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Intraplaque angiogenesis and therapeutic targeting of angiogenesis

Parma, L.

Citation

Parma, L. (2020, October 15). *Intraplaque angiogenesis and therapeutic targeting of angiogenesis*. Retrieved from <https://hdl.handle.net/1887/137747>

Version: Publisher's Version

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Note: To cite this publication please use the final published version (if applicable).

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Author: Parma, L.

Title: Intraplaque angiogenesis and therapeutic targeting of angiogenesis

Issue date: 2020-10-15

List of publications

Plaque angiogenesis and intraplaque hemorrhage in atherosclerosis.

Parma L*, Baganha F*, Quax PHA, de Vries MR.
Eur J Pharmacology. 2017; 816:107-115.

Inhibition of 14q32 microRNA miR-495 reduces lesion formation, intimal hyperplasia and plasma cholesterol levels in experimental restenosis.

Welten SMJ, de Jong RCM, Wezel A, de Vries MR, Boonstra MC, Parma L, Jukema JW, van der Sluis TC, Arens R, Bot I, Agrawal S, Quax PHA, Nossent AY.
Atherosclerosis. 2017 Jun 261:26-36.

Adenosine-to-Inosine Editing of MicroRNA-487b Alters Target Gene Selection After Ischemia and Promotes Neovascularization.

van der Kwast RVCT, van Ingen E, Parma L, Peters HAB, Quax PHA, Nossent AY.
Circulation Research 2018 Feb 2;122(3):444-456.

Blockade of vascular endothelial growth factor receptor 2 inhibits intraplaque haemorrhage by normalization of plaque neovessels.

de Vries MR*, Parma L*, Peters HAB, Schepers A, Hamming JF, Jukema JW, Goumans MJTH, Guo L, Finn AV, Virmani R, Ozaki CK, Quax PHA.
J Internal Medicine. 2018; 285(1):59-74.

Prolonged hyperoxygenation treatment improves vein graft patency and decreases macrophage content in atherosclerotic lesions in ApoE3*Leiden mice.

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Cells. 2020 Feb 1;9(2).

Bis(maltolato)oxovanadium(IV) Induces Angiogenesis via Phosphorylation of VEGFR2

Parma L, Peters HAB, Johansson ME, Gutiérrez S, Meijerink H, de Kimpe S, de Vries MR and Quax PHA
Int. J. Mol. Sci. 2020, 21(13), 4643

Adenosine-to-Inosine editing of vasoactive microRNAs alters their targetome and function in ischemia.

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Molecular Therapy Nucleic Acids. July 2020

Small molecule mediated inhibition of bFGF reduces intraplaque angiogenesis and macrophage infiltration in accelerated atherosclerotic vein graft lesions in ApoE3*Leiden mice.

Parma L, Peters HAB, Simons KH, Lazzari P, de Vries MR, Quax PHA.
Manuscript under review.

Transketolase blockade reduces inflammation and angiogenesis in vitro.

Parma L, Schmit MC, Van Den Bogaert S, de Vries MR, Quax PHA.
Manuscript in preparation.

Curriculum Vitae

Laura Parma was born on the 29th of January 1990 in Italy. In July 2009 she graduated from the Liceo Scientifico A. Banfi in Vimercate and she obtained a high school Scientific Lyceum Diploma, including Biology and Physics. That same year, she started studying Biotechnology at the University of Milano. Afterward she studied Medical and Pharmaceutical Biotechnology at the University of Pavia and in September 2014 she obtained her MSc diploma. As a MSc student in medical biotechnology, her passion for molecular biology combined with a growing interest in taking an international challenge. As a result after completing her MSc degree she sought out an Erasmus+ internship fellowship at the surgery group of the Leiden University Medical Center to study new potential target for NIR Image-guided surgery in cancer biology under the supervision of Dr. Kees Sier.

Afterward she was selected for an Horizon2020 MSCA PhD position at the Leiden University Medical Center under the supervision of Prof. dr. Paul Quax and dr. Margreet de Vries. During the four years she studied different approaches to inhibit intraplaque angiogenesis in atherosclerosis and the results of her findings are described in this thesis. On July 1st, 2020, Laura started as a postdoctoral researcher in the lab of dr. Remco Megens at the Institute for Cardiovascular Prevention, Ludwig-Maximilians-University Munich, where she will study the role of CD8+ T-cell based nanomedicines in the local immunomodulation of atherosclerosis.

Acknowledgements

I would like to thank all the people that helped me in this journey that ends with the creation of this thesis.

Dear **professor Quax**, dear **Paul**, thank you for the past four years. Under your supervision I grew and became a more confident scientist. I really appreciated the freedom you gave me to explore new ideas and at the same time your ability to keep me on track. It was great to be part of your group!

Margreet, thank you for all the things you taught me during our long hours at the PDC. I discovered we had a lot of things in common, starting from our love for horses and our quite strong character. Thanks for the support and the endless help during the writing of this thesis.

Erna, my dear colleague, thanks for all the EC talks and teachings, I could not have had a better teacher. Thanks for all the pancakes, the coffees and for being there anytime I had a down moment and I needed a word with you. Thanks also for listening in the “what can we do?” situations.

My safe C7 room. Karin and Fab, thank you for the fun times and the stressful coffee stealing moments! **Valerie and Leontien**, you arrived during my last year but I could not imagine finishing my PhD without you. Thank you for the support, the great scientific talks, the late evening dinners at C7 and for always being there ready to help me during the writing of this thesis.

Eveline, Eva and Licheng my buddies from another floor. Thank you for the “staining trains”, for being Beyoncé fans, for trying to teach me some Chinese words and for all the fun we had in the lab.

Thank you also to the other Quaxies **Yaël, Alwin, Thijs, Sabine** and **Rob** for the time spent together. A big thank you to **Stefano** for supervising me during my secondment and to my students that helped me during the years, **Michele, Boyd, Sanne, Maurits** and **Siel**.

Un grazie alla mia **mamma**, al mio **papà**, a mio fratello **Marco** e alla mia nonna **Angelina** per il continuo supporto e aiuto. Senza di voi probabilmente non sarei qui oggi!

And finally, the biggest thank you goes to my C7 buddy, colleague, friend and boyfriend **Regi**. It's crazy to think that without this PhD I wouldn't have met you and that without you it would have been extremely more difficult to finish this PhD. I'm proud of what we achieved and what we are today!

