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Genetic variants contribute to differences in response and toxicity to drugs used in autoimmune diseases: Rheumatoid arthritis and systemic lupus erythematosus

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Citation

Dávila Fajardo, C. L. (2020, September 29). *Genetic variants contribute to differences in response and toxicity to drugs used in autoimmune diseases: Rheumatoid arthritis and systemic lupus erythematosus*. Retrieved from <https://hdl.handle.net/1887/136914>

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Issue date: 2020-09-29

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LIST OF PUBLICATIONS

Dávila-Fajardo CL*, Swen JJ*, Cabeza Barrera J, Guchelaar HJ. Genetic risk factors for drug-induced liver injury in rheumatoid arthritis patients using low-dose methotrexate. *Pharmacogenomics* 2013;14(1):63-73.

Márquez A, Ferreiro-Iglesias A, Dávila-Fajardo CL, Montes A, Pascual-Salcedo D, Perez-Pampin E, Moreno-Ramos MJ, García-Portales R, Navarro F, Moreira V, Magro C, Caliz R, Ferrer MA, Alegre-Sancho JJ, Joven B, Carreira P, Balsa A, Vasilopoulos Y, Sarafidou T, Cabeza-Barrera J, Narvaez J, Raya E, Cañete JD, Fernández-Nebro A, Ordóñez Mdel C, de la Serna AR, Magallares B, Gomez-Reino JJ, González A, Martín J. Lack of validation of genetic variants associated with anti-tumor necrosis factor therapy response in rheumatoid arthritis: a genome-wide association study replication and meta-analysis. *Arthritis Research & Therapy* 2014 Mar 11;16(2):R66.

Dávila-Fajardo CL*, Márquez A*, Pascual-Salcedo D, Moreno Ramos MJ, García-Portales R, Magro C, Alegre-Sancho JJ, Balsa A, Cabeza-Barrera J, Raya E, Martín J. Confirmation of -174G/C interleukin-6 gene promoter polymorphism as a genetic marker predicting anti-TNF treatment outcome. *Pharmacogenetics and Genomics* 2014;24:1-5.

Dávila-Fajardo CL, van der Straaten T, Baak-Pablo R, Medarde Caballero C, Cabeza Barrera J, Huizinga TW, Guchelaar HJ, Swen JJ. FcGR genetic polymorphisms and the response to adalimumab in patients with rheumatoid arthritis. *Pharmacogenomics* 2015;16(4):373-381.

Robledo G, Dávila-Fajardo CL, Márquez A, Ortego-Centeno N, Callejas Rubio JL, de Ramón Garrido E, Sánchez-Román J, García-Hernández FJ, Ríos-Fernández R, González-Escribano MF, Camps García MT, Castillo Palma MJ, Ayala Mdel M, Martín J. Association Between -174 Interleukin-6 Gene Polymorphism and Biological Response to Rituximab in Several Systemic Autoimmune Diseases. *DNA and Cell Biology* 2012;31(9): 1486-1491.

Robledo G, Márquez A, Dávila-Fajardo CL, Ortego-Centeno N, Rubio JL, Garrido Ede R, Sánchez-Román J, García-Hernández FJ, Ríos-Fernández R, González-Escribano MF, García MT, Palma MJ, Ayala Mdel M, Martín J. Association of the FCGR3A-158F/V Gene Polymorphism with the Response to Rituximab Treatment in Spanish Systemic Autoimmune Disease Patients. *DNA and Cell Biology* 2012;31(12): 1-7.

Márquez A*, Dávila-Fajardo CL*, Robledo G, Rubio JL, de Ramón Garrido E, García-Hernández FJ, González-León R, Ríos-Fernández R, Barrera JC, González-Escribano MF, García MT, Palma MJ, del Mar Ayala M, Ortego-Centeno N, Martín J. IL2/IL21 region polymorphism influences response to rituximab in systemic lupus erythematosus patients. *Mol Biol Rep* 2013;40(8): 4851-4856.

CURRICULUM VITAE

Cristina Lucía Dávila Fajardo was born in Granada, Spain on August 7th 1977. After finishing her secondary school at Regina Mundi College in Granada in 1995, she started her Pharmacy study at Granada University. In 2000 she obtained her pharmacy Degree and then she moved to Madrid for doing her thesis in Centro de Investigaciones Biológicas (CIB-CSIC) after getting a national grant from Spanish Ministry of Science and Technology. The defense of her thesis was completed in 9th February 2006. This Thesis was related to the molecular basis of antibiotic resistance plasmid and structure of proteins. In May 2016 she went to Imperial College of London for doing a short internship related to resolution protein structure by X-ray crystallography. In January 2007 she did the national exam for specialized medical training and in May 2007 she started her residency at the Clinical Pharmacy department from San Cecilio University hospital, Granada and it was completed in May 2011. During the 3rd and 4th years, she did an internship at the Clinical Pharmacy and Toxicology Department from Leiden University Medical Center, The Netherlands and she started working on the studies presented in this PhD thesis. After her residency, she received a grant from the Institute of Health Carlos III, the main Public Research Entity funding, dedicated to managing and carrying out biomedical research in Spain, and she could continue with the project of this thesis. Actually, Cristina lives in Granada and works as a clinical pharmacist and researcher in the field of pharmacogenetics at San Cecilio University Hospital at Granada.

ACKNOWLEDGEMENTS

In 2007 I started my residence in the Pharmacy department at San Cecilio University Hospital. I always thought that something could be done for improving health outcomes through research. Then Pharmacogenetics field was presented as a very relevant proposal for a clinical pharmacist as it promised to bring the patient closer to personalized medicine. In that search I found Prof. Henk-Jan Guchelaar who had done numerous studies in this area with very good results. I decided to write him to request a stay in his Pharmacy and Toxicology department at the LUMC and what was my surprise when I received a kind response accepting me as a rotating resident. For me, Prof. Henk-Jan Guchelaar has been a very important person in my professional career. Not only because of the knowledge that I have learned over the years thanks to him, but also because of the great person who is: very enthusiastic, concerned about his teammates and also knows how to achieve the expected results due to the great communication capacity he has. Thanks to him, and to all the companions of the LUMC Pharmacy service, this thesis, which in principle was not intended, has finally been able to defended. Among those colleagues I would like to highlight Jesse for all the help he has always given me with articles, designs, revisions, results... and René and Tahar for helping me in the laboratory with samples and devices. In recent years I have also been fortunate to be able to work with Cathelijne that has shown me the hardworking person and good companion she is. I would like to thank Wendy for all the help with the administrative part of the thesis. I would also like to thank Renate for all the help provided for the editing of the thesis that for me has been essential to defend it. And in general, thanks to all the people that I have been able to meet in the LUMC Pharmacy department.

To my Spanish colleagues, I would like to highlight a very nice group for me, they are the group of people who work in the Pharmacogenetics area in the Pharmacy Department and they are: Xando, Estefanía, Paloma, Alba and Ana. Thank you very much for being so hardworking and good companions. Thanks for sharing the best with the team, for your friendship and because thanks to your effort, little by little everything continues to improve, and in our hospital the implementation of Pharmacogenetics is already a reality from which the patients who come to our hospital benefit.

Finally, I would like to dedicate a few words to the most important people in my life, My Family. To my parents, José Augusto and Lucía, thank you for being such good parents, for all the support you always show me, for transmitting your great human values and for being a model for me. I tell you the same thing that I told you in my first thesis, because I think it is the most beautiful thing that a daughter can say to her parents: "Thank you for

giving me the best gifts that a human being can receive: The Life and a beautiful Family with the one to share it". And to my brothers, Raquel and José Augusto, I would like to thank you for your unconditional support and for showing me that geographical distance is not an inconvenience when there is a lot of love and affection involved. To my brother-in-law Martin, thanks for the opportunity you have given to me to know a new and very beautiful culture such as the Dutch one. To my nephews, Mateo and Lucas, I would like to thank you for the great opportunity you have given me to return to "know things as if it were the first time", it is wonderful to see you grow.

Thank you all for sharing these years with me.

