

## Full list of publications

### 2012

A novel role of sphingosine 1-phosphate receptor S1pr1 in mouse thrombopoiesis.

Zhang L, Orban M, Lorenz M, Barocke V, Braun D, Urtz N, Schulz C, von Brühl ML, Tirniceriu A, Gaertner F, Proia RL, Graf T, Bolz SS, Montanez E, Prinz M, Müller A, von Baumgarten L, Billich A, Sixt M, Fässler R, von Andrian UH, Junt T, Massberg S.

*J Exp Med.* 2012 Nov 12.

Tissue inducible Lifeact expression allows visualization of actin dynamics in vivo and ex vivo.

Schachtner H, Li A, Stevenson D, Calaminus SD, Thomas SG, Watson SP, Sixt M, Wedlich-Soldner R, Strathdee D, Machesky LM.

*Eur J Cell Biol.* 2012 Nov;91(11-12):923-9. d

Cell migration: fibroblasts find a new way to get ahead.

Sixt M.

*J Cell Biol.* 2012 Apr 30;197(3):347-9.

The mammalian actin-binding protein 1 is critical for spreading and intraluminal crawling of neutrophils under flow conditions.

Hepper I, Schymeinsky J, Weckbach LT, Jakob SM, Frommhold D, Sixt M, Laschinger M, Sperandio M, Walzog B.

*J Immunol.* 2012 May 1;188(9):4590-601.

### 2011

Wendland M, Willenzon S, Kocks J, Davalos-Misslitz AC, Hammerschmidt SI, Schumann K, Kremmer E, Sixt M, Hoffmeyer A, Pabst O, Förster R

Lymph node T cell homeostasis relies on steady state homing of dendritic cells.

*Immunity.* 2011 Dec 23;35(6):945-57

Eichner A, Sixt M

Setting the clock for recirculating lymphocytes.

*Sci Signal.* 2011 Nov 8;4(198):pe43

Schraivogel D, Weinmann L, Beier D, Tabatabai G, Eichner A, Zhu JY, Anton M, Sixt M, Weller M, Beier CP, Meister G

CAMTA1 is a novel tumour suppressor regulated by miR-9/9\* in glioblastoma stem cells.

*EMBO J.* 2011 Aug 19;30(20):4309-22

Soriano SF, Hons M, Schumann K, Kumar V, Dennier TJ, Lyck R, Sixt M, Stein JV

In vivo analysis of uropod function during physiological T cell trafficking.

*J Immunol.* 2011 Sep 1;187(5):2356-64.

Sixt M, Lämmermann T

In vitro analysis of chemotactic leukocyte migration in 3D environments.

*Methods Mol Biol.* 2011;769:149-65.

Link A, Hardie DL, Favre S, Britschgi MR, Adams DH, Sixt M, Cyster JG, Buckley CD, Luther SA  
Association of T-zone reticular networks and conduits with ectopic lymphoid tissues in mice and humans.

*Am J Pathol.* 2011 Apr;178(4):1662-75

Sixt M, Parent CA  
Cells on the move in Philadelphia.  
*Mol Biol Cell.* 2011 Mar 15;22(6):724

Sixt M  
Interstitial locomotion of leukocytes.  
*Immunol Lett.* 2011 Jul;138(1):32-4

## 2010

Renkawitz J, Sixt M  
Mechanisms of force generation and force transduction during interstitial leukocyte migration  
*EMBO Rep.* 2010 Oct;11(10):744-50

Weber M, Sixt M  
MEK signaling tunes actin treadmilling for interstitial lymphocyte migration  
*EMBO Journal,* 2010 Sep 1;29(17):2861-3

Schumann K, Lämmermann T, Bruckner M, Legler DF, Polleux J, Spatz JP, Schuler G, Förster R, Lutz MB, Sorokin L, Sixt M  
Immobilized chemokine fields and soluble chemokine gradients shape migration patterns of dendritic cells  
*Immunity,* 2010 May 28;32(5):703-13

Mohan H, Krumbholz M, Sharma R, Eisele S, Junker A, Sixt M, Newcombe J, Wekerle H, Hohlfeld R, Lassmann H, Meinl E  
Extracellular matrix in multiple sclerosis lesions: Fibrillar collagens, biglycan and decorin are upregulated and associated with infiltrating immune cells.

*Brain Pathol,* 2010 Sep;20(5):966-75

Nourshargh S, Hordjik P, Sixt M  
Regulation of leukocyte motility: through venular walls and beyond  
*Nat Rev Mol Cell Biol,* 2010 May;11(5):366-78

Riedl J, Flynn KC, Raducanu A, Gärtner F, Beck G, Bösl M, Bradke F, Massberg S, Aszodi A, Sixt M\*, Wedlich-Söldner R\*  
Lifeact mice for studying F-actin dynamics  
*Nat Methods,* 2010 Mar;7(3):168-9

## 2009

Pflicke H, Sixt M  
Preformed portals facilitate dendritic cell entry into afferent lymphatic vessels  
*J Exp Med,* 2009 Dec 21;206(13):2925-35

Renkawitz J, Schumann K, Weber M, Lämmermann T, Pflicke H, Polleux J, Spatz JP, Sixt M  
Adaptive force transmission in amoeboid cell migration  
*Nat Cell Biol,* 2009 Dec;11(12):1438-43

Schymeinsky J, Gerstl R, Mannigel I, Niedung K, Frommhold D, Panthel K, Heesemann J, Sixt M, Quast T, Kolanus W, Mocsai A, Wienands J, Sperandio M, Walzog B  
A fundamental role of mAbp1 in neutrophils: impact on  $\beta$ 2 integrin-mediated phagocytosis and adhesion in vivo  
*Blood*, 2009 Nov 5;114(19):4209-20

Lammermann T, Sixt M  
Review: Mechanical modes of amoeboid cell migration  
*Curr Opin Cell Biol*, 2009 Oct;21(5):636-44

Wolf AM, Hochegger K, Zeiser R, Duerr C, Gerlach UV, Sixt M, Markut L, Baier G, Rosenkranz AR, Wolf D  
FTY720 abrogates the therapeutic potential of adoptively transferred Treg via inhibition of IL-2 induced in vivo expansion  
*J Immunol*, 2009 Sep 15;183(6):3751-60

Lammermann T, Renkawitz J, Wu X, Brakebusch C, Sixt M  
Plenary paper: Cdc42-dependent leading edge coordination is essential for interstitial dendritic cell migration.  
*Blood*, 2009 Jun 4;113(23):5703-10

Quast T, Tappertzhofen B, Schild C, Grell J, Czelo N, Forster R, Alon R, Fraemohs L, Dreck K, Weber C, Lammermann T, Sixt M, Kolanus W  
Cytoskeleton-1 controls the activation of RhoA and modulates integrin-dependent adhesion and migration of dendritic cells.  
*Blood*, 2009 Jun 4;113(23):5801-10

Moser M, Bauer M, Schmid S, Ruppert R, Schmidt S., Sixt M, Wang HV, Sperandio M, Fässler R  
Kindlin-3 is required for  $\beta$ 2 integrin-mediated leukocyte adhesion to endothelial cells.  
*Nat Med*, 2009 Mar;15(3):300-5

Bauer M, Brakebusch C, Coisne C, Sixt M, Wekerle H, Engelhardt B, Fassler R  
Beta 1 Integrins differentially control extravasation of inflammatory subsets into the CNS during autoimmunity.  
*PNAS*, 2009 Feb 10;106(6):1920-5

Cremer S, Sixt M  
Review: Analogies in the evolution of individual and social immunity.  
*Philos Trans R Soc Lond B Biol Sci*, 2009 Jan 12;364(1513):129-42

## 2008

Lämmermann T, Bader BL, Monkley SJ, Worbs T, Wedlich-Söldner R, Hirsch K, Keller M, Förster R, Critchley DR, Fässler R, Sixt M  
Rapid leukocyte migration by integrin-independent flowing and squeezing.  
*Nature*, 2008 May 1;453(7191):51-5

Riedl J, Crevenna AH, Kessenbrock K, Yu JH, Neukirchen D, Bista M, Bradke F, Jenne D, Holak TA, Werb Z, Sixt M\*, Wedlich-Söldner R\*  
Lifeact: a versatile marker to visualize F-actin.  
*Nat Methods*, 2008 Jul;5(7):605-7

Lämmermann T, Sixt M

Review: The microanatomy of T-cell responses.

*Immunol Rev*, 2008 Feb;221:26-43

Lokmic Z, Lämmermann T, Sixt M, Cardell S, Hallmann R, Sorokin L

Review: The extracellular matrix of the spleen as a potential organizer of immune cell compartments.

*Semin Immunol*, 2008 Feb;20(1):4-13

Kessenbrock K, Fröhlich L, Sixt M, Lämmermann T, Pfister H, Bateman A, Belaaouaj A, Ring J, Ollert M, Fässler R, Jenne DE.

Proteinase 3 and neutrophil elastase enhance inflammation in mice by inactivating antiinflammatory progranulin.

*J Clin Invest*, 2008 Jul;118(7):2438-47

Frommhold D, Ludwig A, Bixel MG, Zarbock A, Babushkina I, Weissinger M, Cauwenberghs S, Ellies LG, Marth JD, Beck-Sickinger AG, Sixt M, Lange-Sperandio B, Zernecke A, Brandt E, Weber C, Vestweber D, Ley K, Sperandio M

Sialyltransferase ST3Gal-IV controls CXCR2-mediated firm leukocyte arrest during inflammation.

*J Exp Med*, 2008 Jun 9;205(6):1435-46

Tripp C, Haid B, Flacher V, Sixt M, Peter H, Farkas J, Gschwendner R, Sorokin L, Romani N, Stoitzner P

The lymph vessel network in mouse skin visualized with antibody against the hyaluronan receptor LYVE

*Immunobiology*, 2008 213(9-10):715-28

## 2007

Woolf E, Grigorova I, Sagiv A, Grabovsky V, Feigelson S, Shulman Z, Hartmann T, Sixt M, Cyster JG, Alon R

Lymph node chemokines promote sustained T lymphocyte motility without triggering stable integrin adhesiveness in the absence of shear forces.

*Nat Immunol*, 2007 Oct;8(10):1076-85

Dorn T, Kuhn U, Bungartz G, Stiller S, Bauer M, Ellwart J, Peters T, Scharffetter-Kochanek K, Semmrich M, Laschinger M, Holzmann B, Klinkert WE, Straten PT, Køllgaard T, Sixt M, Brakebusch C

RhoH is important for positive thymocyte selection and T-cell receptor signaling.

*Blood*, 2007 Mar 15;109(6):2346-55

## 2006

Sixt M, Bauer M, Lämmermann T, Fässler R

Review: Beta1 integrins: zip codes and signaling relay for blood cells.

*Curr Opin Cell Biol*, 2006 Oct;18(5):482-90

Drumea-Mirancea M, Wessels JT, Müller CA, Essl M, Eble JA, Tolosa E, Koch M, Reinhardt DP, Sixt M, Sorokin L, Stierhof YD, Schwarz H, Klein G

Characterization of a conduit system containing laminin-5 in the human thymus: a potential transport system for small molecules.

*J Cell Sci*, 2006 Apr 1;119(Pt 7):1396-405

Chu H, Thievessen I, Sixt M, Lämmermann T, Waisman A, Braun A, Noegel AA, Fässler R  
gamma-Parvin is dispensable for hematopoiesis, leukocyte trafficking, and T-cell-dependent antibody response.

**Mol Cell Biol**, 2006 Mar;26(5):1817-25

## 2005 and earlier

Sixt M, Kanazawa N, Selg M, Samson T, Roos G, Reinhardt DP, Pabst R, Lutz MB, Sorokin L  
The conduit system transports soluble antigens from the afferent lymph to resident dendritic cells in the T cell area of the lymph node.

**Immunity**, 2005 Jan;22(1):19-29

Zhang H, Baader S, Sixt M, Kappler J, Rauch U  
Neurocan-GFP fusion protein: a new approach to detect hyaluronan on tissue sections and living cells.

**J Histochem Cytochem**, 2004 Jul;52(7):915-22

Witte V, Laffert B, Rosorius O, Lischka P, Blume K, Galler G, Stilper A, Willbold D, D'Aloja P, Sixt M, Kolanus J, Ott M, Kolanus W, Schuler G, Baur AS  
HIV-1 Nef mimics an integrin receptor signal that recruits the polycomb group protein Eed to the plasma membrane.

**Mol Cell**, 2004 May 28;153(5):933-46

Sixt M, Engelhardt B, Pausch F, Hallmann R, Wendler O, Sorokin LM  
Endothelial cell laminin isoforms, laminins 8 and 10, play decisive roles in T cell recruitment across the blood-brain barrier in experimental autoimmune encephalomyelitis.

**J Cell Biol**, 2001 May 28;153(5):933-46

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Cell adhesion and migration properties of beta 2-integrin negative polymorphonuclear granulocytes on defined extracellular matrix molecules. Relevance for leukocyte extravasation.

**J Biol Chem**, 2001 Jun 1;276(22):18878-87

Wolf D, Hallmann R, Sass G, Sixt M, Küsters S, Fregien B, Trautwein C, Tiegs G  
TNF-alpha-induced expression of adhesion molecules in the liver is under the control of TNFR1-- relevance for concanavalin A-induced hepatitis.

**J Immunol**, 2001 Jan 15;166(2):1300-7