

Short CV: Patrizia Stoitzner

Biographical sketch

I have been working on skin dendritic cell (DC) biology for over 20 years to understand their migratory behavior and functional properties in the cutaneous immune system. During my master and PhD at the Department of Dermatology at the Medical University of Innsbruck I demonstrated how Langerhans cells (LC), the DC of the epidermis, become activated in the skin and migrate to draining lymph nodes to induce immune responses. During my postdoctoral fellowship at the Malaghan Institute of Medical Research in Wellington (New Zealand) I developed skin immunization strategies for the treatment of cancer. However, for the improvement of DC-based immunotherapy we need to understand how DC function is impaired by tumor development and progression. With the help of mouse models for melanoma and non-melanoma skin cancer we investigate skin DC subsets in tumors phenotypically and functionally by flow cytometry, immunofluorescent microscopy and immunoassays. With this knowledge we can further develop skin immunization strategies for the treatment of cancer. Currently we are working on targeting antigens to skin DC subsets with the help of antibodies against DEC-205 and Langerin in mouse models and human skin explant cultures. Moreover, we are also testing a novel Langerhans cell-based immunotherapeutic approach with nanoparticles coated with a specific Langerin-ligand. As the future of cancer therapy lies in combination therapy we are evaluating the potential of using DC-based immunotherapy together with checkpoint blockade antibodies and BRAF-inhibitor therapy. The overall aim is to determine whether DC-based skin immunization approaches can advance existing therapeutic strategies.

Curriculum vitae Medical University of Innsbruck

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Date of birth 26 September 1972
Place of birth Feldkirch, Austria
Citizenship Austrian

Education

1991 Matura, Gymnasium Feldkirch, Austria
1997 Master in Microbiology, University of Innsbruck, Austria
2001 PhD in Immunology, Department of Dermatology, University of Innsbruck,
Austria

Career History

2001-2005 Research Assistant with Prof. Nikolaus Romani, Department of
Dermatology, Medical University of Innsbruck
2005-2007 Postdoctoral fellowship with Prof. Franca Ronchese, Malaghan Institute of
Medical Research, Wellington, New Zealand
since 2007 Head of the Lab for Langerhans Cell Research, Department of
Dermatology, Medical University of Innsbruck
2008 Habilitation in Immunology
2012 Associate Professor

Fellowships, Erwin Schroedinger postdoctoral fellowship (2005)

Awards Heinrich Aupitz award (2006)

Publications 56 original publications

14 invited reviews/opinion letters/book chapters

3 editorials

h-index=37, cited>4000

Google scholar link citations: [profilePatriziaStoitzner](#)

10 most important scientific publications:

1. Ortner D, Tripp CH, Komenda K, Dubrac S, Zelger B, Hermann M, Doppler W, Tymoszuk PZ, Boon L, Clausen BE, Stoitzner P. Langerhans cells and NK cells cooperate in the inhibition of chemical skin carcinogenesis. *Oncoimmunology*. 2016, 6, NO. 2, e1260215.
2. Mairhofer DG, Ortner D, Tripp CH, Schaffenrath S, Fleming V, Heger L, Komenda K, Reider D, Dudziak D, Chen S, Becker JC, Flacher V, Stoitzner P. Impaired gp100-specific CD8+ T cell responses in the presence of myeloid-derived suppressor cells in a spontaneous mouse melanoma model. *J Invest Dermatol*. 2015. Nov;135(11):2785-93. PMID:26121214.
3. Sparber F, Tripp CH, Komenda K, Scheffler JM, Clausen BE, Huber LA, Romani N, Stoitzner P. The late endosomal adaptor molecule p14 (LAMTOR2) regulates TGF beta1-mediated homeostasis of Langerhans cells. *J Invest Dermatol*. 2015. Jan;135(1):119-29. PMID:25078666.
4. Flacher V, Tripp CH, Mairhofer DG, Steinman RM, Stoitzner P, Idoyaga J, Romani N. Murine Langerin+dermal dendritic cells prime CD8+ T cells while Langerhans cells induced cross-tolerance. *EMBO Mol Med*. 2014. Aug 1;6(9):1191-204. Erratum in: *EMBO Mol Med*. 2014 Dec;6(12):1638. PMID:25085878.
5. Sparber F, Scheffler JM, Amberg N, Tripp CH, Heib V, Hermann M, Zahner SP, Clausen BE, Reizis B, Huber LA, Stoitzner P, Romani N. The late endosomal adaptor molecules p14 (LAMTOR2) represents a novel regulator of Langerhans cell homeostasis. *Blood*. 2014. Jan 9;123(2):217-27. PMID:24092934.
6. Tripp CH, Sparber F, Hermans IF, Romani N, Stoitzner P. Glycolipids injected into the skin are presented to NKT cells in the draining lymph node independently of migratory skin dendritic cells. *J Immunol*. 2009. Jun 15;182(12):7644-54. PMID:19494288.
7. Stoitzner P, Green LK, Jung JY, Price KM, Tripp CH, Malissen B, Kissenpfennig A, Hermans IF, Ronchese F. Tumor immunotherapy by epicutaneous immunization requires langerhans cells. *J Immunol*. 2008. Feb 1;180(3):1991-8. PMID:18209098.
8. Stoitzner P, Tripp CH, Eberhart A, Price KM, Jung JY, Bursch L, Ronchese F, Romani N. Langerhans cells cross-present antigen derived from skin. *Proc Natl Acad Sci U S A*. 2006. May 16;103(20):7783-8. PMID:16672373.
9. Stoitzner P, Tripp CH, Douillard P, Saeland S, Romani N. Migratory Langerhans cells in mouse lymph nodes in steady state and inflammation. *J Invest Dermatol*. 2005 Jul;125(1):116-25. PMID:15982311.

10. Stoitner P, Holzmann S, McLellan AD, Ivarsson L, Stössel H, Kapp M, Kämmerer U, Douillard P, Kämpgen E, Koch F, Saeland S, Romani N. Visualization and characterization of migratory Langerhans cells in murine skin and lymph nodes by antibodies against Langerin/CD207. *J Invest Dermatol.* 2003 Feb;120(2):266-74. PMID:12542532.