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Citation Index

Agilent AssayMAP Bravo

In this citation index, you will gain fast access to the bibliographic information for all the peer reviewed publications and Agilent Application notes, as of December 2023, that use the AssayMAP Bravo for protein sample preparation. This citation index illustrates the wide variety of ways the AssayMAP Bravo platform has been used to help generate high quality data and enable analysis on a scale that was previously considered unattainable. The peer reviewed publications and application notes are in separate sections but both are organized in reverse chronological order by publication year and within each year alphabetically. Each publication has keywords to make it easy to find publications that match your research interest. Please note that clicking on the title to each citation and application note will take you to the publication page for that citation.

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- Phosphopeptide Enrichment (120)
- Protein Cleanup (3)

AssayMAP Bravo published peer reviewed citations

2024

ALK signalling primes the DNA damage response sensitizing ALK-driven neuroblastoma to therapeutic ATR inhibition

Authors: Marcus Borenäs, Ganesh Umapathy, Dan E. Lind, Wei-Yun Lai, Jikui Guan, Joel Johansson, Eva Jennische, Alexander Schmidt, Yeshwant Kurhe, Jonatan L. Gabre, Agata Aniszewska, Anneli Strömberg, Mats Bemark, Michael N. Hall, Jimmy Van den Eynden, Bengt Hallberg, and Ruth H. Palmer

Journal Citation: *PNAS* **2024**, *121(1)*, e2315242121

Key Words: Fe(III)-NTA, Phosphopeptide Enrichment, Mechanism of Action, Phosphoproteomics, Signal Transduction

Assessment of IgG-Fc glycosylation from individual RhD-specific B cell clones reveals regulation at clonal rather than clonotypic level

Authors: Erik L. de Graaf, Mads Delbo Larsen, Nieke van der Bolt, Remco Visser, Onno J. H. M. Verhagen, Agnes L. Hipgrave Ederveen, Carolien A. M. Koeleman, C. Ellen van der Schoot, Manfred Wuhrer, and Gestur Vidarsson

Journal Citation: *Immunology* **2024**, *171*(*3*), 428-439

Key Words: PGW, Affinity Purification, Glycoproteomics

Comprehensive analysis of the proximity-dependent nuclear interactome for the oncoprotein NOTCH1 in live cells

Authors: Haydee M. Torres, Fang Fang, Danielle G. May, Paige Bosshardt, Leetoria Hinojosa, Kyle J. Roux, and Jianning Tao

Journal Citation: *Journal of Biological Chemistry* **2024**, *300(1)*, 105522

Key Words: C18-5, Peptide Cleanup, Protein-Protein Interactions, Signal Transduction, BioID

Illuminating phenotypic drug responses of sarcoma cells to kinase inhibitors by phosphoproteomics

Authors: Chien-Yun Lee, Matthew The, Chen Meng, Florian P Bayer, Kerstin Putzker, Julian Müller, Johanna Streubel, Julia Woortman, Amirhossein Sakhteman, Moritz Resch, Annika Schneider, Stephanie Wilhelm, and Bernhard Kuster

Journal Citation: *Molecular Systems Biology* **2024**, *20(1)*, 28-55

Key Words: Fe(III)-NTA, RPS-5, Peptide Cleanup, Phosphopeptide Enrichment, Biomarkers, Mechanism of Action, Phosphoproteomics, Proteomics, SP3

IMBAS-MS Discovers Organ-Specific HLA Peptide Patterns in Plasma

Authors: Maria Wahle, Marvin Thielert, Maximilian Zwiebel, Patricia Skowronek, Wen-Feng Zeng, and Matthias Mann

Journal Citation: *Molecular & Cellular Proteomics* **2024**, *23(1)*, 100689

Key Words: C18-5, Fractionation, Biomarkers, Immunopeptidomics

Live cell painting: New nontoxic dye to probe cell physiology in high content screening

Authors: Martin Cottet, Yuniel Fernandez Marrero, Simon Mathien, Karine Audette, Raphaelle Lambert, Eric Bonneil, Kenneth Chng, Alex Campos, and David W. Andrews

Journal Citation: *SLAS Discovery* **2024**,

Key Words: C18-5, Peptide Cleanup, Proteomics

Monitoring mAb proteoforms in mouse plasma using an automated immunocapture combined with top-down and middle-down mass spectrometry

Authors: Jonathan Dhenin, Valérie Lafont, Mathieu Dupré, Alain Krick, Christine Mauriac, and Julia Chamot-Rooke

Journal Citation: *Proteomics* **2024**, *24*(*3-4*), e2300069

Key Words: SAW-5, Affinity Purification, On-Cartridge Reaction, Biopharma, Pharmacokinetics, Immunocapture

Phosphoprotein dynamics of interacting T cells and tumor cells by HySic

Authors: Sofıa Ibanez-Molero, Joannes T.M. Pruijs, Alisha Atmopawiro, Fujia Wang, Alexandra M. Terry, Maarten Altelaar, Daniel S. Peeper, and Kelly E. Stecker

Journal Citation: *Cell Reports* **2024**, *43(1)*, 113598

Key Words: C18-5, Fe(III)-NTA, RPS-5, Peptide Cleanup, Phosphopeptide Enrichment, Fractionation, Biopharma, Phosphoproteomics, Proteomics

Proteomics on malignant pleural effusions reveals ERα loss in metastatic breast cancer associates with SGK1–NDRG1 deregulation

Authors: Isabel Mayayo-Peralta, Donna O. Debets, Stefan Prekovic, Karianne Schuurman, Suzanne Beerthuijzen, Mathilde Almekinders, Joyce Sanders, Cathy B. Moelans, Sandra Saleiro, Jelle Wesseling, Paul J. van Diest, Rui Henrique, Carmen Jerónimo, Maarten Altelaar, and Wilbert Zwart

Journal Citation: *Molecular Oncology* **2024**, *18(1)*, 156-169

Key Words: Fe(III)-NTA, Phosphopeptide Enrichment, Clinical Research, Phosphoproteomics

Systematic discovery of neoepitope–HLA pairs for neoantigens shared among patients and tumor types

Authors: Hem R. Gurung, Amy J. Heidersbach, Martine Darwish, Pamela Pui Fung Chan, Jenny Li, Maureen Beresini, Oliver A. Zill, Andrew Wallace, Ann-Jay Tong, Dan Hascall, Eric Torres, Andy Chang, Kenny 'Hei-Wai' Lou, Yassan Abdolazimi, Christian Hammer, Ana Xavier-Magalhães, Ana Marcu, Samir Vaidya, Daniel D. Le, Ilseyar Akhmetzyanova, Soyoung A. Oh, Amanda J. Moore, Uzodinma N. Uche, Melanie B. Laur, Richard J. Notturno, Peter J. R. Ebert, Craig Blanchette, Benjamin Haley, and Christopher M. Rose

Journal Citation: *Nature Biotechnology* **2024**,

Key Words: PAW-25, C18-5, Affinity Purification, Peptide Cleanup, Biopharma, Immunopeptidomics

Use of dried blood spots for monitoring inflammatory and nutritional biomarkers in the elderly

Authors: Jérôme Vialaret, Margaux Vignon, Christophe Hirtz*, Stéphanie Badiou, Gregory Baptista, Laura Fichter, Anne-Marie Dupuy, Aleksandra Maleska Maceski, Martin Fayolle, Mehdi Brousse, Jean-Paul Cristol, Claude Jeandel, and Sylvain Lehmann

Journal Citation: *Clinical Chemistry and Laboratory Medicine* **2024**

Key Words: In-Solution Digestion, Biomarker, Clinical Research

2023

A cyclin-dependent kinase-mediated phosphorylation switch of disordered protein condensation

Authors: Juan Manuel Valverde, Geronimo Dubra, Michael Phillips, Austin Haider, Carlos Elena-Real, Aurélie Fournet, Emile Alghoul, Dhanvantri Chahar, Nuria Andrés-Sanchez, Matteo Paloni, Pau Bernadó, Guido van Mierlo, Michiel Vermeulen, Henk van den Toorn, Albert J. R. Heck, Angelos Constantinou, Alessandro Barducci, Kingshuk Ghosh, Nathalie Sibille, Puck Knipscheer, Liliana Krasinska, Daniel Fisher, and Maarten Altelaar

Journal Citation: *Nature Communications* **2023**, *14*, 6316

Keywords: C18-5, Fe(III)-NTA, Peptide Cleanup, Phosphopeptide Enrichment, Phosphoproteomics

A human meniscus explant model for studying early events in osteoarthritis development by proteomics

Authors: Martin Rydén, Karin Lindblom, Aida Yifter-Lindgren, Aleksandra Turkiewicz, Anders Aspberg, Viveka Tillgren, Martin Englund, and Patrik Önnerfjord

Joural Citation: *Journal of Orthopaedic Research* **2023**, *41(12)*, 2765-2778

Key Words: C18-5, Peptide Cleanup, Proteomics

A novel approach to interrogating the effects of chemical warfare agent exposure using organ-on-a-chip technology and multiomic analysis

Authors: Tyler D. P. Goralski, Conor C. Jenkins, Daniel J. Angelini, Jennifer R. Horsmon, Elizabeth S. Dhummakupt, Gabrielle M. Rizzo, Brooke L. Simmons, Alvin T. Liem, Pierce A. Roth, Mark A. Karavis, Jessica M. Hill, Jennifer W. Sekowski, and Kyle P. Glover

Journal Citation: *PLoS One* **2023**, *18(2)*, e0280883

Key words: C18-5, In-Solution Digestion, Peptide Cleanup, Proteomics

Analysis of the phosphoproteome of CK2α(−/−)/Δα' C2C12 myoblasts compared to the wild-type cells

Authors: Christian Borgo, Luca Cesaro, Tsuyoshi Hirota, Keiko Kuwata, Claudio D'Amore, Thomas Ruppert, Renata Blatnik, Mauro Salvi, and Lorenzo A. Pinna

Journal Citation: *Open Biology* **2023**, *13(2)*, 220220

Key Words: Fe(III)-NTA, Phosphopeptide Enrichment, Phosphoproteomics, Signal Transduction

Apolipoprotein Proteomics for Residual Lipid-Related Risk in Coronary Heart Disease

Authors: Robert Clarke, Adam Von Ende, Lukas Schmidt, Xiaoke Yin, Michael Hill, Alun Hughes, Raimund Pechlaner, Johann Willeit, Stefan Kiechl, Hugh Watkins, Konstantinos Theofilatos, Jemma C. Hopewell, and Manuel Mayr

Journal Citation: *Circulation Research* **2023**, *132(4)*, 452-464

Key words: C18-5, Peptide Cleanup, Biomarkers, Clinical Research

At low levels, inorganic mercury interference with antigen signaling is associated with modifications to a panel of novel phosphoserine sites in B cell receptor pathway proteins

Authors: Chunna Guo, Raymond R. Mattingly, Paul M. Stemmer, and Allen J. Rosenspire

Journal Citation: *Toxicology in Vitro* **2023**, *89*, 105564

Key Words: C18-5, Fe(III)-NTA, Peptide Cleanup, Phosphopeptide Enrichment, Phosphoproteomics, Signal Transduction

B cell class switch recombination is regulated by DYRK1A through MSH6 phosphorylation

Authors: Liat Stoler-Barak, Ethan Harris, Ayelet Peres, Hadas Hezroni, Mirela Kuka, Pietro Di Lucia, Amalie Grenov, Neta Gurwicz, Meital Kupervaser, Bon Ham Yip, Matteo Iannacone, Gur Yaari, John D. Crispino, and Ziv Shulman

Journal Citation: *Nature Communications* **2023**, *14*, 1462

Key Words: Fe(III)-NTA, Phosphopeptide Enrichment, Phosphoproteomics, Signal Transduction

Cardiac progenitor cell-derived extracellular vesicles promote angiogenesis through both associated- and co-isolated proteins

Authors: Marieke Theodora Roefs, Julia Bauzá-Martinez, Simonides Immanuel van de Wakker, Jiabin Qin, Willem Theodoor Olijve, Robin Tuinte, Marjolein Rozeboom, Christian Snijders Blok, Emma Alise Mol, Wei Wu, Pieter Vader, and Joost Petrus Gerardus Sluijter

Journal Citation: *Communications Biology* **2023**, *6*, 800

Key Words: Fe(III)-NTA, Phosphopeptide Enrichment, Mechanism of Action, Phosphoproteomics, Signal Transduction

Comparative analysis of spike-specific IgG Fc glycoprofiles elicited by adenoviral, mRNA, and protein-based SARS-CoV-2 vaccines

Authors: Julie Van Coillie, Tamas Pongracz, Tonći Šuštić, Wenjun Wang, Jan Nouta, Mathieu Le Gars, Sofie Keijzer, Federica Linty, Olvi Cristianawati, Jim B. D. Keijser, Remco Visser, Lonneke A. van Vught, Marleen A. Slim, Niels van Mourik, Merel J. Smit, Adam Sander, David E. Schmidt, Maurice Steenhuis, Theo Rispens, Morten A. Nielsen, Benjamin G. Mordmüller, Alexander P.J. Vlaar, C. Ellen van der Schoot, Ramon Roozendaal, Manfred Wuhrer, and Gestur Vidarsson

Journal Citation: *iScience* **2023**, *26(9)*, 107619

Key Words: PGW, Affinity Purification, Clinical Research, Proteomics

Cross-linking Mass Spectrometry Uncovers Interactions Between High-density Lipoproteins and the SARS-CoV-2 Spike Glycoprotein

Authors: Sean A. Burnap, Ana Maria Ortega-Prieto, Jose M. Jimenez-Guardeño, Hashim Ali, Kaloyan Takov, Matthew Fish, Manu Shankar-Hari, Mauro Giacca, Michael H. Malim, and Manuel Mayr

Journal Citation: *Molecular & Cellular Proteomics* **2023**, *22(8)*, 100600

Key Words: C18-5, Peptide Cleanup, Clinical Research, Proteomics, Protein-Protein Interactions

Deep (phospho)proteomics profiling of pre-treatment needle biopsies identifies signatures of treatment resistance in HER2+ breast cancer

Authors: Donna O. Debets, Kelly E. Stecker, Anastasia Piskopou, Marte C. Liefaard, Jelle Wesseling, Gabe S. Sonke, Esther H. Lips, and Maarten Altelaar

Journal Citation: *Cell Reports Medicine* **2023**, *4(10)*, 101203

Key Words: C18-5, Fe(III)-NTA, Peptide Cleanup, Phosphopeptide Enrichment, Clinical Research, Biomarkers, Phosphoproteomics, Proteomics

Design and Characterization of Mutated Variants of the Oncotoxic Parvoviral Protein NS1

Authors: Patrick Hauswirth, Philipp Graber, Katarzyna Buczak, Riccardo Vincenzo Mancuso, Susanne Heidi Schenk, Jürg P. F. Nüesch, and Jörg Huwyler

Journal Citation: *Viruses* **2023**, *15(1)*, 209

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Mechanism of Action, Phosphoproteomics

Differential proteomics of Zika virus (ZIKV) infection reveals molecular changes potentially involved in immune system evasion by a Brazilian strain of ZIKV

Authors: Juliana M. Tatara, Rafael L. Rosa, Ana Paula M. Varela, Tais F. Teixeira, Patrícia Sesterheim, Anderson Gris, David Driemeier, Amanda N. S. Moraes, Markus Berger, Ramon D. Peña, Paulo M. Roehe, Diogo O. G. Souza, Jorge A. Guimarães, Alexandre R. Campos, Lucélia Santi, and Walter O. Beys-da-Silva

Journal Citation: *Archives of Virology* **2023**, *168*, 70

Key words: C18-5, Peptide Cleanup, Proteomics

Diligent Design Enables Antibody-ASO Conjugates with Optimal Pharmacokinetic Properties

Authors: Tatjana Sela, Mads Mansø, Michel Siegel, Céline Marban-Doran, Axel Ducret, Jens Niewöhner, Jacob Ravn, Rainer E. Martin, Annika Sommer, Sabine Lohmann, Ben-Fillippo Krippendorff, Mette Ladefoged, Annette Indlekofer, Tom Quaiser, Florian Bueddefeld, Erich Koller, Mohamed Y. Mohamed, Tobias Oelschlaegel, Kurt V. Gothelf, Kerstin Hofer, and Felix F. Schumacher

Journal Citation: *Bioconjugate Chemistry* **2023**, *34(11)*, 2096-2111

Key Words: SAW-5, Affinity Purification, Antibody Drug Conjugates, Immuopeptideomics, Proteomics, Immunocapture

Discovery and validation of serum glycoprotein biomarkers for high grade serous ovarian cancer

Authors: Mriga Dutt, Gunter Hartel, Renee S. Richards, Alok K. Shah, Ahmed Mohamed, Sophia Apostolidou, Aleksandra Gentry-Maharaj, Australian Ovarian Cancer Study Group, John D. Hooper, Lewis C. Perrin, Usha Menon, and Michelle M Hill

Journal Citation: *Proteomics-Clinical Applications* **2023**, *17(4)* 2200114

Key Words: Biomarkers, Clinical Research, Glycoproteomics

Elucidating Fibroblast Growth Factor-Induced Kinome Dynamics Using Targeted Mass Spectrometry and Dynamic Modeling

Authors: Tim S. Veth, Chiara Francavilla, Albert J.R. Heck, and Maarten Altelaar

Journal Citation: *Molecular and Cellular Proteomics* **2023**, *22(8)*, 100594

Key Words: C18-5, Fe(III)-NTA, Peptide Cleanup, Phosphopeptide Enrichment, Phosphoproteomics, Signal Transduction

Enhanced SREBP2-driven cholesterol biosynthesis by PKCλ/ι deficiency in intestinal epithelial cells promotes aggressive serrated tumorigenesis

Authors: Yu Muta, Juan F. Linares, Anxo Martinez-Ordoñez, Angeles Duran, Tania Cid-Diaz, Hiroto Kinoshita, Xiao Zhang, Qixiu Han, Yuki Nakanishi, Naoko Nakanishi, Thekla Cordes, Gurpreet K. Arora, Marc Ruiz-Martinez, Miguel Reina-Campos, Hiroaki Kasashima, Masakazu Yashiro, Kiyoshi Maeda, Ana Albaladejo-Gonzalez, Daniel Torres-Moreno, José García-Solano, Pablo Conesa-Zamora, Giorgio Inghirami, Christian M. Metallo, Timothy F. Osborne, Maria T. Diaz-Meco, and Jorge Moscat

Journal Citation: *Nature Communications* **2023**, *14*, 8075

Key Words: SAW-5, Affinity Purification, On-Cartridge Reaction, Protein-Protein Interactions, Proteomics, Signal Transduction, BioID

Enhancing antibody affinity through experimental sampling of non-deleterious CDR mutations predicted by machine learning

Authors: Thomas Clark, Vidya Subramanian, Akila Jayaraman, Emmett Fitzpatrick, Ranjani Gopal, Niharika Pentakota, Troy Rurak, Shweta Anand, Alexander Viglione, Rahul Raman, Kannan Tharakaraman, and Ram Sasisekharan

Journal Citation: *Communications Chemistry* **2023**, *6*, 244

Key Words: PAW-5, Affinity Purification, Biopharma

Expanding the MAPPs Assay to Accommodate MHC-II Pan Receptors for Improved Predictability of Potential T Cell Epitopes

Authors: Katharina Hartman, Guido Steiner, Michel Siegel, Cary M. Looney, Timothy P. Hickling, Katharine Bray-French, Sebastian Springer, Céline Marban-Doran, and Axel Ducret

Journal Citation: *Biology* **2023**, *12(9)*, 1265

Key Words: SAW-5, Affinity Purification, Biopharma, Immunopeptidomics, Proteomics, Immunocapture

Four-dimensional proteomics analysis of human cerebrospinal fluid with trapped ion mobility spectrometry using PASEF

Authors: Dong-Gi Mun, Rohit Budhraja, Firdous A. Bhat, Roman M. Zenka, Kenneth L. Johnson, Abhay Moghekar, and Akhilesh Pandey

Journal Citation: *Proteomics* **2023**, *34(10)*, e2200507

Key Words: C18-5, In-Solution Digestion, Peptide Cleanup, Clinical Research, Proteomics

Frequent ZNF217 mutations lead to transcriptional deregulation of interferon signal transduction via altered chromatin accessibility in B cell lymphoma

Authors: Franziska Briest, Daniel Noerenberg, Cornelius Hennch, Kenichi Yoshida, Raphael Hablesreiter, Jose Nimo, Daniel Sasca, Marieluise Kirchner, Larry Mansouri, Yoshikage Inoue, Laura Wiegand, Annette M. Staiger, Beatrice Casadei, Penelope Korkolopoulou, January Weiner, Armando Lopez-Guillermo, Arne Warth, Tamás Schneider, Ákos Nagy, Wolfram Klapper, Michael Hummel, George Kanellis, Ioannis Anagnostopoulos, Philipp Mertins, Lars Bullinger, Richard Rosenquist, Theodoros P. Vassilakopoulos, German Ott, Seishi Ogawa, and Frederik Damm

Journal Citation: *Leukemia* **2023**, *37*, 2237-2249

Key Words: Fe(III)-NTA, Phosphopeptide Enrichment, Phosphoproteomics

Generalized precursor prediction boosts identification rates and accuracy in mass spectrometry based proteomics

Authors: Aaron M. Scott, Christofer Karlsson, Tirthankar Mohanty, Erik Hartman, Suvi T. Vaara, Adam Linder, Johan Malmström, and Lars Malmström

Journal Citation: *Communications Biology* **2023**, *6*, 628

Key Words: C18-5, In-Solution Digestion, Peptide Cleanup, Biomarkers, Proteomics

Getting Ready for Large-Scale Proteomics in Crop Plants

Authors: Sarah Brajkovic, Nils Rugen, Carlos Agius, Nicola Berner, Stephan Eckert, Amirhossein Sakhteman, Claus Schwechheimer, and Bernhard Kuster

Journal Citation: *Nutrients* **2023**, *15(3)*, 783

Key words: RPS-5, Fractionation, Proteomics, SP3

High-Throughput Analyses of Therapeutic Antibodies Using High-Field Asymmetric Waveform Ion Mobility Spectrometry Combined with SampleStream and Intact Protein Mass Spectrometry

Authors: Rachel Liuqing Shi, Michael A. Dillon, Philip D. Compton, William S. Sawyer, John R. Thorup, Mandy Kwong, Pamela Chan, Cecilia P. C. Chiu, Ran Li, Rajbharan Yadav, Genee Y. Lee, Joshua G. Gober, Zhiyu Li, Adel M. ElSohly, Ayse Meric Ovacik, James T. Koerber, Christoph Spiess, Jonathan L. Josephs, and John C. Tran

Journal Citation: *Analytical Chemistry* **2023**, *95(47)* 17263-17272

Key Words: SAW-5, Affinity Purification, Immobilization, Biopharma, Immunocapture

High-Throughput and Format-Agnostic Mispairing Assay for Multispecific Antibodies Using Intact Mass Spectrometry

Authors: Tanja Ziegengeist, Jennifer Orth, Katja Kroll, Marion Schneider, Nadja Spindler, Dilyana Dimova, Severin Handschuh, Arnd Brandenburg, Reto Ossola, Norbert Furtmann, Joerg Birkenfeld, Christian Beil, Dietmar Hoffmann, Thorsten Schmidt, Rebecca Sendak, Melanie Fischer, Soraya Hölper, and Jennifer Kühn

Journal Citation: *Analytical Chemistry* **2023**, *95(27)*, 10265-10278

Key Words: In-Solution Digestion, Normalization, Biopharma

High-Throughput Screening and Proteomic Characterization of Compounds Targeting Myeloid-Derived Suppressor Cells

Authors: Johannes Krumm, Elissaveta Petrova, Severin Lechner, Julia Mergner, Hans-Henning Boehm, Alessandro Prestipino, Dominik Steinbrunn, Marshall L. Deline, Lisa Koetzner, Christina Schindler, Laura Helming, Tobias Fromme, Martin Klingenspor, Hannes Hahne, Jan-Carsten Pieck, and Bernhard Kuster

Journal Citations: *Molecular and Cellular Proteomics* **2023**, *22(9)*, 100632

Key Words: Fe(III)-NTA, Phosphopeptide Enrichment, Phosphoproteomics, Proteomics, SP3

Hormone-induced enhancer assembly requires an optimal level of hormone receptor multivalent interactions

Authors: Lizhen Chen, Zhao Zhang, Qinyu Han, Barun K. Maity, Leticia Rodrigues, Emily Zboril, Rashmi Adhikari, Su-Hyuk Ko, Xin Li, Shawn R. Yoshida, Pengya Xue, Emilie Smith, Kexin Xu, Qianben Wang, Tim Hui-Ming Huang, Shasha Chong, and Zhijie Liu

Journal Citation: *Molecular Cell* **2023**, *83(19)*, 3438-3456

Key Words: C18-5, Peptide Cleanup, Protein-Protein Interactions, Proteomics, Signal Transduction, BioID

Human blood vessel organoids reveal a critical role for CTGF in maintaining microvascular integrity

Authors: Sara G Romeo, Ilaria Secco, Edoardo Schneider, Christina M Reumiller, Celio XC Santos, Anna Zoccarato, Vishal Musale, Aman Pooni, Xiaoke Yin, Konstantinos Theofilatos, Silvia Cellone Trevelin, Lingfang Zeng, Giovanni E Mann, Varun Pathak, Kevin Harkin, Alan W. Stitt, Reinhold J. Medina, Andriana Margariti, Manuel Mayr, Ajay M Shah, Mauro Giacca, and Anna Zampetaki

Journal Citation: *Nature Communications* **2023**, *14*, 5552

Key Words: C18-5, Peptide Cleanup, Proteomics

Human model of primary carnitine deficiency cardiomyopathy reveals ferroptosis as a novel disease mechanism

Authors: Malte Loos, Birgit Klampe, Thomas Schulze, Xiaoke Yin, Konstantinos Theofilatos, Bärbel Maria Ulmer, Carl Schulz, Charlotta Behrens, Tessa Diana van Bergen, Eleonora Adami, Henrike Maatz, Michaela Schweizer, Susanne Brodesser, Boris V. Skryabin, Timofey S. Rozhdestvensky, Sara Bodbin, Konstantina Stathopoulou, Torsten Christ, Chris Denning, Norbert Hübner, Manuel Mayr, Freiderike Cuello, Thomas Eschenhagen, and Arne Hansen

Journal Citation: *Stem Cell Reports* **2023**, *18(11)*, 2123-2137

Key Words: C18-5, Peptide Cleanup, Proteomics

Hyperinsulinemia acts via acinar insulin receptors to initiate pancreatic cancer by increasing digestive enzyme production and inflammation

Link: **Authors:** Anni M.Y. Zhang, Yi Han Xia, Jeffrey S.H. Lin, Ken H. Chu, Wei Chuan K. Wang, Titine J.J. Ruiter, Jenny C.C. Yang, Nan Chen, Justin Chhuor, Shilpa Patil, Haoning Howard Cen, Elizabeth J. Rideout, Vincent R. Richard, David F. Schaeffer, Rene P. Zahedi, Christoph H. Borchers, James D. Johnson, and Janel L. Kopp

Journal Citation: *Cell Metabolism* **2023**, *35(12)*, 2119-2135

Key Words: Fe(III)-NTA, Phosphopeptide Enrichment, Phosphoproteomics, Signal Transduction

Interpreting biologically informed neural networks for enhanced proteomic biomarker discovery and pathway analysis

Authors: Erik Hartman, Aaron M. Scott, Christofer Karlsson, Tirthankar Mohanty, Suvi T. Vaara, Adam Linder, Lars Malmström, and Johan Malmström

Journal Citation: *Nature Communications* **2023**, *14*, 5359

Key Words: C18-5, In-Solution Digestion, Peptide Cleanup, Biomarkers, Clinical Research, Proteomics

L-Ala-L-Gln Suppresses Hypoxic Phenotype and Fibrogenic Activity of Rat Perineurial Fibroblasts

Authors: Nilabh Ghosh, Catherine Bregere, Pia Bustos, and Raphael Guzman

Journal Citation: *CNS & Neurological Disorders-Drug Targets* **2023**, *22(5)*, 761-773

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Mechanism of Action, Phosphoproteomics

Lfc subcellular localization and activity is controlled by αv-class integrin

Authors: Georgina P. Colo, Andreas Seiwert, and Raquel B. Haga

Journal Citation: *Journal of Cell Science* **2023**, *136(9)*, jcs260740

Key Words: Fe(III)-NTA, Phosphopeptide Enrichment, Signal Transduction

LINE-1 ORF1p as a candidate biomarker in high grade serous ovarian carcinoma

Authors: Sho Sato, Michael Gillette, Pamela R. de Santiago, Eric Kuhn, Michael Burgess, Kristen Doucette, Yi Feng, Carlos Mendez-Dorantes, Paul J. Ippoliti, Sara Hobday, Marilyn A. Mitchell, Kai Doberstein, Stefan M. Gysler, Michelle S. Hirsch, Lauren Schwartz, Michael J. Birrer, Steven J. Skates, Kathleen H. Burns, Steven A. Carr, and Ronny Drapkin

Journal Citation: *Scientific Reports* **2023**, *13*, 1537

Key words: RPS-5, Peptide Cleanup, Biomarkers, Clinical Research

Mass spectrometry-based analysis on the impact of whole blood donation on the global plasma proteome

Authors: Iris C. Kreft, Arie J. Hoogendijk, Carmen van der Zwaan, Floris P. J. van Alphen, Mariette Boon-Spijker, Femmeke Prinsze, Alexander B. Meijer, Dirk de Korte, Katja van den Hurk, Maartje van den Biggelaar

Journal Citation: *Transfusion* **2023**, *63(3),* 564-573

Key words: C18-5, Peptide Cleanup, Proteomics

Molecular control of endurance training adaptation in male mouse skeletal muscle

Authors: Regula Furrer, Barbara Heim, Svenia Schmid, Sedat Dilbaz, Volkan Adak, Karl J. V. Nordström, Danilo Ritz, Stefan A. Steurer, Jörn Walter, and Christoph Handschin

Journal Citation: *Nature Metabolism* **2023**, *5*, 2020-2035

Key Words: Fe(III)-NTA, Phosphopeptide Enrichment, Phosphoproteomics

Multi-omics delineation of cytokine-induced endothelial inflammatory states

Authors: Stijn A. Groten, Eva R. Smit, Esmée F. J. Janssen, Bart L. van den Eshof, Floris P. J. van Alphen, Carmen van der Zwaan, Alexander B. Meijer, Arie J. Hoogendijk, and Maartje van den Biggelaar

Journal Citation: *Communications Biology* **2023**, *6*, 525

Key Words: C18-5, Fe(III)-NTA, Peptide Cleanup, Phosphopeptide Enrichment, Phosphoproteomics, Proteomics, Signal Transduction

N-acetylcysteine overcomes NF1 loss-driven resistance to PI3Ka inhibition in breast cancer

Authors: Priska Auf der Maur, Marcel P. Trefny, Zora Baumann, Milica Vulin, Ana Luisa Correia, Maren Diepenbruck, Nicolas Kramer, Katrin Volkmann, Bogdan-Tiberius Preca, Pedro Ramos, Cedric Leroy, Tobias Eichlisberger, Katarzyna Buczak, Federica Zilli, Ryoko Okamoto, Roland Rad, Michael Rugaard Jensen, Christine Fritsch, Alfred Zippelius, Michael B. Stadler, and Mohamed Bentires-Alj

Journal Citation: *Cell Reports Medicine* **2023**, *4(4)*, 101002

Key Words: Fe(III)-NTA, Phosphopeptide Enrichment, Mechanism of Action, Phosphoproteomics, Signal Transduction

N-terminal chemical derivatization of peptides with 4-formyl-benzenesulfonic acid and electrospray positive and negative tandem mass spectrometry with high abundance of b-ion series

Authors: Luka Ozdanovac, Lucija Dončević, Amela Hozić, Renata Biba, Ema Svetličić, Andrea Janeš, and Mario Cindrić

Journal Citation: *Rapid Communications Mass Spectrometry* **2023**, *37(14)*, e9534

Key Words: NA

New Perspectives of Multiplex Mass Spectrometry Blood Protein Quantification on Microsamples in Biological Monitoring of Elderly Patients

Authors: Jérôme Vialaret, Margaux Vignon, Stéphanie Badiou, Gregory Baptista, Laura Fichter, Anne-Marie Dupuy, Aleksandra Maleska Maceski, Martin Fayolle, Mehdi Brousse, Jean-Paul Cristol, Claude Jeandel, Christophe Hirtz, and Sylvain Lehmann

Journal Citation: *International Journal of Molecular Sciences* **2023**, *24(8)*, 6989

Key Words: In-Solution Digestion, Clinical Research, Proteomics

Optimized Suspension Trapping Method for Phosphoproteomics Sample Preparation

Authors: Fujia Wang, Tim Veth, Marije Kuipers, Maarten Altelaar, and Kelly E. Stecker

Journal Citation: *Analytical Chemistry* **2023**, *95(25)*, 9471-9479

Key Words: Fe(III)-NTA, Phosphopeptide Enrichment, Phosphoproteomics

Oxygen toxicity causes cyclic damage by destabilizing specific Fe-S cluster-containing protein complexes

Authors: Alan H. Baik, Augustinus G. Haribowo, Xuewen Chen, Bruno B. Queliconi, Alec M. Barrios, Ankur Garg, Mazharul Maishan, Alexandre R. Campos, Michael A. Matthay, and Isha H. Jain

Journal Citation: *Molecular Cell* **2023**, *83(6)*, 942-960

Key Words: C18-5, Peptide Cleanup, Proteomics

Pathogen-driven degradation of endogenous and therapeutic antibodies during streptococcal infections

Authors: Alejandro Gomez Toledo, Eleni Bratanis, Erika Velásquez, Sounak Chowdhury, Berit Olofsson, James T. Sorrentino, Christofer Karlsson, Nathan E. Lewis, Jeffrey D. Esko, Mattias Collin, Oonagh Shannon, and Johan Malmström

Journal Citation: *Nature Communications* **2023**, *14*, 6693

Key Words: PGW, Affinity Purification, Glycoproteomics, Proteomics

Phenylalanine-tRNA aminoacylation is compromised by ALS/FTD-associated C9orf72 C4G2 repeat RNA

Authors: Mirjana Malnar Črnigoj, Urša Čerček, Xiaoke Yin, Manh Tin Ho, Barbka Repic Lampret, Manuela Neumann, Andreas Hermann, Guy Rouleau, Beat Suter, Manuel Mayr,and Boris Rogelj

Journal Citation: *Nature Communications* **2023**, *14*, 5764

Key Words: C18-5, Peptide Cleanup, Proteomics

Physicochemical characterization and functionality comparison of Humira®(adalimumab), Remicade®(infliximab) and Simponi Aria® (golimumab)

Authors: Jill L. Kinzer, Troy A. Halseth, Jukyung Kang, Sang Yeop Kim, Preethi Kumaran, Michael Ford, Sergei Saveliev, St John Skilton, and Anna Schwendeman

Journal Citation: *International Journal of Pharmaceutics* **2023**, *635*, 122646

Key Words: C18-5, In-Solution Digestion, Peptide Cleanup, Biopharma, Glycans

Protein LC-MS Tools for the Next Generation of Biotherapeutic Analyses from Preclinical and Clinical Serum

Authors: Nicole A. Schneck, John T. Mehl, and John F. Kellie

Journal Citation: *Journal of the American Society for Mass Spectrometry* **2023**, *34(9)*, 1837-1846

Key Words: SAW-5, Affinity Purification, Biopharma, Immunocapture

Proteomics separates adult-type diffuse high-grade gliomas in metabolic subgroups independent of 1p/19q codeletion and across IDH mutational status

Authors: Jakob Maximilian Bader, Nikolaus Deigendesch, Martin Misch, Matthias Mann, Arend Koch, and Felix Meissner

Journal Citation: *Cell Reports Medicine* **2023**, *4(1)*, 100877

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Clinical Research, Phosphoproteomics

Protocol for establishing a protein interactome based on close physical proximity to a target protein within live budding yeast

Authors: Janhavi A. Kolhe, Neethu L. Babu, and Brian C. Freeman

Journal Citation: *Star Protocols* **2023**, *4(4)*, 102663

Key Words: C18-5, Peptide Cleanup, Protein-Protein Interactions, Proteomics

PSGL-1 attenuates early TCR signaling to suppress CD8+ T cell progenitor differentiation and elicit terminal CD8+ T cell exhaustion

Authors: Jennifer L. Hope, Dennis C. Otero, Eun-Ah Bae, Christopher J. Stairiker, Ashley B. Palete, Hannah A. Faso, Michelle Lin, Monique L. Henriquez, Sreeja Roy, Hyungseok Seo, Xue Lei, Eric S. Wang, Savio Chow, Roberto Tinoco, Gregory A. Daniels, Kevin Yip, Alexandre Rosa Campos, Jun Yin, Peter D. Adams, Anjana Rao, and Linda M. Bradley

Journal Citation: *Cell Reports* **2023**, *42(5)*, 112436

Key Words: C18-5, Fe(III)-NTA, Peptide Cleanup, Phosphopeptide Enrichment, Proteomics, Phosphoproteomics, Signal Transduction

Quantitative multiorgan proteomics of fatal COVID-19 uncovers tissue-specific effects beyond inflammation

Authors: Lisa Schweizer, Tina Schaller, Maximilian Zwiebel, Özge Karayel, Johannes B. Müller-Reif, Wen-Feng Zeng, Sebastian Dintner, Thierry M. Nordman, Klaus Hirschbühl, Bruno Märkl, Rainer Claus, and Matthias Mann

Journal Citation: *EMBO Molecular Medicine* **2023**, *15,* e17459

Key Words: Fe(III)-NTA, Phosphopeptide Enrichment, Clinical Research, Phosphoteomics

Regional vulnerability of brain white matter in vanishing white matter

Authors: Jodie H.K. Man, Charlotte A.G.H. van Gelder, Marjolein Breur, Douwe Molenaar, Truus Abbink, Maarten Altelaar, Marianna Bugiani, and Marjo S. van der Knaap

Journal Citation: *Acta Neuropathologica Communications* **2023**, *11*, 103

Key Words: C18-5, Peptide Cleanup, Proteomics

Shift of the insoluble content of the proteome in the aging mouse brain

Authors: Cristen Molzahn, Erich R. Kuechler, Irina Zemlyankina, Lorenz Nierves, Tahir Ali, Grace Cole, Jing Wang, Razvan F. Albu, Mang Zhu, Neil R. Cashman, Sabine Gilch, Aly Karsan, Philipp F. Lange, Jörg Gsponer, and Thibault Mayor

Journal Citation: *PNAS* **2023**, *120(45)*, e2310057120

Key Words: C18-5, Peptide Cleanup, Proteomics

Site-Specific Activity-Based Protein Profiling Using Phosphonate Handles

Authors: Wouter van Bergen, Johannes F. Hevler, Wei Wu, Marc P. Baggelaar, and Albert J.R. Heck

Journal Citation: *Molecular & Cellular Proteomics* **2023**, *22(1)*, 100455

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Mechanism of Action, Proteomics, PhosID

Spatial single-cell mass spectrometry defines zonation of the hepatocyte proteome

Authors: Florian A. Rosenberger, Marvin Thielert, Maximilian T. Strauss, Lisa Schweizer, Constantin Ammar, Sophia C. Mädler, Andreas Metousis, Patricia Skowronek, Maria Wahle, Katherine Madden, Janine Gote-Schniering, Anna Semenova, Herbert B. Schiller, Edwin Rodriguez, Thierry M. Nordmann, Andreas Mund, and Matthias Mann

Journal Citation: *Nature Methods* **2023**, *20*, 1530-1536

Key Words: C18-5, Peptide Cleanup, Proteomics

Systemic LRG1 Expression in Melanoma is Associated with Disease Progression and Recurrence

Authors: Esmee. P. Hoefsmit, Franziska Völlmy, Elisa A. Rozeman, Irene L. M. Reijers, Judith M. Versluis, Liesbeth Hoekman, Alexander C. J. van Akkooi, Georgina V. Long, Dirk Schadendorf, Reinhard Dummer, Maarten Altelaar, and Christian U. Blank

Journal Citation: *Cancer Research Communications* **2023**, *3(4)*, 672-683

Key Words: C18-5, Peptide Cleanup, Biomarkers, Clinical Research

Targeted proteomics using stable isotope labeled protein fragments enables precise and robust determination of total apolipoprotein(a) in human plasma

Authors: Andreas Hober, Mirela Rekanovic, Bjorn Forsstrom, Sara Hansson, David Kotol, Andrew J. Percy, Mathias Uhlen, Jan Oscarsson, Fredrik Edfors, and Tasso Miliotis

Journal Citation: *PLOS ONE* **2023**, *18(2)*, e0281772

Key Words: RPS-5, Peptide Cleanup, Biomarkers, Clinical Research

TBK1 phosphorylation activates LIR-dependent degradation of the inflammation repressor TNIP1

Authors: Jianwen Zhou, Nikoline Lander Rasmussen, Hallvard Lauritz Olsvik, Vyacheslav Akimov, Zehan Hu, Gry Evjen, Stephanie Kaeser-Pebemard, Devanarayanan Siva Sankar, Carole Roubaty, Pauline Verlhac, Nicole van de Beck, Fulvio Reggiori, Yakubu Princely Abudu, Blagoy Blagoev, Trond Lamark, Terje Johansen, Jörn Dengjel

Journal Citation: *Journal of Cell Biology* **2023**, *222(2)*, e202108144

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Phosphoproteomics, Signal Transduction

The BNT162b2 mRNA SARS-CoV-2 vaccine induces transient afucosylated IgG1 in naive but not antigen-experienced vaccinees

Authors: Julie Van Coillie, Tamas Pongracz, Johann Rahmöller, Hung-Jen Chen, Chiara Elisabeth Geyer, Lonneke A. van Vlught, Jana Sophia. Buhre, Tonći Šuštić, Thijs Luc Junior van Osch, Maurice Steenhuis, Willianne Hoepel, Wenjun Wang, Anne Sophia Lixenfeld, Jan Nouta, Sofie Keijzer, Federica Linty, Remco Visser, Mads Delbo Larsen, Emily Lara Martin, Inga Künsting, Selina Lehrian, Vera von Kopylow, Carsten Kern, Hanna Bele Lunding, Menno de Winther, Niels van Mourik, Theo Rispens, Tobias Graf, Marleen Adriana Slim, René Peter Minnaar, Marije Kristianne Bomers, Jonne Jochum Sikkens, Alexander P. J. Vlaar, C. Ellen van der Schoot, Jeroen den Dunnen, Manfred Wuhrer, Marc Ehlers, and Gestur Vidarsson

Journal Citation: *eBioMedicine* **2023**, *87*, 104408

Key words: PGW, Affinity Purification, Clinical Research

The cell wall lipoprotein CD1687 acts as a DNA binding protein during deoxycholate-induced biofilm formation in *Clostridioides difficile*

Authors: Emile Auria, Lise Hunault, Patrick England, Marc Monot, Juliana Pipoli Da Fonseca, Mariette Matondo, Magalie Duchateau, Yannick D. N. Tremblay, and Bruno Dupuy

Journal Citation: *NPJ Biofilms Microbiomes* **2023** *9*, 24

Key Words: C18-5, Peptide Cleanup, Proteomics

The HLA class I immunopeptidomes of AAV capsid proteins

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

Journal Citation: *Frontiers in Immunology* **2023**, *13*, 1212136

Key Words: SAW-5, Affinity Purification, Biopharma, Immunopeptidomics, Immunocapture

The pyruvate dehydrogenase complex regulates mitophagic trafficking and protein phosphorylation

Authors: Panagiota Kolitsida, Vladimir Nolic, Jianwen Zhou, Michael Stumpe, Natalie M. Niemi, Jörn Dengjel, and Hagai Abeliovich

Journal Citation: *Life Science Alliance* **2023** *6(9)* e202302149

Key Words: Fe(III)-NTA, Phosphopeptide Enrichment, Phosphoproteomics, Signal Transduction

Top-Down Characterization and Intact Mass Quantitation of a Monoclonal Antibody Drug from Serum by Use of a Quadrupole TOF MS System Equipped with Electron-Activated Dissociation

Authors: John F. Kellie, Nicole A. Schneck, Jason C. Causon, Takashi Baba, John T. Mehl, and Kerstin I. Pohl

Journal Citation:*Journal of the American Society for Mass Spectrometry* **2023**, *34(1)* 17-26

Key words: SAW-5, Affinity Purification, Immobolization, Biopharma, Pharmacokinetics, Immunocapture

TORC1 phosphorylates and inhibits the ribosome preservation factor Stm1 to activate dormant ribosomes

Authors: Sunil Shetty, Jon Hofstetter, Stefania Battaglioni, Danilo Ritz, and Michael N. Hall

Journal Citation: *The EMBO Journal* **2023**, *42*, e112344

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Phosphoproteomics

Tunnelling nanotube formation is driven by Eps8/IRSp53-dependent linear actin polymerization

Authors: J Michael Henderson, Nina Ljubojevic, Sevan Belian, Thibault Chaze, Daryl Castaneda, Aude Battistella, Quentin Giai Gianetto, Mariette Matondo, Stephanie Descroix, Patricia Bassereau, and Chiara Zurzolo

Journal Citation: *The EMBO Journal* **2023**, *42(24)*, e113761

Key Words: C18-5, Peptide Cleanup, Proteomics

Workflow enabling deepscale immunopeptidome, proteome, ubiquitylome, phosphoproteome, and acetylome analyses of sample-limited tissues

Authors: Jennifer G. Abelin , Erik J. Bergstrom, Keith D. Rivera, Hannah B. Taylor, Susan Klaeger, Charles Xu, Eva K. Verzani, C. Jackson White, Hilina B. Woldemichael, Maya Virshup, Meagan E. Olive, Myranda Maynard, Stephanie A. Vartany, JosephD. Allen, Kshiti Phulphagar, M. Harry Kane, Suzanna Rachimi, D. R.Mani, Michael A. Gillette, Shankha Satpathy, Karl R. Clauser, Namrata D. Udeshi, and Steven A. Car

Journal Citation: *Nature Communications* **2023**, *14*, 1851

Key Words: Fe(III)-NTA, Phosphopeptide Enrichment, Clinical Research, Phosphoproteomics

2022

A BioID-Derived Proximity Interactome for SARS-CoV-2 Proteins

Authors: Danielle G. May, Laura Martin-Sancho, Valesca Anschau, Sophie Liu, Rachel J. Chrisopulos, Kelsey L. Scott, Charles T. Halfmann, Ramon Díaz Peña, Dexter Pratt, Alexandre R. Campos, and Kyle J. Roux

Journal Citation: *Viruses* **2022**, *14(3)*, 611

Key words: C18-5, SAW-5, Affinity Purification, On-Cartridge Reaction, Peptide Cleanup, Protein-Protein Interactions, Proteomics, BioID

A Phenotypic Screen Identifies Potent DPP9 Inhibitors Capable of Killing HIV-1 Infected Cells

Authors: Keith P. Moore, Adam G. Schwaid, Matthew Tudor, Sangho Park, Douglas C. Beshore, Antonella Converso, William D. Shipe, Rajan Anand, Ping Lan, Remond Moningka, Deborah M. Rothman, Wanying Sun, An Chi, Ivan Cornella-Taracido, Gregory C. Adam, Carolyn Bahnck-Teets, Steven S. Carroll, John F. Fay, Shih Lin Goh, Jeffrey Lusen, Shuo Quan, Silveria Rodriguez, Min Xu, Christine L. Andrews, Cheng Song, Tracey Filzen, Jing Li, Kaspar Hollenstein, Daniel J. Klein, Alfred Lammens, U-Ming Lim, Zhiyu Fang, Carolyn McHale, Yuan Li, Meiqing Lu, Tracy L. Diamond, Bonnie J. Howell, Paul Zuck, and Carl J. Balibar

Journal Citation: *ACS Chemical Biology* **2022**, *17(9)*, 2595-2604

Key words: C18-5, Peptide Cleanup, Clinical Research, Proteomics

Absence of COVID-19-associated changes in plasma coagulation proteins and pulmonary thrombosis in the ferret model

Authors: Iris C.Kreft, Roy R.A.Winiarczyk, Fric J.Tanis, Carmen van der Zwaan, Katharina S.Schmitz, Arie J.Hoogendijk, Rik L.de Swart, Anne Moscona, Matteo Porotto, Daniela C.F.Salvatori, Rory D.de Vries, Moniek P.M.de Maat, Maartjevan den Biggelaar, Bart J.M.van Vlijmen, Dutch Covid-19, and Thrombosis Coalition

Journal Citation: *Thrombosis Research* **2022**, *210*, 6-11

Key words: C18-5, Peptide Cleanup, Proteomics

ABPP-HT*—Deep Meets Fast for Activity-Based Profiling of Deubiquitylating Enzymes Using Advanced DIA Mass Spectrometry Methods

Authors: Hannah B. L. Jones, Raphael Heilig, Simon Davis, Roman Fischer, Benedikt M. Kessler, Adán Pinto-Fernández

Journal Citation: *International Journal of Molecular Sciences* **2022**, *23(6)*, 3263

Key words: PAW-5, Affinity Purification, Mechanism of action, Immunocapture

Adipose mTORC2 is essential for sensory innervation in white adipose tissue and whole-body energy homeostasis

Authors: Irina C Frei, Diana Weissenberger, Danilo Ritz, Wolf Heusermann, Marco Colombi, Mitsugu Shimobayashi, and Michael N Hall

Journal Citation: *Molecular Metabolism* **2022**, *65*, 101580

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Phosphoproteomics

Altered Fc glycosylation of anti-HLA alloantibodies in hemato-oncological patients receiving platelet transfusions

Authors: Thijs L. J. van Osch, Tamas Pongracz, Dionne M. Geerdesc, Juk Yee Mok, Wim J. E. van Esch, Jan Voorberg, Rick Kapur, Leendert Porcelijn,v Jean-Louis H. Kerkhoffs, Pieter F. van der Meer, C. Ellen van der Schoot, Masja de Haas, Manfred Wuhrerx, and Gestur Vidarsson

Journal Citation: *Journal of Thrombosis and Haemostasis* **2022**, *20(12)*, 3011-3025

Key words: PGW, Affinity Purification, Clinical Research

An ER phospholipid hydrolase drives ER-associated mitochondrial constriction for fission and fusion

Authors: Tricia T. Nguyen and Gia K. Voeltz

Journal Citation: *elife* **2022**, *11*, e84279

Key words: C18-5, SAW-5, Affinity Purification, On-Cartridge Reaction, Peptide Cleanup, Protein-Protein Interactions, Proteomics, TurboID

Association of cardiometabolic microRNAs with COVID-19 severity and mortality

Authors: Clemens Gutmann, Kseniya Khamina, Konstantinos Theofilatos, Andreas B. Diendorfer, Sean A. Burnap, Adam Nabeebaccus, Matthew Fish, Mark J.W. McPhail, Kevin O'Gallagher, Lukas E. Schmidt, Christian Cassel, Georg Auzinger, Salvatore Napoli, Salma F. Mujib, Francesca Trovato, Barnaby Sanderson, Blair Merrick, Roman Roy, Jonathan D. Edgeworth, Ajay M. Shah, Adrian C. Hayday, Ludwig Traby, Matthias Hackl, Sabine Eichinger, Manu Shankar-Hari, and Manuel Mayr

Journal Citation: *Cardiovascular Research* **2022**, *118(2)*, 461-474

Key words: C18-5, Peptide Cleanup, Clinical Research, Proteomics

Automated High-Throughput Method for the Fast, Robust, and Reproducible Enrichment of Newly Synthesized Proteins

Authors: David Vargas-Diaz and Maarten Altelaar

Journal Citation: *Journal of Proteomics Research* **2022**, *21(1)*, 189-199

Key words: C18-5, SAW-5, Affinity Purification, Peptide Cleanup, Proteomics

C-Terminal Lysine Processing of IgG in Human Suction Blister Fluid: Implications for Subcutaneous Administration

Authors: Luladey Ayalew, Phyllis Chan, Zhilan Hu, Amy Shen, Eileen Duenas, Whitney Kirschbrown, Arthur J. Schick III, Yan Chen, and Michael T. Kim

Journal Citation: *Molecular Pharmaceutics* **2022**, *19(11)*, 4043-4054

Key words: SAW-5, Affinity Purification, Pharmacokinetics, Immunocapture

Calcineurin dephosphorylates topoisomerase IIβ and regulates the formation of neuronal-activity-induced DNA breaks

Authors: Ilse Delint-Ramirez, Lahiri Konada, Lance Heady, Richard Rueda, Alvaro Sebastian Vaca Jacome, Eric Marlin, Charlotte Marchioni, Amir Segev, Oleg Kritskiy, Satoko Yamakawa, Andrew H. Reiter, Li-Huei Tsai, and Ram Madabhushi

Journal Citation: *Molecular Cell* **2022**, *82(20)*, 3794-3809

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Signal Transduction

CDK1–cyclin-B1-induced kindlin degradation drives focal adhesion disassembly at mitotic entry

Authors: Nan-Peng Chen, Jonas Aretz, and Reinhard Fässler

Journal Citation: *Nature Cell Biology* **2022**, *24*, 723-736

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Phosphoproteomics

Cell adhesion suppresses autophagy via Src/FAK-mediated phosphorylation and inhibition of AMPK

Authors: Ming Zhao, Darren Finlay, Elizabeth Kwong, Robert Liddington, Benoit Viollet, Norio Sasaoka, and Kristiina Vuori

Journal Citation: *Cellular Signaling* **2022**, *89*, 110170

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Mechanism of Action, Signal Transduction

Cerebrospinal fluid concentration of complement component 4A is increased in first episode schizophrenia

Authors: Jessica Gracias, Funda Orhan, Elin Hörbeck, Jessica Holmén-Larsson, Neda Khanlarkani, Susmita Malwade, Sravan K. Goparaju, Lilly Schwieler, İlknur Ş. Demirel, Ting Fu, Helena Fatourus- Bergman, Aurimantas Pelanis, Carleton P. Goold, Anneli Goulding, Kristina Annerbrink, Anniella Isgren, Timea Sparding, Martin Schalling, Viviana A. Carcamo Yañez, Jens C. Göpfert, Johanna Nilsson, Ann Brinkmalm, Kaj Blennow, Henrik Zetterberg, Göran Engberg, Fredrik Piehl, Steven D. Sheridan, Roy H. Perlis, Simon Cervenka, Sophie Erhardt, Mikael Landen, and Carl M. Sellgren

Journal Citation: *Nature Communications* **2022**, *13*, 6427

Key words: In-Solution Digestion, Clinical Research

CFIm-mediated alternative polyadenylation remodels cellular signaling and miRNA biogenesis

Authors: Souvik Ghosh, Meric Ataman, Maciej Bak, Anastasiya Börsch, Alexander Schmidt, Katarzyna Buczak, Georges Martin, Beatrice Dimitriades, Christina J Herrmann, Alexander Kanitz, and Mihaela Zavolan

Journal Citation: *Nucleic Acids Research* **2022**, *50(6)*, 3096-3114

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Phosphoproteomics

Chemoproteomic profiling to identify activity changes and functional inhibitors of DNA-binding proteins

Authors: Benjamin Ruprecht, Lan Wei, Li Zheng, Smaranda Bodea, Xuan Mo, Melanie Maschberger, Gabriele Stoehr, Hannes Hahne, Ivan Cornella-Taracido, and An Chi

Journal Citation: *Cell Chemical Biology* **2022**, *29(11)*, 1639-1648

Key words: C18-5, Peptide Cleanup, Proteomics

Chronic Intermittent Ethanol Exposure Alters Behavioral Flexibility in Aged Rats Compared to Adult Rats and Modifies Protein and Protein Pathways Related to Alzheimer's Disease

Authors: Ada Man-Choi Ho, Mina P. Peyton, Samantha J. Scaletty, Sarah Trapp, Areonna Schreiber, Benjamin J. Madden, Doo-Sup Choi, and Douglas B. Matthews

Journal Citation: *ACS Omega* **2022**, *7(50)*, 46260-46276

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Phosphoproteomics

Comparative Analysis of T Cell Spatial Proteomics and the Influence of HIV Expression

Authors: Aaron L. Oom, Charlotte A. Stoneham, Mary K. Lewinski, Alicia Richards, Jacob M. Wozniak, Km Shams-Ud-Doha, David J. Gonzalez, Nevan J. Krogan, and John Guatelli

Journal Citation: *Molecular & Cellular Proteomics* **2022**, *21(3)*, 100194

Key words: C18-5, Peptide Cleanup, Proteomics

Cortical Pathology in Vanishing White Matter

Authors: Jodie H. K. Man, Charlotte A. G. H. van Gelder, Marjolein Breur, Daniel Okkes, Douwe Molenaar, Sophie van der Sluis, Truus Abbink, Maarten Altelaar, Marjo S. van der Knaap, and Marianna Bugiani

Journal Citation: *Cells* **2022**, *11(22)*, 3581

Key words: C18-5, Peptide Cleanup, Clinical Research

CRAF dimerization with ARAF regulates KRAS-driven tumor growth

Authors: Avinashnarayan Venkatanarayan, Jason Liang, Ivana Yen, Frances Shanahan, Benjamin Haley, Lilian Phu, Erik Verschueren, Trent B. Hinkle, David Kan, Ehud Segal, Jason E. Long, Tony Lima, Nicholas P.D. Liau, Jawahar Sudhamsu, Jason Li, Christiaan Klijn, Robert Piskol, Melissa R. Junttila, Andrey S. Shaw, Mark Merchant, Matthew T. Chang, Donald S. Kirkpatrick, and Shiva Malek

Journal Citation: *Cell Reports* **2022**, *38(6)*, 110351

Key words: C18-5, Peptide Cleanup, Proteomics, Signal Transduction

Deciphering Black Extrinsic Tooth Stain Composition in Children Using Metaproteomics

Authors: Christophe Hirtz, Atef Mannaa, Estelle Moulis, Olivier Pible, Robin O'Flynn, Jean Armengaud, Virginie Jouffret, Camille Lemaistre, Gabriel Dominici, Alex Yahiaoui Martinez, Catherine Dunyach-Remy, Laurent Tiers, Jean-Philippe Lavigne, Paul Tramini, Marie-christine Goldsmith, Sylvain Lehmann, Dominique Deville de Périère, and Jerome Vialaret

Journal Citation: *ACS Omega* **2022**, *7(10)*, 8258-8267

Key words: C18-5, In-Solution Digestion, Peptide Cleanup, Proteomics

Direct Identification of Urinary Tract Pathogens by MALDI-TOF/TOF Analysis and De Novo Peptide Sequencing

Authors: Ema Svetličić, Lucija Dončević, Luka Ozdanovac, Andrea Janeš, Tomislav Tustonić, Andrija Štajduhar, Antun Lovro Brkić, Marina Čeprnja, and Mario Cindrić

Journal Citation: *Molecules* **2022**, *27(17)*, 5461

Key words: SCX, Fractionation, Clinical Research, Proteomics

Distribution of seven ApoC-III glycoforms in plasma, VLDL, IDL, LDL and HDL of healthy subjects

Authors: Marina Rodríguez, Pere Rehues, Víctor Iranzo, Jorge Mora, Clara Balsells, Montse Guardiola, and Josep Ribalta

Journal Citation: *Journal of Proteomics* **2022**, *251*, 104398

Key words: SAW-5, Affinity Purification, Biomarker, Immunocapture

DNA methylation-based classification of sinonasal tumors

Authors: Philipp Jurmeister, Stefanie Glöß, Renée Roller, Maximilian Leitheiser, Simone Schmid, Liliana H. Mochmann, Emma Payá Capilla, Rebecca Fritz, Carsten Dittmayer, Corinna Friedrich, Anne Thieme, Philipp Keyl, Armin Jarosch, Simon Schallenberg, Hendrik Bläker, Inga Hoffmann, Claudia Vollbrecht, Annika Lehmann, Michael Hummel, Daniel Heim, Mohamed Haji, Patrick Harter, Benjamin Englert, Stephan Frank, Jürgen Hench, Werner Paulus, Martin Hasselblatt, Wolfgang Hartmann, Hildegard Dohmen, Ursula Keber, Paul Jank, Carsten Denkert, Christine Stadelmann, Felix Bremmer, Annika Richter, Annika Wefers, Julika Ribbat-Idel, Sven Perner, Christian Idel, Lorenzo Chiariotti, Rosa Della Monica, Alfredo Marinelli, Ulrich Schüller, Michael Bockmayr, Jacklyn Liu, Valerie J. Lund, Martin Forster, Matt Lechner, Sara L. Lorenzo-Guerra, Mario Hermsen, Pascal D. Johann, Abbas Agaimy, Philipp Seegerer, Arend Koch, Frank Heppner, Stefan M. Pfister, David T. W. Jones, Martin Sill, Andreas von Deimling, Matija Snuderl, Klaus-Robert Müller, Erna Forgó, Brooke E. Howitt, Philipp Mertins, Frederick Klauschen, and David Capper

Journal Citation: *Nature Communications* **2022**, *13*, 7148

Key words: C18-5, Peptide Cleanup, Clinical Research, Proteomics, SP3

Dynamic proteomic and phosphoproteomic atlas of corticostriatal axon in neurodevelopment

Authors: Vasin Dumrongprechachan, Ryan B Salisbury, Lindsey Butler, Matthew L MacDonald, and Yevgebua Kozorovitskiy

Journal Citation: *eLife* **2022**, *11*, e78847

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Phosphoproteomics

Establishment and characterization of stable, diverse, fecal-derived *in vitro* microbial communities that model the intestinal microbiota

Authors: Andrés Aranda-Díaz, Katharine Michelle Ng, Tani Thomsen, Imperio Real-Ramírez, Dylan Dahan, Susannah Dittmar, Carlos Gutierrez Gonzalez , Taylor Chavez, Kimberly S. Vasquez, Taylor H. Nguyen, Feiqiao Brian Yu, Steven K. Higginbottom, Norma F. Neff, Joshua E. Elias, Justin L. Sonnenburg, and Kerwyn Casey Huang

Journal Citation: *Cell Host & Microbe* **2022**, *30(2)*, P260-272.E5

Key words: RPS-5, Peptide Cleanup, Proteomics

Extracellular Matrix Profiling and Disease Modelling in Engineered Vascular Smooth Muscle Cell Tissues

Authors: Ella Reed, Adam Fellows, Ruifang Lu, Marieke Rienks, Lukas Schmidt, Xiaoke Yin, Elisa Duregotti, Mona Brandt, Susanne Krasemann, Kristin Hartmann, Javier Barallobre-Barreiro, Owen Addison, Friederike Cuello, Arne Hansen, and Manuel Mayr

Journal Citation: *Matrix Biology Plus* **2022**, *16*, 100122

Key words: C18-5, Peptide Cleanup, Proteomics

Glycosphingolipids are mediators of cancer plasticity through independent signaling pathways

Authors: Cécile Cumin, Yen-Lin Huang, Charlotte Rossdam, Felix Ruoff, Susana Posada Céspedes, Ching-Yeu Liang, Flavio C. Lombardo, Ricardo Coelho, Natalie Rimmer, Martina Konantz, Mónica Núñez López, Shahidul Alam, Alexander Schmidt, Diego Calabrese, Andre Fedier, Tatjana Vlajnic, Mark von Itzstein, Markus Templin, Falk F. R. Buettner, Arun Everest-Dass, Viola Heinzelmann-Schwarz, and Francis Jacob

Journal Citation: *Cell Reports* **2022**, *40(7)*, 111181

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Phosphoproteomics, Signal Transduction

GPCR kinases generate an APH1A phosphorylation barcode to regulate amyloid-β generation

Authors: Nicholas K. Todd, Yunhong Huang, Ji Young Lee, Pemra Doruker, James M. Krieger,Ryan Salisbury, Matthew MacDonald, Ivet Bahar, and Amantha Thathiah

Journal Citation: *Cell Reports* **2022**, *40(3)*, 111110

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Phosphoproteomics, Signal Transduction

Heat shock protein Grp78/BiP/HspA5 binds directly to TDP-43 and mitigates toxicity associated with disease pathology

Authors: Liberty François-Moutal, David Donald Scott, Andrew J. Ambrose, Christopher J. Zerio, Marina Rodriguez-Sanchez, Kumara Dissanayake, Danielle G. May, Jacob M. Carlson, Edward Barbieri, Aubin Moutal, Kyle J. Roux, James Shorter, Rajesh Khanna, Sami J. Barmada, Leeanne McGurk, and May Khanna

Journal Citation: *Scientific Reports* **2022**, *12*, 8140

Key words: C18-5, SAW-5, Affinity Purification, Peptide Cleanup, Protein-Protein Interactions, Immunocapture

In Vitro Kinase-to-Phosphosite Database (iKiP-DB) Predicts Kinase Activity in Phosphoproteomic Datasets

Authors: Tommaso Mari, Kirstin Mösbauer, Emanuel Wyler, Markus Landthaler, Christian Drosten, and Matthias Selbach

Journal Citation: *Journal of Proteome Research* **2022**, *21(6)*, 1575-1587

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Phosphoproteomics

Integrative proteogenomic characterization of hepatocellular carcinoma across etiologies and stages

Authors: Charlotte K. Y. Ng, Eva Dazert, Tuyana Boldanova, Mairene Coto-Llerena, Sandro Nuciforo, Caner Ercan, Aleksei Suslov, Marie-Anne Meier, Thomas Bock, Alexander Schmidt, Sylvia Ketterer, Xueya Wang, Stefan Wieland, Matthias S. Matter, Marco Colombi, Salvatore Piscuoglio, Luigi M. Terracciano, Michael N. Hall, and Markus H. Heim

Journal Citation: *Nature Communications* **2022**, *13*, 2436

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Clinical Research, Phosphoproteomics

Intra-articular delivery of full-length antibodies through the use of an *in situ* forming depot

Authors: Alexis Fayd'herbe De Maudave, Wilhem Leconet, Karine Toupet, Michael Constantinides, Guillaume Bossis, Marion de Toledo, Jérôme Vialaret, Christophe Hirtz, Adolfo Lopez-Noriega, Christian Jorgensen, Daniele Noel, Pascale Louis-Plence, Sylvestre Grizot, and Martin Villalba

Journal Citation: *Journal of Controlled Release* **2022**, *341*, 578-590

Key words: RPW, Protein Cleanup, Biopharma

Linking post-translational modifications and protein turnover by site-resolved protein turnover profiling

Authors: Jana Zecha, Wassim Gabriel, Ria Spallek, Yun-Chien Chang, Julia Mergner, Mathias Wilhelm, Florian Bassermann, and Bernhard Kuster

Journal Citation: *Nature Communications* **2022**, *13*, 165

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Phosphoproteomics, Proteomics

Mass spectrometry-based draft of the mouse proteome

Authors: Piero Giansanti, Patroklos Samaras, Yangyang Bian, Chen Meng, Andrea Coluccio, Martin Frejno, Hannah Jakubowsky, Sophie Dobiasch, Rashmi R. Hazarika, Julia Rechenberger, Julia Calzada-Wack, Johannes Krumm, Sebastian Mueller, Chien-Yun Lee, Nicole Wimberger, Ludwig Lautenbacher, Zonera Hassan, Yun-Chien Chang, Chiara Falcomatà, Florian P. Bayer, Stefanie Bärthel, Tobias Schmidt, Roland Rad, Stephanie E. Combs, Matthew The, Frank Johannes, Dieter Saur, Martin Hrabe de Angelis, Mathias Wilhelm, Günter Schneider, and Bernhard Kuster

Journal Citation: *Nature Methods* **2022**, *19*, 803-811

Key words: Fe(III)-NTA, RPS-5, Phosphopeptide Enrichment, Fractionation, Phosphoproteomics, Proteomics, SP3

Mitochondrial antiviral-signalling protein is a client of the BAG6 protein quality control complex

Authors: Peristera Roboti, Craig Lawless, and Stephen High

Journal Citation: *Journal of Cell Science* **2022**, *135(9)*, jcs259596

Key words: C18-5, Peptide Cleanup, Proteomics

Multi-omics profiling identifies a deregulated FUS-MAP1B axis in ALS/FTD–associated UBQLN2 mutants

Authors: Laura Strohm, Zehan Hu, Yongwon Suk, Alina Rühmkorf, Erin Sternburg, Vanessa Gattringer, Henrick Riemenschneider, Riccardo Berutti, Elisabeth Graf, Jochen H Weishaupt, Monika S Brill, Angelika B Harbauer, Dorothee Dormann, Jörn Dengjel, Dieter Edbauer, and Christian Behrends

Journal Citation: *Life Science Alliance* **2022**, *5(11)*, e202101327

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Phosphoproteomics

Murine blastocysts generated by *in vitro* fertilization show increased Warburg metabolism and altered lactate production

Authors: Seok Hee Lee, Xiaowei Liu, David Jimenez-Morales, and Paolo F. Rinaudo

Journal Citation: *eLife* **2022**, *11*, e79153

Key words: C18-5, Peptide Cleanup, Proteomics

NAD kinase promotes *Staphylococcus aureus* pathogenesis by supporting production of virulence factors and protective enzymes

Authors: Clarisse Leseigneur, Laurent Boucontet, Magalie Duchateau, Javier Pizarro-Cerda, Mariette Matondo, Emma Colucci-Guyon, and Olivier Dussurget

Journal Citation: *eLife* **2022**, *11*, e79941

Key words: C18-5, Peptide Cleanup, Proteomics

Novel Antibody–Peptide Binding Assay Indicates Presence of Immunoglobulins against EGFR Phospho-Site S1166 in High-Grade Glioma

Authors: Lona Zeneyedpour, Christoph Stingl, Johan M. Kros, Peter A. E. Sillevis Smitt, and Theo M. Luider

Journal Citation: *International Journal of Molecular Sciences* **2022**, *23(9)*, 5061

Key words: C18-5, Fe(III)-NTA, Peptide Cleanup, Phosphopeptide Enrichment, Clinical Research, Phosphoproteomics

Optimizing Antibody Affinity and Developability Using a Framework–CDR Shuffling Approach—Application to an Anti-SARS-CoV-2 Antibody

Authors: Ranjani Gopal, Emmett Fitzpatrick, Niharika Pentakota, Akila Jayaraman, Kannan Tharakaraman, and Ishan Capila

Journal Citation: *Viruses* **2022**, *14(12)*, 2694

Key words: PAW-5, Affinity Purification, Biopharma

Pathophysiological Response to SARS-CoV-2 Infection Detected by Infrared Spectroscopy Enables Rapid and Robust Saliva Screening for COVID-19

Authors: Seth T. Kazmer, Gunter Hartel, Harley Robinson, Renee S. Richards, Kexin Yan, Sebastiaan J. van Hal, Raymond Chan, Andrew Hind, David Bradley, Fabian Zieschang, Daniel J. Rawle, Thuy T. Le, David W. Reid, Andreas Suhrbier, and Michelle M. Hill

Journal Citation: *Biomedicines* **2022**, *10(2)*, 351

Key words: C18-5, In Solution Digestion, Peptide Cleanup, Proteomics

Phosphoproteomic Analysis of FLCN Inactivation Highlights Differential Kinase Pathways and Regulatory TFEB Phosphoserines

Authors: Iris E. Glykofridis, Alex A. Henneman, Jesper A. Balk, Richard Goeij-de Haas, Denise Westland, Sander R. Piersma, Jaco C. Knol, Thang V. Pham, Michiel Boekhout, Fried J.T. Zwartkruis, Rob M.F. Wolthuis, and Connie R. Jimenez

Journal Citation: *Molecular & Cellular Proteomics* **2022**, *21(9)*, 100263

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Phosphoproteomics

Precision Medicine Approach for Cardiometabolic Risk Factors in Therapeutic Apheresis

Authors: X. Yin, K. Takov, R. Straube, K. Voit-Bak, J. Graessler, U. Julius, S. Tselmin, Roman N. Rodionov, M. Barbir, M. Walls, K. Theofilatos, M. Mayr, and S.R. Bornstein

Journal Citation: *Hormone and Metabolic Research* **2022**, *54(4)*, 238-249

Key words: C18-5, Peptide Cleanup, Clinical Research, Proteomics

Protective immune trajectories in early viral containment of non-pneumonic SARS-CoV-2 infection

Authors: Kami Pekayvaz, Alexander Leunig, Rainer Kaiser, Markus Joppich, Sophia Brambs, Aleksandar Janjic, Oliver Popp, Daniel Nixdorf, Valeria Fumagalli, Nora Schmidt, Vivien Polewka, Afra Anjum, Viktoria Knottenberg, Luke Eivers, Lucas E. Wange, Christoph Gold, Marieluise Kirchner, Maximilian Muenchhoff, Johannes C. Hellmuth, Clemens Scherer, Raquel Rubio-Acero, Tabea Eser, Flora Deák, Kerstin Puchinger, Niklas Kuhl, Andreas Linder, Kathrin Saar, Lukas Tomas, Christian Schulz, Andreas Wieser, Wolfgang Enard, Inge Kroidl, Christof Geldmacher, Michael von Bergwelt-Baildon, Oliver T. Keppler, Mathias Munschauer, Matteo Iannacone, Ralf Zimmer, Philipp Mertins, Norbert Hubner, Michael Hoelscher, Steffen Massberg, Konstantin Stark, and Leo Nicolai

Journal Citation: *Nature Communications* **2022**, *13*, 1018

Key words: Clinical Research, Proteomics, SP3

Proteome-Wide Response of Dormant Caryopses of the Weed, *Avena fatua*, After Colonization by a Seed-Decay Isolate of *Fusarium avenaceum*

Authors: Ricky W. Lewis, Patricia A. Okubara, Tarah S. Sullivan, Benjamin J. Madden, Kenneth L. Johnson, M. Cristine Charlesworth, and E. Patrick Fuerst

Journal Citation: *Phytopathology* **2022**, *112(5)*, 1103-1117

Key words: C18-5, Peptide Cleanup, Proteomics

Proteomic Investigation in Plasma from Women with Fibromyalgia in Response to a 15-wk Resistance Exercise Intervention

Authors: Karin Wahlen, Hong Yan, Charlotte Welinder, Malin Ernberg, Eva Kosek, Kaisa Mannerkorpi, Björn Gerdle, and Bijar Ghafouri

Journal Citation: *Medicine and Science in Sports and Exercise* **2022**, *54(2)*, 232-246

Key words: C18-5, In-Solution Digestion, Peptide Cleanup, Clinical Research, Proteomics

Proteomic profiling reveals CDK6 upregulation as a targetable resistance mechanism for lenalidomide in multiple myeloma

Authors: Yuen Lam Dora Ng, Evelyn Ramberger, Stephan R. Bohl, Anna Dolnik, Christian Steinebach, Theresia Conrad, Sina Müller, Oliver Popp, Miriam Kull, Mohamed Haji, Michael Gütschow, Hartmut Döhner, Wolfgang Walther, Ulrich Keller, Lars Bullinger, Philipp Mertins, and Jan Krönke

Journal Citation: *Nature Communications* **2022**, *13*, 1009

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Clinical Research, Phosphoproteomics

Quantitative Phosphoproteomics Reveals Extensive Protein Phosphorylation Dysregulation in the Cerebral Cortex of Huntington's Disease Mice Prior to Onset of Symptoms

Authors: Isaline Mees, Harvey Tran, Anne Roberts, Larissa Lago, Shanshan Li, Blaine R. Roberts, Anthony J. Hannan, and Thibault Renoir

Journal Citation: *Molecular Neurobiology* **2022**, *59*, 2456-2471

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Phosphoproteomics

Rapid and in-depth coverage of the (phospho-)proteome with deep libraries and optimal window design for dia-PASEF

Authors: Patricia Skowronek, Marvin Thielert, Eugenia Voytik, Maria C. Tanzer, Fynn M. Hansen, Sander Willems, Özge Karayel, Andreas-David Brunner, Florian Meier, and Matthias Mann

Journal Citation: *Molecular & Cellular Proteomics* **2022**, *21(9)*, 100279

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Phosphoproteomics

Reconstitution of human atlastin fusion activity reveals autoinhibition by the C terminus

Authors: Daniel Crosby, Melissa R. Mikolaj, Sarah B. Nyenhuis, Samantha Bryce, Jenny E. Hinshaw, and Tina H. Lee

Journal Citation: *Journal of Cell Biology* **2022**, *221(2)*, e202107070

Key words: C18-5, Peptide Cleanup, Signal Transduction

Streamlining the Characterization of Disulfide Bond Shuffling and Protein Degradation in IgG1 Biopharmaceuticals Under Native and Stressed Conditions

Authors: Jill Coghlan, Alexander Benet, Preethi Kumaran, Michael Ford, Lawrie Veale, St. John Skilton, Sergei Saveliev, and Anna A. Schwendeman

Journal Citation: *Frontiers in Bioengineering and Biotechnology* **2022**, *10*, 862456

Key words: In-Solution Digestion, Biopharma

STUB1 is an intracellular checkpoint for interferon gamma sensing

Authors: Simon Ng, Shuhui Lim, Adrian Chong Nyi Sim, Ruban Mangadu, Ally Lau, Chunsheng Zhang, Sarah Bollinger Martinez, Arun Chandramohan, U-Ming Lim, Samantha Shu Wen Ho, Shih Chieh Chang, Pooja Gopal, Lewis Z. Hong, Adam Schwaid, Aaron Zefrin Fernandis, Andrey Loboda, Cai Li, Uyen Phan, Brian Henry, and Anthony W. Partridge

Journal Citation: *Scientific Reports* **2022**, *12*, 14087

Key words: C18-5, PAW-25, Affinity Purification, Peptide cleanup, Immunopeptidomics, Proteomics, Immunocapture

Study on the Surface Interactions of Co(II) with Phospholipids from the Marine Environment

Authors: Anđela Bačinić, Petra Vukosav, Ivana Kero, and Marina Mlakar

Journal Citation: *Journal of Marine Science and Engineering* **2022**, *10(9)*, 1261

Key words: TiO_2, Phosphopeptide Enrichment, Phospholipids

Thermal acclimation results in persistent phosphoproteome changes in the freshwater planarian *Crenobia alpina* (Tricladida: Planariidae)

Authors: Joshua Niklas Ebner, Danilo Ritz, and Stefanievon Fumetti

Journal Citation: *Journal of Thermal Biology* **2022**, *110*, 103367

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Phosphoproteomics

Transmembrane Batten Disease Proteins Interact with a Shared Network of Vesicle Sorting Proteins Impacting Their Synaptic Enrichment

Authors: Mitchell J. Rechtzigel, Brandon L. Meyerink, Hannah Leppert, Tyler B. Johnson, Jacob T. Cain, Gavin Ferrandino, Danielle G. May, Kyle J. Roux, Jon J. Brudvig, and Jill M. Weimer

Journal Citation: *Frontiers in Neuroscience* **2022**, *16*, 834780

Key words: C18-5, Peptide Cleanup, Protein-Protein Interactions, Proteomics, BioID

Transcriptomic, proteomic and phosphoproteomic underpinnings of daily exercise performance and zeitgeber activity of training in mouse muscle

Authors: Geraldine Maier, Julien Delezie, Pål O. Westermark, Gesa Santos, Danilo Ritz, and Christoph Handschin

Journal Citation: *The Journal of Physiology* **2022**, *600(4)*, 769-796

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Phosphoproteomics

Trem2 deletion enhances tau dispersion and pathology through microglia exosomes

Authors: Bing Zhu, Yan Liu, Spring Hwang, Kailey Archuleta, Huijie Huang, Alex Campos, Rabi Murad, Juan Piña-Crespo, Huaxi Xu, and Timothy Y. Huang

Journal Citation: *Molecular Neurodegeneration* **2022**, *17*, 58

Key words: C18-5, Peptide Cleanup, Proteomics

Truncated *FGFR2* is a clinically actionable oncogene in multiple cancers

Authors: Daniel Zingg, Jinhyuk Bhin, Julia Yemelyanenko, Sjors M. Kas, Frank Rolfs, Catrin Lutz, Jessica K. Lee, Sjoerd Klarenbeek, Ian M. Silverman, Stefano Annunziato, Chang S. Chan, Sander R. Piersma, Timo Eijkman, Madelon Badoux, Ewa Gogola, Bjørn Siteur, Justin Sprengers, Bim de Klein, Richard R. de Goeij-de Haas, Gregory M. Riedlinger, Hua Ke, Russell Madison, Anne Paulien Drenth, Eline van der Burg, Eva Schut, Linda Henneman, Martine H. van Miltenburg, Natalie Proost, Huiling Zhen, Ellen Wientjens, Roebi de Bruijn, Julian R. de Ruiter, Ute Boon, Renske de Korte-Grimmerink, Bastiaan van Gerwen, Luis Féliz, Ghassan K. Abou-Alfa, Jeffrey S. Ross, Marieke van de Ven, Sven Rottenberg, Edwin Cuppen, Anne Vaslin Chessex, Siraj M. Ali, Timothy C. Burn, Connie R. Jimenez, Shridar Ganesan, Lodewyk F. A. Wessels, and Jos Jonkers

Journal Citation: *Nature* **2022**, *608*, 609-617

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Phosphoproteomics

Upon heat stress processing of ribosomal RNA precursors into mature rRNAs is compromised after cleavage at primary P site in *Arabidopsis thaliana*

Authors: T. Darriere, E. Jobet, D. Zavala, M.L. Escande, N. Durut, A. de Bures, F. Blanco-Herrera, E.A. Vidal, M. Rompais, C. Carapito, S. Gourbiere, and J. Sáez-Vásquez

Journal Citation: *RNA Biology* **2022**, *19(1)*, 719-734

Key words: C18-5, Peptide Cleanup, Proteomics

Unraveling axonal mechanisms of traumatic brain injury

Authors: Victorio M. Pozo Devoto , Valentina Lacovich, Monica Feole, Pratiksha Bhat, Jaroslav Chovan, Maria Čarna, Isaac G. Onyango, Neda Dragišić, Martina Sűsserová, Martin E. Barrios-Llerena, and Gorazd B. Stokin

Journal Citation: *Acta Neuropathologica Communications* **2022**, *10*, 140

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Phosphoproteomics

Vascular Proteome Responses Precede Organ Dysfunction in a Murine Model of *Staphylococcus aureus* Bacteremia

Authors: James T. Sorrentino, Gregory J. Golden, Claire Morris, Chelsea D. Painter, Victor Nizet, Alexandre Rosa Campos, Jeffrey W. Smith, Christofer Karlsson, Johan Malmström, Nathan E. Lewis, Jeffrey D. Esko, and Alejandro Gómez Toledo

Journal Citation: *mSystems* **2022**, *7(4)*, e0039522

Key words: C18-5, SAW-5, Affinity Purification, On-Cartridge Reaction, Peptide Cleanup, Biomarkers, Proteomics

ZSCAN1 Autoantibodies Are Associated with Pediatric Paraneoplastic ROHHAD

Authors: Caleigh Mandel-Brehm PhD, Leslie A. Benson MD, Baouyen Tran PhD, Andrew F. Kung BA, Sabrina A. Mann BS, Sara E. Vazquez BS, Hanna Retallack PhD, Hannah A. Sample BS, Kelsey C. Zorn MHS, Lillian M. Khan BS, Lauren M. Kerr BA, Patrick L. McAlpine BS, Lichao Zhang PhD, Frank McCarthy BS, Joshua E. Elias PhD, Umakanth Katwa MD, Christina M. Astley MD, ScD, Stuart Tomko MD, Josep Dalmau MD, PhD, William W. Seeley MD, Samuel J. Pleasure MD, PhD, Michael R. Wilson MD, Mark P. Gorman MD, and Joseph L. DeRisi PhD

Journal Citation: *Annals of Neurology* **2022**, *92(2)*, 279-291

Key words: RPS-5, Peptide Cleanup, Clinical Research

2021

A Highly Sensitive LC-MS/MS Method for Targeted Quantitation of Lipase Host Cell Proteins in Biotherapeutics

Authors: Yunqiu Chen, Chong-Feng Xu, Bradley Stanley, Greg Evangelist, Alex Brinkmann, Suli Liu, Sean McCarthy, Lei Xiong, Elliott Jones, Zoran Sosic, and Bernice Yeung

Journal Citation: *Journal of Pharmaceutical Sciences* **2021**, *110(12)*, 3811-3818

Key Words: RPS-5, Peptide Cleanup, Biopharma, Proteomics

A New Mouse Model Related to SCA14 Carrying a Pseudosubstrate Domain Mutation in PKCγ Shows Perturbed Purkinje Cell Maturation and Ataxic Motor Behavior

Authors: Etsuko Shimobayashi and Josef P. Kapfhammer

Journal Citation: *The Journal of Neuroscience* **2021**, *41(9),* 2053–2068

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Phosphoproteomics

A Proteomics-Based Assessment of Inflammation Signatures in Endotoxemia

Authors: Sean A. Burnap, Ursula Mayr, Manu Shankar-Hari, Friederike Cuello, Mark R. Thomas, Ajay M. Shah, Ian Sabroe, Robert F. Storey, and Manuel Mayr

Journal Citation: *Molecular and Cellular Proteomics* **2021**, *20*, 100021

Key words: C18-5, Peptide Cleanup, Biomarkers, Clinical Research, Proteomics

A serum proteome signature to predict mortality in severe COVID–19 patients

Authors: Franziska Vollmy, Henk van den Toorn, Riccardo Zenezini Chiozzi, Ottavio Zucchetti, Alberto Papi, Carlo Alberto Volta, Luisa Marracino, Francesco Vieceli Dalla Sega, Francesca Fortini, Vadim Demichev, Pinkus Tober-Lau, Gianluca Campo, Marco Contoli, Markus Ralser, Florian Kurth, Savino Spadaro, Paola Rizzo, and Albert J. R. Heck

Journal Citation: *Life Science Alliance* **2021**, *4(9),* e202101099

Key words: C18-5, Peptide Cleanup, Biomarkers, Clinical Research, Proteomics

A spatial vascular transcriptomic, proteomic, and phosphoproteomic atlas unveils an angiocrine Tie–Wnt signaling axis in the liver

Authors: Donato Inverso, Jingjing Shi, Ki Hong Lee, Moritz Jakab, Shani Ben-Moshe, Shubhada R. Kulkarni, Martin Schneider, Guanxiong Wang, Marziyeh Komeili, Paula Argos Velez, Maria Riedel, Carleen Spegg, Thomas Ruppert, Christine Schaeffer-Reiss, Dominic Helm, Indrabahadur Singh, Michael Boutros, Sudhakar Chintharlapalli, Mathias Heikenwalder, Shalev Itzkovitz, and Hellmut G. Augustin

Journal Citation: *Developmental Cell* **2021**, *56(11)*, 1677–1693

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Phosphoproteomics

A type 2C protein phosphatase activates high-affinity nitrate uptake by dephosphorylating NRT2.1

Authors: Yuri Ohkubo, Keiko Kuwata, and Yoshikatsu Matsubayashi

Journal Citation: *Nature Plants* **2021**, *7*, 310–316

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Phosphoproteomics, Signal Transduction

A Universal Peptide Matrix Interactomics Approach to Disclose Motif-Dependent Protein Binding

Authors: Evelyn Ramberger, Lorena Suarez-Artiles, Daniel Perez-Hernandez, Mohamad Haji, Oliver Popp, Ulf Reimer, Achim Leutz1, Gunnar Dittmar, and Philipp Mertins

Journal Citation: *Molecular and Cellular Proteomics* **2021**, *20*,100135

Key Words: C18-5, Peptide Cleanup, Proteomics, Protein-Protein Interactions, Signal Transduction

ABPP-HT-High-Throughput Activity-Based Profiling of Deubiquitylating Enzyme Inhibitors in a Cellular Context

Authors: Hannah Jones, Raphael Heilig, Roman Fischer, Benedikt M. Kessler, and Adan Pinto-Fernandez

Journal Citation: *Frontiers in Chemistry* **2021**, *9*, 640105

Key words: PAW-5, Affinity Purification, Signal Transduction, Immunocapture

Afucosylated IgG characterizes enveloped viral responses and correlates with COVID–19 severity

Authors: Mads Delbo Larsen, Erik L. de Graff, Myrthe E. Sonneveld, H. Rosina Plomp, Jan Nouta, Willianne Hoepel, Hung-Jen Chen, Federica Linty, Remco Visser, Maximilian Briknkhaus, Tonci Sustic, Steven W. de Taeye, Arthur E. H. Bentlage, Suvi Toivonen, Carolien A. M. Koeleman, Susanna Sainio, Neeltje A. Kootstra, Philip J. M. Brouwer, Chiara Elisabeth Geyer, Ninotska I. L. Derksen, Gertjan Wolbink, Menno de Winther, Rogier W. Sanders, Marit J. Van Gils, Sanne De Bruin, Alexander P. J. Vlaar, Amsterdam UMC Covid–19, Biobank Study Group, Theo Rispens, Jeroen Den Dunnen, Hans L. Zaaijer, Manfred Wuhrer, C. Ellen Van Der Schoot, and Gestur Vidarsson

Journal Citation: *Science* **2021**, *371(6532)*, eabc8378

Key words: PGW, Affinity Purification, Biomarkers, Clinical Research, Glycans

Afucosylated *Plasmodium falciparum*-specific IgG is induced by infection but not by subunit vaccination

Author: Mads Delbo Larsen, Mary Lopez-Perez, Emmanuel Kakra Dickson, Paulina Ampomah, Nicaise Tuikue Ndam, Jan Nouta, Carolien A M Koeleman, Agnes L Hipgrave Ederveen, Benjamin Mordmüller, Ali Salanti, Morten Agertoug Nielsen, Achille Massougbodji, C. Ellen van der Schoot, Michael F. Ofori, Manfred Wuhrer, Lars Hviid, and Gestur Vidarsson

Journal Citation: *Nature Communications* **2021**, *12*, 5838

Key Words: PGW, Affinity Purification, Biomarkers, Clinical Research, Glycans, Mechanism of Action

An EZH2-dependent transcriptional complex promotes aberrant epithelial remodeling after injury

Authors: Huy Q. Le, Matthew A. Hill, Ines Kollak, Martina Keck, Victoria Schroeder, Johannes Wirth, Wioletta Skronska-Wasek, Eva Schruf, Benjamin Strobel, Heiko Stahl, Franziska E. Herrmann, Alexandre R. Campos, Jun Li, Karsten Quast, Dagmar Knebel, Coralie Viollet, Matthew J. Thomas, David Lamb, and James P. Garnett

Journal Citation: *EMBO Reports* **2021**, *22(8)*, e52785

Key words: C18-5, Peptide Cleanup, Proteomics, Signal Transduction

An Observational Study on the Molecular Profiling of Primary Melanomas Reveals a Progression Dependence on Mitochondrial Activation

Authors: Jeovanis Gil, Melinda Rezeli, Elmar G. Lutz, Yonghyo Kim, Yutaka Sugihara, Johan Malm, Yevgeniy R. Semenov, Kun-Hsing Yu, Nga Nguyen, Guihong Wan, Lajos V. Kemény, Sarolta Kárpáti, István Balázs Németh, and György Marko-Varga

Journal Citation: *Cancers* **2021**, *13(23)*, 6066

Key Words: Fe(III)-NTA, Phosphopeptide Enrichment, Clinical Research, Phosphoproteomics

Antibody toolkit reveals N-terminally ubiquitinated substrates of UBE2W

Authors: Christopher W. Davies, Simon E. Vidal, Lilian Phu, Jawahar Sudhamsu, Trent B. Hinkle, Scott Chan Rosenberg, Frances-Rose Schumacher, Yi Jimmy Zeng, Carsten Schwerdtfeger, Andrew S. Peterson, Jennie R. Lill, Christopher M. Rose, Andrey S. Shaw, Ingrid E. Wertz, Donald S. Kirkpatrick, and James T. Koerber

Journal Citation: *Nature Communications* **2021**, *12*, 4608

Key words: RPS-5, Fractionation, Proteomics, Ubiquitination, Signal Transduction

Antisense oligonucleotide therapy reduces seizures and extends life span in an *SCN2A* gain-of-function epilepsy model

Authors: Melody Li, Nikola Jancovski, Paymaan Jafar-Nejad, Lisseth Estefania Burbano, Ben Rollo, Kay Richards, Lisa Drew, Alicia Sedo, Jacqueline Heighway, Svenja Pachernegg, Armand Soriano, Linghan Jia, Todd Blackburn, Blaine Roberts, Alex Nemiroff, Kelley Dalby, Snezana Maljevic, Christopher A. Reid, Frank Rigo, Steven Petrou

Journal Citation: *Jounal of Clinical Investigation* **2021**, *131(23)*, e152079

Key Words: C18-5, Peptide Cleanup, Mechanism of Action

Automated and Faster Affinity Capture Method for Biotransformation Assessment of Site-Specific Antibody Drug Conjugates

Authors: Aarti Jashnani, Srikanth Kotapati, Madhura Deshpande, Sayumi Yamazoe, Pavel Strop, Arvind Rajpal, and Gavin Dollinger

Journal Citation: *Analytical Chemistry* **2021**, *93(13)*, 5371–5376

Key words: SAW-5, Affinity Purification, On-Cartridge Reaction, Antibody Drug Conjugates, Biopharma, Pharmacokinetics, Immunocapture

Automated Ligand Purification Platform Accelerates Immunopeptidome Analysis by Mass Spectrometry

Authors: Lichao Zhang, Patrick L. McAlpine, Marlene L. Heberling, and Joshua E. Elias

Journal Citation: *Journal of Proteome Research* **2021**, *20(1)*, 393–408

Key words: PAW-5, RPS-5, Affinity Purification, Peptide Cleanup, Immunopeptidomics, Proteomics, Immunocapture

Automated Phosphopeptide Enrichment for Gram-Positive Bacteria

Authors: Marlène S. Birk, Emmanuelle Charpentier, and Christian K. Frese

Journal Citation: *Journal of Proteome Research* **2021**, *20(10)*, 4886–4892

Key words: Fe(III)-NTA, TiO_2, Phosphopeptide Enrichment, Phosphoproteomics

Combined Inhibition of AKT and KIT Restores Expression of Programmed Cell Death 4 (PDCD4) in Gastrointestinal Stromal Tumor

Authors: Marya Kozinova, Shalina Joshi, Shuai Ye, Martin G. Belinsky, Dinara Sharipova, Jeffrey M. Farma, Sanjay Reddy, Samuel Litwin, Karthik Devarajan, Alex Rosa Campos, Yi Yu, Brian Schwartz, Margaret von Mehren, and Lori Rink

Journal Citation: *Cancers* **2021**, *13(15)*, 3699

Key words: C18-5, Peptide Cleanup, Clinical Research, Proteomics, Signal Transduction

Comparing the efficacy and selectivity of Ck2 inhibitors. A phosphoproteomics approach

Authors: Christian Borgo, Luca Cesaro, Tsuyoshi Hirota, Keiko Kuwata, Claudio D'Amore, Thomas Ruppert, Renata Blatnik, Mauro Salvi, Lorenzo A. Pinna

Journal Citation: *European Journal of Medicinal Chemistry* **2021**, *214*, 113217

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Mechanism of Action, Phosphoproteomics

Comprehensive micro-scaled proteome and phosphoproteome characterization of archived retrospective cancer repositories

Authors: Corinna Friedrich, Simon Schallenberg, Marieluise Kirchner, Matthias Ziehm, Sylvia Niquet, Mohamed Haji, Christin Beier, Jens Neudecker, Frederick Klauschen and Philipp Mertins

Journal Citation: *Nature Communications* **2021**, *12*, 3576

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Clinical Research, Phosphoproteomics

Determination of Adenylate Nucleotides in Amphipod *Gammarus fossarum* by Ion-Pair Reverse Phase Liquid Chromatography: Possibilities of Positive Pressure Micro-Solid Phase Extraction

Authors: Zuzana Redžović, Marijana Erk, Ema Svetličić, Lucija Dončević, Sanja Gottstein, Amela Hozić, and Mario Cindrić

Journal Citation: *Separations* **2021**, *8(2)*, 20

Key words: Fractionation

Endothelial Heparan Sulfate Mediates Hepatic Neutrophil Trafficking and Injury during *Staphylococcus aureus* Sepsis

Authors: Gregory J. Golden, Alejandro Gómez Toledo, Alex Marki, James T. Sorrentino, Claire Morris, Raquel J. Riley, Charlotte Spliid, Qiongyu Chen, Ingrid Cornax, Nathan E. Lewis, Nissi Varki, Dzung Le, Johan Malmström, Christofer Karlsson, Klaus Ley, Victor Nizet, and Jeffrey D. Esko

Journal Citation: *mBio* **2021**, *12(5)*, e0118121

Key Words: C18-5, SAW-5, Affinity Purification, On-Cartridge Reaction, Peptide Cleanup, Proteomics

Exercise plasma boosts memory and dampens brain inflammation via clusterin

Authors: Zurine De Miguel, Nathalie Khoury, Michael J. Betley, Benoit Lehallier, Drew Willoughby, Niclas Olsson, Andrew C. Yang, Oliver Hahn, Nannan Lu, Ryan T. Vest, Liana N. Bonanno, Lakshmi Yerra, Lichao Zhang, Nay Lui Saw, J. Kaci Fairchild, Davis Lee, Hui Zhang, Patrick L. McAlpine, Kévin Contrepois, Mehrdad Shamloo, Joshua E. Elias, Thomas A. Rando, and Tony Wyss-Coray

Journal Citation: *Nature* **2021**, *600*, 494-499

Key Words: RPS-5, Peptide Cleanup, Proteomics

Extensive remodeling of the extracellular matrix during aging contributes to age-dependent impairments of muscle stem cell functionality

Authors: Svenja C. Schüler, Joanna M. Kirkpatrick, Manuel Schmidt, Deolinda Santinha, Philipp Koch, Simone Di Sanzo, Emilio Cirri, Martin Hemberg, Alessandro Ori, and Julia von Maltzahn

Journal Citation: *Cell Reports* **2021**, *35(10)*, 109223

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Phosphoproteomics

FRET-Based Screening Identifies p38 MAPK and PKC Inhibition as Targets for Prevention of Seeded α-Synuclein Aggregation

Authors: Alexander Svanbergsson, Fredrik Ek, Isak Martinsson, Jordi Rodo, Di Liu, Edoardo Brandi, Caroline Haikal, Laura Torres-Garcia, Wen Li, Gunnar Gouras, Roger Olsson, Tomas Björklund, and Jia-Yi Li

Journal Citation: *Neurotherapeutics* **2021**, *18(3)*, 1692-1709

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Phosphoproteomics

Global proteomic analysis of extracellular matrix in mouse and human brain highlights relevance to cerebrovascular disease

Authors: Alexandra Pokhilko, Gaia Brezzo, Lahiru Handunnetthi, Raphael Heilig, Rachel Lennon, Colin Smith, Stuart M. Allan, Alessandra Granata, Sanjay Sinha, Tao Wang, Hugh S. Markus, Alexandra Naba, Roman Fischer, Tom Van Agtmael, Karen Horsburgh, and M. Zameel Cader

Journal Citation: *Journal of Cerebral Blood Flow and Metabolism* **2021**, *41(9)*, 2423–2438

Key words: RPS-5, Fractionation, Proteomics

High Endothelial Venules Accelerate Naive T Cell Recruitment by Tumor Necrosis Factor Mediated R-Ras Upregulation

Authors: Junko Sawada, Carole Y. Perrot, Linyuan Chen, Ashley E. Fournier-Goss, Jeremiah Oyer, Alicja Copik, and Masanobu Komatsu

Journal Citation: *The American Journal of Pathology* **2021**, *191(2)*, 396–414

Key words: C18-5, Peptide Cleanup, Proteomics, Signal transduction

High titers and low fucosylation of early human anti-SARS-CoV–2 IgG promote inflammation by alveolar macrophages

Authors: Willianne Hoepel, Hung-Jen Chen, Chiara E. Geyer, Sona Allahverdiyeva, Xue D. Manz, Steven W. de Taeye, Jurjan Aman, Lynn Mes, Maurice Steenhuis, Guillermo R. Griffith, Peter I. Bonta, Philip J. M. Brouwer, Tom G. Caniels, Karlijn van der Straten, Korneliusz Golebski, René E. Jonkers, Mads D. Larsen, Federica Linty, Jan Nouta, Cindy P. A. A. van Roomen, Frank E. H. P. van Baarle, Cornelis M. van Drunen, Gertjan Wolbink, Alexander P. J. Vlaar, Godelieve J. de Bree, Rogier W. Sanders, Lisa Willemsen, Annette E. Neele, Diederik van de Beek, Theo Rispens, Manfred Wuhrer, Harm Jan Bogaard, Marit J. van Gils, Gestur Vidarsson, Menno de Winther, and Jeroen den Dunnen

Journal Citation: *Science Translational Medicine* **2021**, *13(596)*, eabf8654

Key words: PGW, Affinity Purification, Biomarkers, Clinical Research

Hydroxychloroquine inhibits the mitochondrial antioxidant system in activated T cells

Authors: Man Lyang Kim, Melinda Y Hardy, Laura E Edgington-Mitchell, Sri H Ramarathinam, Shan Zou Chung, Amy K Russell, Iain Currie, Brad E Sleebs, Anthony W Purcell, Jason A Tye-Din, and Ian P Wicks

Journal Citation: *iScience* **2021**, *24(12)*, 103509

Key Words: PAW-25, Affinity Purification, Immobilization, Immunopeptidomics, Mechanism of Action, Immunocapture

Hypoxia-induced acetylation of PAK1 enhances autophagy and promotes brain tumorigenesis via phosphorylating ATG5

Authors: Xing Feng, Heng Zhang, Lingbing Meng, Huiwen Song, Qingxin Zhou, Chao Qu, Pan Zhao, Qinghua Li, Chang Zou, Xing Liu, and Zhiyong Zhang

Journal Citation: *Autophagy* **2021**, *17(3)*, 723–742

Key words: SAW-5, Affinity Purification, Protein-Protein Interactions, Proteomics, Signal Transduction, BioID

Impairment of the ER/mitochondria compartment in human cardiomyocytes with PLN p.Arg14del mutation

Authors: Friederike Cuello, Anika E. Knaust, Umber Saleem, Malte Loos, Janice Raabe, Diogo Mosqueira, Sandra Laufer, Michaela Schweizer, Petra van der Kraak, Frederik Flenner, Barbel M. Ulmer, Ingke Braren, Xiaoke Yin, Konstantinos Theofilatos, Jorge Ruiz-Orera, Giannino Patone, Birgit Klampe, Thomas Schulze, Angelika Piasecki, Yigal Pinto, Aryan Vink, Norbert Hubner, Sian Harding, Manuel Mayr, Chris Denning, Thomas Eschenhagen, and Arne Hansen

Journal Citation: *EMBO Molecular Medicine* **2021**, *13(6)*, e13074

Key words: C18-5, Peptide Cleanup, Clinical Research, Proteomics

In situ detection of protein interactions for recombinant therapeutic enzymes

Authors: Mojtaba Samoudi, Chih-Chung Kuo, Caressa M. Robinson, Km Shams-Ud-Doha, Song-Min Schinn, Stefan Kol, Linus Weiss, Sara Petersen Bjorn, Bjorn G. Voldborg, Alexandre Rosa Campos, and Nathan E. Lewis

Journal Citation: *Biotechnology and Bioengineering* **2021**, *118(2)*, 890–904

Key words: C18-5, SAW-5, Affinity Purification, On-Cartridge Reaction, Peptide Cleanup, Biopharma, Protein-Protein Interactions, Proteomics, BioID

Longitudinal Bottom-Up Proteomics of Serum, Serum Extracellular Vesicles, and Cerebrospinal Fluid Reveals Candidate Biomarkers for Early Detection of Glioblastoma in a Murine Model

Authors: Francesco Greco, Federica Anastasi, Luca Fidia Pardini, Marialaura Dilillo, Eleonora Vannini, Laura Baroncelli, Matteo Caleo, and Liam A. McDonnell

Journal Citation: *Molecules* **2021**, *26(19)*, 5992

Key Words: C18-5, RPS-5, Fractionation, Peptide Cleanup, Biomarkers, Proteomics, TMT labeling

Mapping protein carboxymethylation sites provides insights into their role in proteostasis and cell proliferation

Authors: Simone Di Sanzo, Katrin Spengler, Anja Leheis, Joanna M. Kirkpatrick, Theresa L. Rändler, Tim Baldensperger, Therese Dau, Christian Henning, Luca Parca, Christian Marx, Zhao-Qi Wang, Marcus A. Glomb, Alessandro Ori, and Regine Heller

Journal Citation: *Nature Communications* **2021**, *12*, 6743

Key Words: RPS-5, Fractionation

Mechanisms of Regulation and Diverse Activities of Tau-Tublin Kinase (TTBK) Isoforms

Authors: Channa Bao, Bekim Bajrami, Douglas J. Marcotte, Jayanth V. Chodaparambil, Hannah M. Kerns, Jaclyn Henderson, Ru Wui, Benbo Gao, and Gregory M. Dillon

Journal Citation: *Cellular and Molecular Neurobiology* **2021**, *41*, 669–685

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Phosphoproteomics, Signal Transduction

Multilevel proteomics reveals host perturbation strategies of SARS-CoV–2 and SARS-CoV

Authors: Alexey Stukalov, Virginie Girault, Vincent Grass, Ozge Karayel, Valter Bergant, Christian Urban, Darya A. Haas, Yiqi Huang, Lila Oubraham, Anqi Wang, M. Sabria Hamad, Antonio Piras, Fynn M. Hansen, Maria C. Tanzer, Igor Paron, Luca Zinzula, Thomas Enghleitner, Maria Reinecke, Teresa M. Lavacca, Rosina Ehmann, Roman Wölfel, Jörg Jores, Bernhard Kuster, Ulrike Protzer, Roland Rad, John Ziebuhr, Volker Thiel, Pietro Scaturro, Matthias Mann, and Andreas Pichlmair

Journal Citation: *Nature* **2021**, *594*, 246–252

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Phosphoproteomics

Notch-Jagged signaling complex defined by an interaction mosaic

Authors: Matthieu R. Zeronian, Oleg Klykov, Julia Portell i de Montserrat, Maria J. Konijnenberg, Anamika Gaur, Richard A. Scheltema, and Bert J. C. Janssen

Journal Citation: *PNAS* **2021**, *118(30)*, e2102502118

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Protein-Protein Interactions, Signal Transduction, PhoX

Nse5/6 inhibits the Smc5/6 ATPase and modulates DNA substrate binding

Authors: Michael Taschner, Jerome Basquin, Barbara Steigenberger, Ingmar Schaefer, Young-Min Soh, Claire Basquin, Esben Lorentzen, Markus Raschle, Richard A. Scheltema, Stephan Gruber

Journal Citation: *The EMBO Journal* **2021**, *40(15)*, e107807

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Protein-Protein Interactions, Signal Transduction, PhoX

PKCλ/ι inhibition activates an ULK2-mediated interferon response to repress tumorigenesis

Authors: Juan F. Linares, Xiao Zhang, Anxo Martinez-Ordonez, Angeles Duran, Hiroto Kinoshita, Hiroaki Kasashima, Naoko Nakanishi, Yuki Nakanishi, Ryan Carelli, Luca Cappelli, Esperanza Arias, Masakazu Yashiro, Masaichi Ohira, Sanjay Patel, Giorgio Inghirami, Massimo Loda, Ana Maria Cuervo, Maria T. Diaz-Meco, and Jorge Moscat

Journal Citation: *Molecular Cell* **2021**, *81(21)*, 4509-4526

Key Words: C18-5, SAW-5, Affinity Purification, On-Cartridge Reaction, Peptide Cleanup, Protein-Protein Interactions, Proteomics, Signal Transduction, BioID

Proteomic profiling dataset of chemical perturbations in multiple biological backgrounds

Authors: Deborah O. Dele-Oni, Karen E. Christianson, Shawn B. Egri, Alvaro Sebastian Vaca Jacome, Katherine C. DeRuff, James Mullahoo, Vagisha Sharma, Desiree Davison, Tak Ko, Michael Bula, Joel Blanchard, Jennie Z. Young, Lev Litichevskiy, Xiaodong Lu, Daniel Lam, Jacob K. Asiedu, Caidin Toder, Adam Officer, Ryan Peckner, Michael J. MacCoss, Li-Huei Tsai, Steven A. Carr, Malvina Papanastasiou, Jacob D. Jaffe

Journal Citation: *Scientific Data* **2021**, *8*, 226

Key words: Fe(III)-NTA, RPS-5, Phosphopeptide Enrichment, Peptide Cleanup, Mechanism of Action, Phosphoproteomics

Proteomic Signature of Host Response to SARS-CoV-2 Infection in the Nasopharynx

Authors: Patrick M. Vanderboom, Dong-Gi Mun, Anil K. Madugundu, Kiran K. Mangalaparthi, Mayank Saraswat, Kishore Garapati, Rana Chakraborty, Hideki Ebihara, Jie Sun and Akhilesh Pandey

Journal Citation: *Molecular and Cellular Proteomics* **2021**, *20*, 100134

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Clinical Research, Phosphoproteomics.

Proteomics and Phosphoproteomics Profiling of Drug-Addicted BRAFi-Resistant Melanoma Cells

Authors: Bohui Li, Xiangjun Kong, Harm Post, Linsey Raaijmakers, Daniel S. Peeper, and Maarten Altelaar

Journal Citation: *Journal of Proteomics Research* **2021**, *20(9)*, 4381–4392

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Phosphoproteomics, Signal Transduction

Response of *Saccharomyces cerevisiae* W303 to Iron and Lead Toxicity in Overloaded Conditions

Authors: Gordana Čanadi Jurešić, Božena Ćurko-Cofek, Martina Barbarić, Nermina Mumiši, Branka Blagović, and Polona Jamnik

Journal Citation: *Current Microbiology* **2021**, *78*, 1188–1201

Key words: C18-5, Peptide Cleanup, Proteomics

SARS-CoV-2 infection triggers profibrotic macrophage responses and lung fibrosis

Author: Daniel Wendisch, Oliver Dietrich, Tommaso Mari, Saskia von Stillfried, Ignacio L. Ibarra, Mirja Mittermaier, Christin Mache, Robert Lorenz Chua, Rainer Knoll, Sara Timm, Sophia Brumhard, Tobias Krammer, Henrik Zauber, Anna Luisa Hiller, Anna Pascual-Reguan, Ronja Mothes, Roman David Bülow, Jessica Schulze, Alexander M. Leipold, Sonja Djudjaj, Florian Erhard, Robert Geffers, Fabian Pott, Julia Kazmierski, Josefine Radke, Panagiotis Pergantis, Kevin Baßler, Claudia Conrad, Anna C. Aschenbrenner, Birgit Sawitzki, Markus Landthaler, Emanuel Wyler, David Horst, Deutsche COVID-19 OMICS Initiative (DeCOI), Stefan Hippenstiel, Andreas Hocke, Frank L. Heppner, Alexander Uhrig, Carmen Garcia, Felix Machleidt, Susanne Herold, Sefer Elezkurtaj, Charlotte Thibeault, Martin Witzenrath, Clément Cochain, Norbert Suttorp, Christian Drosten, Christine Goffinet, Florian Kurth, Joachim L. Schultze, Helena Radbruch, Matthias Ochs, Roland Eils, Holger Müller-Redetzky, Anja E. Hauser, Malte D. Luecken, Fabian J. Theis, Christian Conrad, Thorsten Wolff, Peter Boor, Matthias Selbach, Antoine-Emmanuel Saliba, and Leif Erik Sander

Journal Citation: *Cell* **2021**, *184(26)*, 6243-6261

Key Words: Fe(III)-NTA, Phosphopeptide Enrichment, Clinical Research, Phosphoproteomics

SARS-CoV–2 RNAemia and proteomic trajectories inform prognostication in COVID–19 patients admitted to intensive care

Authors: Clemens Gutmann, Kaloyan Takov, Sean A. Burnap, Bhawana Singh, Hashim Ali, Konstantinos Theofilatos, Ella Reed, Maria Hasman, Adam Nabeebaccus, Matthew Fish, Mark J. W. McPhail, Kevin O'Gallagher, Lukas E. Schmidt, Christian Cassel, Marieke Rienks, Xiaoke Yin, Georg Auzinger, Salvatore Napoli, Salma F. Mujib, Francesca Trovato, Barnaby Sanderson, Blair Merrick, Umar Niazi, Mansoor Saqi, Konstantina Dimitrakopoulou, Rafael Fernandez-Leiro, Silke Braun, Romy Kronstein-Wiedemann, Katie J. Doores, Jonathan D. Edgeworth, Ajay M. Shah, Stefan R. Bornstein, Torsten Tonn, Adrian C. Hayday, Mauro Giacca, Manu Shankar-Hari, and Manuel Mayr

Journal Citation: *Nature Communications* **2021**, *12*, 3406

Key words: C18-5, Peptide Cleanup, Clinical Research, Proteomics

Sensitive and Quantitative Detection of MHC-I Displayed Neoepitopes Using a Semiautomated Workflow and TOMAHAQ Mass Spectrometry

Authors: Samuel B. Pollock, Christopher M. Rose, Martine Darwish, Romain Bouziat, Lélia Delamarre, Craig Blanchette, and Jennie R. Lill

Journal Citation: *Molecular and Cellular Proteomics* **2021**, *20*, 100108

Key words: PAW-5, PAW-25, C18-5, Affinity Purification, On-Cartridge Reaction, Peptide Cleanup, Biopharma, Immunopeptidomics, Proteomics, Immunocapture

Structure of the human signal peptidase complex reveals the determinants for signal peptide cleavage

Authors: A. Manuel Liaci, Barbara Steigenberger, Paulo Cesar Telles de Souza, Sem Tamara, Mariska Gröllers-Mulderij, Patrick Ogrissek, Siewert J. Marrink, Richard A. Scheltema, and Friedrich Förster

Journal Citation: *Molecular Cell* **2021**, *81(19)*, 3934-3948

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Protein-Protein Interactions, PhoX

Study of the venom proteome of *Vipera ammodytes ammodytes* (Linnaeus, 1758): A qualitative overview, biochemical and biological profiling

Authors: Kristina Gopcevic, Ivanka Karadzic, Lidija Izrael-Zivkovic, Ana Medic, Aleksandra Isakovic, Marjan Popovi´, Dusan Kekic, Tatjana Stanojkovic, Amela Hozic, and Mario Cindric

Journal Citation: *Comparative Biochemistry and Physiology-Part D: Genomics and Proteomics* **2021**, *37*, 100776

Key words: RPW, Protein Cleanup, Proteomics

Synergistic and additive interactions between receptor signaling networks drive the regulatory T cell versus T helper 17 cell fate choice

Authors: Douglas S. Prado, Richard T. Cattley, Corey W. Shipman, Cassandra Happe, Mijoon Lee, William C. Boggess, Matthew L. MacDonald, William F. Hawse

Journal Citation: *Journal of Biological Chemistry* **2021**, *297(6)* 101330

Key Words: Fe(III)-NTA, Phosphopeptide Enrichment, Phosphoproteomics, Signal Transduction

The Human Melanoma Proteome Atlas—Complementing the melanoma transcriptome

Authors: Lazaro Hiram Betancourt, Jeovanis Gil, Aniel Sanchez, Viktória Doma, Magdalena Kuras, Jimmy Rodriguez Murillo, Erika Velasquez, Uğur Çakır, Yonghyo Kim, Yutaka Sugihara, Indira Pla Parada, Beáta Szeitz, Roger Appelqvist, Elisabet Wieslander, Charlotte Welinder, Natália Pinto de Almeida, Nicole Woldmar, Matilda Marko-Varga, Jonatan Eriksson, Krzysztof Pawłowski, Bo Baldetorp, Christian Ingvar, Håkan Olsson, Lotta Lundgren, Henrik Lindberg, Henriett Oskolas, Boram Lee, Ethan Berge, Marie Sjögren, Carina Eriksson, Dasol Kim, Ho Jeong Kwon, Beatrice Knudsen, Melinda Rezeli, Johan Malm, Runyu Hong, Peter Horvath, A. Marcell Szász, József Tímár, Sarolta Kárpáti, Peter Horvatovich, Tasso Miliotis, Toshihide Nishimura, Harubumi Kato, Erik Steinfelder, Madalina Oppermann, Ken Miller, Francesco Florindi, Quimin Zhou, Gilberto B. Domont, Luciana Pizzatti, Fábio C. S. Nogueira, Leticia Szadai, István Balázs Németh, Henrik Ekedahl, David Fenyö, and György Marko-Varga

Journal Citation: *Clinical and Translational Medicine* **2021**, *11(7)*, e451

Key words: C18-5, Fe(III)-NTA, Phosphopeptide Enrichment, Peptide Cleanup, Clinical Research, Phosphoproteomics, Proteomics

The human melanoma proteome atlas—Defining the molecular pathology

Authors: Lazaro HiramBetancourt, Jeovanis Gil, Yonghyo Kim, Viktória Doma, Uğur Çakır, Aniel Sanchez, Jimmy Rodriguez Murillo, Magdalena Kuras, Indira Pla Parada, Yutaka Sugihara, Roger Appelqvist, Elisabet Wieslander, Charlotte Welinder, Erika Velasquez, Natália Pinto de Almeida, Nicole Woldmar, Matilda Marko-Varga, Krzysztof Pawłowski, Jonatan Eriksson, Beáta Szeitz, Bo Baldetorp, Christian Ingvar, Håkan Olsson, Lotta Lundgren, Henrik Lindberg, Henriett Oskolas, Boram Lee, Ethan Berge, Marie Sjögren, Carina Eriksson, Dasol Kim, Ho Jeong Kwon, Beatrice Knudsen, Melinda Rezeli, Runyu Hong, Peter Horvatovich, Tasso Miliotis, Toshihide Nishimura, Harubumi Kato, Erik Steinfelder, Madalina Oppermann, Ken Miller, Francesco Florindi, Qimin Zhou, Gilberto B. Domont, Luiciana Pizzatti, Fábio C. S. Nogueira, Peter Horvath, Leticia Szadai, József Tímár, Sarolta Kárpáti, A. Marcell Szász, Johan Malm, David Fenyö, Henrik Ekedahl, István Balázs Németh, and György Marko-Varga

Journal Citation: *Clinical and Translational Medicine* **2021**, *11(7)*, e473

Key words: C18-5, Peptide Cleanup, Clinical Research, Proteomics

Topological Dissection of Proteomic Changes Linked to the Limbic Stage of Alzheimer's Disease

Authors: Erika Velasquez, Beata Szeitz, Jeovanis Gil, Jimmy Rodriguez, Miklos Palkovits, Eva Renner, Tibor Hortobagyi, Peter Döme, Fabio CS. Nogueira, György Marko-Varga, Gilberto B. Domont, and Melinda Rezeli

Journal Citation: *Frontiers in Immunology* **2021**, *12*, 750665

Key Words: Fe(III)-NTA, Phosphopeptide Enrichment, Clinical Research, Phosphoproteomics.

Universal Automated Immunoaffinity Purification-CE–MS Platform for Accelerating Next Generation Biologic Design

Authors: Mei Han, Yunan Wang, Kevin Cook, Noor Bala, Marcus Soto, Dan A. Rock, Josh T. Pearson, and Brooke M. Rock

Journal Citation: *Analytical Chemistry* **2021**, *93(13)*, 5562–5569

Key words: SAW-5, Affinity Purification, Biopharma, Pharmacokinetics, Immunocapture

YAP and β-Catenin Cooperate to Drive Oncogenesis in Basal Breast Cancer

Authors: Hazel Quinn, Regina Vogel, Oliver Popp, Philipp Mertins, Linxiang Lan, Clemens Messerschmidt, Alexandro Landshammer, Kamil Lisek, Sophie Chateau-Joubert, Elisabetta Marangoni, Elle Koren, Yaron Fuchs, and Walter Birchmeier

Journal Citation: *Cancer Research* **2021**, *81(8)*, 2116–2127

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Phosphoproteomics

2020

A mass spectrometry-based proteome map of drug action in lung cancer cell lines

Authors: Benjamin Ruprecht, Julie Di Bernardo, Zhao Wang, Xuan Mo, Oleg Ursu, Matthew Christopher, Rafael B. Fernandez, Li Zheng, Brian D. Dill, Huijun Wang, Yuting Xu, Andy Liaw, Jonathan D. Mortison, Nirodhini Siriwardana, Brian Andresen, Meir Glick, James R. Tata, Victoria Kutilek, Ivan Cornella-Taracido and An Chi

Journal Citation: *Nature Chemical Biology* **2020**, *16*, 1111–1119

Key words: C18-5, Peptide Cleanup, Mechanism of Action, Proteomics

A rapid method for relative quantification of *N-glycans* from a therapeutic monoclonal antibody during trastuzumab biosimilar development

Authors: Zaneer Segu, Todd Stone, Claudia Berdugo, Anthony Roberts, Emma Doud, and Yunsong Li

Journal Citation: *mABs* **2020**, *12(1)*, 1750794

Key words: PA50, Biopharma, Glycans

Avant-garde: an automated data-driven DIA data curation tool

Authors: Alvaro Sebastian Vaca Jacome, Ryan Peckner, Nicholas Shulman, Karsten Krug, Katherine C. DeRuff, Adam Officer, Karen E. Christianson, Brendan MacLean, Michael J. MacCoss, Steven A. Carr and Jacob D. Jaffe

Journal Citation: *Nature Methods* **2020**, *17*, 1237–1244

Key words: Fe(III)-NTA, RPS-5, Phosphopeptide Enrichment, Peptide Cleanup, Mechanism of Action, Phosphoproteomics

Chronic glucose-dependent insulinotropic polypeptide receptor (GIPR) agonism desensitizes adipocyte GIPR activity mimicking functional GIPR antagonism

Authors: Elizabeth A. Killion, Michelle Chen, James R. Falsey, Glenn Sivits, Todd Hager, Larissa Atangan, Joan Helmering, Jae Lee, Hongyan Li, Bin Wu, Yuan Cheng, Murielle M. Véniant, and David J. Lloyd

Journal Citation: *Nature Communications* **2020**, *11*, 4981

Key words: PAW-5, Affinity Purification, Pharmacokinetics, Immunocapture

Collagen-rich omentum is a premetastatic niche for integrin α2-mediated peritoneal metastasis

Authors: Yen-Lin Huang, Ching-Yeu Liang, Danilo Ritz, Ricardo Coelho, Dedy Septiadi, Manuela Estermann, Cecile Cumin, Natalie Rimmer, Andreas Schotzau, Monica Nunez Lopez, Andre´ Fedier, Martina Konantz, Tatjana Vlajnic, Diego Calabrese, Claudia Lengerke, Leonor David, Barbara Rothen-Rutishauser, Francis Jacob, and Viola Heinzelmann-Schwarz

Journal Citation: *elife* **2020**, *9*, e59442

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Phosphoproteomics

Combined EGFR and ROCK Inhibition in Triple-negative Breast Cancer Leads to Cell Death Via Impaired Autophagic Flux

Authors: Stamatia Rontogianni, Sedef Iskit, Sander van Doorn, Daniel S. Peeper and Maarten Altelaar

Journal Citation: *Molecular and Cellular Proteomics* **2020**, *19(2)*, 261–277

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Mechanism of Action, Phosphoproteomics

Comparative Application of BioID and TurboID for Protein-Proximity Biotinylation

Authors: Danielle G. May, Kelsey L. Scott, Alexandre R. Campos, and Kyle J. Roux

Journal Citation: *Cells* **2020**, *9(5)*, 1070–1090

Key words: C18-5, Peptide Cleanup, Protein-Protein Interactions, BioID, TurboID

Data, Reagents, Assays and Merits of Proteomics for SARS-CoV–2 Research and Testing

Authors: Jana Zecha, Chien-Yun Lee, Florian P. Bayer, Chen Meng, Vincent Grass, Johannes Zerweck, Karsten Schnatbaum, Thomas Michler, Andreas Pichlmair, Christina Ludwig and Bernhard Kuster

Journal Citation: *Molecular and Cellular Proteomics* **2020**, *19(9)*, 1503–1522

Key words: RPS-5, Peptide Cleanup, Proteomics

Development and validation of a platform reduced intact mass method for process monitoring of monoclonal antibody glycosylation during routine manufacturing

Authors: Michael Schilling, Pamela Feng, Zoran Sosic, and Stacey L. Traviglia

Journal Citation: *Bioengineered* **2020**, *11(1)*, 1301–1312

Key words: PAW-5, Affinity Purification, Biopharma, Glycans

Dynamic remodeling of the human host cell proteome and phosphoproteome upon enterovirus infection

Authors: Piero Giansanti, Jeroen R. P. M. Strating, Kyra A. Y. Defourny, Ieva Cesonyte, Alexia M. S. Bottino, Harm Post, Ekaterina G. Viktorova, Vien Quang Tri Ho, Martijn A. Langereis, George A. Belov, Esther N. M. Nolte-'t Hoen, Albert J. R. Heck and Frank J. M. van Kuppeveld

Journal Citation: *Nature Communications* **2020**, *11*, 4332

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Phosphoproteomics, Proteomics

E3 Ubiquitin Ligase Fbw7 Regulates the Survival of Mature B Cells

Authors: Parham Ramezani-Rad, Charlotte R. Leung, John R. Apgar, and Robert C. Rickert

Journal Citation: *The Journal of Immunology* **2020**, *204(6)*, 1535–1542

Key words: C18-5, Peptide Cleanup, Proteomics

Effects of electron-transfer/higher-energy collisional dissociation (EThcD) on phosphopeptide analysis by data-independent acquisition.

Authors: Thierry Schmidlin, Maarten Altelaar

Journal Citation: *International Journal of Mass Spectrometry* **2020**, *452*, 116336

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Phosphoproteomics

Enhancer reprograming driven by high-order assemblies of transcription factor promotes phenotypic plasticity and breast cancer endocrine resistance

Authors: Mingjun Bi, Zhao Zhang, Yi-Zhou Jiang, Pengya Xue, Hu Wang, Zhao Lai, Xiaoyong Fu, Carmine De Angelis, Yue Gong, Zhen Gao, Jianhua Ruan, Victor X. Jin, Elisabetta Marangoni, Elodie Montaudon, Christopher K. Glass, Wei Li, Tim Hui-Ming Huang, Zhi-Ning Shao, Rachel Schiff, Lizhen Chen, and Zhijie Liu

Journal Citation: *Nature Cell Biology* **2020**, *22*, 701–715

Key words: C18-5, Peptide Cleanup, Protein-Protein Interactions, Signal Transduction, BioID

Fishing for newly synthesized proteins with phosphonate-handles

Authors: Fleur Kleinpenning, Barbara Steigenberger, Wei Wu, and Albert J. R. Heck

Journal Citation: *Nature Communications* **2020**, *11*, 3244

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Proteomics, PhosID

High-Throughput Stool Metaproteomics: Method and Application to Human Specimens

Authors: Carlos G. Gonzalez, Hannah C. Wastyk, Madeline Topf, Christopher D. Gardner, Justin L. Sonnenburg, and Joshua E. Elias

Journal Citation: *mSystems* **2020**, *5(3)*, e00200–20

Key words: RPS-5, Peptide Cleanup, Proteomics

Identification of pathogens from native urine samples by Maldi-TOF/TOF tandem mass spectrometry

Authors: Damir Oros, Marina Ceprnja, Jurica Zucko, Mario Chindric, Amela Hozic, Jasenka Skrlin, Karmela Barisic, Ena Melvan, Ksenija Uroic, Blazenka Kos, and Antonio Starcevic

Journal Citation: *Clinical Proteomics* **2020**, *17*, 25

Key words: SCX, Fractionation, Clinical Research, Proteomics

Improving the throughput of immunoaffinity purification and enzymatic digestion of therapeutic proteins using membrane-immobilized reagent technology

Authors: Michelle R. Robinson, Lisa A. Vasicek, Christian Hoppmann, Mandy Li, Gia Jokhadze, Daniel S. Spellman

Journal Citation: *Analyst* **2020**, *145(8)*, 3148–3156

Key words: PAW-5, Affinity Purification, In-Solution Digestion, Biopharma

Insights from the First Phosphopeptide Challenge of the MS Resource Pillar of the HUPO Human Proteome Project

Authors: Michael R. Hoopmann, Ulrike Kusebauch, Magnus Palmblad, Nuno Bandeira, David D. Shteynberg, Lingjie He, Bin Xia, Stoyan H. Stoychev, Gilbert S. Omenn, Susan T. Weintraub, and Robert L. Moritz

Journal Citation: *Journal of Proteome Research* **2020**, *19(12)*, 4754–4765

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Phosphoproteomics

Laccases 2 & 3 as biomarkers of *Botrytis cinerea* infection in sweet white wines

Authors: S. Ployon, A. Attina, J. Vialaret, A. S. Walker, C. Hirtz, and C. Saucier

Journal Citation: *Food Chemistry* **2020**, *315*, 126233

Key words: C18-5, Peptide Cleanup, Biomarkers, Proteomics

Metabolic changes related to the IDH1 mutation in gliomas preserve TCA-cycle activity: An investigation at the protein level

Authors: Lennard J. M. Dekker, Suying Wu, Cherise Jurriëns, Dana A. N. Mustafa, Frederieke Grevers, Peter C. Burgers, Peter A. E. Sillevis Smitt, Johan M. Kros, and Theo M. Luider

Journal Citation: *The FASEB Journal* **2020**, *34(3)*, 3636–3657

Key words: C18-5, Peptide Cleanup, Clinical Research, Proteomics

Modulation of Human Adipose Stem Cells' Neurotrophic Capacity Using a Variety of Growth Factors for Neural Tissue Engineering Applications: Axonal Growth, Transcriptional, and Phosphoproteomic Analyses In Vitro

Authors: Katharina M. Prautsch, Alexander Schmidt, Viola Paradiso, Dirk J. Schaefer, Raphael Guzman, Daniel F. Kalbermatten and Srinivas Madduri

Journal Citation: *Cells* **2020**, *9(9)*, 1939

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Phosphoproteomics

Multi-omic comparison of Alzheimer's variants in human ESC-derived microgila reveals convergence at APOE

Authors: Tongfei Liu, Bing Zhu, Yan Liu, Xiaoming Zhang, Jun Yin, Xiaoguang Li, LuLin Jiang, Andrew P. Hodges, Sara Brin Rosenthal, Lisa Zhou, Joel Yancey, Amanda McQuade, Mathew Blurton-Jones, Rudolph E. Tanzi, Timothy Y. Huang, and Huaxi Xu

Journal Citation: *Journal of Experimental Medicine* **2020**, *217(12)*, e20200474

Key words: C18-5, Peptide Cleanup, Proteomics

Mutation position is an important determinant for predicting cancer neoantigens

Authors: Aude-Hélène Capietto, Suchit Jhunjhunwala, Samuel B. Pollock, Patrick Lupardus, Jim Wong, Lena Hänsch, James Cevallos, Yajun Chestnut, Ajay Fernandez, Nicolas Lounsbury, Tamaki Nozawa, Manmeet Singh, Zhiyuan Fan, Cecile C. de la Cruz, Qui T. Phung, Lucia Taraborrelli, Benjamin Haley, Jennie R. Lill, Ira Mellman, Richard Bourgon, and Lélia Delamarre

Journal Citation: *Journal of Experimental Medicine* **2020**, *217(4)*, e20190179

Key words: C18-5, PAW-5, Affinity Purification, On-Cartridge Reaction, Peptide Cleanup, Biopharma, Immunopeptidomics, Immunocapture

Phosphorylation Ratio Determination in Fresh-Frozen and Formalin-Fixed Paraffin-Embedded Tissue with Targeted Mass Spectrometry

Authors: Lona Zeneyedpour, Christoph Stingl, Lennard J. Dekker. Dana A. M. Mustafa, Johan M. Kros, and Theo M. Luider

Journal Citation: *Journal of Proteome Research* **2020**, *19(10)*, 4179–4190

Key words: C18-5, Fe(III)-NTA, Peptide Cleanup, Phosphopeptide Enrichment, Proteomics

PKCλ/ι Loss Induces Autophagy, Oxidative Phosphorylation, and NRF2 to Promote Liver Cancer Progression

Authors: Yotaro Kudo, Masayuki Sugimoto, Esperanza Arias, Hiroaki Kasashima, Thekla Cordes, Juan F. Linares, Angeles Duran, Yuki Nakanishi, Naoko Nakanishi, Antoine L'Hermitte, Alex Campos, Nadia Senni, Tarmo Rooslid, Lewis R. Roberts, Ana Maria Cuervo, Christian M. Metallo, Michael Karin, Maria T. Diaz-Meco, and Jorge Moscat

Journal Citation: *Cancer Cell* **2020**, *38(2)*, 247–262

Key words: C18-5, SAW-5, Affinity Purification, On-Cartridge Reaction, Peptide Cleanup, Protein-Protein Interactions, Proteomics, Signal Transduction, BioID

Post-hoc assessment of the immunogenicity of three antibodies reveals distinct immune stimulatory mechanisms

Authors: Robin E. Walsh, Megan Lannan, Yi Wen, Xiaoli Wang, Christopher A. Moreland, Jill Willency, Michael D. Knierman, Laura Spindler, Ling Liu, Wei Zeng, Guilherme V. Rocha, Victor Obungu, Jirong Lu, Arunan Kaliyaperumal, Andrea Ferrante, Robert Siegel and Laurent P. Malherbe

Journal Citation: *mABs* **2020**, *12(1)*, 1764829

Key words: SAW-5, Affinity Purification, Biopharma, Clinical Research, Immunopeptidomics, Immunocapture

Prevention of dsRNA-induced interferon signaling by AGO1x is linked to breast cancer cell proliferation

Authors: Souvik Ghosh, Joao C. Guimaraes, Manuela Lanzafame, Alexander Schmidt, Afzal Pasha Syed, Beatrice Dimitriades, Anastasiya Börsch, Shreemoyee Ghosh, Nitish Mittal, Thomas Montavon, Ana Luisa Correia, Johannes Danner, Gunter Meister, Luigi M. Terracciano, Sébastien Pfeffer, Salvatore Piscuoglio, and Mihaela Zavolan

Journal Citation: *The EMBO Journal* **2020**, *39(18)*, e103922

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Phosphoproteomics

Process-wide control and automation of an integrated continuous manufacturing platform for antibodies

Authors: Fabian Feidl, Sebastian Vogg, Moritz Wolf, Matevz Podobnik, Caterina Ruggeri, Nicole Ulmer, Ruben Wälchli, Jonathan Souquet, Hervé Broly, Alessandro Butté, and Massimo Morbidelli

Journal Citation: *Biotechnology Bioengineering* **2020**, *117(5)*, 1367–1380

Key words: CU, RX, GlykoPrep, Glycans

Quantitative Longitudinal Inventory of the N-Glycoproteome of Human Milk from a Single Donor Reveals the Highly Variable Repertoire and Dynamic Site-Specific Changes

Authors: Jing Zhu, Yu-Hsien Lin, Kelly A. Dingess, Marko Mank, Bernd Stahl, and Albert J. R. Heck

Journal Citation: *Journal of Proteome Research* **2020**, *19(5)*, 1941–1952

Key words: CU, Fractionation, Glycoproteomics

Quantitative proteomics discloses monacolin K-induced alterations in triple-negative breast cancer cell proteomes and phosphoproteomes

Authors: Federica del Gaudio, Ida Chiara Guerrera, Raffaele Riccio and Maria Chiara Monti

Journal Citation: *Molecular Omics* **2020**, *16*, 19–30

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Phosphoproteomics

RNF43 truncations trap CK1 to drive niche-independent self-renewal in cancer

Authors: Maureen Spit, Nicola Fenderico, Ingrid Jordens, Tomasz Radaszkiewicz, Rik GH Lindeboom, Jeroen M. Bugter, Alba Cristobal, Lars Ootes, Max van Osch, Eline Janssen, Kim E. Boonekamp, Katerina Hanakova, David Potesil, Zbynek Zdrahal, Sylvia F. Boj, Jan Paul Medema, Vitezslav Bryja, Bon-Kyoung Koo, Michiel Vermeulen and Madelon M. Maurice

Journal Citation: *The EMBO Journal* **2020**, *39(18)*, e103932

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Phosphoproteomics, Signal Transduction

Robust, reproducible, and quantitative analysis of thousands of proteomes by micro-flow LC–MS/MS

Authors: Yangyang Bian, Runsheng Zheng, Florian P. Bayer, Cassandra Wong, Yun-Chien Chang, Chen Meng, Daniel P. Zolg, Maria Reinecke, Jana Zecha, Svenja Wiechmann, Stephanie Heinzlmeir, Johannes Scherr, Bernhard Hemmer, Mike Baynham, Anne-Claude Gingras, Oleksandr Boychenko, and Bernhard Kuster

Journal Citation: *Nature Communications* **2020**, *11*, 157

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Phosphoproteomics

Soluble SORLA Enhances Neurite Outgrowth and Regeneration through Activation of the EGF Receptor/ERK Signaling Axis

Authors: Jessica Stupack, Xiao-Peng Xiong, Lu-Lin Jiang, Tongmei Zhang, Lisa Zhou, Alex Campos, Barbara Ranscht, William Mobley, Elena B. Pasquale, Huaxi Xu, and Timothy Y. Huang

Journal Citation: *The Journal of Neuroscience* **2020**, *40(31)*, 5908–5921

Key words: C18-5, Fe(III)-NTA, Peptide Cleanup, Phosphopeptide Enrichment, Phosphoproteomics

Synaptic Vesicles Dynamics in Neocortical Epilepsy

Authors: Eleonora Vannini, Laura Restani, Marialaura Dilillo, Liam A. McDonnell,

Matteo Caleo, and Vincenzo Marra

Journal Citation: *Frontiers in Cellular Neuroscience*, **2020**, *14*, 606142

Key Words: RPS-5, Fractionation, Proteomics

Targeting CLK3 inhibits the progression of cholangiocarcinoma by reprograming nucleotide metabolism

Authors: Qingxin Zhou, Meihua Lin, Xing Feng, Fei Ma, Yuekun Zhu, Xing Liu, Chao Qu, Hong Sui, Bei Sun, Anlong Zhu, Heng Zhang, He Huang, Zhi Gao, Yongxiang Zhao, Jiangyun Sun, Yuxian Bai, Jufei Jin, Xuehui Hong, Chang Zou, and Zhiyong Zhang

Journal Citation: *Journal of Experimental Medicine* **2020**, *217(8)*, e20191779

Key words: SAW-5, Affinity Purification, Protein-Protein Interactions, Signal Transduction, BioID

Temporal Quantitative Proteomics of mGluR induced Protein Translation and Phosphorylation in Neurons

Authors: Charlotte A. G. H. van Gelder, Renske Penning, Tim S. Veth, Lisa A. E. Catsburg, Casper C. Hoogenraad, Harold D. MacGillavry, and Maarten Altelaar

Journal Citation: *Molecular and Cellular Proteomics* **2020**, *19(12)*, 1952–1968

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Phosphoproteomics, Signal Transduction

The Human Leukocyte Antigen Class II Immunopeptidome of the SARS-CoV–2 Spike Glycoprotein

Authors: Michael D. Knierman, Megan B. Lannan, Laura J. Spindler, Carl L. McMillian, Robert J. Konrad, and Robert W. Siege

Journal Citation: *Cell Reports* **2020**, *33(9)*, 108454

Key words: SAW-5, Affinity Purification, Biopharma, Clinical Research, Immunopeptidomics, Proteomics, Immunocapture

Variation of human salivary alpha-amylase proteoforms in three stimulation models

Authors: María D. Contreras-Aguilar, Jerome Vialaret, Dominique Deville de Périère, Damián Escribano, Sylvain Lehmann, Fernando Tecles, Jose J. Cerón, and Christophe Hirtz

Journal Citation: *Clinical and Oral Investigations* **2020**, *24*, 475–486

Key words: C18-5, Peptide Cleanup, Clinical Research, Proteomics

2019

A Non-canonical Role of YAP/TEAD Is Required for Activation of Estrogen-Regulated Enhancers in Breast Cancer

Authors: Chi Zhu, Li Li, Zhao Zhang, Mingjun Bi, Hu Wang, Wenyue Su, Karen Hernandez, Pingping Liu, Junqiang Chen, Mingqiu Chen, Tim Hui-Ming Huang, Lizhen Chen, and Zhijie Liu

Journal Citation: *Molecular Cell* **2019**, *75(4)*, 791–806

Key words: C18-5, Peptide Cleanup, Protein-Protein Interactions, Proteomics, Signal Transduction, BioID

A small-molecule inhibitor of BamA impervious to efflux and the outer membrane permeability barrier

Authors: Elizabeth M. Hart, Angela M. Mitchell, Anna Konovalova, Marcin Grabowicz, Jessica Sheng, Xiaoqing Han, Frances P. Rodriguez-Rivera, Adam G. Schwaid, Juliana C. Malinverni, Carl J. Balibar, Smaranda Bodea, Qian Si, Hao Wang, Michelle F. Homsher, Ronald E. Painter, Anthony K. Ogawa, Holly Sutterlin, Terry Roemer, Todd A. Black, Deborah M. Rothman, Scott S. Walker, and Thomas J. Silhavy

Journal Citation: *PNAS* **2019**, *116(43)*, 21748–21757

Key words: C18-5, Peptide Cleanup, Mechanism of Action

Absolute Quantification of Apolipoproteins Following Treatment with Omega–3 Carboxylic Acids and Fenofibrate Using a High Precision Stable Isotope-labeled Recombinant Protein Fragments Based SRM Assay

Authors: Andreas Hober, Fredrik Edfors, Maria Ryaboshapkina, Jonas Malmqvist, Louise Rosengren, Andrew J. Percy, Lars Lind, Bjorn Forsstrom, Mathias Uhlen, Jan Oscarsson, and Tasso Miliotis

Journal Citation: *Molecular and Cellular Proteomics* **2019**, *18(12)*, 2433–2446

Key words: RPS-5, Peptide Cleanup, Biomarkers, Clinical Research

An amino-terminal threonine/serine motif is necessary for activity of the Crp/Fnr homolog, MrpC and for *Myxococcus xanthus* developmental robustness

Authors: Brooke E. Feeley, Vidhi Bhardwaj, Maeve McLaughlin, Stephen Diggs, Gregor M. Blaha and Penelope I. Higgs

Journal Citation: *Molecular Microbiology* **2019**, *112(5)*, 1531–1551

Key words: TiO_2, Phosphopeptide Enrichment, Signal Transduction

ANKRD44 Gene Silencing: A Putative Role in Trastuzumab Resistance in Her2-Like Breast Cancer

Authors: Marco La Ferla, Francesca Lessi, Paolo Aretini, Davide Pellegrini, Sara Franceschi, Elena Tantillo, Michele Menicagli, Ivo Marchetti, Claudia Scopelliti, Prospero Civita, Claudia De Angelis, Lucrezia Diodati, Ilaria Bertolini, Manuela Roncella, Liam A. McDonnell, Jacob Hochman, Marzia Del Re, Cristian Scatena, Antonio G. Naccarato, Andrea Fontana, and Chiara M. Mazzanti

Journal Citation: *Frontiers in Oncology* **2019**, *9*, 547

Key words: RPS-5, Fractionation, Proteomics

Apolipoprotein Profiles in Very Preterm and Term-Born Preschool Children

Authors: Anna Posod, Raimund Pechlaner, Xiaoke Yin, Sean Anthony Burnap, Sophia Julia Kiechl, Johann Willeit, Joseph L. Witztum, Manuel Mayr, Stefan Kiechl, and Ursula Kiechl-Kohlendorfer

Journal Citation: *Journal of the American Heart Association* **2019**, *8(8)*, e011199

Key words: C18-5, Peptide Cleanup

Assessing Automated Sample Preparation Technologies for High-Throughput Proteomics of Frozen Well Characterized Tissues from Swedish Biobanks

Authors: Magdalena Kuras, Lazaro Hiram Betancourt, Melinda Rezeli, Jimmy Rodriguez, Marcell Szasz, Qimin Zhou, Tasso Miliotis, Roland Andersson, and Gyorgy Marko-Varga

Journal Citation: *Journal of Proteome Research* **2019**, *18(1)*, 548–556

Key words: C18-5, RPS-5, Fractionation, In-Solution Digestion, Peptide Cleanup, Clinical Research, Proteomics

Augmenting Immunotherapy Impact by Lowering Tumor TNF Cytotoxicity Threshold

Authors: David W. Vredevoogd, Thomas Kuilman, Maarten A. Ligtenberg, Julia Boshuizen, Kelly E. Stecker, Beaunelle de Bruijn, Oscar Krijgsman, Xinyao Huang, Juliana C. N. Kenski, Ruben Lacroix, Riccardo Mezzadra, Raquel Gomez-Eerland, Mete Yildiz, Ilknur Dagidir, Georgi Apriamashvili, Nordin Zandhuis, Vincent van der Noort, Nils L. Visser, Christian U. Blank, Maarten Altelaar, Ton N. Schumacher, and Daniel S. Peeper

Journal Citation: *Cell* **2019**, *178(3)*, 585–599

Key words: C18-5, Fe(III)-NTA, Peptide Cleanup, Phosphopeptide Enrichment, Phosphoproteomics, Proteomics

Chronic Low Dose Oral Exposure to Microcystin-LR Exacerbates Hepatic Injury in a Murine Model of Non-Alcoholic Fatty Liver Disease

Authors: Apurva Lad, Robin C. Su, Joshua D. Breidenbach, Paul M. Stemmer, Nicholas J. Carruthers, Nayeli K. Sanchez, Fatimah K. Khalaf, Shungang Zhang, Andrew L. Kleinhenz, Prabhatchandra Dube, Chrysan J. Mohammed, Judy A. Westrick, Erin L. Crawford, Dilrukshika Palagama, David Baliu-Rodriguez, Dragan Isailovic, Bruce Levison, Nikolai Modyanov, Amira F. Gohara, Deepak Malhotra, Steven T. Haller, and David J. Kennedy

Journal Citation: *Toxins* **2019**, *11(9)*, 486

Key words: TiO_2, Phosphopeptide Enrichment, Phosphoproteomics

Clinical protein science in translational medicine targeting malignant melanoma

Authors: Jeovanis Gil, Lazaro Hiram Betancourt, Indira Pla, Aniel Sanchez, Roger Appelqvist, Tasso Miliotis, Magdalena Kuras, Henriette Oskolas, Yonghyo Kim, Zsolt Horvath, Jonatan Eriksson, Ethan Berge, Elisabeth Burestedt, Göran Jönsson, Bo Baldetorp, Christian Ingvar, Håkan Olsson, Lotta Lundgren, Peter Horvatovich, Jimmy Rodriguez Murillo, Yutaka Sugihara, Charlotte Welinder, Elisabet Wieslander, Boram Lee, Henrik Lindberg, Krzysztof Pawłowski, Ho Jeong Kwon, Viktoria Doma, Jozsef Timar, Sarolta Karpati, A. Marcell Szasz, István Balázs Németh, Toshihide Nishimura, Garry Corthals, Melinda Rezeli, Beatrice Knudsen, Johan Malm, and György Marko-Varga

Journal Citation: *Cell Biology and Toxicology* **2019**, *35*, 293–332

Key words: In-Solution Digestion, Clinical Research, Phosphoproteomics, Proteomics

Comparative proteomic study of phytotoxic effects of silver nanoparticles and silver ions on tobacco plants

Authors: Petra Peharec Štefanić, Martina Jarnević, Petra Cvjetko, Renata Biba, Sandra Šikić, Mirta Tkalec, Mario Cindrić, Ilse Letofsky-Papst, and Biljana Balen

Journal Citation: *Environmental Science and Pollution Research* **2019**, *26*, 22529–22550

Key words: RPS-5, Peptide Cleanup, Proteomics

Comparison of Proteomic, Metabolic, and Growth Profiles for *Brettanomyces bruxellensis* Isolates from Croatian Wines

Authors: Stela Krizanovic, Leo Gracin, Mario Cindric, Marina Tomasevic, Karla Kelsin, Katarina Lukic, and Karin Kovacevic Ganic

Journal Citation: *American Journal of Enology and Viticulture* **2019**, *70*, 77–87

Key words: C18-5, SCX, Fractionation, Proteomics

Direct quantitation of therapeutic antibodies for pharmacokinetic studies using immuno-purification and intact mass analysis

Authors: Lisa A. Vasicek, Xin Zhu, Daniel S. Spellman, Kevin P. Bateman

Journal Citation: *Bioanalysis* **2019**, *11(3)*, 203–213

Key words: SAW-5, Affinity Purification, In-Solution Digestion, On-Cartridge Reaction, Biopharma, Pharmacokinetics, Immunocapture

Glucocorticoids promote breast cancer metastasis

Authors: Milan M. S. Obradović, Baptiste Hamelin, Nenad Manevski, Joana Pinto Couto, Atul Sethi, Marie-May Coissieux, Simone Münst, Ryoko Okamoto, Hubertus Kohler, Alexander Schmidt, and Mohamed Bentires-Alj

Journal Citation: *Nature* **2019**, *567*, 540–544

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Phosphoproteomics

High-resolution two-dimensional liquid chromatography coupled with mass spectrometry for robust and sensitive characterization of therapeutic antibodies at the peptide level

Authors: Dwight R. Stoll, Hayley R. Lhotka, David C. Harmes, Ben Madigan, Jordy J. Hsiao, Gregory O. Staples

Journal Citation: *Journal of Chromatography B* **2019**, 1134–1135, 121832

Key words: C18-5, In-Solution Digestion, Peptide Cleanup

High-Throughput Assessment of Kinome-wide Activation States

Authors: Thierry Schmidlin, Donna O. Debets, Charlotte A. G. H. van Gelder, Kelly E. Stecker, Stamatia Rontogianni, Bart L. van den Eshof, Kristel Kemper, Esther H. Lips, Maartje van den Biggelaar, Daniel S. Peeper, Albert J. R. Heck, and Maarten Altelaar

Journal Citation: *Cell Systems* **2019**, *9(4)*, 366–374

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Clinical Research, Phosphoproteomics

Increased Serine and One-Carbon Pathway Metabolism by PKCλ/ι Deficiency Promotes Neuroendocrine Prostate Cancer

Authors: Miguel Reina-Campos, Juan F. Linares, Angeles Duran, Thekla Cordes, Antoine L'Hermitte, Mehmet G. Badur, Munveer S. Bhangoo, Phataraporn K. Thorson, Alicia Richards, Tarmo Rooslid, Dolores C. Garcia-Olmo, Syongh Y. Nam-Cha, Antonio S. Salinas-Sanchez, Ken Eng, Himisha Beltran, David A. Scott, Christian M. Metallo, Jorge Moscat, and Maria T. Diaz-Meco

Journal Citation: *Cancer Cell* **2019**, *35(3)*, 385–400

Key words: C18-5, SAW-5, Affinity Purification, On-Cartridge Reaction, Peptide Cleanup, Protein-Protein Interactions, Proteomics, Signal Transduction, BioID

Integrative proteomics and pharmacogenomics analysis of methylphenidate treatment response

Authors: Bruna S. da Silva, Douglas T. Leffa, Walter O. Beys-da-Silva, Iraci L. S. Torres, Diego L. Rovaris, Marcelo M. Victor, Luis A. Rohde, Nina R. Mota, Carla de Oliveira, Markus Berger, John R. Yates III, Renuka Sabnis, Ramón Díaz Peña, Alexandre Rosa Campos, Eugenio H. Grevet, Lucelia Santi, Claiton H. D. Bau, and Verônica Contini

Journal Citation: *Translational Psychiatry* **2019**, *9*, 308

Key words: C18-5, Peptide Cleanup, Mechanism of Action, Proteomics

Isomer separation of sialylated O- and N-linked glycopeptides using reversed-phase LC–MS/MS at high temperature

Authors: Eun Sun Ji, Hyun Kyoung Lee, Gun Wook Park, Kwang Hoe Kim, Jin Young Kim, and Jong Shin Yoo

Journal Citation: *Journal of Chromatography B* **2019**, 1110–1111, 101–107

Key words: RPS-5, Peptide Cleanup

Omomyc Reveals New Mechanisms To Inhibit the MYC Oncogene

Authors: Mark J. Demma, Claudio Mapelli, Angie Sun, Smaranda Bodea, Benjamin Ruprecht, Sarah Javaid, Derek Wiswell, Eric Muise, Shiying Chen, John Zelina, Federica Orvieto, Alessia Santoprete, Simona Altezza, Federica Tucci, Enrique Escandon, Brian Hall, Kallol Ray, Abbas Walji, and Jennifer O'Neil

Journal Citation: *Molecular and Cellular Biology* **2019**, *39(22)*, e00248–19

Key words: C18-5, Peptide Cleanup, Mechanism of Action

PhoX: An IMAC-Enrichable Cross-Linking Reagent

Authors: Barbara Steigenberger, Roland J. Pieters, Albert J. R. Heck, and Richard A. Scheltema

Journal Citation: *ACS Central Science* **2019**, *5(9)*, 1514–1522

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Protein-Protein Interactions, Proteomics, Signal Transduction, PhoX

Process design and development of a mammalian cell perfusion culture in shake-tube and benchtop bioreactors

Authors: Moritz K. F. Wolf, Andrea Müller, Jonathan Souquet, Hervé Broly, and Massimo Morbidelli

Journal Citation: *Biotechnology and Bioengineering* **2019**, *116(8)*, 1973–1985

Key words: CU, RX, GlykoPrep, Biopharma, Glycans

Proteome profiling of triple negative breast cancer cells overexpressing NOD1 and NOD2 receptors unveils molecular signatures of malignant cell proliferation

Authors: Fernando J. Velloso, Alexandre R. Campos, Mari C. Sogayar, and Ricardo G. Correa

Journal Citation: *BMC Genomics* **2019**, *20*, 152

Key words: C18-5, Peptide Cleanup, Proteomics

Proteomic atlas of organ vasculopathies triggered by *Staphylococcus aureus* sepsis

Authors: Alejandro Gómez Toledo, Gregory Golden, Alexandre Rosa Campos, Hector Cuello, James Sorrentino, Nathan Lewis, Nissi Varki, Victor Nizet, Jeffrey W. Smith, and Jeffrey D. Esko

Journal Citation: *Nature Communications* **2019**, *10*, 4656

Key words: C18-5, SAW-5, Affinity Purification, On-Cartridge Reaction, Peptide Cleanup, Proteomics

Proteomic profiling of extracellular vesicles allows for human breast cancer subtyping

Authors: Stamatia Rontogianni, Eleni Synadaki, Bohui Li, Marte C. Liefaard, Esther H. Lips, Jelle Wesseling, Wei Wu, and Maarten Altelaar

Journal Citation: *Communications Biology* **2019**, *2*, 325

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Biomarkers, Phosphoproteomics

Proteomics of Rat Lungs Infected by *Cryptococcus gattii* Reveals a Potential Warburg-like Effect

Authors: Rafael L. Rosa, Markus Berger, Lucélia Santi, David Driemeier, Paula Barros Terraciano, Alexandre R. Campos, Jorge A. Guimarães, Marilene H. Vainstein, John R. Yates III, and Walter O. Beys-da-Silva

Journal Citation: *Journal of Proteome Research* **2019**, *18(11)*, 3885–3895

Key words: C18-5, Peptide Cleanup, Proteomics

Quantitative Microproteomics Based Characterization of the Central and Peripheral Nervous System of a Mouse Model of Krabbe Disease

Authors: Davide Pellegrini, Ambra del Grosso, Lucia Angella, Nadia Giordano, Marialaura Dilillo, Ilaria Tonazzini, Matteo Caleo, Marco Cecchini, and Liam A. McDonnell

Journal Citation: *Molecular and Cellular Proteomics* **2019**, *18(6)*, 1227–1241

Key words: RPS-5, Fractionation, Proteomics

Suspension Trapping (S-Trap) Is Compatible with Typical Protein Extraction Buffers and Detergents for Bottom-Up Proteomics

Authors: Dalia Elinger, Alexandra Gabashvili, and Yishai Levin

Journal Citation: *Journal of Proteome Research* **2019**, *18(3)*, 1441–1445

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Phosphoproteomics

Targeting proline in (phospho)proteomics

Authors: Saar A. M. van der Laarse, Charlotte A. G. H. van Gelder, Marshall Bern, Michiel Akeroyd, Maurien M. A. Olsthoorn, and Albert J. R. Heck

Journal Citation: *The FEBS Journal* **2019**, *287(14)*, 2979–2997

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Phosphoproteomics

The Hidden Story of Heterogeneous B-raf V600E Mutation Quantitative Protein Expression in Metastatic Melanoma—Association with Clinical Outcome and Tumor Phenotypes

Authors: Lazaro Hiram Betancourt, A. Marcell Szasz, Magdalena Kuras, Jimmy Rodriguez Murillo, Yutaka Sugihara, Indira Pla, Zsolt Horvath, Krzysztof Pawłowski, Melinda Rezeli, Kenichi Miharada, Jeovanis Gil, Jonatan Eriksson, Roger Appelqvist, Tasso Miliotis, Bo Baldetorp, Christian Ingvar, Håkan Olsson, Lotta Lundgren, Peter Horvatovich, Charlotte Welinder, Elisabet Wieslander, Ho Jeong Kwon, Johan Malm, Istvan Balazs Nemeth, Göran Jönsson, David Fenyö, Aniel Sanchez, and György Marko-Varga

Journal Citation: *Cancers* **2019**, *11(12)*, 1981

Key words: RPS-5, In-Solution Digestion, Peptide Cleanup, Clinical Research, Proteomics

Validation of a Fully Automated Immunoaffinity Workflow for the Detection and Quantification of Insulin Analogs by LC–MS-MS in Postmortem Vitreous Humor

Authors: Kevin M. Legg, Laura M. Labay, Sally S. Aiken, Barry K. Logan

Journal Citation: *Journal of Analytical Toxicology* **2019**, *43(7)*, 505–511

Key words: PGW, Affinity Purification, Forensics, Immunocapture

2018

A Library of Phosphoproteomic and Chromatin Signatures for Characterizing Cellular Responses to Drug Perturbations

Authors: Lev Litichevskiy, Ryan Peckner, Jennifer G. Abelin, Jacob K. Asiedu, Amanda L. Creech, John F. Davis, Desiree Davison, Caitlin M. Dunning, Jarrett D. Egertson, Shawn Egri, Joshua Gould, Tak Ko, Sarah A. Johnson, David L. Lahr, Daniel Lam, Zihan Liu, Nicholas J. Lyons, Xiaodong Lu, Brendan X. MacLean, Alison E. Mungenast, Adam Officer, Ted E. Natoli, Malvina Papanastasiou, Jinal Patel, Vagisha Sharma, Courtney Toder, Andrew A. Tubelli, Jennie Z. Young, Steven A. Carr, Todd R. Golub, Aravind Subramanian, Michael J. MacCoss, Li-Huei Tsai, and Jacob D. Jaffe

Journal Citation: *Cell Systems* **2018**, *6(4)*, 424–443

Key words: Fe(III)-NTA, RPS-5, Peptide Cleanup, Phosphopeptide Enrichment, Phosphoproteomics, Signal Transduction

An Integrated, High-Throughput Strategy for Multiomics Systems Level Analysis

Authors: Danielle B. Gutierrez, Randi L. Gant-Branum, Carrie E. Romer, Melissa A. Farrow, Jamie L. Allen, Nikesh Dahal, Yuan-Wei Nei, Simona G. Codreanu, Ashley T. Jordan, Lauren D. Palmer, Stacy D. Sherrod, John A. McLean, Eric P. Skaar, Jeremy L. Norris, and Richard M. Caprioli

Journal Citation: *Journal of Proteome Research* **2018**, *17(10)*, 3396–3408

Key words: C18-5, In-Solution Digestion, Peptide Cleanup, Proteomics

Assessing a multiplex-targeted proteomics approach for the clinical diagnosis of periodontitis using saliva samples

Authors: Brenda Mertens, Valerie Orti, Jerome Vialaret, Philippe Gibert, Aroa Relano-Ginesk, Sylvain Lehmann, Dominique Deville de Periere, and Christophe Hirtz

Journal Citation: *Bioanalysis* **2018**, *10(1)*, 35–45

Key words: C18-5, In-Solution Digestion, Peptide Cleanup, Biomarkers, Clinical Research, Proteomics

Assessment of susceptible chemical modification sites of trastuzumab and endogenous human immunoglobulins at physiological conditions

Authors: Ingrid Schmid, Lea Bonnington, Monika Gerl, Katrin Bomans, Anna Louisa Thaller, Katharina Wagner, Tilman Schlothauer, Roberto Falkenstein, Boris Zimmermann, Jugen Kopitz, Max Hasmann, Frieder Bauss, Markus Haberger, Dietmar Reusch, and Patrick Bulau

Journal Citation: *Communications Biology* **2018**, *1*, 28

Key words: PAW-5, Affinity Purification, Biopharma, Pharmacokinetics

Automated phosphopeptide enrichment from minute quantities of frozen malignant melanoma tissue

Authors: Jimmy Rodriguez Murillo, Magdalena Kuras, Melinda Rezeli, Tasso Milliotis, Lazaro Betancourt, and Gyorgy Marko-Varga

Journal Citation: *PLoS One* **2018**, *13(12)*, e0208562

Key words: C18-5, Fe(III)-NTA, RPS-5, Fractionation, Peptide Cleanup, Phosphopeptide Enrichment, Clinical Research, Phosphoproteomics

Calpain-mediated tau fragmentation is altered in Alzheimer's disease progression

Authors: Hsu-Hsin Chen, Peter Liu, Paul Auger, Seung-Hye Lee, Oskar Adolfsson, Lorianne Rey-Bellet, Julien Lafrance-Vanasse, Brad A. Friedman, Maria Pihlgren, Andreas Muhs, Andrea Pfeifer, James Ernst, Gai Ayalon, Kristin R. Wildsmith, Thomas G. Beach, and Marcel P. van der Brug

Journal Citation: *Scientific Reports* **2018**, *8*, 16725

Key words: RPW, In-Solution Digestion, Peptide Cleanup, Clinical Research

Ceramide-Protein Interactions Modulate Ceramide-Associated Lipotoxic Cardiomyopathy

Authors: Stanley M. Walls, Anthony Cammarato, Dale A. Chatfield, Karen Ocorr, Greg L. Harris, and Rolf Bodmer

Journal Citation: *Cell Reports* **2018**, *22(10)*, 2702–2715

Key words: C18-5, Peptide Cleanup, Proteomics

Characterization of Degraded Proteins in Paintings Using Bottom-Up Proteomic Approaches: New Strategies for Protein Digestion and Analysis of Data

Authors: Sibilla Orsini, Avinash Yadav, Marialaura Dilillo, Liam A. McDonnell, and Ilaria Bonaduce

Journal Citation: *Analytical Chemistry* **2018**, *90(11)*, 6403–6408

Key words: C18-5, Peptide Cleanup, Proteomics

Chemical Proteomic Characterization of a Covalent KRASG12C Inhibitor

Authors: Aruna Wijeratne, Junpeng Xiao, Christopher Reutter, Kelly W. Furness, Rebecca Leon, Mohammad Zia-Ebrahimi, Rachel N. Cavitt, John M. Strelow, Robert D. Van Horn, Sheng-Bin Peng, David A. Barda, Thomas A. Engler, and Michael J. Chalmers

Journal Citation: *ACS Medicinal Chemistry Letters* **2018**, *9(6)*, 557-562

Key Words: SAW-5, Affinity Purification, Mechanism of Action, Proteomics

Data from a targeted proteomics approach to discover biomarkers in saliva for the clinical diagnosis of periodontitis

Authors: V. Orti, B. Mertens, J. Vialaret, P. Gilbert, A. Relano-Gines, S. Lehmann, D. Deville de Periere, and C. Hirtz

Journal Citation: *Data in Brief* **2018**, *18*, 294–299

Key words: C18-5, In-Solution Digestion, Peptide Cleanup, Biomarkers, Clinical Research, Proteomics

Determination of Site-Specific Phosphorylation Ratios in Proteins with Targeted Mass Spectrometry

Authors: Lennard J. M. Dekker, Lona Zeneyedpour, Sandor Snoeijers, Jos Joore, Sieger Leenstra, and Theo M. Luider

Journal Citation: *Journal of Proteome Research* **2018**, *17(4)*, 1654–1663

Key words: C18-5, RPS-5, TiO_2, Fractionation, Peptide Cleanup, Phosphopeptide Enrichment, Phosphoproteomics, Proteomics, Signal Transduction

Micro-Data-Independent Acquisition for High-Throughput Proteoimcs and Sensitive Peptide Mass Spectrum Identification

Authors: Michael R. Heaven, Archie L. Cobbs, Yuan-Wei Nei, Danielle B. Gutierrez, Anthony W. Herren, Harsha P. Gunawardena, Richard M. Caprioli, and Jeremy L. Norris

Journal Citation: *Analytical Chemistry* **2018**, *90(15)*, 8905–8911

Key words: C18-5, Peptide Cleanup, Proteomics

Physiological, ultrastructural and proteomic responses of tobacco seedlings exposed to silver nanoparticles and silver nitrate

Authors: Petra Peharec Stefanic, Petra Cvjetko, Renata Biba, Ana-Marija Domijan, Ilse Letofsky-Papst, Mirta Tkalec, Sandra Sikic, Mario Cindric, and Biljana Balen

Journal Citation: *Chemosphere* **2018**, *209*, 640–653

Key words: RPS-5, Peptide Cleanup, Proteomics

Quantitation of a Therapeutic Antibody in Serum Using Intact Sequential Affinity Capture, Trypsin Digestion and LC-MS/MS

Authors: Lisa A. Vasicek, Daniel S. Spellman, SuChun Hseih, Wolfgang Seghezzi, Shuli Zhang, Michael Santostefano, and Kevin P. Bateman

Journal Citation: *Analytical Chemistry* **2018**, *90(1)*, 866–871

Key words: PAW-5, SAW-5, Affinity Purification, In-Solution Digestion, Biopharma, Pharmacokinetics, Immunocapture

Selective Substrates and Activity-Based Probes for Imaging of the Human Constitutive 20S Proteasome in Cells and Blood Samples

Authors: Wioletta Rut, Marcin Poręba, Paulina Kasperkiewicz, Scott J. Snipas, and Marcin Drąg

Journal Citation: *Journal of Medicinal Chemistry* **2018**, *61(12)*, 5222–5234

Key words: C18-5, Peptide Cleanup, Proteomics

What sample preparation should be chosen for targeted MS monoclonal antibody quantification in human serum

Authors: Jerome Vialaret, Sophie Broutin, Celia Pugnier, Sophie Santele, Aurore Jaffuel, Alan Barnes, Laurent Tiers, Laurent Pelletier, Sylvain Lehmann, Angelo Paci, and Christophe Hirtz

Journal Citation: *Bioanalysis* **2018**, *10(10)*, 723–735

Key words: PGW, Affinity Purification

2017

A multiplexed immunocapture liquid chromatography tandem mass spectrometry assay for the simultaneous measurement of myostatin and GDF–11 in rat serum using an automated sample preparation platform

Authors: Yue Zhao, Guowen Liu, Frank C. Zambito, Yan J. Zhang, Binodh S. DeSilva, Alexander T. Kozhich, and Jim X. Shen

Journal Citation: *Analytica Chimica Acta* **2017**, *979*, 36–44

Key words: SAW-5, Affinity Purification, Biopharma, Pharmacokinetics, Immunocapture

Mass Spectrometry Imaging, Laser Capture Microdissection, and LC-MS/MS of the Same Tissue Section

Authors: Marialaura Dilillo, Davide Pellegrini, Rima Ait-Belkacem, Erik L. de Graaf, Matteo Caleo, and Liam A. McDonnell

Journal Citation: *Journal of Proteome Research* **2017**, *16(8)*, 2993–3001

Key words: C18-5, Peptide Cleanup, Proteomics

Proteasome Activation by Small Molecules

Authors: Yves Leestemaker, Annemieke de Jong, Katharina F. Witting, Renske Penning, Katianne Schuurman, Boris Rodenko, Esther A. Zaal, Bert van de Kooij, Stefan Laufer, Albert J. R. Heck, Jannie Borst, Wiep Scheper, Celia R. Berkers, and Huib Ovaa

Journal Citation: *Cell Chemical Biology* **2017**, *24(6)*, 725–736

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Mechanism of Action, Phosphoproteomics

Robust, Sensitive, and Automated Phosphopeptide Enrichment Optimized for Low Sample Amounts Applied to Primary Hippocampal Neurons

Authors: Harm Post, Renske Penning, Martin A. Fitzpatrick, Luc B. Garrigues, Wei Wu, Harold D. MacGillavry, Casper C. Hoogenraad, Albert J. R. Heck, and A. F. Maarten Altelaar

Journal Citation: *Journal of Proteome Research* **2017**, *16(2)*, 728–737

Key words: Fe(III)-NTA, TiO_2, Phosphopeptide Enrichment, Phosphoproteomics

Strain effect on extracellular laccase activities from *Botrytis cinera*

Authors: N. Quijada-Morin, F. Garcia, K. Lambert, A.-S. Walker, L. Tiers, M. Viaud, F.-X. Sauvage, C. Hirtz, and C. Saucier

Journal Citation: *Australian Journal of Grape and Wine Research* **2017**, *24(2)*, 241–251

Key words: C18-5, Peptide Cleanup

2016

Absolute quantification of 35 plasma biomarkers in human saliva using targeted MS

Authors: Christophe Hirtz, Jerome Vialaret, Nora Nowak, Audey Gabelle, Dominique Deville de Periere, and Sylvain Lehmann

Journal Citation: *Bioanalysis* **2016**, *8(1)*, 43–53

Key words: C18-5, In-Solution Digestion, Peptide Cleanup, Biomarkers, Clinical research, Proteomics

Antibody-drug conjugate bioanalysis using LB-LC-MS/MS hybrid assays: strategies, methodology and correlation to ligand-binding assays

Authors: Jian Wang, Huidong Gu, Ang Liu, Alexander Kovhich, Vangipuram Rangan, Heather Myler, Linlin Luo, Richard Wong, Huadong Sun, Bonnie Wang, Heather E. Vezina, Shrikant Deshpande, Yan Zhang, Zheng Yang, Timothy Olah, Anne-Francoise Aubry, Mark Arnold, Renuka Pillutla, and Binodh DeSilva

Journal Citation: *Bioanalysis* **2016**, *8(13)*, 1383–1401

Key words: PAW-5, PGW, SAW-5, Affinity Purification, Antibody Drug Conjugates, Biopharma, Pharmacokinetics, Immunocapture

Automated DBS microsampling, microscale automation and microflow LC-MS for therapeutic protein PK

Authors: Qian Zhang, Daniela Tomazela, Lisa A. Vasicek, Daniel S. Spellman, Maribel Beaumont, BaoJen Shyong, Jacqueline Kenny, Scott Fauty, Kerry Fillgrove, Jan Harrelson, and Kevin P. Bateman

Journal Citation: *Bioanalysis* **2016**, *8(7)*, 649–659

Key words: PAW-5, Affinity Purification, In-Solution Digestion, Biopharma, Pharmacokinetics

Automated Microchromatography Enables Multiplexing of Immunoaffinity Enrichment of Peptides to Greater than 150 for Targeted MS-Based Assays

Authors: Paul J. Ippoliti, Eric Kuhn, D. R. Mani, Lola Fagbami, Hasmik Keshishian, Michael W. Burgress, Jacob D. Jaffe, and Steven A. Carr

Journal Citation: *Analytical Chemistry* **2016**, *88(15)*, 7548–7555

Key words: PGW, Affinity Purification, Biomarkers, Proteomics, Signal Transduction, Immunocapture

CLK2 inhibition ameliorates autistic features associated with SHANK3 deficiency

Authors: Michael Bidinosti, Paolo Botta, Sebastian Kruttner, Catia C. Proenca, Natacha Stoehr, Mario Bernhard, Isabelle Fruh, Matthias Mueller, Debora Bonenfant, Hans Voshol, Walter Carbone, Sarah J. Neal, Stephanie M. Mctighe, Guglielmo Roma, Richardo E. Dolmetsch, Jeffrey Porter, Pico Caroni, Tewis Bouwmeester, Andreas Luthi, and Ivan Galimberti

Journal Citation: *Science* **2016**, *351(6278)*, 1199–1203

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Phosphoproteomics, Signal Transduction

Discovery of Pyrophosphate Diesters as Tunable, Soluble and Bioorthogonal Linkers for Site-Specific Antibody-Drug Conjugates

Authors: Jeffrey C. Kern, Mark Cancilla, Deborah Dooney, Kristen Kwasnjuk, Rena Zhang, Maribel Beaumont, Isabel Figueroa, SuChun Hsieh, Linda Liang, Daniela Tomazela, Jeffrey Zhang, Philip E. Brandish, Anthony Palmieri, Peter Stivers, Mangeng Cheng, Guo Feng, Prasanthi Geda, Sanjiv Shah, Andrew Beck, Damien Bresson, Juhi Firdos, Dennis Gately, Nick Knudsen, Anthony Manibusan, Peter G. Schultz, Ying Sun, and Robert M. Garbaccio

Journal Citation: *Journal of the American Chemical Society* **2016**, *138(4)*, 1430–1445

Key words: SAW-5, Affinity Purification, Antibody Drug Conjugates, Biopharma, Pharmacokinetics, Immunocapture

Electrophysiology of glioma: a Rho GTPase-activating protein reduces tumor growth and spares neuron structure and function

Authors: Eleonora Vannini, Francesco Olimpico, Silvia Middei, Martine Ammassari-Teule, Erik L. de Graaf, Liam McDonell, Gudula Schmidt, Alessia Fabbri, Carla Fiorentini, Laura Baronceei, Mario Costa, and Matteo Caleo

Journal Citation: *Neuro-Oncology* **2016**, *18(12)*, 1634–1643

Key words: RPS-5, Fractionation, Proteomics, Signal Transduction

Genetic and Proteomic Interrogation of Lower Confidence Candidate Genes Reveals Signaling Networks in B-Catenin-Active Cancers

Authors: Joseph Rosenbluh, Johnathan Mercer, Yashaswi Shrestha, Rachel Oliver, Pablo Tamayo, John G. Doench, Itay Tirosh, Federica Piccioni, Ella Hartenian, Heiko Horn, Lola Fagbami, David E. Root, Jacob Jaffe, Kasper Lage, Jesse S. Boehm, and William C. Hahn

Journal Citation: *Cell Systems* **2016**, *3(3)*, 302–316

Key words: RPS-5, SCX, Fractionation, Peptide Cleanup, Protein-Protein Interactions, Proteomics, Signal Transduction

Human S100A10 plays a crucial role in the acquisition of the endometrial receptivity phenotype

Authors: Laurence Bissonnette, Loubna Drissennek, Yannick Antoine, Laurent Tiers, Christophe Hirtz, Sylmain Lehmann, Helene Perrochia, Francois Bissonnnette, Isaac-Jacques Kadoch, Delphine Haouzi, and Samir Hamamah

Journal Citation: *Cell Adhesion & Migration* **2016**, *10(3)*, 282–298

Key words: C18-5, In-Solution Digestion, Peptide Cleanup, Biomarkers, Clinical Research, Proteomics

Reduced-representation Phosphosignatures Measured by Quantitative Targeted MS Capture Cellular States and Enable Large-Scale Comparison of Drug-Induced Phenotypes

Authors: Jennifer G. Abelin, Jinal Patel, Xiaodong Lu, Caitlin M. Feeney, Lola Fagbami, Amanda L. Creech, Roger Hu, Daniel Lam, Desiree Davison, Lindsay Pino, Jana W. Qiao, Eric Kuhn, Adam Officer, Jianxue Li, Susan Abbatiello, Aravind Subramanian, Richard Sidman, Evan Snyder, Steven A. Carr, and Jacob D. Jaffe

Journal Citation: *Molecular and Cellular Proteomics* **2016**, *15(5)*, 1622–1641

Key words: Fe(III)-NTA, RPS-5, Peptide Cleanup, Phosphopeptide Enrichment, Mechanism of Action, Phosphoproteomics, Signal Transduction

Set of Novel Automated Quantitative Microproteomics Protocols for Small Sample Amounts and Its Application to Kidney Tissue Substrates

Authors: Erik Leonardus de Graaf, Davide Pelligrini, and Liam McDonnell

Journal Citation: *Journal of Proteome Research* **2016**, *15(12)*, 4722–4730

Key words: C18-5, RPS-5, SCX, Fractionation, Peptide Cleanup, Proteomics, TMT labeling

2015

An integrated multiplatform bioanalytical strategy for antibody–drug conjugates: a novel case study

Authors: Heather Myler, Vangipuram S. Rangan, Jian Wang, Alexander Kozhich, Jennifer A. Cummings, Robert Neely, Donna Dail, Ang Liu, Bonnie Wang, Heather E. Vezina, Wendy Freebern, Mei-Chen Sung, David Passmore, Shrikant Deshpande, Thomas Kempe, Huidong Gu, Mark Saewert, Amy Manney, John Lute, Frank Zambito, Richard L. Wong, Steven P. Piccoli, Anne-Françoise Aubry, Renuka Pillutla, Mark Arnold, and Binodh DeSilva

Journal Citation: *Bioanalysis* **2015**, *7(13)*, 1569–1582

Key words: SAW-5, Affinity Purification, Antibody Drug Conjugates, Biopharma, Pharmacokinetics, Immunocapture

Enhancing the Quality of Antibodies to HIV–1 Envelope by GagPol-Specific Th Cells

Authors: Michael Storcksdieck genannt Bonsmann, Thomas Niezold, Vladimir Temchura, Franco Pissani, Katrin Ehrhardt, Eric P. Brown, Nan Yaw Osei-Owusu, Drew Hannaman, Hartmut Hengel, Margaret E. Ackerman, Hendrik Steeck, Ghulam Nabi, Matthias Tenbusch, and Klaus Uberla

Journal Citation: *The Journal of Immunology*, **2015**, *195(10)*, 4861–72

Key words: SAW-5, Affinity Purification, Immunocapture

Microscale purification of antigen-specific antibodies

Authors: Eric P. Brown, Erica Normandin, Nana Yaw Osei-Owusu, Alison E. Mahan, Ying N. Chan, Jennifer I. Lai, Monica Vaccari, Mangala Rao, Genoveffa Franchini, Galit Alter, and Margaret E. Ackerman

Journal Citation: *Journal of Immunology Methods* **2015**, *425*, 27–36

Key words: SAW-5, Affinity Purification, Immunocapture

Quantitative bioanalysis of antibody-conjugated payload in monkey plasma using a hybrid immuno-capture LC-MS/MS approach: Assay development, validation, and a case study

Authors: Ang Liu, Alexander Kozhich, David Passmore, Huidong Gu, Richard Wong, Frank Zambito, Vangipuram S. Rangan, Heather, Myler, Anne-Francoise Aubry, Mark E. Arnold, and Jian Wang

Journal Citation: *Journal of Chromatography B* **2015**, *1002*, 54–62

Key words: SAW-5, Affinity Purification, Antibody Drug Conjugates, Biopharma, Pharmacokinetics, Immunocapture

Stable Isotope Labeling by Amino acid *in Vivo* (SILAV): a new method to explore protein metabolism

Authors: Sylvain Lehmann, Jérôme Vialaret, Guillaume Gras Combe, Luc Bauchet, Olivier Hanon, Marine Girard, Audrey Gabelle, and Christophe Hirtz

Journal Citation: *Rapid Communications Mass Spectrometry* **2015**, *29(20)*, 1917–1925

Key words: C18-5, SCX, Fractionation, In-Solution Digestion, Peptide Cleanup, Clinical Research, Proteomics

2014

Overexpression of microRNAs enhances recombinant protein production in Chinese hamster ovary cells

Authors: Wan Ping Loh, Bernard Loo, Lihan Zhou, Peiqing Zhang, Dong-Yup Lee, Yuansheng Yang, and Kong Peng Lam

Journal Citation: *Biotechnology Journal* **2014**, *9(9)*, 1140–1151

Key words: CU, RX, GlykoPrep, Biopharma, Glycans

Targeting an acid labile aspartyl–prolyl amide bond as a viable alternative to trypsin digestion to generate a surrogate peptide for LC–MS/MS analysis

Authors: Eliza N. Fung, Frank Zambito, Jonathan Haulenbeek, Steven P. Piccoli, Yan Zhang, Binodh DeSilva, Mark Arnold, and Alexander Kozhich

Journal Citation: *Bioanalysis* **2014**, *6(22)*, 2985–2998

Key words: SAW-5, Affinity Purification, Biopharma, Pharmacokinetics, Immunocapture

2011

A High-Throughput Microchromatography Platform for Quantitative Analytical Scale Protein Sample Preparation

Authors: Scott Fulton, Steve Murphy, Jenn Reich, Zachary Van Den Heuvel, Robert Sakowski, Ronald Smith, Susan Agee

Journal Citation: *Journal of Laboratory Automation* **2011**, *16(6)*, 457–467

Key words: CU, PAW-5, RX, Affinity Purification, GlykoPrep, Glycans

AssayMAP Bravo Application notes

2024

Drug to Antibody Ratio Analysis of Brentuximab Vedotin in Monkey Plasma Antibody drug conjugate analysis under native conditions using Agilent AdvanceBio 6545XT LC/Q-TOF systems

Authors: Xi Qiu, Kenda L.J. Evans, Andrea Ngai, and Muhammed Naqvi

Key words: PAW-5, Affinity Purification, Antibody Drug Conjugates, Biopharma, Pharmacokinetics, Immunocapture

2023

Assessing Protein and Payload Stability of Antibody Drug Conjugate Brentuximab Vedotin in Monkey Plasma Using Agilent AssayMAP Brvo and Agilent 6495 Triple Quadrupole LC/MS Systems

Authors: Xi Qiu, Kenda L.J. Evans, Andrea Ngai, and Muhammed Naqvi

Key words: PAW-5, SAW-5, Affinity Purification, In-Solutoin Digestion, On-Cartridge Reaction, Immunocapture

Introducing Semi-Automated GC/Q-TOF Screening with the AssayMAP Bravo Sample Prep Platform for Antidoping Control

Authors: Wim Van Gansbeke, Aðalheiður Dóra Albertsdóttir, Michaël Polet, Peter Van Eenoo, and Sofia Nieto

Key words: RPS-25, Peptide Cleanup

2021

Automated Workflow for Monoclonal Antibody N-Linked Glycan Analysis

Authors: Shuai Wu, Zach Van Den Heuvel, Steve Murphy, Aled Jones

Key words: CU, RX, GlykoPrep, BioPharma, Glycans

2020

A Comparative Study of the Intact Mass, Subunit Mass, and Released Glycans of Two Rituximab Biosimilars Using High-Resolution LC/MS

Authors: Brian Liau

Key words: CU, RX, GlykoPrep, BioPharma, Glycans

Analysis of Monoclonal Antibody N-Glycans by Fluorescence Detection and Robust Mass Selective Detection Using the Agilent LC/MSD XT

Authors: Oscar Potter, Gregory Staples, Jordy Hsaio, and Te-Wei Chu

Key words: CU, RX, GlykoPrep, BioPharma, Glycans

Assessing Multiple Critical Quality Attributes of Monoclonal Antibody and Comparability Assessments

Authors: Suresh Babu C.V. and Brian Liau

Key words: C18-5, CU, RPW, RX, GlykoPrep, In-Solution Digestion, Peptide Cleanup, BioPharma, Glycans

Automated MHC-Associated Peptide Enrichment for Immunopeptidomics Analysis Using Agilent AssayMAP Bravo Large Capacity Cartridges

Authors: Samuel Pollock, Shuai Wu, Jerry Han, and Steve Murphy

Key words: C18-5, PAW-25, Affinity Purification, Peptide Cleanup, BioPharma, Immunopeptidomics, Immunocapture

In-depth Peptide Mapping with Iterative MS/MS Acquisition on the Agilent 6545XT AdvanceBio LC/Q-TOF

Authors: Linfeng Wu and David L. Wong

Key words: C18-5, In-Solution Digestion, Peptide Cleanup, Biopharma

2019

A Novel, Automated, and Highly Selective Phosphopeptide Enrichment for Phosphopeptide Identification and Phosphosite Localization

Authors: Valery G. Voinov, Joseph S. Beckman, Shuai Wu, Kenneth Newton, Linfeng Wu, and Jordy J. Hsiao

Key words: C18-5, Fe(III)-NTA, Peptide Cleanup, Phosphopeptide Enrichment, Phosphoproteomics

An Integrated Workflow for Sensitive Intact Protein Quantitation of Monoclonal Antibodies from Biological Matrix

Authors: David L. Wong, Mei Han, Omar Barnaby, and Yanan Yang

Key words: SAW-5, Affinity Purification, Biopharma, Immunocapture

Examining the Structural Influence of Site-Specific Phosphorylation by Ion Mobility Mass Spectrometry

Authors: Rebecca S. Glaskin, Caroline S. Chu, and Dawn M. Stickle

Key words: C18-5, Fe(III)-NTA, In-Solution Digestion, Peptide Cleanup, Phosphopeptide Enrichment, Phosphoproteomics

Glycopeptide Characterization for Various Monoclonal Antibodies Using the Agilent 6545XT AdvanceBio LC/Q-TOF

Authors: David L. Wong

Key words: C18-5, In-Solution Digestion, Peptide Cleanup, BioPharma, Glycans

LC/MS/MS Peptide Mapping Comparison of Innovator and Biosimilars of Rituximab

Authors: Suresh Babu C.V

Key words: C18-5, In-Solution Digestion, Peptide Cleanup, Biopharma

Monitoring Product Quality Attributes of Biotherapeutics at the Peptide Level Using the Agilent InfinityLab LC/MSD XT System

Authors: Linfeng Wu, Lisa Zang, and Guannan Li

Key words: C18-5, In-Solution Digestion, Peptide Cleanup, Biopharma

Quantification of Host Cell Protein Impurities using the Agilent 6495C Triple Quadrupole LC/MS

Authors: Linfeng Wu

Key words: In-Solution Digestion, Biopharma

Automated N-Glycan Sample Preparation with an Instant Glycan Labeling Dye for Mass Spectrometry

Authors: Ted Haxo, Aled Jones, Michael Kimzey, Emily Dale, Sergey Vlasenko and Steve Mast

Key words: CU, RX, GlykoPrep, Glycans

2018

A streamlined drug-to-antibody ratio determination workflow for intact and deglycosylated antibody-drug-conjugates using the Agilent AssayMAP Bravo and Agilent 6545XT AdvancedBio accurate-mass quadrupole time-of-flight LC/MS system

Authors: Jerry Han, Zach Van Den Heuvel, and Steve Murphy

Key words: SAW-5, Affinity Purification, On-Cartridge Reaction, Antibody Drug Conjugates, Biopharma, Immunocapture

Host Cell Protein Analysis Using Agilent AssayMAP Bravo and 6545XT AdvanceBio LC/Q-TOF

Authors: Linfeng Wu, Shuai Wu, Te-Wei Chu

Key words: RPS-5, Fractionation, In-Solution Digestion, Biopharma

Human Breast Cancer Cell Line Phosphoproteome Revealed by an Automated and Highly Selective Enrichment Workflow

Authors: Shuai Wu and Linfeng Wu

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Phosphoproteomics

Profiling Glycosylation of Monoclonal Antibodies at Three Levels Using the Agilent 6545XT AdvanceBio LC/Q-TOF

Authors: David L. Wong

Key words: CU, RX, GlykoPrep, Biopharma, Glycans

Quantitation of Chemical-Induced Deamidation and Oxidation on Monoclonal Antibodies Using Agilent 6545XT AdvanceBio LC/Q-TOF and Agilent MassHunter BioConfirm Software

Authors: Linfeng Wu

Key words: C18-5, In-Solution Digestion, Peptide Cleanup, Biopharma

Quantification of Host Cell Protein Impurities Using the Agilent 1290 Infinity II LC Coupled with the 6495B Triple Quadrupole LC/MS System

Authors: Linfeng Wu and Yanan Yang

Key words: In-Solution Digestion, Biopharma

2017

A Comprehensive Approach for Monoclonal Antibody N-linked Glycan Analysis from Sample Preparation to Data Analysis

Authors: David L. Wong, Oscar Potter, Jordy Hsiao, and Te-Wei Chu

Key words: CU, RX, GlykoPrep, Biopharma, Glycans

An Integrated Workflow for Intact and Subunits of Monoclonal Antibody Accurate Mass Measurements

Authors: Shuai Wu, Maryann Shen, Steve Murphy, and Zach Van Den Heuvel

Key words: SAW-5, Affinity Purification, On-Cartridge Reaction, Biopharma, Immunocapture

An Integrated Workflow for Peptide Mapping of Monoclonal Antibodies

Authors: David Wong and Jing Chen

Key words: C18-5, In-Solution Digestion, Peptide Cleanup, Biopharma

Making Peptide Mapping Routine with the Agilent 6545XT AdvanceBio LC/Q-TOF

Authors: David L. Wong and Jing Chen

Key words: C18-5, In-Solution Digestion, Peptide Cleanup, Biopharma

2016

Agilent Solutions for High-throughput N-linked Glycan Profiling from Biotherapeutics

Authors: Arunkumar Padmanaban, Sreelakshmy Menon, and Suresh Babu CV

Key words: CU, RX, GlykoPrep, Biopharma, Glycans

An Integrated Workflow for Automated Calculation of Antibody-Drug Conjugate (ADC) Drug-to-Antibody Ratio (DAR) Using Automated Sample Preparation, Agilent MassHunter Walkup, and Agilent MassHunter BioConfirm DAR Calculator Software

Authors: David L. Wong, Tanner Stevenson, and Jing Chen

Key words: In-Solution Digestion, Antibody Drug Conjugates, Biopharma

Analysis of N-Linked Glycans from Antibody-Drug Conjugate (ADC) Using the Agilent AssayMAP Automated Sample Preparation and Agilent 1290 Infinity LC System

Authors: Arunkumar Padmanaban, Sreelakshmy Menon, and Suresh Babu CV

Key words: CU, RX, GlykoPrep, Glycans

Determination of Drug-to-Antibody Ratio for Antibody-Drug Conjugates Purified from Serum Using Automated Affinity Purification, LC/MS Analysis, and Novel DAR Calculation Software

Authors: Jing Chen, Michael Bovee, Steve Murphy

Key words: SAW-5, Affinity Purification, Antibody Drug Conjugates, Biopharma, Immunocapture

Rapid Antibody Digestion Enabled by Automated Reversed-Phase Desalting on the Agilent AssayMAP Bravo Platform

Authors: Michael Bovee, Adam Krahenbuhl, and Steve Murphy

Key words: PGW, RPW, Affinity Purification, In-Solution Digestion, Biopharma, Protein Cleanup

2015

Agilent AssayMAP Bravo Technology Enables Reproducible Automated Phosphopeptide Enrichment from Complex Mixtures Using High-Capacity Fe(III)-NTA Cartridges

Authors: Jason D. Russell, and Steve Murphy

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Phosphoproteomics

Automation of Cell Surface Protein Isolation Using the Agilent AssayMAP Bravo Platform, and Profiling Using the Agilent 6550 iFunnel Q-TOF LC/MS Systems

Authors: Ravi K. Kruvvidi, Lynette Lincoln, and Arunkumar Padmanaban

Key words: SAW-5, Affinity Purification, Proteomics

Drug-to-Antibody Ratio (DAR) Calculation of Antibody-Drug Conjugates (ADCs) Using Automated Sample Preparation and Novel DAR Calculator Software

Authors: Jing Chen and Steve Murphy

Key words: In-Solution Digestion, Antibody Drug Conjugates, Biopharma

Mapping the Drug Conjugation Sites of an Antibody-Drug Conjugate Using Automated Sample Preparation and LC/MS Analysis

Authors: Jing Chen and Alex Zhu

Key words: In-Solution Digestion, Antibody Drug Conjugates, Biopharma

2014

Automation of Sample Preparation for Accurate and Scalable Quantification and Characterization of Biotherapeutic Proteins Using the Agilent AssayMAP Bravo Platform

Authors: Michael Bovee, Jason Russell, and Steve Murphy

Key words: C18-5, PAW-5, PGW, Affinity Purificaiton, In-Solution Digestion, Peptide Cleanup, Biopharma

2013

Automation for LC/MS Sample Preparation: High Throughput In-Solution Digestion and Peptide Cleanup Enabled by the Agilent AssayMAP Bravo Platform

Authors: Jason Russell, Zachary Van Den Heuvel, Michael Bovee, and Steve Murphy

Key words: C18-5, RPS-5, In-Solution Digestion, Peptide Cleanup, Biopharma

Workflow Automation for LC/MS: In-Solution Protein Digestion, Peptide Cleanup, and Strong Cation-Exchange Fractionation of Peptides Enabled by AssayMAP Technology

Authors: Jason Russell, Zachary Van Den Heuvel, Michael Bovee, and Steve Murphy

Key words: C18-5, SCX, Fractionation, In-Solution Digestion

2011

High throughput purification of human IgG using the Agilent Bravo for Protein Purification and AssayMAP protein A cartridges

Authors: David Knorr, Marc Beban, Zachary Van Den Heuvel

Key words: PAW-5, Affinity Purification

Purification of antibodies from cell culture supernatant using the Agilent AssayMAP Bravo platform

Authors: David Knorr, Marc Beban

Key words: PAW-5, Affinity Purification

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RA45336.6886226852

Printed in the USA, July 16, 2024
5994-4198EN

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