

EDUCATION

- PhD**, Immunology 2007
University of Erlangen-Nuremberg (Germany), Research Training Grant GK592
- Dissertation: NF-kB-mediated thymocyte survival during T-cell development
- MSc**, Biological Sciences 2002
Technical University of Munich (Germany)
- Diploma Thesis: Bacterial Hydrogen Sulphide Removal in biogas
- BSc**, Biological Sciences 2001
University of Malaga (Spain)

RESEARCH EXPERIENCE

Postdoctoral Research Associate

Department of Medicine, Vanderbilt University Medical Center (PI: Leslie Crofford) 2013-present

- Control of inflammatory immune responses by eicosanoids in autoimmunity.

Department of Immunology, Duke University Medical Center (PI: Thomas Tedder) 2008-2012

- Mechanisms of immune regulation mediated by B cells in mouse models of Inflammatory Bowel Disease (IBD) and type-1 diabetes.
- Production of early-response antibodies and ontogeny of Interleukin-10 competent B cells.

Doctoral Research Assistant

Department of Internal Medicine, University Clinic of Erlangen (PI: Reinhard Voll) 2003-2007

- Pre-TCR mediated survival during T-cell development.
- Proteasome activity requirements for the development of B and T cells.

Collaboration

Department of Immunology, Mayo Clinic College of Medicine (PI: Marilia Cascalho) 2005

- Impact of B cell repertoire restrictions on T cell development.

Projects Support Scientist

Biotechnology and alternative energies company ATZ-EVUS, Germany 2001-2003

- Bacterial bioremediation for hydrogen sulphide removal in biogas

AWARDS AND HONORS

- Crohn's and Colitis foundation Career Development Award (\$245,000) 2015-2018
- American Association of Immunologists, Trainee Poster Award (\$300) 2015
- BD Biosciences Immunology research Grant (\$10,000) 2014
- Juvenile Diabetes Research Foundation, Postdoctoral Research Fellowship (\$97,928) 2010-2012
- American Association of Immunologists, Trainee Award (\$500 and travel allowance) 2011
- Bernard Amos Postdoctoral Research Award, Dept. of Immunology, Duke University (\$500) 2010
- FEBS Summer School of Immunology Award (2,300€) 2005
- German Research Foundation (DFG), GK592 Research Training Grant (41,400€) 2004-2007

PEER-REVIEWED ARTICLES

- Nyhoff, L.E., Barron B., Johnson EM., Bonami, RH., **Maseda, D.**, Han, W., Blackwell, TS., Crofford, L. and Kendall, P. (2016). *Bruton's tyrosine kinase deficiency inhibits autoimmune arthritis but fails to block immune complex mediated inflammatory arthritis*. Accepted at Arthritis and Rheumatology.
- Pabbisetty, SK., Rabacal, W, **Maseda, D**, Cendron, D, Collins, PL, Hoek, KL, Parekh, VV, Aune, TM and Sebzda, E. (2014). *KLF2 is a rate-limiting transcription factor that can be targeted to enhance regulatory T-cell production*. PNAS vol. 111 no. 269579-9584 doi:10.1073/pnas.1323493111
- **Maseda, D**, Bonami, R, Crofford, L. (2014). *Regulation of B lymphocytes and plasma cells by innate immune mechanisms and stromal cells in rheumatoid arthritis*. Expert Rev. Clin. Immunol. 10(06): 747-62.
- **Maseda, D**, Candando, K., Smith, S, Poe, J, Plevy, S, and Tedder, TF. (2013) *Peritoneal Cavity Regulatory B Cells (B10 Cells) Modulate IFN- γ +CD4+ T Cell Numbers during Colitis Development in Mice*. The Journal of Immunology 191:2780-2795.
- **Maseda, D**, Smith, S, DiLillo, D, Bryant, J, Candando, K, Weaver, C and Tedder, TF. (2011) *Regulatory B10 Cells Differentiate Into Antibody-Secreting Cells After Transient IL-10 Production In Vivo*. The Journal of Immunology 188:1036-1048.
- Neubert, K, Meister, S, Moser, K, Weisel, F **Maseda, D**, Amann, K, Winkler, T, Kalden, JR, Manz, RA, Voll RE. (2008). *The proteasome inhibitor bortezomib depletes plasma cells and protects mice with lupus-like disease from nephritis*. Nat. Med 14, 748-755
- **Maseda, D**, Meister, S, Neubert, K, Herrmann, M, Voll, RE. (2007). *Proteasome inhibition drastically but reversibly impairs murine lymphocyte development*. Cell Death and Diff. 15, 600-612
- Girkontaite I, Urbonaviciute, V, **Maseda, D**, Neubert, K, Herrmann, M, Voll, RE. (2007). *Apoptotic cells selectively suppress the Th1 cytokine IFN γ in stimulated human peripheral blood mononuclear cells and shift the Th1/Th2 balance towards a Th2 response*. Autoimmunity 40(4): 327-30
- Murciano, C, Ruiz, J, **Maseda, D**, Fernández, TD, Durán, I, Marín-Girón, F, Becerra, J and Marí-Beffa, M. (2001). *Ray and inter-ray blastemas interact to control bifurcations of Danio rerio fin rays*. Int. J. Dev. Biol. 45 (S1): S129-S130
- Murciano, C, Fernandez, TD, Duran, I, **Maseda, D**, Becerra, J, Akimenko, MA and Mari-Beffa M. (2002). *Ray-Interray Interactions During Fin Regeneration of Danio rerio*. Dev. Biol. Dec 15. 252:2. 214-24

SELECTED POSTERS AND PRESENTATIONS

- **Maseda, D**, Poe, J and Tedder, TF: *Production of IL-10 Overrides the Pro-Pathogenic Potential of B Cells as Antigen Presenting Cells in Type-1 Diabetes in NOD Mice*. FOCIS annual meeting, Vancouver, Canada. 2012.
- **Maseda, D**, Smith, S, Poe, J and Tedder, TF: *Regulatory B10 cells within the peritoneal cavity delay colitis onset by altering local T cell-specific IFN γ production*. AAI annual meeting. San Francisco. 2011. (Oral presentation)
- Smith, S, **Maseda, D**, Bryant, J, Weaver, C and Tedder, TF: *Regulatory B10 cells have the potential to differentiate into Antibody-secreting plasma cells*. AAI annual meeting. Baltimore. 2010. (Oral presentation)
- **Maseda, D** and Voll, R: *TCRbeta chain alone as a pre-TCR signal in developing lymphocytes*. 16th European congress of Immunology. Paris, France. 2006. (Poster)

- **Maseda, D**, Meister, S, Neubert, K, Herrmann, M and Voll, RE: *Proteasome Inhibitor Bortezomib abrogates T and B Cell Development in Mice. NF-kB: 20 years on the road from biochemistry to pathology*” Keystone Symposia. 2006. (Poster)

TEACHING EXPERIENCE

College teaching

2009-present

- Participant in Vanderbilt’s Center For Teaching GradStep 2013 (full day workshop, Nashville, TN)
- Guest lectures and laboratory teaching in Human Physiology and Cell Biology at Meredith College (Raleigh, NC).
- Guest lectures and seminars in Immunology at Davidson College (Davidson, NC)
- Certificate in Teaching Biology program from Duke University
- Participant in the teaching IDEAS Workshop series from the Duke Center for Instructional Technology (Every Fall 2008-2012)

Education and Outreaching

2006-present

- Student Incentive Awards from the Duke Center for Science Education (Project title: “How Does the Immune System Sense an Infection?”), Duke/Hartwell Foundation Sleuths Summer Camp, the Watts Montessori School in Durham, and “Science under the Stars” outreaching event at Duke University.
- Judge and coordinator of judge’s team at the North Carolina State Science and Engineering Fair
- Design and coordination of practical laboratory courses for high school students. Erlangen, Germany.
- Coordination and presentation of outdoor and indoor events for communicating Science: “Day of Immunology” and Long Night of Sciences”. Erlangen, Germany.

Instructor of Spanish

2004-2005

- “Spanish as a foreign Language” at the VHS Amberg. German public school, Germany.
- “Introduction to Spanish” at the automotive company Grammer AG. Amberg, Germany.

ADDITIONAL EXPERTISE AND SKILLS

Patents

- Use Of Proteasome Inhibitors E.g. For The Elimination Of Durable Plasma Cells, And For Treating Diseases That Are Associated With Pathogenic Antibodies (DE 102008019916 A1).

Languages

- Fluent in Spanish, English and German

Spanish/English translation experience

- Independent translator contractor for American Journal Experts 2009-2013
- Manager, translator and proof-reader for CouchSurfing.org 2006-2010

Computer knowledge

- Proficient in molecular biology utility software (Ingenuity suite, BLAST, Uniprot, Clustal, ENSEMBL, Geneious, etc) and Image/Photograph Suites (Canvas, Adobe Photoshop, Gimp).
- Excellent proficiency with the Microsoft Office Suite (Word, Excel, PowerPoint)

Skills and community service

- Official BD LSRII Flow Cytometer Independent operator training course. 2008
- Collaboration in editing and proofreading scientific articles. 2006-present

For references, please see the acknowledgements section in the following articles: *Induction of inflammatory and immune responses by HMGB1–nucleosome complexes: implications for the pathogenesis of SLE*, The Journal of Experimental Medicine, 2008. Vol. 205:3007-3018, *Factors masking HMGB1 in human serum and plasma*, Journal of Leukocyte Biology. 2007;81:67-74, *Targeting B-cells Mitigates Autoimmune Diabetes in NOD Mice: What Is Plan B?*. Diabetes, 2009. Vol. 58:479-1481. *The Development and Function of Regulatory B Cells Expressing IL-10 (B10 Cells) Requires Antigen Receptor Diversity and TLR Signals*, The Journal of Immunology, 2009, 182, 7459-7472. *CD19: a promising B cell target for rheumatoid arthritis*, Nature Reviews Rheumatology 5, 572–577, 2009. *Regulatory B cells control T-cell autoimmunity through IL-21-dependent cognate interactions*, Nature 264-28, 2012. *Regulatory B cell expansion during Listeria infection governs innate and cellular immune responses in mice*, the Journal of Immunology 190. Vol 3 1158-1168, 2013.

- Volunteer for ToxicFree NC and Farmers' Labor Organization Committee in NC. 2009-2012
- Co-organization of the symposium "Regulators of the Adaptive Immune Response". Erlangen, Germany. 2006
- Workshops on: "Scientific Writing" and "Effective Poster Design and Presentation" instructed by Ruth Wilmoth (BioScript, Scientific Communication Consultancy). 2005-2006
- Official license to perform laboratory animal experiments (mouse, rat and rabbit). Category B according to FELASA (Europe) statements. 2004
- Radio Program Director in a local Radio in Benalmádena, Málaga, Spain . 1997-1999
- Collaborator in reforestation programs from the Environmental Department of the City Council of Benalmádena, Málaga, Spain. 1999
- Member of the Federation of the Societies of Biochemistry and Molecular Biology (FEBS) and the American Association of Immunologists (AAI).

External links to referred documents

- PhD Thesis publicly available from the University of Erlangen-Nuremberg: <http://www.opus.ub.uni-erlangen.de/opus/volltexte/2007/716/index.html>
- Duke University Science Education Center Award in 2010 and 2011: http://www.scied.duke.edu/index.php?option=com_content&view=article&id=91
- Bacterial bioremediation for hydrogen sulphide removal in biogas. (http://www.umsicht-suro.fraunhofer.de/content/dam/umsicht-suro/en/documents/produktblaetter_englisch/biosulfex_engl.pdf)