

Esteban R. Arrieta-Bolaños, DrMBCC, MSc, PhD



25.11.1983, San José, Costa Rica

Postdoctoral scientist
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Scientific vita

- 2015 - Present** **Postdoctoral scientist**, Institute for Experimental Cellular Therapy, University Hospital Essen, Germany
- 2020 - 2023** **Fellow** of the *Deutsches Konsortium für Translationale Krebsforschung* (DKTK) School of Oncology
- 2010 - 2014** **PhD in Haematology**, Clinical Research Group, Anthony Nolan Research Institute, Royal Free & University College Medical School, UCL Cancer Institute, United Kingdom
- 2007 - 2014** **Lecturer and Research Associate**, Haematology section, Department of Clinical Analyses, Faculty of Microbiology and Centre for Research in Haematology and Related Disorders (CIHATA), University of Costa Rica, San José, Costa Rica
- 2007 - 2009** **Magister Scientiae – Microbiology**, University of Costa Rica
- 2009 - 2009** **Specialty in Clinical Immunology**, University of Costa Rica
- 2008 - 2008** **Visiting Scientist**, Anthony Nolan Trust Histocompatibility Laboratories, Research Institute, and Cell Therapy Centre, Royal Free Hospital, UCL, and Nottingham Trent University, United Kingdom
- 2006 - 2006** **Clinical Pathology Intern**, *Dr. Clodomiro Picado Twight* Clinical Laboratory, San Juan de Dios Hospital, San José, Costa Rica
- 2001 - 2006** **Doctor of Microbiology & Clinical Chemistry** (Clinical Pathology/Laboratory Medicine), University of Costa Rica

Selected coordinating functions and awards

- **Next Generation Award 2023**, German Society for Immunogenetics (DGI)
- **Julia Bodmer Award 2023**, European Federation for Immunogenetics (EFI)
- **Junior Coordinator**, Immunogenetics Subcommittee, Cellular Therapy & Immunobiology Working Party (CTIWP), European Society for Blood and Marrow Transplantation (EBMT)
- **Councillor to the Executive Committee**, 2020-2023, European Federation for Immunogenetics (EFI)
- **Member for the DGI and coauthor**, 2021 German Consensus on Donor Selection for Allogeneic Stem Cell Transplantation, DAG-HSZT & PAS&ZT & DGI working groups
- **DKTK School of Oncology Quick Pass 2021 (€5,000)**

- **Jon van Rood Best Abstract Award**, 34th European Immunogenetics and Histocompatibility Conference, Glasgow, 2021
- **DKMS John Hansen Research Grant 2021 (€240,000)**
- **Third Best Abstract Award**, 33rd European Immunogenetics and Histocompatibility Conference, Lisbon, 2019
- **Best Poster Award**, 32nd European Immunogenetics and Histocompatibility Conference, Venice, 2018
- **Adaptive Biotechnologies Young Investigator Award 2016 (\$5,000)**
- **Best Research Student Poster Award**, UCL Cancer Institute 5th Annual Conference and the 3rd Annual UCL Cancer Research UK Centre Conference, London, 2012
- **Life Technologies Best Young Scientist Poster Award**, The Joint 16th International HLA and Immunogenetics Conference/26th European Immunogenetics and Histocompatibility Conference/23rd BSHI Conference, Liverpool, 2012
- **Global Excellence Scholarship (£5,000)**, University College London, United Kingdom, 2010
- **1st Place**, National Examination for University Clinical Internship for Medical, Pharmacy, and Microbiology & Clinical Chemistry, Costa Rican Social Security (CCSS), 2005

Selected publications

- 1) Crivello P, **Arrieta-Bolaños E**, He M, Wang T, Fingerson S, Gadalla SM, Paczesny S, Marsh SGE, Lee SJ, Spellman SR, Bolon YT, Fleischhauer K. Impact of the HLA Immunopeptidome on Survival of Leukemia Patients After Unrelated Donor Transplantation. *J Clin Oncol*. 2023 May 1;41(13):2416-2427.
- 2) **Arrieta-Bolaños E**, Hernández-Zaragoza DI, Barquera R. An HLA map of the world: A comparison of HLA frequencies in 200 worldwide populations reveals diverse patterns for class I and class II. *Front Genet*. 2023 Mar 23;14:866407.
- 3) **Arrieta-Bolaños E**, Crivello P, He M, Wang T, Gadalla SM, Paczesny S, Marsh SGE, Lee SJ, Spellman SR, Bolon YT, Fleischhauer K. A core group of structurally similar HLA-DPB1 alleles drives permissiveness after hematopoietic cell transplantation. *Blood*. 2022 Aug 11;140(6):659-663.
- 4) Meurer T*, Crivello P*, Metzling MF, Kester M, Megger DA, Chen W, van Veelen PA, van Balen P, Westendorf A, Homa G, Layer SE, Turki AT, Griffioen M, Horn PA, Sitek B, Beelen DW, Falkenburg JHF, **Arrieta-Bolaños E***, Fleischhauer K*. Permissive HLA-DPB1 mismatches in HCT depend on immunopeptidome divergence and editing by HLA-DM. *Blood*. 2021 Feb 18;137(7):923-928. *Equal contribution
- 5) Barquera R*, Hernández-Zaragoza DI*, Bravo-Acevedo A*, **Arrieta-Bolaños E***, Clayton S*, Acuña-Alonzo V*, Martínez-Álvarez JC*, et al. The immunogenetic diversity of the HLA system in Mexico correlates with underlying population genetic structure. *Hum Immunol*. 2020 Sep;81(9):461-474. *Joint first authorship
- 6) van Balen P, Kester MGD, de Klerk W, Crivello P, **Arrieta-Bolaños E**, de Ru AH, Jedema I, Mohammed Y, Heemskerk MHM, Fleischhauer K, van Veelen PA, Falkenburg JHF. Immunopeptidome analysis of HLA-DPB1 allelic variants reveals new functional hierarchies. *J Immunol*. 2020 Jun 15;204(12):3273-3282.
- 7) Meurer T, **Arrieta-Bolaños E**, Metzling M, Langer MM, van Balen P, Falkenburg JHF, Beelen DW, Horn PA, Fleischhauer K, Crivello P. Dissecting Genetic Control of HLA-DPB1 Expression and Its Relation to Structural Mismatch Models in Hematopoietic Stem Cell Transplantation. *Front Immunol*. 2018 Oct 5;9:2236.
- 8) **Arrieta-Bolaños E***, Crivello P*, Shaw BE, Ahn KW, Wang H-L, Verneris MR, Hsu KC, Pidala J, Lee SJ, Fleischhauer K, Spellman SR. In silico prediction of nonpermissive HLA-DPB1 mismatches in unrelated HCT by functional distance. *Blood Adv*. 2018 Jul 24;2(14):1773-83. *Joint first authorship
- 9) **Arrieta-Bolaños E**, Crivello P, Metzling M, Meurer T, Ahci M, Rytlewski J, Vignali M, Yusko E, van Balen P, Horn PA, Falkenburg JHF, Fleischhauer K. Alloreactive T Cell Receptor Diversity

against Structurally Similar or Dissimilar HLA-DP Antigens Assessed by Deep Sequencing. *Front Immunol.* 2018 Feb 19;9:280.

- 10) **Arrieta-Bolaños E**, Mayor NP, Marsh SG, Madrigal JA, Apperley JF, Kirkland K, Mackinnon S, Marks DI, McQuaker G, Perry J, Potter MN, Russell NH, Thomson K, Shaw BE. Polymorphism in *TGFB1* is associated with worse non-relapse mortality and overall survival after stem cell transplantation with unrelated donors. *Haematologica.* 2016 Mar;101(3):382-90.

14.12.2023