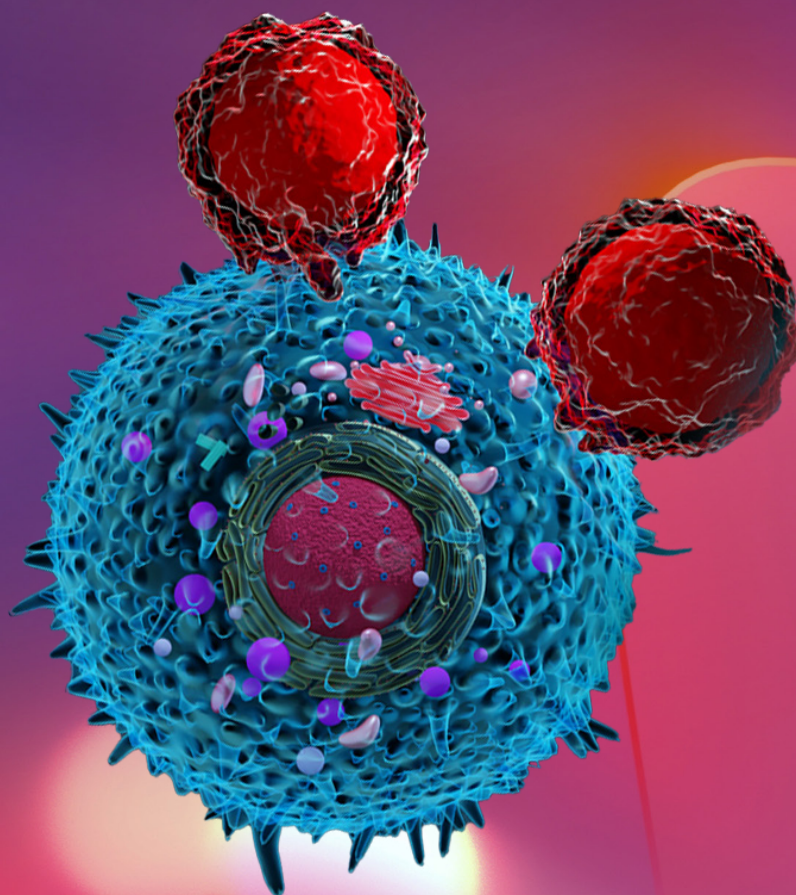
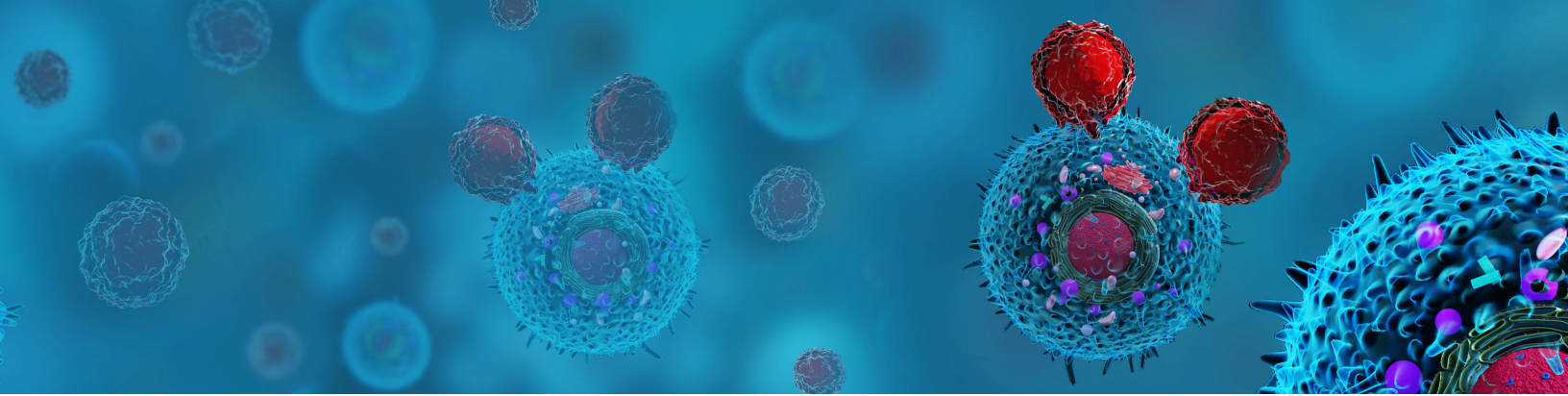


# Immunopeptidomics

Q Exactive HF-X MS literature list





**Multiplexed relative and absolute quantitative immunopeptidomics reveals MHC I repertoire alterations induced by CDK4/6 inhibition**

Lauren E. Stopfer, Joshua M. Mesfin, Brian A. Joughin, Douglas A. Lauffenburger, and Forest M. White

*Nat Commun* . 2020 Jun 2;11(1):2760

<https://www.nature.com/articles/s41467-020-16588-9>

**Long non-coding RNA-derived peptides are immunogenic and drive a potent anti-tumour response**

Wojciech Barczak, Simon M. Carr, Geng Liu, Shonagh Munro, Annalisa Nicastrì, Lian Ni Lee, Claire Hutchings, Nicola Ternette, Paul Klenerman, Alexander Kanapin, Anastasia Samsonova, and Nicholas B. La Thangue

*Nat Commun* . 2023 Feb 25;14(1):1078

<https://www.nature.com/articles/s41467-023-36826-0>

**MARS an improved de novo peptide candidate selection method for non-canonical antigen target discovery in cancer**

Hanqing Liao, Carolina Barra, Zhicheng Zhou, Xu Peng, Isaac Woodhouse, Arun Tailor, Robert Parker, Alexia Carré, Persephone Borrow, Michael J. Hogan, Wayne Paes, Laurence C. Eisenlohr, Roberto Mallone, Morten Nielsen, and Nicola Ternette

*Nat Commun* . 2024 Jan 22;15(1):661

<https://www.nature.com/articles/s41467-023-44460-z>

**The immunopeptidome landscape associated with T cell infiltration, inflammation and immune editing in lung cancer**

Anne I. Kraemer, Chloe Chong, Florian Huber, HuiSong Pak, Brian J. Stevenson, Markus Müller, Justine Michaux, Emma Ricart Altimiras, Sylvie Rusakiewicz, Laia Simó-Riudalbas, Evarist Planet, Maciej Wiznerowicz, Julien Dagher, Didier Trono, George Coukos, Stephanie Tissot, and Michal Bassani-Sternberg

*Nat Cancer* . 2023 May;4(5):608-628

<https://www.nature.com/articles/s43018-023-00548-5>

**Integrated proteogenomic deep sequencing and analytics accurately identify non-canonical peptides in tumor immunopeptidomes**

Chloe Chong, Markus Müller, HuiSong Pak, Dermot Harnett, Florian Huber, Delphine Grun, Marion Leleu, Aymeric Auger, Marion Arnaud, Brian J. Stevenson, Justine Michaux, Ilija Bilic, Antje Hirsekorn, Lorenzo Calviello, Laia Simó-Riudalbas, Evarist Planet, Jan Lubiński, Marta Bryśkiewicz, Maciej Wiznerowicz, Ioannis Xenarios, Lin Zhang, Didier Trono, Alexandre Harari, Uwe Ohler, George Coukos, and Michal Bassani-Sternberg

*Nat Commun* . 2020 Mar 10;11(1):1293

<https://www.nature.com/articles/s41467-020-14968-9>

**Tryptophan depletion results in tryptophan-to-phenylalanine substitutants**

Abhijeet Pataskar, Julien Champagne, Remco Nagel, Juliana Kenski, Maarja Laos, Justine Michaux, Hui Song Pak, Onno B. Bleijerveld, Kelly Mordente, Jasmine Montenegro Navarro, Naomi Blommaert, Morten M. Nielsen, Domenica Lovecchio, Everett Stone, George Georgiou, Mark C. de Gooijer, Olaf van Tellingen, Maarten Altelaar, Robbie P. Joosten, Anastassis Perrakis, Johanna Olweus, Michal Bassani-Sternberg, Daniel S. Peeper, and Reuven Agami

*Nature* . 2022 Mar;603(7902):721-727

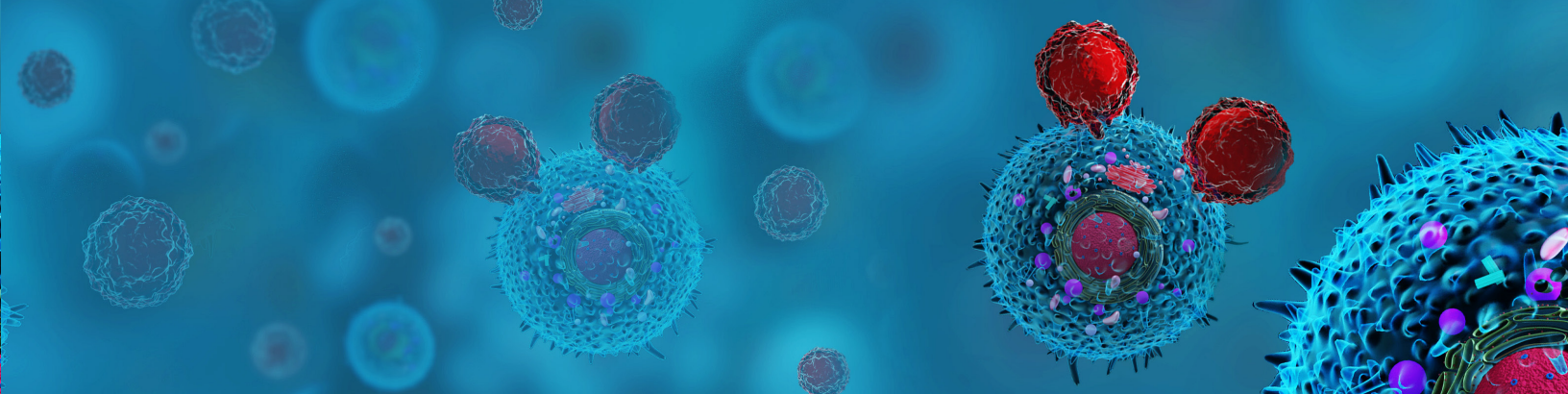
<https://www.nature.com/articles/s41586-022-04499-2>

**Sensitive identification of neoantigens and cognate TCRs in human solid tumors**

Marion Arnaud, Johanna Chiffelle, Raphael Genolet, Blanca Navarro Rodrigo, Marta A. S. Perez, Florian Huber, Morgane Magnin, Tu Nguyen-Ngoc, Philippe Guillaume, Petra Baumgaertner, Chloe Chong, Brian J. Stevenson, David Gfeller, Melita Irving, Daniel E. Speiser, Julien Schmidt, Vincent Zoete, Lana E. Kandalaf, Michal Bassani-Sternberg, Sara Bobisse, George Coukos, and Alexandre Harari

*Nat Biotechnol* . 2022 May;40(5):656-660

<https://www.nature.com/articles/s41587-021-01072-6>



### **Single-cell derived tumor organoids display diversity in HLA class I peptide presentation**

Laura C. Demmers, Kai Kretzschmar, Arne Van Hoeck, Yotam E. Bar-Epraim, Henk W. P. van den Toorn, Mandy Koomen, Gijs van Son, Joost van Gorp, Apollo Pronk, Niels Smakman, Edwin Cuppen, Hans Clevers, Albert J. R. Heck, and Wei Wu

*Nat Commun* . 2020 Oct 21;11(1):5338

<https://www.nature.com/articles/s41467-020-19142-9>

### **A microfluidics-enabled automated workflow of sample preparation for MS-based immunopeptidomics**

Xiaokang Li, Hui Song Pak, Florian Huber, Justine Michaux, Marie Taillandier-Coindard, Emma Ricart Altimiras, Michal Bassani-Sternberg

*Cell Rep Methods* . 2023 May 19;3(6):100479

<https://www.sciencedirect.com/science/article/pii/S2667237523001029>

### **Machine learning predictions of MHC-II specificities reveal alternative binding mode of class II epitopes**

Julien Racle, Philippe Guillaume, Julien Schmidt, Justine Michaux, Amédé Larabi, Kelvin Lau, Marta A.S. Perez, Giancarlo Croce, Raphaël Genolet, George Coukos, Vincent Zoete, Florence Pojer, Michal Bassani-Sternberg, Alexandre Harari, and David Gfeller

*Immunity* . 2023 Jun 13;56(6):1359-1375

<https://www.sciencedirect.com/science/article/pii/S1074761323001292>

### **Proteomic identification of MHC class I-associated peptidome derived from non-obese diabetic mouse thymus and pancreas**

Lina Wang, Xiangqian Li, Shushu Yang, Xiaoling Chen, Jie Li, Shufeng Wang, Mengjun Zhang, Zhengni Zheng, Jie Zhou, Li Wang, and Yuzhang Wu

*J Proteomics* . 2023 Jan 6:270:104746

<https://www.sciencedirect.com/science/article/abs/pii/S1874391922002706>

### **Ionizing Radiation Drives Key Regulators of Antigen Presentation and a Global Expansion of the Immunopeptidome**

Arun Tailor, Hala Estephan, Robert Parker, Isaac Woodhouse, Majd Abdulghani, Annalisa Nicastrì, Keaton Jones, Silvia Salatino, Ruth Muschel, Timothy Humphrey, Amato Giaccia, and Nicola Ternette

*Mol Cell Proteomics* . 2022 Nov;21(11):100410

<https://www.sciencedirect.com/science/article/pii/S1535947622002183>

### **Mapping the SARS-CoV-2 spike glycoprotein-derived peptidome presented by HLA class II on dendritic cells**

Robert Parker, Thomas Partridge, Catherine Wormald, Rebeca Kawahara, Victoria Stalls, Maria Aggelakopoulou, Jimmy Parker, Rebecca Powell Doherty, Yoanna Ariosa Morejon, Esther Lee, Kevin Saunders, Barton F. Haynes, Priyamvada Acharya, Morten Thaysen-Andersen, Persephone Borrow, and Nicola Ternette

*Cell Rep* . 2021 May 25;35(8):109179

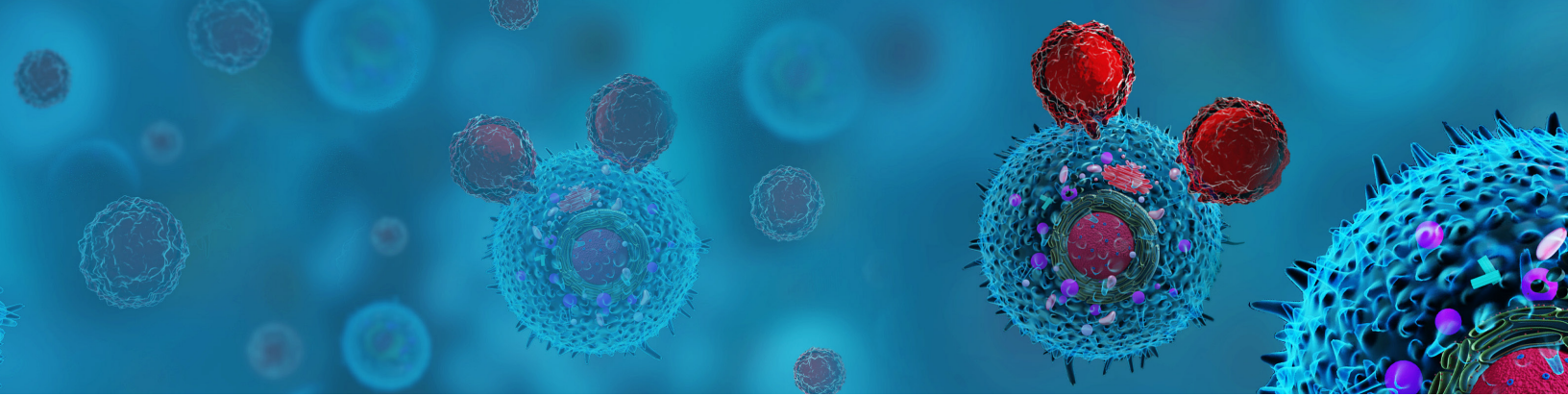
<https://www.sciencedirect.com/science/article/pii/S2211124721005246>

### **CIITA-Transduced Glioblastoma Cells Uncover a Rich Repertoire of Clinically Relevant Tumor-Associated HLA-II Antigens**

Greta Forlani, Justine Michaux, HuiSong Pak, Florian Huber, Elodie Lauret Marie Joseph, Elise Ramia, Brian J. Stevenson, Michael Linnebacher, Roberto S. Accolla, Michal Bassani-Sternberg

*Mol Cell Proteomics* . 2021:20:100032

<https://www.sciencedirect.com/science/article/pii/S153594762035146X>



### **Sensitive Immunopeptidomics by Leveraging Available Large-Scale Multi-HLA Spectral Libraries, Data-Independent Acquisition, and MS/MS Prediction**

HuiSong Pak, Justine Michaux, Florian Huber, Chloe Chong, Brian J. Stevenson, Markus Müller, George Coukos, and Michal Bassani-Sternberg

*Mol Cell Proteomics* . 2021:20:100080

<https://www.sciencedirect.com/science/article/pii/S1535947621000530>

### **HLA Class II Presentation Is Specifically Altered at Elevated Temperatures in the B-Lymphoblastic Cell Line JY**

Laura C. Demmers, Wei Wu, and Albert J.R. Heck

*Mol Cell Proteomics* . 2021:20:100089

<https://www.sciencedirect.com/science/article/pii/S1535947621000621>

### **The Choice of Search Engine Affects Sequencing Depth and HLA Class I Allele-Specific Peptide Repertoires**

Robert Parker, Arun Tailor, Xu Peng, Annalisa Nicastrì, Johannes Zerweck, Ulf Reimer, Holger Wenschuh, Karsten Schnatbaum, and Nicola Ternette

*Mol Cell Proteomics* . 2021:20:100124

<https://www.sciencedirect.com/science/article/pii/S1535947621000967>

### **Cathepsin S Regulates Antigen Processing and T Cell Activity in Non-Hodgkin Lymphoma**

Elie Dheilly, Elena Battistello, Natalya Katanayeva, Stephanie Sungalee, Justine Michaux, Gerben Duns, Sarah Wehrle, Jessica Sordet-Dessimoz, Marco Mina, Julien Racle, Pedro Farinha, George Coukos, David Gfeller, Anja Mottok, Robert Kridel, Bruno E. Correia, Christian Steidl, Michal Bassani-Sternberg, Giovanni Ciriello, Vincent Zoete, and Elisa Oricchio

*Cancer Cell* . 2020 May 11;37(5):674-689.e12

<https://www.sciencedirect.com/science/article/pii/S1535610820301562>

### **Mass Spectrometry Based Immunopeptidomics Leads to Robust Predictions of Phosphorylated HLA Class I Ligands**

Marthe Solleder, Philippe Guillaume, Julien Racle, Justine Michaux, Hui-Song Pak, Markus Müller, George Coukos, Michal Bassani-Sternberg, and David Gfeller

*Mol Cell Proteomics* . 2020 Feb;19(2):390-404

<https://www.sciencedirect.com/science/article/pii/S1535947620350866>

### **Light contamination in stable isotope-labelled internal peptide standards is frequent and a potential source of false discovery and quantitation error in proteomics**

Mogjiborahman Salek, Jonas D Förster, Wolf-Dieter Lehmann, and Angelika B Riemer

*Anal Bioanal Chem* . 2022 Mar;414(8):2545-2552

<https://link.springer.com/article/10.1007/s00216-022-03931-w>

### **Biogenesis of HLA Ligand Presentation in Immune Cells Upon Activation Reveals Changes in Peptide Length Preference**

Fabio Marino, Aikaterini Semilietof, Justine Michaux, Hui-Song Pak, George Coukos, Markus Müller, and Michal Bassani-Sternberg

*Front Immunol* . 2020 Aug 28;11:1981

<https://www.frontiersin.org/journals/immunology/articles/10.3389/fimmu.2020.01981/full>

### **The HLA class-II immunopeptidomes of AAV capsids proteins**

Carlos A Brito-Sierra, Megan B Lannan, Laurent P Malherbe, and Robert W Siegel

*Front Immunol* . 2023 Aug 16;14:1212136

<https://www.frontiersin.org/journals/immunology/articles/10.3389/fimmu.2022.1067399/full>

**A Phase Ib Study of the Combination of Personalized Autologous Dendritic Cell Vaccine, Aspirin, and Standard of Care Adjuvant Chemotherapy Followed by Nivolumab for Resected Pancreatic Adenocarcinoma—A Proof of Antigen Discovery Feasibility in Three Patients**

Michal Bassani-Sternberg, Antonia Digkila, Florian Huber, Dorothea Wagner, Christine Sempoux, Brian J Stevenson, Anne-Christine Thierry, Justine Michaux, HuiSong Pak, Julien Racle, Caroline Boudousquie, Klara Balint, George Coukos, David Gfeller, Silvia Martin Lluesma, Alexandre Harari, Nicolas Demartines, and Lana E Kandalaf

*Front Immunol* . 2019 Aug 8;10:1832

<https://www.frontiersin.org/journals/immunology/articles/10.3389/fimmu.2019.01832/full>

**Mass spectrometry-driven exploration reveals nuances of neoepitope-driven tumor rejection**

Hakimeh Ebrahimi-Nik, Justine Michaux, William L. Corwin, Grant L.J. Keller, Tatiana Shcheglova, HuiSong Pak, George Coukos, Brian M. Baker, Ion I. Mandoiu, Michal Bassani-Sternberg, and Pramod K. Srivastava

*JCI Insight* . 2019 Jun 20;5(14):e129152

<https://insight.jci.org/articles/view/129152>

**ERAP2 Inhibition Induces Cell-Surface Presentation by MOLT-4 Leukemia Cancer Cells of Many Novel and Potentially Antigenic Peptides**

Ioannis Temponeras, George Stamatakis, Martina Samiotaki, Dimitris Georgiadis, Harris Pratsinis, George Panayotou, and Efstratios Stratikos

*Int J Mol Sci* . 2022 Feb 8;23(3):1913

<https://www.mdpi.com/1422-0067/23/3/1913>

**Bedside formulation of a personalized multi-neoantigen vaccine against mammary carcinoma**

Mona O Mohsen, Daniel E Speiser, Justine Michaux, HuiSong Pak, Brian J Stevenson, Monique Vogel, Varghese Philipose Inchakalody, Simone de Brot, Said Dermime, Georges Coukos, Michal Bassani-Sternberg, and Martin F Bachmann

*J Immunother Cancer* . 2022 Jan;10(1):e002927

<https://jitc.bmj.com/content/10/1/e002927>

**A Cluster of Evolutionarily Recent KRAB Zinc Finger Proteins Protects Cancer Cells from Replicative Stress-Induced Inflammation**

Filipe Martins, Olga Rosspopoff, Joana Carlevaro-Fita, Romain Forey, Sandra Offner, Evarist Planet, Cyril Pulver, HuiSong Pak, Florian Huber, Justine Michaux, Michal Bassani-Sternberg, Priscilla Turelli, and Didier Trono

*Cancer Res* . 2024 Feb 12:OF1-OF19

<https://aacrjournals.org/cancerres/article/doi/10.1158/0008-5472.CAN-23-1237/734231>

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