corresponding author on one, and 5 are not co-authored by my thesis director, reflecting my capacity for autonomous research. My work has garnered over 1,800 accumulated citations (GScolar, WOS, ResearchGate, Scopus).



1. Santamarina, M; **Bruzos, AL**<sup>2/5</sup>; Pequeño, A; Rodríguez-Castro, J; Díaz, S. (2024) Novel PCR molecular assay for the identification of marine transmissible cancers from *Cerastoderma edule*. In: **Journal of Invertebrate Pathology**, 207: 108232. [doi.org/10.1016/j.jip.2024.108232](https://doi.org/10.1016/j.jip.2024.108232) (OA). IF(2022) = 3.60, JCR rank (2023) 7/181 (Q1).
2. **Bruzos, AL**<sup>1/45\*</sup>; Santamarina, M\*; García, D\*; ... Tubío, JMC. (2023) Somatic evolution of marine transmissible leukemias in the common cockle, *Cerastoderma edule*. In: **Nature Cancer**, 4:1575-1591. [doi.org/10.1038/s43018-023-00641-9](https://doi.org/10.1038/s43018-023-00641-9) (download here). IF(2022) = 22.7, JCR rank (2022) 12/241 (D1). Issue cover.
3. Martín, SB\*; Polubothu, S\*; **Bruzos AL**<sup>3/18\*</sup>; ... Kinsler, VK. (2023) Mosaic BRAF fusions are a recurrent cause of congenital melanocytic naevi targetable by MEK inhibition. In: **Journal of Investigative Dermatology**, 144(3):593-600. [10.1016/j.jid.2023.06.213](https://doi.org/10.1016/j.jid.2023.06.213) (OA). IF(2022) = 6.5, JCR rank (2022) 6/70 (D1).
4. Garcia-Souto, D\*; **Bruzos, AL**<sup>2/20\*</sup>; Diaz, S\*; ... Tubío, JMC. (2022) Mitochondrial genome sequencing of marine leukemias reveals cancer contagion between clam species in the Seas of Southern Europe. In: **eLife**, 11:e66946. [doi.org/10.7554/eLife.66946](https://doi.org/10.7554/eLife.66946) (OA). IF(2022) = 7.7, JCR rank (2022) 7/92 (D1).
5. Hermida, M et al. (includes **Bruzos, AL**<sup>5/8</sup>). (2022) The first high-density genetic map of common cockle (*Cerastoderma edule*) reveals a major QTL controlling shell color variation. In: **Scientific Reports**, 12:16971. [10.1038/s41598-022-21214-3](https://doi.org/10.1038/s41598-022-21214-3) (OA). IF(2022) = 4.6, JCR rank (2022) 22/73 (Q2).
6. Ricardo, F et al. (includes **Bruzos, AL**<sup>3/8</sup>). (2021) Assessing the elemental fingerprints of cockle shells to confirm their geographic origin from regional to international spatial scales. In: **Science of the Total Environment**, 814:152304. [10.1016/j.scitotenv.2021.152304](https://doi.org/10.1016/j.scitotenv.2021.152304) (download here). IF(2021) = 10.753, JCR rank (2021) 26/279 (D1).
7. Álvarez, EG et al. (includes **Bruzos, AL**<sup>13/43</sup>). (2021) Aberrant integration of Hepatitis B virus DNA promotes major restructuring of human hepatocellular carcinoma genome architecture. In: **Nature Communications**, 12:6910. [doi.org/10.1038/s41467-021-26805-8](https://doi.org/10.1038/s41467-021-26805-8) (OA). IF(2021) = 17.694, JCR rank (2021) 6/73 (D1).
8. Rodriguez-Martin, B et al. (includes **Bruzos, AL**<sup>15/53</sup>). (2020) Pan-Cancer analysis of whole genomes identifies driver rearrangements promoted by LINE-1 retrotransposition. In: **Nature Genetics**, 52:306-319. [doi.org/10.1038/s41588-019-0562-0](https://doi.org/10.1038/s41588-019-0562-0) (OA). IF(2020) = 38.333, JCR rank (2020) 2/175 (D1).
9. The ICGC/TCGA Pan-Cancer Analysis of Whole Genomes Consortium (includes **Bruzos AL**, position 60 of 1340 authors, corresponding authors are Campbell, PJ; Getz, G; Korb, JA; Stuart, JM; Stein, LD). (2020) Pan-Cancer analysis of whole genomes. In: **Nature**, 578:82-93. [doi.org/10.1038/s41586-020-1969-6](https://doi.org/10.1038/s41586-020-1969-6) (OA). IF(2020) = 49.962, JCR rank (2020) 1/73 (D1). Issue cover
10. Riachi, M et al. (includes **Bruzos, AL**<sup>7/26</sup>). (2025) Keratinocyte cholesterol deficiency is a druggable final common pathway in hyperproliferative inflammatory skin disease. Accepted for publication in **Journal of Investigative Dermatology**. IF(2022) = 6.5, JCR rank (2022) 6/70 (D1).



<sup>2</sup> The \* denotes first authorship (publications 1, 2 and 3); <sup>0/0</sup> denotes (my position / total number of authors); OA=open access.  
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## SELECTED INVITED PRESENTATIONS

I have presented my research at **52 national and international conferences** across **nine countries**. This includes **5 invited talks**, **20 oral presentations** delivered by myself, **23 poster presentations** (13 of which I personally presented), and **6 award-winning contributions** (3 for best talk and 3 for best poster). Additionally, I have served on the scientific and organizing committees of **3 conferences** - in Spain, the UK, and France. Beyond conferences, I have been invited to deliver **8 core seminars** at scientific institutions in 4 different countries. Below a selection of presentations:

- **International Symposium on Coastal Ecological Health**. San Fernando, CHILE (25/11/2024). *Evolutionary history of contagious cancers in cockles and clams*.
- **Bivalve Transmissible Neoplasia Workshop**. La Rochelle, FRANCE (14/11/2024 - 15/11/2024). *Evolution of bivalve transmissible cancers*.
- **48th FEBS congress**. Milan, ITALY (29/06/2024 - 3/07/2024). *Evolution of cockle contagious cancers characterized by genomic instability*. J. FEBS Open Bio 2024 14, [doi.org/10.1002/2211-5463.13836](https://doi.org/10.1002/2211-5463.13836)
- **EMBO molluscs genomics**. Namur, BELGIUM (27/05/2024 - 31/05/2024). *Genomic insights into the evolutionary history of marine transmissible cancers*.
- **2nd International Ocean Health Symposium**. Kiel, GERMANY (29/08/2022 - 31/08/2022) *Clonal evolution of a marine transmissible cancer that colonizes the Atlantic coast of Europe*.

## AWARDS AND HONORS

I have been a finalist or awardee in **13 national and international competitions** recognizing my research and outreach efforts. Among them, I would like to highlight:

- **'For Women in Science' Young Talents Award** (Fondation L'Oréal-UNESCO, France, 2024). Awardee (20,000€), recognizing the excellence and impact of my research.
- **W.D. Hamilton Award** (Society for the Study of Evolution, USA, 2023). Finalist (500\$), awarded for outstanding contributions by early-career researchers in evolutionary biology.



Other awards include:

- **Best Talk Prize** (2023, 2022). Reunión de jóvenes investigadores/as en el extranjero, Spain.
- **Outreach Award in Medicine and Health** (2023). Fundación Lilly & The Conversation, Spain. *Finalist*.
- **3MT Video Award: Cuéntame11F** (2022). Citizen initiative 11 febrero, Spain. *First place*.
- **Women's Name Award: Scientific Vocations** (2022). Fundación Merck Salud, Spain.
- **IDEAX21 - International Creative Jam** (2020). Xunta de Galicia, Spain.
- **Best Scientific Panel Prize** (2019, 2017). Foro Acui, Spain. *First place* (450€ in 2019; 400€ in 2017).
- **National Speech Competition** (2015). Club de Debate Compostela, Spain. *Finalist*.
- **Best Poster Prize** (2015). Genetics Department, Univ. Santiago de Compostela, Spain. *First place*.
- **Open Software Translation Award** (2013). USC Engineering Tech. School, Spain. *First place* (600€).

## FUNDING

### Competitive fellowships:

- 2024 **Minerva Fast Track Fellowship (2024-2027)**. Max Planck Society, GERMANY. **ON HOLD**.
- 2023 **National Postdoctoral 'Juan de la Cierva' Fellowship (2024-2026)**. Spanish Ministry of Science (ref. JDC2022-048396-I), SPAIN. **DECLINED to accept the MSCA in France**.
- 2023 **EU MSCA Fellowship (2023-2025)**. Marie Skłodowska-Curie Actions (MSCA-cofund) and Région Normandie (ref. 101034329), EU and FRANCE. **ONGOING**.
- 2017 **National Doctoral Fellowship (2017-2021)**. Spanish Ministry of Economy, Industry and Competitiveness (ref. BES-2016-078166), SPAIN. **CONCLUDED**.
- 2013 **Erasmus scholarship (2013-2014)**. European Union. **CONCLUDED**.
- 2009 **Summer Exchange scholarship (1 month)**. Alliance Française, FRANCE. **CONCLUDED**.

**Research projects:** I have secured funding from **five international projects** of over 40,000€: an *Exploration Fund Grant* (5,000€) from The Explorers Club (USA) in 2024; a *FOVI project* (ref. FOVI230047; 30,000€) in 2023 as a collaborator from Gobierno de Chile; 2 *EU transnational access TNA grants* (together over 10,000€), one for Ireland in 2019 (Assemble+) and the other one for Portugal in 2024 (AquaExcel3.0); and a *BIF grant* (2,370€) from Boehringer Ingelheim Fonds (Germany) in 2021.

### Travel/conference grants:

- 2024 **FEBS YSF grant**. Federation of European Biochemical Societies (FEBS). **Budget:** ~1.000,00 €
- 2024 **MCAA micro grant**. Marie Curie Alumni Association (MCAA). **Budget:** 1.000,00 €.
- 2023 **Mangold Fellowship**. Lindau Nobel Laureate Meeting, Germany. **Budget:** 560,00 €.
- 2022 **SEBBM grant**. Sociedad Española de Bioquímica y Biología Molecular, Spain. **Budget:** 100,00 €.
- 2017 **EuroMarine Young Scientist Fellowship**. European Marine Research Network. **Budget:** 500,00 €.

## **MENTORING OF STUDENTS**

I have supervised **five undergraduate and master's students** during their theses in France and Spain. **Most recently**, I mentored Angèle Moulin (Université de Caen Normandie, 2023-2024) and Géo Bujard (Sorbonne Université, 2023-2024) during their master's thesis. **Earlier**, I supervised the undergraduate theses of Andrea E. Arias Díaz (Universidade de Santiago de Compostela, 2020-2021), who received an award for her degree thesis, Ana Copena Soutelo (U. de Santiago de Compostela, 2019-2020), the master thesis of Iago Otero Coto (Universidade da Coruña, 2019-2020), and the international student Artemisia Ntoulia (University of Patras, Greece) during an Erasmus internship at U. de Santiago de Compostela (summer 2019). These experiences have allowed me to support early-career researchers while contributing to the scientific project that I was carrying out at that moment.

## **HIGH EDUCATION TEACHING**

I have gained teaching experience (**132.5 certified teaching hours**) at five public universities across four countries (Spain, UK, France, and Chile), delivering theoretical and laboratory sessions in different languages (English, Spanish/Galician, and French) to undergraduate and master's students across fields such as Biology, Medicine, and Bioinformatics. Highlights include lecturing in the MSc *Sciences de la Mer* program at Université de Caen Normandie (2023-2025), teaching medical students at University College London (2021-2023), contributing to genetics courses at U. de Santiago de Compostela (2017-2021), and recent contributions at the Universidad de O'Higgins (7.5 hours, 2024 with the FOVI project). These experiences have improved my ability to adapt to diverse academic settings.

## **SERVICE TO THE COMMUNITY**

- **Conference organization.** I have been involved in **organizing 3 conferences**: the VIII Young Researchers Meeting (2021), with 300 attendees, 135 oral presentations, and 67 posters (we edited a book of abstracts with ISBN) hosted by USC (Spain); the 5th Crick Postdoc Symposium (2022), which brought together 160 participants for 2 plenary talks, 11 short oral presentations, and 38 posters (we gave 4 prizes) hosted by The Crick (UK); and the Chilean Coastal Ecological Health Symposium (2024), with 30 attendees, 4 plenary talks, and a panel discussion; hosted by UNICAEN (France).
- **Reviewing activity.** I have been invited to review five manuscripts for the international community in highly-recognized journals: 1 *Science*, 1 *Molecular Ecology*, 1 *Science Advances*, 1 *Proc. Biol. Sci.*, 1 *Scientific Rep* (see verified reviews on Publons: D-7235-2018).
- **Member of juries and evaluation committees.** I have been the external evaluator of two PhD thesis (L. Tomás, U. de Vigo, 2024; A. Guitián Caamaño, U. da Coruña, 2024), and I have recently served on the jury of Galicia Spin-Off Awards (2024), called and organized by GCiencia.
- **Institutional citizenship.** I have served as an elected spokeswoman for doctoral students on the committees of the International Doctoral Schools at *Universidade de Santiago de Compostela* (2021-2022) and *Universidade de Vigo* (2017-2018). In Vigo, I was also part of its Quality Commission.
- **Professional membership:** I am an active member of the *Marie Curie Alumni Association* (MCAA) since 2023 and the *European Association for Cancer Research* (EACR) since 2019.

## **OUTREACH ACTIVITY**

I have actively participated in **over 40 public science outreach events**, including 16 school visits (Spain, UK, France), 12 popular science articles (e.g., *The Conversation*), 8 talks for the general public (e.g. *Pint of Science* in London, A Coruña, and Caen), 6 promotional videos (e.g., AquaExcel project), 5 workshops on scientific fairs, 3 opinion editorials, and 5 miscellaneous activities such as contributing to children's science colouring book or the school radio program of IES Mata Jove. **I am strongly committed to making science accessible, particularly in towns where opportunities to engage with scientists are limited.**

## **MEDIA COVERAGE**

Renowned media have featured my research publications and various scientific activities -such as outreach activities, awards, or career steps- in over 250 news items published in more than 40 media platforms across 10 countries. This includes *BBC radio*, *The New York Times*, *El País* or *La Voz de Galicia*, as well as in TV newscasts from 2 countries (*France3normandie*, *Televisión de Galicia*, *T. Princ. Asturias*, *Canal Sur*). Beyond promoting my research, I am often invited to share my opinion on scientific careers, current topics, or to advocate for women in science. **These initiatives highlight my dedication to science communication and my leadership in public engagement.** PR clipping: [albruzos.github.io/media](https://albruzos.github.io/media).

**REFERENCES:** Seila Díaz (UA, PT), Jose Tubío (USC, ES), Michael Metzger (PNRI, US), Youngseok Ju (KAIST, KR), Veronica Kinsler (UCL, UK), Céline Zatylny-Gaudin (UNICAEN, FR).

**SOCIAL MEDIA:**  [@BruzosAliciaL](#)  [@BruzosAliciaL](#)  [@alicialbruzos](#)  [@BruzosAliciaL](#)