

Selected Publications

Stadhouders R, Vidal E, Serra F, Di Stefano B, Le Dily F, Quilez J, Gomez A, Collombet S, Berenguer C, Cuartero Y, Hecht J, Filion G, Beato M, Marti-Renom MA, Graf T. (2018). Transcription factors orchestrate dynamic interplay between genome topology and gene regulation during cell reprogramming.
Nature Genetics. 50:238-249

Miedema JR, Kaiser Y, Broos CE, Wijsenbeek MS, Grunewald J, Kool M (2018). Th17-lineage cells in pulmonary sarcoidosis and Löfgren's syndrome: Friend or foe?
J Autoimmun. 87:82-96.

Vroman H, Bergen IM, van Hulst JAC, van Nimwegen M, van Uden D, Schuijs MJ, Pillai SY, van Loo G, Hammad H, Lambrecht BN, Hendriks RW, Kool M (2018). TNF- α -induced protein 3 levels in lung dendritic cells instruct T_H2 or T_H17 cell differentiation in eosinophilic or neutrophilic asthma.
J Allergy Clin Immunol. 141:1620-1633.e12.

Broos CE, Koth LL, van Nimwegen M, In 't Veen JCCM, Paulissen SMJ, van Hamburg JP, Annema JT, Heller-Baan R, Kleinjan A, Hoogsteden HC, Wijsenbeek MS, Hendriks RW, van den Blink B, Kool M (2018). Increased T-helper 17.1 cells in sarcoidosis mediastinal lymph nodes.
Eur Respir J. 51

KleinJan A, Tindemans I, Montgomery JE, Lukkes M, de Bruijn MJW, van Nimwegen M, Bergen I, Moellering RE, Hoogsteden HC, Boon L, Amsen D, Hendriks RW (2018). The Notch pathway inhibitor stapled α -helical peptide derived from mastermind-like 1 (SAHM1) abrogates the hallmarks of allergic asthma.
J Allergy Clin Immunol. 142:76-85.e8.

Beute J, Lukkes M, Koekoek EP, Nastiti H, Ganesh K, de Bruijn MJ, Hockman S, van Nimwegen M, Braunstahl GJ, Boon L, Lambrecht BN, Manganiello VC, Hendriks RW, KleinJan A (2018). A pathophysiological role of PDE3 in allergic airway inflammation.
JCI Insight. 3.

Vroman H, Das T, Bergen IM, van Hulst JAC, Ahmadi F, van Loo G, Lubberts E, Hendriks RW, Kool M (2018). House dust mite-driven neutrophilic airway inflammation in mice with TNFAIP3-deficient myeloid cells is IL-17-independent.
Clin Exp Allergy.

de Goeje PL, Klaver Y, Kaijen-Lambers MEH, Langerak AW, Vroman H, Kunert A, Lamers CHJ, Aerts JGJV, Debets R, Hendriks RW (2018). Autologous Dendritic Cell Therapy in Mesothelioma Patients Enhances Frequencies of Peripheral CD4 T Cells Expressing HLA-DR, PD-1, or ICOS.
Front Immunol. 9:2034.

Tindemans I, Vroman H, Lukkes M, van Nimwegen M, de Bruijn MJW, Li BWS, Kleinjan A, de Boer GM, Tramper GA, Kool M, Braunstahl GJ, Hendriks RW (2018). Increased surface expression of NOTCH on memory T cells in peripheral blood from asthma patients.
J Allergy Clin Immunol. 2018 [Epub ahead of print]

Li BWS, de Bruijn MJW, Lukkes M, van Nimwegen M, Bergen IM, KleinJan A, Geurts van Kessel CH, Andeweg A, Rimmelzwaan GF, Hendriks RW (2018). T cells and ILC2s are major effector cells in influenza-induced exacerbation of allergic airway inflammation in mice.
Eur J Immunol. 2018 [Epub ahead of print]

Rip J, Van Der Ploeg EK, Hendriks RW, Corneth OBJ (2018). The Role of Bruton's Tyrosine Kinase in Immune Cell Signaling and Systemic Autoimmunity.
Crit Rev Immunol. 38:17-62.

Das T, Chen Z, Hendriks RW, Kool M (2018). A20/Tumor Necrosis Factor α -Induced Protein 3 in Immune Cells Controls Development of Autoinflammation and Autoimmunity: Lessons from Mouse Models. *Front Immunol.* 9:104.

Stadhouders R, Li BWS, de Bruijn MJW, Gomez A, Rao TN, Fehling HJ, van IJcken WFJ, Lim AI, Di Santo JP, Graf T, Hendriks RW (2018). Epigenome analysis links gene regulatory elements in group 2 innate lymphocytes to asthma susceptibility. *J Allergy Clin Immunol.* 2018 [Epub ahead of print]

Pal Singh S, Dammeijer F, Hendriks RW (2018). Role of Bruton's tyrosine kinase in B cells and malignancies. *Mol Cancer.* 17:57.

Broos CE, Koth LL, van Nimwegen M, In 't Veen JCCM, Paulissen SMJ, van Hamburg JP, Annema JT, Heller-Baan R, Kleinjan A, Hoogsteden HC, Wijsenbeek MS, Hendriks RW, van den Blink B, Kool M (2018). Increased T-helper 17.1 cells in sarcoidosis mediastinal lymph nodes. *Eur Respir J.* 51.

Aerts JGJV, de Goeje PL, Cornelissen R, Kaijen-Lambers MEH, Bezemer K, van der Leest CH, Mahaweni NM, Kunert A, Eskens FALM, Waasdorp C, Braakman E, van der Holt B, Vulto AG, Hendriks RW, Hegmans JPJJ, Hoogsteden HC (2018). Autologous Dendritic Cells Pulsed with Allogeneic Tumor Cell Lysate in Mesothelioma: From Mouse to Human. *Clin Cancer Res.* 24:766-776.

Meyer Sauter PM, de Groot RCA, Estevão SC, Hoogenboezem T, de Bruijn ACJM, Sluiter M, de Bruijn MJW, De Kleer IM, van Haperen R, van den Brand JMA, Bogaert D, Fraaij PLA, Vink C, Hendriks RW, Samsom JN, Unger WWJ, van Rossum AMC (2018). The Role of B Cells in Carriage and Clearance of *Mycoplasma pneumoniae* From the Respiratory Tract of Mice. *J Infect Dis.* 217:298-309.

Brouwer RW, van den Hout MC, van IJcken WF, Soler E, Stadhouders R (2017). Unbiased Interrogation of 3D Genome Topology Using Chromosome Conformation Capture Coupled to High-Throughput Sequencing (4C-Seq). *Methods in Molecular Biology.* 1507:199-220.

Stadhouders R, Lubberts E, Hendriks RW (2017). A cellular and molecular view of T helper 17 cell plasticity in autoimmunity. *Journal of Autoimmunity.* 87:1-15.

Li BWS, Stadhouders R, de Bruijn MJW, Lukkes M, Beerens DMJM, Brem MD, KleinJan A, Bergen I, Vroman H, Kool M, van IJcken WFJ, Rao TN, Fehling HJ, Hendriks RW (2017). Group 2 Innate Lymphoid Cells Exhibit a Dynamic Phenotype in Allergic Airway Inflammation. *Front Immunol.* 8:1684.

KleinJan A, Tindemans I, Montgomery JE, Lukkes M, de Bruijn MJW, van Nimwegen M, Bergen I, Moellering RE, Hoogsteden HC, Boon L, Amsen D, Hendriks RW (2017). The Notch pathway inhibitor stapled α -helical peptide derived from mastermind-like 1 (SAHM1) abrogates the hallmarks of allergic asthma. *J Allergy Clin Immunol.* 142:76-85.

Vroman H, Hendriks RW, Kool M (2017). Dendritic Cell Subsets in Asthma: Impaired Tolerance or Exaggerated Inflammation? *Front Immunol.* 8:941.

Chen T, Tibbitt CA, Feng X, Stark JM, Rohrbeck L, Rausch L, Sedimbi SK, Karlsson MCI, Lambrecht BN, Karlsson Hedestam GB, Hendriks RW, Chambers BJ, Nylén S, Coquet JM (2017). PPAR- γ promotes type 2 immune responses in allergy and nematode infection. *Sci Immunol.* 2.

Verstappen GM, Meiners PM, Corneth OBJ, Visser A, Arends S, Abdulahad WH, Hendriks RW, Vissink A, Kroese FGM, Bootsma H (2017). Attenuation of Follicular Helper T Cell-Dependent B Cell Hyperactivity by Abatacept Treatment in Primary Sjögren's Syndrome. *Arthritis Rheumatol.* 69:1850-1861.

Dammeijer F, Lievens LA, Kaijen-Lambers ME, van Nimwegen M, Bezemer K, Hegmans JP, van Hall T, Hendriks RW, Aerts JG (2017). Depletion of Tumor-Associated Macrophages with a CSF-1R Kinase Inhibitor Enhances Antitumor Immunity and Survival Induced by DC Immunotherapy. *Cancer Immunol Res.* 5:535-546.

Tindemans I, Peeters MJW, Hendriks RW (2017). Notch Signaling in T Helper Cell Subsets: Instructor or Unbiased Amplifier? *Front Immunol.* 8:419.

de Goeje PL, Smit EF, Waasdorp C, Schram MTB, Kaijen-Lambers MEH, Bezemer K, de Mol M, Hartemink KJ, Nuyttens JJME, Maat APWM, Hegmans JPJ, Hendriks RW, Senan S, Aerts JGJV (2017). Stereotactic Ablative Radiotherapy Induces Peripheral T-Cell Activation in Patients with Early-Stage Lung Cancer. *Am J Respir Crit Care Med.* 196:1224-1227.

Lim AI, Li Y, Lopez-Lastra S, Stadhouders R, Paul F, Casrouge A, Serafini N, Puel A, Bustamante J, Surace L, Masse-Ranson G, David E, Strick-Marchand H, Le Bourhis L, Cocchi R, Topazio D, Graziano P, Muscarella LA, Rogge L, Norel X, Sallenave JM, Allez M, Graf T, Hendriks RW, Casanova JL, Amit I, Yssel H, Di Santo JP (2017). Systemic Human ILC Precursors Provide a Substrate for Tissue ILC Differentiation. *Cell.* 168:1086-1100.

de Bruijn MJ, Rip J, van der Ploeg EK, van Greuningen LW, Ta VT, Kil LP, Langerak AW, Rimmelzwaan GF, Ellmeier W, Hendriks RW, Corneth OB (2017). Distinct and Overlapping Functions of TEC Kinase and BTK in B Cell Receptor Signaling. *J Immunol.* 198:3058-3068.

Corneth OBJ, Verstappen GMP, Paulissen SMJ, de Bruijn MJW, Rip J, Lukkes M, van Hamburg JP, Lubberts E, Bootsma H, Kroese FGM, Hendriks RW (2017). Enhanced Bruton's Tyrosine Kinase Activity in Peripheral Blood B Lymphocytes From Patients With Autoimmune Disease. *Arthritis Rheumatol.* 69:1313-1324.

Tindemans I, Lukkes M, de Bruijn MJW, Li BWS, van Nimwegen M, Amsen D, KleinJan A, Hendriks RW (2017). Notch signaling in T cells is essential for allergic airway inflammation, but expression of the Notch ligands Jagged 1 and Jagged 2 on dendritic cells is dispensable. *J Allergy Clin Immunol.* 140:1079-1089.

Vroman H, Bergen IM, Li BW, van Hulst JA, Lukkes M, van Uden D, Hendriks RW, Kool M (2017). Development of eosinophilic inflammation is independent of B-T cell interaction in a chronic house dust mite-driven asthma model. *Clin Exp Allergy.* 47:551-564.

De Grove KC, Provoost S, Hendriks RW, McKenzie AN, Seys LJ, Kumar S, Maes T, Brusselle GG, Joos GF (2017). Dysregulation of type 2 innate lymphoid cells and T_H2 cells impairs pollutant-induced allergic airway responses. *J Allergy Clin Immunol.* 139:246-257.

Lievens LA, Cornelissen R, Bezemer K, Kaijen-Lambers ME, Hegmans JP, Aerts JG (2016). Pleural Effusion of Patients with Malignant Mesothelioma Induces Macrophage-Mediated T Cell Suppression. *J Thorac Oncol.* 11:1755-64.

Dammeijer F, Lievens LA, Veerman GD, Hoogsteden HC, Hegmans JP, Arends LR, Aerts JG (2016). Efficacy of Tumor Vaccines and Cellular Immunotherapies in Non-Small-Cell Lung Cancer: A Systematic Review and Meta-Analysis. *J Clin Oncol.* 34:3204-12.

KleinJan A (2016). Airway inflammation in asthma: key players beyond the Th2 pathway. *Curr Opin Pulm Med.* 22:46-52.

de Kleer IM, Kool M, de Bruijn MJ, Willart M, van Moorleghem J, Schuijs MJ, Plantinga M, Beyaert R, Hams E, Fallon PG, Hammad H, Hendriks RW, Lambrecht BN (2016). Perinatal Activation of the Interleukin-33 Pathway Promotes Type 2 Immunity in the Developing Lung. *Immunity.* 45:1285-1298.

Corneth OB, de Bruijn MJ, Rip J, Asmawidjaja PS, Kil LP, Hendriks RW (2016). Enhanced Expression of Bruton's Tyrosine Kinase in B Cells Drives Systemic Autoimmunity by Disrupting T Cell Homeostasis. *J Immunol.* 197:58-67.

Li BW, de Bruijn MJ, Tindemans I, Lukkes M, KleinJan A, Hoogsteden HC, Hendriks RW (2016). T cells are necessary for ILC2 activation in house dust mite-induced allergic airway inflammation in mice. *Eur J Immunol.* 46:1392-1403.

Cornelissen R, Hegmans JP, Maat AP, Kaijen-Lambers ME, Bezemer K, Hendriks RW, Hoogsteden HC, Aerts JG (2016). Extended Tumor Control after Dendritic Cell Vaccination with Low-Dose Cyclophosphamide as Adjuvant Treatment in Patients with Malignant Pleural Mesothelioma. *Am J Respir Crit Care Med.* 193:1023-1031.

Ramstein J, Broos CE, Simpson LJ, Ansel KM, Sun SA, Ho ME, Woodruff PG, Bhakta NR, Christian L, Nguyen CP, Antalek BJ, Benn BS, Hendriks RW, van den Blink B, Kool M, Koth LL (2016). IFN- γ -Producing T-Helper 17.1 Cells Are Increased in Sarcoidosis and Are More Prevalent than T-Helper Type 1 Cells. *Am J Respir Crit Care Med.* 193:1281-1291.

Corneth OB, Klein Wolterink RG, Hendriks RW (2016). BTK Signaling in B Cell Differentiation and Autoimmunity. *Curr Top Microbiol Immunol.* 393:67-105.

Ribeiro de Almeida C, Hendriks RW, Stadhouders R (2015). Dynamic Control of Long-Range Genomic Interactions at the Immunoglobulin κ Light-Chain Locus. *Adv Immunol.* 128:183-271.

Broos CE, van Nimwegen M, Kleinjan A, ten Berge B, Muskens F, in 't Veen JC, Annema JT, Lambrecht BN, Hoogsteden HC, Hendriks RW, Kool M*, van den Blink B* (2015). Impaired survival of regulatory T cells in pulmonary sarcoidosis. *Respir Res.* 16:108.

Broos CE, van Nimwegen M, In 't Veen JC, Hoogsteden HC, Hendriks RW*, van den Blink B*, Kool M* (2015). Decreased Cytotoxic T-Lymphocyte Antigen 4 Expression on Regulatory T Cells and Th17 Cells in Sarcoidosis: Double Trouble? *Am J Respir Crit Care Med.* 192:763-765.

Cornelissen R, Lievens LA, Robertus JL, Hendriks RW, Hoogsteden HC, Hegmans JP, Aerts JG (2015). Intratumoral macrophage phenotype and CD8+ T lymphocytes as potential tools to predict local tumor outgrowth at the intervention site in malignant pleural mesothelioma Lung Cancer *Lung Cancer* 88:332-337.

De Goeje PL, Bezemer K, Heuvers ME, Dingemans AC, Groen HJ, Smit EF, Hoogsteden HC, Hendriks RW, Aerts JG, Hegmans JP (2015). Immunoglobulin-like transcript 3 is expressed by myeloid-derived suppressor cells and correlates with survival in patients with non-small cell lung cancer. *Oncoimmunology* 4:e1014242.

Kil LP, Corneth OB, de Bruijn MJ, Asmawidjaja PS, Krause A, Lubberts E, van Loo PF and Hendriks RW (2015). Surrogate light chain expression beyond the pre-B cell stage promotes tolerance in a dose-dependent fashion. *J Autoimmun.* 57:30-41.

Tindemans I, Serafini N, Di Santo JP and Hendriks RW (2014). GATA-3 function in innate and adaptive immunity. *Immunity* 41:191-206.

Hendriks RW, Yuvaraj S and Kil L (2014). Targeting Bruton's tyrosine kinase signaling in B cell malignancies. *Nature Rev. Cancer* 14:219-232.

Stadhouders R, De Bruijn MJW, Roter MB, Yuvaraj S, Ribeiro de Almeida C, Kolovos P, Van Zelm M, Van IJcken W, Grosveld F, Soler E and Hendriks RW (2014). Pre-B Cell Receptor Signaling Induces Immunoglobulin κ Locus Accessibility by Functional Redistribution of Enhancer-mediated Chromatin Interactions. *PLoS Biol.* 12:e1001791.

Serafini N, Klein Wolterink RGJ, Satoh-Takayama N, Vosshenrich CAJ, Vieira P, Hendriks RW and Di Santo JP (2014). GATA-3 drives development of ROR γ ⁺ group 3 innate lymphoid cells. *J. Exp. Med.* 211:199-208.

KleinJan A, Klein Wolterink RGJ, Levani Y, De Bruijn, MJW, Hoogsteden HC, Van Nimwegen M and Hendriks RW (2014). Enforced expression of Gata3 in the T cell and Group 2 Innate lymphoid cells increases susceptibility to allergic airway inflammation in mice. *J. Immunol.* 192:1385-1394.

Klein Wolterink RG, Serafini N, van Nimwegen M, Vosshenrich CA, de Bruijn MJ, Fonseca Pereira D, Veiga Fernandes H, Hendriks RW*, Di Santo JP* (2013). Essential, dose-dependent role for the transcription factor Gata3 in the development of IL-5⁺ and IL-13⁺ type 2 innate lymphoid cells. *Proc Natl Acad Sci U S A.* 110:10240-10245.

Paats MS, Bergen IM, Hanselaar WE, Groeninx van Zoelen EC, Verbrugh HA, Hoogsteden HC, van den Blink B, Hendriks RW* and Van der Eerden MM* (2013). T helper 17 cells are involved in the local and systemic inflammatory response in community-acquired pneumonia. *Thorax.* 68:468-474.

Paats MS, Bergen IM, Hanselaar WE, Groeninx van Zoelen EC, Hoogsteden HC, Hendriks RW*, Van der Eerden MM* (2013). Local and systemic cytokine profiles in nonsevere and severe community-acquired pneumonia. *Eur. Respir. J.* 41:1378-1385.

Ten Berge B, Paats MS, Bergen IM, van den Blink B, Hoogsteden HC, Lambrecht BN, Hendriks RW, Kleinjan A (2012). Increased IL-17A expression in granulomas and in circulating memory T cells in sarcoidosis. *Rheumatology (Oxford).* 51:37-46.

Paats, M.S., Bergen, I.M., Hoogsteden, H.C., van der Eerden, M.M. and Hendriks, R.W. (2012). Systemic CD4⁺ and CD8⁺ T cell cytokine profiles correlate with GOLD stage in stable COPD. *Eur. Respir. J.* 40:330-337.

Kil, L.P., de Bruijn, M.J., van Nimwegen, M., Corneth, O.B., van Hamburg, J.P., Dingjan, G.M., Thaiss, F., Rimmelzwaan, G.F., Elewaut, D., Delsing, D., van Loo, P.F. and Hendriks, R.W. (2012) Btk levels set the threshold for B cell activation and negative selection of autoreactive B cells in mice. *Blood* 119:3744-3756.

Kool M, Willart MA, van Nimwegen M, Bergen I, Pouliot P, Virchow JC, Rogers N, Osorio F, Reis e Sousa C, Hammad H, Lambrecht BN (2011). An unexpected role for uric acid as an inducer of T helper 2 cell immunity to inhaled antigens and inflammatory mediator of allergic asthma. *Immunity.* 34:527-40.

Kool M, van Loo G, Waelput W, De Prijck S, Muskens F, Sze M, van Praet J, Branco-Madeira F, Janssens S, Reizis B, Elewaut D, Beyaert R, Hammad H, Lambrecht BN (2011). The ubiquitin-editing protein A20 prevents dendritic cell activation, recognition of apoptotic cells, and systemic autoimmunity. *Immunity.* 35:82-96.

Ribeiro de Almeida, C., Stadhouders, R., de Bruijn, M.J.W., Bergen, I.M., Thongjuea, S., Lenhard, B., Van IJcken, W., Grosveld, F., Galjart, N., Soler, E. and Hendriks, R.W. (2011). CTCF insulator function limits proximal V_κ gene segment recombination and restricts intronic and 3' enhancer interactions within the immunoglobulin κ light chain locus.

Immunity 35:501-513.

Hegmans, J.P.J.J., Veltman, J.D., Lambers, M.E.H., De Vries, I.J., Figdor, C.G., Hendriks, R.W., Hoogsteden, H.C., Lambrecht, B.N. and Aerts, J.G. (2010) Consolidative dendritic cell-based immunotherapy elicits cytotoxicity against malignant mesothelioma.

Am. J. Resp. Crit. Care Med. 181:1383-1390.

Geurts van Kessel, C.H., Willart, M.A., Bergen, I., van Rijt, L.S., Muskens, F., Elewaut, D., Osterhaus, A.D., Hendriks, R.W., Rimmelzwaan, G.F. and Lambrecht, B.N. (2009). Dendritic cells are crucial for maintenance of tertiary lymphoid tissue in the lung of influenza virus infected mice.

J. Exp. Med. 206:2339-2349.

Ribeiro de Almeida, C., Heath, H., Krcic, S., Dingjan, G.M., van Hamburg, J.P., Bergen, I., van de Nobelen, S., Sleutels, F., Grosveld, F., Galjart, N. and Hendriks, R.W. (2009) Critical role for the transcription regulator CCCTC-binding factor in the control of Th2 cytokine expression.

J. Immunol. 182:999-1010.