

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



25.11.1983, San José, Costa Rica

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SCIENTIFIC VITA

2020	-	2023	Fellow of the Deutsches Konsortium für Translationale Krebsforschung (DKTK) School of Oncology
2015	-	Present	Postdoctoral scientist , Institut für Zelltherapeutische Forschung, Universitätsklinikum Essen, Essen, Germany
2010	-	2014	PhD - Haematology , Clinical Research Group, Anthony Nolan Research Institute, Royal Free & University College Medical School, University College London 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, University College London, and Nottingham Trent University, United Kingdom
2006	-	2006	Clinical Pathology Intern , <i>Dr. Clodomiro Picado Twight</i> Clinical Laboratory, San Juan de Dios Hospital, San José, Costa Rica
2001	-	2006	Doctor of Microbiology and Clinical Chemistry (Clinical Pathology/Laboratory Medicine), University of Costa Rica

MEMBERSHIP IN SCIENTIFIC AND PROFESSIONAL SOCIETIES

- European Federation for Immunogenetics (EFI)
- European Society for Blood and Marrow Transplantation (EBMT)
- Deutsche Gesellschaft für Immunogenetik (DGI)
- British Society for Histocompatibility and Immunogenetics (BSHI)
- Costa Rican College of Microbiologists and Clinical Chemists (CMQC)

FIELDS OF INTEREST

Immunogenetics of hematopoietic cell transplantation, alloreactivity, leukemia immunotherapy, genetic association studies, population genetics, genetic epidemiology, functional immunology, molecular diagnostics, human genetic diversity, human leukocyte antigen genetics.

AWARDS & HONORS

2020-2023	Elected Councillor to the Executive Committee , European Federation for Immunogenetics
May 2019	Third Best Abstract Award , 33 rd European Immunogenetics and Histocompatibility Conference, Lisbon, PT
May 2018	Best Poster Award , 32 nd European Immunogenetics and Histocompatibility Conference, Venice, IT
May 2016	Adaptive Biotechnologies Young Investigator Award (\$5,000)
February 2015	EFI Conference Travel Bursary (€750) , European Federation of Immunogenetics
June 2013	DNA Genotek 'Your Choice' Award (\$10,000)
May 2013	British Society for Histocompatibility and Immunogenetics Education and Training Bursary (£400)
June 2012	Best Research Student Poster Award , UCL Cancer Institute 5 th Annual Conference and the 3 rd Annual UCL Cancer Research UK Centre Conference. London, UK
June 2012	Life Technologies Best Young Scientist Poster Award , The Joint 16 th International HLA and Immunogenetics Conference/26 th European Immunogenetics and Histocompatibility Conference/23 rd British Society for Histocompatibility and Immunogenetics Conference. Liverpool, UK
May 2012	British Society for Histocompatibility and Immunogenetics Education and Training Bursary (£225)
April 2012	Kitty Cookson Travel Award (£250) , University College London Cancer Institute, United Kingdom
April 2012	EFI Conference Travel Bursary (€700) , European Federation of Immunogenetics
February 2011	COST Training School Grant (€400) , European network of the HLA diversity for histocompatibility, clinical transplantation, epidemiology and population genetics (HLA-NET)
January 2011	Graduate School Student Conference Award (£738) , University College London, United Kingdom
January 2011	Kitty Cookson Travel Award (£200) , University College London Cancer Institute, United Kingdom
November 2010	British Society for Histocompatibility and Immunogenetics Education and Training Bursary (£250)
2010–2014	PhD scholarship (\$46,000) , Costa Rican National Council for Scientific and Technologic Research (CONICIT)
2010–2014	PhD scholarship (\$154,000) , University of Costa Rica
April 2010	Global Excellence Scholarship (£5,000) , University College London, United Kingdom
November 2005	First Place , National Examination for University Clinical Internship for Medical, Pharmacy, and Microbiology and Clinical Chemistry Students, Costa Rican Social Security Authority (CCSS)

SELECTED PUBLICATIONS

- 1) Meurer T*, Crivello P*, Metzging 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*. 2020 Sep 6;blood.2020008464. *Equal contribution
- 2) 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 Jul 7:S0198-8859(20)30343-8. *Joint first authorship
- 3) 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.
- 4) **Arrieta-Bolaños E**, Oliveira DC, Barquera R. Differential admixture, human leukocyte antigen diversity, and hematopoietic cell transplantation in Latin America: challenges and opportunities. *Bone Marrow Transplant*. 2020 Mar;55(3):496–504.
- 5) **Arrieta-Bolaños E**, Fleischhauer K. Learning the next-generation sequencing alphabet of immune reconstitution: factors determining CD8⁺ T-cell receptor α -chain repertoire dynamics after hematopoietic stem cell transplantation. *Haematologica*. 2019 Mar;104(3):422-25.
- 6) Crivello P, Ahci M, Maaßen F, Wossidlo N, **Arrieta-Bolaños E**, Heinold A, Lange V, Falkenburg JHF, Horn PA, Fleischhauer K, Heinrichs S. Multiple Knockout of Classical HLA Class II β -Chains by CRISPR/Cas9 Genome Editing Driven by a Single Guide RNA. *J Immunol*. 2019 Mar 15;202(6):1895-1903.
- 7) Meurer T, **Arrieta-Bolaños E**, Metzging 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**, Madrigal-Sánchez JJ, Stein JE, Órlich-Pérez P, Moreira-Espinoza MJ, Paredes-Carias E, Vanegas-Padilla Y, Salazar-Sánchez L, Alejandro Madrigal J, Marsh SGE, Shaw BE. High-resolution HLA allele and haplotype frequencies in majority and minority populations of Costa Rica and Nicaragua: differential admixture proportions in neighboring countries. *HLA*. 2018 Jun;91(6):514–29.
- 10) **Arrieta-Bolaños E**, Crivello P, Metzging 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.
- 11) **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.
- 12) **Arrieta-Bolaños E**, Madrigal JA, Shaw BE. Novel alleles of the *TGFB1* regulatory region and exon 1. *Tissue Antigens*. 2015 Jun;85(6):484-91.
- 13) **Arrieta-Bolaños E**, Alejandro Madrigal J, Shaw BE. Human leukocyte antigen profiles of Latin American populations: differential admixture and its potential impact on hematopoietic stem cell transplantation. *Bone Marrow Res*. 2012;2012:136087. doi: 10.1155/2012/136087.