

## Publications Prof. Dr. Hans-Georg Rammensee

### 2021

1. Nelde A, Bilich T, Heitmann JS, Maringer Y, Salih HR, Roerden M, Lübke M, Bauer J, Rieth J, Wacker M, Peter A, Hörber S, Traenkle B, Kaiser PD, Rothbauer U, Becker M, Junker D, Krause G, Strengert M, Schneiderhan-Marra N, Templin MF, Joos TO, Kowalewski DJ, Stos-Zweifel V, Fehr M, Rabsteyn A, Mirakaj V, Karbach J, Jäger E, Graf M, Gruber LC, Rachfalski D, Preuß B, Hagelstein I, Märklin M, Bakchoul T, Gouttefangeas C, Kohlbacher O, Klein R, Stevanović S, **Rammensee HG**, Walz JS. SARS-CoV-2-derived peptides define heterologous and COVID-19-induced T cell recognition. *Nat Immunol.* 22(1):74-85; 2021.
2. Sturm T, Sautter B, Wörner TP, Stevanović S, **Rammensee HG**, Planz O, Heck AJR, Aebersold R. Mild Acid Elution and MHC Immunoaffinity Chromatography Reveal Similar Albeit Not Identical Profiles of the HLA Class I Immunoepitome. *J Proteome Res.* 2021 Jan 1;20(1):289-304; 2021.
3. Zekri L, Vogt F, Osburg L, Müller S, Kauer J, Manz T, Pflügler M, Maurer A, Heitmann JS, Hagelstein I, Märklin M, Hörner S, Todenhöfer T, Calaminus C, Stenzl A, Pichler B, la Fougère C, Schneider MA, **Rammensee HG**, Zender L, Sipos B, Salih HR, Jung G. An IgG-based bispecific antibody for improved dual targeting in PSMA-positive cancer. *EMBO Mol Med.* 13(2):e11902; 2021.
4. Nelde A, **Rammensee HG**, Walz JS. The Peptide Vaccine of the Future. *Mol Cell Proteomics.* 20:100022; 2021.
5. **Rammensee HG**, Gouttefangeas C, Heidt S, Klein R, Preuß B, Walz JS, Nelde A, Haen SP, Reth M, Yang J, Tabatabai G, Bösmüller H, Hoffmann H, Schindler M, Planz O, Wiesmüller KH, Löffler MW. Designing a SARS-CoV-2 T-Cell-Inducing Vaccine for High-Risk Patient Groups. *Vaccines (Basel).* 9(5):428; 2021.
6. Marcu A, Bichmann L, Kuchenbecker L, Kowalewski DJ, Freudenmann LK, Backert L, Mühlenbruch L, Szolek A, Lübke M, Wagner P, Engler T, Matovina S, Wang J, Hauri-Hohl M, Martin R, Kapolou K, Walz JS, Velz J, Moch H, Regli L, Silginer M, Weller M, Löffler MW, Erhard F, Schlosser A, Kohlbacher O, Stevanović S, **Rammensee HG**, Neidert MC. HLA Ligand Atlas: a benign reference of HLA-presented peptides to improve T-cell-based cancer immunotherapy. *J Immunother Cancer.* 9(4):e002071; 2021.
7. Schöllhorn A, Schuhmacher J, Besedovsky L, Fendel R, Jensen ATR, Stevanović S, Lange T, **Rammensee HG**, Born J, Gouttefangeas C, Dimitrov S. Integrin Activation Enables Sensitive Detection of Functional CD4+ and CD8+ T Cells: Application to Characterize SARS-CoV-2 Immunity. *Front Immunol.* 12:626308; 2021.
8. Halabi S, Ghosh M, Stevanović S, **Rammensee HG**, Bertzbach LD, Kaufer BB, Moncrieffe MC, Kaspers B, Härtle S, Kaufman J. The dominantly expressed class II molecule from a resistant MHC haplotype presents only a few Marek's disease virus peptides by using an unprecedented binding motif. *PLoS Biol.* 19(4):e3001057; 2021.
9. Felux J, Erbacher A, Breckler M, Hervé R, Lemeiter D, Mannherz HG, Napirei M, **Rammensee HG**, Decker P. Deoxyribonuclease 1-Mediated Clearance of Circulating Chromatin Prevents From Immune Cell Activation and Pro-inflammatory Cytokine Production, a Phenomenon Amplified by Low Trap1 Activity: Consequences for Systemic Lupus Erythematosus. *Front Immunol.* 12:613597; 2021.

10. Becker M, Strengert M, Junker D, Kaiser PD, Kerrinnes T, Traenkle B, Dinter H, Häring J, Ghozzi S, Zeck A, Weise F, Peter A, Hörber S, Fink S, Ruoff F, Dulovic A, Bakchoul T, Baillot A, Lohse S, Cornberg M, Illig T, Gottlieb J, Smola S, Karch A, Berger K, **Rammensee HG**, Schenke-Layland K, Nelde A, Märklin M, Heitmann JS, Walz JS, Templin M, Joos TO, Rothbauer U, Krause G, Schneiderhan-Marra N. Exploring beyond clinical routine SARS-CoV-2 serology using MultiCoV-Ab to evaluate endemic coronavirus cross-reactivity. *Nat Commun.* 12(1):1152; 2021.
11. Bilich T, Nelde A, Heitmann JS, Maringer Y, Roerden M, Bauer J, Rieth J, Wacker M, Peter A, Hörber S, Rachfalski D, Märklin M, Stevanović S, **Rammensee HG**, Salih HR, Walz JS. T cell and antibody kinetics delineate SARS-CoV-2 peptides mediating long-term immune responses in COVID-19 convalescent individuals. *Sci Transl Med.* 13(590):eabf7517; 2021.
12. Roerden M, Märklin M, Salih HR, Bethge WA, Klein R, **Rammensee HG**, Nelde A, Walz JS. Expression levels of HLA-DR in acute myeloid leukemia: implications for antigenicity and clinical outcome. *Leuk Lymphoma.* 1-18; 2021.

## 2020

13. Wang J, Jelcic I, Mühlenbruch L, Haunerding V, Toussaint NC, Zhao Y, Cruciani C, Faigle W, Naghavian R, Foege M, Binder TMC, Eiermann T, Opitz L, Fuentes-Font L, Reynolds R, Kwok WW, Nguyen JT, Lee JH, Lutterotti A, Münz C, **Rammensee HG**, Hauri-Hohl M, Sospedra M, Stevanovic S, Martin R. HLA-DR15 Molecules Jointly Shape an Autoreactive T Cell Repertoire in Multiple Sclerosis. *Cell.* 183(5):1264-1281; 2020
14. Nelde A, **Rammensee HG**, Walz JS. The peptide vaccine of the future. *Mol Cell Proteomics.* R120.002309; 2020.
15. **Rammensee HG**, Löffler MW. Individualized immunotherapy for malignant tumors using peptide vaccines-maybe it does work after all? *Bundesgesundheitsblatt Gesundheitsforschung Gesundheitsschutz.* 63(11):1380-1387; 2020
16. Ghosh M, Hartmann H, Jakobi M, März L, Bichmann L, Freudenmann LK, Mühlenbruch L, Segan S, **Rammensee HG**, Schneiderhan-Marra N, Shipp C, Stevanović S, Joos TO. The Impact of Biomaterial Cell Contact on the Immunopeptidome. *Front Bioeng Biotechnol.* 16;8: 571294; 2020.
17. Zekri L, Vogt F, Osburg L, Müller S, Kauer J, Manz T, Pflügler M, Maurer A, Heitmann JS, Hagelstein I, Märklin M, Hörner S, Todenhöfer T, Calaminus C, Stenzl A, Pichler B, la Fougère C, Schneider MA, **Rammensee HG**, Zender L, Sipos B, Salih HR, Jung G. An IgG-based bispecific antibody for improved dual targeting in PSMA-positive cancer. *EMBO Mol Med.*:e11902; 2020.
18. Schuhmacher J, Heidt S, Balchen T, Richardson JR, Schmeltz C, Sonne J, Schweiker J, **Rammensee HG**, Thor Straten P, Røder MA, Brasso K, Gouttefangeas C. Vaccination against RhoC induces long-lasting immune responses in patients with prostate cancer: results from a phase I/II clinical trial. *J Immunother Cancer.* 8(2):e001157; 2020.
19. **Rammensee HG**, Löffler MW, Walz JS, Bokemeyer C, Haen SP, Gouttefangeas C. Tumor vaccines-therapeutic vaccination against cancer. *Internist (Berl).* 202; 61(7):690-698.
20. Roerden M, Nelde A, Heitmann JS, Klein R, **Rammensee HG**, Bethge WA, Walz JS. HLA Evolutionary Divergence as a Prognostic Marker for AML Patients Undergoing Allogeneic Stem Cell Transplantation. *Cancers (Basel).* 2020; 12(7): 1835.
21. Schneider M, Müller M, Yigitliler A, Xi J, Simon C, Feger T, Rziha HJ, Stubenrauch F, **Rammensee HG**, Iftner T, Amann R. Orf Virus-Based Therapeutic Vaccine for Treatment of Papillomavirus-Induced Tumors. *J Virol.* 2020 94(15):e00398-20.

22. Haen SP, Löffler MW, **Rammensee HG**, Brossart P. Towards new horizons: characterization, classification and implications of the tumour antigenic repertoire. *Nat Rev Clin Oncol*. 2020; 17(10):595-610.
23. Kauer J, Hörner S, Osburg L, Müller S, Märklin M, Heitmann JS, Zekri L, **Rammensee HG**, Salih HR, Jung G. Tocilizumab, but not dexamethasone, prevents CRS without affecting antitumor activity of bispecific antibodies. *J Immunother Cancer*. 2020; 8(1):e000621.
24. Reustle A, Di Marco M, Meyerhoff C, Nelde A, Walz JS, Winter S, Kandabarau S, Büttner F, Haag M, Backert L, Kowalewski DJ, Rausch S, Hennenlotter J, Stühler V, Scharpf M, Fend F, Stenzl A, **Rammensee HG**, Bedke J, Stevanović S, Schwab M, Schaeffeler E. Integrative -omics and HLA-ligandomics analysis to identify novel drug targets for ccRCC immunotherapy. *Genome Med*. 2020; 12(1):32.
25. Bilich T, Nelde A, Bauer J, Walz S, Roerden M, Salih HR, Weisel K, Besemer B, Marcu A, Lübke M, Schuhmacher J, Neidert MC, **Rammensee HG**, Stevanović S, Walz JS. Mass spectrometry-based identification of a B-cell maturation antigen-derived T-cell epitope for antigen-specific immunotherapy of multiple myeloma. *Blood Cancer J*. 2020; 10(2):24.
26. Accolla RS, Buonaguro L, Melief C, **Rammensee HG**, Bassani-Sternberg M. Editorial: Novel Strategies for Anti-Tumor Vaccines. *Front Immunol*. 2020;10:3117.
27. Ghosh M, Gauger M, Marcu A, Nelde A, Denk M, Schuster H, **Rammensee HG**, Stevanović S. Guidance Document: Validation of a High-Performance Liquid Chromatography-Tandem Mass Spectrometry Immunopeptidomics Assay for the Identification of HLA Class I Ligands Suitable for Pharmaceutical Therapies. *Mol Cell Proteomics*. 2020; 19(3):432-443.
28. Lübke M, Spalt S, Kowalewski DJ, Zimmermann C, Bauersfeld L, Nelde A, Bichmann L, Marcu A, Peper JK, Kohlbacher O, Walz JS, Le-Trilling VTK, Hengel H, **Rammensee HG**, Stevanović S, Halenius A. Identification of HCMV-derived T cell epitopes in seropositive individuals through viral deletion models. *J Exp Med*. 2020; 217(3).

## 2019

29. Rausch S, Gouttefangeas C, Hennenlotter J, Laske K, Walter K, Feyerabend S, Chandran PA, Kruck S, Singh-Jasuja H, Frick A, Kröger N, Stevanović S, Stenzl A, **Rammensee HG**, Bedke J. Results of a Phase 1/2 Study in Metastatic Renal Cell Carcinoma Patients Treated with a Patient-specific Adjuvant Multi-peptide Vaccine after Resection of Metastases. *Eur Urol Focus*. 2019; 5(4):604-607.
30. Löffler MW, Nussbaum B, Jäger G, Jurmeister PS, Budczies J, Pereira PL, Clasen S, Kowalewski DJ, Mühlenbruch L, Königsrainer I, Beckert S, Ladurner R, Wagner S, Bullinger F, Gross TH, Schroeder C, Sipos B, Königsrainer A, Stevanović S, Denkert C, **Rammensee HG**, Gouttefangeas C, Haen SP. A Non-interventional Clinical Trial Assessing Immune Responses After Radiofrequency Ablation of Liver Metastases From Colorectal Cancer. *Front Immunol*. 2019; 10:2526.
31. **Rammensee HG**, Wiesmüller KH, Chandran PA, Zelba H, Rusch E, Gouttefangeas C, Kowalewski DJ, Di Marco M, Haen SP, Walz JS, Gloria YC, Bödder J, Schertel JM, Tunger A, Müller L, Kießler M, Wehner R, Schmitz M, Jakobi M, Schneiderhan-Marra N, Klein R, Laske K, Artzner K, Backert L, Schuster H, Schwenck J, Weber ANR, Pichler BJ, Kneilling M, la Fougère C, Forchhammer S, Metzler G, Bauer J, Weide B, Schippert W, Stevanović S, Löffler MW. A new synthetic toll-like receptor 1/2 ligand is an efficient adjuvant for peptide vaccination in a human volunteer. *J Immunother Cancer*. 2019; 7(1):307.
32. Domankevich V, Cohen A, Efrati M, Schmidt M, **Rammensee HG**, Nair SS, Tewari A, Kelson I, Keisari Y. Combining alpha radiation-based brachytherapy with immunomodulators promotes complete tumor regression in mice via tumor-specific long-term immune response. *Cancer Immunol Immunother*. 2019; 68(12):1949-1958.

33. Bichmann L, Nelde A, Ghosh M, Heumos L, Mohr C, Peltzer A, Kuchenbecker L, Sachsenberg T, Walz JS, Stevanović S, **Rammensee HG**, Kohlbacher O. MHCquant: Automated and Reproducible Data Analysis for Immunopeptidomics. *J Proteome Res.* 2019; 18(11):3876-3884.
34. Kaesler S, Wölbing F, Kempf WE, Skabytska Y, Köberle M, Volz T, Sinnberg T, Amaral T, Möckel S, Yazdi A, Metzler G, Schaller M, Hartmann K, Weide B, Garbe C, **Rammensee HG**, Röcken M, Biedermann T. Targeting tumor-resident mast cells for effective anti-melanoma immune responses. *JCI Insight.* 2019; 4(19). pii: 125057.
35. Herich S, Schneider-Hohendorf T, Rohlmann A, Khaleghi Ghadiri M, Schulte-Mecklenbeck A, Zondler L, Janoschka C, Ostkamp P, Richter J, Breuer J, Dimitrov S, **Rammensee HG**, Grauer OM, Klotz L, Gross CC, Stummer W, Missler M, Zarbock A, Vestweber D, Wiendl H, Schwab N. Human CCR5high effector memory cells perform CNS parenchymal immune surveillance via GZMK-mediated transendothelial diapedesis. *Brain.* 2019;142(11):3411-3427.
36. Zelba H, Bedke J, Hennenlotter J, Mostböck S, Zettl M, Zichner T, Chandran A, Stenzl A, **Rammensee HG**, Gouttefangeas C. PD-1 and LAG-3 Dominate Checkpoint Receptor-Mediated T-cell Inhibition in Renal Cell Carcinoma. *Cancer Immunol Res.* 2019; 7(11):1891-1899.
37. Moritz A, Anjanappa R, Wagner C, Bunk S, Hofmann M, Pszolla G, Saikia A, Garcia-Alai M, Meijers R, **Rammensee HG**, Springer S, Maurer D. High-throughput peptide-MHC complex generation and kinetic screenings of TCRs with peptide-receptive HLA-A\*02:01 molecules. *Sci Immunol.* 2019;4(37). pii: eaav0860.
38. Shraibman B, Barnea E, Kadosh DM, Haimovich Y, Slobodin G, Rosner I, López-Larrea C, Hilf N, Kuttruff S, Song C, Britten C, Castle J, Kreiter S, Frenzel K, Tatagiba M, Tabatabai G, Dietrich PY, Dutoit V, Wick W, Platten M, Winkler F, von Deimling A, Kroep J, Sahuquillo J, Martinez-Ricarte F, Rodon J, Lassen U, Ottensmeier C, van der Burg SH, Thor Straten P, Poulsen HS, Ponsati B, Okada H, **Rammensee HG**, Sahin U, Singh H, Admon A. Withdrawal: Identification of tumor antigens among the HLA peptidomes of glioblastoma tumors and plasma. *Mol Cell Proteomics.* 2019; 18(6):1270.
39. Shraibman B, Barnea E, Kadosh DM, Haimovich Y, Slobodin G, Rosner I, López-Larrea C, Hilf N, Kuttruff S, Song C, Britten C, Castle J, Kreiter S, Frenzel K, Tatagiba M, Tabatabai G, Dietrich PY, Dutoit V, Wick W, Platten M, Winkler F, von Deimling A, Kroep J, Sahuquillo J, Martinez-Ricarte F, Rodon J, Lassen U, Ottensmeier C, van der Burg SH, Thor Straten P, Poulsen HS, Ponsati B, Okada H, **Rammensee HG**, Sahin U, Singh H, Admon A. Identification of Tumor Antigens Among the HLA Peptidomes of Glioblastoma Tumors and Plasma. *Mol Cell Proteomics.* 2019;18(6):1255-1268.
40. Löffler MW, Mohr C, Bichmann L, Freudenmann LK, Walzer M, Schroeder CM, Trautwein N, Hilke FJ, Zinser RS, Mühlenbruch L, Kowalewski DJ, Schuster H, Sturm M, Matthes J, Riess O, Czernel S, Nahnsen S, Königsrainer I, Thiel K, Nadalin S, Beckert S, Bösmüller H, Fend F, Velic A, Maček B, Haen SP, Buonaguro L, Kohlbacher O, Stevanović S, Königsrainer A; HEPAVAC Consortium, **Rammensee HG**. Multi-omics discovery of exome-derived neoantigens in hepatocellular carcinoma. *Genome Med.* 2019; 11(1):28.
41. Dimitrov S, Lange T, Gouttefangeas C, Jensen ATR, Szczepanski M, Lehnholz J, Soekadar S, **Rammensee HG**, Born J, Besedovsky L. Gas-coupled receptor signaling and sleep regulate integrin activation of human antigen-specific T cells. *J Exp Med.* 2019; 216(3):517-526.
42. Griessinger CM, Schmid AM, Sonanini D, Schörg BF, Jarbouy MA, Bukala D, Mucha N, Fehrenbacher B, Steinhilber J, Martella M, Kohlhofer U, Schaller M, Zender L, **Rammensee HG**, Quintanilla-Martinez L, Röcken M, Kneilling M, Pichler BJ. The administration route of tumor-antigen-specific T-helper cells differentially modulates the tumor microenvironment and senescence. *Carcinogenesis.* 2019; 40(2):289-302.
43. Hilf N, Kuttruff-Coqui S, Frenzel K, Bukur V, Stevanović S, Gouttefangeas C, Platten M, Tabatabai G, Dutoit V, van der Burg SH, Thor Straten P, Martínez-Ricarte F, Ponsati B, Okada H, Lassen U, Admon A, Ottensmeier CH, Ulges A, Kreiter S, von Deimling A, Skardelly M, Migliorini D, Kroep JR, Idorn M,

- Rodon J, Piró J, Poulsen HS, Shraibman B, McCann K, Mendrzyk R, Löwer M, Stieglbauer M, Britten CM, Capper D, Welters MJP, Sahuquillo J, Kiesel K, Derhovanessian E, Rusch E, Bunse L, Song C, Heesch S, Wagner C, Kemmer-Brück A, Ludwig J, Castle JC, Schoor O, Tadmor AD, Green E, Fritsche J, Meyer M, Pawlowski N, Dorner S, Hoffgaard F, Rössler B, Maurer D, Weinschenk T, Reinhardt C, Huber C, **Rammensee HG**, Singh-Jasuja H, Sahin U, Dietrich PY, Wick W. Actively personalized vaccination trial for newly diagnosed glioblastoma. *Nature*. 2019; 565(7738):240-245.
44. Bilich T, Nelde A, Bichmann L, Roerden M, Salih HR, Kowalewski DJ, Schuster H, Tsou CC, Marcu A, Neidert MC, Lübke M, Rieth J, Schemionek M, Brümmendorf TH, Vucinic V, Niederwieser D, Bauer J, Märklin M, Peper JK, Klein R, Kohlbacher O, Kanz L, **Rammensee HG**, Stevanović S, Walz JS. The HLA ligandome landscape of chronic myeloid leukemia delineates novel T-cell epitopes for immunotherapy. *Blood*. 2019; 133(6):550-565.
45. Eckert F, Schaedle P, Zips D, Schmid-Horch B, **Rammensee HG**, Gani C, Gouttefangeas C. Impact of curative radiotherapy on the immune status of patients with localized prostate cancer. *Oncoimmunology*. 2018; 7(11):e1496881.
46. Santambrogio L, **Rammensee HG**. Contribution of the plasma and lymph Degradome and Peptidome to the MHC Ligandome. *Immunogenetics*. 2019; 71(3):203-216.
47. Marijt KA, Blijleven L, Verdegaal EME, Kester MG, Kowalewski DJ, **Rammensee HG**, Stevanović S, Heemskerk MHM, van der Burg SH, van Hall T. Identification of non-mutated neoantigens presented by TAP-deficient tumors. *J Exp Med*. 2018; 215(9):2325-2337.

## 2018

48. Rajaraman S, Canjuga D, Ghosh M, Codrea MC, Sieger R, Wedekink F, Tatagiba M, Koch M, Lauer UM, Nahnsen S, **Rammensee HG**, Mühlebach MD, Stevanovic S, Tabatabai G. Measles Virus-Based Treatments Trigger a Pro-inflammatory Cascade and a Distinctive Immunopeptidome in Glioblastoma. *Mol Ther Oncolytics*. 2018; 12:147-161.
49. Walz JS, Kowalewski DJ, Backert L, Nelde A, Kohlbacher O, Weide B, Kanz L, Salih HR, **Rammensee HG**, Stevanovic S. Favorable immune signature in CLL patients, defined by antigen-specific T-cell responses, might prevent second skin cancers. *Leukemia & lymphoma*. 2018; 59(8):1949-58.
50. Shraibman B, Barnea E, Kadosh DM, Haimovich Y, Slobodin G, Rosner I, Lopez-Larrea C, Hilf N, Kuttruff S, Song C, Britten C, Castle J, Kreiter S, Frenzel K, Tatagiba M, Tabatabai G, Dietrich PY, Dutoit V, Wick W, Platten M, Winkler F, von Deimling A, Kroep J, Sahuquillo J, Martinez-Ricarte F, Rodon J, Lassen U, Ottensmeier C, van der Burg SH, Thor Straten P, Poulsen HS, Ponsati B, Okada H, **Rammensee HG**, Sahin U, Singh H, Admon A. Identification of Tumor Antigens Among the HLA Peptidomes of Glioblastoma Tumors and Plasma. *Molecular & cellular proteomics : MCP*. 2018;17(11):2132-45.
51. Shao W, Pedrioli PGA, Wolski W, Scurtescu C, Schmid E, Vizcaino JA, Courcelles M, Schuster H, Kowalewski D, Marino F, Arlehamn CSL, Vaughan K, Peters B, Sette A, Ottenhoff THM, Meijgaarden KE, Nieuwenhuizen N, Kaufmann SHE, Schlapbach R, Castle JC, Nesvizhskii AI, Nielsen M, Deutsch EW, Campbell DS, Moritz RL, Zubarev RA, Ytterberg AJ, Purcell AW, Marcilla M, Paradela A, Wang Q, Costello CE, Ternette N, van Veelen PA, van Els C, Heck AJR, de Souza GA, Sollid LM, Admon A, Stevanovic S, **Rammensee HG**, Thibault P, Perreault C, Bassani-Sternberg M, Aebersold R, Caron E. The SystemMHC Atlas project. *Nucleic acids research*. 2018; 46(D1):D1237-d47.
52. Schuster H, Shao W, Weiss T, Pedrioli PGA, Roth P, Weller M, Campbell DS, Deutsch EW, Moritz RL, Planz O, **Rammensee HG**, Aebersold R, Caron E. A tissue-based draft map of the murine MHC class I immunopeptidome. *Scientific data*. 2018;5:180157.

53. Nelde A, Kowalewski DJ, Backert L, Schuster H, Werner JO, Klein R, Kohlbacher O, Kanz L, Salih HR, **Rammensee HG**, Stevanovic S, Walz JS. HLA ligandome analysis of primary chronic lymphocytic leukemia (CLL) cells under lenalidomide treatment confirms the suitability of lenalidomide for combination with T-cell-based immunotherapy. *Oncoimmunology*. 2018;7(4):e1316438.
54. Neidert MC, Kowalewski DJ, Silginer M, Kapolou K, Backert L, Freudenmann LK, Peper JK, Marcu A, Wang SS, Walz JS, Wolpert F, **Rammensee HG**, Henschler R, Lamszus K, Westphal M, Roth P, Regli L, Stevanovic S, Weller M, Eisele G. The natural HLA ligandome of glioblastoma stem-like cells: antigen discovery for T cell-based immunotherapy. *Acta neuropathologica*. 2018;135(6):923-38.
55. Marijt KA, Blijleven L, Verdegaal EME, Kester MG, Kowalewski DJ, **Rammensee HG**, Stevanovic S, Heemskerk MHM, van der Burg SH, van Hall T. Identification of non-mutated neoantigens presented by TAP-deficient tumors. *The Journal of experimental medicine*. 2018;215(9):2325-37.
56. Loffler MW, Steinhilber J, Hilke FJ, Haen SP, Bosmuller H, Montes-Mojarro IA, Bonzheim I, Stabler A, Faust U, Grasshoff U, Konigsrainer I, **Rammensee HG**, Kanz L, Konigsrainer A, Beckert S, Riess O, Schroeder C. First case report of malignant peritoneal mesothelioma and oral verrucous carcinoma in a patient with a germline PTEN mutation: a combination of extremely rare diseases with probable further implications. *BMC medical genetics*. 2018;19(1):144.
57. Loffler MW, Kowalewski DJ, Backert L, Bernhardt J, Adam P, Schuster H, Dengler F, Backes D, Kopp HG, Beckert S, Wagner S, Konigsrainer I, Kohlbacher O, Kanz L, Konigsrainer A, **Rammensee HG**, Stevanovic S, Haen SP. Mapping the HLA Ligandome of Colorectal Cancer Reveals an Imprint of Malignant Cell Transformation. *Cancer research*. 2018;78(16):4627-41.
58. Gouttefangeas C, **Rammensee HG**. Personalized cancer vaccines: adjuvants are important, too. *Cancer immunology, immunotherapy : CII*. 2018;67(12):1911-8.
59. Finn OJ, **Rammensee HG**. Is It Possible to Develop Cancer Vaccines to Neoantigens, What Are the Major Challenges, and How Can These Be Overcome? Neoantigens: Nothing New in Spite of the Name. *Cold Spring Harbor perspectives in biology*. 2018;10(11).
60. Eckert F, Schaedle P, Zips D, Schmid-Horch B, **Rammensee HG**, Gani C, Gouttefangeas C. Impact of curative radiotherapy on the immune status of patients with localized prostate cancer. *Oncoimmunology*. 2018;7(11):e1496881.
61. Dimitrov S, Gouttefangeas C, Besedovsky L, Jensen ATR, Chandran PA, Rusch E, Businger R, Schindler M, Lange T, Born J, **Rammensee HG**. Activated integrins identify functional antigen-specific CD8(+) T cells within minutes after antigen stimulation. *Proceedings of the National Academy of Sciences of the United States of America*. 2018;115(24):E5536-e45.
62. Chandran PA, Laske K, Cazaly A, Rusch E, Schmid-Horch B, **Rammensee HG**, Ottensmeier CH, Gouttefangeas C. Validation of Immunomonitoring Methods for Application in Clinical Studies: The HLA-Peptide Multimer Staining Assay. *Cytometry Part B, Clinical cytometry*. 2018;94(2):342-53.

## 2017

63. Schuster H, Peper JK, Bosmuller HC, Rohle K, Backert L, Bilich T, Ney B, Loffler MW, Kowalewski DJ, Trautwein N, Rabsteyn A, Engler T, Braun S, Haen SP, Walz JS, Schmid-Horch B, Brucker SY, Wallwiener D, Kohlbacher O, Fend F, **Rammensee HG**, Stevanovic S, Staebler A, Wagner P. The immunopeptidomic landscape of ovarian carcinomas. *Proceedings of the National Academy of Sciences of the United States of America*. 2017;114(46):E9942-e51.
64. Rausch S, Gouttefangeas C, Hennenlotter J, Laske K, Walter K, Feyerabend S, Chandran PA, Kruck S, Singh-Jasuja H, Frick A, Kroger N, Stevanovic S, Stenzl A, **Rammensee HG**, Bedke J. Results of a

- Phase 1/2 Study in Metastatic Renal Cell Carcinoma Patients Treated with a Patient-specific Adjuvant Multi-peptide Vaccine after Resection of Metastases. *European urology focus*. 2017.
65. Nelde A, Walz JS, Kowalewski DJ, Schuster H, Wolz OO, Peper JK, Cardona Gloria Y, Langerak AW, Muggen AF, Claus R, Bonzheim I, Fend F, Salih HR, Kanz L, **Rammensee HG**, Stevanovic S, Weber AN. HLA class I-restricted MYD88 L265P-derived peptides as specific targets for lymphoma immunotherapy. *Oncoimmunology*. 2017;6(3):e1219825.
  66. Marklin M, Heitmann JS, Fuchs AR, Truckenmuller FM, Gutknecht M, Bugl S, Saur SJ, Lazarus J, Kohlhofer U, Quintanilla-Martinez L, **Rammensee HG**, Salih HR, Kopp HG, Haap M, Kirschniak A, Kanz L, Rao A, Wirths S, Muller MR. NFAT2 is a critical regulator of the anergic phenotype in chronic lymphocytic leukaemia. *Nature communications*. 2017;8(1):755.
  67. Loffler MW, Schuster H, Zeck A, Quilitz N, Weinreich J, Tolios A, Haen SP, Horvath P, Lob S, **Rammensee HG**, Konigsrainer I, Konigsrainer A, Beckert S. Pharmacodynamics of Oxaliplatin-Derived Platinum Compounds During Hyperthermic Intraperitoneal Chemotherapy (HIPEC): An Emerging Aspect Supporting the Rational Design of Treatment Protocols. *Annals of surgical oncology*. 2017;24(6):1650-7.
  68. Hinz T, Kallen K, Britten CM, Flamion B, Granzer U, Hoos A, Huber C, Khleif S, Kreiter S, **Rammensee HG**, Sahin U, Singh-Jasuja H, Tureci O, Kalinke U. The European Regulatory Environment of RNA-Based Vaccines. *Methods in molecular biology (Clifton, NJ)*. 2017;1499:203-22.
  69. Heidenreich F, Rucker-Braun E, Walz JS, Eugster A, Kuhn D, Dietz S, Nelde A, Tunger A, Wehner R, Link CS, Middeke JM, Stolzel F, Tonn T, Stevanovic S, **Rammensee HG**, Bonifacio E, Bachmann M, Zeis M, Ehninger G, Bornhauser M, Schetelig J, Schmitz M. Mass spectrometry-based identification of a naturally presented receptor tyrosine kinase-like orphan receptor 1-derived epitope recognized by CD8(+) cytotoxic T cells. *Haematologica*. 2017;102(11):e460-e4.
  70. Haen SP, Eyb V, Mirza N, Naumann A, Peter A, Loffler MW, Faul C, Vogel W, Bethge WA, **Rammensee HG**, Kanz L, Heni M. Uric acid as a novel biomarker for bone-marrow function and incipient hematopoietic reconstitution after aplasia in patients with hematologic malignancies. *Journal of cancer research and clinical oncology*. 2017;143(5):759-71.
  71. Dietze-Schwonberg K, Grewe B, Brosch S, Kuharev J, van Zandbergen G, **Rammensee HG**, Tenzer S, von Stebut E. In silico prediction of Leishmania major-specific CD8(+) epitopes. *Experimental dermatology*. 2017;26(9):838-40.
  72. Di Marco M, Schuster H, Backert L, Ghosh M, **Rammensee HG**, Stevanovic S. Unveiling the Peptide Motifs of HLA-C and HLA-G from Naturally Presented Peptides and Generation of Binding Prediction Matrices. *Journal of immunology (Baltimore, Md : 1950)*. 2017;199(8):2639-51.
  73. Di Marco M, Peper JK, **Rammensee HG**. Identification of Immunogenic Epitopes by MS/MS. *Cancer journal (Sudbury, Mass)*. 2017;23(2):102-7.
  74. Chandran PA, Heidt S, Zelba H, Schmid-Horch B, **Rammensee HG**, Pascolo S, Gouttefangeas C. A Simple and Rapid Method for Quality Control of Major Histocompatibility Complex-Peptide Monomers by Flow Cytometry. *Frontiers in immunology*. 2017;8:96.
  75. Bloy N, Garcia P, Laumont CM, Pitt JM, Sistigu A, Stoll G, Yamazaki T, Bonneil E, Buque A, Humeau J, Drijfhout JW, Meurice G, Walter S, Fritsche J, Weinschenk T, **Rammensee HG**, Melief C, Thibault P, Perreault C, Pol J, Zitvogel L, Senovilla L, Kroemer G. Immunogenic stress and death of cancer cells: Contribution of antigenicity vs adjuvanticity to immunosurveillance. *Immunological reviews*. 2017;280(1):165-74.
  76. Backert L, Kowalewski DJ, Walz S, Schuster H, Berlin C, Neidert MC, Schemionek M, Brummendorf TH, Vucinic V, Niederwieser D, Kanz L, Salih HR, Kohlbacher O, Weisel K, **Rammensee HG**,

Stevanovic S, Walz JS. A meta-analysis of HLA peptidome composition in different hematological entities: entity-specific dividing lines and "pan-leukemia" antigens. *Oncotarget*. 2017;8(27):43915-24.

**2016**

77. Seidel UJ, Schlegel P, Grosse-Hovest L, Hofmann M, Aulwurm S, Pyz E, Schuster FR, Meisel R, Ebinger M, Feuchtinger T, Teltschik HM, Witte KE, Schwarze CP, **Rammensee HG**, Handgretinger R, Jung G, Lang P. Reduction of Minimal Residual Disease in Pediatric B-lineage Acute Lymphoblastic Leukemia by an Fc-optimized CD19 Antibody. *Molecular therapy : the journal of the American Society of Gene Therapy*. 2016;24(9):1634-43.
78. Rittig SM, Haentschel M, Weimer KJ, Heine A, Muller MR, Brugger W, Horger MS, Maksimovic O, Stenzl A, Hoerr I, **Rammensee HG**, Holderried TA, Kanz L, Pascolo S, Brossart P. Long-term survival correlates with immunological responses in renal cell carcinoma patients treated with mRNA-based immunotherapy. *Oncoimmunology*. 2016;5(5):e1108511.
79. Peper JK, Bosmuller HC, Schuster H, Guckel B, Horzer H, Roehle K, Schafer R, Wagner P, **Rammensee HG**, Stevanovic S, Fend F, Staebler A. HLA ligandomics identifies histone deacetylase 1 as target for ovarian cancer immunotherapy. *Oncoimmunology*. 2016;5(5):e1065369.
80. Nalivaiko K, Hofmann M, Kober K, Teichweyde N, Krammer PH, **Rammensee HG**, Grosse-Hovest L, Jung G. A Recombinant Bispecific CD20xCD95 Antibody With Superior Activity Against Normal and Malignant B-cells. *Molecular therapy : the journal of the American Society of Gene Therapy*. 2016;24(2):298-305.
81. Mirza N, Zierhut M, Korn A, Bornemann A, Vogel W, Schmid-Horch B, Bethge WA, Stevanovic S, Salih HR, Kanz L, **Rammensee HG**, Haen SP. Graft versus self (GvS) against T-cell autoantigens is a mechanism of graft-host interaction. *Proceedings of the National Academy of Sciences of the United States of America*. 2016;113(48):13827-32.
82. Mirza N, Prokop L, Kowalewski D, Gouttefangeas C, Faul C, Bethge WA, Vogel W, Kanz L, **Rammensee HG**, Haen SP. Soluble heat shock protein 70 members in patients undergoing allogeneic hematopoietic cell transplantation. *Transplant immunology*. 2016;36:25-31.
83. Loffler MW, Chandran PA, Laske K, Schroeder C, Bonzheim I, Walzer M, Hilke FJ, Trautwein N, Kowalewski DJ, Schuster H, Gunder M, Carcamo Yanez VA, Mohr C, Sturm M, Nguyen HP, Riess O, Bauer P, Nahnsen S, Nadalin S, Zieker D, Glatzle J, Thiel K, Schneiderhan-Marra N, Clasen S, Bosmuller H, Fend F, Kohlbacher O, Gouttefangeas C, Stevanovic S, Konigsrainer A, **Rammensee HG**. Personalized peptide vaccine-induced immune response associated with long-term survival of a metastatic cholangiocarcinoma patient. *Journal of hepatology*. 2016;65(4):849-55.
84. Kowalewski DJ, Walz S, Backert L, Schuster H, Kohlbacher O, Weisel K, Rittig SM, Kanz L, Salih HR, **Rammensee HG**, Stevanovic S, Stickel JS. Carfilzomib alters the HLA-presented peptidome of myeloma cells and impairs presentation of peptides with aromatic C-termini. *Blood cancer journal*. 2016;6:e411.
85. Klatt MG, Kowalewski DJ, Schuster H, Di Marco M, Hennenlotter J, Stenzl A, **Rammensee HG**, Stevanovic S. Carcinogenesis of renal cell carcinoma reflected in HLA ligands: A novel approach for synergistic peptide vaccination design. *Oncoimmunology*. 2016;5(8):e1204504.
86. Bosmuller HC, Wagner P, Peper JK, Schuster H, Pham DL, Greif K, Beschorner C, **Rammensee HG**, Stevanovic S, Fend F, Staebler A. Combined Immunoscore of CD103 and CD3 Identifies Long-Term Survivors in High-Grade Serous Ovarian Cancer. *International journal of gynecological cancer : official journal of the International Gynecological Cancer Society*. 2016;26(4):671-9.



87. Berlin C, Kowalewski DJ, Schuster H, Mirza N, Walz S, Handel M, Schmid-Horch B, Salih HR, Kanz L, **Rammensee HG**, Stevanovic S, Stickel JS. Mapping the HLA ligandome landscape of acute myeloid leukemia: a targeted approach toward peptide-based immunotherapy. *Leukemia*. 2016;30(4):1003-4.
88. Barth SM, Schreitmuller CM, Proehl F, Oehl K, Lumpp LM, Kowalewski DJ, Di Marco M, Sturm T, Backert L, Schuster H, Stevanovic S, **Rammensee HG**, Planz O. Characterization of the Canine MHC Class I DLA-88\*50101 Peptide Binding Motif as a Prerequisite for Canine T Cell Immunotherapy. *PLoS one*. 2016;11(11):e0167017.

## 2015

89. Walz S, Stickel JS, Kowalewski DJ, Schuster H, Weisel K, Backert L, Kahn S, Nelde A, Stroh T, Handel M, Kohlbacher O, Kanz L, Salih HR, **Rammensee HG**, Stevanovic S. The antigenic landscape of multiple myeloma: mass spectrometry (re)defines targets for T-cell-based immunotherapy. *Blood*. 2015;126(10):1203-13.
90. Saini SK, Schuster H, Ramnarayan VR, **Rammensee HG**, Stevanovic S, Springer S. Dipeptides catalyze rapid peptide exchange on MHC class I molecules. *Proceedings of the National Academy of Sciences of the United States of America*. 2015;112(1):202-7.
91. Pasquevich KA, Bieber K, Gunter M, Grauer M, Potz O, Schleicher U, Biedermann T, Beer-Hammer S, Buhning HJ, **Rammensee HG**, Zender L, Autenrieth IB, Lengerke C, Autenrieth SE. Innate immune system favors emergency monopoiesis at the expense of DC-differentiation to control systemic bacterial infection in mice. *European journal of immunology*. 2015;45(10):2821-33.
92. Kowalewski DJ, Stevanovic S, **Rammensee HG**, Stickel JS. Antileukemia T-cell responses in CLL - We don't need no aberration. *Oncoimmunology*. 2015;4(7):e1011527.
93. Kowalewski DJ, Schuster H, Backert L, Berlin C, Kahn S, Kanz L, Salih HR, **Rammensee HG**, Stevanovic S, Stickel JS. HLA ligandome analysis identifies the underlying specificities of spontaneous antileukemia immune responses in chronic lymphocytic leukemia (CLL). *Proceedings of the National Academy of Sciences of the United States of America*. 2015;112(2):E166-75.
94. Griessinger CM, Maurer A, Kesenheimer C, Kehlbach R, Reischl G, Ehrlichmann W, Bukala D, Harant M, Cay F, Bruck J, Nordin R, Kohlhofer U, **Rammensee HG**, Quintanilla-Martinez L, Schaller M, Rocken M, Pichler BJ, Kneilling M. <sup>64</sup>Cu antibody-targeting of the T-cell receptor and subsequent internalization enables in vivo tracking of lymphocytes by PET. *Proceedings of the National Academy of Sciences of the United States of America*. 2015;112(4):1161-6.
95. Gouttefangeas C, Chan C, Attig S, Kollgaard TT, **Rammensee HG**, Stevanovic S, Wernet D, Thor Straten P, Welters MJ, Ottensmeier C, van der Burg SH, Britten CM. Data analysis as a source of variability of the HLA-peptide multimer assay: from manual gating to automated recognition of cell clusters. *Cancer immunology, immunotherapy : CII*. 2015;64(5):585-98.
96. Durben M, Schmiedel D, Hofmann M, Vogt F, Nubling T, Pyz E, Buhning HJ, **Rammensee HG**, Salih HR, Grosse-Hovest L, Jung G. Characterization of a bispecific FLT3 X CD3 antibody in an improved, recombinant format for the treatment of leukemia. *Molecular therapy : the journal of the American Society of Gene Therapy*. 2015;23(4):648-55.
97. Caron E, Espona L, Kowalewski DJ, Schuster H, Ternette N, Alpizar A, Schittenhelm RB, Ramarathinam SH, Lindestam Arlehamn CS, Chiek Koh C, Gillet LC, Rabsteyn A, Navarro P, Kim S, Lam H, Sturm T, Marcilla M, Sette A, Campbell DS, Deutsch EW, Moritz RL, Purcell AW, **Rammensee HG**, Stevanovic S, Aebersold R. An open-source computational and data resource to analyze digital maps of immunopeptidomes. *eLife*. 2015;4.

98. Brooks SE, Bonney SA, Lee C, Publicover A, Khan G, Smits EL, Sigurdardottir D, Arno M, Li D, Mills KI, Pulford K, Banham AH, van Tendeloo V, Mufti GJ, **Rammensee HG**, Elliott TJ, Orchard KH, Guinn BA. Application of the pMHC Array to Characterise Tumour Antigen Specific T Cell Populations in Leukaemia Patients at Disease Diagnosis. *PloS one*. 2015;10(10):e0140483.
99. Berlin C, Kowalewski DJ, Schuster H, Mirza N, Walz S, Handel M, Schmid-Horch B, Salih HR, Kanz L, **Rammensee HG**, Stevanovic S, Stickel JS. Mapping the HLA ligandome landscape of acute myeloid leukemia: a targeted approach toward peptide-based immunotherapy. *Leukemia*. 2015;29(3):647-59.

## 2014

100. Ziegler H, Welker C, Sterk M, Haarer J, **Rammensee HG**, Handgretinger R, Schilbach K. Human Peripheral CD4(+) Vdelta1(+) gammadeltaT Cells Can Develop into alphabetaT Cells. *Frontiers in immunology*. 2014;5:645.
101. Skabytska Y, Wolbing F, Gunther C, Koberle M, Kaesler S, Chen KM, Guenova E, Demircioglu D, Kempf WE, Volz T, **Rammensee HG**, Schaller M, Rocken M, Gotz F, Biedermann T. Cutaneous innate immune sensing of Toll-like receptor 2-6 ligands suppresses T cell immunity by inducing myeloid-derived suppressor cells. *Immunity*. 2014;41(5):762-75.
102. Peper JK, Schuster H, Loffler MW, Schmid-Horch B, **Rammensee HG**, Stevanovic S. An impedance-based cytotoxicity assay for real-time and label-free assessment of T-cell-mediated killing of adherent cells. *Journal of immunological methods*. 2014;405:192-8.
103. Overath P, Sturm T, **Rammensee HG**. Of volatiles and peptides: in search for MHC-dependent olfactory signals in social communication. *Cellular and molecular life sciences : CMLS*. 2014;71(13):2429-42.
104. Lindau D, Mussard J, Rabsteyn A, Ribon M, Kotter I, Igney A, Adema GJ, Boissier MC, **Rammensee HG**, Decker P. TLR9 independent interferon alpha production by neutrophils on NETosis in response to circulating chromatin, a key lupus autoantigen. *Annals of the rheumatic diseases*. 2014;73(12):2199-207.
105. Gubin MM, Zhang X, Schuster H, Caron E, Ward JP, Noguchi T, Ivanova Y, Hundal J, Arthur CD, Krebber WJ, Mulder GE, Toebes M, Vesely MD, Lam SS, Korman AJ, Allison JP, Freeman GJ, Sharpe AH, Pearce EL, Schumacher TN, Aebersold R, **Rammensee HG**, Melief CJ, Mardis ER, Gillanders WE, Artyomov MN, Schreiber RD. Checkpoint blockade cancer immunotherapy targets tumour-specific mutant antigens. *Nature*. 2014;515(7528):577-81.
106. Feucht J, Leibold J, Halder A, Kayser S, Hartl L, **Rammensee HG**, Handgretinger R, Feuchtinger T. Differential expression of THELPER 1 cytokines upon antigen stimulation predicts ex vivo proliferative potential and cytokine production of virus-specific T cells following re-stimulation. *Transplant infectious disease : an official journal of the Transplantation Society*. 2014;16(5):713-23.
107. Antonova O, Dolashka P, Toncheva D, **Rammensee HG**, Floetenmeyer M, Stevanovic S. In vitro antiproliferative effect of Helix aspersa hemocyanin on multiple malignant cell lines. *Zeitschrift fur Naturforschung C, Journal of biosciences*. 2014;69(7-8):325-34.

## 2013

108. Sturm T, Leinders-Zufall T, Macek B, Walzer M, Jung S, Pommerl B, Stevanovic S, Zufall F, Overath P, **Rammensee HG**. Mouse urinary peptides provide a molecular basis for genotype discrimination by nasal sensory neurons. *Nature communications*. 2013;4:1616.

109. Singh-Jasuja H, Thiolat A, Ribon M, Boissier MC, Bessis N, **Rammensee HG**, Decker P. The mouse dendritic cell marker CD11c is down-regulated upon cell activation through Toll-like receptor triggering. *Immunobiology*. 2013;218(1):28-39.
110. **Rammensee HG**, Singh-Jasuja H. HLA ligandome tumor antigen discovery for personalized vaccine approach. *Expert review of vaccines*. 2013;12(10):1211-7.
111. Overwijk WW, Wang E, Marincola FM, **Rammensee HG**, Restifo NP. Mining the mutanome: developing highly personalized Immunotherapies based on mutational analysis of tumors. *Journal for immunotherapy of cancer*. 2013;1:11.
112. Neumann A, Horzer H, Hillen N, Klingel K, Schmid-Horch B, Buhning HJ, **Rammensee HG**, Aebert H, Stevanovic S. Identification of HLA ligands and T-cell epitopes for immunotherapy of lung cancer. *Cancer immunology, immunotherapy : CII*. 2013;62(9):1485-97.
113. Neidert MC, Schoor O, Trautwein C, Trautwein N, Christ L, Melms A, Honegger J, **Rammensee HG**, Herold-Mende C, Dietrich PY, Stevanovic S. Natural HLA class I ligands from glioblastoma: extending the options for immunotherapy. *Journal of neuro-oncology*. 2013;111(3):285-94.
114. Mohme M, Hotz C, Stevanovic S, Binder T, Lee JH, Okoniewski M, Eiermann T, Sospedra M, **Rammensee HG**, Martin R. HLA-DR15-derived self-peptides are involved in increased autologous T cell proliferation in multiple sclerosis. *Brain : a journal of neurology*. 2013;136(Pt 6):1783-98.
115. Lindau D, Mussard J, Wagner BJ, Ribon M, Ronnefarth VM, Quettier M, Jelcic I, Boissier MC, **Rammensee HG**, Decker P. Primary blood neutrophils express a functional cell surface Toll-like receptor 9. *European journal of immunology*. 2013;43(8):2101-13.
116. Laske K, Shebzukhov YV, Grosse-Hovest L, Kuprash DV, Khlgatian SV, Koroleva EP, Sazykin AY, Penkov DN, Belousov PV, Stevanovic S, Vass V, Walter S, Eisel D, Schmid-Horch BD, Nedospasov SA, **Rammensee HG**, Gouttefangeas C. Alternative variants of human HYDIN are novel cancer-associated antigens recognized by adaptive immunity. *Cancer immunology research*. 2013;1(3):190-200.
117. Haen SP, **Rammensee HG**. The repertoire of human tumor-associated epitopes--identification and selection of antigens and their application in clinical trials. *Current opinion in immunology*. 2013;25(2):277-83.
118. Geyeregger R, Freimuller C, Stevanovic S, Stemberger J, Mester G, Dmytrus J, Lion T, **Rammensee HG**, Fischer G, Eiz-Vesper B, Lawitschka A, Matthes S, Fritsch G. Short-term in-vitro expansion improves monitoring and allows affordable generation of virus-specific T-cells against several viruses for a broad clinical application. *PloS one*. 2013;8(4):e59592.
119. Bugl S, Wirths S, Radsak MP, Schild H, Stein P, Andre MC, Muller MR, Malenke E, Wiesner T, Marklin M, Frick JS, Handgretinger R, **Rammensee HG**, Kanz L, Kopp HG. Steady-state neutrophil homeostasis is dependent on TLR4/TRIF signaling. *Blood*. 2013;121(5):723-33.
120. Britten CM, Singh-Jasuja H, Flamion B, Hoos A, Huber C, Kallen KJ, Khleif SN, Kreiter S, Nielsen M, **Rammensee HG**, Sahin U, Hinz T, Kalinke U. The regulatory landscape for actively personalized cancer immunotherapies. *Nature biotechnology*. 2013;31(10):880-2.
121. Boyanova O, Dolashka P, Toncheva D, **Rammensee HG**, Stevanovic S. In vitro effect of molluscan hemocyanins on CAL-29 and T-24 bladder cancer cell lines. *Biomedical reports*. 2013;1(2):235-8.

## 2012

122. Wolk B, Trautwein C, Buchele B, Kersting N, Blum HE, **Rammensee HG**, Cerny A, Stevanovic S, Moradpour D, Brass V. Identification of naturally processed hepatitis C virus-derived major histocompatibility complex class I ligands. *PloS one*. 2012;7(1):e29286.

123. Widenmeyer M, Griesemann H, Stevanovic S, Feyerabend S, Klein R, Attig S, Hennenlotter J, Wernet D, Kuprash DV, Sazykin AY, Pascolo S, Stenzl A, Gouttefangeas C, **Rammensee HG**. Promiscuous survivin peptide induces robust CD4+ T-cell responses in the majority of vaccinated cancer patients. *International journal of cancer*. 2012;131(1):140-9.
124. Walter S, Weinschenk T, Stenzl A, Zdrojowy R, Pluzanska A, Szczylik C, Staehler M, Brugger W, Dietrich PY, Mendrzyk R, Hilf N, Schoor O, Fritsche J, Mahr A, Maurer D, Vass V, Trautwein C, Lewandrowski P, Flohr C, Pohla H, Stanczak JJ, Bronte V, Mandruzzato S, Biedermann T, Pawelec G, Derhovanessian E, Yamagishi H, Miki T, Hongo F, Takaha N, Hirakawa K, Tanaka H, Stevanovic S, Frisch J, Mayer-Mokler A, Kirner A, **Rammensee HG**, Reinhardt C, Singh-Jasuja H. Multi-peptide immune response to cancer vaccine IMA901 after single-dose cyclophosphamide associates with longer patient survival. *Nature medicine*. 2012;18(8):1254-61.
125. Sartorius T, Lutz SZ, Hoene M, Waak J, Peter A, Weigert C, **Rammensee HG**, Kahle PJ, Haring HU, Hennige AM. Toll-like receptors 2 and 4 impair insulin-mediated brain activity by interleukin-6 and osteopontin and alter sleep architecture. *FASEB journal : official publication of the Federation of American Societies for Experimental Biology*. 2012;26(5):1799-809.
126. Placke T, Orgel M, Schaller M, Jung G, **Rammensee HG**, Kopp HG, Salih HR. Platelet-derived MHC class I confers a pseudonormal phenotype to cancer cells that subverts the antitumor reactivity of natural killer immune cells. *Cancer research*. 2012;72(2):440-8.
127. Hofmann M, Grosse-Hovest L, Nubling T, Pyz E, Bamberg ML, Aulwurm S, Buhning HJ, Schwartz K, Haen SP, Schilbach K, **Rammensee HG**, Salih HR, Jung G. Generation, selection and preclinical characterization of an Fc-optimized FLT3 antibody for the treatment of myeloid leukemia. *Leukemia*. 2012;26(6):1228-37.
128. Feldhahn M, Donnes P, Schubert B, Schilbach K, **Rammensee HG**, Kohlbacher O. miHA-Match: computational detection of tissue-specific minor histocompatibility antigens. *Journal of immunological methods*. 2012;386(1-2):94-100.
129. Dutoit V, Herold-Mende C, Hilf N, Schoor O, Beckhove P, Bucher J, Dorsch K, Flohr S, Fritsche J, Lewandrowski P, Lohr J, **Rammensee HG**, Stevanovic S, Trautwein C, Vass V, Walter S, Walker PR, Weinschenk T, Singh-Jasuja H, Dietrich PY. Exploiting the glioblastoma peptidome to discover novel tumour-associated antigens for immunotherapy. *Brain : a journal of neurology*. 2012;135(Pt 4):1042-54.
130. Andre MC, Sigurdardottir D, Kuttruff S, Pommerl B, Handgretinger R, **Rammensee HG**, Steinle A. Impaired tumor rejection by memory CD8 T cells in mice with NKG2D dysfunction. *International journal of cancer*. 2012;131(7):1601-10.

## 2011

131. Widenmeyer M, Shebzukhov Y, Haen SP, Schmidt D, Clasen S, Boss A, Kuprash DV, Nedospasov SA, Stenzl A, Aebert H, Wernet D, Stevanovic S, Pereira PL, **Rammensee HG**, Gouttefangeas C. Analysis of tumor antigen-specific T cells and antibodies in cancer patients treated with radiofrequency ablation. *International journal of cancer*. 2011;128(11):2653-62.
132. Wagner BJ, Lob S, Lindau D, Horzer H, Guckel B, Klein G, Glatzle J, **Rammensee HG**, Brucher BL, Konigsrainer A. Simvastatin reduces tumor cell adhesion to human peritoneal mesothelial cells by decreased expression of VCAM-1 and beta1 integrin. *International journal of oncology*. 2011;39(6):1593-600.

133. Wagner BJ, Lindau D, Ripper D, Stierhof YD, Glatzle J, Witte M, Beck H, Keppeler H, Lauber K, **Rammensee HG**, Konigsrainer A. Phagocytosis of dying tumor cells by human peritoneal mesothelial cells. *Journal of cell science*. 2011;124(Pt 10):1644-54.
134. Stickel JS, Stickel N, Hennenlotter J, Klingel K, Stenzl A, **Rammensee HG**, Stevanovic S. Quantification of HLA class I molecules on renal cell carcinoma using Edman degradation. *BMC urology*. 2011;11:1.
135. Rittig SM, Haentschel M, Weimer KJ, Heine A, Muller MR, Brugger W, Horger MS, Maksimovic O, Stenzl A, Hoerr I, **Rammensee HG**, Holderried TA, Kanz L, Pascolo S, Brossart P. Intradermal vaccinations with RNA coding for TAA generate CD8+ and CD4+ immune responses and induce clinical benefit in vaccinated patients. *Molecular therapy : the journal of the American Society of Gene Therapy*. 2011;19(5):990-9.
136. Lindau D, Ronnefarth V, Erbacher A, **Rammensee HG**, Decker P. Nucleosome-induced neutrophil activation occurs independently of TLR9 and endosomal acidification: implications for systemic lupus erythematosus. *European journal of immunology*. 2011;41(3):669-81.
137. Haen SP, Pereira PL, Salih HR, **Rammensee HG**, Gouttefangeas C. More than just tumor destruction: immunomodulation by thermal ablation of cancer. *Clinical & developmental immunology*. 2011;2011:160250.
138. Haen SP, Gouttefangeas C, Schmidt D, Boss A, Clasen S, von Herbay A, Kosan B, Aebert H, Pereira PL, **Rammensee HG**. Elevated serum levels of heat shock protein 70 can be detected after radiofrequency ablation. *Cell stress & chaperones*. 2011;16(5):495-504.

## 2010

139. Serangeli C, Bicanic O, Scheible MH, Wernet D, Lang P, **Rammensee HG**, Stevanovic S, Handgretinger R, Feuchtinger T. Ex vivo detection of adenovirus specific CD4+ T-cell responses to HLA-DR-epitopes of the Hexon protein show a contracted specificity of T(HELPER) cells following stem cell transplantation. *Virology*. 2010;397(2):277-84.
140. Saenz-Lopez P, Gouttefangeas C, Hennenlotter J, Concha A, Maleno I, Ruiz-Cabello F, Cozar JM, Tallada M, Stenzl A, **Rammensee HG**, Garrido F, Cabrera T. Higher HLA class I expression in renal cell carcinoma than in autologous normal tissue. *Tissue antigens*. 2010;75(2):110-8.
141. Baessler T, Charton JE, Schmiedel BJ, Grunebach F, Krusch M, Wacker A, **Rammensee HG**, Salih HR. CD137 ligand mediates opposite effects in human and mouse NK cells and impairs NK-cell reactivity against human acute myeloid leukemia cells. *Blood*. 2010;115(15):3058-69.
142. Autenrieth SE, Linzer TR, Hiller C, Keller B, Warnke P, Koberle M, Bohn E, Biedermann T, Buhring HJ, Hammerling GJ, **Rammensee HG**, Autenrieth IB. Immune evasion by *Yersinia enterocolitica*: differential targeting of dendritic cell subpopulations in vivo. *PLoS pathogens*. 2010;6(11):e1001212.

## 2009

143. Weide B, Pascolo S, Scheel B, Derhovanessian E, Pflugfelder A, Eigentler TK, Pawelec G, Hoerr I, **Rammensee HG**, Garbe C. Direct injection of protamine-protected mRNA: results of a phase 1/2 vaccination trial in metastatic melanoma patients. *Journal of immunotherapy (Hagerstown, Md : 1997)*. 2009;32(5):498-507.
144. Wahlstrom J, Dengjel J, Winqvist O, Targoff I, Persson B, Duyar H, **Rammensee HG**, Eklund A, Weissert R, Grunewald J. Autoimmune T cell responses to antigenic peptides presented by bronchoalveolar lavage cell HLA-DR molecules in sarcoidosis. *Clinical immunology (Orlando, Fla)*. 2009;133(3):353-63.

145. Stickel JS, Weinzierl AO, Hillen N, Drews O, Schuler MM, Hennenlotter J, Wernet D, Muller CA, Stenzl A, **Rammensee HG**, Stevanovic S. HLA ligand profiles of primary renal cell carcinoma maintained in metastases. *Cancer immunology, immunotherapy: CII*. 2009;58(9):1407-17.
146. Otz T, Grosse-Hovest L, Hofmann M, **Rammensee HG**, Jung G. A bispecific single-chain antibody that mediates target cell-restricted, supra-agonistic CD28 stimulation and killing of lymphoma cells. *Leukemia*. 2009;23(1):71-7.
147. Meyer VS, Drews O, Gunder M, Hennenlotter J, **Rammensee HG**, Stevanovic S. Identification of natural MHC class II presented phosphopeptides and tumor-derived MHC class I phospholigands. *Journal of proteome research*. 2009;8(7):3666-74.
148. Lob S, Konigsrainer A, Zieker D, Brucher BL, **Rammensee HG**, Opelz G, Terness P. IDO1 and IDO2 are expressed in human tumors: levo- but not dextro-1-methyl tryptophan inhibits tryptophan catabolism. *Cancer immunology, immunotherapy : CII*. 2009;58(1):153-7.
149. Lob S, Konigsrainer A, **Rammensee HG**, Opelz G, Terness P. Inhibitors of indoleamine-2,3-dioxygenase for cancer therapy: can we see the wood for the trees? *Nature reviews Cancer*. 2009;9(6):445-52.
150. Kuttruff S, Koch S, Kelp A, Pawelec G, **Rammensee HG**, Steinle A. Nkp80 defines and stimulates a reactive subset of CD8 T cells. *Blood*. 2009;113(2):358-69.
151. Hennige AM, Sartorius T, Lutz SZ, Tschritter O, Preissl H, Hopp S, Fritsche A, **Rammensee HG**, Ruth P, Haring HU. Insulin-mediated cortical activity in the slow frequency range is diminished in obese mice and promotes physical inactivity. *Diabetologia*. 2009;52(11):2416-24.
152. Fissolo N, Haag S, de Graaf KL, Drews O, Stevanovic S, **Rammensee HG**, Weissert R. Naturally presented peptides on major histocompatibility complex I and II molecules eluted from central nervous system of multiple sclerosis patients. *Molecular & cellular proteomics : MCP*. 2009;8(9):2090-101.
153. Feyerabend S, Stevanovic S, Gouttefangeas C, Wernet D, Hennenlotter J, Bedke J, Dietz K, Pascolo S, Kuczyk M, **Rammensee HG**, Stenzl A. Novel multi-peptide vaccination in Hla-A2+ hormone sensitive patients with biochemical relapse of prostate cancer. *The Prostate*. 2009;69(9):917-27.
154. Diekmann J, Adamopoulou E, Beck O, Rauser G, Lurati S, Tenzer S, Einsele H, **Rammensee HG**, Schild H, Topp MS. Processing of two latent membrane protein 1 MHC class I epitopes requires tripeptidyl peptidase II involvement. *Journal of immunology (Baltimore, Md : 1950)*. 2009;183(3):1587-97.
155. Burk K, Farecki ML, Lamprecht G, Roth G, Decker P, Weller M, **Rammensee HG**, Oertel W. Neurological symptoms in patients with biopsy proven celiac disease. *Movement disorders : official journal of the Movement Disorder Society*. 2009;24(16):2358-62.
156. Attig S, Hennenlotter J, Pawelec G, Klein G, Koch SD, Pircher H, Feyerabend S, Wernet D, Stenzl A, **Rammensee HG**, Gouttefangeas C. Simultaneous infiltration of polyfunctional effector and suppressor T cells into renal cell carcinomas. *Cancer research*. 2009;69(21):8412-9.
157. Asemissen AM, Haase D, Stevanovic S, Bauer S, Busse A, Thiel E, **Rammensee HG**, Keilholz U, Scheibenbogen C. Identification of an immunogenic HLA-A\*0201-binding T-cell epitope of the transcription factor PAX2. *Journal of immunotherapy (Hagerstown, Md : 1997)*. 2009;32(4):370-5.

## 2008

158. Yokoyama Y, Grunebach F, Schmidt SM, Heine A, Hantschel M, Stevanovic S, **Rammensee HG**, Brossart P. Matrilysin (MMP-7) is a novel broadly expressed tumor antigen recognized by antigen-specific T cells. *Clinical cancer research : an official journal of the American Association for Cancer Research*. 2008;14(17):5503-11.

159. Weinzierl AO, Szalay G, Wolburg H, Sauter M, **Rammensee HG**, Kandolf R, Stevanovic S, Klingel K. Effective chemokine secretion by dendritic cells and expansion of cross-presenting CD4-/CD8+ dendritic cells define a protective phenotype in the mouse model of coxsackievirus myocarditis. *Journal of virology*. 2008;82(16):8149-60.
160. Weinzierl AO, Rudolf D, Maurer D, Wernet D, **Rammensee HG**, Stevanovic S, Klingel K. Identification of HLA-A\*01- and HLA-A\*02-restricted CD8+ T-cell epitopes shared among group B enteroviruses. *The Journal of general virology*. 2008;89(Pt 9):2090-7.
161. Weinzierl AO, Rudolf D, Hillen N, Tenzer S, van Endert P, Schild H, **Rammensee HG**, Stevanovic S. Features of TAP-independent MHC class I ligands revealed by quantitative mass spectrometry. *European journal of immunology*. 2008;38(6):1503-10.
162. Weinzierl AO, Maurer D, Altenberend F, Schneiderhan-Marra N, Klingel K, Schoor O, Wernet D, Joos T, **Rammensee HG**, Stevanovic S. A cryptic vascular endothelial growth factor T-cell epitope: identification and characterization by mass spectrometry and T-cell assays. *Cancer research*. 2008;68(7):2447-54.
163. Weide B, Garbe C, **Rammensee HG**, Pascolo S. Plasmid DNA- and messenger RNA-based anti-cancer vaccination. *Immunology letters*. 2008;115(1):33-42.
164. Weide B, Carralot JP, Reese A, Scheel B, Eigentler TK, Hoerr I, **Rammensee HG**, Garbe C, Pascolo S. Results of the first phase I/II clinical vaccination trial with direct injection of mRNA. *Journal of immunotherapy (Hagerstown, Md : 1997)*. 2008;31(2):180-8.
165. Waldhauer I, Goehlsdorf D, Gieseke F, Weinschenk T, Wittenbrink M, Ludwig A, Stevanovic S, **Rammensee HG**, Steinle A. Tumor-associated MICA is shed by ADAM proteases. *Cancer research*. 2008;68(15):6368-76.
166. Tschiedel S, Gentilini C, Lange T, Wolfel C, Wolfel T, Lennerz V, Stevanovic S, **Rammensee HG**, Huber C, Cross M, Niederwieser D. Identification of NM23-H2 as a tumour-associated antigen in chronic myeloid leukaemia. *Leukemia*. 2008;22(8):1542-50.
167. Schatz MM, Peters B, Akkad N, Ullrich N, Martinez AN, Carroll O, Bulik S, **Rammensee HG**, van Endert P, Holzhutter HG, Tenzer S, Schild H. Characterizing the N-terminal processing motif of MHC class I ligands. *Journal of immunology (Baltimore, Md : 1950)*. 2008;180(5):3210-7.
168. Rudolf D, Silberzahn T, Walter S, Maurer D, Engelhard J, Wernet D, Buhning HJ, Jung G, Kwon BS, **Rammensee HG**, Stevanovic S. Potent costimulation of human CD8 T cells by anti-4-1BB and anti-CD28 on synthetic artificial antigen presenting cells. *Cancer immunology, immunotherapy : CII*. 2008;57(2):175-83.
169. Meyer VS, Kastenmuller W, Gasteiger G, Franz-Wachtel M, Lamkemeyer T, **Rammensee HG**, Stevanovic S, Sigurdardottir D, Drexler I. Long-term immunity against actual poxviral HLA ligands as identified by differential stable isotope labeling. *Journal of immunology (Baltimore, Md : 1950)*. 2008;181(9):6371-83.
170. Lob S, Konigsrainer A, Schafer R, **Rammensee HG**, Opelz G, Terness P. Levo- but not dextro-1-methyl tryptophan abrogates the IDO activity of human dendritic cells. *Blood*. 2008;111(4):2152-4.
171. Kloss M, Decker P, Baltz KM, Baessler T, Jung G, **Rammensee HG**, Steinle A, Krusch M, Salih HR. Interaction of monocytes with NK cells upon Toll-like receptor-induced expression of the NKG2D ligand MICA. *Journal of immunology (Baltimore, Md : 1950)*. 2008;181(10):6711-9.
172. Hillen N, Mester G, Lemmel C, Weinzierl AO, Muller M, Wernet D, Hennenlotter J, Stenzl A, **Rammensee HG**, Stevanovic S. Essential differences in ligand presentation and T cell epitope recognition among HLA molecules of the HLA-B44 supertype. *European journal of immunology*. 2008;38(11):2993-3003.

173. Herrmann T, Grosse-Hovest L, Otz T, Krammer PH, **Rammensee HG**, Jung G. Construction of optimized bispecific antibodies for selective activation of the death receptor CD95. *Cancer research*. 2008;68(4):1221-7.
174. Feldhahn M, Thiel P, Schuler MM, Hillen N, Stevanovic S, **Rammensee HG**, Kohlbacher O. EpiToolKit- a web server for computational immunomics. *Nucleic acids research*. 2008;36(Web Server issue):W519-22.

## 2007

175. Weinzierl AO, Lemmel C, Schoor O, Muller M, Kruger T, Wernet D, Hennenlotter J, Stenzl A, Klingel K, **Rammensee HG**, Stevanovic S. Distorted relation between mRNA copy number and corresponding major histocompatibility complex ligand density on the cell surface. *Molecular & cellular proteomics : MCP*. 2007;6(1):102-13.
176. Wahlstrom J, Dengjel J, Persson B, Duyar H, **Rammensee HG**, Stevanovic S, Eklund A, Weissert R, Grunewald J. Identification of HLA-DR-bound peptides presented by human bronchoalveolar lavage cells in sarcoidosis. *The Journal of clinical investigation*. 2007;117(11):3576-82.
177. Rock F, Haderer KP, **Rammensee HG**, Overath P. Quantitative analysis of mouse urine volatiles: in search of MHC-dependent differences. *PLoS one*. 2007;2(5):e429.
178. Probst J, Weide B, Scheel B, Pichler BJ, Hoerr I, **Rammensee HG**, Pascolo S. Spontaneous cellular uptake of exogenous messenger RNA in vivo is nucleic acid-specific, saturable and ion dependent. *Gene therapy*. 2007;14(15):1175-80.
179. Gouttefangeas C, Stenzl A, Stevanovic S, **Rammensee HG**. Immunotherapy of renal cell carcinoma. *Cancer immunology, immunotherapy : CII*. 2007;56(1):117-28.
180. Boss CN, Grunebach F, Brauer K, Hantschel M, Mirakaj V, Weinschenk T, Stevanovic S, **Rammensee HG**, Brossart P. Identification and characterization of T-cell epitopes deduced from RGS5, a novel broadly expressed tumor antigen. *Clinical cancer research : an official journal of the American Association for Cancer Research*. 2007;13(11):3347-55.
181. Baltz KM, Krusch M, Bringmann A, Brossart P, Mayer F, Kloss M, Baessler T, Kumbier I, Peterfi A, Kupka S, Kroeber S, Menzel D, Radsak MP, **Rammensee HG**, Salih HR. Cancer immunoediting by GITR (glucocorticoid-induced TNF-related protein) ligand in humans: NK cell/tumor cell interactions. *FASEB journal : official publication of the Federation of American Societies for Experimental Biology*. 2007;21(10):2442-54.
182. Adamopoulou E, Diekmann J, Tolosa E, Kuntz G, Einsele H, **Rammensee HG**, Topp MS. Human CD4+ T cells displaying viral epitopes elicit a functional virus-specific memory CD8+ T cell response. *Journal of immunology (Baltimore, Md : 1950)*. 2007;178(9):5465-72.

## 2006

183. Warger T, Hilf N, Rechtsteiner G, Haselmayer P, Carrick DM, Jonuleit H, von Landenberg P, **Rammensee HG**, Nicchitta CV, Radsak MP, Schild H. Interaction of TLR2 and TLR4 ligands with the N-terminal domain of Gp96 amplifies innate and adaptive immune responses. *The Journal of biological chemistry*. 2006;281(32):22545-53.
184. Scheel B, Aulwurm S, Probst J, Stitz L, Hoerr I, **Rammensee HG**, Weller M, Pascolo S. Therapeutic anti-tumor immunity triggered by injections of immunostimulating single-stranded RNA. *European journal of immunology*. 2006;36(10):2807-16.



185. Ronnefarth VM, Erbacher AI, Lamkemeyer T, Madlung J, Nordheim A, **Rammensee HG**, Decker P. TLR2/TLR4-independent neutrophil activation and recruitment upon endocytosis of nucleosomes reveals a new pathway of innate immunity in systemic lupus erythematosus. *Journal of immunology* (Baltimore, Md : 1950). 2006;177(11):7740-9.
186. Rock F, Mueller S, Weimar U, **Rammensee HG**, Overath P. Comparative analysis of volatile constituents from mice and their urine. *Journal of chemical ecology*. 2006;32(6):1333-46.
187. Rechtsteiner G, Warger T, Hofmann M, **Rammensee HG**, Schild H, Radsak MP. Precursor frequency can compensate for lower TCR expression in T cell competition during priming in vivo. *European journal of immunology*. 2006;36(10):2613-23.
188. **Rammensee HG**. Some considerations on the use of peptides and mRNA for therapeutic vaccination against cancer. *Immunology and cell biology*. 2006;84(3):290-4.
189. **Rammensee HG**. Peptides made to order. *Immunity*. 2006;25(5):693-5.
190. Probst J, Brechtel S, Scheel B, Hoerr I, Jung G, **Rammensee HG**, Pascolo S. Characterization of the ribonuclease activity on the skin surface. *Genetic vaccines and therapy*. 2006;4:4.
191. Osterloh P, Linkemann K, Tenzer S, **Rammensee HG**, Radsak MP, Busch DH, Schild H. Proteasomes shape the repertoire of T cells participating in antigen-specific immune responses. *Proceedings of the National Academy of Sciences of the United States of America*. 2006;103(13):5042-7.
192. Falk K, Rotzschke O, Stevanovic S, Jung G, **Rammensee HG**. Allele-specific motifs revealed by sequencing of self-peptides eluted from MHC molecules. 1991. *Journal of immunology* (Baltimore, Md : 1950). 2006;177(5):2741-7.
193. Dengjel J, Nastke MD, Gouttefangeas C, Gitsioudis G, Schoor O, Altenberend F, Muller M, Kramer B, Missiou A, Sauter M, Hennenlotter J, Wernet D, Stenzl A, **Rammensee HG**, Klingel K, Stevanovic S. Unexpected abundance of HLA class II presented peptides in primary renal cell carcinomas. *Clinical cancer research : an official journal of the American Association for Cancer Research*. 2006;12(14 Pt 1):4163-70.
194. Decker P, Kotter I, Klein R, Berner B, **Rammensee HG**. Monocyte-derived dendritic cells over-express CD86 in patients with systemic lupus erythematosus. *Rheumatology* (Oxford, England). 2006;45(9):1087-95.
195. Asemisen AM, Keilholz U, Tenzer S, Muller M, Walter S, Stevanovic S, Schild H, Letsch A, Thiel E, **Rammensee HG**, Scheibenbogen C. Identification of a highly immunogenic HLA-A\*01-binding T cell epitope of WT1. *Clinical cancer research : an official journal of the American Association for Cancer Research*. 2006;12(24):7476-82.

**2005**

196. Wiemann K, Mittrucker HW, Feger U, Welte SA, Yokoyama WM, Spies T, **Rammensee HG**, Steinle A. Systemic NKG2D down-regulation impairs NK and CD8 T cell responses in vivo. *Journal of immunology* (Baltimore, Md : 1950). 2005;175(2):720-9.
197. Walter S, Bioley G, Buhring HJ, Koch S, Wernet D, Zippelius A, Pawelec G, Romero P, Stevanovic S, **Rammensee HG**, Gouttefangeas C. High frequencies of functionally impaired cytokeratin 18-specific CD8+ T cells in healthy HLA-A2+ donors. *European journal of immunology*. 2005;35(10):2876-85.
198. Teufel R, Carralot JP, Scheel B, Probst J, Walter S, Jung G, Hoerr I, **Rammensee HG**, Pascolo S. Human peripheral blood mononuclear cells transfected with messenger RNA stimulate antigen-specific cytotoxic T-lymphocytes in vitro. *Cellular and molecular life sciences : CMLS*. 2005;62(15):1755-62.

199. Tenzer S, Peters B, Bulik S, Schoor O, Lemmel C, Schatz MM, Kloetzel PM, **Rammensee HG**, Schild H, Holzhutter HG. Modeling the MHC class I pathway by combining predictions of proteasomal cleavage, TAP transport and MHC class I binding. *Cellular and molecular life sciences : CMLS*. 2005;62(9):1025-37.
200. Tammiruusu A, Haveri A, Pascolo S, Lahesmaa R, Stevanovic S, **Rammensee HG**, Sarvas M, Puolakkainen M, Vuola JM. Clearance of Chlamydia pneumoniae infection in H-2 class I human leucocyte antigen-A2.1 monochain transgenic mice. *Scandinavian journal of immunology*. 2005;62(2):131-9.
201. Schuler MM, Donnes P, Nastke MD, Kohlbacher O, **Rammensee HG**, Stevanovic S. SNEP: SNP-derived epitope prediction program for minor H antigens. *Immunogenetics*. 2005;57(11):816-20.
202. Schilbach K, Kerst G, Walter S, Eyrich M, Wernet D, Handgretinger R, Xie W, **Rammensee HG**, Muller I, Buhning HJ, Niethammer D. Cytotoxic minor histocompatibility antigen HA-1-specific CD8+ effector memory T cells: artificial APCs pave the way for clinical application by potent primary in vitro induction. *Blood*. 2005;106(1):144-9.
203. Scheel B, Teufel R, Probst J, Carralot JP, Geginat J, Radsak M, Jarrossay D, Wagner H, Jung G, **Rammensee HG**, Hoerr I, Pascolo S. Toll-like receptor-dependent activation of several human blood cell types by protamine-condensed mRNA. *European journal of immunology*. 2005;35(5):1557-66.
204. Ramirez SR, Singh-Jasuja H, Warger T, Braedel-Ruoff S, Hilf N, Wiemann K, **Rammensee HG**, Schild H. Glycoprotein 96-activated dendritic cells induce a CD8-biased T cell response. *Cell stress & chaperones*. 2005;10(3):221-9.
205. Pascolo S, Ginhoux F, Laham N, Walter S, Schoor O, Probst J, Rohrlich P, Obermayr F, Fisch P, Danos O, Ehrlich R, Lemonnier FA, **Rammensee HG**. The non-classical HLA class I molecule HFE does not influence the NK-like activity contained in fresh human PBMCs and does not interact with NK cells. *International immunology*. 2005;17(2):117-22.
206. Neumeister B, Faigle M, Spitznagel D, Mainka A, Ograbek A, Wieland H, Mannowetz N, **Rammensee HG**. Legionella pneumophila down-regulates MHC class I expression of human monocytic host cells and thereby inhibits T cell activation. *Cellular and molecular life sciences : CMLS*. 2005;62(5):578-88.
207. Nastke MD, Herrgen L, Walter S, Wernet D, **Rammensee HG**, Stevanovic S. Major contribution of codominant CD8 and CD4 T cell epitopes to the human cytomegalovirus-specific T cell repertoire. *Cellular and molecular life sciences : CMLS*. 2005;62(1):77-86.
208. Kruger T, Schoor O, Lemmel C, Kraemer B, Reichle C, Dengjel J, Weinschenk T, Muller M, Hennenlotter J, Stenzl A, **Rammensee HG**, Stevanovic S. Lessons to be learned from primary renal cell carcinomas: novel tumor antigens and HLA ligands for immunotherapy. *Cancer immunology, immunotherapy : CII*. 2005;54(9):826-36.
209. Kramer BF, Schoor O, Kruger T, Reichle C, Muller M, Weinschenk T, Hennenlotter J, Stenzl A, **Rammensee HG**, Stevanovic S. MAGED4-expression in renal cell carcinoma and identification of an HLA-A\*25-restricted MHC class I ligand from solid tumor tissue. *Cancer biology & therapy*. 2005;4(9):943-8.
210. Herter S, Osterloh P, Hilf N, Rechtsteiner G, Hohfeld J, **Rammensee HG**, Schild H. Dendritic cell aggresome-like-induced structure formation and delayed antigen presentation coincide in influenza virus-infected dendritic cells. *Journal of immunology (Baltimore, Md : 1950)*. 2005;175(2):891-8.
211. Grosse-Hovest L, Wick W, Minoia R, Weller M, **Rammensee HG**, Brem G, Jung G. Supraagonistic, bispecific single-chain antibody purified from the serum of cloned, transgenic cows induces T-cell-mediated killing of glioblastoma cells in vitro and in vivo. *International journal of cancer*. 2005;117(6):1060-4.

212. Dittmann J, Keller-Matschke K, Weinschenk T, Kratt T, Heck T, Becker HD, Stevanovic S, **Rammensee HG**, Gouttefangeas C. CD8+ T-cell response against MUC1-derived peptides in gastrointestinal cancer survivors. *Cancer immunology, immunotherapy : CII*. 2005;54(8):750-8.
213. Dengjel J, Schoor O, Fischer R, Reich M, Kraus M, Muller M, Kreymborg K, Altenberend F, Brandenburg J, Kalbacher H, Brock R, Driessen C, **Rammensee HG**, Stevanovic S. Autophagy promotes MHC class II presentation of peptides from intracellular source proteins. *Proceedings of the National Academy of Sciences of the United States of America*. 2005;102(22):7922-7.
214. Dengjel J, **Rammensee HG**, Stevanovic S. Glycan side chains on naturally presented MHC class II ligands. *Journal of mass spectrometry : JMS*. 2005;40(1):100-4.
215. Decker P, Singh-Jasuja H, Haager S, Kotter I, **Rammensee HG**. Nucleosome, the main autoantigen in systemic lupus erythematosus, induces direct dendritic cell activation via a MyD88-independent pathway: consequences on inflammation. *Journal of immunology (Baltimore, Md : 1950)*. 2005;174(6):3326-34.
216. Carralot JP, Weide B, Schoor O, Probst J, Scheel B, Teufel R, Hoerr I, Garbe C, **Rammensee HG**, Pascolo S. Production and characterization of amplified tumor-derived cRNA libraries to be used as vaccines against metastatic melanomas. *Genetic vaccines and therapy*. 2005;3:6.
217. Carralot JP, Dumrese C, Wessel R, Riessen R, Autenrieth I, Walter S, Schoor O, Stevanovic S, **Rammensee HG**, Pascolo S. CD8+ T cells specific for a potential HLA-A\*0201 epitope from *Chlamydomonas pneumoniae* are present in the PBMCs from infected patients. *International immunology*. 2005;17(5):591-7.

## 2004

218. Tenzer S, Stoltze L, Schonfisch B, Dengjel J, Muller M, Stevanovic S, Rammensee HG, Schild H. Quantitative analysis of prion-protein degradation by constitutive and immuno-20S proteasomes indicates differences correlated with disease susceptibility. *Journal of immunology (Baltimore, Md : 1950)*. 2004;172(2):1083-91.
219. Singh-Jasuja H, Emmerich NP, **Rammensee HG**. The Tübingen approach: identification, selection, and validation of tumor-associated HLA peptides for cancer therapy. *Cancer immunology, immunotherapy : CII*. 2004;53(3):187-95.
220. Schmidt SM, Schag K, Muller MR, Weinschenk T, Appel S, Schoor O, Weck MM, Grunebach F, Kanz L, Stevanovic S, **Rammensee HG**, Brossart P. Induction of adipophilin-specific cytotoxic T lymphocytes using a novel HLA-A2-binding peptide that mediates tumor cell lysis. *Cancer research*. 2004;64(3):1164-70.
221. Scheel B, Braedel S, Probst J, Carralot JP, Wagner H, Schild H, Jung G, **Rammensee HG**, Pascolo S. Immunostimulating capacities of stabilized RNA molecules. *European journal of immunology*. 2004;34(2):537-47.
222. Schag K, Schmidt SM, Muller MR, Weinschenk T, Appel S, Weck MM, Grunebach F, Stevanovic S, **Rammensee HG**, Brossart P. Identification of C-met oncogene as a broadly expressed tumor-associated antigen recognized by cytotoxic T-lymphocytes. *Clinical cancer research : an official journal of the American Association for Cancer Research*. 2004;10(11):3658-66.
223. **Rammensee HG**. Immunology: protein surgery. *Nature*. 2004;427(6971):203-4.
224. Radsak MP, Salih HR, **Rammensee HG**, Schild H. Triggering receptor expressed on myeloid cells-1 in neutrophil inflammatory responses: differential regulation of activation and survival. *Journal of immunology (Baltimore, Md : 1950)*. 2004;172(8):4956-63.

225. Probst J, Blumenthal SG, Tenzer S, Weinschenk T, Dittmer J, Schoor O, Six A, **Rammensee HG**, Pascolo S. A conserved sequence in the mouse variable T cell receptor alpha recombination signal sequence 23-bp spacer can affect recombination. *European journal of immunology*. 2004;34(8):2179-90.
226. Neumann F, Wagner C, Kubuschok B, Stevanovic S, **Rammensee HG**, Pfreundschuh M. Identification of an antigenic peptide derived from the cancer-testis antigen NY-ESO-1 binding to a broad range of HLA-DR subtypes. *Cancer immunology, immunotherapy : CII*. 2004;53(7):589-99.
227. Lemmel C, Weik S, Eberle U, Dengjel J, Kratt T, Becker HD, **Rammensee HG**, Stevanovic S. Differential quantitative analysis of MHC ligands by mass spectrometry using stable isotope labeling. *Nature biotechnology*. 2004;22(4):450-4.
228. Kircher B, Wolf M, Stevanovic S, **Rammensee HG**, Grubeck-Loebenstien B, Gastl G, Nachbaur D. Hematopoietic lineage-restricted minor histocompatibility antigen HA-1 in graft-versus-leukemia activity after donor lymphocyte infusion. *Journal of immunotherapy (Hagerstown, Md : 1997)*. 2004;27(2):156-60.
229. Hofmann M, Radsak M, Rechtsteiner G, Wiemann K, Gunder M, Bien-Grater U, Offringa R, Toes RE, **Rammensee HG**, Schild H. T cell avidity determines the level of CTL activation. *European journal of immunology*. 2004;34(7):1798-806.
230. Dengjel J, Decker P, Schoor O, Altenberend F, Weinschenk T, **Rammensee HG**, Stevanovic S. Identification of a naturally processed cyclin D1 T-helper epitope by a novel combination of HLA class II targeting and differential mass spectrometry. *European journal of immunology*. 2004;34(12):3644-51.
231. Carralot JP, Probst J, Hoerr I, Scheel B, Teufel R, Jung G, **Rammensee HG**, Pascolo S. Polarization of immunity induced by direct injection of naked sequence-stabilized mRNA vaccines. *Cellular and molecular life sciences : CMLS*. 2004;61(18):2418-24.

## 2003

232. Welte SA, Sinzger C, Lutz SZ, Singh-Jasuja H, Sampaio KL, Eknigk U, **Rammensee HG**, Steinle A. Selective intracellular retention of virally induced NKG2D ligands by the human cytomegalovirus UL16 glycoprotein. *European journal of immunology*. 2003;33(1):194-203.
233. Walter S, Herrgen L, Schoor O, Jung G, Wernet D, Buhring HJ, **Rammensee HG**, Stevanovic S. Cutting edge: predetermined avidity of human CD8 T cells expanded on calibrated MHC/anti-CD28-coated microspheres. *Journal of immunology (Baltimore, Md : 1950)*. 2003;171(10):4974-8.
234. Wagner C, Neumann F, Kubuschok B, Regitz E, Mischo A, Stevanovic S, Friedrich M, Schmidt W, **Rammensee HG**, Pfreundschuh M. Identification of an HLA-A\*02 restricted immunogenic peptide derived from the cancer testis antigen HOM-MEL-40/SSX2. *Cancer immunity*. 2003;3:18.
235. Stoltze L, Rezaei H, Jung G, Grosclaude J, Debey P, Schild H, Rammensee HG. CD4+ T cell-mediated immunity against prion proteins. *Cellular and molecular life sciences : CMLS*. 2003;60(3):629-38.
236. Schoor O, Weinschenk T, Hennenlotter J, Corvin S, Stenzl A, **Rammensee HG**, Stevanovic S. Moderate degradation does not preclude microarray analysis of small amounts of RNA. *BioTechniques*. 2003;35(6):1192-6, 8-201.
237. Salih HR, Antropius H, Gieseke F, Lutz SZ, Kanz L, **Rammensee HG**, Steinle A. Functional expression and release of ligands for the activating immunoreceptor NKG2D in leukemia. *Blood*. 2003;102(4):1389-96.
238. **Rammensee HG**. Immunoinformatics: bioinformatic strategies for better understanding of immune function. Introduction. *Novartis Foundation symposium*. 2003;254:1-2.

239. Radsak MP, Hilf N, Singh-Jasuja H, Braedel S, Brossart P, Rammensee HG, Schild H. The heat shock protein Gp96 binds to human neutrophils and monocytes and stimulates effector functions. *Blood*. 2003;101(7):2810-5.
240. Lang KS, Weigert C, Braedel S, Fillon S, Palmada M, Schleicher E, **Rammensee HG**, Lang F. Inhibition of interferon-gamma expression by osmotic shrinkage of peripheral blood lymphocytes. *American journal of physiology Cell physiology*. 2003;284(1):C200-8.
241. Kleist C, Arnold-Schild D, Welschof M, Finger M, Opelz G, **Rammensee HG**, Schild H, Terness P. Single-chain Fv-based affinity purification of the cellular stress protein gp96 for vaccine development. *Methods in molecular biology (Clifton, NJ)*. 2003;207:393-420.
242. Huebener N, Lange B, Lemmel C, **Rammensee HG**, Strandsby A, Wenkel J, Jikai J, Zeng Y, Gaedicke G, Lode HN. Vaccination with minigenes encoding for novel 'self' antigens are effective in DNA-vaccination against neuroblastoma. *Cancer letters*. 2003;197(1-2):211-7.
243. Hebart H, Rauser G, Stevanovic S, Haenle C, Nussbaum AK, Meisner C, Bissinger AL, Tenzer S, Jahn G, Loeffler J, **Rammensee HG**, Schild H, Einsele H. A CTL epitope from human cytomegalovirus IE1 defined by combining prediction of HLA binding and proteasomal processing is the target of dominant immune responses in patients after allogeneic stem cell transplantation. *Experimental hematology*. 2003;31(10):966-73.
244. Hakenberg J, Nussbaum AK, Schild H, **Rammensee HG**, Kuttler C, Holzhutter HG, Kloetzel PM, Kaufmann SH, Mollenkopf HJ. MAPPP: MHC class I antigenic peptide processing prediction. *Applied bioinformatics*. 2003;2(3):155-8.
245. Grosse-Hovest L, Hartlapp I, Marwan W, Brem G, **Rammensee HG**, Jung G. A recombinant bispecific single-chain antibody induces targeted, supra-agonistic CD28-stimulation and tumor cell killing. *European journal of immunology*. 2003;33(5):1334-40.
246. Friese MA, Platten M, Lutz SZ, Naumann U, Aulwurm S, Bischof F, Buhning HJ, Dichgans J, **Rammensee HG**, Steinle A, Weller M. MICA/NKG2D-mediated immunogene therapy of experimental gliomas. *Cancer research*. 2003;63(24):8996-9006.
247. Drexler I, Staib C, Kastenmuller W, Stevanovic S, Schmidt B, Lemonnier FA, **Rammensee HG**, Busch DH, Bernhard H, Erfle V, Sutter G. Identification of vaccinia virus epitope-specific HLA-A\*0201-restricted T cells and comparative analysis of smallpox vaccines. *Proceedings of the National Academy of Sciences of the United States of America*. 2003;100(1):217-22.
248. Decker P, Wolburg H, **Rammensee HG**. Nucleosomes induce lymphocyte necrosis. *European journal of immunology*. 2003;33(7):1978-87.

## 2002

249. Yoshida K, Martin T, Yamamoto K, Dobbs C, Munz C, Kamikawaji N, Nakano N, **Rammensee HG**, Sasazuki T, Haskins K, Kikutani H. Evidence for shared recognition of a peptide ligand by a diverse panel of non-obese diabetic mice-derived, islet-specific, diabetogenic T cell clones. *International immunology*. 2002;14(12):1439-47.
250. Wischhusen J, Jung G, Radovanovic I, Beier C, Steinbach JP, Rimner A, Huang H, Schulz JB, Ohgaki H, Aguzzi A, **Rammensee HG**, Weller M. Identification of CD70-mediated apoptosis of immune effector cells as a novel immune escape pathway of human glioblastoma. *Cancer research*. 2002;62(9):2592-9.
251. Weinschenk T, Gouttefangeas C, Schirle M, Obermayr F, Walter S, Schoor O, Kurek R, Loeser W, Bichler KH, Wernet D, Stevanovic S, **Rammensee HG**. Integrated functional genomics approach for the design of patient-individual antitumor vaccines. *Cancer research*. 2002;62(20):5818-27.

252. Vabulas RM, Braedel S, Hilf N, Singh-Jasuja H, Herter S, Ahmad-Nejad P, Kirschning CJ, Da Costa C, **Rammensee HG**, Wagner H, Schild H. The endoplasmic reticulum-resident heat shock protein Gp96 activates dendritic cells via the Toll-like receptor 2/4 pathway. *The Journal of biological chemistry*. 2002;277(23):20847-53.
253. Scheibenbogen C, Sun Y, Keilholz U, Song M, Stevanovic S, Asemissen AM, Nagorsen D, Thiel E, **Rammensee HG**, Schadendorf D. Identification of known and novel immunogenic T-cell epitopes from tumor antigens recognized by peripheral blood T cells from patients responding to IL-2-based treatment. *International journal of cancer*. 2002;98(3):409-14.
254. Saren A, Pascolo S, Stevanovic S, Dumrese T, Puolakkainen M, Sarvas M, **Rammensee HG**, Vuola JM. Identification of Chlamydia pneumoniae-derived mouse CD8 epitopes. *Infection and immunity*. 2002;70(7):3336-43.
255. Sanjeevi CB, Lybrand TP, Stevanovic S, **Rammensee HG**. Molecular modeling of eluted peptides from DQ6 molecules (DQB1\*0602 and DQB1\*0604) negatively and positively associated with type 1 diabetes. *Annals of the New York Academy of Sciences*. 2002;958:317-20.
256. Salih HR, **Rammensee HG**, Steinle A. Cutting edge: down-regulation of MICA on human tumors by proteolytic shedding. *Journal of immunology (Baltimore, Md : 1950)*. 2002;169(8):4098-102.
257. **Rammensee HG**, Weinschenk T, Gouttefangeas C, Stevanovic S. Towards patient-specific tumor antigen selection for vaccination. *Immunological reviews*. 2002;188:164-76.
258. **Rammensee HG**. Survival of the fitters. *Nature*. 2002;419(6906):443-5.
259. Munz C, Hofmann M, Yoshida K, Moustakas AK, Kikutani H, Stevanovic S, Papadopoulos GK, **Rammensee HG**. Peptide analysis, stability studies, and structural modeling explain contradictory peptide motifs and unique properties of the NOD mouse MHC class II molecule H2-A(g7). *European journal of immunology*. 2002;32(8):2105-16.
260. Maier JT, Haug M, Foll JL, Beck H, Kalbacher H, **Rammensee HG**, Dannecker GE. Possible association of non-binding of HSP70 to HLA-DRB1 peptide sequences and protection from rheumatoid arthritis. *Immunogenetics*. 2002;54(2):67-73.
261. Lang KS, Moris A, Gouttefangeas C, Walter S, Teichgraber V, Miller M, Wernet D, Hamprecht K, **Rammensee HG**, Stevanovic S. High frequency of human cytomegalovirus (HCMV)-specific CD8+ T cells detected in a healthy CMV-seropositive donor. *Cellular and molecular life sciences : CMLS*. 2002;59(6):1076-80.
262. Lang KS, Fillon S, Schneider D, **Rammensee HG**, Lang F. Stimulation of TNF alpha expression by hyperosmotic stress. *Pflügers Archiv : European journal of physiology*. 2002;443(5-6):798-803.
263. Kircher B, Stevanovic S, Urbanek M, Mitterschiffthaler A, Rammensee HG, Grunewald K, Gastl G, Nachbaur D. Induction of HA-1-specific cytotoxic T-cell clones parallels the therapeutic effect of donor lymphocyte infusion. *British journal of haematology*. 2002;117(4):935-9.
264. Hilf N, Singh-Jasuja H, Schwarzmaier P, Gouttefangeas C, **Rammensee HG**, Schild H. Human platelets express heat shock protein receptors and regulate dendritic cell maturation. *Blood*. 2002;99(10):3676-82.
265. Hebart H, Dagainik S, Stevanovic S, Grigoleit U, Dobler A, Baur M, Rauser G, Sinzger C, Jahn G, Loeffler J, Kanz L, **Rammensee HG**, Einsele H. Sensitive detection of human cytomegalovirus peptide-specific cytotoxic T-lymphocyte responses by interferon-gamma-enzyme-linked immunospot assay and flow cytometry in healthy individuals and in patients after allogeneic stem cell transplantation. *Blood*. 2002;99(10):3830-7.
266. Einsele H, Roosnek E, Rufer N, Sinzger C, Riegler S, Löffler J, Grigoleit U, Moris A, **Rammensee HG**, Kanz L, Kleihauer A, Frank F, Jahn G, Hebart H. Infusion of cytomegalovirus (CMV)-specific T cells for

the treatment of CMV infection not responding to antiviral chemotherapy. *Blood*. 2002;99(11):3916-22.

267. Ayyoub M, Stevanovic S, Sahin U, Guillaume P, Servis C, Rimoldi D, Valmori D, Romero P, Cerottini JC, **Rammensee HG**, Pfreundschuh M, Speiser D, Levy F. Proteasome-assisted identification of a SSX-2-derived epitope recognized by tumor-reactive CTL infiltrating metastatic melanoma. *Journal of immunology* (Baltimore, Md : 1950). 2002;168(4):1717-22.

## 2001

268. Toes RE, Nussbaum AK, Degermann S, Schirle M, Emmerich NP, Kraft M, Laplace C, Zwinderman A, Dick TP, Muller J, Schonfisch B, Schmid C, Fehling HJ, Stevanovic S, **Rammensee HG**, Schild H. Discrete cleavage motifs of constitutive and immunoproteasomes revealed by quantitative analysis of cleavage products. *The Journal of experimental medicine*. 2001;194(1):1-12.
269. Pascolo S, Schirle M, Guckel B, Dumrese T, Stumm S, Kayser S, Moris A, Wallwiener D, **Rammensee HG**, Stevanovic S. A MAGE-A1 HLA-A A\*0201 epitope identified by mass spectrometry. *Cancer research*. 2001;61(10):4072-7.
270. Nussbaum AK, Kuttler C, Hadel KP, **Rammensee HG**, Schild H. PAPProC: a prediction algorithm for proteasomal cleavages available on the WWW. *Immunogenetics*. 2001;53(2):87-94.
271. Moris A, Wernet D, Stevanovic S, **Rammensee HG**. The peptide-specific alloreactive human T cell repertoire varies largely between individuals and is not extended in HLA-A\*0205--anti-HLA-A\*0201 pairings. *International immunology*. 2001;13(7):863-70.
272. Moris A, Teichgraber V, Gauthier L, Buhring HJ, **Rammensee HG**. Cutting edge: characterization of allorestricted and peptide-selective alloreactive T cells using HLA-tetramer selection. *Journal of immunology* (Baltimore, Md : 1950). 2001;166(8):4818-21.
273. Montag S, Frank M, Ulmer H, Wernet D, Gopel W, **Rammensee HG**. "Electronic nose" detects major histocompatibility complex-dependent prerenal and postrenal odor components. *Proceedings of the National Academy of Sciences of the United States of America*. 2001;98(16):9249-54.
274. Lang KS, Caroli CC, Muhm A, Wernet D, Moris A, Schitteck B, Knauss-Scherwitz E, Stevanovic S, **Rammensee HG**, Garbe C. HLA-A2 restricted, melanocyte-specific CD8(+) T lymphocytes detected in vitiligo patients are related to disease activity and are predominantly directed against MelanA/MART1. *The Journal of investigative dermatology*. 2001;116(6):891-7.
275. Kleihauer A, Grigoleit U, Hebart H, Moris A, Brossart P, Muhm A, Stevanovic S, **Rammensee HG**, Sinzger C, Riegler S, Jahn G, Kanz L, Einsele H. Ex vivo generation of human cytomegalovirus-specific cytotoxic T cells by peptide-pulsed dendritic cells. *British journal of haematology*. 2001; 113(1):231-9.
276. Kalbus M, Fleckenstein BT, Offenhausser M, Bluggel M, Melms A, Meyer HE, **Rammensee HG**, Martin R, Jung G, Sommer N. Ligand motif of the autoimmune disease-associated mouse MHC class II molecule H2-A(s). *European journal of immunology*. 2001;31(2):551-62.
277. Jung G, Grosse-Hovest L, Krammer PH, **Rammensee HG**. Target cell-restricted triggering of the CD95 (APO-1/Fas) death receptor with bispecific antibody fragments. *Cancer research*. 2001;61(5):1846-8.
278. Gouttefangeas C, Eberle M, Ruck P, Stark M, Muller JE, Becker HD, **Rammensee HG**, Pinocy J. Functional T lymphocytes infiltrate implanted polyvinyl alcohol foams during surgical wound closure therapy. *Clinical and experimental immunology*. 2001;124(3):398-405.

**2000 - 1982**

279. Sun Y, Song M, Stevanovic S, Jankowiak C, Paschen A, **Rammensee HG**, Schadendorf D. Identification of a new HLA-A(\*)0201-restricted T-cell epitope from the tyrosinase-related protein 2 (TRP2) melanoma antigen. *International journal of cancer*. 2000;87(3):399-404.
280. Stoltze L, Schirle M, Schwarz G, Schroter C, Thompson MW, Hersh LB, Kalbacher H, Stevanovic S, **Rammensee HG**, Schild H. Two new proteases in the MHC class I processing pathway. *Nature immunology*. 2000;1(5):413-8.
281. Singh-Jasuja H, Toes RE, Spee P, Munz C, Hilf N, Schoenberger SP, Ricciardi-Castagnoli P, Neefjes J, **Rammensee HG**, Arnold-Schild D, Schild H. Cross-presentation of glycoprotein 96-associated antigens on major histocompatibility complex class I molecules requires receptor-mediated endocytosis. *The Journal of experimental medicine*. 2000;191(11):1965-74.
282. Singh-Jasuja H, Scherer HU, Hilf N, Arnold-Schild D, **Rammensee HG**, Toes RE, Schild H. The heat shock protein gp96 induces maturation of dendritic cells and down-regulation of its receptor. *European journal of immunology*. 2000;30(8):2211-5.
283. Singh-Jasuja H, Hilf N, Scherer HU, Arnold-Schild D, **Rammensee HG**, Toes RE, Schild H. The heat shock protein gp96: a receptor-targeted cross-priming carrier and activator of dendritic cells. *Cell stress & chaperones*. 2000;5(5):462-70.
284. Schmitz M, Diestelkoetter P, Weigle B, Schmachtenberg F, Stevanovic S, Ockert D, **Rammensee HG**, Rieber EP. Generation of survivin-specific CD8+ T effector cells by dendritic cells pulsed with protein or selected peptides. *Cancer research*. 2000;60(17):4845-9.
285. Schirle M, Keilholz W, Weber B, Gouttfeangeas C, Dumrese T, Becker HD, Stevanovic S, **Rammensee HG**. Identification of tumor-associated MHC class I ligands by a novel T cell-independent approach. *European journal of immunology*. 2000;30(8):2216-25.
286. Schild H, **Rammensee HG**. Perfect use of imperfection. *Nature*. 2000;404(6779):709-10.
287. Schild H, **Rammensee HG**. gp96--the immune system's Swiss army knife. *Nature immunology*. 2000;1(2):100-1.
288. Obst R, Netuschil N, Klopfer K, Stevanovic S, **Rammensee HG**. The role of peptides in T cell alloreactivity is determined by self-major histocompatibility complex molecules. *The Journal of experimental medicine*. 2000;191(5):805-12.
289. Kuttler C, Nussbaum AK, Dick TP, **Rammensee HG**, Schild H, Hadelers KP. An algorithm for the prediction of proteasomal cleavages. *Journal of molecular biology*. 2000;298(3):417-29.
290. Krausa P, Munz C, Keilholz W, Stevanovic S, Jones EY, Browning M, Bunce M, **Rammensee HG**, McMichael A. Definition of peptide binding motifs amongst the HLA-A\*30 allelic group. *Tissue antigens*. 2000;56(1):10-8.
291. Kastrup IB, Stevanovic S, Arsequell G, Valencia G, Zeuthen J, **Rammensee HG**, Elliott T, Haurum JS. Lectin purified human class I MHC-derived peptides: evidence for presentation of glycopeptides in vivo. *Tissue antigens*. 2000;56(2):129-35.
292. Jekle A, Obst R, Lang F, **Rammensee HG**, Gulbins E. CD95/CD95 ligand-mediated counterattack does not block T cell cytotoxicity. *Biochemical and biophysical research communications*. 2000;272(2):395-9.
293. Hoerr I, Obst R, **Rammensee HG**, Jung G. In vivo application of RNA leads to induction of specific cytotoxic T lymphocytes and antibodies. *European journal of immunology*. 2000;30(1):1-7.
294. Gouttfeangeas C, **Rammensee HG**. Problem solving for tumor immunotherapy. *Nature biotechnology*. 2000;18(5):491-2.



295. Gouttefangeas C, Diehl M, Keilholz W, Hornlein RF, Stevanovic S, **Rammensee HG**. Thrombocyte HLA molecules retain nonrenewable endogenous peptides of megakaryocyte lineage and do not stimulate direct allospecific cytotoxicity in vitro. *Blood*. 2000;95(10):3168-75.
296. Fisch P, Moris A, **Rammensee HG**, Handgretinger R. Inhibitory MHC class I receptors on gamma delta T cells in tumour immunity and autoimmunity. *Immunology today*. 2000;21(4):187-91.
297. Emmerich NP, Nussbaum AK, Stevanovic S, Priemer M, Toes RE, **Rammensee HG**, Schild H. The human 26 S and 20 S proteasomes generate overlapping but different sets of peptide fragments from a model protein substrate. *The Journal of biological chemistry*. 2000;275(28):21140-8.
298. Arnold-Schild D, Kleist C, Welschhof M, Opelz G, **Rammensee HG**, Schild H, Terness P. One-step single-chain Fv recombinant antibody-based purification of gp96 for vaccine development. *Cancer research*. 2000;60(15):4175-8.
299. Yamada N, Ishikawa Y, Dumrese T, Tokunaga K, Juji T, Nagatani T, Miwa K, **Rammensee HG**, Takiguchi M. Role of anchor residues in peptide binding to three HLA-A26 molecules. *Tissue antigens*. 1999;54(4):325-32.
300. Seeger FH, Schirle M, Keilholz W, **Rammensee HG**, Stevanovic S. Peptide motif of HLA-B\*1510. *Immunogenetics*. 1999;49(11-12):996-9.
301. Seeger FH, Schirle M, Gatfield J, Arnold D, Keilholz W, Nickolaus P, **Rammensee HG**, Stevanovic S. The HLA-A\*6601 peptide motif: prediction by pocket structure and verification by peptide analysis. *Immunogenetics*. 1999;49(6):571-6.
302. Schild H, Arnold-Schild D, Lammert E, **Rammensee HG**. Stress proteins and immunity mediated by cytotoxic T lymphocytes. *Current opinion in immunology*. 1999;11(1):109-13.
303. **Rammensee HG**. Introduction. *Seminars in immunology*. 1999;11(6):373.
304. **Rammensee H**, Bachmann J, Emmerich NP, Bachor OA, Stevanovic S. SYFPEITHI: database for MHC ligands and peptide motifs. *Immunogenetics*. 1999;50(3-4):213-9.
305. Nickolaus P, **Rammensee HG**, Zawatzky R. Molecular cloning of a macrophage-derived, interferon-inducible secreted immunoglobulin-binding protein. *European journal of immunology*. 1999;29(5):1504-12.
306. Munz C, Stevanovic S, **Rammensee HG**. Peptide presentation and NK inhibition by HLA-G. *Journal of reproductive immunology*. 1999;43(2):139-55.
307. Munz C, Obst R, Osen W, Stevanovic S, **Rammensee HG**. Alloreactivity as a source of high avidity peptide-specific human CTL. *Journal of immunology (Baltimore, Md : 1950)*. 1999;162(1):25-34.
308. Munz C, Nickolaus P, Lammert E, Pascolo S, Stevanovic S, **Rammensee HG**. The role of peptide presentation in the physiological function of HLA-G. *Seminars in cancer biology*. 1999;9(1):47-54.
309. Munz C, Naumann U, Grimm C, **Rammensee HG**, Weller M. TGF-beta-independent induction of immunogenicity by decorin gene transfer in human malignant glioma cells. *European journal of immunology*. 1999;29(3):1032-40.
310. Mear JP, Schreiber KL, Munz C, Zhu X, Stevanovic S, **Rammensee HG**, Rowland-Jones SL, Colbert RA. Misfolding of HLA-B27 as a result of its B pocket suggests a novel mechanism for its role in susceptibility to spondyloarthropathies. *Journal of immunology (Baltimore, Md : 1950)*. 1999;163(12):6665-70.
311. Brossart P, Heinrich KS, Stuhler G, Behnke L, Reichardt VL, Stevanovic S, Muhm A, **Rammensee HG**, Kanz L, Brugger W. Identification of HLA-A2-restricted T-cell epitopes derived from the MUC1 tumor antigen for broadly applicable vaccine therapies. *Blood*. 1999;93(12):4309-17.

312. Arnold-Schild D, Hanau D, Spehner D, Schmid C, **Rammensee HG**, de la Salle H, Schild H. Cutting edge: receptor-mediated endocytosis of heat shock proteins by professional antigen-presenting cells. *Journal of immunology* (Baltimore, Md : 1950). 1999;162(7):3757-60.
313. Stoltze L, Dick TP, Deeg M, Pommerl B, **Rammensee HG**, Schild H. Generation of the vesicular stomatitis virus nucleoprotein cytotoxic T lymphocyte epitope requires proteasome-dependent and -independent proteolytic activities. *European journal of immunology*. 1998;28(12):4029-36.
314. Seeger FH, Arnold D, Dumrese T, de la Salle H, Fricker D, Schild H, **Rammensee HG**, Stevanovic S. The HLA-B\* 1516 motif demonstrates HLA-B-specific P2 pocket characteristics. *Immunogenetics*. 1998;48(2):156-60.
315. Obst R, Munz C, Stevanovic S, **Rammensee HG**. Allo- and self-restricted cytotoxic T lymphocytes against a peptide library: evidence for a functionally diverse allorestricted T cell repertoire. *European journal of immunology*. 1998;28(8):2432-43.
316. Nussbaum AK, Dick TP, Keilholz W, Schirle M, Stevanovic S, Dietz K, Heinemeyer W, Groll M, Wolf DH, Huber R, **Rammensee HG**, Schild H. Cleavage motifs of the yeast 20S proteasome beta subunits deduced from digests of enolase 1. *Proceedings of the National Academy of Sciences of the United States of America*. 1998;95(21):12504-9.
317. Nickolaus P, **Rammensee HG**, Zawatzky R. Interferon-induced expression of If-1h and If-1l alleles in Newcastle disease virus-infected mouse macrophages is associated with specific differences in viral gene transcription. *Journal of interferon & cytokine research : the official journal of the International Society for Interferon and Cytokine Research*. 1998;18(3):187-96.
318. Malcherek G, Wirblich C, Willcox N, **Rammensee HG**, Trowsdale J, Melms A. MHC class II-associated invariant chain peptide replacement by T cell epitopes: engineered invariant chain as a vehicle for directed and enhanced MHC class II antigen processing and presentation. *European journal of immunology*. 1998;28(5):1524-33.
319. Gatfield J, Lammert E, Nickolaus P, Munz C, Rothenfusser S, Fisch P, Stevanovic S, Schild H, **Rammensee HG**, Arnold D. Cell lines transfected with the TAP inhibitor ICP47 allow testing peptide binding to a variety of HLA class I molecules. *International immunology*. 1998;10(11):1665-72.
320. Gallimore A, Hombach J, Dumrese T, **Rammensee HG**, Zinkernagel RM, Hengartner H. A protective cytotoxic T cell response to a subdominant epitope is influenced by the stability of the MHC class I/peptide complex and the overall spectrum of viral peptides generated within infected cells. *European journal of immunology*. 1998;28(10):3301-11.
321. Gallimore A, Dumrese T, Hengartner H, Zinkernagel RM, **Rammensee HG**. Protective immunity does not correlate with the hierarchy of virus-specific cytotoxic T cell responses to naturally processed peptides. *The Journal of experimental medicine*. 1998;187(10):1647-57.
322. Dumrese T, Stevanovic S, Seeger FH, Yamada N, Ishikawa Y, Tokunaga K, Takiguchi M, **Rammensee H**. HLA-A26 subtype A pockets accommodate acidic N-termini of ligands. *Immunogenetics*. 1998;48(5):350-3.
323. Dick TP, Stevanovic S, Keilholz W, Ruppert T, Koszinowski U, Schild H, **Rammensee HG**. The making of the dominant MHC class I ligand SYFPEITHI. *European journal of immunology*. 1998;28(8):2478-86.
324. Dick TP, Nussbaum AK, Deeg M, Heinemeyer W, Groll M, Schirle M, Keilholz W, Stevanovic S, Wolf DH, Huber R, **Rammensee HG**, Schild H. Contribution of proteasomal beta-subunits to the cleavage of peptide substrates analyzed with yeast mutants. *The Journal of biological chemistry*. 1998;273(40):25637-46.

325. Brossart P, Stuhler G, Flad T, Stevanovic S, **Rammensee HG**, Kanz L, Brugger W. Her-2/neu-derived peptides are tumor-associated antigens expressed by human renal cell and colon carcinoma lines and are recognized by in vitro induced specific cytotoxic T lymphocytes. *Cancer research*. 1998;58(4):732-6.
326. Bohm CM, Hanski ML, Stefanovic S, **Rammensee HG**, Stein H, Taylor-Papadimitriou J, Riecken EO, Hanski C. Identification of HLA-A2-restricted epitopes of the tumor-associated antigen MUC2 recognized by human cytotoxic T cells. *International journal of cancer*. 1998;75(5):688-93.
327. Undlien DE, Friede T, **Rammensee HG**, Joner G, Dahl-Jorgensen K, Sovik O, Akselsen HE, Knutsen I, Ronningen KS, Thorsby E. HLA-encoded genetic predisposition in IDDM: DR4 subtypes may be associated with different degrees of protection. *Diabetes*. 1997;46(1):143-9.
328. Speidel K, Osen W, Faath S, Hilgert I, Obst R, Braspenning J, Momburg F, Hammerling GJ, **Rammensee HG**. Priming of cytotoxic T lymphocytes by five heat-aggregated antigens in vivo: conditions, efficiency, and relation to antibody responses. *European journal of immunology*. 1997;27(9):2391-9.
329. Scheibenbogen C, Lee KH, Stevanovic S, Witzens M, Willhauck M, Waldmann V, Naehrer H, **Rammensee HG**, Keilholz U. Analysis of the T cell response to tumor and viral peptide antigens by an IFNgamma-ELISPOT assay. *International journal of cancer*. 1997;71(6):932-6.
330. Scheibenbogen C, Lee KH, Mayer S, Stevanovic S, Moebius U, Herr W, **Rammensee HG**, Keilholz U. A sensitive ELISPOT assay for detection of CD8+ T lymphocytes specific for HLA class I-binding peptide epitopes derived from influenza proteins in the blood of healthy donors and melanoma patients. *Clinical cancer research : an official journal of the American Association for Cancer Research*. 1997;3(2):221-6.
331. Reizis B, Schild H, Stefanovic S, Mor F, **Rammensee H**, Cohen IR. Peptide binding motifs of the MHC class I molecules (RT1.A1) of the Lewis rat. *Immunogenetics*. 1997;45(4):278-9.
332. Munz C, Holmes N, King A, Loke YW, Colonna M, Schild H, **Rammensee HG**. Human histocompatibility leukocyte antigen (HLA)-G molecules inhibit NKAT3 expressing natural killer cells. *The Journal of experimental medicine*. 1997;185(3):385-91.
333. Maryanski JL, Casanova JL, Falk K, Gournier H, Jaulin C, Kourilsky P, Lemonnier FA, Luthy R, **Rammensee HG**, Rotzschke O, Servis C, Lopez JA. The diversity of antigen-specific TCR repertoires reflects the relative complexity of epitopes recognized. *Human immunology*. 1997;54(2):117-28.
334. Lammert E, Stevanovic S, Brunner J, **Rammensee HG**, Schild H. Protein disulfide isomerase is the dominant acceptor for peptides translocated into the endoplasmic reticulum. *European journal of immunology*. 1997;27(7):1685-90.
335. Lammert E, Arnold D, Nijenhuis M, Momburg F, Hammerling GJ, Brunner J, Stevanovic S, **Rammensee HG**, Schild H. The endoplasmic reticulum-resident stress protein gp96 binds peptides translocated by TAP. *European journal of immunology*. 1997;27(4):923-7.
336. Jochmus I, Osen W, Altmann A, Buck G, Hofmann B, Schneider A, Gissmann L, **Rammensee HG**. Specificity of human cytotoxic T lymphocytes induced by a human papillomavirus type 16 E7-derived peptide. *The Journal of general virology*. 1997;78 ( Pt 7):1689-95.
337. Griffin TA, Yuan J, Friede T, Stevanovic S, Ariyoshi K, Rowland-Jones SL, **Rammensee HG**, Colbert RA. Naturally occurring A pocket polymorphism in HLA-B\*2703 increases the dependence on an accessory anchor residue at P1 for optimal binding of nonamer peptides. *Journal of immunology (Baltimore, Md : 1950)*. 1997;159(10):4887-97.
338. Godkin A, Friede T, Davenport M, Stevanovic S, Willis A, Jewell D, Hill A, **Rammensee HG**. Use of eluted peptide sequence data to identify the binding characteristics of peptides to the insulin-

- dependent diabetes susceptibility allele HLA-DQ8 (DQ 3.2). *International immunology*. 1997;9(6):905-11.
339. Fisch P, Meuer E, Pende D, Rothenfusser S, Viale O, Kock S, Ferrone S, Fradelizi D, Klein G, Moretta L, Rammensee HG, Boon T, Coulie P, van der Bruggen P. Control of B cell lymphoma recognition via natural killer inhibitory receptors implies a role for human Vgamma9/Vdelta2 T cells in tumor immunity. *European journal of immunology*. 1997;27(12):3368-79.
340. de la Salle H, Houssaint E, Peyrat MA, Arnold D, Salamero J, Pinczon D, Stevanovic S, Bausinger H, Fricker D, Gomard E, Biddison W, Lehner P, UytdeHaag F, Sasportes M, Donato L, **Rammensee HG**, Cazenave JP, Hanau D, Tongio MM, Bonneville M. Human peptide transporter deficiency: importance of HLA-B in the presentation of TAP-independent EBV antigens. *Journal of immunology (Baltimore, Md : 1950)*. 1997;158(10):4555-63.
341. Davenport MP, Godkin A, Friede T, Stevanovic S, Willis AC, Hill AV, **Rammensee HG**. A distinctive peptide binding motif for HLA-DRB1\*0407, an HLA-DR4 subtype not associated with rheumatoid arthritis. *Immunogenetics*. 1997;45(3):229-32.
342. Buseyne F, Stevanovic S, **Rammensee HG**, Riviere Y. Characterization of an HIV-1 p24gag epitope recognized by a CD8+ cytotoxic T-cell clone. *Immunology letters*. 1997;55(3):145-9.
343. Arnold D, Wahl C, Faath S, **Rammensee HG**, Schild H. Influences of transporter associated with antigen processing (TAP) on the repertoire of peptides associated with the endoplasmic reticulum-resident stress protein gp96. *The Journal of experimental medicine*. 1997;186(3):461-6.
344. Arnold D, Keilholz W, Schild H, Dumrese T, Stevanovic S, **Rammensee HG**. Evolutionary conserved cathepsin E substrate specificity as defined by N-terminal and C-terminal sequencing of peptide pools. *Biological chemistry*. 1997;378(8):883-91.
345. Arnold D, Keilholz W, Schild H, Dumrese T, Stevanovic S, **Rammensee HG**. Substrate specificity of cathepsins D and E determined by N-terminal and C-terminal sequencing of peptide pools. *European journal of biochemistry*. 1997;249(1):171-9.
346. Vartdal F, Johansen BH, Friede T, Thorpe CJ, Stevanovic S, Eriksen JE, Sletten K, Thorsby E, **Rammensee HG**, Sollid LM. The peptide binding motif of the disease associated HLA-DQ (alpha 1\* 0501, beta 1\* 0201) molecule. *European journal of immunology*. 1996;26(11):2764-72.
347. Tureci O, Sahin U, Schoberl I, Koslowski M, Scmitt H, Schild HJ, Stenner F, Seitz G, **Rammensee HG**, Pfreundschuh M. The SSX-2 gene, which is involved in the t(X;18) translocation of synovial sarcomas, codes for the human tumor antigen HOM-MEL-40. *Cancer research*. 1996;56(20):4766-72.
348. Steinle A, Falk K, Rotzschke O, Gnau V, Stevanovic S, Jung G, Schendel DJ, **Rammensee HG**. Motif of HLA-B\*3503 peptide ligands. *Immunogenetics*. 1996;43(1-2):105-7.
349. Shiga H, Shioda T, Tomiyama H, Takamiya Y, Oka S, Kimura S, Yamaguchi Y, Gojoubori T, **Rammensee HG**, Miwa K, Takiguchi M. Identification of multiple HIV-1 cytotoxic T-cell epitopes presented by human leukocyte antigen B35 molecules. *AIDS (London, England)*. 1996;10(10):1075-83.
350. Reizis B, Mor F, Eisenstein M, Schild H, Stefanovic S, **Rammensee HG**, Cohen IR. The peptide binding specificity of the MHC class II I-A molecule of the Lewis rat, RT1.BI. *International immunology*. 1996;8(12):1825-32.
351. **Rammensee HG**, Lindhal KF. Less scholasticism, more exact immunology. *Current opinion in immunology*. 1996;8(1):49-50.
352. **Rammensee HG**. Antigen presentation--recent developments. *International archives of allergy and immunology*. 1996;110(4):299-307.

353. Merkel F, Kalluri R, Marx M, Enders U, Stevanovic S, Giegerich G, Neilson EG, **Rammensee HG**, Hudson BG, Weber M. Autoreactive T-cells in Goodpasture's syndrome recognize the N-terminal NC1 domain on alpha 3 type IV collagen. *Kidney international*. 1996;49(4):1127-33.
354. Mayer S, Scheibenbogen C, Lee KH, Keilholz W, Stevanovic S, **Rammensee HG**, Keilholz U. A sensitive proliferation assay to determine the specific T cell response against HLA-A2.1-binding peptides. *Journal of immunological methods*. 1996;197(1-2):131-7.
355. Lammert E, Arnold D, **Rammensee HG**, Schild H. Expression levels of stress protein gp96 are not limiting for major histocompatibility complex class I-restricted antigen presentation. *European journal of immunology*. 1996;26(4):875-9.
356. Kikuchi A, Sakaguchi T, Miwa K, Takamiya Y, **Rammensee HG**, Kaneko Y, Takiguchi M. Binding of nonamer peptides to three HLA-B51 molecules which differ by a single amino acid substitution in the A-pocket. *Immunogenetics*. 1996;43(5):268-76.
357. Groettrup M, Soza A, Eggers M, Kuehn L, Dick TP, Schild H, **Rammensee HG**, Koszinowski UH, Kloetzel PM. A role for the proteasome regulator PA28alpha in antigen presentation. *Nature*. 1996;381(6578):166-8.
358. Friede T, Gnau V, Jung G, Keilholz W, Stevanovic S, **Rammensee HG**. Natural ligand motifs of closely related HLA-DR4 molecules predict features of rheumatoid arthritis associated peptides. *Biochimica et biophysica acta*. 1996;1316(2):85-101.
359. Diehl M, Munz C, Keilholz W, Stevanovic S, Holmes N, Loke YW, **Rammensee HG**. Nonclassical HLA-G molecules are classical peptide presenters. *Current biology : CB*. 1996;6(3):305-14.
360. Dick TP, Ruppert T, Groettrup M, Kloetzel PM, Kuehn L, Koszinowski UH, Stevanovic S, Schild H, **Rammensee HG**. Coordinated dual cleavages induced by the proteasome regulator PA28 lead to dominant MHC ligands. *Cell*. 1996;86(2):253-62.
361. Sidney J, del Guercio MF, Southwood S, Engelhard VH, Appella E, **Rammensee HG**, Falk K, Rotzschke O, Takiguchi M, Kubo RT, et al. Several HLA alleles share overlapping peptide specificities. *Journal of immunology (Baltimore, Md : 1950)*. 1995;154(1):247-59.
362. Schild H, Gruneberg U, Pougialis G, Wallny HJ, Keilholz W, Stevanovic S, **Rammensee HG**. Natural ligand motifs of H-2E molecules are allele specific and illustrate homology to HLA-DR molecules. *International immunology*. 1995;7(12):1957-65.
363. **Rammensee HG**, Friede T, Stevanoviic S. MHC ligands and peptide motifs: first listing. *Immunogenetics*. 1995;41(4):178-228.
364. **Rammensee HG**. Chemistry of peptides associated with MHC class I and class II molecules. *Current opinion in immunology*. 1995;7(1):85-96.
365. Malcherek G, Gnau V, Jung G, **Rammensee HG**, Melms A. Supermotifs enable natural invariant chain-derived peptides to interact with many major histocompatibility complex-class II molecules. *The Journal of experimental medicine*. 1995;181(2):527-36.
366. Falk K, Rotzschke O, Takiguchi M, Gnau V, Stevanovic S, Jung G, **Rammensee HG**. Peptide motifs of HLA-B38 and B39 molecules. *Immunogenetics*. 1995;41(2-3):162-4.
367. Falk K, Rotzschke O, Takiguchi M, Gnau V, Stevanovic S, Jung G, **Rammensee HG**. Peptide motifs of HLA-B58, B60, B61, and B62 molecules. *Immunogenetics*. 1995;41(2-3):165-8.
368. Falk K, Rotzschke O, Takiguchi M, Gnau V, Stevanovic S, Jung G, **Rammensee HG**. Peptide motifs of HLA-B51, -B52 and -B78 molecules, and implications for Behcet's disease. *International immunology*. 1995;7(2):223-8.

369. Barouch D, Friede T, Stevanovic S, Tussey L, Smith K, Rowland-Jones S, Braud V, McMichael A, **Rammensee HG**. HLA-A2 subtypes are functionally distinct in peptide binding and presentation. *The Journal of experimental medicine*. 1995;182(6):1847-56.
370. Bamford AI, Douglas A, Friede T, Stevanovic S, **Rammensee HG**, Adair BM. Peptide motif of a cattle MHC class I molecule. *Immunology letters*. 1995;45(1-2):129-36.
371. Arnold D, Faath S, **Rammensee H**, Schild H. Cross-priming of minor histocompatibility antigen-specific cytotoxic T cells upon immunization with the heat shock protein gp96. *The Journal of experimental medicine*. 1995;182(3):885-9.
372. Wolfel T, Schneider J, Meyer Zum Buschenfelde KH, **Rammensee HG**, Rotzschke O, Falk K. Isolation of naturally processed peptides recognized by cytolytic T lymphocytes (CTL) on human melanoma cells in association with HLA-A2.1. *International journal of cancer*. 1994;57(3):413-8.
373. Vogt AB, Kropshofer H, Kalbacher H, Kalbus M, **Rammensee HG**, Coligan JE, Martin R. Ligand motifs of HLA-DRB5\*0101 and DRB1\*1501 molecules delineated from self-peptides. *Journal of immunology (Baltimore, Md : 1950)*. 1994;153(4):1665-73.
374. Stevanovic S, **Rammensee HG**. Identification of T-cell epitopes using allele-specific ligand motifs. *Behring Institute Mitteilungen*. 1994(95):7-13.
375. Staeger MS, Dick T, Ertl R, Jahnel U, Nawrath H, **Rammensee HG**, Reske-Kunz AB. The antigen self-presentation function of the cytotoxic T-cell clone 10BK.1 depends on reciprocal peptide presentation. *Immunology*. 1994;81(3):333-7.
376. Rotzschke O, Falk K, Stevanovic 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.
377. **Rammensee HG**, Monaco J. Peptid immunology. *Current opinion in immunology*. 1994;6(1):1-2.
378. **Rammensee HG**. How the quest to identify minor histocompatibility antigens led to something more important. *Behring Institute Mitteilungen*. 1994(94):11-6.
379. Malcherek G, Gnau V, Stevanovic S, **Rammensee HG**, Jung G, Melms A. Analysis of allele-specific contact sites of natural HLA-DR17 ligands. *Journal of immunology (Baltimore, Md : 1950)*. 1994;153(3):1141-9.
380. Maier R, Falk K, Rotzschke O, Maier B, Gnau V, Stevanovic 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.
381. Falk K, Rotzschke O, Takiguchi M, Grahovac B, Gnau V, Stevanovic S, Jung G, **Rammensee HG**. Peptide motifs of HLA-A1, -A11, -A31, and -A33 molecules. *Immunogenetics*. 1994;40(3):238-41.
382. Falk K, Rotzschke O, Stevanovic 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.
383. Falk K, Rotzschke O, Stevanovic S, Gnau V, Sparbier K, Jung G, **Rammensee HG**, Walden P. Analysis of a naturally occurring HLA class I-restricted viral epitope. *Immunology*. 1994;82(3):337-42.
384. Rotzschke O, Falk K, Stevanovic 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;361(6413):642-4.
385. **Rammensee HG**, Rotzschke O, Falk K. MHC class I-restricted antigen processing--lessons from natural ligands. *Chemical immunology*. 1993;57:113-33.
386. **Rammensee HG**, Rotzschke O, Falk K. Self tolerance of natural MHC class I ligands. *International reviews of immunology*. 1993;10(4):291-300.

387. **Rammensee HG**, Falk K, Rotzschke O. Peptides naturally presented by MHC class I molecules. Annual review of immunology. 1993;11:213-44.
388. **Rammensee HG**, Falk K, Rotzschke O. MHC molecules as peptide receptors. Current opinion in immunology. 1993;5(1):35-44.
389. Norda M, Falk K, Rotzschke O, Stevanovic S, Jung G, **Rammensee HG**. Comparison of the H-2Kk- and H-2Kkm1-restricted peptide motifs. Journal of immunotherapy with emphasis on tumor immunology : official journal of the Society for Biological Therapy. 1993;14(2):144-9.
390. Malcherek G, Falk K, Rotzschke O, **Rammensee HG**, Stevanovic S, Gnau V, Jung G, Melms A. Natural peptide ligand motifs of two HLA molecules associated with myasthenia gravis. International immunology. 1993;5(10):1229-37.
391. Lopez JA, LeBowitz JH, Beverley SM, **Rammensee HG**, Overath P. Leishmania mexicana promastigotes induce cytotoxic T lymphocytes in vivo that do not recognize infected macrophages. European journal of immunology. 1993;23(1):217-23.
392. Harpur AG, Zimiecki A, Wilks AF, Falk K, Rotzschke O, **Rammensee HG**. A prominent natural H-2 Kd ligand is derived from protein tyrosine kinase JAK1. Immunology letters. 1993;35(3):235-7.
393. Falk K, Rotzschke O, Grahovac B, Schendel D, Stevanovic S, Jung G, **Rammensee HG**. Peptide motifs of HLA-B35 and -B37 molecules. Immunogenetics. 1993;38(2):161-2.
394. Falk K, Rotzschke O, Grahovac B, Schendel D, Stevanovic S, Gnau V, Jung G, Strominger JL, **Rammensee HG**. Allele-specific peptide ligand motifs of HLA-C molecules. Proceedings of the National Academy of Sciences of the United States of America. 1993;90(24):12005-9.
395. Falk K, Rotzschke 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. Cellular immunology. 1993;150(2):447-52.
396. Deres K, Beck W, Faath S, Jung G, **Rammensee HG**. MHC/peptide binding studies indicate hierarchy of anchor residues. Cellular immunology. 1993;151(1):158-67.
397. Wallny HJ, Rotzschke O, Falk K, Hammerling G, **Rammensee HG**. Gene transfer experiments imply instructive role of major histocompatibility complex class I molecules in cellular peptide processing. European journal of immunology. 1992;22(3):655-9.
398. Wallny HJ, Deres K, Faath S, Jung G, Van Pel A, Boon T, **Rammensee HG**. Identification and quantification of a naturally presented peptide as recognized by cytotoxic T lymphocytes specific for an immunogenic tumor variant. International immunology. 1992;4(10):1085-90.
399. Sekimata M, Griem P, Egawa K, **Rammensee HG**, Takiguchi M. Isolation of human minor histocompatibility peptides. International immunology. 1992;4(2):301-4.
400. Rotzschke O, Falk K, Stevanovic S, Jung G, **Rammensee HG**. Peptide motifs of closely related HLA class I molecules encompass substantial differences. European journal of immunology. 1992;22(9):2453-6.
401. Falk K, Rotzschke 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. International immunology. 1992;4(3):321-5.
402. Falk K, Rotzschke O, **Rammensee HG**. Specificity of antigen processing for MHC class I restricted presentation is conserved between mouse and man. European journal of immunology. 1992;22(5):1323-6.

403. Schild H, Norda M, Deres K, Falk K, Rotzschke O, Wiesmuller 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. *The Journal of experimental medicine*. 1991;174(6):1665-8.
404. Schild H, Deres K, Wiesmuller KH, Jung G, **Rammensee HG**. Efficiency of peptides and lipopeptides for in vivo priming of virus-specific cytotoxic T cells. *European journal of immunology*. 1991;21(11):2649-54.
405. Rotzschke O, Falk K, Stevanovic S, Jung G, Walden P, **Rammensee HG**. Exact prediction of a natural T cell epitope. *European journal of immunology*. 1991;21(11):2891-4.
406. Rotzschke O, Falk K, Faath S, **Rammensee HG**. On the nature of peptides involved in T cell alloreactivity. *The Journal of experimental medicine*. 1991;174(5):1059-71.
407. **Rammensee HG**. Maintenance of self tolerance in CD4+ T lymphocytes by antigen presentation on resting B cells--a hypothesis. *Bone marrow transplantation*. 1991;7 Suppl 1:26-8.
408. Griem P, Wallny HJ, Falk K, Rotzschke O, Arnold B, Schonrich G, Hammerling G, **Rammensee HG**. Uneven tissue distribution of minor histocompatibility proteins versus peptides is caused by MHC expression. *Cell*. 1991;65(4):633-40.
409. Falk K, Rotzschke O, Stevanovic S, Jung G, **Rammensee HG**. Allele-specific motifs revealed by sequencing of self-peptides eluted from MHC molecules. *Nature*. 1991;351(6324):290-6.
410. Falk K, Rotzschke 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. *The Journal of experimental medicine*. 1991;174(2):425-34.
411. Cerundolo V, Elliott T, Elvin J, Bastin J, **Rammensee HG**, Townsend A. The binding affinity and dissociation rates of peptides for class I major histocompatibility complex molecules. *European journal of immunology*. 1991;21(9):2069-75.
412. Wallny HJ, **Rammensee HG**. Identification of classical minor histocompatibility antigen as cell-derived peptide. *Nature*. 1990;343(6255):275-8.
413. Schild H, Rotzschke O, Kalbacher H, **Rammensee HG**. Limit of T cell tolerance to self proteins by peptide presentation. *Science (New York, NY)*. 1990;247(4950):1587-9.
414. Rotzschke O, Falk K, Wallny HJ, Faath S, **Rammensee HG**. Characterization of naturally occurring minor histocompatibility peptides including H-4 and H-Y. *Science (New York, NY)*. 1990;249(4966):283-7.
415. Rotzschke 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;348(6298):252-4.
416. **Rammensee HG**, Hugin D. Elimination of self-reactive CD8+, but not CD4+, T cells by a peripheral immune mechanism. *Transplantation*. 1990;49(3):565-71.
417. Falk K, Rotzschke O, **Rammensee HG**. Cellular peptide composition governed by major histocompatibility complex class I molecules. *Nature*. 1990;348(6298):248-51.
418. **Rammensee HG**, Schild H, Theopold U. Protein-specific cytotoxic T lymphocytes. Recognition of transfectants expressing intracellular, membrane-associated or secreted forms of beta-galactosidase. *Immunogenetics*. 1989;30(4):296-302.
419. **Rammensee HG**, Kroschewski R, Frangoulis B. Clonal anergy induced in mature V beta 6+ T lymphocytes on immunizing Mls-1b mice with Mls-1a expressing cells. *Nature*. 1989;339(6225):541-4.



420. **Rammensee HG**, Hugin D. Masking of veto function in vivo by activated CD4+ T lymphocytes. *European journal of immunology*. 1989;19(4):643-8.
421. **Rammensee HG**. Veto function in vitro and in vivo. *International reviews of immunology*. 1989;4(2):175-91.
422. Lenz A, Heufler C, **Rammensee HG**, Glassl H, Koch F, Romani N, Schuler G. Murine epidermal Langerhans cells express significant amounts of class I major histocompatibility complex antigens. *Proceedings of the National Academy of Sciences of the United States of America*. 1989;86(19):7527-31.
423. Frangoulis B, Pla M, **Rammensee HG**. Alternative T cell receptor gene usage induced by self tolerance. *European journal of immunology*. 1989;19(3):553-5.
424. Deres K, Schild H, Wiesmuller KH, Jung G, Rammensee HG. In vivo priming of virus-specific cytotoxic T lymphocytes with synthetic lipopeptide vaccine. *Nature*. 1989;342(6249):561-4.
425. von Boehmer H, Karjalainen K, Pelkonen J, Borgulya P, **Rammensee HG**. The T-cell receptor for antigen in T-cell development and repertoire selection. *Immunological reviews*. 1988;101:21-37.
426. **Rammensee HG**. GVHD protection and I-J: manifestations of specificity-related T-cell determinants. *Immunology today*. 1988;9(3):70-2.
427. Julius MH, **Rammensee HG**, Ratcliffe MJ, Lamers MC, Langhorne J, Kohler G. The molecular interactions with helper T cells which limit antigen-specific B cell differentiation. *European journal of immunology*. 1988;18(3):381-6.
428. Julius MH, **Rammensee HG**. T helper cell-dependent induction of resting B cell differentiation need not require cognate cell interactions. *European journal of immunology*. 1988;18(3):375-9.
429. Trowbridge IS, Lesley JF, Domingo D, Schulte R, Sauvage C, **Rammensee HG**. Monoclonal antibodies to transferrin receptor and assay of their biological effects. *Methods in enzymology*. 1987;147:265-79.
430. **Rammensee HG**, Julius MH, Nemazee D, Langhorne J, Lamers R, Kohler G. Targeting cytotoxic T cells to antigen-specific B lymphocytes. *European journal of immunology*. 1987;17(3):433-6.
431. **Rammensee HG**, Bevan MJ. Mutual tolerization of histoincompatible lymphocytes. *European journal of immunology*. 1987;17(6):893-5.
432. Pelkonen J, Sideras P, **Rammensee HG**, Karjalainen K, Palacios R. Thymocyte clones from 14-day mouse embryos. I. State of T cell receptor genes, surface markers, and growth requirements. *The Journal of experimental medicine*. 1987;166(5):1245-58.
433. **Rammensee HG**, Robinson PJ, Crisanti A, Bevan MJ. Restricted recognition of beta 2-microglobulin by cytotoxic T lymphocytes. *Nature*. 1986;319(6053):502-4.
434. **Rammensee HG**. Both parents as donors in bone marrow transplantation? *Lancet (London, England)*. 1986;2(8497):37-8.
435. Staerz UD, **Rammensee HG**, Benedetto JD, Bevan MJ. Characterization of a murine monoclonal antibody specific for an allotypic determinant on T cell antigen receptor. *Journal of immunology (Baltimore, Md : 1950)*. 1985;134(6):3994-4000.
436. **Rammensee HG**, Lesley J, Trowbridge IS, Bevan MJ. Antibodies against the transferrin receptor block the induction of cytotoxic T lymphocytes. A new method for antigen-specific negative selection in vitro. *European journal of immunology*. 1985;15(7):687-92.
437. **Rammensee HG**, Bevan MJ, Fink PJ. Antigen specific suppression of T-cell responses - the veto concept. *Immunology today*. 1985;6(2):41-3.

438. **Rammensee HG**, Juretic A, Nagy ZA, Klein J. Class I restricted interaction between suppressor and cytolytic cells in the response to minor histocompatibility antigens. *Journal of immunology* (Baltimore, Md : 1950). 1984;132(2):668-72.
439. **Rammensee HG**, Fink PJ, Bevan MJ. Functional clonal deletion of class I-specific cytotoxic T lymphocytes by veto cells that express antigen. *Journal of immunology* (Baltimore, Md : 1950). 1984;133(5):2390-6.
440. **Rammensee HG**, Bevan MJ. Evidence from in vitro studies that tolerance to self antigens is MHC-restricted. *Nature*. 1984;308(5961):741-4.
441. Fink PJ, **Rammensee HG**, Bevan MJ. Cloned cytolytic T cells can suppress primary cytotoxic responses directed against them. *Journal of immunology* (Baltimore, Md : 1950). 1984;133(4):1775-81.
442. Fink PJ, **Rammensee HG**, Benedetto JD, Staerz UD, Lefrancois L, Bevan MJ. Studies on the mechanism of suppression of primary cytotoxic responses by cloned cytotoxic T lymphocytes. *Journal of immunology* (Baltimore, Md : 1950). 1984;133(4):1769-74.
443. **Rammensee HG**, Klein J. Polymorphism of minor histocompatibility genes in wild mice. *Immunogenetics*. 1983;17(6):637-47.
444. **Rammensee HG**, Klein J. Complexity of the histocompatibility-3 region in the mouse. *Journal of immunology* (Baltimore, Md : 1950). 1983;130(6):2926-9.
445. Klein J, **Rammensee HG**, Nagy ZA. [The major histocompatibility complex and self and non-self differentiation through the immune system]. *Die Naturwissenschaften*. 1983;70(6):265-71.
446. **Rammensee HG**, Nagy ZA, Klein J. Suppression of cell-mediated lymphocytotoxicity against minor histocompatibility antigens mediated by Lyt-1+Lyt-2+ T cells of stimulator-strain origin. *European journal of immunology*. 1982;12(11):930-4.