

BIOGRAPHICAL SKETCH

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NAME Ulrich H. von Andrian	POSITION TITLE Mallinckrodt Professor of Immunopathology		
eRA COMMONS USER NAME vonandrian			
EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)			
INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
Ludwig-Maximilians Univ. Munich, Germany	M.D.	1989	Medicine
Ludwig-Maximilians Univ. Munich, Germany	Ph.D.	1992	Neurology/Neurosurgery

A. Positions: 1988 – 1989 Internship, Dept. of Surgery, Zentralklinikum Augsburg, Germany; Dept. of Neurology, Univ. of Michigan, Ann Arbor, MI; and Medizinische Klinik I, Klinikum Großhadern, Munich, Germany; 1989 – 1992 Postdoctoral Fellow, La Jolla Institute for Experimental Medicine, La Jolla, CA; 1989 – 1992 Visiting Scholar, Dept. of Applied Mechanics and Engineering Sciences, UCSD, La Jolla, CA; 1992 – 1993 Postdoctoral Fellow, Dept of Pathology, Stanford University Medical Center, Stanford; 1994 – 1999 Assistant Professor of Pathology, Harvard Medical School, and Junior Investigator, CBR Institute for Biomedical Research, Boston, MA; 1999 – 2003 Associate Professor of Pathology, Harvard Medical School, and Investigator, CBRI; 2003 – 06/2006 Professor of Pathology, HMS, and Senior Investigator, CBRI; 07/2006 Edward Mallinckrodt Jr. Professor of Immunopathology, HMS.

Awards: 1989 – 1991 Research stipend of the International Institute for Microcirculation; 1992 – 1994 Research stipend (Forschungsstipendium) of the Deutsche Forschungsgemeinschaft; 1997 Microcirculatory Society Wiederhielm Award; 2004 - Amgen Outstanding Investigator Award (ASIP); 2004 – 2005 Iacocca Faculty Fellow, Joslin Diabetes Center; 2006 - Bowditch Award recipient of the ASP; 2007 BD-Biosciences Award (AAI).

Memberships: 1994 - Member, Microcirculatory Society (MCS); 1998 - Member, American Association of Immunologists (AAI); 1998 - Member, North American Vascular Biology Organization (NAVBO); 2000 - Elected Member, American Association of University Pathologists ("Pluto Society"); 2002 - Member, American Society for Investigative Pathology (ASIP); 2002 - Elected Member, European Academy of Sciences; 2004 - Member, The American Society for Cell Biology (ASCB); 2005 - Member, American Physiological Society (APS).

Editorial Boards: 1999 – 2004 *Microcirculation*; 1999 – 2000 *American Journal of Physiology: Heart Circ Physiol*; 2002 - Advisory Editor, *Journal of Experimental Medicine*; 2004 - *Current Immunology Reviews*; 2005 - Associate Editor, *Immunity*; 2007 – *Journal of Vascular Research*; 2007 – *The Open Microbiology Journal*; 2007 - *The Year in Immunology* (New York Academy of Sciences); 2008 – Board of Reviewing Editors, *Science*; 2009 - *Cell*

B. Selected peer-reviewed publications (in chronological order). (selected from a total of 156):

von Andrian, U.H., Chambers, J.D., McEvoy, L., Bargatze, R.F., Arfors, K.E., and Butcher, E.C. Two step model of leukocyte-endothelial cell interaction in inflammation: Distinct roles for LECAM-1 and the leukocyte B2 integrins in vivo. *Proc. Natl. Acad. Sci. USA* **88**: 7538-42, 1991.

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Weninger, W., Crowley, M.A., Manjunath, N. and von Andrian U.H. Migratory properties of naïve, effector, and memory CD8+ T cells. *J. Exp. Med.* **194(7)**: 953-966, 2001.

Goodarzi, K., Goodarzi, M., Tager, A.M., Luster, A.D., and von Andrian, U.H. Leukotriene B4 and BLT1 control cytotoxic effector T cell recruitment to inflamed tissues. *Nature Immunology* **4(10)**: 965-973, 2003.

von Andrian, U.H. and Mempel, T. Homing and Cellular Traffic in Lymph Nodes. *Nat Rev Imm.* **3**: 867-878, 2003.

Mora, J.R., Bono, R. B., Manjunath, N., Weninger, W., Cavanagh, L., Roseblatt, M., and von Andrian, U.H. Selective imprinting of gut-homing T cells by Peyer's Patch Dendritic Cells. *Nature*, **424**: 88-93, 2003.

Mempel, T.R., Henrickson, S.E. and von Andrian, U.H. T cell priming by dendritic cells in lymph nodes occurs in three distinct phases. *Nature* **427**: 154-159, 2004.

Halin, C., Mora, J.R., Sumen, C. and von Andrian, U.H. In vivo imaging of lymphocyte trafficking. *Annu. Rev. Cell Dev. Biol.* **21**: 581-603, 2005.

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Wang, J., Fathman, J.W., Lugo-Villarino, G., Scimone, L., von Andrian, U.H., Dorfman, D.M., and Glimcher,

L.H. Transcription factor T-bet regulates inflammatory arthritis through its function in DCs. *JCI* 116:414-21, 2006.

Mempel, T.R., Pittet, M.J., Khazaie, K., Weninger, W., Weissleder, R., von Boehmer, H., von Andrian, U.H., Regulatory T cells reversibly suppress cytotoxic T cell function independent of effector differentiation. *Immunity*, **25(1)**: 129-141, 2006.

Bonasio, R., Scimone, M.L., Schaerli, P., Grabie, N., Lichtman, A.H. and von Andrian, U.H. Clonal deletion of thymocytes by circulating dendritic cells homing to the thymus. *Nat Immunol* **7**:1192-1100, 2006

Pearce, G., Angeli, V., Randolph, G.J., Junt, T., von Andrian, U., Schnittler, H.-J. and Jessberger, R. Signaling protein SWAP-70 is required for efficient B cell homing to lymphoid organs. *Nat Immunol* **7(8)**:827-834, 2006.

Massberg, S. and von Andrian, U.H. Fingolimod and sphingosine-1-phosphate – modifiers of lymphocyte migration. *New Eng. J. Med.* **355(11)**:1088-1091, 2006.

Krause, D.S., von Andrian, U.H. and Van Etten, R.A. Requirement for CD44 in homing and engraftment of BCR-ABL-expressing leukemic stem cells. *Nature Medicine*, **12(10)**:1175-80, 2006.

Chen, Q., Fisher, D.T., Clancy, K.A., Gauguet, J.-M., Wang, W.C., Unger, E., Rose-John, S., von Andrian, U.H., Baumann, H. and Evans, S.S. Fever-range thermal stress promotes lymphocyte trafficking across high endothelial venules through an IL-6 trans-signaling mechanism. *Nat Immunol* **7(12)**:1299-1308, 2006.

Mora, J.R., Iwata, M., Eksteen, B., Song, S.-Y., Junt, T., Senman, B., Otipoby, K.L., Ricciardi-Castagnoli, P., Rajewsky, K., Adams, D.H. and von Andrian, U.H. Intestinal dendritic cells generate gut-homing IgA-secreting B cells. *Science* **314**: 1157-1169, 2006.

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Friedl, P., Wolf, K., von Andrian, U.H., and Harms, G. Biological second and third harmonic generation microscopy. *Current Protocols in Cell Biology*. 2007 Mar;Chapter 4:Unit 4.15.

Yano, K., Daniel Gale, D., Massberg, S., Cheruvu, P.K., Monahan-Earley, R., Morgan, E.S., Haig, D., von Andrian, U.H., Dvorak, A.M. and Aird, W.C. Phenotypic heterogeneity is an evolutionarily conserved feature of the endothelium. *Blood* **109**:613-615, 2007.

Meuter, S., Schaerli, P., Roos, R.S., Brandau, O., Bosl, M.R., von Andrian, U.H. and Moser, B. Murine CXCL14 is dispensable for dendritic cell function and localization within peripheral tissues. *MCB* **27**:983-992, 2007.

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Worbs, T., Mempel, T.R., Bölter, J., von Andrian, U.H. and Förster, R. CCR7 ligands stimulate the intranodal motility of T lymphocytes *in vivo*. *J. Exp. Med.* **204(3)**:489-95, 2007.

Li, J., Brieher, W.M., Scimone M.L., Kang, S.J., Zhu, H., Yin, H., von Andrian, U.H., Mitchison, T. and Yuan, J. Caspase-11 regulates cell migration by promoting Aip1/Cofilin-mediated actin depolymerization. *Nat. Cell. Biol.* **9(3)**:276-286, 2007.

Henrickson, S.E. and von Andrian, U.H. Single-cell dynamics of T cell priming. *COI* **19**: 249-258, 2007.

von Andrian, U.H. and Sallusto, F. Lymphocyte Activation. *COI* **19**: 247-248, 2007.

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Park, E.J., Mora, J.R., Carman, C.V., Chen, J.F., Sasaki, Y., Cheng, G., von Andrian, U.H. and Shimaoka M. Aberrant activation of integrin $\alpha 4\beta 7$ suppresses lymphocyte migration to the gut. *JCI*, in press. 2007.

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Iparraguirre, A., Tobias, J.W., Hensley, S.E., Masek, K.S., Cavanagh, L.L., Rendl, M., Hunter, C.A., Ertl, H., von Andrian, U.H. and Weninger, W. Two distinct differentiation states of plasmacytoid dendritic cells induced by influenza virus and CpG1828 oligonucleotide. *J. Leuk. Biol.* 2007 [Epub], PMID: 18029397.

De Paz, J.L., Moseman, E.A., Noti, C., Polito, L., von Andrian, U.H. and Seeberger, P.H. Profiling heparin-chemokine interactions using synthetic tools. *ACS Chem. Biol.* **2(11)**:735-44, 2007.

Swirski, F.K., Berger, C.R., Figueiredo, J.-L., Mempel, T.R., von Andrian, U.H., Pittet, M.J. and Weissleder, R. A near-infrared cell tracker reagent for multiscope in vivo imaging and quantification of leukocyte immune responses. *PLoS ONE* **2(10)**:e1075; 2007 Oct 24;. PMID: 1795725.

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Henrickson, S.E., Mempel, T.R., Mazo, I.B., Liu, B., Flynn, M., Artomov, M., Junt, T., Wong, H.C., Chakraborty, A.K. and von Andrian, U.H. T cell sensing of antigen dose governs interactive behavior with APC – an integrative mechanism that sets a threshold for T cell activation. *Nat. Immunol.***9(3)**:282-291, 2008.

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Alvarez, D., Vollmann, E.H. and von Andrian, U.H. Mechanisms and consequences of dendritic cell migration. *Immunity*, **29(3)**:325-42, 2008.

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