

T cell immunity. Functional heterogeneity of human memory CD4⁺ T cell clones primed by pathogens or vaccines.

Becattini S, Latorre D, Mele F, Foglierini M, De Gregorio C, Cassotta A, Fernandez B, Kelderman S, Schumacher TN, Corti D, Lanzavecchia A, Sallusto F.

Science. 2015 Jan 23;347(6220):400-6. doi: 10.1126/science.1260668. Epub 2014 Dec 4.

Chemokine interaction with synergy-inducing molecules: fine tuning modulation of cell trafficking.

Cecchinato V, D'Agostino G, Raeli L, Uguccioni M.

J Leukoc Biol. 2015 Dec 29. pii: jlb.1MR1015-457R.

Intramuscular Priming and Intranasal Boosting Induce Strong Genital Immunity Through Secretory IgA in Minipigs Infected with *Chlamydia trachomatis*.

Lorenzen E, Follmann F, Bøje S, Erneholt K, Olsen AW, Agerholm JS, Jungersen G, Andersen P.

Front Immunol. 2015 Dec 16;6:628. doi: 10.3389/fimmu.2015.00628. eCollection 2015.

Novel adjuvant formulations for delivery of anti-tuberculosis vaccine candidates.

Agger EM.

Adv Drug Deliv Rev. 2015 Nov 17. pii: S0169-409X(15)00276-8. doi:

10.1016/j.addr.2015.11.012. [Epub ahead of print]

Micelle-Based Adjuvants for Subunit Vaccine Delivery.

Trimaille T, Verrier B.

Vaccines (Basel). 2015 Sep 25;3(4):803-13.

TB vaccines; promoting rapid and durable protection in the lung.

Andersen P, Urdahl K.

Curr Opin Immunol. (2015) August; 35:55-62. doi: 10.1016/j.coi.2015.06.001.

A multi-subunit *Chlamydia* vaccine inducing neutralizing antibodies and strong IFN-g+ CMI responses protects against a genital infection in minipigs.

Bøje S, Olsen AW, Erneholm K, Agerholm J S, Jungersen G, Andersen P, Follmann F.
Immunology and Cell Biology (2015) August 13; doi: 10.1038/icb.2015.79.

Retinoic Acid Promotes Mucosal and Systemic Immune Responses after Mucosal Priming and Systemic Boosting in Mice.

Cirelli E, Riccomi A, Veglia F, Gesa V, De Magistris MT, et al.

J Vaccines 6: 265. (2015) January 20; doi:10.4172/2157-7560.1000265.

Focused human gene expression profiling using dual-color reverse transcriptase multiplex ligation-dependent probe amplification (dcRT-MLPA).

Haks MC, Goeman JJ, Magis-Escurra C and Ottenhoff THM.

Vaccine (2015) April 24;pii:S0264-410X(15)00518-6.doi: 0.1016/j.vaccine.2015.04.054.

A purified truncated form of yeast Gal4 expressed in Escherichia coli and used to functionalize poly(lactic acid) nanoparticle surface is transcriptionally active in cellulose.

Legaz S, Exposito JY, Borel A, Candusso MP, Megy S, Montserret R, Lahaye V, Terzian C, Verrier B.

Protein Expr Purif (2015) September; 113:94-101. doi: 10.1016/j.pep.2015.05.009.

An acidic microenvironment sets the humoral pattern recognition molecule PTX3 in a tissue repair mode.

Doni A, Musso T, Morone D, Bastone A, Zambelli V, Sironi M, Castagnoli C, Cambieri I, Stravalaci M, Pasqualini F, Laface I, Valentino S, Tartari S, Ponzetta A, Maina V, Barbieri SS, Tremoli E, Catapano AL, Norata GD, Bottazzi B, Garlanda C, Mantovani A.

J Exp Med. (2015) January 1; 212(6):905-25. doi: 10.1084/jem.20141268 .

High-throughput data analysis and data integration for vaccine trials

Weiner J 3rd, Kaufmann SH, Maertzdorf J.

Vaccine. 2015 Sep 29;33(40):5249-55. doi: 10.1016/j.vaccine.2015.04.096. Epub 2015 May 11.

Systems integration of innate and adaptive immunity.

Zak DE, Aderem A.

Front Immunol. 2015 Aug 28;6:430. doi: 10.3389/fimmu.2015.00430. eCollection 2015.

Vaccine. 2015 Sep 29;33(40):5241-8. doi: 10.1016/j.vaccine.2015.05.098. Epub 2015 Jun 21.

Epigenetics and Proteomics Join Transcriptomics in the Quest for Tuberculosis Biomarkers

Maria M. Esterhuysen, January Weiner 3rd, Etienne Caron, Andre G. Loxton, Marco Iannaccone, Chandre Wagman, Philippe Saikali, Kim Stanley, Witold E. Wolski, Hans-Joachim Mollenkopf, Matthias Schick, Ruedi Aebersold, Heinz Linhart, Gerhard Walzl, Stefan H. E. Kaufmann

doi: 10.1128/mBio.01187-15, 15 September 2015 mBio vol. 6 no. 5 e01187-15

Partial Attenuation of Respiratory Syncytial Virus with a Deletion of a Small Hydrophobic Gene Is Associated with Elevated Interleukin-1 β Responses.

Russell RF, McDonald JU, Ivanova M, Zhong Z, Bukreyev A, Tregoning JS.

J Virol. 2015 Sep 1;89(17):8974-81. doi: 10.1128/JVI.01070-15. Epub 2015 Jun 17.

Peptide-specific T helper cells identified by MHC class II tetramers differentiate into several subtypes upon immunization with CAF01 adjuvanted H56 tuberculosis vaccine formulation.

Prota G, Christensen D, Andersen P, Medaglini D, Ciabattini A

Vaccine. 2015 Nov 27;33(48):6823-30. doi: 10.1016/j.vaccine.2015.09.024. Epub 2015 Oct 20.

Characterization of the Antigen-Specific CD4⁺ T Cell Response Induced by Prime-Boost Strategies with CAF01 and CpG Adjuvants Administered by the Intranasal and Subcutaneous Routes

Ciabattini A, Prota A, Christensen D, Andersen A, Pozzi G, and Medaglini D.

Front Immunol. 2015; 6: 430. Published online 2015 Aug 28. doi:

10.3389/fimmu.2015.00430. PMCID: PMC4551867

A Stochastic Model for CD4⁺ T Cell Proliferation and Dissemination Network in Primary Immune Response.

Boianelli A1, Pettini E2, Prota G2, Medaglini D2, Vicino A3.

PLoS One. 2015 Aug 24;10(8):e0135787. doi: 10.1371/journal.pone.0135787. eCollection

2015.

A new TLR2 agonist promotes cross-presentation by mouse and human antigen presenting cells.

Santone M1, Aprea S, Wu TY, Cooke MP, Mbow ML, Valiante NM, Rush JS, Dougan S, Avalos A, Ploegh H, De Gregorio E, Buonsanti C, D'Oro U.

Hum Vaccin Immunother. 2015 Aug 3;11(8):2038-50. doi: 10.1080/21645515.2015.1027467.

Molecular signatures of vaccine adjuvants.

Olafsdottir T, Lindqvist M, Harandi AM.

Vaccine. 2015 May 16. pii: S0264-410X(15)00596-4. doi: 10.1016/j.vaccine.2015.04.099.

[Epub ahead of print]

MF59 Mediates Its B Cell Adjuvanticity by Promoting T Follicular Helper Cells and Thus Germinal Center Responses in Adult and Early Life.

Mastelic Gavillet B, Eberhardt CS, Auderset F, Castellino F, Seubert A, Tregoning JS, Lambert PH, de Gregorio E, Del Giudice G, Siegrist CA. J Immunol. 2015 May 15;194(10):4836-45. doi:

10.4049/jimmunol.1402071. Epub 2015 Apr 13.

The stimulatory effect of the TLR4-mediated adjuvant glucopyranosyl lipid A is well preserved in old age.

Weinberger B, Joos C, Reed SG, Coler R, Grubeck-Loebenstein B.

Biogerontology. 2015 May 9. [Epub ahead of print]

Stress activated DC induce dual IL-15 and IL1 β mediated pathways, which may elicit CD4+ memory T cells and IFN stimulated genes

Wang Y, Lavender P, Watson J, Arno M1, Lehner T.

J Biol Chem. 2015 Apr 23 doi:10.1074/jbc.M115.645754.

Human CD8 T lymphocytes recognize Mycobacterium tuberculosis antigens presented by HLA-E during active tuberculosis and express type 2 cytokines.

Caccamo N, Pietra G, Sullivan LC, Brooks AG, Prezzemolo T, La Manna MP, Di Liberto D,

Joosten SA, van Meijgaarden KE, Di Carlo P, Titone L, Moretta L, Mingari MC, Ottenhoff TH, Dieli F.

Eur J Immunol. 2015 Apr;45(4):1069-81. doi: 10.1002/eji.201445193. Epub 2015 Feb 17.

Human CD8+ T-cells recognizing peptides from *Mycobacterium tuberculosis* (Mtb) presented by HLA-E have an unorthodox Th2-like, multifunctional, Mtb inhibitory phenotype and represent a novel human T-cell subset.

van Meijgaarden KE, Haks MC, Caccamo N, Dieli F, Ottenhoff TH, Joosten SA.

PLoS Pathog. 2015 Mar 24;11(3):e1004671. doi: 10.1371/journal.ppat.1004671. eCollection 2015.

Recognition of *Neisseria meningitidis* by the Long Pentraxin PTX3 and Its Role as an Endogenous Adjuvant

Barbara Bottazzi, Laura Santini, Silvana Savino, Marzia M. Giuliani, Ana I. Dueñas Díez, Giuseppe Mancuso, Concetta Beninati, Marina Sironi, Sonia Valentino, Livija Deban, Cecilia Garlanda, Giuseppe Teti, Mariagrazia Pizza, Rino Rappuoli, and Alberto Mantovani

PLoS One. 2015; 10(3): e0120807. Published online 2015 Mar 18. doi: 10.1371/journal.pone.0120807 PMID: PMC4364741

Plasma cell numbers decrease in bone marrow of old patients.

Pritz T, Lair J, Ban M, Keller M, Weinberger B, Krismer M, Grubeck-Loebenstein B.

Eur J Immunol. 2015 Mar;45(3):738-46. doi: 10.1002/eji.201444878. Epub 2014 Dec 23.

PTX3 is an extrinsic oncosuppressor regulating complement-dependent inflammation in cancer.

Bonavita E, Gentile S, Rubino M, Maina V, Papait R, Kunderfranco P, Greco C, Feruglio F, Molgora M, Laface I, Tartari S, Doni A, Pasqualini F, Barbati E, Basso G, Galdiero MR, Nebuloni M, Roncalli M, Colombo P, Laghi L, Lambris JD, Jaillon S, Garlanda C, Mantovani A.

Cell. 2015 Feb 12;160(4):700-14. doi: 10.1016/j.cell.2015.01.004.

The C-Type Lectin Receptor CLECSF8/CLEC4D Is a Key Component of Anti-Mycobacterial Immunity

Gillian J. Wilson, Mohlopheni J. Marakalala, Jennifer C. Hoving, Arjan van Laarhoven, Rebecca A. Drummond, Bernhard Kerscher, Roanne Keeton, Esther van de Vosse, Tom H.M. Ottenhoff, Theo S. Plantinga, Bacht Alisjahbana, Dharendra Govender, Gurdyal S. Besra, Mihai G. Netea, Delyth M. Reid, Janet A. Willment, Muazzam Jacobs, Sho Yamasaki, Reinout van Crevel and Gordon D. Brown

Cell Host Microbe. 2015 Feb 11; 17(2): 252-259. doi: 10.1016/j.chom.2015.01.004 PMID: PMC4334100

Dectin-1 co-activation of neonatal DCs corrects TLR-dependent TH1 deficiency. Lemoine S, et al J Allerg Clin Immunol. 2015, doi:10.1016/j.jaci.2015.02.030

Preparation and in vitro evaluation of imiquimod loaded polylactide-based micelles as potential vaccine adjuvants.

Jiménez-Sánchez G, Pavot V, Chane-Haong C, Handké N, Terrat C, Gignes D, Trimaille T, Verrier B.

Pharm Res. 2015 Jan;32(1):311-20. doi: 10.1007/s11095-014-1465-5. Epub 2014 Sep 24.

Autotransporter-based antigen display in bacterial ghosts.

Hjelm A, Söderström B, Vikström D, Jong WS, Luirink J, de Gier JW. Appl Environ Microbiol. 2015 Jan;81(2):726-35. doi: 10.1128/AEM.02733-14. Epub 2014 Nov 14.

Short-term high-fat diet increases macrophage markers in skeletal muscle accompanied by impaired insulin signalling in healthy male subjects.

Boon MR, Bakker LE, Haks MC, Quinten E, Schaart G, Van Beek L, Wang Y, Van Schinkel L, Van Harmelen V, Meinders AE, Ottenhoff TH, Van Dijk KW, Guigas B, Jazet IM, Rensen PC. Clin Sci (Lond). 2015 Jan;128(2):143-51. doi: 10.1042/CS20140179.

Dysregulation of Apoptosis Is a Risk Factor for Tuberculosis Disease Progression

Thomas O. J. P. Elliott¹, Olumuyiwa Owolabi, Simon Donkor, Beate Kampmann, Philip C. Hill, Tom H. M. Ottenhoff, Marielle C. Haks, Stefan H. E. Kaufmann, Jeroen Maertzdorf and Jayne S. Sutherland

J Infect Dis. (2015) doi: 10.1093/infdis/jiv238

Differential transcriptomic and metabolic profiles of *M. africanum*- and *M. tuberculosis*-infected patients after, but not before, drug treatment.

Tientcheu LD, Maertzdorf J, Weiner J, Adetifa IM, Mollenkopf HJ, Sutherland JS, Donkor S, Kampmann B, Kaufmann SH, Dockrell HM, Ota MO.

Genes Immun. 2015 Jun 4. doi: 10.1038/gene.2015.21. [Epub ahead of print]

Molecular signatures for vaccine development.

Maertzdorf J, Kaufmann SH, Weiner J.

Vaccine. 2015 Apr 6. pii: S0264-410X(15)00394-1. doi: 10.1016/j.vaccine.2015.03.075. [Epub ahead of print]

WHO consultation on clinical evaluation of vaccines, 17-18 July 2014, WHO Headquarters, Geneva, Switzerland.

Knezevic I, Moorthy V, Sheets R.

Vaccine. 2015 Apr 21;33(17):1999-2003. doi: 10.1016/j.vaccine.2015.01.056. Epub 2015 Mar 4.

Protein Energy Malnutrition during Vaccination Has Limited Influence on Vaccine Efficacy but Abolishes Immunity if Administered during *Mycobacterium tuberculosis* Infection.

Truc Hoang, Else Marie Agger, Joseph P Cassidy, Jan P Christensen, Peter Andersen

Infect Immun 2015 May 9;83(5):2118-26. Epub 2015 Mar 9.

Protection Against *Chlamydia trachomatis* Infection and Upper Genital Tract Pathological Changes by Vaccine-Promoted Neutralizing Antibodies Directed to the VD4 of the Major Outer Membrane Protein.

Olsen AW, Follmann F, Erneholm K, Rosenkrands I, Andersen P.

J Infect Dis. 2015 Mar 6. pii: jiv137. [Epub ahead of print]

The effect of hyperglycaemia on in vitro cytokine production and macrophage infection with *Mycobacterium tuberculosis*.

Lachmandas E, Vrieling F, Wilson LG, Joosten SA, Netea MG, Ottenhoff TH, van Crevel R.

PLoS One. 2015 Feb 9;10(2):e0117941. doi: 10.1371/journal.pone.0117941. eCollection 2015.

Acquired immunodeficiencies and tuberculosis: focus on HIV/AIDS and diabetes mellitus.

Ronacher K, Joosten SA, van Crevel R, Dockrell HM, Walzl G, Ottenhoff TH.

Immunol Rev. 2015 Mar;264(1):121-37. doi: 10.1111/imr.12257.

Co-delivery of PLGA encapsulated invariant NKT cell agonist with antigenic protein induce strong T cell-mediated antitumor immune responses.

Dölen Y, Kreutz M, Gileadi U, Tel J, Vasaturo A, van Dinther EA, van Hout-Kuijjer MA, Cerundolo V, Figdor CG.

Oncoimmunology. 2015 Aug 12;5(1):e1068493.

Low Virulence and Lack of Airborne Transmission of the Dutch Highly Pathogenic Avian Influenza Virus H5N8 in Ferrets.

Richard M, Herfst S, van den Brand JM, Lexmond P, Bestebroer TM, Rimmelzwaan GF, Koopmans M, Kuiken T, Fouchier RA.

PLoS ONE. (2015) June 19; 10(6): e0129827. doi:10.1371/journal.pone.0129827.

The human immune response to tuberculosis and its treatment: a view from the blood.

Cliff JM, Kaufmann SH, McShane H, van Helden P, O'Garra A.

Immunol Rev. 2015 Mar;264(1):88-102. doi: 10.1111/imr.12269.

Biomarkers Can Identify Pulmonary Tuberculosis in HIV-infected Drug Users Months Prior to Clinical Diagnosis

Rosa Sloot, Maarten F. Schim van der Loeff, Erik W. van Zwet, Mariëlle C. Haks, Sytze T.

Keizer, Maarten Scholing, Tom H.M. Ottenhoff, Martien W. Borgdorff, Simone A. Joosten,

EBioMedicine, Volume 2, Issue 2, February 2015, Pages 107-108