

## Ivan Tancevski

### Biographical sketch

Ivan Tancevski has a long-standing interest and track record of studies on lipoprotein metabolism and atherosclerosis. The major part of his research work is concentrated on macrophage Reverse Cholesterol Transport (RCT) and novel lipid-lowering strategies. In examining innovative approaches to promote the macrophage-to-feces RCT mechanism, Dr. Tancevski was the first to show that a novel class of lipid-lowering drugs, namely liver-selective thyroid hormone analogs promote the RCT and protect from atherosclerosis. His data on thyromimetics were presented at the annual meetings of the American Heart Association (AHA) and the European Lipoprotein Club (ELC). Subsequently, many invitations to write review articles followed, including one in the renowned journal *Pharmacology & Therapeutics*. Dr. Tancevski is the only scientist in Austria to have been awarded the Main Award of the Austrian Atherosclerosis Society (AAS) twice. For his work on the development of novel strategies to counteract cardiovascular disease, in 2009 he was awarded the Austrian Life Science Award (ALSA) as Austria's most promising young investigator in all disciplines. During the last years, Dr. Tancevski has established a world-wide scientific network, which was indispensable for the realization of his latest study published in *Cell Metabolism*. This study was conceived and led by Dr. Tancevski, and is co-authored by more than 40 scientists working at universities spread all over the world. Most importantly, this study will extend the current knowledge on the atheroprotective mechanisms of aspirin, and will pave the way for the design and development of novel lipid-lowering compounds based on the structure of bioactive lipid mediators including lipoxins. The work was featured as 'Research Highlight' in *Nature Reviews Endocrinology* and selected as pertaining to the 10 most important scientific breakthroughs in 'Systems Biology and Metabolomics' of the last 10 years by *Cell Metabolism*. To the person: The applicant finished his 6-yr clinical training in internal medicine in 2012, and is now an established group leader at the Department of Internal Medicine VI at Innsbruck Medical University.

### Curriculum vitae

Department of Internal Medicine II, Medical University Innsbruck  
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ORCID: 0000-0001-5116-8960

**Date of birth** 1 February 1978  
**Place of birth** Bozen, Südtirol, Italy  
**Citizenship** Italian

**Education**  
1997-2004 Study of medicine at Medical University Innsbruck (MUI)  
2002-2004 Doctoral thesis at the Dpt of Internal Medicine, MUI  
2004 MD

**Carrer History**  
2004-2007 PostDoc with Prof. Josef R. Patsch at the Department of Internal Medicine, MUI  
2007-2012 Assistant physician at the Department of Internal Medicine, MUI  
2012 Specialist in Internal Medicine, Department of Internal Medicine, MUI

2012-2015 Specialization in Infectious and Tropical Diseases, Department of Internal Medicine VI, MUI  
 since 2015 Associate professor and Habilitation in Internal Medicine  
 since 2015 Assistant medical director for the Department of Pneumology

**Fellowships, Awards**  
 ÖGES Austrian Society for Endocrinology and Metabolism (2005)  
 AAS Austrian Atherosclerosis Society (2007)  
 ALSA Austrian Life Science Award Young scientist of the year (2009)  
 ÖGES Austrian Society for Endocrinology and Metabolism (2010)  
 AAS Austrian Atherosclerosis Society (2010)  
 CAST Innsbruck Technology Award (2011)  
 OEGIT Austrian Society for Infectious and Tropical Diseases (2015)  
 OEGIM Austrian Society of Internal Medicine (2015)  
 Research Prize of the city of Innsbruck (2015)

**Publications** Number of publications=35, h-index=13, cited>430  
 average citation per item>7.96

**Patents** None

**Other Functions:** Reviewer for: Cell Metabolism, Blood, PLoS One, Immunology and Cell Biology, Biochimica Biophysica Acta, J Lipid research, J Internal Medicine, FEBS Letters, Endocrinology. Academic Editor for PLoS One. Austrian Atherosclerosis Society annual meeting: 2010-2013 as Organizing committee member

**Research Interests:** Molecular mechanisms in lipoprotein metabolism and inflammation in atherosclerosis development

**Funds obtained (in €, 4 most important ones)**

<b>MFI Medizinische Forschungsförderung Innsbruck No. 4316</b>	58,000	MFI Med. Uni. Innsbruck	2005-2007
<b>TWF Tiroler Wissenschaftsfond UNI-0404/420 and UNI-0404/965</b>	29,600	TWF Med. Uni. Innsbruck	2007-2009 2010-2012
<b>FWF Austrian Funding Agency Tand alone grant No. P23853-B13</b>	257,000	FWF	2011-2014
<b>Institut Meriéux Research Grant</b>	100,000	Meriéux	2015-2018

**PhD students since 2013**

<b>PhD Student</b>	<b>PhD Thesis</b>	<b>Start</b>	<b>Defense</b>	<b>Paper</b>
David Haschka	Pathways for pathogen control in macrophages via modulation of host iron homeostasis in Listeria and Salmonella infection	2012	2017	12

**International collaborators**

	<b>Project</b>	<b>Joint public.</b>	<b>lab for stay abroad</b>
Miranda van Eck (Leiden University, Leiden, NL)	Cholesterol metabolism and atherosclerosis	2	yes
Mats Rudling (Karolinska University, Stockholm, SE)	Hepatic sterol metabolome	5	yes

Charles N Serhan (Harvard, Boston, USA)	Lipid mediator physiology	0	yes
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### Ivan Tancevski; 10 most important scientific publications

1. Demetz E, Schroll A, Auer K, Heim C, Patsch JR, Eller P, Theurl M, Theurl I, Theurl M, Seifert M, Lener D, Stanzl U, Haschka D, Asshoff M, Dichtl S, Nairz M, Huber E, Stadlinger M, Moschen AR, Li X, Pallweber P, Scharnagl H, Stojakovic T, März W, Kleber ME, Garlaschelli K, Uboldi P, Catapano AL, Stellaard F, Rudling M, Kuba K, Imai Y, Arita M, Schuetz JD, Pramstaller PP, Tietge UJ, Trauner M, Norata GD, Claudel T, Hicks AA, Weiss G, **Tancevski I**. The arachidonic acid metabolome serves as a conserved regulator of cholesterol metabolism. **Cell Metab.** 2014 Nov 4;20(5):787-98. PMID: 25444678.
2. **Tancevski I**, Wehinger A, Schgoer W, Eller P, Cuzzocrea S, Foeger B, Patsch JR, Ritsch A. Aspirin regulates expression and function of scavenger receptor-BI in macrophages: studies in primary human macrophages and in mice. **FASEB J.** 2006 Jul;20(9):1328-35. PMID: 16816107.
3. **Tancevski I**, Demetz E, Eller P, Duwensee K, Hoefler J, Heim C, Stanzl U, Wehinger A, Auer K, Karer R, Huber J, Schgoer W, Van Eck M, Vanhoutte J, Fievet C, Stellaard F, Rudling M, Patsch JR, Ritsch A. The liver-selective thymimetic T-0681 influences reverse cholesterol transport and atherosclerosis development in mice. **PLoS One.** 2010 Jan 15;5(1):e8722. PMID: 20090943.
4. **Tancevski I**, Wehinger A, Demetz E, Hoefler J, Eller P, Huber E, Stanzl U, Duwensee K, Auer K, Schgoer W, Kuhn V, Fievet C, Stellaard F, Rudling M, Foeger B, Patsch JR, Ritsch A. The thymimetic T-0681 protects from atherosclerosis. **J Lipid Res.** 2009 May;50(5):938-44. PMID: 19106072.
5. **Tancevski I**, Nairz M, Duwensee K, Auer K, Schroll A, Heim C, Feistritzer C, Hoefler J, Gerner RR, Moschen AR, Heller I, Pallweber P, Li X, Theurl M, Demetz E, Wolf AM, Wolf D, Eller P, Ritsch A, Weiss G. Fibrates ameliorate the course of bacterial sepsis by promoting neutrophil recruitment via CXCR2. **EMBO Mol Med.** 2014 Apr 22;6(6):810-20. PMID: 24755316.
6. **Tancevski I**, Rudling M, Eller P. Thyromimetics: a journey from bench to bed-side. **Pharmacol Ther.** 2011 Jul;131(1):33-9. PMID: 21504761.
7. Ritsch A, Scharnagl H, Eller P, **Tancevski I**, Duwensee K, Demetz E, Sandhofer A, Boehm BO, Winkelmann BR, Patsch JR, März W. Cholesteryl ester transfer protein and mortality in patients undergoing coronary angiography: the Ludwigshafen Risk and Cardiovascular Health study. **Circulation.** 2010 Jan 26;121(3):366-74. PMID: 20065167.
8. Schgoer W, Theurl M, Jeschke J, Beer AG, Albrecht K, Gander R, Rong S, Vasiljevic D, Egger M, Wolf AM, Frauscher S, Koller B, **Tancevski I**, Patsch JR, Schratzberger P, Piza-Katzer H, Ritsch A, Bahlmann FH, Fischer-Colbrie R, Wolf D, Kirchmair R. Gene therapy with the angiogenic cytokine secretoneurin induces therapeutic angiogenesis by a nitric oxide-dependent mechanism. **Circ Res.** 2009 Nov 6;105(10):994-1002. PMID: 19797703.
9. Wehinger A, **Tancevski I**, Schgoer W, Eller P, Hohegger K, Morak M, Hermetter A, Ritsch A, Patsch JR, Foeger B. Phospholipid transfer protein augments apoptosis in THP-1-derived macrophages induced by lipolyzed hypertriglyceridemic plasma. **Arterioscler Thromb Vasc Biol.** 2007 Apr;27(4):908-15. PMID: 17272752.
10. **Tancevski I**, Frank S, Massoner P, Stanzl U, Schgoer W, Wehinger A, Fievet C, Eller P, Patsch JR, Ritsch A. Increased plasma levels of LDL cholesterol in rabbits after adenoviral overexpression of human scavenger receptor class B type I. **J Mol Med.** 2005 Nov;83(11):927-32. PMID: 16133421.

### **Ivan Tancevski; all publications since 2013**

1. Pizzini A, Lunger L, Demetz E, Hilbe R, Weiss G, Ebenbichler C, **Tancevski I**. The Role of Omega-3 Fatty Acids in Reverse Cholesterol Transport: A Review. **Nutrients**. 2017 Oct 6;9(10). PMID: 28984832.
2. Theurl M, Schgoer W, Albrecht-Schgoer K, Lener D, Wolf D, Wolf M, Demetz E, Tymoszyk P, **Tancevski I**, Fischer-Colbrie R, Franz WM, Marschang P, Kirchmair R. Secretoneurin gene therapy improves hind limb and cardiac ischaemia in Apo E<sup>-/-</sup> mice without influencing systemic atherosclerosis. **Cardiovasc Res**. 2015 Jan 1;105(1):96-106. PMID: 25377726.
3. Nairz M, Schroll A, Demetz E, **Tancevski I**, Theurl I, Weiss G. 'Ride on the ferrous wheel'- the cycle of iron in macrophages in health and disease. **Immunobiology**. 2015 Feb;220(2):280-94. PMID: 25240631.
4. Demetz E, Schroll A, Auer K, Heim C, Patsch JR, Eller P, Theurl M, Theurl I, Theurl M, Seifert M, Lener D, Stanzl U, Haschka D, Asshoff M, Dichtl S, Nairz M, Huber E, Stadlinger M, Moschen AR, Li X, Pallweber P, Scharnagl H, Stojakovic T, März W, Kleber ME, Garlaschelli K, Uboldi P, Catapano AL, Stellaard F, Rudling M, Kuba K, Imai Y, Arita M, Schuetz JD, Pramstaller PP, Tietge UJ, Trauner M, Norata GD, Claudel T, Hicks AA, Weiss G, **Tancevski I**. The arachidonic acid metabolome serves as a conserved regulator of cholesterol metabolism. **Cell Metab**. 2014 Nov 4;20(5):787-98. PMID: 25444678.
5. **Tancevski I**, Nairz M, Duwensee K, Auer K, Schroll A, Heim C, Feistritzer C, Hofer J, Gerner RR, Moschen AR, Heller I, Pallweber P, Li X, Theurl M, Demetz E, Wolf AM, Wolf D, Eller P, Ritsch A, Weiss G. Fibrates ameliorate the course of bacterial sepsis by promoting neutrophil recruitment via CXCR2. **EMBO Mol Med**. 2014 Apr 22;6(6):810-20. PMID: 24755316.
6. Thoeni CE, Vogel GF, **Tancevski I**, Geley S, Lechner S, Pfaller K, Hess MW, Müller T, Janecke AR, Avitzur Y, Muise A, Cutz E, Huber LA. Microvillus inclusion disease: loss of Myosin vb disrupts intracellular traffic and cell polarity. **Traffic**. 2014 Jan;15(1):22-42. PMID: 24138727.