

Agilent AssayMAP Bravo



In this citation index, you will gain fast access to the bibliographic information for all the peer reviewed publications, as of September 2021, 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 citations are organized chronologically by year and within each year alphabetically. Each publication has keywords to make it easy to find publications that match your research interest.

Searchable key words

Areas of study

- Antibody Drug Conjugates (5)
- Biomarkers (12)
- Biopharma (21)
- Clinical Research (27)
- Glycans (6)
- Glycoproteomics (1)
- Immunopeptidomics (5)
- Mechanism of Action (9)
- Pharmacokinetics (13)
- Phosphoproteomics (41)
- Protein-Protein Interactions (13)
- Proteomics (64)
- Signal Transduction (27)
- Ubiquitination (1)

Techniques

- BioID (8)
- Immunocapture (20)
- PhosID (1)
- PhoX (4)
- TMT labeling (1)

AssayMAP cartridge type used

- C18 (Reversed Phase) (52)
- CU (Cleanup) (5)
- Fe(III)-NTA (IMAC) (46)
- PAW (Protein A) (12)
- PGW (Protein G) (6)
- RPS (Reversed Phase-small pore) (22)
- RPW (Reversed Phase-wide pore) (2)
- RX (Reaction) (4)
- SAW (Streptavidin) (20)
- SCX (Strong Cation Exchange) (5)
- TiO₂ (Titanium Dioxide) (5)

AssayMAP application used

- Affinity Purification (35)
- Fractionation (15)
- Glykoprep (4)
- In-Solution Digestion (15)
- On-cartridge Reaction (8)
- Peptide Cleanup (65)
- Phosphopeptide Enrichment (50)
- Protein Cleanup (1)

AssayMAP Bravo citations

2021

A New Mouse Model Related to SCA14 Carrying a Pseudosubstrate Domain Mutation in PKC γ 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, Peptide Cleanup, Clinical Research, Proteomics, Biomarkers

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, Peptide Cleanup, Clinical Research, Proteomics, Biomarkers

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 Jakob, 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, Proteomics, 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, 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, Clinical research, Biomarkers

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, Peptide Cleanup, Proteomics, Signal Transduction

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, Fractionation, Proteomics, Ubiquitination, Signal Transduction

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, Affinity Purification, On-Cartridge Reaction, Biopharma, Antibody Drug Conjugates, Pharmacokinetics, Immunocapture

Automated Ligand Purification Platform Accelerates Immunopeptide 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, RPS, Affinity Purification, Peptide Cleanup, Proteomics, Immunopeptidomics, 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, TiO₂, 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, 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(15), 113217

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, Clinical Research, 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(1), 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 Svetlicic, Lucija Doncevic, Sanja Gottstein, Amela Hozic and Mario Cindric

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

Key words: Custom, Fractionation

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**

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, 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, 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, Clinical Research, Biomarkers

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, 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, 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, SAW, Affinity Purification, On-Cartridge Reaction, Peptide Cleanup, Biopharma, Protein-Protein Interactions, Proteomics, BioID

Mechanisms of Regulation and Diverse Activities of Tau-Tubulin 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, Sabri M. Hamad, Antonio Piras, Fynn M. Hansen, Maria Tanzer, Igor Paron, Luca Zinzula, Thomas Enghleitner, Maria Reinecke, Teresa M. Lavacca, Rosina Ehmman, 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

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, Phosphopeptide Enrichment, Peptide Cleanup, Mechanism of Action, 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 Čurko-Cofek, Martina Barbarić, Nermina Mumiši, Branka Blagović, and Polona Jamnik

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

Key words: C18, Peptide Cleanup, Proteomics

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(1), 3406

Key words: C18, 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, C18, 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**

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 Popović, 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

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 Steinfeld, 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 Fenyő, and György Marko-Varga

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

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

The human melanoma proteome atlas—Defining the molecular pathology

Authors: Lazaro Hiram Betancourt, 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 Steinfeld, Madalina Oppermann, Ken Miller, Francesco Florindi, Quimin Zhou, Gilberto B. Domont, Luciana Pizzatti, Fábio C. S. Nogueira, Peter Horvath, Leticia Szadai, József Tímár, Sarolta Kárpáti, A. Marcell Szász, Johan Malm, David Fenyő, Henrik Ekedahl, István Balázs Németh, and György Marko-Varga

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

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

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

Authors: Geraldine Maier, Julien Delezie¹, Pål O. Westermark, Gesa Santos, Danilo Ritz, and Christoph Handschin

Journal Citation: *The Journal of Physiology* **2021**

Key words: Fe(III)-NTA, Phosphopeptide Enrichment, 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, 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*, 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, 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, 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, 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, Affinity Purification, Pharmacokinetics, Immunocapture

Collagen-rich omentum is a premetastatic niche for integrin $\alpha 2$ -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, Peptide Cleanup, Protein-Protein Interactions, BioID

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, 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 Susic, and Stacey L. Traviglia

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

Key words: PAW, 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: *Journal of Immunology* **2020**, 204(6), 1535–1542

Key words: C18, 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 reprogramming 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, 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, Peptide Cleanup, Proteomics

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

Authors: Damir Oros, Marina Ceprija, 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, 3148–3156

Key words: PAW, 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, 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. Sillevius Smitt, Johan M. Kros, and Theo M. Luider

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

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

PKC λ / 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), P247–262 e11

Key words: C18, SAW, 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, Affinity Purification, Clinical Research, Biopharma, 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

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 Guerrero, 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, Fe(III)-NTA, Peptide Cleanup, Phosphopeptide Enrichment, Phosphoproteomics

Targeting CLK3 inhibits the progression of cholangiocarcinoma by reprogramming 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, 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. Siegel

Journal Citation: *Cell Reports* **2020**, 33(9), 108454

Key words: SAW, Affinity Purification, Clinical Research, Biopharma, 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, 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, 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, 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* *18*(12), 2433–2446

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

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, Patrick T. McLaughlin, Stephen Diggs, Gregor M. Blaha and Penelope I. Higgs

Journal Citation: *Molecular Microbiology* **2019**, *112*(5), 1531–1551

Key words: TiO₂, 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, 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, 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, RPS, 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, 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: TiO₂, 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, 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, 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, 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, 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 PKC λ /I Deficiency Promotes Neuroendocrine Prostate Cancer

Authors: Miguel Reina-Campos, Juan F. Linares, Angeles Duran, Thekla Cordes, Antoine L'Hermite, 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, SAW, 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, 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, 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, Shiyong 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, 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, 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, SAW, 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. Liefgaard, 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, 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, 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, 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, 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, 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, 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 Habegger, Dietmar Reusch, and Patrick Bulau

Journal Citation: *Communications Biology* **2018**, 1, 28

Key words: PAW, 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, Fe(III)-NTA, RPS, 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, 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, Peptide Cleanup, 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, 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, RPS, TiO₂, Fractionation, Peptide Cleanup, Phosphopeptide Enrichment, Phosphoproteomics, Proteomics, Signal Transduction

Micro-Data-Independent Acquisition for High-Throughput Proteomics 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, 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, 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, SAW, 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, 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), 723–746

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, 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, Peptide Cleanup, Proteomics

Proteasome Activation by Small Molecules

Authors: Yves Leestemaker, Annemieke de Jong, Katharina F. Witting, Renske Penning, Katiannie Schuurman, Boris Rodenko, Esther A. Zaal, Bert van de Kooij, Stefan Laufer, Albert J. R. Heck, Jannie Borst, Wiep Scheper, Celia R. Berkens, 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, TiO₂, 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, 241–251

Key words: C18, 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, Sylvain Lehmann

Journal Citation: *Bioanalysis* **2016**, 8(1), 43–53

Key words: C18, 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, PGW, SAW, 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, 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. Burgess, 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, 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, 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, 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 Drissenek, Yannick Antoine, Laurent Tiers, Christophe Hirtz, Sylmain Lehmann, Helene Perrochia, Francois Bissonnette, Isaac-Jacques Kadoch, Delphine Haouzi, and Samir Hamamah

Journal Citation: *Cell Adhesion & Migration* **2016**, 10(3), 282–298

Key words: C18, 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, Peptide Cleanup, Phosphopeptide Enrichment, Phosphoproteomics, Signal Transduction, Mechanism of Action

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, RPS, 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, 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, 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, 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, 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, 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, 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, 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, RX, Affinity Purification, GlykoPrep, Glycans

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