

## **SIgN affiliated publications by Olaf RÖTZSCHKE**

*Last updated: 16 August 2022*

### **2022**

Lee B, Cyrill SL, Lee W, Melchiotti R, Andiappan AK, Poidinger M, Röttschke O. Analysis of archaic human haplotypes suggests that 5hmC acts as an epigenetic guide for NCO recombination. *BMC Biol.* 2022 Aug 4;20(1):173.

Lim JQ, Huang D, Chan JY, Laurensia Y, Wong EKY, Cheah DMZ, Chia BKH, Chuang WY, Kuo MC, Su YJ, Cai QQ, Feng Y, Rao H, Feng LN, Wei PP, Chen JR, Han BW, Lin GW, Cai J, Fang Y, Tan J, Hong H, Liu Y, Zhang F, Li W, Poon MLM, Ng SB, Jeyasekharan A, Ha JCH, Khoo LP, Chin ST, Pang WL, Kee R, Cheng CL, Grigoropoulos NF, Tang T, Tao M, Farid M, Puan KJ, Xiong J, Zhao WL, Khor CC, Hwang W, Kim WS, Campo E, Tan P, Teh BT, Chng WJ, Röttschke O, Tousseyn T, Huang HQ, Rozen S, Lim ST, Shih LY, Bei JX, Ong CK. A genomic-augmented multivariate prognostic model for the survival of Natural-killer/T-cell lymphoma patients from an international cohort. *Am J Hematol.* 2022 Jun 20. [Epub ahead of print]

Andiappan AK, Puan KJ, Sio YY, Ally F, Lee B, Matta SA, Yusof N, Larbi A, Wang Y, Chew FT, Rotzschke O. Functional CTLA-4 variants associate to both allergic asthma and rhinitis potentially by modulating naïve regulatory T cells. *Allergy.* 2022 May 24. [Epub ahead of print]

Tan JSY, Lee B, Lim J, Ma DR, Goh JX, Goh SY, Gulam MY, Koh SM, Lee WW, Feng L, Wang Q, Chao Y, Röttschke O, Tan EK. Parkinson's Disease-Specific Autoantibodies against the Neuroprotective Co-Chaperone STIP1. *Cells.* 2022 May 16;11(10):1649.

De Marco L, D'Orso S, Pirronello M, Verdiani A, Termine A, Fabrizio C, Capone A, Sabatini A, Guerrera G, Placido R, Sambucci M, Angelini DF, Giannessi F, Picozza M, Caltagirone C, Salvia A, Volpe E, Balice MP, Rossini A, Röttschke O, Giardina E, Battistini L, Borsellino G. Assessment of T-cell Reactivity to the SARS-CoV-2 Omicron Variant by Immunized Individuals. *JAMA Netw Open.* 2022 Apr 1;5(4):e2210871.

Del Rosario RCH, Poschmann J, Lim C, Cheng CY, Kumar P, Riou C, Ong ST, Gerges S, Hajan HS, Kumar D, Marzuki M, Lu X, Lee A, Wijaya GC, Rayan NA, Zhuang Z, Du Bruyn E, Chee CBE, Lee B, Lum J, Zolezzi F, Poidinger M, Rotzschke O, Khor CC, Wilkinson RJ, Wang YT, Chandy GK, De Libero G, Singhal A, Prabhakar S. Histone acetylome-wide associations in immune cells from individuals with active Mycobacterium tuberculosis infection. *Nat Microbiol.* 2022 Feb;7(2):312-326.

### **2021**

Andiappan AK, Asad M, Chua C, Sehanobish E, Ren Z, Chan XY, Lum J, Ang N, Duan K, Gersten A, Abuzeid WM, Akbar N, Gibber M, Howland S, Lee B, Rotzschke O, Porcelli SA, Jerschow E. Neutrophilic inflammation and epithelial barrier disruption in nasal polyps characterize NSAID-exacerbated respiratory disease. *Allergy.* 2021 Dec 18. [Epub ahead of print]

Lim J, Puan KJ, Wang LW, Teng KWW, Loh CY, Tan KP, Carissimo G, Chan YH, Poh CM, Lee CY, Fong SW, Yeo NK, Chee RS, Amrun SN, Chang ZW, Tay MZ, Torres-Ruesta A, Leo Fernandez N, How W, Andiappan AK, Lee W, Duan K, Tan SY, Yan G, Kalimuddin S, Lye DC, Leo YS, Ong SWX, Young BE, Renia L, Ng LFP, Lee B, Röttschke O. Data-Driven Analysis of COVID-19 Reveals Persistent Immune Abnormalities in Convalescent Severe Individuals. *Front Immunol.* 2021 Nov 19;12:710217.

Võsa U, Claringbould A, Westra HJ, Bonder MJ, Deelen P, Zeng B, Kirsten H, Saha A, Kreuzhuber R, Yazar S, Brugge H, Oelen R, de Vries DH, van der Wijst MGP, Kasela S, Pervjakova N, Alves I, Favé MJ, Agbessi M, Christiansen MW, Jansen R, Seppälä I, Tong L, Teumer A, Schramm K, Hemani G, Verlouw J, Yaghoobkar H, Sönmez Flitman R, Brown A, Kukushkina V, Kalnapekis A, Rüeger S, Porcu E, Kronberg J, Kettunen J, Lee B, Zhang F, Qi T, Hernandez JA, Arindrarto W, Beutner F; BIOS Consortium; i2QTL Consortium, Dmitrieva J, Elansary M, Fairfax BP, Georges M, Heijmans BT, Hewitt AW, Kähönen M, Kim Y, Knight JC, Kovacs P, Krohn K, Li S, Loeffler M, Marigorta UM, Mei H, Momozawa Y, Müller-Nurasyid M, Nauck M, Nivard MG, Penninx BWJH, Pritchard JK, Raitakari OT, Rotzschke O, Slagboom EP, Stehouwer CDA, Stumvoll M, Sullivan P, 't Hoen PAC, Thiery J, Tönjes A, van Dongen J, van Iterson M, Veldink JH, Völker U, Warmerdam R, Wijmenga C, Swertz M, Andiappan A, Montgomery GW, Ripatti S, Perola M, Kutalik Z, Dermizakis E, Bergmann S, Frayling T, van Meurs J, Prokisch H, Ahsan H, Pierce BL, Lehtimäki T, Boomsma DI, Psaty BM, Gharib SA, Awadalla P, Milani L, Ouwehand WH, Downes K, Stegle O, Battle A, Visscher PM, Yang J, Scholz M, Powell J, Gibson G, Esko T, Franke L. Large-scale cis- and trans-eQTL analyses identify thousands of genetic loci and polygenic scores that regulate blood gene expression. *Nat Genet.* 2021 Sep;53(9):1300-1310.

Puan KJ, San Luis B, Yusof N, Kumar D, Andiappan AK, Lee W, Cajic S, Vuckovic D, Chan J, Döllner T, Hou HW, Jiang Y, Tian C; 23andMe Research Team, Rapp E, Poidinger M, Wang Y, Soranzo N, Lee B, Röttschke O. FUT6 deficiency compromises basophil function by selectively abrogating their sialyl-Lewis x expression. *Commun Biol.* 2021 Jul 2;4(1):832.

Penny HL, Sieow JL, Gun SY, Lau MC, Lee B, Tan J, Phua C, Toh F, Nga Y, Yeap WH, Janela B, Kumar D, Chen H, Yeong J, Kenkel JA, Pang A, Lim D, Toh HC, Kim TKH, Johnson CI, Khameneh HJ, Mortellaro A, Engleman EG, Rotzschke O, Ginhoux F, Abastado JP, Chen J, Wong SC. Targeting Glycolysis in Macrophages Confers Protection Against Pancreatic Ductal Adenocarcinoma. *Int J Mol Sci.* 2021 Jun 14;22(12):6350.

Chan YH, Fong SW, Poh CM, Carissimo G, Yeo NK, Amrun SN, Goh YS, Lim J, Xu W, Chee RS, Torres-Ruesta A, Lee CY, Tay MZ, Chang ZW, Lee WH, Wang B, Tan SY, Kalimuddin S, Young BE, Leo YS, Wang CI, Lee B, Röttschke O, Lye DC, Renia L, Ng LFP. Asymptomatic COVID-19: disease tolerance with efficient anti-viral immunity against SARS-CoV-2. *EMBO Mol Med.* 2021 May 7:e14045.

Oon ML, Lim JQ, Lee B, Leong SM, Soon GS, Wong ZW, Lim EH, Li Z, Yeoh AEJ, Chen S, Ban KHK, Chung TH, Tan SY, Chuang SS, Kato S, Nakamura S, Takahashi E, Ho YH, Khoury JD, Au-Yeung RKH, Cheng CL, Lim ST, Chng WJ, Tripodo C, Rotzschke O, Ong CK, Ng SB. T-Cell Lymphoma Clonality by Copy Number Variation Analysis of T-Cell Receptor Genes. *Cancers (Basel).* 2021 Jan 19;13(2):340.

## 2020

Tan JSY, Chao YX, Röttschke O, Tan EK. New Insights into Immune-Mediated Mechanisms in Parkinson's Disease. *Int J Mol Sci.* 2020 Dec 6;21(23):9302.

Lim JQ, Huang D, Tang T, Tan D, Laurensia Y, Peng RJ, Wong EKY, Cheah DMZ, Chia BKH, Iqbal J, Grigoropoulos NF, Nairismägi ML, Ng CCY, Rajasegaran V, Hong H, Kim SJ, Cho J, Tse E, Mow B, Cai QC, Poon LM, Cai QQ, Tan J, Chan JY, Lim JX, Goh YT, Phipps C, Röttschke O, Cheng CL, Ha JCH, Khoo LP, Loh YSM, Au-Yeung R, Chan TS, Kwong YL, Hwang W, Kim WS, Bei JX, Lin T, Ong CK, Lim ST. Whole-genome sequencing identifies responders to Pembrolizumab in relapse/refractory natural-killer/T cell lymphoma. *Leukemia.* 2020 Dec;34(12):3413-3419.

Andiappan AK, Puan KJ, Lee B, Yeow PT, Yusof N, Meid SK, Kumar D, Lum J, Foo S, Koh G, Poidinger M, Zolezzi F; eQTLGen Consortium, BIOS consortium, Wang Y, Melén E, Rotzschke O. Inversed association of FCER1A allergy variant in monocytes and plasmacytoid dendritic cells. *J Allergy Clin Immunol*. 2020 Nov 5:S0091-6749(20)31562-1.

Carissimo G, Xu W, Kwok I, Abdad MY, Chan YH, Fong SW, Puan KJ, Lee CY, Yeo NK, Amrun SN, Chee RS, How W, Chan S, Fan BE, Andiappan AK, Lee B, Röttschke O, Young BE, Leo YS, Lye DC, Renia L, Ng LG, Larbi A, Ng LF. Whole blood immunophenotyping uncovers immature neutrophil-to-VD2 T-cell ratio as an early marker for severe COVID-19. *Nat Commun*. 2020 Oct 16;11(1):5243.

Tay ASL, Li C, Nandi T, Chng KR, Andiappan AK, Mettu VS, de Cevins C, Ravikrishnan A, Dutertre CA, Wong XFCC, Qi Ng AH, Matta SA, Ginhoux F, Röttschke O, Chew FT, Tang MBY, Yew YW, Nagarajan N, Common JEA. Atopic dermatitis microbiomes stratify into ecological dermatotypes enabling microbial virulence and disease severity. *J Allergy Clin Immunol*. 2020 Oct 8:S0091-6749(20)31399-3.

Young BE, Ong SWX, Ng LFP, Anderson DE, Chia WN, Chia PY, Ang LW, Mak TM, Kalimuddin S, Chai LYA, Pada S, Tan SY, Sun L, Parthasarathy P, Fong SW, Chan YH, Tan CW, Lee B, Röttschke O, Ding Y, Tambyah P, Low JGH, Cui L, Barkham T, Lin RTP, Leo YS, Renia L, Wang LF, Lye DC; Singapore 2019 Novel Coronavirus Outbreak Research team. Viral dynamics and immune correlates of COVID-19 disease severity. *Clin Infect Dis*. 2020 Aug 28;ciaa1280.

Chao YX, Gulam MY, Chia NSJ, Feng L, Rotzschke O, Tan EK. Gut-Brain Axis: Potential Factors Involved in the Pathogenesis of Parkinson's Disease. *Front Neurol*. 2020 Aug 25;11:849.

Chao YX, Röttschke O, Tan EK. The role of IgA in COVID-19. *Brain Behav Immun*. 2020 Jul;87:182-183.

## 2019

Thompson DJ, Genovese G, Halvardson J, Ulirsch JC, Wright DJ, Terao C, Davidsson OB, Day FR, Sulem P, Jiang Y, Danielsson M, Davies H, Dennis J, Dunlop MG, Easton DF, Fisher VA, Zink F, Houlston RS, Ingelsson M, Kar S, Kerrison ND, Kinnersley B, Kristjansson RP, Law PJ, Li R, Loveday C, Mattisson J, McCarroll SA, Murakami Y, Murray A, Olszewski P, Rychlicka-Buniowska E, Scott RA, Thorsteinsdottir U, Tomlinson I, Moghadam BT, Turnbull C, Wareham NJ, Gudbjartsson DF; International Lung Cancer Consortium (INTEGRAL-ILCCO); Breast Cancer Association Consortium; Consortium of Investigators of Modifiers of BRCA1/2; Endometrial Cancer Association Consortium; Ovarian Cancer Association Consortium; Prostate Cancer Association Group to Investigate Cancer Associated Alterations in the Genome (PRACTICAL) Consortium; Kidney Cancer GWAS Meta-Analysis Project; eQTLGen Consortium; Biobank-based Integrative Omics Study (BIOS) Consortium; 23andMe Research Team, Kamatani Y, Hoffmann ER, Jackson SP, Stefansson K, Auton A, Ong KK, Machiela MJ, Loh PR, Dumanski JP, Chanock SJ, Forsberg LA, Perry JRB. Genetic predisposition to mosaic Y chromosome loss in blood. *Nature*. 2019 Nov;575(7784):652-657.

Kumar D, Lee B, Puan KJ, Lee W, Luis BS, Yusof N, Andiappan AK, Del Rosario R, Poschmann J, Kumar P, DeLibero G, Singhal A, Prabhakar S, De Yun W, Poidinger M, Röttschke O. Resistin expression in human monocytes is controlled by two linked promoter SNPs mediating NFKB p50/p50 binding and C-methylation. *Sci Rep*. 2019 Oct 23;9(1):15245.

Tan KS, Andiappan AK, Lee B, Yan Y, Liu J, Tang SA, Lum J, He TT, Ong YK, Thong M, Lim HF, Choi HW, Rotzschke O, Chow VT, Wang Y. RNA Sequencing of H3N2 Influenza Virus-Infected Human Nasal Epithelial Cells from Multiple Subjects Reveals Molecular Pathways Associated with Tissue Injury and Complications. *Cells*. 2019 Aug 27;8(9).

Porcu E, Rüeger S, Lepik K; eQTLGen Consortium; BIOS Consortium, Santoni FA, Reymond A, Kutalik Z. Mendelian randomization integrating GWAS and eQTL data reveals genetic determinants of complex and clinical traits. *Nat Commun*. 2019 Jul 24;10(1):3300.

Stahl EA, Breen G, Forstner AJ, McQuillin A, Ripke S, Trubetskoy V, Mattheisen M, Wang Y, Coleman JRI, Gaspar HA, de Leeuw CA, Steinberg S, Pavlides JMW, Trzaskowski M, Byrne EM, Pers TH, Holmans PA, Richards AL, Abbott L, Agerbo E, Akil H, Albani D, Alliey-Rodriguez N, Als TD, Anjorin A, Antilla V, Awasthi S, Badner JA, Bækvad-Hansen M, Barchas JD, Bass N, Bauer M, Belliveau R, Bergen SE, Pedersen CB, Bøen E, Boks MP, Boocock J, Budde M, Bunney W, Burmeister M, Bybjerg-Grauholm J, Byerley W, Casas M, Cerrato F, Cervantes P, Chambert K, Charney AW, Chen D, Churchhouse C, Clarke TK, Coryell W, Craig DW, Cruceanu C, Curtis D, Czerski PM, Dale AM, de Jong S, Degenhardt F, Del-Favero J, DePaulo JR, Djurovic S, Dobbyn AL, Dumont A, Elvsåshagen T, Escott-Price V, Fan CC, Fischer SB, Flickinger M, Foroud TM, Forty L, Frank J, Fraser C, Freimer NB, Frisén L, Gade K, Gage D, Garnham J, Giambartolomei C, Pedersen MG, Goldstein J, Gordon SD, Gordon-Smith K, Green EK, Green MJ, Greenwood TA, Grove J, Guan W, Guzman-Parra J, Hamshere ML, Hautzinger M, Heilbronner U, Herms S, Hipolito M, Hoffmann P, Holland D, Huckins L, Jamain S, Johnson JS, Juréus A, Kandaswamy R, Karlsson R, Kennedy JL, Kittel-Schneider S, Knowles JA, Kogevinas M, Koller AC, Kupka R, Lavebratt C, Lawrence J, Lawson WB, Leber M, Lee PH, Levy SE, Li JZ, Liu C, Lucae S, Maaser A, MacIntyre DJ, Mahon PB, Maier W, Martinsson L, McCarroll S, McGuffin P, McInnis MG, McKay JD, Medeiros H, Medland SE, Meng F, Milani L, Montgomery GW, Morris DW, Mühleisen TW, Mullins N, Nguyen H, Nievergelt CM, Adolfsson AN, Nwulia EA, O'Donovan C, Loohuis LMO, Ori APS, Oruc L, Ösby U, Perlis RH, Perry A, Pfennig A, Potash JB, Purcell SM, Regeer EJ, Reif A, Reinbold CS, Rice JP, Rivas F, Rivera M, Roussos P, Ruderfer DM, Ryu E, Sánchez-Mora C, Schatzberg AF, Scheftner WA, Schork NJ, Shannon Weickert C, Shekhtman T, Shilling PD, Sigurdsson E, Slaney C, Smeland OB, Sobell JL, Sørholm Hansen C, Spijker AT, St Clair D, Steffens M, Strauss JS, Streit F, Strohmaier J, Szelinger S, Thompson RC, Thorgeirsson TE, Treutlein J, Vedder H, Wang W, Watson SJ, Weickert TW, Witt SH, Xi S, Xu W, Young AH, Zandi P, Zhang P, Zöllner S; eQTLGen Consortium; BIOS Consortium, Adolfsson R, Agartz I, Alda M, Backlund L, Baune BT, Bellivier F, Berrettini WH, Biernacka JM, Blackwood DHR, Boehnke M, Børghlum AD, Corvin A, Craddock N, Daly MJ, Dannlowski U, Esko T, Etain B, Frye M, Fullerton JM, Gershon ES, Gill M, Goes F, Grigoriu-Serbanescu M, Hauser J, Hougaard DM, Hultman CM, Jones I, Jones LA, Kahn RS, Kirov G, Landén M, Leboyer M, Lewis CM, Li QS, Lissowska J, Martin NG, Mayoral F, McElroy SL, McIntosh AM, McMahon FJ, Melle I, Metspalu A, Mitchell PB, Morken G, Mors O, Mortensen PB, Müller-Myhsok B, Myers RM, Neale BM, Nimgaonkar V, Nordentoft M, Nöthen MM, O'Donovan MC, Oedegaard KJ, Owen MJ, Paciga SA, Pato C, Pato MT, Posthuma D, Ramos-Quiroga JA, Ribasés M, Rietschel M, Rouleau GA, Schalling M, Schofield PR, Schulze TG, Serretti A, Smoller JW, Stefansson H, Stefansson K, Stordal E, Sullivan PF, Turecki G, Vaaler AE, Vieta E, Vincent JB, Werge T, Nurnberger JI, Wray NR, Di Florio A, Edenberg HJ, Cichon S, Ophoff RA, Scott LJ, Andreassen OA, Kelsoe J, Sklar P; Bipolar Disorder Working Group of the Psychiatric Genomics Consortium. Genome-wide association study identifies 30 loci associated with bipolar disorder. *Nat Genet*. 2019 May;51(5):793-803.

Ferreira MAR, Mathur R, Vonk JM, Szwajda A, Brumpton B, Granell R, Brew BK, Ullemar V, Lu Y, Jiang Y; 23andMe Research Team; eQTLGen Consortium; BIOS Consortium, Magnusson PKE, Karlsson R, Hinds DA, Paternoster L, Koppelman GH, Almqvist C. Genetic Architectures of Childhood- and Adult-Onset Asthma Are Partly Distinct. *Am J Hum Genet*. 2019 Apr 4;104(4):665-684.

Lu Y, Monaco G, Camous X, Andiappan AK, Rotzschke O, Ng TP, Larbi A. Biomarker Signatures Predicting 10-Year All-Cause and Disease-Specific Mortality. *J Gerontol A Biol Sci Med Sci*. 2019 Mar 14;74(4):469-479.

Karlsson Linnér R, Biroli P, Kong E, Meddens SFW, Wedow R, Fontana MA, Lebreton M, Tino SP, Abdellaoui A, Hammerschlag AR, Nivard MG, Okbay A, Rietveld CA, Timshel PN, Trzaskowski M, Vlaming R, Zünd CL, Bao Y, Buzdugan L, Caplin AH, Chen CY, Eibich P, Fontanillas P, Gonzalez JR, Joshi PK, Karhunen V, Kleinman A, Levin RZ, Lill CM, Meddens GA, Muntané G, Sanchez-Roige S, Rooij FJV, Taskesen E, Wu Y, Zhang F, 23and Me Research Team, eQTLGen Consortium, International Cannabis Consortium, Social Science Genetic Association Consortium, Auton A, Boardman JD, Clark DW, Conlin A, Dolan CC, Fischbacher U, Groenen PJF, Harris KM, Hasler G, Hofman A, Ikram MA, Jain S, Karlsson R, Kessler RC, Kooyman M, MacKillop J, Männikkö M, Morcillo-Suarez C, McQueen MB, Schmidt KM, Smart MC, Sutter M, Thurik AR, Uitterlinden AG, White J, Wit H, Yang J, Bertram L, Boomsma DI, Esko T, Fehr E, Hinds DA, Johannesson M, Kumari M, Laibson D, Magnusson PKE, Meyer MN, Navarro A, Palmer AA, Pers TH, Posthuma D, Schunk D, Stein MB, Svento R, Tiemeier H, Timmers PRHJ, Turley P, Ursano RJ, Wagner GG, Wilson JF, Gratten J, Lee JJ, Cesarini D, Benjamin DJ, Koellinger PD, Beauchamp JP. Genome-wide association analyses of risk tolerance and risky behaviors in over 1 million individuals identify hundreds of loci and shared genetic influences. *Nat Genet.* 2019 Feb;51(2):245-257.

Timmers PR, Mounier N, Lall K, Fischer K, Ning Z, Feng X, Bretherick AD, Clark DW; eQTLGen Consortium, Agbessi M, Ahsan H, Alves I, Andiappan A, Awadalla P, Battle A, Bonder MJ, Boomsma D, Christiansen M, Claringbould A, Deelen P, van Dongen J, Esko T, Favé M, Franke L, Frayling T, Gharib SA, Gibson G, Hemani G, Jansen R, Kalnapienkis A, Kasela S, Kettunen J, Kim Y, Kirsten H, Kovacs P, Krohn K, Kronberg-Guzman J, Kukushkina V, Kutalik Z, Kähönen M, Lee B, Lehtimäki T, Loeffler M, Marigorta U, Metspalu A, van Meurs J, Milani L, Müller-Nurasyid M, Nauck M, Nivard M, Penninx B, Perola M, Pervjakova N, Pierce B, Powell J, Prokisch H, Psaty BM, Raitakari O, Ring S, Ripatti S, Rotzschke O, Ruëger S, Saha A, Scholz M, Schramm K, Seppälä I, Stumvoll M, Sullivan P, Teumer A, Thiery J, Tong L, Tönjes A, Verlouw J, Visscher PM, Vösa U, Völker U, Yaghoobkar H, Yang J, Zeng B, Zhang F, Shen X, Esko T, Kutalik Z, Wilson JF, Joshi PK. Genomics of 1 million parent lifespans implicates novel pathways and common diseases and distinguishes survival chances. *Elife.* 2019 Jan 15;8.

## 2018

Luukkainen A, Puan KJ, Yusof N, Lee B, Tan KS, Liu J, Yan Y, Toppila-Salmi S, Renkonen R, Chow VT, Rotzschke O, Wang Y. A Co-culture Model of PBMC and Stem Cell Derived Human Nasal Epithelium Reveals Rapid Activation of NK and Innate T Cells Upon Influenza A Virus Infection of the Nasal Epithelium. *Front Immunol.* 2018 Nov 8;9:2514.

Xue A, Wu Y, Zhu Z, Zhang F, Kemper KE, Zheng Z, Yengo L, Lloyd-Jones LR, Sidorenko J, Wu Y, eQTLGen Consortium, McRae AF, Visscher PM, Zeng J, Yang J. Genome-wide association analyses identify 143 risk variants and putative regulatory mechanisms for type 2 diabetes. *Nat Commun.* 2018 Jul 27;9(1):2941.

Qi T, Wu Y, Zeng J, Zhang F1, Xue A, Jiang L, Zhu Z, Kemper K, Yengo L, Zheng Z, eQTLGen Consortium, Marioni RE, Montgomery GW, Deary IJ, Wray NR, Visscher PM, McRae AF, Yang J. Identifying gene targets for brain-related traits using transcriptomic and methylomic data from blood. *Nat Commun.* 2018 Jun 11;9(1):2282.

Wray NR, Ripke S, Mattheisen M, Trzaskowski M, Byrne EM, Abdellaoui A, Adams MJ, Agerbo E, Air TM, Andlauer TMF, Bacanu SA, Bækvad-Hansen M, Beekman AFT, Bigdeli TB, Binder EB, Blackwood DRH, Bryois J, Buttenschøn HN, Bybjerg-Grauholm J, Cai N, Castelao E, Christensen JH, Clarke TK, Coleman JIR, Colodro-Conde L, Couvy-Duchesne B, Craddock N, Crawford GE, Crowley CA, Dashti HS, Davies G, Deary IJ, Degenhardt F, Derks EM, Direk N, Dolan CV, Dunn EC, Eley TC, Eriksson N, Escott-

Price V, Kiadeh FHF, Finucane HK, Forstner AJ, Frank J, Gaspar HA, Gill M, Giusti-Rodríguez P, Goes FS, Gordon SD, Grove J, Hall LS, Hannon E, Hansen CS, Hansen TF, Herms S, Hickie IB, Hoffmann P, Homuth G, Horn C, Hottenga JJ, Hougaard DM, Hu M, Hyde CL, Ising M, Jansen R, Jin F, Jorgenson E, Knowles JA, Kohane IS, Kraft J, Kretzschmar WW, Krogh J, Kutalik Z, Lane JM, Li Y, Li Y, Lind PA, Liu X, Lu L, MacIntyre DJ, MacKinnon DF, Maier RM, Maier W, Marchini J, Mbarek H, McGrath P, McGuffin P, Medland SE, Mehta D, Middeldorp CM, Mihailov E, Milaneschi Y, Milani L, Mill J, Mondimore FM, Montgomery GW, Mostafavi S, Mullins N, Nauck M, Ng B, Nivard MG, Nyholt DR, O'Reilly PF, Oskarsson H, Owen MJ, Painter JN, Pedersen CB, Pedersen MG, Peterson RE, Pettersson E, Peyrot WJ, Pistis G, Posthuma D, Purcell SM, Quiroz JA, Qvist P, Rice JP, Riley BP, Rivera M, Saeed Mirza S, Saxena R, Schoevers R, Schulte EC, Shen L, Shi J, Shyn SI, Sigurdsson E, Sinnamoni GBC, Smit JH, Smith DJ, Stefansson H, Steinberg S, Stockmeier CA, Streit F, Strohmaier J, Tansey KE, Teismann H, Teumer A, Thompson W, Thomson PA, Thorgeirsson TE, Tian C, Traylor M, Treutlein J, Trubetskoy V, Uitterlinden AG, Umbricht D, Van der Auwera S, van Hemert AM, Viktorin A, Visscher PM, Wang Y, Webb BT, Weinsheimer SM, Wellmann J, Willemsen G, Witt SH, Wu Y, Xi HS, Yang J, Zhang F; eQTLGen; 23andMe, Arolt V, Baune BT, Berger K, Boomsma DI, Cichon S, Dannlowski U, de Geus ECJ, DePaulo JR, Domenici E, Domschke K, Esko T, Grabe HJ, Hamilton SP, Hayward C, Heath AC, Hinds DA, Kendler KS, Kloiber S, Lewis G, Li QS, Lucae S, Madden PFA, Magnusson PK, Martin NG, McIntosh AM, Metspalu A, Mors O, Mortensen PB, Müller-Myhsok B, Nordentoft M, Nöthen MM, O'Donovan MC, Paciga SA, Pedersen NL, Penninx BWJH, Perlis RH, Porteous DJ, Potash JB, Preisig M, Rietschel M, Schaefer C, Schulze TG, Smoller JW, Stefansson K, Tiemeier H, Uher R, Völzke H, Weissman MM, Werge T, Winslow AR, Lewis CM, Levinson DF, Breen G, Børghlum AD, Sullivan PF; Major Depressive Disorder Working Group of the Psychiatric Genomics Consortium. Genome-wide association analyses identify 44 risk variants and refine the genetic architecture of major depression. *Nat Genet.* 2018 May;50(5):668-681.

## 2017

Salcido-Ochoa F, Hue SS, Haase D, Choo JCJ, Yusof N, Li RL, Allen JC Jr, Iqbal J, Loh AHL, Rotzschke O. Analysis of T Cell Subsets in Adult Primary/Idiopathic Minimal Change Disease: A Pilot Study. *Int J Nephrol.* 2017;2017:3095425.

Lepik K, Annilo T, Kukuškina V; eQTLGen Consortium, Kisand K, Kutalik Z, Peterson P, Peterson H. C-reactive protein upregulates the whole blood expression of CD59 - an integrative analysis. *PLoS Comput Biol.* 2017 Sep 18;13(9):e1005766.

Obeidat M, Nie Y, Chen V, Shannon CP, Andiappan AK, Lee B, Rotzschke O, Castaldi PJ, Hersh CP, Fishbane N, Ng RT, McManus B, Miller BE, Rennard S, Paré PD, Sin DD. Network-based analysis reveals novel gene signatures in peripheral blood of patients with chronic obstructive pulmonary disease. *Respir Res.* 2017 Apr 24;18(1):72.

Kumar D, Puan KJ, Andiappan AK, Lee B, Westerlaken GH, Haase D, Melchiotti R, Li Z, Yusof N, Lum J, Koh G, Foo S, Yeong J, Alves AC, Pekkanen J, Sun LD, Irwanto A, Fairfax BP, Naranbhai V, Common JE, Tang M, Chuang CK, Jarvelin MR, Knight JC, Zhang X, Chew FT, Prabhakar S, Jianjun L, Wang Y, Zolezzi F, Poidinger M, Lane EB, Meyaard L, Röttschke O. A functional SNP associated with atopic dermatitis controls cell type-specific methylation of the VSTM1 gene locus. *Genome Med.* 2017 Feb 20;9(1):18.

Teo TH, Chan YH, Lee WW, Lum FM, Amrun SN, Her Z, Rajarethinam R, Merits A, Röttschke O, Rénia L, Ng LF. Fingolimod treatment abrogates chikungunya virus-induced arthralgia. *Sci Transl Med.* 2017 Feb 1;9(375).

## 2016

Hadadi E, Zhang B, Baidžajevs K, Yusof N, Puan KJ, Ong SM, Yeap WH, Rotzschke O, Kiss-Toth E, Wilson H, Wong SC. Differential IL-1 $\beta$  secretion by monocyte subsets is regulated by Hsp27 through modulating mRNA stability. *Sci Rep*. 2016 Dec 15;6:39035.

Puentes F, Dickhaut K, Hofstätter M, Pfeil J, Lauer U, Hamann A, Hoffmann U, Falk K, Röttschke O. Immune Modulation and Prevention of Autoimmune Disease by Repeated Sequences from Parasites Linked to Self Antigens. *J Neuroimmune Pharmacol*. 2016 Dec;11(4):749-762.

Lee WW, Teo TH, Lum FM, Andiappan AK, Amrun SN, Rénia L, Röttschke O, Ng LF. Virus infection drives IL-2 antibody complexes into pro-inflammatory agonists in mice. *Sci Rep*. 2016 Nov 25;6:37603.

Lu Y, Andiappan AK, Lee B, Ho R, Lim TK, Kuan WS, Goh DY, Mahadevan M, Sim TB, Wang Y, Van Bever HP, Rotzschke O, Larbi A, Ng TP. Neuropeptide Y associated with asthma in young adults. *Neuropeptides*. 2016 Oct;59:117-121.

Sun Y, Irwanto A, Toyo-Oka L, Hong M, Liu H, Andiappan AK, Choi H, Hitomi Y, Yu G, Yu Y, Bao F, Wang C, Fu X, Yue Z, Wang H, Zhang H, Kawashima M, Kojima K, Nagasaki M, Nakamura M, Yang SK, Ye BD, Denise Y, Rotzschke O, Song K, Tokunaga K, Zhang F, Liu J. Fine-mapping analysis revealed complex pleiotropic effect and tissue-specific regulatory mechanism of TNFSF15 in primary biliary cholangitis, Crohn's disease and leprosy. *Sci Rep*. 2016 Aug 10;6:31429.

Tan CT, Wistuba-Hamprecht K, Xu W, Nyunt MS, Vasudev A, Lee BT, Pawelec G, Puan KJ, Rotzschke O, Ng TP, Larbi A. V $\delta$ 2+ and  $\alpha/\beta$  T cells show divergent trajectories during human aging. *Oncotarget*. 2016 Jul 19;7(29):44906-44918.

Penny HL, Sieow JL, Adriani G, Yeap WH, See Chi Ee P, San Luis B, Lee B, Lee T, Mak SY, Ho YS, Lam KP, Ong CK, Huang RY, Ginhoux F, Rotzschke O, Kamm RD, Wong SC. Warburg metabolism in tumor-conditioned macrophages promotes metastasis in human pancreatic ductal adenocarcinoma. *Oncoimmunology*. 2016 Jun 21;5(8):e1191731.

Puan KJ, Andiappan AK, Lee B, Kumar D, Lai TS, Yeo G, Bercin D, Starke M, Haase D, Lum J, Chew FT, Connolly J, Wong SC, Zolezzi F, Poidinger M, Wang Y, Röttschke O. Systematic characterization of basophil anergy. *Allergy*. 2017 Mar;72(3):373-384.

Andiappan AK, Sio YY, Lee B, Suri BK, Matta SA, Lum J, Foo S, Koh G, Liu J, Zolezzi F, Poidinger M, Wang Y, Rotzschke O, Chew FT. Functional variants of 17q12-21 are associated with allergic asthma but not allergic rhinitis. *J Allergy Clin Immunol*. 2016 Mar;137(3):758-766.e3.

## 2015

Andiappan AK, Melchiotti R, Poh TY, Nah M, Puan KJ, Vigano E, Haase D, Yusof N, San Luis B, Lum J, Kumar D, Foo S, Zhuang L, Vasudev A, Irwanto A, Lee B, Nardin A, Liu H, Zhang F, Connolly J, Liu J, Mortellaro A, Wang de Y, Poidinger M, Larbi A, Zolezzi F, Rotzschke O. Genome-wide analysis of the genetic regulation of gene expression in human neutrophils. *Nat Commun*. 2015 Aug 10;6:7971.

Lee WW, Teo TH, Her Z, Lum FM, Kam YW, Haase D, Rénia L, Röttschke O, Ng LF. Expanding regulatory T cells alleviates chikungunya virus-induced pathology in mice. *J Virol*. 2015 Aug 1;89(15):7893-7904.

Haase D, Puan KJ, Starke M, Lai TS, Soh MY, Karunanithi I, San Luis B, Poh TY, Yusof N, Yeap CH, Phang CY, Chye WS, Chan M, Koh MB, Goh YT, Bertin-Maghit S, Nardin A, Ho LP, Rotzschke O. Large-scale Isolation of Highly Pure "Untouched" Regulatory T Cells in a GMP Environment for Adoptive Cell Therapy. *J Immunother*. 2015 Jul-Aug;38(6):250-258

Li M, Foo JN, Wang JQ, Low HQ, Tang XQ, Toh KY, Yin PR, Khor CC, Goh YF, Irwan ID, Xu RC, Andiappan AK, Bei JX, Rotzschke O, Chen MH, Cheng CY, Sun LD, Jiang GR, Wong TY, Lin HL, Aung T, Liao YH, Saw SM, Ye K, Epstein RP, Chen QK, Shi W, Chew SH, Chen J, Zhang FR, Li SP, Xu G, Shyong Tai E, Wang L, Chen N, Zhang XJ, Zeng YX, Zhang H, Liu ZH, Yu XQ, Liu JJ. Identification of new susceptibility loci for IgA nephropathy in Han Chinese. *Nat Commun*. 2015 Jun 1;6:7270.

Samsonraj RM, Rai B, Sathiyathan P, Puan KJ, Röttschke O, Hui JH, Raghunath M, Stanton LW, Nurcombe V, Cool SM. Establishing criteria for human mesenchymal stem cell potency. *Stem Cells*. 2015 Jun;33(6):1878-91.

Jin P, Andiappan AK, Quek JM, Lee B, Au B, Sio YY, Irwanto A, Schurmann C, Grabe HJ, Suri BK, Matta SA, Westra HJ, Franke L, Esko T, Sun L, Zhang X, Liu H, Zhang F, Larbi A, Xu X, Poidinger M, Liu J, Chew FT, Rotzschke O, Shi L, Wang Y. A functional brain-derived neurotrophic factor (BDNF) gene variant increases the risk of moderate-to-severe allergic rhinitis. *J Allergy Clin Immunol*. 2015 Jun;135(6):1486-1493.e8. Lee WW, Teo TH, Her Z, Lum FM, Kam YW, Haase D, Rénia L, Röttschke O, Ng LF. Expanding regulatory T cells alleviates chikungunya virus-induced pathology in mice. *J Virol*. 2015 May 20. [Epub ahead of print]

Westra HJ, Arends D, Esko T, Peters MJ, Schurmann C, Schramm K, Kettunen J, Yaghoobkar H, Fairfax BP, Andiappan AK, Li Y, Fu J, Karjalainen J, Platteel M, Visschedijk M, Weersma RK, Kasela S, Milani L, Tserel L, Peterson P, Reinmaa E, Hofman A, Uitterlinden AG, Rivadeneira F, Homuth G, Petersmann A, Lorbeer R, Prokisch H, Meitinger T, Herder C, Roden M, Grallert H, Ripatti S, Perola M, Wood AR, Melzer D, Ferrucci L, Singleton AB, Hernandez DG, Knight JC, Melchioni R, Lee B, Poidinger M, Zolezzi F, Larbi A, Wang Y, van den Berg LH, Veldink JH, Rotzschke O, Makino S, Salomaa V, Strauch K, Völker U, van Meurs JB, Metspalu A, Wijmenga C, Jansen RC, Franke L. Cell Specific eQTL Analysis without Sorting Cells. *PLoS Genet*. 2015 May 8;11(5):e1005223.

Liu H, Irwanto A, Fu X, Yu G, Yu Y, Sun Y, Wang C, Wang Z, Okada Y, Low H, Li Y, Liany H, Chen M, Bao F, Li J, You J, Zhang Q, Liu J, Chu T, Andiappan AK, Wang N, Niu G, Liu D, Yu X, Zhang L, Tian H, Zhou G, Rotzschke O, Chen S, Zhang X, Liu J, Zhang F. Discovery of six new susceptibility loci and analysis of pleiotropic effects in leprosy. *Nat Genet*. 2015 Mar;47(3):267-71.

Santosa A, Andiappan AK, Rotzschke O, Wong HC, Chang A, Bigliardi-Qi M, Wang DY, Bigliardi PL. Evaluation of the applicability of the Immuno-solid-phase allergen chip (ISAC) assay in atopic patients in Singapore. *Clin Transl Allergy*. 2015 Feb 27;5:9.

Andiappan AK, Narayanan S, Myers RA, Lee B, Nieuwenhuis MA, Nardin A, Park CS5, Shin HD, Kim JH, Westra HJ, Franke L7, Esko T, Metspalu A, Teo YY, Saw SM, Chuen KC, Jianjun L, Koppelman GH, Postma DS, Poidinger M, Connolly JE, Wang DY, Rotzschke O, Curotto de Lafaille MA, Chew FT. Genetic variants of inducible costimulator are associated with allergic asthma susceptibility. *J Allergy Clin Immunol*. 2015 Feb;135(2):556-558.e13.

Afridi S, Shaheen F, Roetzschke O, Shah ZA, Abbas SC, Siraj R, Makhmoor T. A cyclic peptide accelerates the loading of peptide antigens in major histocompatibility complex class II molecules. *Biochem Biophys Res Commun*. 2015 Jan 16;456(3):774-9.



## 2014

Vasudev A, Tan Tze Ying C, Ayyadhury S, Joo Puan K, Kumar Andiappan A, Shwe Zin Nyunt M, Binte Shadan N, Mustafa S, Low I, Rotzschke O, Fulop T, Pin Ng T, Larbi A.  $\gamma/\delta$  T cell subsets in human aging using the classical  $\alpha/\beta$  T cell model. *J Leukoc Biol*. 2014 Oct;96(4):647-55.

Melchiotti R, Puan KJ, Andiappan AK, Poh TY, Starke M, Zhuang L, Petsch K, Lai TS, Chew FT, Larbi A, Wang DY, Poidinger M, Rotzschke O. Genetic analysis of an allergic rhinitis cohort reveals an intercellular epistasis between FAM134B and CD39. *BMC Med Genet*. 2014 Jun 27;15(1):73.

Sun Y, Zuo X, Zheng X, Zhou F, Liang B, Liu H, Chang R, Gao J, Sheng Y, Cui H, Wang W, Andiappan AK, Rotzschke O, Yang S, Sun L, Zhang F, Zhang X, Ren Y, Liu J. A comprehensive association analysis confirms ZMIZ1 to be a susceptibility gene for vitiligo in Chinese population. *J Med Genet*. 2014 May;51(5):345-53.

Andiappan AK, Puan KJ, Lee B, Nardin A, Poidinger M, Connolly J, Chew FT, Wang DY, Rotzschke O. Allergic airway diseases in a tropical urban environment are driven by dominant mono-specific sensitization against house dust mites. *Allergy*. 2014 Apr;69(4):501-9.

Melchiotti R, Röttschke O, Poidinger M. ArchiLD: Hierarchical Visualization of Linkage Disequilibrium in Human Populations. *PLoS One*. 2014 Jan 21;9(1):e86761.

## 2013

Andiappan AK, Rotzschke O, Wang DY, Chew FT. Association of Interleukin-13 SNP rs20541 (Arg>Gln) to allergic rhinitis in an Asian population of ethnic Chinese in Singapore. *Gene*. 2013 Oct 25;529(2):357-8.

Puentes F, Dickhaut K, Hofstätter M, Falk K, Röttschke O. Active suppression induced by repetitive self-epitopes Protects against EAE development. *PLoS One*. 2013 May 30;8(5):e64888.

Clement CC, Aphkhasava D, Nieves E, Callaway M, Olszewski W, Rotzschke O, Santambrogio L. Protein Expression Profiles of Human Lymph and Plasma Mapped by 2D-DIGE and 1D SDS-PAGE Coupled with NanoLC-ESI-MS/MS Bottom-Up Proteomics. *J Proteomics*. 2013 Jan 14;78:172-87.

## 2012

Andiappan AK, Wang DY, Anantharaman R, Suri BK, Lee BTK, Rotzschke O, Liu J, Chew FT. Replication of genome-wide association study loci for allergic rhinitis and house dust mite sensitization in an Asian population of ethnic Chinese in Singapore. *J Allergy Clin Immunol*. 2012, Dec 10. [Epub ahead of print]

Salcido-Ochoa F, Yusof N, Hue SS, Haase D, Kee T, Rotzschke O. Are we ready for the use of foxp3(+) regulatory T cells for immunodiagnosis and immunotherapy in kidney transplantation? *J Transplant*. 2012;2012:397952.

Haase D, Starke M, Puan KJ, Lai TS, Rotzschke O. Immune modulation of inflammatory conditions: regulatory T cells for treatment of GvHD. *Immunol Res*. 2012 Sep;53(1-3):200-12.

Kam YW, Lum FM, Teo TH, Lee WW, Simarmata D, Harjanto S, Chua CL, Chan YF, Wee JK, Chow A, Lin RT, Leo YS, Le Grand R, Sam IC, Tong JC, Roques P, Wiesmüller KH, Rénia L, Röttschke O, Ng LF. Early

neutralizing IgG response to Chikungunya virus in infected patients targets a dominant linear epitope on the E2 glycoprotein. *EMBO Mol Med*. 2012 Apr;4(4):330-43.

## 2011

Rupp B, Günther S, Makhmoor T, Schlundt A, Dickhaut K, Gupta S, Choudhary I, Wiesmüller KH, Jung G, Freund C, Falk K, Röttschke O, Kühne R. Characterization of structural features controlling the receptiveness of empty class II MHC molecules. *PLoS One*. 2011 Apr 14;6(4):e18662.

Betts RJ, Prabhu N, Ho AW, Lew FC, Hutchinson PE, Rotzschke O, Macary PA, Kemeny DM. Influenza A Virus Infection Results in a Robust, Antigen-Responsive and Widely Disseminated Foxp3+ Regulatory T Cell Response. *J Virol*. 2012 Mar;86(5):2817-25.

Clement CC, Rotzschke O, Santambrogio L. The lymph as a pool of self-antigens. *Trends Immunol*. Jan 2011; 32(1):6-11.

## 2010

Gunther S, Schlundt A, Sticht J, Roske Y, Heinemann U, Wiesmüller KH, Jung G, Falk K, Rotzschke O, Freund C. Bidirectional binding of invariant chain peptides to an MHC class II molecule. *Proc Natl Acad Sci U S A*. Nov 29 2010.

Bianconi G, Rotzschke O. Bose-Einstein distribution, condensation transition, and multiple stationary states in multiloci evolution of diploid populations. *Phys Rev E. Sep* 16 2010; 82(3):036109(1-11).

Salcido-Ochoa F, Tsang J, Tam P, Falk K, Rotzschke O. Regulatory T cells in transplantation: does extracellular adenosine triphosphate metabolism through CD39 play a crucial role? *Transplant Rev (Orlando)*. 2010 Apr;24(2):52-66.

## 2009

Dickhaut K, Hoepner S, Eckhard J, Wiesmueller KH, Schindler L, Jung G, Falk K, Roetzschke O. Enhancement of tumour-specific immune responses in vivo by 'MHC loading-enhancer' (MLE). *PLoS One*. 2009 Sep 7;4(9):e6811.

Mailer RK, Falk K, Röttschke O. Absence of leucine zipper in the natural FOXP3Delta2Delta7 isoform does not affect dimerization but abrogates suppressive capacity. *PLoS One*. 2009 Jul 1;4(7):e6104.

Röttschke O, Borsellino G, Battistini L, Falk K, Kleinewietfeld M. In vivo-activated CD103+ Foxp3+ Tregs: of men and mice. *Blood*. 2009 Feb 26;113(9):2119-20.

Kleinewietfeld M, Starke M, DiMitre D, Borsellino G, Battistini L, Rotzschke O, Falk K. CD49d provides access to 'untouched' human Foxp3+ Treg free of contaminating effector cells. *Blood*. 2009 Jan 22;113(4):827-36.

## 2008

Gupta S, Höpner S, Rupp B, Günther S, Dickhaut K, Agarwal N, Cardoso MC, Kühne R, Wiesmüller KH, Jung G, Falk K, Röttschke O. Anchor side chains of short peptide fragments trigger ligand-exchange of class II MHC molecules. *PLoS One*. 2008 Mar 19;3(3):e1814.

Kleinewietfeld M, DiMitri D, Sternjak A, Diamantini A, Borsellino G, Battistini L, Rotzschke O, Falk K. Hydrolysis of extracellular ATP by CD39<sup>+</sup> Treg cells: context matters! *Blood*. 2008 Jan 15; 111:965-966.

## 2007

Burster T, Marin-Esteban V, Boehm BO, Dunn S, Rotzschke O, Falk K, Weber E, Verhelst SH, Kalbacher H, Driessen C. Design of protease-resistant myelin basic protein-derived peptides by cleavage site directed amino acid substitutions. *Biochem Pharmacol*. 2007 Nov 15;74(10):1514-23.

Borsellino G, Kleinewietfeld M, Di Mitri D, Sternjak A, Diamantini A, Giometto R, Höpner S, Centonze D, Bernardi G, Dell'Acqua ML, Rossini PM, Battistini L, Röttschke O, Falk K. Expression of ectonucleotidase CD39 by Foxp3<sup>+</sup> Treg cells: hydrolysis of extracellular ATP and immune suppression. *Blood*. 2007 Aug 15;110(4):1225-32.

Burster T, Beck A, Poeschel S, Øren A, Baechle D, Reich M, Roetzschke O, Falk K, Boehm BO, Youssef S, Kalbacher H, Overkleeft H, Tolosa E, Driessen C. Interferon-gamma regulates cathepsin G activity in microglia-derived lysosomes and controls the proteolytic processing of myelin basic protein in vitro. *Immunology*. 2007 May;121(1):82-93.

Piaggio E, Mars LT, Cassan C, Cabarrocas J, Hofstätter M, Desbois S, Bergereau E, Röttschke O, Falk K, Liblau RS. Multimerized T cell epitopes protect from experimental autoimmune diabetes by inducing dominant tolerance. *Proc Natl Acad Sci U S A*. 2007 May 29;104(22):9393-8.

## 2006

Höpner S, Dickhaut K, Hofstätter M, Krämer H, Rückerl D, Söderhäll JA, Gupta S, Marin-Esteban V, Kühne R, Freund C, Jung G, Falk K, Röttschke O. Small organic compounds enhance antigen loading of class II major histocompatibility complex proteins by targeting the polymorphic P1 pocket. *J Biol Chem*. 2006 Dec 15;281(50):38535-42.

Falk K, Röttschke O, Stevanović S, Jung G, Rammensee HG. Allele-specific motifs revealed by sequencing of self-peptides eluted from MHC molecules. 1991. *J Immunol*. 2006 Sep 1;177(5):2741-7.

## 2005

Kleinewietfeld M, Puentes F, Borsellino G, Battistini L, Röttschke O, Falk K. CCR6 expression defines regulatory effector/memory-like cells within the CD25(+)CD4<sup>+</sup> T-cell subset. *Blood*. 2005 Apr 1;105(7):2877-86.

## 2004

Marin-Esteban V, Falk K, Röttschke O. "Chemical analogues" of HLA-DM can induce a peptide-receptive state in HLA-DR molecules. *J Biol Chem*. 2004 Dec 3;279(49):50684-90.

Burster T, Beck A, Tolosa E, Marin-Esteban V, Röttschke O, Falk K, Lautwein A, Reich M, Brandenburg J, Schwarz G, Wiendl H, Melms A, Lehmann R, Stevanovic S, Kalbacher H, Driessen C. Cathepsin G, and not the asparagine-specific endoprotease, controls the processing of myelin basic protein in lysosomes from human B lymphocytes. *J Immunol*. 2004 May 1;172(9):5495-503.

Øren A, Falk K, Rötzschke O, Bechmann I, Nitsch R, Gimsa U. Production of neuroprotective NGF in astrocyte-T helper cell cocultures is upregulated following antigen recognition. *J Neuroimmunol*. 2004 Apr;149(1-2):59-65.

## 2003

Marin-Esteban V, Falk K, Rötzschke O. Small-molecular compounds enhance the loading of APC with encephalitogenic MBP protein. *J Autoimmun*. 2003 Feb;20(1):63-9.

## 2002

Rötzschke O, Lau JM, Hofstätter M, Falk K, Strominger JL. A pH-sensitive histidine residue as control element for ligand release from HLA-DR molecules. *Proc Natl Acad Sci U S A*. 2002 Dec 24;99(26):16946-50.

Falk K and Rötzschke O. The final cut: how ERAP1 trims MHC ligands to size. *Nat Immunol*. 2002 Dec;3(12):1121-2.

Falk K, Lau JM, Santambrogio L, Esteban VM, Puentes F, Rötzschke O, Strominger JL. Ligand exchange of major histocompatibility complex class II proteins is triggered by H-bond donor groups of small molecules. *J Biol Chem*. 2002 Jan 25;277(4):2709-15.

## 2001

Celestin J, Rötzschke O, Falk K, Ramesh N, Jabara H, Strominger J, Geha RS. IL-3 induces B7.2 (CD86) expression and costimulatory activity in human eosinophils. *J Immunol*. 2001 Dec 1;167(11):6097-104.

Stienekemeier M, Falk K, Rötzschke O, Weishaupt A, Schneider C, Toyka KV, Gold R, Strominger JL. Vaccination, prevention, and treatment of experimental autoimmune neuritis (EAN) by an oligomerized T cell epitope. *Proc Natl Acad Sci U S A*. 2001 Nov 20;98(24):13872-7.

Mack J, Falk K, Rötzschke O, Walk T, Strominger JL, Jung G. Synthesis of linear and comb-like peptide constructs containing up to four copies of a T cell epitope and their capacity to stimulate T cells. *J Pept Sci*. 2001 Jun;7(6):338-45.

## 2000

Falk K, Rötzschke O, Strominger JL. Antigen-specific elimination of T cells induced by oligomerized hemagglutinin (HA) 306-318. *Eur J Immunol*. 2000 Oct;30(10):3012-20.

Falk K, Rötzschke O, Santambrogio L, Dorf ME, Brosnan C, Strominger JL. Induction and suppression of an autoimmune disease by oligomerized T cell epitopes: enhanced in vivo potency of encephalitogenic peptides. *J Exp Med*. 2000 Feb 21;191(4):717-30.

## 1999

Rötzschke O, Falk K, Mack J, Lau JM, Jung G, Strominger JL. Conformational variants of class II MHC/peptide complexes induced by N- and C-terminal extensions of minimal peptide epitopes. *Proc Natl Acad Sci U S A*. 1999 Jun 22;96(13):7445-50.

## 1997

Rötzschke O, Falk K, Strominger JL. Superactivation of an immune response triggered by oligomerized T cell epitopes. *Proc Natl Acad Sci U S A*. 1997 Dec 23;94(26):14642-7.

Maryanski JL, Casanova JL, Falk K, Gournier H, Jaulin C, Kourilsky P, Lemonnier FA, Lüthy R, Rammensee HG, Rötzschke O, Servis C, López JA. The diversity of antigen-specific TCR repertoires reflects the relative complexity of epitopes recognized. *Hum Immunol*. 1997 May;54(2):117-28.

## 1996

Steinle A, Falk K, Rötzschke O, Gnau V, Stevanović S, Jung G, Schendel DJ, Rammensee HG. Motif of HLA-B\*3503 peptide ligands. *Immunogenetics*. 1996;43(1-2):105-7.

## 1995

Falk K, Rötzschke O, Takiguchi M, Gnau V, Stevanović S, Jung G, Rammensee HG. Peptide motifs of HLA-B51, -B52 and -B78 molecules, and implications for Behcet's disease. *Int Immunol*. 1995 Feb;7(2):223-8.

Sidney J, del Guercio MF, Southwood S, Engelhard VH, Appella E, Rammensee HG, Falk K, Rötzschke O, Takiguchi M, Kubo RT, et al. Several HLA alleles share overlapping peptide specificities. *J Immunol*. 1995 Jan 1;154(1):247-59.

Falk K, Rötzschke O, Takiguchi M, Gnau V, Stevanović S, Jung G, Rammensee HG. Peptide motifs of HLA-B38 and B39 molecules. *Immunogenetics*. 1995;41(2-3):162-4.

Falk K, Rötzschke O, Takiguchi M, Gnau V, Stevanović S, Jung G, Rammensee HG. Peptide motifs of HLA-B58, B60, B61, and B62 molecules. *Immunogenetics*. 1995;41(2-3):165-8.

## 1994

Wölfel T, Schneider J, Meyer Zum Büschenfelde KH, Rammensee HG, Rötzschke O, Falk K. Isolation of naturally processed peptides recognized by cytolytic T lymphocytes (CTL) on human melanoma cells in association with HLA-A2.1. *Int J Cancer*. 1994 May 1;57(3):413-8.

Rötzschke O, Falk K, Stevanović S, Gnau V, Jung G, Rammensee HG. Dominant aromatic/aliphatic C-terminal anchor in HLA-B\*2702 and B\*2705 peptide motifs. *Immunogenetics*. 1994;39(1):74-7.

Rötzschke O and Falk K. Origin, structure and motifs of naturally processed MHC class II ligands. *Curr Opin Immunol*. 1994 Feb;6(1):45-51.

Maier R, Falk K, Rötzschke O, Maier B, Gnau V, Stevanović S, Jung G, Rammensee HG, Meyerhans A. Peptide motifs of HLA-A3, -A24, and -B7 molecules as determined by pool sequencing. *Immunogenetics*. 1994;40(4):306-8.

Falk K, Rötzschke O, Takiguchi M, Grahovac B, Gnau V, Stevanović S, Jung G, Rammensee HG. Peptide motifs of HLA-A1, -A11, -A31, and -A33 molecules. *Immunogenetics*. 1994;40(3):238-41.

Falk K, Rötzschke O, Stevanović S, Jung G, Rammensee HG. Pool sequencing of natural HLA-DR, DQ, and DP ligands reveals detailed peptide motifs, constraints of processing, and general rules *Immunogenetics*. 1994;39(4):230-42.

Falk K, Rötzschke O, Stevanović S, Gnau V, Sparbier K, Jung G, Rammensee HG, Walden P. Analysis of a naturally occurring HLA class I-restricted viral epitope. *Immunology*. 1994 Jul;82(3):337-42.

## 1993

Rötzschke O, Falk K, Stevanović S, Grahovac B, Soloski MJ, Jung G, Rammensee HG. Qa-2 molecules are peptide receptors of higher stringency than ordinary class I molecules. *Nature*. 1993 Feb 18;361(6413):642-4.

Rammensee HG, Rötzschke O, Falk K. MHC class I-restricted antigen processing--lessons from natural ligands. *Chem Immunol*. 1993;57:113-33.

Rammensee HG, Rötzschke O, Falk K. Self tolerance of natural MHC class I ligands. *Int Rev Immunol*. 1993;10(4):291-300.

Rammensee HG, Falk K, Rötzschke O. Peptides naturally presented by MHC class I molecules. *Annu Rev Immunol*. 1993;11:213-44.

Rammensee HG, Falk K, Rötzschke O. MHC molecules as peptide receptors. *Curr Opin Immunol*. 1993 Feb;5(1):35-44.

Norda M, Falk K, Rötzschke O, Stevanović S, Jung G, Rammensee HG. Comparison of the H-2Kk- and H-2Kkm1-restricted peptide motifs. *J Immunother Emphasis Tumor Immunol*. 1993 Aug;14(2):144-9.

Malcherek G, Falk K, Rötzschke O, Rammensee HG, Stevanović S, Gnau V, Jung G, Melms A. Natural peptide ligand motifs of two HLA molecules associated with myasthenia gravis. *Int Immunol*. 1993 Oct;5(10):1229-37.

Harpur AG, Zimiecki A, Wilks AF, Falk K, Rötzschke O, Rammensee HG. A prominent natural H-2 Kd ligand is derived from protein tyrosine kinase JAK1. *Immunol Lett*. 1993 Mar;35(3):235-7.

Falk K, Rötzschke O, Grahovac B, Schendel D, Stevanović S, Jung G, Rammensee HG. Peptide motifs of HLA-B35 and -B37 molecules. *Immunogenetics*. 1993;38(2):161-2.

Falk K, Rötzschke O, Grahovac B, Schendel D, Stevanović S, Gnau V, Jung G, Strominger JL, Rammensee HG. Allele-specific peptide ligand motifs of HLA-C molecules. *Proc Natl Acad Sci U S A*. 1993 Dec 15;90(24):12005-9.

Falk K, Rötzschke O, Faath S, Goth S, Graef I, Shastri N, Rammensee HG. Both human and mouse cells expressing H-2Kb and ovalbumin process the same peptide, SIINFEKL. *Cell Immunol*. 1993 Sep;150(2):447-52.

Falk K, Rötzschke O. Consensus motifs and peptide ligands of MHC class I molecules. *Semin Immunol*. 1993 Apr;5(2):81-94.

## 1992

Wallny HJ, Rötzschke O, Falk K, Hämmerling G, Rammensee HG. Gene transfer experiments imply instructive role of major histocompatibility complex class I molecules in cellular peptide processing. *Eur J Immunol*. 1992 Mar;22(3):655-9.

Rötzschke O, Falk K, Stevanović S, Jung G, Rammensee HG. Peptide motifs of closely related HLA class I molecules encompass substantial differences. *Eur J Immunol*. 1992 Sep;22(9):2453-6.

Falk K, Rötzschke O, Rammensee HG. A self peptide naturally presented by both H-2Kb and H-2Kbm1 molecules demonstrates MHC restriction of self tolerance at the molecular level. *Int Immunol*. 1992 Mar;4(3):321-5.

Falk K, Rötzschke O, Rammensee HG. Specificity of antigen processing for MHC class I restricted presentation is conserved between mouse and man. *Eur J Immunol*. 1992 May;22(5):1323-6.

## 1991

Schild H, Norda M, Deres K, Falk K, Rötzschke O, Wiesmüller KH, Jung G, Rammensee HG. Fine specificity of cytotoxic T lymphocytes primed in vivo either with virus or synthetic lipopeptide vaccine or primed in vitro with peptide. *J Exp Med*. 1991 Dec 1;174(6):1665-8.

Rötzschke O, Falk K, Stevanović S, Jung G, Walden P, Rammensee HG. Exact prediction of a natural T cell epitope. *Eur J Immunol*. 1991 Nov;21(11):2891-4.

Rötzschke O, Falk K, Faath S, Rammensee HG. On the nature of peptides involved in T cell alloreactivity. *J Exp Med*. 1991 Nov 1;174(5):1059-71.

Rötzschke O and Falk K. Naturally-occurring peptide antigens derived from the MHC class-I-restricted processing pathway. *Immunol Today*. 1991 Dec;12(12):447-55.

Griem P, Wallny HJ, Falk K, Rötzschke O, Arnold B, Schönrich G, Hämmerling G, Rammensee HG. Uneven tissue distribution of minor histocompatibility proteins versus peptides is caused by MHC expression. *Cell*. 1991 May 17;65(4):633-40.

Falk K, Rötzschke O, Stevanović S, Jung G, Rammensee HG. Allele-specific motifs revealed by sequencing of self-peptides eluted from MHC molecules. *Nature*. 1991 May 23;351(6324):290-6.

Falk K, Rötzschke O, Deres K, Metzger J, Jung G, Rammensee HG. Identification of naturally processed viral nonapeptides allows their quantification in infected cells and suggests an allele-specific T cell epitope forecast. *J Exp Med*. 1991 Aug 1;174(2):425-34.

## 1990

Schild H, Rötzschke O, Kalbacher H, Rammensee HG. Limit of T cell tolerance to self proteins by peptide presentation. *Science*. 1990 Mar 30;247(4950):1587-9.

Rötzschke O, Falk K, Wallny HJ, Faath S, Rammensee HG. Characterization of naturally occurring minor histocompatibility peptides including H-4 and H-Y. *Science*. 1990 Jul 20;249(4966):283-7.

Rötzschke O, Falk K, Deres K, Schild H, Norda M, Metzger J, Jung G, Rammensee HG. Isolation and analysis of naturally processed viral peptides as recognized by cytotoxic T cells. *Nature*. 1990 Nov 15;348(6298):252-4.

Falk K, Rötzschke O, Rammensee HG. Cellular peptide composition governed by major histocompatibility complex class I molecules. *Nature*. 1990 Nov 15;348(6298):248-51.