Vanquish HPLC and UHPLC Bibliography

LC that takes your productivity to new heights
The release of the Thermo Scientific™ Vanquish™ Horizon UHPLC system in 2014 marked the beginning of the Thermo Scientific™ Vanquish™ HPLC and UHPLC platform. Since then, the Vanquish platform has grown into the most advanced and dynamic product line of HPLC and UHPLC systems available. Built on innovation and ease-of-use, Vanquish LC systems push chromatographic boundaries while continually delivering robust results. Through combination with a variety of detectors from optical and charged aerosol to mass spectrometry, Vanquish HPLC and UHPLC systems have been utilized to address a broad range of analytical challenges from food analysis to large biomolecule characterization.

This bibliography is designed as a guide to the scope of Vanquish HPLC and UHPLC usage in the literature. Publications have been categorized based on either target analyte or field of application. Each publication has been hyperlinked to allow fast navigation to article content. A brief overview of the Vanquish portfolio, Vanquish LC detectors, and Vanquish-compatible mass spectrometers is supplied in the following introductory pages.
Dependability

Thermo Scientific™ Vanquish™ Core HPLC Systems

Providing uninterrupted analysis and seamless method transfer. The Vanquish Core HPLC system is designed to continually deliver exceptional results. Ideal for use by analytical scientists performing HPLC analyses where highest dependability is crucial to success.

Flexibility

Thermo Scientific™ Vanquish™ Flex UHPLC Systems

Expanding the utility of the Vanquish platform for method development within a variety of both HPLC and UHPLC applications. The Vanquish Flex systems excel at accommodating diverse mobile phase and analyte requirements, made possible through both low and high pressure solvent blending, full system biocompatibility, and various alternative detection principles.

Performance

Thermo Scientific™ Vanquish™ Horizon UHPLC System

Offering unrivaled performance and throughput for the most demanding separations with no trade-offs in robustness or ease-of-use. The Vanquish Horizon UHPLC system delivers unsurpassed retention time and peak area precision as well as the highest detector sensitivity. The best choice for applications requiring high-end UHPLC.
Improving analysis of complex samples by enabling separation of difficult-to-resolve analytes. Configurations exist for online SPE and various heart-cutting 2D workflows in order to maximize flexibility while ensuring confidence in your most difficult separations. The Vanquish Simple Switch 2D-LC system is even configured to deliver both 2D and dual LC without re-plumbing.

Providing increased productivity and sample knowledge by utilizing two distinct flow paths. The Vanquish Duo HPLC and UHPLC systems save time, cost per sample, and bench space without sacrificing performance, robustness, or ease-of-use. Ideal for increasing detector utilization, throughput, sample knowledge, or analyte quantification accuracy.
Thermo Scientific Vanquish HPLC and UHPLC systems offer a wide range of detection capabilities for seamless integration into new and existing workflows. Various detectors may also be combined for enhanced sample knowledge.

### Thermo Scientific™ Vanquish HPLC and UHPLC Detectors

<table>
<thead>
<tr>
<th>Detectors</th>
<th>Description</th>
<th>Model</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Diode Array Detectors</strong></td>
<td>Acquisition of spectra or multiple UV-Vis channels in parallel and a wide dynamic range</td>
<td>Flexible</td>
<td>Simple</td>
</tr>
<tr>
<td>Sensitive</td>
<td>Vanquish Diode Array Detector HL</td>
<td>Dependable</td>
<td>Vanquish Multiple Wavelength Detector CG</td>
</tr>
<tr>
<td>Flexible</td>
<td>Vanquish Diode Array Detector FG</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Variable Wavelength Detectors</strong></td>
<td>Simple operation with outstanding signal-to-noise and linearity and a wide flow cell portfolio</td>
<td>Flexible</td>
<td></td>
</tr>
<tr>
<td>Sensitive</td>
<td>Vanquish Variable Wavelength Detector F</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flexible</td>
<td>Vanquish Variable Wavelength Detector C</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Charged Aerosol Detectors</strong></td>
<td>Sensitive, universal detection</td>
<td>Flexible</td>
<td>Robust</td>
</tr>
<tr>
<td>Sensitive</td>
<td>Vanquish Charged Aerosol Detector H</td>
<td></td>
<td>Vanquish Charged Aerosol Detector F</td>
</tr>
<tr>
<td>Flexible</td>
<td>Vanquish Charged Aerosol Detector FG</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Fluorescence Detectors</strong></td>
<td>High selectivity and 10–1000 times more sensitivity than UV detectors where applicable</td>
<td>Flexible</td>
<td>Dependable</td>
</tr>
<tr>
<td>Flexible</td>
<td>Vanquish Fluorescence Detector F</td>
<td></td>
<td>Vanquish Fluorescence Detector C</td>
</tr>
<tr>
<td><strong>Mass Spectrometers</strong></td>
<td>Resolve co-eluting peaks and gain analyte mass confirmation</td>
<td>Flexible</td>
<td>Powerful</td>
</tr>
<tr>
<td>Flexible</td>
<td>Thermo Scientific™ ISQ™ EM Single Quadrupole Mass Spectrometer</td>
<td>Simple</td>
<td>Plus the full range of Thermo Scientific triple quadrupole and Orbitrap mass spectrometers</td>
</tr>
<tr>
<td>Simple</td>
<td>Thermo Scientific™ ISQ™ EC Single Quadrupole Mass Spectrometer</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Additional Detectors</strong></td>
<td>Universal detection for isocratic gradients</td>
<td>Cost effective</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RefractoMax 521 Refractive Index Detector</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| **Orbitrap LC-MS** | For high-resolution, accurate-mass analysis of both known and unknown compounds including small molecules, peptides, and intact proteins.  
**Orbitrap Hybrids**  
**Thermo Scientific™ Orbitrap Exploris™ Series**—ranging from small molecule analysis to record setting performance coupled with ease of use and robustness.  
**Thermo Scientific™ Exactive™ Series**—For BioPharma applications and Native MS analysis.  
**Orbitrap Tribrids**  
**Thermo Scientific™ Orbitrap Tribrid™ Series**—Three mass analyzers enable multiple sophisticated modes of analysis using intelligent data acquisition and everyday experimental flexibility. |
| **Triple Quadrupole LC-MS** | For ultimate sensitivity, robustness, and speed in routine, targeted quantitation.  
**Thermo Scientific™ TSQ Fortis™**—Increase productivity in targeted workflows.  
**Thermo Scientific™ TSQ Endura™**—Develop in vitro diagnostic tests that leverage sensitivity, confidence, and quantitative accuracy.  
**Thermo Scientific™ TSQ Quantis™**—Excellent sensitivity and robustness for challenging quantitation workflows.  
**Thermo Scientific™ Altis™**—For addressing the most stringent analytical challenges in targeted quantitation. Unprecedented sensitivity without sacrificing robustness. |
| **Ion Trap LC-MS** | For high sensitivity full scan MS along with in-depth MS^n (CRM) capabilities.  
**Thermo Scientific™ LTQ XL™**—cost-effective, general-purpose instrument enabling all users to be more confident in their results and operation skills. Full scan and MS^n operating modes provide flexibility from running your application to teaching students the fundamentals of mass spectrometry. |
A total of 647 peer-reviewed publications and 76 Thermo Fisher Scientific collateral documents published from 2014 and 2020 are included in this bibliography. References are divided into 14 categories (including miscellaneous) best representing each article’s focus or application—over 65% of studies targeted biomolecules, followed by combined 15% applied to the food and pharmaceutical industries. Hyphenation with mass spectrometry was mentioned in over 70% of articles, with the Thermo Scientific™ Exactive Orbitrap™ Mass Spectrometer product line utilized for 58% of all studies. The Vanquish DAD was the second most popular type of detector with 37 total citations.

This bibliography provides a survey demonstrating the breadth of the literature applications of Vanquish HPLC and UHPLC platforms. The range of analyte separation capabilities and Vanquish-compatible detectors help to make the Vanquish portfolio the premier chromatographic systems.

Survey of applications
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metabolites</td>
<td>9</td>
</tr>
<tr>
<td>Lipids</td>
<td>27</td>
</tr>
<tr>
<td>Pharmaceuticals</td>
<td>32</td>
</tr>
<tr>
<td>Proteins</td>
<td>36</td>
</tr>
<tr>
<td>Food</td>
<td>40</td>
</tr>
<tr>
<td>(Bio)Synthesis</td>
<td>44</td>
</tr>
<tr>
<td>Nucleic Acids</td>
<td>47</td>
</tr>
<tr>
<td>Traditional Medicine</td>
<td>49</td>
</tr>
<tr>
<td>Antibodies</td>
<td>51</td>
</tr>
<tr>
<td>Environmental</td>
<td>53</td>
</tr>
<tr>
<td>Toxicology</td>
<td>55</td>
</tr>
<tr>
<td>Chromatography</td>
<td>56</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>57</td>
</tr>
<tr>
<td>Thermo Scientific</td>
<td>59</td>
</tr>
<tr>
<td>Title</td>
<td>Authors</td>
</tr>
<tr>
<td>---------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Biomarkers defining the metabolic age of red blood cells during cold storage</td>
<td>G Paglia, A D'Alessandro, Óttar Rolfsson, ÓE Sigurjónsson, A Bordbar, S Palsson, T Nemkov, KC Hansen, S Gudmundsson, BO Palsson</td>
</tr>
<tr>
<td>From sample to multi-omics conclusions in under 48 Hours</td>
<td>RA Quinn, JA Navas-Molina, ER Hyde, SJ Song, Y Vázquez-Baeza, G Humphrey, J Gaffney, JJ Minich, AV Melnik, J Herschend, J DeReus, A Durant, RJ Dutton, M Khosroheidari, C Green, R da Silva, PC Dorrestein, R Knight</td>
</tr>
<tr>
<td>Glutamine metabolism drives succinate accumulation in plasma and the lung during hemorrhagic shock</td>
<td>AL Slaughter, A D’Alessandro, EE Moore, A Banerjee, CC Silliman, KC Hansen, JA Reisz, M Fragoso, MJ Wither, A Bacon, HB Moore, ED Peltz</td>
</tr>
<tr>
<td>Characterization of rapid extraction protocols for high-throughput metabolomics</td>
<td>S Gehrke, JA Reisz, T Nemkov, KC Hansen, A D’Alessandro</td>
</tr>
<tr>
<td>Methanol generates numerous artifacts during sample extraction and storage of extracts in metabolomics research</td>
<td>C Saurschnig, M Doppler, C Bueschl, R Schuhmacher</td>
</tr>
<tr>
<td>Red blood cell proteomics update: is there more to discover?</td>
<td>A D’Alessandro, M Dzieciatkowska, T Nemkov, KC Hansen</td>
</tr>
<tr>
<td>Estimation of flux ratios without uptake or release data: Application to serine and methionine metabolism</td>
<td>R Nilsson, I Roci, J Watrous, M Jain</td>
</tr>
<tr>
<td>Structural and functional insight of sphingosine 1-phosphate-mediated pathogenic metabolic reprogramming in sickle cell disease</td>
<td>K Sun, A D’Alessandro, MH Ahmed, Y Zhang, A Song, TP Ko, T Nemkov, JA Reisz, H Wu, M Adel, Z Peng, J Gong, H Liu, A Huang, YE Wen, AQ Wen, V Berka, MV Bogdanov, O Abdulmalik, L Han, A Tsai, M Idowu, HS Juneja, RE Kellems, W Dowhan, KC Hansen, MK Safo, Y Xai</td>
</tr>
<tr>
<td>The metabolic and proliferative state of vascular adventitial fibroblasts in pulmonary hypertension is regulated through a MiR-124/PTBP1/PKM axis</td>
<td>H Zhang, D Wang, M Li, L Plecitá-Hlavatá, A D’Alessandro, J Tauber, S Riddle, S Kumar, A Flockton, BA McKeon, MG Frid, JA Reisz, P Caruso, KC El Kasmi, P Jažek, NW Morrell, C Hu, KR Stenmark</td>
</tr>
<tr>
<td>A comparative study of biological and metabolic biomarkers between healthy individuals and patients with acne vulgaris</td>
<td>K Kim, I Ha, E Kim, K Kim</td>
</tr>
<tr>
<td>Metabolism of citrate and other carboxylic acids in erythrocytes as a function of oxygen saturation and refrigerated storage</td>
<td>T Nemkov, K Sun, JA Reisz, T Yoshida, A Dunham, EY Wen, AQ Wen, RC Roach, KC Hansen, Y Xia, A D’Alessandro</td>
</tr>
<tr>
<td>Title</td>
<td>Authors</td>
</tr>
<tr>
<td>------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Inhibition of IKKε and TBK1 improves glucose control in a subset of patients with type 2 diabetes</td>
<td>EA Oral, SM Reilly, AV Gomez, R Meral, L Butz, N Ajiluni, TL Chenewet, E Korytnaya, A Neidert, R Hench, D Rus, J Horowitz, BA Poirier, P Zhao, K Lehmann, M Jain, R Yu, C Liddle, M Ahmadian, M Downes, RM Evans, AR Saltiel</td>
</tr>
<tr>
<td>Evaluation of column length and particle size effect on the untargeted profiling of a phychochemical mixture by using UHPLC coupled to high-resolution mass spectrometry</td>
<td>RZ Chiozzi, AL Capriotti, C Cavaliere, F Ferraris, G La Barbera, S Plovesana, Ailaid Leganà</td>
</tr>
<tr>
<td>The glutamate/cystine xCT antiporter antagonizes glutamine metabolism and reduces nutrient flexibility</td>
<td>CS Shin, P Mishra, JD Watrous, V Carelli, M D'Aurelio, M Jain, DC Chan</td>
</tr>
<tr>
<td>Lifelong exposure to PCBs in the remote norwegian arctic disrupts the plasma stress metabolome in arctic charr</td>
<td>PT Gauthier, A Evenset, GN Christensen, EH Jorgensen, MM Vijayan</td>
</tr>
<tr>
<td>Plasma succinate is a predictor of mortality in critically injured patients</td>
<td>A D'Alessandro, HB Moore, EE Moore, JA Reisz, MJ Wither, A Ghasabayan J Chandler, CC Siliman, KC Hansen, A Banerjee</td>
</tr>
<tr>
<td>Metabolomics analysis of human vitreous in diabetic retinopathy and rhegmatogenous retinal detachment</td>
<td>NR Haines, N Manoharan, JL Olson, A D'Alessandro, JA Reisz</td>
</tr>
<tr>
<td>Metabolomics reveals the molecular mechanisms of copper induced cucumber leaf (cucumis sativus) senescence</td>
<td>L Zhao, Y Huang, K Paglia, A Vaniya, B Wanczewicz, A Keller</td>
</tr>
<tr>
<td>Profiling the metabolism of human cells by deep ¹³C labeling</td>
<td>N Grankvist, JD Watrous, KA Lehmann, Y Lutvinsky, M Jain, R Nilsson</td>
</tr>
<tr>
<td>Metabolic effect of alkaline additives and guanosine/gluconate in storage solutions for red blood cells</td>
<td>A D'Alessandro, JA Reisz, R Culp-Hill, H Korsten, R van Bruggen, D Korte</td>
</tr>
<tr>
<td>Metabolomics evaluation of early-storage red blood cell rejuvenation at 4°C and 37°C</td>
<td>S Gehrke, AJ Srinivasan, R Culp-Hill, JA Reisz, A Ansari, A Gray, M Landrigan, I Welsby, A D'Alessandro</td>
</tr>
<tr>
<td>Quantitative metabolomics comparison of traditional blood draws and TAP capillary blood collection</td>
<td>A Catala, R Culp-Hill, T Nemkov, A D'Alessandro</td>
</tr>
<tr>
<td>Title</td>
<td>Authors</td>
</tr>
<tr>
<td>---------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Peak annotation and verification engine for untargeted LC–MS metabolomics</td>
<td>L Wang, X Xing, L Chen, L Yang, X Su, H Rabbitz, W Lu, JD Rabinowitz</td>
</tr>
<tr>
<td>All animals are equal but some animals are more equal than others: Plasma lactate and succinate in hemorrhagic shock: A comparison in rodents, swine, non-human primates and injured patients</td>
<td>JA Reisz, MJ Wither, MJ Wither, EE Moore, AL Slaughter, HB Moore, A Ghasabayan, J Chandler, LJ Schaub, M Fragoso, G Nunnis, C0 Silliman, KC Hansen, A Banerjee, FR Sheppard, A D'Alessandro</td>
</tr>
<tr>
<td>A three-minute method for high-throughput quantitative metabolomics and quantitative tracing experiments of central carbon and nitrogen pathways</td>
<td>T Nemkov, KC Hansen, A D'Alessandro</td>
</tr>
<tr>
<td>Distinctive patterns of flavonoid biosynthesis in roots and nodules of Datisca glomerata and medicago spp. revealed by metabolomic and gene expression profiles</td>
<td>I Gifford, K Battenberg, A Vaniya, A Wilson, L Tian, O Fiehn, AM Berry</td>
</tr>
<tr>
<td>Regulation of human adipose tissue activation, gallbladder size, and bile acid metabolism by a β3-adrenergic receptor agonist</td>
<td>AS Baskin, JD Linderman, RJ Brychta, S McGegee, E Anflick-Chames, C Caro, JW Johnson, AE O'Mara, LA Fletcher, BP Leitner, CJ Duckworth, S Huang, H Cai, HM Gerraffo, CM Milo, W Dieckmann, V Tolsitkov, EY Chen, F Gao, NP Narain, MA Klebisch, PJ Walter, P Herscovitch, KT Chen, AM Cypess</td>
</tr>
<tr>
<td>The epigenetic reader SntB regulates secondary metabolism, development and global histone modifications in Aspergillus flavus</td>
<td>BT Pfannenstiel, AT Sikowaty, NP Keller</td>
</tr>
<tr>
<td>Identification and metabolite profiling of alkaloids in aerial parts of Papaver rhoeas by liquid chromatography coupled with quadrupole time-of-flight tandem mass spectrometry</td>
<td>JH Oh, IJ Ha, MY Lee, EO Kim, D Park, JH Lee, SG Lee, DW Kim, TH Lee, EJ Lee, CK Kim</td>
</tr>
<tr>
<td>“C-labelled yeast as internal standard for LC-MS/MS and LC high resolution MS based amino acid quantification in human plasma</td>
<td>G Hermann, M Schwaiger, P Volejnik, G Koellensperger</td>
</tr>
<tr>
<td>Genetic modification of asexual Epichloë endophytes with the perA gene for peramine biosynthesis</td>
<td>IK Hettiarachchige, AC Elkins, P Reddy, RC Mann, KM Guthridge, TJ Sawbridge, JW Forster GC Spangenberg</td>
</tr>
<tr>
<td>Extraction of urinary metabolite-derived biomarker candidate for breast cancer</td>
<td>M Sakairi, M Abe, N Tanaka</td>
</tr>
<tr>
<td>Deep scanning lysine metabolism in Escherichia coli</td>
<td>MC Bassalo, AD Garst, A Choudhury, WC Grau, EJ Oh, E Spindler, T Lipscomb, RT Gill</td>
</tr>
</tbody>
</table>
Macrophage-derived IL-1β/NF-κB signaling mediates parenteral nutrition-associated cholestasis


Nature Communications 2018

Cell-intrinsic glycogen metabolism supports early glycolytic reprogramming required for dendritic cell immune responses

P Thwe, L Pelgrom, R Cooper, S Beauchamp, JA Reisz, A D’Alessandro, B Everts, E Amiel

Cell Metabolism 2018

Conserved responses in a war of small molecules between a plant-pathogenic bacterium and fungi

JE Spraker, P Wiemann, JA Baccile, N Vankatesh, J Schumacher, FC Schroeder, LM Sanchez, NP Keller

mBio 2018

Male lifespan extension with 17-α estradiol is linked to a sex-specific metabolomic response modulated by gonadal hormones in mice

M Garratt, KA Lagerborg, YM Tsai, A Galecki, M Jain, RA Miller

Aging Cell 2018

Autophagy maintains tumour growth through circulating arginine

L Poillet-Perez, X Xie, Le Zhan, Y Yang, DW Sharp, ZS Hu, X Su, A Maganti, C Jiang, W Lu, H Zheng, MW Bosenberg, JM Mehnert, JY Guo, E Lattime, JD Rabinowitz, E White

Nature 2018

Chromatographic column evaluation for the untargeted profiling of glucosinolates in cauliflower by means of ultra-high performance liquid chromatography coupled to high resolution mass spectrometry

AL Capriotti, C Cavaliere, GL Barbera, CM Montone, S Piovesana, RZ Chiozzi, A Laganà

Talanta 2018

Early behavioral and metabolomic change after mild to moderate traumatic brain injury in the developing brain

J Chitturi, Y Li, V Santhakumar, SS Kannurpatti

Neurochemistry International 2018

IRE1α–XBP1 controls T cell function in ovarian cancer by regulating mitochondrial activity


Nature 2018

The gut microbiota in infants of obese mothers increases inflammation and susceptibility to NAFLD

TK Soderborg, SE Clark, CE Mulligan, RC Janssen, L Babcock, D Ir, B Young, N Krebs, DJ Lemas, LK Johnson, T Weir, LL Lenz, DN Frank, TL Hernandez, KA Kuhn, A D’Alessandro, LA Barbour, KC El Kasmi, JE Friedman

Nature Communications 2018

Antibacterial prenylated stilbenoids from peanut (Arachis hypogaea)

WJC de Bruijn, C Araya-Cloutier, J Bijlsma, A de Swart, MG Sanders, P de Waard, H Gruppen, J Vincken

Phytochemistry Letters 2018

Identification of a metabolic disposal route for the oncometabolite S-(2-succino)cysteine in Bacillus subtilis

TD Niehaus, J Folz, DR McCarty, AJL Cooper, DM Amador, O Siehn, AD Hanson

Journal of Biological Chemistry 2018

Investigation of the effects of storage and freezing on mixes of heavy-labeled metabolite and amino acid standards

R Culp-Hill, JA Reisz, KC Hansen, A D’Alessandro

Rapid Communications in Mass Spectrometry 2018

Fenofibrate prevents skeletal muscle loss in mice with lung cancer

MD Goncalves, SK Hwang, C Pauli, CJ Murphy, Z Cheng, BD Hopkins, D Wu, RM Loughran, BM Emerling, G Zhang, DT Fearon, LC Cantley

PNAS 2018
Metabolites

<table>
<thead>
<tr>
<th>Title</th>
<th>Authors</th>
<th>Journal</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male lifespan extension with 17α estradiol is linked to a sex-specific metabolomic response modulated by gonadal hormones in mice</td>
<td>M Garratt, KA Lagerborg, YM Tsai, A Galecki, M Jain, RA Miller</td>
<td>Aging Cell</td>
<td>2018</td>
</tr>
<tr>
<td>A Bcl-2 associated athanogene (bagA) modulates sexual development and secondary metabolism in the filamentous fungus Aspergillus nidulans</td>
<td>S Jain, P Wiemann, E Thill, B Williams, NP Keller, M Kabbage</td>
<td>Frontiers in Microbiology</td>
<td>2018</td>
</tr>
<tr>
<td>Inhibition of amino acid metabolism selectively targets human leukemia stem cells</td>
<td>CL Jones, BM Stevens, A D’Alessandro, JA Reisz, R Culp-Hill, T Nemkov, S Pei, N Khan, B Adane, H Ye, A Krug D Reinhold, C Smith, J DeGregori, CT Jordan</td>
<td>Cancer Cell</td>
<td>2018</td>
</tr>
<tr>
<td>Extraction and quantitation of nicotinamide adenine dinucleotide redox cofactors</td>
<td>W Lu, L Wang, S Hui, JD Rabinowitz</td>
<td>Antioxidant and Redox Signaling</td>
<td>2018</td>
</tr>
<tr>
<td>Mitochondrial one-carbon pathway supports cytosolic folate integrity in cancer cells</td>
<td>Y Zheng, TY Lin, G Lee, MN Paddock, J Momb, Z Cheng, Q Li, DL Fei, BD Stein, S Ramsamooy, G Zhang, J Blenis, LC Cantley</td>
<td>Cell</td>
<td>2018</td>
</tr>
<tr>
<td>Quantitative analysis of 4β- and 4α-hydroxycholesterol in human plasma and serum by UHPLC/ESI-HR-MS</td>
<td>H Hautajärvi, J Hukkanen, M Turpeinen, S Mattila, A Tolonen</td>
<td>Journal of Chromatography B</td>
<td>2018</td>
</tr>
<tr>
<td>Edible nuts deliver polyphenols and their transformation products to the large intestine: An in vitro fermentation model combining targeted/untargeted metabolomics</td>
<td>G Rocchetti, SR Bhumireddy, G Giuberti, R Mandal, L Lucini, DS Wishart</td>
<td>Food Research International</td>
<td>2019</td>
</tr>
<tr>
<td>Microbial transformations of organically fermented foods</td>
<td>R Raghuvanshi, AG Grayson, I Schena, O Amanze, K Suwintono, RA Quinn</td>
<td>Metabolites</td>
<td>2019</td>
</tr>
<tr>
<td>Predicting response to lisinopril in treating hypertension: a pilot study</td>
<td>BJ Sonn, JL Saben, G McWilliams, Sk Shelton, HK Flaten, A D’Allesandro, AA Monte</td>
<td>Metabolomics</td>
<td>2019</td>
</tr>
<tr>
<td>LC-MS-based metabolic approach revealed the significantly different metabolic profiles of five commercial truffle species</td>
<td>X Li, X Zhang, L Ye, Z Kang, D Jia, L Yang, B Zhang</td>
<td>Frontiers in Microbiology</td>
<td>2019</td>
</tr>
<tr>
<td>Title</td>
<td>Authors</td>
<td>Journal</td>
<td>Date</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------</td>
<td>---------------------------------------------------------</td>
<td>--------</td>
</tr>
<tr>
<td>Metabolic alterations in the outer membrane vesicles of patients with</td>
<td>SC Wei, W Wei, WJ Peng, Z Liu, ZY Cai, B Zhao</td>
<td>Current Alzheimer Research</td>
<td>2019</td>
</tr>
<tr>
<td>Alzheimer's disease: An LC-MS/MS-based metabolomics analysis</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Preclinical studies on metal based anticancer drugs as enabled by</td>
<td>L Galvez, M Rusz, M Schaiger-Haber, Y El Abiead, G Hermann, Y Jungwirth,</td>
<td>Metallomics</td>
<td>2019</td>
</tr>
<tr>
<td>integrated metabolomics and metabolomics</td>
<td>W Berger, BK Keppler, MA Jukapec, G Koellensperger</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cysteine depletion targets leukemia stem cells through inhibition of</td>
<td>CL Jones, BM Stavens, A D'Alessandro, E Culp-Hill, JA Reisz, S Pei,</td>
<td>Blood</td>
<td>2019</td>
</tr>
<tr>
<td>electron transport complex II</td>
<td>A Gustafsson, N Khan, J DeGregori, DA Pollyea, CT Jordan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The antialgal mechanism of luteolin-7-O-glucuronide on Phaeocystis</td>
<td>J Zhu, Y Yang, S Duan, D Sun</td>
<td>International Journal of Environmental Research and</td>
<td>2019</td>
</tr>
<tr>
<td>globosa by metabolomics analysis</td>
<td></td>
<td>Public Health</td>
<td></td>
</tr>
<tr>
<td>Serine and 1-carbon metabolism are required for HIF-mediated protection</td>
<td>C Singh, G Hoppe, V Tran, L McCollum, Y Bolok, W Song, A Sharma, H</td>
<td>Journal of Clinical Investigation</td>
<td>2019</td>
</tr>
<tr>
<td>against retinopathy of prematurity</td>
<td>Brunengraber, JE Sears</td>
<td>Insight</td>
<td></td>
</tr>
<tr>
<td>Single spheroid metabolomics: optimizing sample preparation of</td>
<td>M Rusz, E Rampier, BK Keppler, MA Jukapec, G Koellensperger</td>
<td>Metabolites</td>
<td>2019</td>
</tr>
<tr>
<td>three-dimensional multicellular tumor spheroids</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comparative metabolomics unravel the effect of magnesium oversupply</td>
<td>MC Kwon, YX Kim, S Lee, ES Jung, D Singh, J Sung, CH Lee</td>
<td>Metabolites</td>
<td>2019</td>
</tr>
<tr>
<td>on tomato fruit quality and associated plant metabolism</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tremorgenic effects and functional metabolomics analysis of lollitrem</td>
<td>P Reddy, S Rochfort, E Read, M Deseo, E Jaehne, M Van Den Buuse, K</td>
<td>Metabolites</td>
<td>2019</td>
</tr>
<tr>
<td>B and its biosynthetic intermediates</td>
<td>Guthridge, M Combs, G Spangenberg, J Quinn</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality variation and standardization of black pepper (Piper nigrum):</td>
<td>R Ahmad, N Ahmad, M Amir, F Aljishi, MH Alamer, HR Al-Shaban, ZA</td>
<td>Biomedical Chromatography</td>
<td>2019</td>
</tr>
<tr>
<td>A comparative geographical evaluation based on instrumental and</td>
<td>Alsadah, BM Alsultan, NA Aldawood, S Chathoth, SA Almoff</td>
<td></td>
<td></td>
</tr>
<tr>
<td>metabolomics analysis</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urinary metabolic signature of primary aldosteronism: Gender and</td>
<td>A Lana, K Alexander, A Castagna, A D'Alessandro, F Morandini, F Pizzolo,</td>
<td>Proteomics - Clinical Applications</td>
<td>2019</td>
</tr>
<tr>
<td>subtype-specific alterations</td>
<td>P Zorzi, P Mutare2, L Zolla, O Olivieri</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The metabolic time line of pancreatic cancer: Opportunities to improve</td>
<td>HB Moore, R Culp-Hill, JA Reisz, EE More, KC Hansen, A D'Alessandro</td>
<td>The American Journal of Surgery</td>
<td>2019</td>
</tr>
<tr>
<td>early detection of adenocarcinoma</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A single visualization technique for displaying multiple</td>
<td>M Henglin, T Niranjana, JD Watrous, KA Lagerborg, J Antonelli,</td>
<td>Metabolites</td>
<td>2019</td>
</tr>
<tr>
<td>metabolite-phenotype associations</td>
<td>BL Cloggett, EJ Damasthenes, B von Jeinsen, O Demler, RS Vasan, MG</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Characterization and tentative identification of new flunitrazepam</td>
<td>S Quin, G Xin, Y Wang, J Qiao, W Zhang, D Xu, Z Xu, Y Liu, Y Zhang,</td>
<td>Journal of Mass Spectrometry</td>
<td>2019</td>
</tr>
<tr>
<td>metabolites in authentic human urine specimens using liquid</td>
<td>J Lu</td>
<td></td>
<td></td>
</tr>
<tr>
<td>chromatography-Q-exactive-HF hybrid quadrupole-Orbitrap-mass</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>spectrometry (LC-QE-HF-MS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urea cycle sustains cellular energetics upon EGFR inhibition in</td>
<td>C Pham-Danis, S Gehrke, E Danis, Al Rozhok, MW Daniels, D Gao, C</td>
<td>Molecular Cancer Research</td>
<td>2019</td>
</tr>
<tr>
<td>EGFR-mutant NSCLC</td>
<td>Collins, JT Di Paoli, A D'Alessandro, J DeGregori</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A strategy for identification and structural characterization of</td>
<td>K Song, IJ Ha, YS Kim</td>
<td>Journal of Chromatography A</td>
<td>2019</td>
</tr>
<tr>
<td>opiolepane- and bisabolane-type sesquiterpenoids from</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tussilago farfara L. by multiple scan modes of mass spectrometry</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Title</td>
<td>Authors</td>
<td>Journal</td>
<td>Date</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------</td>
<td>-----------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>Identification of metabolites of peptide-derived drugs using an isotope-labeled reporter ion screening strategy</td>
<td>A Thomas, M Thevis</td>
<td>Clinical Chemistry and Laboratory Medicine</td>
<td>2019</td>
</tr>
<tr>
<td>Mapping metabolic events in the cancer cell cycle reveals arginine catabolism in the committed SG,M phase</td>
<td>I Rocic, JD Watrous, KA Lagerborg, L Lafanchi, A Lindquist, M Jain, R Nilsson</td>
<td>Cell Reports</td>
<td>2019</td>
</tr>
<tr>
<td>Unique heterogeneous topological pattern of the metabolic landscape in rabbit fetal lungs following tracheal occlusion</td>
<td>Al Marwan, U Shabeka, JA Reisz, C Zheng, NJ Serkova, E Dobriniskikh</td>
<td>Fetal Diagnosis and Therapy</td>
<td>2019</td>
</tr>
<tr>
<td>Red blood cell metabolic responses to torpor and arousal in the hibernator arctic ground squirrel</td>
<td>S Gehrke, S Rice, D Stefanoni, RB Wilkerson, T Nemkov, JA Reisz, KC Hansen, A Lucas, P Cabrales, K Drew, A D'Alessandro</td>
<td>Journal of Proteome Research</td>
<td>2019</td>
</tr>
<tr>
<td>Differential effects of coral-giant clam assemblages on biofouling formation</td>
<td>I Guibert, I Bonnard, X Pochon, M Zobia, C Sidobre, G Lecellier, V Berteaux-Lecellier</td>
<td>Scientific Reports</td>
<td>2019</td>
</tr>
<tr>
<td>Parabiosis incompletely reverses aging-induced metabolic changes and oxidant stress in mouse red blood cells</td>
<td>EJ Morrison, DP Champagne, M Dziclatkowska, T Nemkov, JC Nimring, KC Hansen, F Guan, DM Huffman, L Santambrogio, A D'Alessandro</td>
<td>Nutrients</td>
<td>2019</td>
</tr>
<tr>
<td>Microbial bile acid metabolites modulate gut RORγt regulatory T cell homeostasis</td>
<td>X Song, X Sun, SF Oh, M Wu, Y Zhang, W Zheng, N Geva-Zatorsky, R Jupp, D Mathis, C Benoist, DL Kasper</td>
<td>Nature</td>
<td>2019</td>
</tr>
<tr>
<td>Mitochondrial stress causes neuronal dysfunction via an ATF4-dependent increase in L-2-hydroxyglutarate</td>
<td>RJ Hunt, L Granat, GS McElroy, R Ranganathan, NS Chandel, JM Bateman</td>
<td>Journal of Cell Biology</td>
<td>2019</td>
</tr>
<tr>
<td>Proposing a validation scheme for 13C metabolite tracer studies in high-resolution mass spectrometry</td>
<td>M Schweiger-Haber, G Hermann, YE Abiead, E Rampler, S Wernisch, K Sas, S Pennathur, G Koelensperger</td>
<td>Analytical and Bioanalytical Chemistry</td>
<td>2019</td>
</tr>
<tr>
<td>The plasma metabolome as a predictor of biological aging in humans</td>
<td>LC Johnson, K Parker, BF Aguirre, TG Nemkov, A D'Alessandro, SA Johnson, DR Seals, CR Martens</td>
<td>Geroscience</td>
<td>2019</td>
</tr>
<tr>
<td>Selective organ ischaemia/reperfusion identifies liver as the key driver of the post-injury plasma metabolome derangements</td>
<td>N Clendenen, GR Nunns, EE Moore, E Gonzalez, M Chapman, JA Reisz, E Peltz, M Fragoso, T Nemkov, MJ Wither, A Sauaia, CC Silliman, K Hansen, A Banerjee, A D'Alessandro, HB Moore</td>
<td>Blood Transfusion</td>
<td>2019</td>
</tr>
<tr>
<td>Merged targeted quantification and untargeted profiling for comprehensive assessment of acylcarnitine and amino acid metabolism</td>
<td>T Teav, H Gallart-Ayal, V van der Velpen, F Mehl, H Henry, J Ivanisevic</td>
<td>Analytical Chemistry</td>
<td>2019</td>
</tr>
<tr>
<td>Transfusional iron overload and intravenous iron infusions modify the mouse gut microbiota similarly to dietary iron</td>
<td>F La Carpia, B S Wojczyk, MK Annavajhala, A Rebbaa, R Culp-Hill, A D'Alessandro, DE Freedberg, AC Uhlmann, EA Hod</td>
<td>Biofilms and Microbiomes</td>
<td>2019</td>
</tr>
<tr>
<td>Title</td>
<td>Authors</td>
<td>Journal</td>
<td>Date</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>Loss of the glucocorticoid receptor in zebrafish improves muscle glucose availability and increases growth</td>
<td>E Faught, MM Vijayan</td>
<td>American Journal of Physiology Endocrinology Metabolism</td>
<td>2019</td>
</tr>
<tr>
<td>Metabolic analysis reveals evidence for branched chain amino acid catabolism crosstalk and the potential for improved treatment of organic acidurias</td>
<td>S McCally, D Pirman, M Clasquin, K Johnson, S Jin, J Vockley</td>
<td>Molecular Genetics and Metabolism</td>
<td>2019</td>
</tr>
<tr>
<td>Comparison of data acquisition modes with Orbitrap high-resolution mass spectrometry for targeted and non-targeted residue screening in aquacultured eel</td>
<td>IL Wu, SB Turnipseed, JM Storey, WC Andersen, MR Madson</td>
<td>Rapid Communications in Mass Spectrometry</td>
<td>2019</td>
</tr>
<tr>
<td>Simultaneous determination of urinary 31 metabolites of VOCs, 8-hydroxy-2’-deoxyguanosine, and trans-35-hydroxyxocotetine by UPLC-MS/MS: “C- and “N-labeled isotoped internal standards are more effective on reduction of matrix effect</td>
<td>H Kuang, Y Li, W Jiang, P Wu, J Tan, H Zhang, O Pang, S Ma, T An, R Fan</td>
<td>Analytical and Bioanalytical Chemistry</td>
<td>2019</td>
</tr>
<tr>
<td>A triple quadrupole and a hybrid quadrupole Orbitrap mass spectrometer in comparison for polyphenol quantitation</td>
<td>C Cavaliere, M Antonelli, AL Capriotti, G La Barbera, CM Montone, S Piovesana, Aldo Laganà</td>
<td>Journal of Agricultural and Food Chemistry</td>
<td>2019</td>
</tr>
<tr>
<td>Analysis of the indole diterpene gene cluster for biosynthesis of the epoxy-janthitrems in Epichloë endophytes</td>
<td>EJ Ludlow, S Vassiliadis, PN Ekanayake, IK Hettiarachchige, P Reddy, TJ Sawbridge, SJ Rochfort, GC Spangenberg, KM Guthridge</td>
<td>Microorganisms</td>
<td>2019</td>
</tr>
<tr>
<td>Pharmacokinetic profile of amoxicillin and its glucuronide-like metabolite when administered subcutaneously to koalas (Phascolarctos cinereus)</td>
<td>B Kimble, L Vogelnest, S Gharibi, AM Izes, M Govenir</td>
<td>Journal of Veterinary Pharmacology and Therapeutics</td>
<td>2019</td>
</tr>
<tr>
<td>Effects of aged stored autologous red blood cells on human plasma metabolome</td>
<td>A D'Alessandro, JA Reisz, Y Zhang, S Gehrze, K Alexander, T Kania, DJ Tiulzi, C Donadee, S Barge, J Badlam, S Jain, MG Risbano, MT Gladwin</td>
<td>Blood Advances</td>
<td>2019</td>
</tr>
<tr>
<td>Comparison of the acute postprandial circulating B-vitamin and vitamer responses to single breakfast meals in young and older individuals: Preliminary secondary outcomes of a randomized controlled trial</td>
<td>P Sharma, N Gillies, S Pandur, CA Pileggi, JL Markworth, EB Thorstensen, D Cameron-Smith, AM Milan</td>
<td>Nutrients</td>
<td>2019</td>
</tr>
<tr>
<td>Biotransformation of myricetin: A novel metabolic pathway to produce aminated products in mice</td>
<td>S Zhang, R Wang, Y Zhao, FS Tareq, S Sang</td>
<td>Molecular Nutrition and Food Research</td>
<td>2019</td>
</tr>
<tr>
<td>Myc-mediated transcriptional regulation of the mitochondrial chaperone TRAP1 controls primary and metastatic tumor growth</td>
<td>E Agarwal, BJ Altman, JH Seo, JC Ghosh, AV Kossenkov, HY Tang, SR Krishn, LR Languino, DI Gabrilovich, DW Speicher, CV Dang, DC Alterri</td>
<td>Journal of Biological Chemistry</td>
<td>2019</td>
</tr>
<tr>
<td>Disrupting mitochondrial pyruvate uptake directs glutamine into the TCA cycle away from glutathione synthesis and impairs hepatocellular tumorigenesis</td>
<td>SC Tompkins, RD Sheldon, RJ Rauckhorst, MF Noterman, SR Solst, JL Buchanan, KA Mapuskar, AD Pewa, LR Gray, L Oonthonpan, A Sharma, DA Scerbo, AJ Dupuy, DR Spitz, EB Taylor</td>
<td>Cell Reports</td>
<td>2019</td>
</tr>
<tr>
<td>Increase in post-reperfusion sensitivity to tissue plasminogen activator-mediated fibrinolysis during liver transplantation is associated with abnormal metabolic changes and increased blood product utilisation</td>
<td>HB Moore, AA D'Alessandro, EE Moore, M Whither, PJ Lawson, BR Huebner, K Hansen, R Choudhury, TL Nydam</td>
<td>Blood Transfusion</td>
<td>2019</td>
</tr>
</tbody>
</table>
Skeletal muscle amino acid uptake is lower and alanine production is greater in late gestation intrauterine growth-restricted fetal sheep hindlimb


American Journal of Physiology: Regulatory, Integrative, and Comparative Physiology 2019

Pharmacokinetics of hydroxyzine and cetirizine following oral administration of hydroxyzine to exercised Thoroughbred horses

JHK Knych, D Weiner, S Steinmetz, K Flynn, DS McKemie

Journal of Veterinary Pharmacology and Therapeutics 2019

Integrated multiomic analysis reveals comprehensive tumour heterogeneity and novel immunophenotypic classification in hepatocellular carcinomas

Q Zhang, Y Lou, J Yang, J Wang, J Feng, Y Zhao, L Wang, X Huang, Q Fu, M Ye, X Zhang, Y Chen, C Ma, H Ge, J Wang, J Wu, T Wei, Q Chen, J Wu, C Yu, C Yu, Y Xiao, X Feng, G Guo, Y Liang, X Bai

Gut 2019

Reactive metabolite production is a targetable liability of glycolytic metabolism in lung cancer

A Luengo, KL Abbott, SM Davidson, AM Hosios, B Faubert, SH Chan, E Freinkman, LG Zacharias, TP Mathews, CB Gilsh, RJ DeBerardinis, CA Lewis, MGV Heiden

Nature Communications 2019

Acyl ethanolamides in Diabetes and Diabetic Nephropathy: Novel targets from untargeted plasma metabolomic profiles of South Asian Indian men

S Devi, B Nongkhlaw, M Limesh, RM Pasanna, T Thomas, R Kuriyan, AV Kurpad, A Mukhopadhyay

Scientific Reports 2019

Beneficial effects of kaempferol after developmental traumatic brain injury is through protection of mitochondrial function, oxidative metabolism, and neural viability

J Chitturi, V Santhakumar, SS Kannurpatti

Journal of Neurotrauma 2019

In vivo imaging of mitochondrial membrane potential in non-small-cell lung cancer


Nature 2019

SPARC dependent collagen deposition and gemcitabine delivery in a genetically engineered mouse model of pancreas cancer

I Ramu, SM Buchholz, MS Patzak, RG Goetze, SK Singh, FM Richards, DI Jodrell, B Sipos, P Ströbel, V Ellenrieder, E Hessmann, A Neeesse

EBioMedicine 2019

Consolidated biochemical profile of subacute stage traumatic brain injury in early development

J Chitturi, Y Li, V Santhakumar, SS Kannurpatti

Frontiers in Neuroscience 2019

Rac-mediated macropinocytosis of extracellular protein promotes glucose independence in non-small cell lung cancer

C Hodakoski, BD Hopkins, G Zhang, T Su, Z Cheng, R Morris, KY Rhee, MD Goncalves, LW Cantlay

Cancers 2019

Intense light-mediated circadian cardioprotection via transcriptional reprogramming of the endothelium

Y Oyama, CM Bartman, S Bonney, JS Lee, LA Walker, J Han, CH Borchers, PM Buttrick, CM Aherne, N Clendenen, SP Colgan, T Ecke

Cell Reports 2019

EGFR-phosphorylated platelet isoform of phosphofructokinase 1 promotes PI3K activation

JH Lee, R Liu, J Li, Y Wang, L Tan, XJ Li, X Qian, C Zhang, Y Xia, D Xu, W Guo, Z Ding, L Du, Y Zheng, Q Chen, PL Lorenzi, GB Mills, T Jiang, Z Lu

Molecular Cell Press 2019

A simple LC–MS method for the quantitation of alkaloids in endophyte-infected perennial ryegrass

S Vassiliadis, AC Elkins, P Reddy, KM Guthridge, GC Spangenberg, SJ Rochfort

Toxins 2019
<table>
<thead>
<tr>
<th>Title</th>
<th>Authors</th>
<th>Journal</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effect of fermented corn-soybean meal on serum immunity, the expression of genes related to gut immunity, gut microbiota, and bacterial metabolites in grower-finisher pigs</td>
<td>J Lu, X Zhang, Y Liu, H Cao, Q Han, B Xie, L Fan, X Li, J Hu, G Yang, X Shi</td>
<td>Frontiers in Microbiology</td>
<td>2019</td>
</tr>
<tr>
<td>Metabolic profiling of dialysate at sensitized acupoints in knee osteoarthritis patients</td>
<td>S Li, XN Chai, CY Zou, P Lv, Y Tang, HJ Tan, LZ Liu, HY Yin, SG Yu</td>
<td>Medicine</td>
<td>2019</td>
</tr>
<tr>
<td>Ferredoxin5 deletion affects metabolism of algae during the different phases of sulfur deprivation</td>
<td>V Subramanian, MSA Wecker, A Gerritsen, M Boehm, W Xiong, B Wachter, A Dubini, D Gonzalez-Ballester, RV Antonio, ML Ghirardi</td>
<td>Plant Physiology</td>
<td>2019</td>
</tr>
<tr>
<td>Type I interferon signaling disrupts the hepatic urea cycle and alters systemic metabolism to suppress T cell function</td>
<td>A Lercher, A Bhattacharya, AM Popa, M Caldera, MF Schlapansky, H Baazim, B Agerer, B Gurtl, L Kosack, P Majek, JS Brunner, D Vitko, T Pinter, JW Genger, A Orlova, K Pikor, D Reil, M Ozsvar-Kozma, U Kalinke, B Ludewig, R Moriggl, KL Bennett, J Menche, PN Cheng, G Schlabauer, M Trauner, K Klavins, A Bergthaler</td>
<td>Immunity</td>
<td>2019</td>
</tr>
<tr>
<td>Identification of potential biomarkers for soybean meal-induced enteritis in juvenile pearl gentian grouper, Epinephelus lanceolatus ♂ × Epinephelus fuscoguttatus ♀</td>
<td>W Zhang, B Tan, G Ye, J Wang, X Dong, Q Yang, S Chi, H Liu, S Zhang, H Zhang</td>
<td>Aquaculture</td>
<td>2019</td>
</tr>
<tr>
<td>Coordinate regulation of cholesterol and bile acid metabolism by the clock modifier nobiletin in metabolically challenged old mice</td>
<td>K Nohara, T Nemkov, A D'Alessandro, SH Yoo, Z Chen</td>
<td>International Journal of Molecular Sciences</td>
<td>2019</td>
</tr>
<tr>
<td>Metabonomic variation of exopolysaccharide from Rhizopus nigricans on AOM/DSS-induced colorectal cancer in mice</td>
<td>Y Lu, J Wang, Y Ji, K Chen</td>
<td>OncoTargets and Therapy</td>
<td>2019</td>
</tr>
<tr>
<td>Antibacterial isoquinoline alkaloids from the fungus Penicillium spathulatum Em19</td>
<td>C Nord, JJ Leventfors, J Bjerkatorp, C Sahliberg, B Guss, B Öberg, A Broberg</td>
<td>Molecules</td>
<td>2019</td>
</tr>
<tr>
<td>Adult stem cell deficits drive Slc29a3 disorders in mice</td>
<td>S Nair, AM Strohecker, AK Persaud, B Bissa, S Muruganandan, C McElroy, R Pathek, M Williams, R Raj, A Kaddouni, A Sparreboom, AM Beedle, R Govindajaran</td>
<td>Nature Communications</td>
<td>2019</td>
</tr>
<tr>
<td>The pentose phosphate pathway of cellulolytic clostridia relies on 6-phosphofructokinase instead of transaldolase</td>
<td>JG Koendjibahie, S Hon, M Pabst, R Hooftman, DM Stevenson, J Cui, D Amador-Noguez, LR Lynd, DG Olson, R van Kranenburg</td>
<td>The Journal of Biological Chemistry</td>
<td>2019</td>
</tr>
<tr>
<td>Biliopancreatic diversion induces greater metabolic improvement than Roux-en-Y gastric bypass</td>
<td>LA Harris, BD Kayser, C Cefalo, L Marini, JD Watrous, J Ding, M Jain, JG McDonald, BM Thompson, E Fabbrini, JC Eagon, BW Patterson, B Mittendorfer, G Mingrone, S Klein</td>
<td>Cell Metabolism</td>
<td>2019</td>
</tr>
<tr>
<td>Bacterial analogs of plant tetrahydropyridine alkaloids mediate microbial interactions in a rhizosphere model system</td>
<td>GL Lozano, HB Park, Jl Bravo, EA Armstrong, JM Denu, EV Stabb, NA Broderick, JM Crawford, J Handelsman</td>
<td>Applied and Environmental Biology</td>
<td>2019</td>
</tr>
<tr>
<td>Title</td>
<td>Authors</td>
<td>Journal</td>
<td>Date</td>
</tr>
<tr>
<td>---------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>--------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>CD9 identifies pancreatic cancer stem cells and modulates glutamine metabolism to fuel tumour growth</td>
<td>VMY Wang, RMM Ferreira, J Almagro, T Evan, N Legrave, MZ Thin, D Frith, J Carvalho, DJ Barry, AP Śniieders, E Herbert, EL Nye, JI MacRae, A Behrens</td>
<td>Nature Cell Biology</td>
<td>2019</td>
</tr>
<tr>
<td>p53 represses the mevalonate pathway to mediate tumor suppression</td>
<td>SH Moon, CH Huang, SL Houlihan, K Regunath, WA Freed-Pastor, JP Morris IV, DF Tschaharganeh, ER Kastenhuber, AM Barsotti, R Culp-Hill, W Xue, YJ Ho, T Baslan, X Li, A Mayle, E de Stanchina, L Zender, DR Tong, A D’Alessandro, SW Lowe, C Prives</td>
<td>Cell</td>
<td>2019</td>
</tr>
<tr>
<td>Determination of online quenching efficiency for an automated cellular microfluidic metabolomic platform using mass spectrometry based ATP degradation analysis</td>
<td>LA Filla, KL Sanders, JB Coulton, RT Filla, JL Edwards</td>
<td>Analytical and Bioanalytical Chemistry</td>
<td>2019</td>
</tr>
<tr>
<td>Regulation of folate and methionine metabolism by multisite phosphorylation of human methylenetetrahydrofolate reductase</td>
<td>Y Zheng, S Ramaamooji, Q Li, JL Johnson, TM Yaron, K Sharr, LC Cantley</td>
<td>Scientific Reports</td>
<td>2019</td>
</tr>
<tr>
<td>Functional characterization of the cytochrome P450 monooxygenase CYP71AU87 indicates a role in marrubiin biosynthesis in the medicinal plant Marrubium vulgare</td>
<td>PS Karunanithi, P Dhanota, JB Addison, S Tong, O Fiehn, P Zerbe</td>
<td>BMC Plant Biology</td>
<td>2019</td>
</tr>
<tr>
<td>Analysis of amino acids in human tears by hydrophilic interaction liquid chromatography and quadrupole Orbitrap mass spectrometry</td>
<td>CX Du, Z Huang</td>
<td>RSC Advances</td>
<td>2019</td>
</tr>
<tr>
<td>The carbamate aldicarb altered the gut microbiome, metabolome, and lipidome of C57BL/6J mice</td>
<td>B Gao, L Chi, P Tu, N Gao, K Lu</td>
<td>Chemical Research in Toxicology</td>
<td>2019</td>
</tr>
<tr>
<td>Profiling glucosinolate metabolites in human urine and plasma after broccoli consumption using non-targeted and targeted metabolomic analyses</td>
<td>J Sun, CS Charron, JA Novotny, B Peng, L Yu, P Chen</td>
<td>Food Chemistry</td>
<td>2020</td>
</tr>
<tr>
<td>Lipid-lowering effects and intestinal transport of polyphenol extract from digested buckwheat in Caco-2/HepG2 coculture models</td>
<td>Y Yao, F Xu, X Ju, Z Li, L Wang</td>
<td>Journal of Agricultural and Food Chemistry</td>
<td>2020</td>
</tr>
<tr>
<td>Dietary genistein reduces methyglyoxal and advanced glycation end product accumulation in obese mice treated with high-fat diet</td>
<td>Y Zhao, Y Zhu, P Wang, S Sang</td>
<td>Journal of Agricultural and Food Chemistry</td>
<td>2020</td>
</tr>
<tr>
<td>Pectin and inulin stimulated the mucus formation at a similar level: An omics-based comparative analysis</td>
<td>J Xie, R Yu, J Qi, G Zhang, X Peng, J Luo</td>
<td>Journal of Food Science</td>
<td>2020</td>
</tr>
<tr>
<td>Title</td>
<td>Authors</td>
<td>Journal</td>
<td>Date</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
<td>----------------------------------------------</td>
<td>--------</td>
</tr>
<tr>
<td>Integration of transcriptomics and metabolomics profiling reveals the metabolic pathways affected in dictamine-induced hepatotoxicity in mice</td>
<td>ZQ Li, LL Wang, J Zhou, X Zheng, Y Jiang, P Li, HJ Li</td>
<td>Journal of Proteomics</td>
<td>2020</td>
</tr>
<tr>
<td>Heterogeneous response in rabbit fetal diaphragmatic hernia lungs after tracheal occlusion</td>
<td>E Dobrinskikh, SI Al-Juboori, M Oria, J Reisz, C Zheng, JL Peiro, Al Marwan</td>
<td>Journal of Surgical Research</td>
<td>2020</td>
</tr>
<tr>
<td>Large-scale profiling of cellular metabolic activities using deep ¹³C labeling medium</td>
<td>N Grankvist, JD Watrous, M Jain, R Nilsson</td>
<td>Methods in Molecular Biology</td>
<td>2020</td>
</tr>
<tr>
<td>Nicotine exposure increases markers of oxidant stress in stored red blood cells from healthy donor volunteers</td>
<td>D Stefanoni, X Fu, JA Reisz, T Karias, T Nemkov, GP Page, L Dumont, N Roubianian, M Stone, S Kleinman, M Busch, JC Zimring, A D' Alessandro</td>
<td>Transfusion</td>
<td>2020</td>
</tr>
<tr>
<td>Metabolomics of endurance capacity in World Tour professional cyclists</td>
<td>I San-Millan, D Stefanoni, JL Martinez, KC Hansem, A D'Alessandro, T Nemkov</td>
<td>Frontiers in Physiology</td>
<td>2020</td>
</tr>
<tr>
<td>Toxicology of paraquat and pharmacology of the protective effect of 5-hydroxy-1-methylhydantoin on lung injury caused by paraquat based on metabolomics</td>
<td>L Gao, H Yuan, E Xu, J Liu</td>
<td>Scientific Reports</td>
<td>2020</td>
</tr>
<tr>
<td>Metabolic phenotypes of standard and cold-stored platelets</td>
<td>A D'Alessandro, KA Thomas, D Stefanoni, F Gamboni, SM Shea, JA Reisz, PC Spinella</td>
<td>Transfusion</td>
<td>2020</td>
</tr>
<tr>
<td>Integration of transcriptomic and metabolomic data reveals metabolic pathway alteration in mouse spermatogonia with the effect of copper exposure</td>
<td>S Lin, N Qiao, H Chen, Z Tang, Q Han, K Mehmood, SA Fazlani, S Hameed, Y Li, H Zhang</td>
<td>Chemosphere</td>
<td>2020</td>
</tr>
<tr>
<td>Integrative transcriptomics and metabolomics data exploring the effect of chitosan on postharvest grape resistance to Botrytis cinerea</td>
<td>Z Zhang, P Zhao, P Zhang, L Su, H Jia, Z Wei, J Fang, H Jia</td>
<td>Postharvest Biology and Technology</td>
<td>2020</td>
</tr>
<tr>
<td>Metabolomics response for drought stress tolerance in Chinese wheat genotypes (Triticum aestivum)</td>
<td>Z Guo, Z Xin, T Yang, X Ma, Y Zhang, Z Wang, Y Ren, T Lin</td>
<td>Plants</td>
<td>2020</td>
</tr>
<tr>
<td>Integrating RNA-sequencing and untargeted LC–MS metabolomics to evaluate the effect of lysine deficiency on hepatic functions in holstein calves</td>
<td>F Kong, Y Bi, B Wang, K Cui, T Fu, Q Diao, Y Tu</td>
<td>Amino Acids</td>
<td>2020</td>
</tr>
<tr>
<td>Drosha-independent miR-6778-5p strengthens gastric cancer stem cell stemness via regulation of cytosolic one-carbon folate metabolism</td>
<td>M Zhao, Y Hou, Y Du, L Yang, Y Qin, M Peng, S Liu, X Wan, Y Qiao, H Zeng, Z Cui, Y Teng, M Liu</td>
<td>Cancer Letters</td>
<td>2020</td>
</tr>
<tr>
<td>Improved annotation of untargeted metabolomics data through buffer modifications that shift adduct mass and intensity</td>
<td>W Lu, X Xing, L Wang, L Chen, S Zhang, MR McReynolds, JD Rabinowitz</td>
<td>Analytical Chemistry</td>
<td>2020</td>
</tr>
<tr>
<td>In-source CID ramping and covariant ion analysis of hydrophilic interaction chromatography metabolomics</td>
<td>X Su, E Chiles, S Maimouni, FE Wondisford, WX Zong, C Song</td>
<td>Analytical Chemistry</td>
<td>2020</td>
</tr>
<tr>
<td>Stable isotope metabolomics of pulmonary artery smooth muscle and endothelial cells in pulmonary hypertension and with TGF-beta treatment</td>
<td>D Hernandez-Saavedra, L Sanders, s Freeman, JA Reisz, MH Lee, C Mickael, R Kumar, B Kassa, S Gu, A D'Alessandro, KR Stenmark, RM Tudor, BB Graham</td>
<td>Scientific Reports</td>
<td>2020</td>
</tr>
<tr>
<td>Hypoxic storage of red blood cells improves metabolism and post-transfusion recovery</td>
<td>A D'Alessandro, T Yoshiida, S Nestheide, T Nemkov, S Stocker, D Stefanoni, F Mohmoud, N Rugg, A Dunham, JA Cancelas</td>
<td>Transfusion</td>
<td>2020</td>
</tr>
<tr>
<td>Title</td>
<td>Authors</td>
<td>Journal</td>
<td>Date</td>
</tr>
<tr>
<td>---------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>----------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>Stored RBC metabolism as a function of caffeine levels</td>
<td>A D’Alessandro, X Fu, JA Reisz, T Kanias, GP Page, M Stone, S Kleinman, JC Zimring, M Busch</td>
<td>Transfusion Medicine</td>
<td>2020</td>
</tr>
<tr>
<td>A solution to antifolate resistance in group B streptococcus: Untargeted metabolomics identifies human milk oligosaccharide-induced perturbations that result in potentiation of trimethoprim</td>
<td>SA Chambers, RE Moore, KM Craft, HC Thomas, R Das, SD Manning, SG Codreaunu, SD Sherrod, DM Aronoff, JA McLean, JA Gaddy, SD Townsend</td>
<td>Therapeutics and Prevention</td>
<td>2020</td>
</tr>
<tr>
<td>Spatial metabolomics of in situ host–microbe interactions at the micrometre scale</td>
<td>B Gaier, EM Sogin, D Michiold, M Janda, M Kompauer, B Spengler, N Dubilier, M Liebeke</td>
<td>Nature Microbiology</td>
<td>2020</td>
</tr>
<tr>
<td>Metabolic reprogramming of mouse bone marrow derived macrophages following erythropagocytosis</td>
<td>A Catala, LA Youssef, JA Reisz, M Dzieciatkowska, NE Powers, C Marchetti, M Karafin, JC Zimring, KE Hudson, KC Hansen, SL Spitalnik, A D’Alessandro</td>
<td>Frontiers in Physiology</td>
<td>2020</td>
</tr>
<tr>
<td>Rapid identification of MDMB-CHMINACA metabolites using zebrafish and human liver microsomes as the biotransformation system by LC-QE-HF-MS</td>
<td>Q Xu, Y Dai, W Zhang, J Wang, Y Wang, Y Zhang, Guobin-xin, Q Zhao, X Li</td>
<td>Journal of Analytical Toxicology</td>
<td>2020</td>
</tr>
<tr>
<td>Stevia metabolites in biosamples ranging from fetal life to adulthood</td>
<td>B Halasa, P Walter, H Cai, M Gonzales, M Walter, E Shouppe, P Kosa, B Bielekova, L Hui, K Rother</td>
<td>Current Developments in Nutrition</td>
<td>2020</td>
</tr>
<tr>
<td>In vitro hepatic metabolism of mefloquine using microsomes from cats, dogs and the common brush-tailed possum (Trichosurus vulpecula)</td>
<td>AM Izes, B Kimble, JM Norris, M Goyendr</td>
<td>PLOS One</td>
<td>2020</td>
</tr>
<tr>
<td>Glucose metabolic characterization of human aqueous humor in relation to wet age-related macular degeneration</td>
<td>G Han, P Wei, M He, H Teng</td>
<td>Investigative Ophthalmology &amp; Visual Science</td>
<td>2020</td>
</tr>
<tr>
<td>Synthesis of cyclophosphamide metabolites by a peroxygenase from Marasmius rotula for toxicological studies on human cancer cells</td>
<td>S Steinbrecht, J Kiebist, R König, M Thiessen, KU Schmidtke, S Kammerser, JH Küpper, K Scheibner</td>
<td>AMB Express</td>
<td>2020</td>
</tr>
<tr>
<td>Immune-responsive gene 1/lactate activates nuclear factor erythroid 2–related factor 2 in hepatocytes to protect against liver ischemia–reperfusion injury</td>
<td>Z Yi, M Deng, MJ Scott, G Fu, PA Loughran, Z Lei, S Li, P Sun, C Yang, W Li, H Xu, F Huang, TR Billiar</td>
<td>Hepatology</td>
<td>2020</td>
</tr>
<tr>
<td>Title</td>
<td>Authors</td>
<td>Journal</td>
<td>Date</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------</td>
<td>----------------------------------------------------------</td>
<td>--------</td>
</tr>
<tr>
<td>Intrinsic clearance rate of O-desmethyltramadol (M1) by glucuronide</td>
<td>AM Izes, B Kimble, Merran Govendir</td>
<td>Xenobiotica</td>
<td>2020</td>
</tr>
<tr>
<td>conjugation and phase I metabolism by feline, canine and common brush-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>tailed possum microsomes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local phenomena shape backyard soil metabolite composition</td>
<td>TD Nguyen, M Lesani, I Forrest, Y Lan, DA Dean, QMR Gibaut, Y Guo,</td>
<td>Metabolites</td>
<td>2020</td>
</tr>
<tr>
<td></td>
<td>E Hossain, M Olvera, H Panilio, AR Parab, C Wu, JA Bernatchez, RH</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cichewicz, LI McCall</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Antibacterial pyrrolidinyl and piperidinyl substituted 2,4-</td>
<td>JJ Levenfors, C Nord, J Bjerketorp, J Stählberg, R Larsson, B Guss,</td>
<td>The Journal of Antibiotics</td>
<td>2020</td>
</tr>
<tr>
<td>diacyetylphloroglucinols from Pseudomonas protegens UP46</td>
<td>B Öberg, A Broberg</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mass spectrometry-based stable-isotope tracing uncovers metabolic</td>
<td>N Petchampai, J Isoe, TD Horvath, S Dagan, L Tan, PL Lorenzi, DH</td>
<td>Insect Biochemistry and Molecular Biology</td>
<td>2020</td>
</tr>
<tr>
<td>alterations in pyruvate kinase-deficient Aedes aegypti mosquitoes</td>
<td>Hawke, PY Scaraffia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maternal erythrocyte ENT1–mediated AMPK activation counteracts</td>
<td>S Sayama, A Song, BC Brown, J Couturier, X Cai, P Xu, C Chen, Y Zheng,</td>
<td>JCI Insight</td>
<td>2020</td>
</tr>
<tr>
<td>placental hypoxia and supports fetal growth</td>
<td>T Iriyama, B Sibai, M Longo, RE Kellemens, A D’Alessandro, Y Xia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IL-37 ameliorating allergic inflammation in atopic dermatitis through</td>
<td>T Hou, X Sun, J Zhu, KL Hon, P Jiang, IMT Chu, MSM Tsang, CWK Lam, H</td>
<td>Frontiers in Immunology</td>
<td>2020</td>
</tr>
<tr>
<td>regulating microbiota and AMPK-mTOR signaling pathway-modulated</td>
<td>Zeng, CK Wong</td>
<td></td>
<td></td>
</tr>
<tr>
<td>autophagy mechanism</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quantitative analysis of metabolites in glucose metabolism in the</td>
<td>P Wei, M He, H Teng, G Han</td>
<td>Experimental Eye Research</td>
<td>2020</td>
</tr>
<tr>
<td>aqueous humor of patients with central retinal vein occlusion</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Simultaneous production of psilocybin and a cocktail of β-carboline</td>
<td>F Blei, S Dorner, J Frickie, F Baldeweg, F Trottmann, A Komor, F</td>
<td>Chemistry</td>
<td>2020</td>
</tr>
<tr>
<td>monoamine oxidase inhibitors in “magic” mushrooms</td>
<td>Meyer, C Hertweck, D Hoffmeister</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Optimized serial expansion of human induced pluripotent stem cells</td>
<td>BS Borys, T So, J Colter, T Dang, EL Roberts, T Revay, L Larijani, R</td>
<td>Stem Cells Translational Medicine</td>
<td>2020</td>
</tr>
<tr>
<td>using low-density inoculation to generate clinically relevant</td>
<td>Krawetz, I Lewis, B Arigopoulou, DE Rancourt, Jung, Y</td>
<td></td>
<td></td>
</tr>
<tr>
<td>quantities in vertical-wheel bioreactors</td>
<td>Hashimura, B Lee, MS Kallos</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A new software-assisted analytical workflow based on high-resolution</td>
<td>A Cerrato, G Cannazza, AL Capriotti</td>
<td>Talanta</td>
<td>2020</td>
</tr>
<tr>
<td>mass spectrometry for the systematic study of phenolic compounds in</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>complex matrices</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paroxetine administration affects microbiota and bile acid levels in</td>
<td>F Dethloff, F Vargas, E Elijah, R Quinn, DI Park, DP Herzog, MB Müller,</td>
<td>Frontiers in Psychiatry</td>
<td>2020</td>
</tr>
<tr>
<td>mice</td>
<td>EC Gentry, R Knight, A Gonzalez, PC Dorrestein, CW Turk</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decoding the metabolic landscape of pathophysiological stress-induced</td>
<td>T Nemkov, SM Qadri, WP Sheffield, A D’Alessandro</td>
<td>Blood Transfusion</td>
<td>2020</td>
</tr>
<tr>
<td>cell death in anucleate red blood cells</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gut microbiome and serum metabolome analyses identify unsaturated</td>
<td>D Wang, S Guo, H He, L Gong, H Cui</td>
<td>Frontiers in Cellular and Infection Microbiology</td>
<td>2020</td>
</tr>
<tr>
<td>fatty acids and butanoate metabolism induced by gut microbiota in</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>patients with chronic spontaneous urticaria</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Levocarnitine does not impair chemotherapy cytotoxicity against acute</td>
<td>JL Sea, E Orgel, T Chen, RL Paszkiewicz, AS Krall, MJ Oberley, L</td>
<td>Leukemia and Lymphoma</td>
<td>2020</td>
</tr>
<tr>
<td>lymphoblastic leukemia</td>
<td>Stiles, SD Mittelman</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Metabolites | Lipids | Pharma | Proteins | Food | (Bio)Synthesis | Nucleic Acids | Traditional Medicine | Antibodies | Environmental | Toxicology | Chromatography | Misc | Thermo

Next page  Back to contents
Identification of trenbolone metabolites using hydrogen isotope ratio mass spectrometry and liquid chromatography/high accuracy/high resolution mass spectrometry for doping control analysis
M Putz, T Piper, M Thevis
Frontiers in Chemistry 2020

A new phenolic compound from Phedimus middendorffianus with antiproliferative activity
J Lee, S Woo, SH Sung, H Yang
Natural Product Research 2020

Facile preparation of a magnetic porous organic frameworks for highly sensitive determination of eight alkaloids in urine samples based UHPLC-MS/MS
K Hu, T Pang, Y Shi, J Cheng, Y Huang
Microchemical Journal 2020

Gut microbiota compositional profile and serum metabolic phenotype in patients with primary open-angle glaucoma
H Gong, S Zhang, Q Li, C Zuo, X Gao, B Zheng, M Lin
Experimental Eye Research 2020

Germinal center B cells selectively oxidize fatty acids for energy while conducting minimal glycolysis
FJ Weisel, SJ Mullet, RB Elsner, AV Menk, N Trivedi, W Luo, D Wikanheiser, WF Hawse, M Chikina, S Smits, LJ Conter, SM Joachim, SG Wendell, MJ Jurczak, TH Winkler, GM Delgoffe, MJ Shlomchik
Nature Immunology 2020

A role for tryptophan-2,3-dioxygenase in CD8 T cell suppression and evidence of tryptophan catabolism in breast cancer patient plasma
LI Greene, TC Bruno, JL Christenson, A D’Alessandro, R Culp-Hill, K Torkko, VF Borges, JE Slansky, JK Richer
Molecular Cancer Research 2020

Leucinostatins from Ophiocordyceps spp. and Purpureocillium spp. demonstrate selective antiproliferative effects in cells representing the luminal androgen receptor subtype of triple negative breast cancer
YS Kil, AL Risinger, CL Petersen, SL Mooberry, RH Cichewicz
Journal of Natural Products 2020

Strain-dependent inhibition of Clostridioides difficile by commensal clostridia carrying the bile acid-inducible (bai) operon
AD Reed, NA Stewart, R Barrangou, CM Theriot
Journal of Bacteriology 2020

Lipokine 5-PAHSA is regulated by adipose triglyceride lipase and primes adipocytes for de novo lipogenesis in mice
V Paluchova, M Oseeva, M Brezinova, T Caja, K Bardova, K Adamcova, P Zacek, K Brejchova, L Balas, H Chodounksa, E Kidova, R Schreiber, R Zechner, T Durand, M Rossmeisl, NA Abumrad, J Kopecky, O Kuda
Diabetes 2020

Reversal of triple-negative breast cancer EMT by miR-200c decreases tryptophan catabolism and a program of immune-suppression
Molecular Cancer Research 2020

Data highlighting phenotypic diversity of urine-associated Escherichia coli isolates
AR Eberly, CJ Beebout, CM Tong, GT Van Horn, HD Green, MJ Fitzgerald, S De, EK Apple, AC Schrimpe-Rutledge, SG Codreanu, SD Sherrod, JA McLean, DB Clayton, CW Stratton, JE Schmitz, M Hadjifrangiskou
Data Brief 2020

Low-concentration of dichloroacetotin (DCAN) in drinking water perturbs the health-associated gut microbiome and metabolic profile in rats
B Xue, K Dai, X Zhang, S Wang, C Li, C Zhao, X Yang, Z Xi, Z Qiu, Z Shen, J Wang
Chemosphere 2020
<table>
<thead>
<tr>
<th>Title</th>
<th>Authors</th>
<th>Journal</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Streptomyces spp. from the marine sponge Antho dichotoma: Analyses of secondary metabolite biosynthesis gene clusters and some of their products</td>
<td>JF Guerroro-Garzón, M Zehl, O Schneider, C Rücker, T Busche, J Kalinowski, H Bredholt, SB Zotchew</td>
<td>Frontiers in Microbiology</td>
<td>2020</td>
</tr>
<tr>
<td>A wealth of genotype-specific proteofoms fine-tunes hemoglobin scavenging by haptoglobin</td>
<td>S Tamara, V Franc, AJR Heck</td>
<td>PNAS</td>
<td>2020</td>
</tr>
<tr>
<td>Huntington’s disease genotype suppresses global manganese-responsive processes in pre-manifest and manifest YAC128 mice</td>
<td>AC Pfalzer, JM Wilcox, SG Codrèanu, M Totten, TJV Bichell, THalbesma, PJ Umashanker, KL Yang, NL Parnalee, SD Sherrod, KM Erikson, FE Harrison, JA McLean, M Aschner, AB Bowman</td>
<td>Metallomics</td>
<td>2020</td>
</tr>
<tr>
<td>Elevated choline kinase α–mediated choline metabolism supports the prolonged survival of TRAF3-deficient B lymphocytes</td>
<td>S Gokhale, W Lu, S Zhu, Y Liu, RP Hart, JD Rabinowitz, P Xie</td>
<td>The Journal of Immunology</td>
<td>2020</td>
</tr>
<tr>
<td>Dietary prebiotics alter novel microbial dependent fecal metabolites that improve sleep</td>
<td>RS Thompson, F Vargas, PC Dorrestein, M Chichlowski, BM Berg, M Fleshner</td>
<td>Scientific Reports</td>
<td>2020</td>
</tr>
<tr>
<td>Simultaneous measurement of urinary trimethylamine (TMA) and trimethylamine n-oxide (TMAO) by liquid chromatography–mass spectrometry</td>
<td>X Jia, LJ Osborn, Z Wang</td>
<td>Molecules</td>
<td>2020</td>
</tr>
<tr>
<td>A combination of inhibiting microglia activity and remodeling gut microenvironment suppresses the development and progression of experimental autoimmune uveitis</td>
<td>J Zhou, J Yang, M Dai, D Lin, R Zhang, H Liu, A Yu, S Vakal, Y Wang, X Li</td>
<td>Biochemical Pharmacology</td>
<td>2020</td>
</tr>
<tr>
<td>Insights into the natural defenses of a coral reef fish against gill ectoparasites: Integrated metabolome and microbiome approach</td>
<td>M Reverter, P Sasal, MT Suzuki, D Raviglione, N Inguiumbert, A Pare, B Banaigs, SN Voisin, P Bulet, N Tapiessier-Bontemps</td>
<td>Metabolites</td>
<td>2020</td>
</tr>
<tr>
<td>Kynurenic acid protects against ischemia/reperfusion-induced retinal ganglion cell death in mice</td>
<td>RB Nahomi, MH Nam, J Rankenberg, S Rakete, JA Houck, GC Johnson, DL Stankowska, MB Pantcheva, PS MacLean, RH Nagaraj</td>
<td>Internation Journal of Molecular Sciences</td>
<td>2020</td>
</tr>
<tr>
<td>Androgen-induced expression of DRP1 regulates mitochondrial metabolic reprogramming in prostate cancer</td>
<td>YG Lee, Y Nam, KJ Shin, S Yoon, WS Park, JY Joung, JK Seo, J Jang, S Lee, D Nam, MC Cairo, PG Suh, YC Chae</td>
<td>Cancer Letters</td>
<td>2020</td>
</tr>
<tr>
<td>A high-resolution mass spectrometry-based quantitative metabolomic workflow highlights defects in 5-fluorouracil metabolism in cancer cells with acquired chemoresistance</td>
<td>S Shahi, CS Ang, S Mathivanan</td>
<td>Biology</td>
<td>2020</td>
</tr>
<tr>
<td>Novel antifungal activity of lolium-associated Epichloë endophytes</td>
<td>K Fernando, P Reddy, IK Hettiarachchige, GC Spangenberg, SJ Rochfort, KM Guthridge</td>
<td>Microorganisms</td>
<td>2020</td>
</tr>
<tr>
<td>Title</td>
<td>Authors</td>
<td>Journal</td>
<td>Date</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------</td>
<td>----------------------------------------------</td>
<td>------------</td>
</tr>
<tr>
<td>Spiking and homogenization of biological matrices for production of reference materials using cryogenic processes</td>
<td>DL Ellisor, WC Davis, RS Pugh</td>
<td>Analytical and Bioanalytical Chemistry</td>
<td>2020</td>
</tr>
<tr>
<td>Leishmania encodes a bacterium-like 2,4-dienoyl-coenzyme A reductase that is required for fatty acid β-oxidation and intracellular parasite survival</td>
<td>G Semini, D Paape, M Blume, MF Sarneel, D Peres-Alonso, S Calvignac-Spencer, J Döllinger, S Jehle, E Saunders, MC McConville, T Aeberliher</td>
<td>mBio</td>
<td>2020</td>
</tr>
<tr>
<td>Metabolic interaction between ammonia and baicalein</td>
<td>S Zhang, R Wang, Y Zhao, FS Tareq, S Sang</td>
<td>Chemical Research in Toxicology</td>
<td>2020</td>
</tr>
<tr>
<td>Effects of acute versus recurrent insulin-induced hypoglycemia on ventromedial hypothalamic nucleus metabolic-sensory neuron AMPK activity: Impact of alpha1-adrenergic receptor signaling</td>
<td>KP Briski, SK Mandal, K Bheemanapally, MMH Ibrahim</td>
<td>Brain Research Bulletin</td>
<td>2020</td>
</tr>
<tr>
<td>Comparative evaluation of itaconate and its derivatives reveals divergent inflammasome and type I interferon regulation in macrophages</td>
<td>A Swain, M Bambouskova, H Kim, PS Andhey, D Duncan, K Auclair, V Chubukov, DM Simons, TP Roddy, KM Stewart, MN Artymov</td>
<td>Nature Metabolism</td>
<td>2020</td>
</tr>
<tr>
<td>Diversity of secondary metabolism in Aspergillus nidulans clinical isolates</td>
<td>MT Drott, RW Bastos, A Rokas, LNA Ries, T Gabaldón, GH Goldman, NP Keller, C Greco</td>
<td>mSphere</td>
<td>2020</td>
</tr>
<tr>
<td>Smart biomimetic nanocomposites mediate mitochondrial outcome through aerobic glycolysis reprogramming: A promising treatment for lymphoma</td>
<td>Q Zhao, J Li, B Wu, Y Shang, X Huang, H Dong, H Liu, W Chen, R Gui, X Nie</td>
<td>Applied Materials an Interfaces</td>
<td>2020</td>
</tr>
<tr>
<td>Metabolite profiling revealed that a gardening activity program improves cognitive ability correlated with BDNF levels and serotonin metabolism in the elderly</td>
<td>SA Park, DY Son, AY Lee, HG Park, WL Lee, CH Lee</td>
<td>International Journal of Environmental Research and Public Health</td>
<td>2020</td>
</tr>
<tr>
<td>Physiological phenotypes and urinary metabolites associated with the psychological changes of healthy human: A study in “lunar palace 365”</td>
<td>Z Hao, S Feng, Y Zhu, J Yng, C Meng, D Hu, H Liu, H Liu</td>
<td>Acta Astronautica</td>
<td>2020</td>
</tr>
<tr>
<td>Bacteria boost mammalian host NAD metabolism by engaging the deamidated biosynthesis pathway</td>
<td>I Shats, JG Williams, J Liu, MV Makarov, X Wu, FB Lih, LJ Deterding, C Lim, X Xu, TA Randall, E Lee, W Li, W Fan, JL Li, M Sokolsky, AV Kabanov, L Li, ME Migaud, JW Locasale, X Li</td>
<td>Cell Metabolism</td>
<td>2020</td>
</tr>
<tr>
<td>Methyl-metabolite depletion elicits adaptive responses to support heterochromatin stability and epigenetic persistence</td>
<td>SA Haws, D Yu, C Ye, CK Wille, LC Nguyen, KA Krautkramer, JT Tomsaweicz, SE Yang, BR Miller, WH Liu, K Igarashi, R Sridharan, BP Tu, VL Cryns, DW Lamming, JM Denu</td>
<td>Molecular Cell</td>
<td>2020</td>
</tr>
<tr>
<td>Title</td>
<td>Authors</td>
<td>Journal</td>
<td>Date</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
<td>----------------------------------------------</td>
<td>--------</td>
</tr>
<tr>
<td>Combined transcriptomic and metabolomic analyses uncover rearranged</td>
<td>J Xu, Z Chen, F Wang, W Jia, Z Xu</td>
<td>Scientific Reports</td>
<td>2020</td>
</tr>
<tr>
<td>gene expression and metabolite metabolism in tobacco during cold</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>acclimation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Long-term high intake of 9-PAHPA or 9-OAHPA increases basal metabolism</td>
<td>M Benlebna, L Balas, B Bonafos, L Pessemesesse, C Vigor, J Grober, F</td>
<td>The Journal of Nutritional Biochemistry</td>
<td>2020</td>
</tr>
<tr>
<td>and insulin sensitivity but disrupts liver homeostasis in healthy</td>
<td>Bernex, G Fouret, V Paluchova, S Gaillet, JF Landrier, O Kuda, T</td>
<td></td>
<td></td>
</tr>
<tr>
<td>mice</td>
<td>Durand, C Coudray, F Casas, C Feillet-Coudray</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The small intestine shields the liver from fructose-induced steatosis</td>
<td>C Jang, S Wada, S Yang, B Gosis, X Feng, Z Zhang, Y Shen, G Lee, Z</td>
<td>Nature Metabolism</td>
<td>2020</td>
</tr>
<tr>
<td></td>
<td>Arany, JD Rabinowitz</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single-cell RNA sequencing maps endothelial metabolic plasticity in</td>
<td>K Rohnenova, J Goveia, M García-Caballero, A Subramanian, J Kalucka,</td>
<td>Cell Metabolism</td>
<td>2020</td>
</tr>
<tr>
<td>pathological angiogenesis</td>
<td>L Treps, KD Falkenberg, LPMH de Rooij, Y Zheng, L Lin, L Sokol, LA</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Teuken, V Geldhof, F Taverna, A Pircher, LC Conradi, S Khan, S Stegen,</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>D Panovska, FD Smet, FJT Staal, RJ Mclaughlin, S Vinckier, TV Bergen,</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>N Ectors, PD Haes, J Wang, L Bolund, L Schoonjans, TK Karakach, H Yang,</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>G Carmeliet, P Carmeliet</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HDAC inhibitors elicit metabolic reprogramming by targeting super-</td>
<td>TTT Nguyen, Y Zhang, E Shang, C Shu, C Torrini, J Zhao, E Bianchetti,</td>
<td>The Journal of Clinical Investigation</td>
<td>2020</td>
</tr>
<tr>
<td>enhancers in glioblastoma models</td>
<td>A Mela, N Humala, A Mahajan, AO Harmanci, Z Lei, M Mainschein-Cline,</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CM Quinzi, MA Westhoff, G Karpel-Massler, JN Bruce, P Canoll, MD</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Siegelin</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Effects of underfeeding and oral vancomycin on gut microbiome and</td>
<td>A Basolo, M Hohenadel, QY Ang, P Piaggi, S Heinitz, M Walter, P Walter,</td>
<td>Nature Medicine</td>
<td>2020</td>
</tr>
<tr>
<td>nutrient absorption in humans</td>
<td>S Parrington, DD Trinidad, RJ von Schwartzzenber, RJ Turnbaugh, J</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Krakoff</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Title</td>
<td>Authors</td>
<td>Journal</td>
<td>Date</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------</td>
<td>----------------------------------------------</td>
<td>--------</td>
</tr>
<tr>
<td>Comprehensive untargeted lipidomic analysis using core–shell C30 particle column and high field Orbitrap mass spectrometer</td>
<td>M Narváez-Rivas, Q Zhang</td>
<td>Journal of Chromatography A</td>
<td>2016</td>
</tr>
<tr>
<td>Coupling targeted and untargeted mass spectrometry for Metabolome-microbiome-wide association studies of human fecal samples</td>
<td>AV Melnik, RR da Silva, ER Hyde, AA Aksenov, F Vargas, A Bouslimani, I Protsyuk, AK Jarmusch, A Tripathi, T Alexandrov, Rob Knight, PC Dorrestein</td>
<td>Analytical Chemistry</td>
<td>2017</td>
</tr>
<tr>
<td>Comparison of methylation methods for fatty acid analysis of milk fat</td>
<td>Z Liu, V Ezernieks, S Rochfort, B Cocks</td>
<td>Food Chemistry</td>
<td>2018</td>
</tr>
<tr>
<td>LipiDex: An integrated software package for high-confidence lipid identification</td>
<td>PD Hutchins, JD Russell, JJ Coon</td>
<td>Cell Systems</td>
<td>2018</td>
</tr>
<tr>
<td>Optimization of folch, bligh-dyer, and matyash sample-to-extraction solvent ratios for human plasma-based lipidomics studies</td>
<td>CZ Ulmer, CM Jones, CM Jones, RA Yost, TJ Garrett, JA Bowden</td>
<td>Analytica Chimica Acta</td>
<td>2018</td>
</tr>
<tr>
<td>Fumonisin B1 inhibits endoplasmic reticulum stress associated-apoptosis after FoscanPDT combined with C6-cyridinium ceramide or fenretinide</td>
<td>NB Boppana, JM Kraveka, M Rahmaniyan, L Li, A Bielawska, J Bielawski, JS Pierce, JS Delor, K Zhang, M Korbelik, D Separovic</td>
<td>Anticancer Research</td>
<td>2018</td>
</tr>
<tr>
<td>Endogenous fatty acids are essential signaling factors of pancreatic β-cells and insulin secretion</td>
<td>S Hauke, K Keutler, P Phapale, DA Yushchenko, C Schultz</td>
<td>Diabetes</td>
<td>2018</td>
</tr>
<tr>
<td>Simultaneous non-polar and polar lipid analysis by on-line combination of HILIC, RP and high resolution MS</td>
<td>E Rampler, H Schoeny, BM Mitic, YE Abiead, M Schwaiger, G Koellensperger</td>
<td>Analyst</td>
<td>2018</td>
</tr>
<tr>
<td>Delving into the polar lipidome by optimized chromatographic separation, high-resolution mass spectrometry, and comprehensive identification with Lipostar: Microalgae as case study</td>
<td>G La Barbera, M Antonelli, C Cavaliere, G Cruciani, L Goracci, CM Montone, S Povesana, A Laganà, AL Capriotti</td>
<td>Analytical Chemistry</td>
<td>2018</td>
</tr>
<tr>
<td>Multi-omic mitoprotease profiling defines a role for Oct1p in coenzyme Q production</td>
<td>MT Veling, AG Reidenbach, EC Freiberger, NW Kwiecien, JD Hutchins, MJ Drahnak, A Jochem, A Ulbrich, MJ Rush, JD Russel, JJ Coon, DJ Pagliarini</td>
<td>Molecular Cell</td>
<td>2018</td>
</tr>
<tr>
<td>Isobaric labeling of intact gangliosides toward multiplexed LC–MS/MS-based quantitative analysis</td>
<td>RC Barrientos, Q Zhang</td>
<td>Analytical Chemistry</td>
<td>2018</td>
</tr>
<tr>
<td>Caspase-2 associates with FAN through direct interaction and overlapping functionality</td>
<td>J Forsberg, X Li, AV Zamaraev, T Panaretakis, B Zhivotovsky, M Olsson</td>
<td>Biochemical Biochemical Research Communications</td>
<td>2018</td>
</tr>
<tr>
<td>Title</td>
<td>Authors</td>
<td>Journal</td>
<td>Date</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
<td>----------------------------------------------</td>
<td>--------</td>
</tr>
<tr>
<td>Anti-inflammatory benefits of antibiotics: Tylvalosin induces apoptosis of porcine neutrophils and macrophages, promotes effectorcytosis, and inhibits pro-inflammatory CXCL-8, IL1α, and LTB4 production, while inducing the release of pro-resolving lipoxin A4 and resolvin D1</td>
<td>R Moges, DD De Lamache, S Sajedy, BS Renaux, MD Hollenberg, G Muench, EM Abbott, AG Buret</td>
<td>Frontiers in Veterinary Medicine</td>
<td>2018</td>
</tr>
<tr>
<td>Metabolic control over mTOR-dependent diapause-like state</td>
<td>AM Hussein, Y Wang, J Mathieu, L Margaretha, C Song, DC Jones, C Cavanaugh, JW Miklas, E Mahan, MR Showalter, WL Ruzzo, O Fiehn, CB Ware, CA Blau, H Ruohola-Baker</td>
<td>Developmental Cell</td>
<td>2018</td>
</tr>
<tr>
<td>Towards measuring growth rates of pathogens during infections by D,O-labeling lipidomics</td>
<td>C Neubauer, AL Sessions, IR Booth, BP Bowen, SH Kopf, DK Newman, NF Dalleska</td>
<td>Rapid Communications in Mass Spectrometry</td>
<td>2018</td>
</tr>
<tr>
<td>Merging metabolomics and lipidomics into one analytical run</td>
<td>M Schwaiger, H Schoeny, Y El Abiead, G Hermann, E Rampler, G Koellensperger</td>
<td>Analyst</td>
<td>2019</td>
</tr>
<tr>
<td>Alterations of gut microbiota and blood lipidome in gestational diabetes mellitus with hyperlipidemia</td>
<td>J Liu, LL Pan, S Lv, Q Yang, H Zhang, W Chen, Z Lv, J Sun</td>
<td>Frontiers in Physiology</td>
<td>2019</td>
</tr>
<tr>
<td>Accelerating lipidomic method development through in silico simulation</td>
<td>PD Hutchins, JD Russell, JJ Coon</td>
<td>Analytical Chemistry</td>
<td>2019</td>
</tr>
<tr>
<td>High-throughput measure of bioactive lipids using non-targeted mass spectrometry</td>
<td>KA Lagerborg, JD Watrous, S Cheng, M Jain</td>
<td>Methods in Molecular Biology</td>
<td>2019</td>
</tr>
<tr>
<td>Mapping lipid fragmentation for tailored mass spectral libraries</td>
<td>PD Hutchins, JD Russell, JJ Coon</td>
<td>Journal of the American Society for Mass Spectrometry</td>
<td>2019</td>
</tr>
<tr>
<td>The metabolite repair enzyme Nit1 is a dual-targeted amidase that disposes of damaged glutathione in Arabidopsis</td>
<td>TD Niehaus, JA Patterson, DC Alexander, JS Folz, M Pyc, BS MacTavish, SD Bruner, RT Mullen, O Fiehn, AD Hanson</td>
<td>Biochemical Journal</td>
<td>2019</td>
</tr>
<tr>
<td>Directed non-targeted mass spectrometry and chemical networking for discovery of eicosanoids and related oxylipins</td>
<td>JD Watrous, TJ Niranen, KA Lagerborg, M Henglin, YJ Xu, J Rong, S Sharma, RS Vasan, MG Larson, A Armando, S Mora, O Quehenberger, EA Dennis, S Cheng, M Jain</td>
<td>Cell Chemical Biology</td>
<td>2019</td>
</tr>
<tr>
<td>Treg cells promote the SREBP1-dependent metabolic fitness of tumor-promoting macrophages via repression of CD8+ T cell-derived interferon-γ</td>
<td>C Liu, M Chikina, R Deshpande, AV Menk, T Wang, T Tabib, EA Brunazzi, KM Vignali, M Sun, DB Stolz, RA Lafayatis, W Chen, GM Delgoffe, CJ Workman, SG Wendell, DAA Vignali</td>
<td>Immunity</td>
<td>2019</td>
</tr>
<tr>
<td>Title</td>
<td>Authors</td>
<td>Journal</td>
<td>Date</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>----------------------------------------------</td>
<td>--------</td>
</tr>
<tr>
<td>Chronic arsenic exposure induces oxidative stress and perturbs serum</td>
<td>I Chi, P Tu, CW Liu, Y Lai, J Xue, H Ru, K Lu</td>
<td>Chemical Research in Toxicology</td>
<td>2019</td>
</tr>
<tr>
<td>lysolipids and fecal unsaturated fatty acid metabolism</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perilipin 5 deletion in hepatocytes remodels lipid metabolism and</td>
<td>SN Keenan, RC Meex, JCY Lo, A Ryan, S Nie, MK Montgomery, MJ Watt</td>
<td>Diabetes</td>
<td>2019</td>
</tr>
<tr>
<td>causes hepatic insulin resistance in mice</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enrichment procedure based on graphitized carbon black and liquid</td>
<td>M Antonelli, B Benedetti, C Cavaliere, A Cerrato, GL Barbera, CM Montone, S Piovesana A Laganà</td>
<td>Talanta</td>
<td>2019</td>
</tr>
<tr>
<td>chromatography-high resolution mass spectrometry for elucidating</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>sulfolipids composition of microalgae</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Differential isoform labeling by permethylolation and reversed-phase</td>
<td>RC Barrientos, Q Zhang</td>
<td>Analytical Chemistry</td>
<td>2019</td>
</tr>
<tr>
<td>liquid chromatography–mass spectrometry for relative quantification</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>of intact neutral glycolipids in mammalian cells</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electrophilic fatty acid nitroalkenes are systemically transported</td>
<td>M Fazzari, DA Vitturi, SR Woodcock, SR Salvatore, BA Freeman, FJ Schopfer</td>
<td>Journal of Lipid Research</td>
<td>2019</td>
</tr>
<tr>
<td>and distributed upon esterification to complex lipids</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>biosynthesis</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The use of styrene-maleic acid copolymer (SMA) for studies on T cell</td>
<td>P Angelisová, O Ballek, J Šykora, O Banada, T Čajka, J Pokorná, D Pinkas, V Hořejší</td>
<td>Biochimica et Biophysica Acta - Biomembranes</td>
<td>2019</td>
</tr>
<tr>
<td>membrane rafts</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A mitochondrial specific antioxidant reverses metabolic dysfunction</td>
<td>G Li, YL Chan, S Sukjamnong, AG Anwer, H Vindin, M Padula, R Zakarya, J George, BG Oliver, S Saad, H Chen</td>
<td>Nutrients</td>
<td>2019</td>
</tr>
<tr>
<td>and fatty liver induced by maternal cigarette smoke in mice</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Selective Ah receptor ligands mediate enhanced SREBP1 proteolysis to</td>
<td>GE Muku, N Blazanin, F Dong, PB Smith, D Thiboutot, K Gowda, S Amin, IA Murray, GH Perdew</td>
<td>Toxicological Sciences</td>
<td>2019</td>
</tr>
<tr>
<td>restrict lipogenesis in sebocytes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>pluripotent stem cells with modifiable SIRT1 metabolism</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A role for the orphan human cytochrome P450 2S1 in polyunsaturated</td>
<td>MI Fekry, Y Xiao, JZ Berg, FP Guengerich</td>
<td>Drug Metabolism and Disposition</td>
<td>2019</td>
</tr>
<tr>
<td>fatty acid ω-1 hydroxylation using an untargeted metabolomic approach</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>manner into domains at ER–mitochondria contacts</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multi-omics reveal specific targets of the RNA-binding protein</td>
<td>CP Lapointe, JA Stefely, A Jochem, PD Hutchins, GM Wilson, NW Kwiecien, JJ Coon, M Wickens, DJ Pagliarini</td>
<td>Cell Systems</td>
<td>2019</td>
</tr>
<tr>
<td>Puf3p and its orchestration of mitochondrial biogenesis</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multi-omics analyses detail metabolic reprogramming in lipids,</td>
<td>B Gao, HW Lue, J Podolak, S Fan, Y Zhang, A Serawat, JJ Alumkal, O Fiehn, GV Thomas</td>
<td>Metabolites</td>
<td>2019</td>
</tr>
<tr>
<td>carnitines, and use of glycolytic intermediates between prostate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>small cell neuroendocrine carcinoma and prostate adenocarcinoma</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The power of LC-MS based multiomics: exploring adipogenic</td>
<td>E Rampler, D Egger, H Schoeny, M Rusz, MP Pacheco, G Marino, C Kasper, T Naegle, G Koellensperger</td>
<td>Molecules</td>
<td>2019</td>
</tr>
<tr>
<td>differentiation of human mesenchymal stem/stromal cells</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Title</td>
<td>Authors</td>
<td>Journal</td>
<td>Date</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>Overcoming iron deficiency of an Escherichia coli tonB mutant by increasing outer membrane permeability</td>
<td>N Qiu, R Misra</td>
<td>Journal of Bacteriology</td>
<td>2019</td>
</tr>
<tr>
<td>Accurate mass and retention time library of serum lipids for type 1 diabetes research</td>
<td>N Vu, M Narvaez-Rivas, GY Chen, MJ Rewers, Q Zhang</td>
<td>Analytical and Bioanalytical Chemistry</td>
<td>2019</td>
</tr>
<tr>
<td>A randomized 3-way crossover study indicates that high-protein feeding induces de novo lipogenesis in healthy humans</td>
<td>E Chardemou, T Ashmore, X Li, BD McNally, JA West, S Liggi, M Harvey, E Orford, JL Griffin</td>
<td>JCI Insight</td>
<td>2019</td>
</tr>
<tr>
<td>Phospholipidome of extra virgin olive oil: Development of a solid phase extraction protocol followed by liquid chromatography–high resolution mass spectrometry for its software-assisted identification</td>
<td>M Antonelli, B Benedetti, C Cavaliere, A Cerrato, CM Montone, S Piovesana, A Lagana, AL Cipriotti</td>
<td>Food Chemistry</td>
<td>2020</td>
</tr>
<tr>
<td>Comprehensive characterization of bovine milk lipids: Phospholipids, sphingolipids, glycolipids, and ceramides</td>
<td>Z Liu, C Li, J Pryce, S Rochfort</td>
<td>Journal of Agricultural and Food Chemistry</td>
<td>2020</td>
</tr>
<tr>
<td>Sacha inchi oil alleviates gut microbiota dysbiosis and improves hepatic lipid dysmetabolism in high-fat diet-fed rats</td>
<td>P Li, J Huang, N Xiao, X Cai, Y Yang, J Deng, LH Zhang, B Du</td>
<td>Food &amp; Function</td>
<td>2020</td>
</tr>
<tr>
<td>First report on quality and purity evaluations of avocado oil sold in the US</td>
<td>HS Green, SC Wang</td>
<td>Food Control</td>
<td>2020</td>
</tr>
<tr>
<td>Triacylglycerol-rich oils of marine origin are optimal nutrients for induction of polyunsaturated docosahexaenoic acid ester of hydroxy linoleic acid (13-DHAHLA) with anti-inflammatory properties in mice</td>
<td>V Paluchova, A Vik, T Cajka, M Brezinova, K Brejchova, V Bugajev, L Draberova, P Draber, J Buresova, P Kroupova, K Bardova, M Rossmeisl, J Kopecky, TV Hansen O Kuda</td>
<td>Molecular Nutrition and Food Research</td>
<td>2020</td>
</tr>
<tr>
<td>Evaluation of lipid quantification accuracy using HILIC and RPLC MS on the example of NIST® SRM® 1950 metabolites in human plasma</td>
<td>M Lange, M Fedorova</td>
<td>Analytical and Bioanalytical Chemistry</td>
<td>2020</td>
</tr>
<tr>
<td>New insights in hemp chemical composition: a comprehensive polar lipidome characterization by combining solid phase enrichment, high-resolution mass spectrometry, and cheminformatics</td>
<td>M Antonelli, B Benedetti, G Cannazza, A Cerrato, C Citti, CM Montone, S Piovesana, A Lagana</td>
<td>Analytical and Bioanalytical Chemistry</td>
<td>2020</td>
</tr>
<tr>
<td>Comprehensive characterization of bovine milk lipids: Triglycerides</td>
<td>Z Liu, C Li, J Pryce, S Rochfort</td>
<td>ACS Omega</td>
<td>2020</td>
</tr>
<tr>
<td>The presence of active brown adipose tissue determines cold-induced energy expenditure and oxylinip profiles in humans</td>
<td>OC Kütler, L Niederstaetter, CT Herz, AR Haug, A Bileck, D Plis, A Kautzky-Willer, C Germer, FW Kiefer</td>
<td>The Journal of Endocrinology and Metabolism</td>
<td>2020</td>
</tr>
<tr>
<td>A comprehensive analysis of liposomal biomolecular corona upon human plasma incubation: The evolution towards the lipid corona</td>
<td>G La Barbera, AL Capriotti, G Caracciolo, C Cavaliere, A Cerrato, CM Montone, S Piovesana, D Pozzi, E Quagliarini, A Lagana</td>
<td>Talanta</td>
<td>2020</td>
</tr>
<tr>
<td>Title</td>
<td>Authors</td>
<td>Journal</td>
<td>Date</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>mTORC1 restrains adipocyte lipolysis to prevent systemic hyperlipidemia</td>
<td>LM Paolella, S Mukherjee, CM Tran, B Bellaver, M Hugo, TS Luongo, SV Shewale, W Lu, K Chellappa, JA Baur</td>
<td>Molecular Metabolism</td>
<td>2020</td>
</tr>
<tr>
<td>Dietary sphinganine is selectively assimilated by members of the mammalian gut microbiome</td>
<td>MT Lee, HH Le, EL Johnson</td>
<td>Journal of Lipid Research</td>
<td>2020</td>
</tr>
<tr>
<td>In vitro digestion of grape seed oil inhibits phospholipid-regulating effects of oxidized lipids</td>
<td>S Fruehwirth, S Zehentner, M Salim, S Sterneder, J Tiroch, B Lieder, M Zehl, V Somoza, M Pignitter</td>
<td>Biomolecules</td>
<td>2020</td>
</tr>
<tr>
<td>Human GDPD3 overexpression promotes liver steatosis by increasing lysophosphatidic acid production and fatty acid uptake</td>
<td>CCC Key, AC Bishop, X Wang, Q Zhao, GY Chen, MA Quinn, X Zhu, Q Zhang, JS Parks</td>
<td>Journal of Lipid Research</td>
<td>2020</td>
</tr>
<tr>
<td>Exercise training induces insulin-sensitizing PAHSAs in adipose tissue of elderly women</td>
<td>M Brezina, T Cajka, M Oseeva, M Stepan, K Dadova, L Rossmeislova, M Matous, M Siklova, M Rossmeislo, O Kuda</td>
<td>Biochimica et Biophysica Acta - Molecular and Cell Biology of Lipids</td>
<td>2020</td>
</tr>
<tr>
<td>Structure of the neurotensin receptor 1 in complex with β-arrestin 1</td>
<td>W Huang, M Masureel, Q Qu, J Janetzko, A Inoue, HE Kato, MJ Robertson, KG Nguyen, JS Glenn, G Skiniotis, BK Kobilka</td>
<td>Nature</td>
<td>2020</td>
</tr>
<tr>
<td>Differential postprandial incorporation of 20:5n-3 and 22:6n-3 into individual plasma triacylglycerol and phosphatidylcholine molecular species in humans</td>
<td>AL West, LV Michaelson, EA Miles, RP Haslam, KA Lillycrop, R Georgescu, L Han, Q Sayanova, JA Napier, PC Calder, GC Burdge</td>
<td>Biochimica et Biophysica Acta - Molecular and Cell Biology of Lipids</td>
<td>2020</td>
</tr>
<tr>
<td>Lipid composition and abundance in the reproductive and alimentary tracts of female Haemonchus contortus</td>
<td>T Wang, G Ma, S Nie, NA Williamson, GE Reid, RB Gasser</td>
<td>Parasites and Vectors</td>
<td>2020</td>
</tr>
<tr>
<td>Lipid landscape of the human retina and supporting tissues revealed by high-resolution imaging mass spectrometry</td>
<td>DMG Anderson, JD Messinger, NH Patterson, ES Rivera, A Kotnala, JM Spraggs, RM Caprioli, CA Curcio, KL Schey</td>
<td>Journal of American Society for Mass Spectrometry</td>
<td>2020</td>
</tr>
<tr>
<td>Gangliosides are essential endosomal receptors for quasi-enveloped and naked hepatitis A virus</td>
<td>A Das, R Barrientos, T Shiota, V Madigan, I Misumi, KL McNight, L Sun, Z Li, RM Manganc, Y Li, E Kaluzna, A Asokan, JK Whitmire, M Kapustinna, Q Zhang, SM Lemon</td>
<td>Nature Microbiology</td>
<td>2020</td>
</tr>
<tr>
<td>Discovering new lipidomic features Using cell type specific fluorophore expression to provide spatial and biological specificity in a multimodal workflow with MALDI imaging mass spectrometry</td>
<td>MA Jones, SH Cho, NH Patterson, RV de Plas, JM Spraggs, MR Boothby, RM Caprioli</td>
<td>Analytical Chemistry</td>
<td>2020</td>
</tr>
<tr>
<td>Changes in aged fibroblast lipid metabolism inducea age-dependent melanoma cell resistance to targeted therapy via the fatty acid transporter FATP2</td>
<td>GM Alicea, VW Rebecca, AR Goldman, ME Fane, ST Douglass, R Behera, MR Webster, CH Kugel III, BL Ecker, MC Caino, AV Kossenkov, HY Tang, DT Frederick, KT Flaherty, X Xu, Q Liu, DI Gabrilovich, M Herlyn, IA Blair, ZT Schug, DW Speicher, AT Weeraratna</td>
<td>Cancer Discovery</td>
<td>2020</td>
</tr>
<tr>
<td>Title</td>
<td>Authors</td>
<td>Journal</td>
<td>Date</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
<td>-----------</td>
</tr>
<tr>
<td>The suppressive effects of cinnamomi cortex and its phytocompound</td>
<td>C Kim, JH Lee, W Kim, D Li, Y Kim, K Lee, SK Kim</td>
<td>Molecules</td>
<td>2016</td>
</tr>
<tr>
<td>Understanding the metabolism of the anticancer drug Triapine:</td>
<td>K Pelivan, L Frensemeeier, U Karst, G Koellensperger, B Bielec, S Hager,</td>
<td>Analyst</td>
<td>2017</td>
</tr>
<tr>
<td>Electrochemical oxidation, microsomal incubation and in vivo analysis using LC-HRMS</td>
<td>BK Heffler, KR Keppler, CR Kowol</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identification of new process-related impurity in the key intermediate in the synthesis of TCV-116</td>
<td>A Testen, M Plevnik, B Štěfane, IK Cigić</td>
<td>Acta Pharmaceutica</td>
<td>2018</td>
</tr>
<tr>
<td>Fentanyl delays the platelet inhibition effects of oral ticagrelor:</td>
<td>K Ibrahim, R Shah, RR Goli, TS Kickler, WA Clarke, RK Hasan, RS Blumenthal, DR Thiemann, JR Resar, SP Schulman, JW McEvoy</td>
<td>Thrombosis and Haemostasis</td>
<td>2018</td>
</tr>
<tr>
<td>Full report of the PACIFY randomized clinical trial</td>
<td>K Ibrahim, RR Goli, R Shah, JR Resar, SP Schulman, JW McEvoy</td>
<td>Contemporary Clinical Trials</td>
<td>2018</td>
</tr>
<tr>
<td>Effect of intravenous fentanyl on ticagrelor absorption and platelet inhibition among patients undergoing percutaneous coronary intervention: Design, rationale, and sample characteristics of the PACIFY randomized trial</td>
<td>K Ibrahim, RR Goli, R Shah, JR Resar, SP Schulman, JW McEvoy</td>
<td>Contemporary Clinical Trials</td>
<td>2018</td>
</tr>
<tr>
<td>Comparison of pharmacokinetics of phytoecdysones and triterpenoid</td>
<td>L Yang, H Jiang, M Yan, X Xing, X Guo, W Man, A Hou, B Yang, Q Wang, H Kuang</td>
<td>Xenobiotica</td>
<td>2018</td>
</tr>
<tr>
<td>saponins of monomer, crude and processed Radix achyranthis bidentatae by UHPLC-MS/MS</td>
<td>L Yang, H Jiang, M Yan, X Xing, X Guo, W Man, A Hou, B Yang, Q Wang, H Kuang</td>
<td>Xenobiotica</td>
<td>2018</td>
</tr>
<tr>
<td>A 2D LC-MS/MS strategy for reliable detection of 10-ppm level residual host cell proteins in therapeutic antibodies</td>
<td>F Yang, DE Walker, J Schoenfelder, J Carver, A Zhang, R Harris, JT Stults, XC Yu, DA Michels</td>
<td>Analytical Chemistry</td>
<td>2018</td>
</tr>
<tr>
<td>Quantitation of the anticancer drug abiraterone and its metabolite Δ(4)-abiraterone in human plasma using high-resolution mass spectrometry</td>
<td>A Bhatnagar, MJ McKay, M Crumbaker, K Ahire, P Karuso, H Gurney, MP Molloy</td>
<td>Biomedical Analysis</td>
<td>2018</td>
</tr>
<tr>
<td>Using superficially porous particles and ultrahigh pressure liquid chromatography in pharmacopeial monograph modernization of common analgesics</td>
<td>GA Kresge, JMT Wong, MD Pra, F Steiner, JP Grinias</td>
<td>Chromatographia</td>
<td>2018</td>
</tr>
<tr>
<td>A general LC-MS/MS method for monitoring potential β-lactam</td>
<td>C Qiu, H Zhu, C Ruzicka, D Keire, H Ye</td>
<td>The AAPS Journal</td>
<td>2018</td>
</tr>
<tr>
<td>contamination in drugs and drug-manufacturing surfaces</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Esketamine counters opioid-induced respiratory depression</td>
<td>K Jonkman, E van Rijnsoever, E Olofsen, L Aarts, E Sarton, M van Velzen, M Niesters, A Dahan</td>
<td>British Journal of Anesthesia</td>
<td>2018</td>
</tr>
<tr>
<td>Determination of epoxide impurity in sarpogrelate hydrochloride</td>
<td>R Wang, Z Zhu, X Qiu, L Bai, W Guo, L Zou, T Zhao, G Shan</td>
<td>Journal of Pharmaceutical and Biomedical Analysis</td>
<td>2019</td>
</tr>
<tr>
<td>intermediate by UHPLC and column-switching liquid chromatography</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brain delivery of thyrotropin-releasing hormone via a novel prodrug approach</td>
<td>K Prokai-Tatrai, Dl de la Cruz, V Nguyen, BP Ross, J Toth, L Prokai</td>
<td>Pharmaceuticals</td>
<td>2019</td>
</tr>
<tr>
<td>Title</td>
<td>Authors</td>
<td>Journal</td>
<td>Date</td>
</tr>
<tr>
<td>------------------------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------</td>
<td>----------------------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>A reliable LC–MS/MS method for the quantification of five bioactive saponins of crude and processed Bupleurum scorzonerifolium in rat plasma and its application to a pharmacokinetic study</td>
<td>Y Tao, S Huang, J Yan, B Cai</td>
<td>Biomedical Chromatography</td>
<td>2019</td>
</tr>
<tr>
<td>Pharmacokinetics of midazolam and its major metabolite 1-hydroxymidazolam in the ball python (Python regius) after intracardiac and intramuscular administrations</td>
<td>CB Larouche, R Johnson, F Beaudry, C Mosley, Y Gu, KA Zaman, H Beaufrère, C Dutton</td>
<td>Journal of Veterinary and Therapeutics</td>
<td>2019</td>
</tr>
<tr>
<td>Pharmacokinetic study of six triterpenoids of raw and processed Alisma plantago-aquatica in rat plasma by using ultra performance liquid chromatography-tandem mass spectrometry approach</td>
<td>Y Tao, S Huang, J Yan, B Cai</td>
<td>Journal of Chromatography B</td>
<td>2019</td>
</tr>
<tr>
<td>Quantitation of a novel engineered anti-infective host defense peptide, ARV-1502: Pharmacokinetic study of different doses in rats and dogs</td>
<td>A Brakel, D Volke, CN Kraus, L Otvos, R Hoffman</td>
<td>Frontiers in Chemistry</td>
<td>2019</td>
</tr>
<tr>
<td>Bioactivation of napabucasin triggers reactive oxygen species–mediated cancer cell death</td>
<td>FEM Froeling, MM Swamyathan, A Deschênes, IIC Chio, E Brosnan, MA Yao, P Alagesan, M Lucito, J Li, AY Chang, LC Trotman, P Belleau, Y Park, HA Rogoff, JD Watson, DA Tuveson</td>
<td>Clinical Cancer Research</td>
<td>2019</td>
</tr>
<tr>
<td>Development and validation of a UPLC-MS/MS analytical method for dofetilide in mouse plasma and urine, and its application to pharmacokinetic study</td>
<td>ME Uddin, X Sun, KM Huang, S Hu, CA Carnes, A Sparreboom, Q Fu</td>
<td>Journal of Pharmaceutical and Biomedical Analysis</td>
<td>2019</td>
</tr>
<tr>
<td>Red-osier dogwood extracts prevent inflammatory responses in Caco-2 cells and a Caco-2 BBet1/EA.hy926 cell co-culture model</td>
<td>Q Jiang, H Zhang, R Yang, Q Hui, Y Chen, L Mats, R Tsao, C Yang</td>
<td>Antioxidants</td>
<td>2019</td>
</tr>
<tr>
<td>The occurrence of putative cognitive enhancing research peptides in seized pharmaceutical preparations: An incentive for controlling agencies to prepare for future encounters of the kind</td>
<td>C Vanhee, A Francotte, S Janvier, E Deconinck</td>
<td>Drug Testing and Analysis</td>
<td>2019</td>
</tr>
<tr>
<td>Fourier-transform infrared spectroscopy as a process analytical technology for near real time in-line estimation of the degree of PEGylation in chromatography</td>
<td>A Sanden, S Suhm, M Rüdt, J Hubbuch</td>
<td>Journal of Chromatography A</td>
<td>2019</td>
</tr>
<tr>
<td>Identification of four amoebicidal nontoxic compounds by a molecular docking screen of Naegleria fowleri sterol Δ8-Δ7-isomerase and phenotypic assays</td>
<td>D Shi, KK Chahaí, P Oto, LF Nothias, A Debnath, JH McKerrow, LM Podlust, R Abagyan</td>
<td>Infectious Disease</td>
<td>2019</td>
</tr>
<tr>
<td>Title</td>
<td>Authors</td>
<td>Journal</td>
<td>Date</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
<td>----------------------------------------------</td>
<td>-----------</td>
</tr>
<tr>
<td>Interaction between sex and organic anion-transporting polypeptide 1b2 on the pharmacokinetics of regorafenib and its metabolites regorafenib-N-oxide and regorafenib-glucuronide in mice</td>
<td>Q Fu, M Chen, JT Anderson, X Sun, S Hu, A Sparreboom, SD Baker</td>
<td>Clinical and Translational Science</td>
<td>2019</td>
</tr>
<tr>
<td>Therapeutic suppression of pulmonary neutrophilia and allergic airway hyperresponsiveness by an RORγt inverse agonist</td>
<td>GS Whitehead, HS Kang, SY Thomas, A Medvedev, TP Karcz, G Izumi, K Nakano, SS Makaron, H Nakano, AM Jetten, DN Cook</td>
<td>JCI Insight</td>
<td>2019</td>
</tr>
<tr>
<td>Bioanalytical evaluation of dried plasma spots for monitoring of abiraterone and Δ(4)-abiraterone from cancer patients</td>
<td>A Bhatnager, MJ McKay, M Thaysen-Andersen, M Arasarathnam, M Crambaker, H Gurney, MP Molloy</td>
<td>Journal of Chromatography B</td>
<td>2019</td>
</tr>
<tr>
<td>Simple, fast and robust LC-MS/MS method for the simultaneous quantification of canagliflozin, dapagliflozin and empagliflozin in human plasma and urine</td>
<td>AB van der AB van der Art-van der Beek, AMA Wessels, HJL Heerspink, DJ Touw</td>
<td>Journal of Chromatography B</td>
<td>2020</td>
</tr>
<tr>
<td>Impurity profiling of L-aspartic acid and glycine using high-performance liquid chromatography coupled with charged aerosol and ultraviolet detection</td>
<td>R Pawellek, K Schilling, U Holzgrabe</td>
<td>Journal of Pharmaceutical and Biomedical Analysis</td>
<td>2020</td>
</tr>
<tr>
<td>Model-informed drug development in pulmonary delivery: semimechanistic pharmacokinetic-pharmacodynamic modeling for evaluation of treatments against chronic Pseudomonas aeruginosa lung infections</td>
<td>T Sou, I Kukavica-Ibrulji, RC Levesque, LE Frimer, CAS Bergstrom</td>
<td>Molecular Pharmaceutics</td>
<td>2020</td>
</tr>
<tr>
<td>A rapid UHPLC–MS/MS method for the quantification of ARQS31 in rat plasma: Validation and its application to a pharmacokinetic study</td>
<td>J Liu, M Ji, Z Li, X Xu, L Li, H Li, Y Tian, X Su</td>
<td>Biomedical Chromatography</td>
<td>2020</td>
</tr>
<tr>
<td>Simultaneous determination of a promising anti-brain tumor agent CAT3 and its two major metabolites in mouse plasma and brain by a LC-MS/MS method</td>
<td>S Zhao, RB Wang, J Bai, X Fan, M Hu, B Wang, J Hu, Y Li</td>
<td>Journal of Pharmaceutical and Biomedical Analysis</td>
<td>2020</td>
</tr>
<tr>
<td>Room-temperature preparation of MIL-88A as a heterogeneous photo-Fenton catalyst for degradation of rhodamine B and bisphenol a under a visible light</td>
<td>H Fu, XX Song, L Wu, C Zhao, P Wang, CC Wang</td>
<td>Materials Research Bulletin</td>
<td>2020</td>
</tr>
<tr>
<td>Role of OATP2B1 in drug absorption and drug-drug interactions</td>
<td>M Chen, S Hu, Y Li, AA Gibson, Q Fu, SD Baker, A Sparreboom</td>
<td>Drug Metabolism and Disposition</td>
<td>2020</td>
</tr>
<tr>
<td>Title</td>
<td>Authors</td>
<td>Journal</td>
<td>Date</td>
</tr>
<tr>
<td>---------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------------------------------</td>
<td>----------------------------------------------</td>
<td>--------</td>
</tr>
<tr>
<td>Cysteine aminoethylation enables the site-specific glycosylation</td>
<td>S Lippold, A Büttner, MSF Choo, M Hook, CJ de Jong, T Nguyen-Khuong, M Haberger, D Rausch, M Wuhrer, N de Haan</td>
<td>Analytical Chemistry</td>
<td>2020</td>
</tr>
<tr>
<td>analysis of recombinant human erythropoietin using trypsin</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nitro-oleic acid, a ligand of CD36, reduces cholesterol accumulation</td>
<td>MM Vazquez, MV Gutierrez, SR Salvatore, M Puiatti, VA Dato, GA Chiabrando, BA Freeman, FJ Schopfer, G Bonacci</td>
<td>Redox Biology</td>
<td>2020</td>
</tr>
<tr>
<td>by modulating oxidized-LDL uptake and cholesterol efflux in RAW264.7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>macrophages</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>to a long-acting erythropoiesis-stimulating agent darbepoetin alfa</td>
<td>Tanaka, K Minami, K Takahashi, T Hirato</td>
<td></td>
<td></td>
</tr>
<tr>
<td>protocols for method qualification of pharmacopeial monographs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Retina-targeted delivery of 17β-estradiol by the topically applied</td>
<td>K Prokai-Tatrai, Vien Nguyen, DL De La Cruz, R Guerra, K Zaman, F Rahlouni, L Prokai</td>
<td>Pharmacuetics</td>
<td>2020</td>
</tr>
<tr>
<td>DHED prodrg</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A bioanalytical UHPLC based method used for the quantification of</td>
<td>N Ahmad, R Ahmad, SA Qatifi, M Alesa, HA Hajji, M Sarafroz</td>
<td>BMC Chemistry</td>
<td>2020</td>
</tr>
<tr>
<td>thymoquinone-loaded-PLGA-nanoparticles in the treatment of epilepsy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quantification of T cell binding polyclonal rabbit anti-thymocyte</td>
<td>ME Amrani, R Admiraal, L Willaert, LJC Ebskamp-van Raaij, AM Laczka, CE Hack, ADR Huitema, S Nierens, EM van</td>
<td>The AAPS Journal</td>
<td>2020</td>
</tr>
<tr>
<td>globulin in human plasma with liquid chromatography tandem-mass</td>
<td>Maarseveen</td>
<td></td>
<td></td>
</tr>
<tr>
<td>spectrometry</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>formulation screening</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B-miltefosine co-incorporated second generation ultra-deformable</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>liposomes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Serum concentrations, pharmacokinetic/pharmacodynamic modeling, and</td>
<td>HK Knych, D Weiner, RM Arthur, R Baden, DS McKemie, PH Kass</td>
<td>Drug Testing and Analysis</td>
<td>2020</td>
</tr>
<tr>
<td>effects of dexamethasone on inflammatory mediators following</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>intravenous and oral administration to exercised horses</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Development and validation of a sensitive UHPLC-MS/MS analytical</td>
<td>ED Eisenmann, Y Jin, RH Weber, A Sparreboom, SD Baker</td>
<td>Journal of Chromatography B</td>
<td>2020</td>
</tr>
<tr>
<td>method for venetoclax in mouse plasma, and its application to</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>pharmacokinetic studies</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chronic inhibition of CYP3A is temporarily reduced by each hemodialysis</td>
<td>EJ Egeland, BJ Witczak, HK Zaré, H Christensen, A Äsberg, I Robertsen</td>
<td>Clinical Pharmacology, and Therapeutics</td>
<td>2020</td>
</tr>
<tr>
<td>session in patients with end-stage renal disease</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Effects of titanium contamination caused by iron-free high-performance</td>
<td>M De Pra, G Greco, MP Krajewski, M Martin, E George, N Bartsch, F Steiner</td>
<td>Journal of Chromatography A</td>
<td>2020</td>
</tr>
<tr>
<td>liquid chromatography systems on peak shape and retention of drugs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>with chelating properties</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Title</td>
<td>Authors</td>
<td>Journal</td>
<td>Date</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
<td>--------------------------------------------------</td>
<td>--------</td>
</tr>
<tr>
<td>Methylation of protein aspartates and deamidated asparagines as a function of blood bank storage and oxidative stress in human red blood cells</td>
<td>JA Reisz, T Nemkov, M Dzieciatkowska, R Culp-Hill, D Stefanoni, RC Hill, T Yoshida, A Dunham, T Karias, LJ Dumont, M Busch, EZ Eisenmesser, JC Zimring, KC Hansen, A D’Alessandro</td>
<td>Transfusion</td>
<td>2018</td>
</tr>
<tr>
<td>Development and validation of a targeted affinity-enrichment and LC–MS/MS proteomics approach for the therapeutic monitoring of adalimumab</td>
<td>Y Yang, E Wysocki, K Antwi, E Niederkofier, EKY Leung, E Lazar-Molnar, KTJ Yeo</td>
<td>Clinica Chimica Acta</td>
<td>2018</td>
</tr>
<tr>
<td>Cell-free identification of S. cerevisiae strains by analysis of supernatant using LC–MS</td>
<td>C Muste, KG Owens</td>
<td>Journal of the American Society for Mass Spectrometry</td>
<td>2018</td>
</tr>
<tr>
<td>The use of in-strip digestion for fast proteomic analysis on tear fluid from dry eye patients</td>
<td>Z Huang, CX Du, XD Pan</td>
<td>PLOS One</td>
<td>2018</td>
</tr>
<tr>
<td>Generic workflow for mapping of complex disulfide bonds using in-source reduction and extracted ion chromatograms from data-dependent mass spectrometry</td>
<td>CN Cramer, CD Kelstrup, JV Olsen, HF Haselmann, PK Nielsen</td>
<td>Analytical Chemistry</td>
<td>2018</td>
</tr>
<tr>
<td>Assessing MS-based quantitation strategies for low-level impurities in peptide reference materials: application to angiotensin II</td>
<td>BB Stocks, MP Thibeault, J Meija, JE Melanson</td>
<td>Analytical and Bioanalytical Chemistry</td>
<td>2018</td>
</tr>
<tr>
<td>Dissecting ribosomal particles throughout the kingdoms of life using advanced hybrid mass spectrometry methods</td>
<td>M van de Waterbeemd, S Tamara, KL Fort, E Damoc, V Frac, P Bieri, M Itten, A Makarov, N Ban, AJR Heck</td>
<td>Nature Communications</td>
<td>2018</td>
</tr>
<tr>
<td>Analysis of insulin and insulin analogs from dried blood spots by means of liquid chromatography–high resolution mass spectrometry</td>
<td>A Thomas, M Thevis</td>
<td>Drug Testing and Analysis</td>
<td>2018</td>
</tr>
<tr>
<td>Deciphering the role of EGL-3 for neuropeptides processing in Caenorhabditis elegans using high-resolution quadrupole–Orbitrap mass spectrometry</td>
<td>JB Salem, BNkambeu, DN Arvanitis, F Beaudry</td>
<td>Neurochemical Research</td>
<td>2018</td>
</tr>
<tr>
<td>The challenge of classifying metastatic cell properties by molecular profiling exemplified with cutaneous melanoma cells and their cerebral metastasis from patient derived mouse xenografts</td>
<td>B Neuditschko, L Janker, L Niederstaetter, J Brunmair, K Krivanek, S Izraely, O Sagi-Assif, T Meshel, BK Keppler, G Del Favero, IP Witz, C Gerner</td>
<td>Molecular &amp; Cellular Proteomics</td>
<td>2019</td>
</tr>
<tr>
<td>Automating complex, multistep processes on a single robotic platform to generate reproducible phosphoproteomic data</td>
<td>BT Mullis, S Hwang, LA Lee, A Iluck, R Woolsey, D Quilici, Q Wang</td>
<td>SLAS Discovery</td>
<td>2019</td>
</tr>
<tr>
<td>Exploiting the dynamic relationship between peptide separation quality and peptide coisolation in a multiple-peptide matches-per-spectrum approach offers a strategy to optimize bottom-up proteomics throughput and depth</td>
<td>MIV Solis, RJ Giannone, RL Hettich, PE Abraham</td>
<td>Analytical Chemistry</td>
<td>2019</td>
</tr>
</tbody>
</table>
### Proteins

<table>
<thead>
<tr>
<th>Title</th>
<th>Authors</th>
<th>Journal</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>EGL-3 and EGL-21 are required to trigger nocifensive response of Caenorhabditis elegans to noxious heat</td>
<td>B Nkambeu, JB Salem, S Leonelli, FA Marashi, F Beaudry</td>
<td>Neuropeptides</td>
<td>2019</td>
</tr>
<tr>
<td>Corona discharge electrospray ionization of formate-containing solutions enables in-source reduction of disulfide bonds</td>
<td>BB Stocks, JE Melanson</td>
<td>Analytical and Bioanalytical Chemistry</td>
<td>2019</td>
</tr>
<tr>
<td>Rapid characterization of chemical components in edible mushroom Sparassis crispa by UPLC-Orbitrap MS analysis and potential inhibitory effects on allergic rhinitis</td>
<td>Z Wang, J Liu, X Zhong, J Li, Z Wang, L Ji, Z Shang</td>
<td>Molecules</td>
<td>2019</td>
</tr>
<tr>
<td>Identification and CRISPR inactivation and CRISPR/Cas9 inactivation of the C1s protease responsible for proteolysis of recombinant proteins produced in CHO cells</td>
<td>SW Li, B Yu, G Byrne, M Wright, S O’Rourke, K Mesa, PW Berman</td>
<td>Biotechnology and Bioengineering</td>
<td>2019</td>
</tr>
<tr>
<td>Neuropeptidomics: Comparison of parallel reaction monitoring and data-independent acquisition for the analysis of neuropeptides using high-resolution mass spectrometry</td>
<td>M Saidi, S Kamali, F Beaudry</td>
<td>Biomedical Chromatography</td>
<td>2019</td>
</tr>
<tr>
<td>Cracking proteoform complexity of ovalbumin with anion-exchange chromatography–high-resolution mass spectrometry under native conditions</td>
<td>F Füssl, A Criscuolo, K Cook, K Scheffler, J Bones</td>
<td>Journal of Proteome Research</td>
<td>2019</td>
</tr>
<tr>
<td>Identification of bioactive short peptides in cow milk by high-performance liquid chromatography on C18 and porous graphitic carbon coupled to high-resolution mass spectrometry</td>
<td>CM Montone, AL Capriotti, A Cerrato, M Antonelli, G La Barbera, S Piovesana, A Laganà, C Cavaliere</td>
<td>Analytical and Bioanalytical Chemistry</td>
<td>2019</td>
</tr>
<tr>
<td>Sensitive untargeted identification of short hydrophilic peptides by high performance liquid chromatography on porous graphitic carbon coupled to high resolution mass spectrometry</td>
<td>S Piovesana, CM Montone, C Cavaliere, C Crescenzi, G La Barbera, A Laganà, AL Capriotti</td>
<td>Journal of Chromatography A</td>
<td>2019</td>
</tr>
<tr>
<td>Graphitized carbon black enrichment and UHPLC-MS/MS allow to meet the challenge of small chain peptidomics in urine</td>
<td>S Piovesana, AL Capriotti, A Cerrato, C Crescenzi, G La Barbera, A Laganà, CM Montone, C Cavaliere</td>
<td>Analytical Chemistry</td>
<td>2019</td>
</tr>
<tr>
<td>Identification and tracking of problematic host cell proteins removed by a synthetic, highly functionalized nonwoven media in downstream bioprocessing of monoclonal antibodies</td>
<td>S Gilgurn, H El-Sabbahy, S Albrecht, M Gaikwad, K Corrigan, L Deakin, G Jellum, J Bones</td>
<td>Journal of Chromatography A</td>
<td>2019</td>
</tr>
<tr>
<td>A colorful pallet of B-phycoerythrin proteoforms exposed by a multimodal mass spectrometry approach</td>
<td>S Tamara, M Hoek, RA Scheiterna, AC Leney, AJR Heck</td>
<td>Chem</td>
<td>2019</td>
</tr>
<tr>
<td>Monitoring of on-column methionine oxidation as part of a system suitability test during UHPLC–MS/MS peptide mapping</td>
<td>B Mautz, M König, V Larraillet, M Mølhøj</td>
<td>LCGC</td>
<td>2019</td>
</tr>
<tr>
<td>Evaluation of peptide fractionation and native digestion as two novel sample preparation workflows to improve HCP characterization by LC–MS/MS</td>
<td>R Kufer, M Haindi, H Wegele, S Wohlrab</td>
<td>Analytical Chemistry</td>
<td>2019</td>
</tr>
<tr>
<td>Title</td>
<td>Authors</td>
<td>Journal</td>
<td>Date</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
<td>----------------------------------------------</td>
<td>------------</td>
</tr>
<tr>
<td>Quantification of coagulation factor VIII in human plasma with liquid chromatography tandem mass spectrometry using a selective sample purification with camelid nanobodies</td>
<td>M El Amrani, AAM Donners, G Graat, EG Lentjes, A Huisman, REA Musson, EM van Maarseveen</td>
<td></td>
<td>2019</td>
</tr>
<tr>
<td>The effects of exercise on pain and reproductive performance in female pregnant mice with neuropathic pain</td>
<td>M Parent-Vachon, F Beaudry, D Carrier, G Di Cristo, P Vachon</td>
<td>Biological Research for Nursing</td>
<td>2019</td>
</tr>
<tr>
<td>Proteomic modelling of gluten digestion from a physiologically relevant food system: A focus on the digestion of immunogenic peptides from wheat implicated in celiac disease</td>
<td>O Ogilvie, S Roberts, K Sutton, L Domigan, N Larsen, J Gerrard, N Demarais</td>
<td>Food Chemistry</td>
<td>2020</td>
</tr>
<tr>
<td>Peptide selection for accurate targeted protein quantification via a dimethylation high-resolution mass spectrum strategy with a peptide release kinetic model</td>
<td>Q Chen, Y Jiang, Y Ren, M Ying, B Lu</td>
<td>ACS Omega</td>
<td>2020</td>
</tr>
<tr>
<td>Monitoring modifications in biopharmaceuticals: Toolbox for a generic and robust high-throughput quantification method</td>
<td>LG Bauer, S Hoelterhoff, T Graf, C Bell, A Bathke</td>
<td>Journal of Chromatography B</td>
<td>2020</td>
</tr>
<tr>
<td>The tetrameric pheromone module SteC-MkkB-MpkB-SteD regulates asexual sporulation, sclerotia formation and aflatoxin production in Aspergillus flavus</td>
<td>D Frawley, C Greco, B Oakley, MM Alhussain, AB Fleming, NP Keller, Ö Bayram</td>
<td>Cellular Microbiology</td>
<td>2020</td>
</tr>
<tr>
<td>Outer membrane channel protein TolC regulates Escherichia coli K12 sensitivity to plantaricin BM-1 via the CpxR/CpxA two-component regulatory system</td>
<td>H Wang, H Zhang, H Zhang, J Jin, Y Xie</td>
<td>Probiotics and Antimicrobial Proteins</td>
<td>2020</td>
</tr>
<tr>
<td>Quantitative proteomic analysis reveals the influence of plantaricin BM-1 on metabolic pathways and peptidoglycan synthesis in Escherichia coli K12</td>
<td>H Wang, Y Xie, H Zhang, J Jin, H Zhang</td>
<td>PLOS One</td>
<td>2020</td>
</tr>
<tr>
<td>Comparative proteomic analysis reveals the molecular mechanisms underlying the accumulation difference of bioactive constituents in Glycyrrhiza uralensis fisch under salt stress</td>
<td>C Wang, L Chen, ZC Cai, C Chen, Z Liu, X Liu, L Zou, J Chen, M Tan, L Wei, Y Mei</td>
<td>Journal of Agricultural and Food Chemistry</td>
<td>2020</td>
</tr>
<tr>
<td>Structural similarity with cholesterol reveals crucial insights into mechanisms sustaining the immunomodulatory activity of the mycotoxin alternariol</td>
<td>G Del Favero, RM Mayer, L Dellaflora, L Janker, L Niederstaetter, C Dall’Asta, C Gerner, D Marko</td>
<td>Cells</td>
<td>2020</td>
</tr>
<tr>
<td>Measurement of surface protein antigens, PorA and PorB, in Bexsero vaccine using quantitative mass spectrometry</td>
<td>G Whiting, C Vipond, A Facchetti, H Chan, JX Wheeler</td>
<td>Vaccine</td>
<td>2020</td>
</tr>
<tr>
<td>Quantitative proteomic analysis reveals the mechanisms of polymyxin B toxicity to Escherichia coli</td>
<td>J Liu, Z Huang, B Ruan, H Wang, M Chen, S Rehman, P Wu</td>
<td>Chemosphere</td>
<td>2020</td>
</tr>
<tr>
<td>Quantification of total apolipoprotein E and its isoforms in cerebrospinal fluid from patients with neurodegenerative diseases</td>
<td>K Minta, G Brinkmalm, S Janelidze, S Sjödin, E Stomrud, H Zetterberg, K Blenno, O Hansson, U Andreasson</td>
<td>Alzheimer’s Research and Therapy</td>
<td>2020</td>
</tr>
<tr>
<td>Title</td>
<td>Authors</td>
<td>Journal</td>
<td>Date</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>Impaired EAT-4 vesicular glutamate transporter leads to defective nociceptive response of Caenorhabditis elegans to noxious heat</td>
<td>S Leonelli, B Nkambeu, F Beaudry</td>
<td>Neurochemical Research</td>
<td>2020</td>
</tr>
<tr>
<td>A new opening for the tricky untargeted investigation of natural and modified short peptides</td>
<td>A Cerrato, SE Ala, AL Capriotti, C Cavaliere, CM Montone, A Laganà, S Piovesana</td>
<td>Talanta</td>
<td>2020</td>
</tr>
<tr>
<td>Structure-based design of prefusion-stabilized filovirus glycoprotein trimers</td>
<td>L Rutten, MSA Gilman, S Blokland, J Jurasek, JN McLellan, JPM Langedijk</td>
<td>Cell Reports</td>
<td>2020</td>
</tr>
<tr>
<td>How paired PSII–LHCII supercomplexes mediate the stacking of plant thylakoid membranes unveiled by structural mass-spectrometry</td>
<td>P Albanese, S Tamara, G Saracco, RA Scheltema, C Pagliano</td>
<td>Nature Communications</td>
<td>2020</td>
</tr>
<tr>
<td>Immunoaffinity microflow liquid chromatography/tandem mass spectrometry for the quantitation of PD1 and PD-L1 in human tumor tissues</td>
<td>Y Zhu, J Zalazniki, B Sleczka, K Parrish, Z Yang, T Olah, P Shipkova</td>
<td>Rapid Communications in Mass Spectrometry</td>
<td>2020</td>
</tr>
<tr>
<td>Isomeric separation of N-glycopeptides derived from glycoproteins by porous graphitic carbon (PGC) LC-MS/MS</td>
<td>R Zhu, Y Huang, J Zhao, J Zhong, Y Mechref</td>
<td>Analytical Chemistry</td>
<td>2020</td>
</tr>
<tr>
<td>Proline behavior in model prebiotic peptides formed by wet–dry cycling</td>
<td>JN Ervin, M Bouza, FM Fernández, JG Forsythe</td>
<td>ACS Earth and Space Chemistry</td>
<td>2020</td>
</tr>
<tr>
<td>Cyclodepsipeptide biosynthesis in Hypocreales fungi and sequence divergence of The non-ribosomal peptide synthase genes</td>
<td>M Urbański, A Waśkiewicz, A Trzebny, G Koczyk, Ł. Stępień</td>
<td>Pathogens</td>
<td>2020</td>
</tr>
<tr>
<td>The pathways by which the marine diatom Thalassiosira sp. OUC2 biodegrades p-xylene, combined with a mechanistic analysis at the proteomic level</td>
<td>W Duan, S Du, F Meng, X Peng, L Peng, Y Lin, G Wang, J Wu</td>
<td>Ecotoxicology and Environmental Safety</td>
<td>2020</td>
</tr>
<tr>
<td>Simplified quantification of insulin, its synthetic analogs and C-peptide in human plasma by means of LC-HRMS</td>
<td>A Thomas, R Yang, S Petring, L Bally, M Thevis</td>
<td>Drug Testing and Analysis</td>
<td>2020</td>
</tr>
<tr>
<td>Concentration and chemical stability of commercially available insulins: A high-resolution mass spectrometry study</td>
<td>F Baechler, C Stettler, B Vogt, L Bally, M Groessl</td>
<td>Diabetes Technology and Therapeutics</td>
<td>2020</td>
</tr>
<tr>
<td>Title</td>
<td>Authors</td>
<td>Journal</td>
<td>Date</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>Green and chamomile teas, but not acarbose, attenuate glucose and fructose transport via inhibition of GLUT2 and GLUT5</td>
<td>JA Villa-Rodriguez, E Aydin, JS Gauer, A Pyner, G Williamson, A Kerimi</td>
<td>Molecular Nutrition and Food Research</td>
<td>2017</td>
</tr>
<tr>
<td>Reduced ultraviolet light transmission increases insecticide longevity in protected culture raspberry production</td>
<td>H Leach, JC Wise, R Isaacs</td>
<td>Chemosphere</td>
<td>2017</td>
</tr>
<tr>
<td>Quantification of 16 β-lactams in chicken muscle by QuEChERS extraction and UPLC-Q-Orbitrap-MS with parallel reaction monitoring</td>
<td>Q Chen, XD Pan, BF Huang, JL Han</td>
<td>Journal of Pharmaceutical and Biomedical Analysis</td>
<td>2017</td>
</tr>
<tr>
<td>Validation of a rapid and sensitive HPLC/MS method for measuring sucrose, fructose and glucose in plant tissues</td>
<td>N Georgelis, K Fencil, CM Richael</td>
<td>Food Chemistry</td>
<td>2018</td>
</tr>
<tr>
<td>Toward a harmonized and standardized protocol for the determination of total hydroxytyrosol and tyrosol content in virgin olive oil (VOO), Extraction solvent</td>
<td>N Nenadis, A Mastralexi, MZ Tsimidou, S Vichi, B Quintanilla-Casas, J Donarski, V Bailey-Horne, B Butinar, M Miklavčič, DLG González, TG Toschi</td>
<td>European Journal of Lipid Science and Technology</td>
<td>2018</td>
</tr>
<tr>
<td>Effect of purslane (Portulaca oleracea L.) extract on anti-browning of fresh-cut potato slices during storage</td>
<td>X Liu, Q Yang, Y Lu, Y Li, T Li, B Zhou, L Qiao</td>
<td>Food Chemistry</td>
<td>2019</td>
</tr>
<tr>
<td>Mass spectrometric characterisation of avenanthramides and enhancing their production by germination of oat (Avena sativa)</td>
<td>WJC de Bruijn, S van Dinteren, H Gruppen, JP Vincken</td>
<td>Food Chemistry</td>
<td>2019</td>
</tr>
<tr>
<td>Quantitative analysis and anti-inflammatory activity evaluation of the A-type avenanthramides in commercial sprouted oat products</td>
<td>C Hu, Y Tang, Y Zhao, S Sang</td>
<td>Journal of Food Composition and Analysis</td>
<td>2019</td>
</tr>
<tr>
<td>Comparative evaluation of six traditional fermented soybean products in East Asia: A metabolomics approach</td>
<td>YS Kwon, S Lee, SH Lee, HJ Kim, CH Lee</td>
<td>Metabolites</td>
<td>2019</td>
</tr>
<tr>
<td>Solvent and temperature effects of accelerated solvent extraction (ASE) with Ultra-high pressure liquid chromatography (UHPLC-PDA) technique for determination of piperine and its ICP-MS analysis</td>
<td>R Ahmad, N Ahmad, A Shehzad</td>
<td>Industrial Crops and Products</td>
<td>2019</td>
</tr>
<tr>
<td>Extraction of methyl xanthines and their UHPLC–DAD determination in consumable beverages used in Eastern province of Saudi Arabia</td>
<td>R Ahmad, N Ahmad, F AlOthman, H Mohammed, F AlZahrani</td>
<td>Biomedical Chromatography</td>
<td>2019</td>
</tr>
<tr>
<td>Extraction and UHPLC–DAD detection of undeclared substances in market-available dietary supplements and slimming products in Eastern region, Saudi Arabia: An application of principal component analysis</td>
<td>R Ahmad, N Ahmad, N AlHudaithi, A AlHebshi, A Bukhari</td>
<td>Biomedical Chromatography</td>
<td>2019</td>
</tr>
<tr>
<td>Title</td>
<td>Authors</td>
<td>Journal</td>
<td>Date</td>
</tr>
<tr>
<td>---------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
<td>----------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>Chemometrics coupled with UPLC-MS/MS for simultaneous analysis of</td>
<td>J Hai, Y Liu, X Xudong, Y Meiling, G Xinyue, Y Bingyou, W Qui-Hong,</td>
<td>Phytomedicine</td>
<td>2019</td>
</tr>
<tr>
<td>markers in the raw and processed Fructus Xanthii, and application</td>
<td>K Hai-Xue</td>
<td></td>
<td></td>
</tr>
<tr>
<td>to optimization of processing method by BBD design</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Screening of multi-class antibiotics in pork meat by LC-Orbitrap-MS</td>
<td>Q Chen, XD Pan, BF Huang, JL Han, B Zhou</td>
<td>RSC Advances</td>
<td>2019</td>
</tr>
<tr>
<td>with modified QuEChERS extraction</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pyrrolizidine alkaloids of blue heliotrope (Heliotropium amplexicaule) and their presence in Australian</td>
<td>MC de Jesus, NL Hungerford, SJ Carter, SR Anuj, JT Blanchfield, JJ Do Voss, MT Fletcher</td>
<td>Journal of Agricultural and Food Chemistry</td>
<td>2019</td>
</tr>
<tr>
<td>Allelopathic effects account for the inhibitory effect of field-pea</td>
<td>X Wang, S Peter, Z Liu, R Armstrong, S Rochfort, C Tang,</td>
<td>Biology and Fertility of Soils</td>
<td>2019</td>
</tr>
<tr>
<td>(pisum sativum L.) shoots on wheat growth in dense clay subsols</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Composition and safety evaluation of tea from New Zealand kawakawa</td>
<td>CA Butts, JW van Klink, NL Joyce, G Paturi, DI Hedderley, S Martell, D</td>
<td>Journal of Ethnopharmacology</td>
<td>2019</td>
</tr>
<tr>
<td>(Piper excelsum)</td>
<td>Harvey</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solvent and temperature effects of accelerated solvent extraction (ASE) coupled with ultra-high pressure liquid chromatography (UHPLC-DAD) technique for determination of thymoquinone in commercial food samples of black seeds (Nigella sativa)</td>
<td>R Ahmad, N Ahmad, A Shehzad</td>
<td>Food Chemistry</td>
<td>2020</td>
</tr>
<tr>
<td>Solvent and temperature effect of accelerated solvent extraction (ASE) coupled with ultra-high-pressure liquid chromatography (UHPLC-PDA) for the determination of methyl xanthines in commercial tea and coffee</td>
<td>R Ahmad, N Ahmad, WS Al-Anaki, FA Ismail, F Al-Jishi</td>
<td>Food Chemistry</td>
<td>2020</td>
</tr>
<tr>
<td>Identification and absolute quantification of animal blood products by peptide markers using an UPLC–MS/MS method</td>
<td>Y Zhang, S Wang, Y Ma, H Li &amp; Y Li</td>
<td>European Food and Research Technology</td>
<td>2020</td>
</tr>
<tr>
<td>A comparison of the phenolic composition of old and young tea leaves reveals a decrease in flavanols and phenolic acids and an increase in flavonols upon tea leaf maturation</td>
<td>Z Liu, ME Bruins, WJC de Bruijn, JP Vincken</td>
<td>Journal of Food Composition and Analysis</td>
<td>2020</td>
</tr>
<tr>
<td>The phenolic compounds, tocopherols, and phytoestrogens in the edible oil of guava (Psidium guava) seeds obtained by supercritical CO2 extraction</td>
<td>CE Narvaez-Cuenca, ML Inampues-Charfuelan, AM Hurtado-Benavides, F Parada-Alfonso, JP Vincken</td>
<td>Journal of Food Composition and Analysis</td>
<td>2020</td>
</tr>
<tr>
<td>Impact of Lactobacillus plantarum 423 fermentation on the antioxidant activity and flavor properties of rice bran and wheat bran</td>
<td>M Wang, M Lei, N Samina, LL Chen, CL Liu, TT Yin, XT Yan, C Wu, H He, CP Yi</td>
<td>Food Chemistry</td>
<td>2020</td>
</tr>
<tr>
<td>Protein digestion of different protein sources using the INFOGEST static digestion model</td>
<td>R Sousa, R Portmann, S Dubois, I Recio, L Egger</td>
<td>Food Research International</td>
<td>2020</td>
</tr>
<tr>
<td>A rapid protocol to distinguish between Citri exocarpium rubrum and Citri reticulatae pericarpium based on the characteristic fingerprint and UHPLC-Q-TOF MS methods</td>
<td>L Shi, R Wang, T Liu, J Wu, H Zhang, Z Liu, S Liu, Z Liu</td>
<td>Food &amp; Function</td>
<td>2020</td>
</tr>
<tr>
<td>Title</td>
<td>Authors</td>
<td>Journal</td>
<td>Date</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------</td>
<td>------------</td>
</tr>
<tr>
<td>Analysis of peptide antibiotic residues in milk using liquid chromatography-high resolution mass spectrometry (LC-HRMS)</td>
<td>IL Wu, SB Turnipseed, WC Andersen &amp; MR Madson</td>
<td>Food Additives &amp; Contaminants: Part A</td>
<td>2020</td>
</tr>
<tr>
<td>Quality changes in cold pressed juices after processing by high hydrostatic pressure, ultraviolet-c light and thermal treatment at commercial regimes</td>
<td>VR de Souza, V Popović, S Bissonnette, I Ros, L Mats, L Duizer, K Warriner, T Koutchma</td>
<td>Innovative Food Science &amp; Emerging Technologies</td>
<td>2020</td>
</tr>
<tr>
<td>Effect of acid on glycoalkaloids and acrylamide in French fries</td>
<td>H Liu, J Roasa, L Mats, H Zhu &amp; S Shao</td>
<td>Food Additives &amp; Contaminants: Part A</td>
<td>2020</td>
</tr>
<tr>
<td>Effect of different combined mechanical and thermal treatments on the quality characteristics of garlic paste</td>
<td>B Zhang, Z Zheng, N Liu, P Liu, Z Qiu &amp; X Qiao</td>
<td>Journal of Food Science and Technology</td>
<td>2020</td>
</tr>
<tr>
<td>Targeted characterization of acylated compounds from Scrophulariae radix using liquid chromatography coupled with Orbitrap mass spectrometry and diagnostic product ion-based data analysis</td>
<td>Z Shang, L Xu, H Wang, L Sun, T Bo, M Ye, X Qiao</td>
<td>Journal of Separation Science</td>
<td>2020</td>
</tr>
<tr>
<td>Optimization of extraction and quantification technique for phenolics content of garlic (Allium sativum): An application for comparative phytochemical evaluation based on cultivar origin</td>
<td>R Ahmad, N Ahmad, M Riaz, M Al-tarouti, F Aloufi, A AlDarwish, B Alalaq, B Aihafoush, Z Khan</td>
<td>Biomedical Chromatography</td>
<td>2020</td>
</tr>
<tr>
<td>Optimizing the supercritical carbon dioxide extraction of sweet cherry (Prunus avium L.) leaves and UPLC-MS/MS analysis</td>
<td>H Zhang, Q Li, G Qiao, Z Qiu, Z Wen, X Wen</td>
<td>Analytical Methods</td>
<td>2020</td>
</tr>
<tr>
<td>Androgens modify therapeutic response to cabazitaxel in models of advanced prostate cancer</td>
<td>D Begemann, Y Wang, W Yang, N Kyprianou</td>
<td>The Prostate</td>
<td>2020</td>
</tr>
<tr>
<td>Effects of quercetin and cinnamaldehyde on the nutrient release from beef into soup during stewing process</td>
<td>Y Li, D Fan, Y Zhao, M Wang</td>
<td>Food Science and Technology</td>
<td>2020</td>
</tr>
<tr>
<td>Inhibitory effect of selected hydrocolloids on 2-amino-1-methyl-6-phenylimidazo[4,5-b]pyridine (PhIP) formation in chemical models and beef patties</td>
<td>H Yang, Z Ji, R Wang, D Fan, Y Zhao, M Wang</td>
<td>Journal of Hazardous Materials</td>
<td>2020</td>
</tr>
<tr>
<td>Endo-1,3(4)-β-glucanase-treatment of oat β-glucan enhances fermentability by infant fecal microbiota, stimulates dectin-1 activation and attenuates inflammatory responses in immature dendritic cells</td>
<td>R Akkerman, MJ Logtenberg, R An, MA Van Den Berg, BJ de Haan, MM Faas, E Zoetendal, P de Vos, HA Schols</td>
<td>Nutrients</td>
<td>2020</td>
</tr>
<tr>
<td>Terpinen-4-ol enhances disease resistance of postharvest strawberry fruit more effectively than tea tree oil by activating the phenylpropanoid metabolism pathway</td>
<td>Z Li, N Wang, Y Wei, X Zou, S Jiang, F Xu, H Wang, X Shao</td>
<td>Journal of Agricultural and Food Chemistry</td>
<td>2020</td>
</tr>
<tr>
<td>Pre-harvest treatment of kiwifruit trees with mixed culture fermentation broth of Trichoderma pseudokoningii and Rhizopus nigricans prolonged the shelf life and improved the quality of fruit</td>
<td>Q Ma, Y Cong, J Wang, C Liu, L Feng, K Chen</td>
<td>Postharvest Biology and Technology</td>
<td>2020</td>
</tr>
<tr>
<td>Title</td>
<td>Authors</td>
<td>Journal</td>
<td>Date</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
<td>-----------------------------------</td>
<td>--------</td>
</tr>
<tr>
<td>New insights into cheddar cheese microbiota-metabolome relationships revealed by integrative analysis of multi-omics data</td>
<td>R Afshari, CJ Pillidge, E Read, S Rochfort, DA Dias, AM Osborn, H Gill</td>
<td>Scientific Reports</td>
<td>2020</td>
</tr>
<tr>
<td>Determination of 400 pesticide residues in green tea leaves by UPLC-MS/MS and GC-MS/MS combined with QuEChERS extraction and mixed-mode SPE clean-up method</td>
<td>TK Ly, TD Ho, P Behra, TT Nhu-Trang</td>
<td>Food Chemistry</td>
<td>2020</td>
</tr>
<tr>
<td>Exogenous salicylic acid mitigates the accumulation of some pesticides in cucumber seedlings under different cultivation methods</td>
<td>T Liu, C Yuan, Y Gao, J Luo, S Yang, S Liu, R Zhang, N Zou</td>
<td>Ecotoxicology and Environmental Safety</td>
<td>2020</td>
</tr>
<tr>
<td>A rapid method for the detection of extra virgin olive oil adulteration using UHPLC-CAD profiling of triacylglycerols and PCA</td>
<td>HS Green, X Li, M De Pra, KS Lovejoy, F Steiner, IN Acworth, SC Wang</td>
<td>Food Control</td>
<td>2020</td>
</tr>
<tr>
<td>Title</td>
<td>Authors</td>
<td>Journal</td>
<td>Date</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
<td>----------------------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>Characterization of the functional variance in MbtH-like protein interactions with a nonribosomal peptide synthetase</td>
<td>RA Schomer, MG Thomas</td>
<td>Biochemistry</td>
<td>2017</td>
</tr>
<tr>
<td>Antibacterial 3,6-Disubstituted 4-Hydroxy-5,6-dihydro-2H-pyran-2-ones from Serratia plymuthica MF371-2</td>
<td>J Bjerketorp, JJ Levanfors, C Sahberg, CL Nord, PF Andersson, B Guss, Bo Öberg, A Broberg</td>
<td>Journal of Natural Products</td>
<td>2017</td>
</tr>
<tr>
<td>The creatininase homolog MtE from Mycobacterium smegmatis catalyzes a peptide cleavage reaction in the biosynthesis of a novel ribosomally synthesized post-translationally modified peptide (RiPP)</td>
<td>NA Bruender, V Bandarian</td>
<td>Journal of Biological Chemistry</td>
<td>2017</td>
</tr>
<tr>
<td>Biochemical and structural characterization of a Schiff base in the radical-mediated biosynthesis of 4-demethylwyosine by TYW1</td>
<td>TAJ Grell, AP Young, CL Drennan, V Bandarian</td>
<td>Journal of the American Chemical Society</td>
<td>2018</td>
</tr>
<tr>
<td>A radical clock probe uncouples H atom abstraction from thioether cross-link formation by the radical s-adenosyl-l-methionine enzyme SkfB</td>
<td>WM Kincannon, NA Vruender, V Bandarian</td>
<td>Biochemistry</td>
<td>2018</td>
</tr>
<tr>
<td>Degradation of 4-chlorophenol in a batch electrochemical reactor using BDD electrodes</td>
<td>E Peralta, M Ruiz, G Martinez, J Mentado-Morales, LG Zárate, ME Cordero, M Garcia-Morales, R Natividad, A Regalado-Méndez</td>
<td>International Journal of Electrochemical Sciences</td>
<td>2018</td>
</tr>
<tr>
<td>Synthesis, purification, and mass spectrometric characterization of stable isotope-labeled amadori-glycated phospholipids</td>
<td>X He, Q Zhang</td>
<td>ACS Omega</td>
<td>2018</td>
</tr>
<tr>
<td>Total synthesis of tiacumin A. Total synthesis, relay synthesis, and degradation studies of fidaxomycin (tiacumin B, lipiarmycin A3)</td>
<td>H Hattori, E Kaufmann, H Miyatake-Onodzabal, R Berg, K Gademann</td>
<td>The Journal of Organic Chemistry</td>
<td>2018</td>
</tr>
<tr>
<td>Coupling of heterogeneous advanced oxidation processes and photocatalysis in efficient degradation of tetracycline hydrochloride by Fe-based MOFs: Synergetic effect and degradation pathway</td>
<td>Y Zhang, J Zhou, X Chen, L Wang, W Cai</td>
<td>Chemical Engineering Journal</td>
<td>2019</td>
</tr>
<tr>
<td>Taming the combinatorial explosion of the formose reaction via recursion within mineral environments</td>
<td>S Colón-Santos, GJT Cooper, L Cronin</td>
<td>ChemSystemsChem</td>
<td>2019</td>
</tr>
<tr>
<td>Palladium-catalyzed hydroxycarbonylation of (hetero)aryl halides for DNA-encoded chemical library synthesis</td>
<td>JY Li, G Mikloszy, RK Modukuri, KM Bohren, Z Yu, M Palaniappan, JC Faver, K Riehl, MM Matzuk, N Simmons</td>
<td>Bioconjugate Chemistry</td>
<td>2019</td>
</tr>
<tr>
<td>Selective production of dihydroxyacetone and glyceraldehyde by photo-assisted oxidation of glycerol</td>
<td>A Mendoza, R Romero, GP Gutierrez-Cadillo, G López-Tellez, O Lorenzo-González, RM Gomez-Espinosa, R Natividad</td>
<td>Catalysis Today</td>
<td>2019</td>
</tr>
<tr>
<td>Replacement of an indole scaffold targeting human 15-lipoxygenase-1 using combinatorial chemistry</td>
<td>D Prismawan, R van der Vlag, H Guo, FJ Dekker, AKH Hirsch</td>
<td>Helvetica Chimica Acta</td>
<td>2019</td>
</tr>
<tr>
<td>Toward developing a yeast cell factory for the production of prenylated flavonoids</td>
<td>M Levinson, C Araya-Cloutier, WJC de Bruijn, M van der Heide, JMS Lopez, JM Daran, JP Vincken, J Beekwilder</td>
<td>Journal of Agricultural and Food Chemistry</td>
<td>2019</td>
</tr>
<tr>
<td>Title</td>
<td>Authors</td>
<td>Journal</td>
<td>Date</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
<td>----------------------------------------------</td>
<td>----------</td>
</tr>
<tr>
<td>Soft sensor-based monitoring and efficient control strategies of biomass concentration for continuous cultures of Haloferax mediterranei and their application to an industrial production chain</td>
<td>T Mainka, N Mahler, C Herwig, S Pflügl</td>
<td>Microorganisms</td>
<td>2019</td>
</tr>
<tr>
<td>Room-temperature preparation of MIL-88A as a heterogeneous photo-Fenton catalyst for degradation of rhodamine B and bisphenol a under visible light</td>
<td>H Fu, XX Song, L Wu, C Zhao, P Wang, CC Wang</td>
<td>Materials Research Bulletin</td>
<td>2020</td>
</tr>
<tr>
<td>Protocol for community-created public MS/MS reference spectra within the Global Natural Products Social Molecular Networking infrastructure</td>
<td>F Vargas, KC Weldon, N Sikora, M Wang, Z Zhang, EC Gentry, MW Panitchpakdi, AM Caraballo-Rodríguez, PC Dorrestein, AK Jarmusch</td>
<td>Rapid Communications in Mass Spectrometry</td>
<td>2020</td>
</tr>
<tr>
<td>In-situ construction of Co(OH)₂ nanoparticles decorated urchin-like WO₃ for highly efficient degradation of sulfachloropyridazine via peroxymonosulfate activation: Intermediates and DFT calculation</td>
<td>X Tao, P Pan, T Huang, L Chen, H Ji, J Qi, F Sun, W Liu</td>
<td>Chemical Engineering Journal</td>
<td>2020</td>
</tr>
<tr>
<td>A new carbazole-based colorimetric and ratiometric fluorescent probe for hypochlorite sensing in living cells and zebrafishes</td>
<td>A Feng, P Liu, Q Liang, X Zhang, L Huang, Y Jia, M Xie, Q Yan, C Li, S Wang</td>
<td>Dyes and Pigments</td>
<td>2020</td>
</tr>
<tr>
<td>Photocatalytic degradation of ofloxacin by perovskite-type NaNbO₃ nanorods modified g-C₃N₄ heterojunction under simulated solar light: Theoretical calculation, ofloxacin degradation pathways and toxicity evolution</td>
<td>D Zhang, J Qi, H Ji, S Li, T Huang, C Xu, X Chen, W Liu</td>
<td>Chemical Engineering Journal</td>
<td>2020</td>
</tr>
<tr>
<td>Facile enzymatic Cγ-acylation of lignin model compounds</td>
<td>R Hilgers, JP Vincken, MA Kabel</td>
<td>Catalysis Communications</td>
<td>2020</td>
</tr>
<tr>
<td>Controlling the competition: Boosting laccase/HBT-catalyzed cleavage of a β-O-4’ linked lignin model</td>
<td>R Hilgers, A van Dam, H Zuilhof, JP Vincken, MA Kabel</td>
<td>ACS Catalysis</td>
<td>2020</td>
</tr>
<tr>
<td>Three-dimensional Co/Ni bimetallic organic frameworks for high-efficient catalytic ozonation of atrazine: Mechanism, effect parameters, and degradation pathways analysis</td>
<td>G Ye, Y Zhao, G Qiu, Y Hu, S Preis, C Wei</td>
<td>Chemosphere</td>
<td>2020</td>
</tr>
<tr>
<td>Oxidative release of thiol-conjugated forms of the mycotoxin 4-deoxynivalenol</td>
<td>S Uhlig, L Ivanova, CO Miles</td>
<td>Chemical Research in Toxicology</td>
<td>2020</td>
</tr>
<tr>
<td>Synthesis of molecularly imprinted polymer via emulsion polymerization for application in solanesol separation</td>
<td>G Zhao, J Liu, M Liu, X Han, Y Peng, X Tian, J Liu, S Zhang</td>
<td>Applied Sciences</td>
<td>2020</td>
</tr>
<tr>
<td>Title</td>
<td>Authors</td>
<td>Journal</td>
<td>Date</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------</td>
<td>--------</td>
</tr>
<tr>
<td>Synthesis and investigation of novel chlorin sensitizers containing the myristic acid residue for antimicrobial photodynamic therapy</td>
<td>AV Kustov, TV Kustova, DV Belykh, IS Khudyaeva, DB Berezin</td>
<td>Dyes and Pigments</td>
<td>2020</td>
</tr>
<tr>
<td>Directed evolution of adenine base editors with increased activity and therapeutic application</td>
<td>NM Gaudelli, DK Lam, HA Rees, NM Soldá-Esteves, LA Barrera, DA Born, A Edwards, JM Gehrke, SJ Lee, AJ Liquori, R Murray, MS Packer, C Rinaldi, IM Slaymaker, J Yan, LE Young, G Ciaramella</td>
<td>Nature Biotechnology</td>
<td>2020</td>
</tr>
<tr>
<td>Title</td>
<td>Authors</td>
<td>Journal</td>
<td>Date</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------</td>
<td>-------------------------------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>Novel ribonuclease activity of cusativin from Cucumis sativus for mapping nucleoside modifications in RNA</td>
<td>B Addepalli, S Venus, P Thakur, PA Limbach</td>
<td>Analytical and Bioanalytical Chemistry</td>
<td>2017</td>
</tr>
<tr>
<td>Development of SPE method for the extraction of phosphorothioate oligonucleotides from serum samples</td>
<td>Łukasz Nuckowski, A Kaczmarskiewicz, S Studzińska</td>
<td>Bioanalysis</td>
<td>2018</td>
</tr>
<tr>
<td>Salmonella reprograms nucleotide metabolism in its adaptation to nitrosative stress</td>
<td>LF Fitzsimmons, L Liu, JS Kim, J Jones-Carson, A Vázquez-Torres</td>
<td>mBio</td>
<td>2018</td>
</tr>
<tr>
<td>Gene ssfg_01967 (miaB) for tRNA modification influences morphogenesis and moenomycin biosynthesis in Streptomyces ghanaensis ATCC14672</td>
<td>Y Sehin, O Koshla, Y Dacyuk, R Zhao, R Ross, M Myronovskyl, PA Limbach, A Luzhetskyy, S Walker, V Fedorenko, B Ostash</td>
<td>Microbiology</td>
<td>2018</td>
</tr>
<tr>
<td>Differentiating positional isomers of nucleoside modifications by higher-energy collisional dissociation mass spectrometry (HCD MS)</td>
<td>M Jora, AP Burns, RL Ross, PA Beal, B Addepalli, PA Limbach</td>
<td>Journal of the American Society for Mass Spectrometry</td>
<td>2018</td>
</tr>
<tr>
<td>Development of DNA-compatible Suzuki-Miyaura reaction in aqueous media</td>
<td>JY Li, H Huang</td>
<td>Biocatalyst Chemistry</td>
<td>2018</td>
</tr>
<tr>
<td>Directed evolution of heterologous tRNAs leads to reduced dependence on post-transcriptional modifications</td>
<td>KC Baldridge, M Jora, JS Brodbelt, AD Ellington, PA Limbach, LM Contreras</td>
<td>ACS Synthetic Biology</td>
<td>2018</td>
</tr>
<tr>
<td>A new approach to preparation of antisense oligonucleotide samples with microextraction by packed sorbent</td>
<td>Łukasz Nuckowski, A Kaczmarskiewicz, S Studzińska, B Buszewski</td>
<td>Analyst</td>
<td>2019</td>
</tr>
<tr>
<td>Conversion of PRPS hexamer to monomer by AMPK-mediated phosphorylation inhibits nucleotide synthesis in response to energy stress</td>
<td>X Qian, X Li, T Tan, JL Lee, JY Liu, TX Liu, Q Cai, Y Zheng, H Wang, PL Lorenz, Z Lu</td>
<td>Cancer Discovery</td>
<td>2019</td>
</tr>
<tr>
<td>Cyclic GMP-AMP signalling protects bacteria against viral infection</td>
<td>D Cohen, S Melamed, A Millman, G Shulman, Y Oppenheimer-Shaanan, A Kacen, S Doron, G Amitai, R Sorek</td>
<td>Nature</td>
<td>2019</td>
</tr>
<tr>
<td>TYW1: A radical SAM enzyme involved in the biosynthesis of wybutosine bases</td>
<td>AP Young, V Bandarian</td>
<td>Methods in Enzymology</td>
<td>2019</td>
</tr>
</tbody>
</table>
### Nucleic Acids

<table>
<thead>
<tr>
<th>Title</th>
<th>Authors</th>
<th>Journal</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improved application of RNAModMapper – an RNA modification mapping</td>
<td>PA Lobue, N Yu, M Jora, S Abernathy, PA Limbach</td>
<td>Methods</td>
<td>2019</td>
</tr>
<tr>
<td>software tool – for analysis of liquid chromatography tandem mass</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>spectrometry (LC-MS/MS) data</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physiology and effects of nucleosides in mice lacking all four</td>
<td>C Xiao, N Liu, KA Jacobson, O Gavriloava, ML Reitman</td>
<td>PLOS Biology</td>
<td>2019</td>
</tr>
<tr>
<td>adenosine receptors</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distinct substrate specificities of the human tRNA methyltransferases</td>
<td>NH Howell, M Jora, BF Jepson, PA Limbach, JE Jackman</td>
<td>RNA</td>
<td>2019</td>
</tr>
<tr>
<td>TRMT10A and TRMT10B</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hydrophilic interaction in solid-phase extraction of antisense</td>
<td>Łukasz Nuckowski, A Kilanowksa, S Studzińska</td>
<td>Journal of Chromatographic Science</td>
<td>2020</td>
</tr>
<tr>
<td>oligonucleotides</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ultra-high-performance reversed-phase liquid chromatography hyphenated</td>
<td>S Studzińska, Łukasz Nuckowski, A Kilanowska</td>
<td>Chromatographia</td>
<td>2020</td>
</tr>
<tr>
<td>with ESI-Q-TOF-MS for the analysis of unmodified and antisense</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>oligonucleotides</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Survey and validation of tRNA modifications and their corresponding</td>
<td>V de Crécy-Lagard, RL Ross, M Jaroch, V Marchand, C Eisenhart,</td>
<td>Biomolecules</td>
<td>2020</td>
</tr>
<tr>
<td>genes in Bacillus subtilis sp Subtilis strain 168</td>
<td>D Brégion, Y Motorin, PA Limbach</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Characterization of antisense oligonucleotide impurities by ion-pairing</td>
<td>A Goyon, K Zhang</td>
<td>Analytical Chemistry</td>
<td>2020</td>
</tr>
<tr>
<td>reversed-phase and anion exchange chromatography coupled to hydrophilic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>interaction liquid chromatography/mass spectrometry using a versatile</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>dimensional liquid chromatography setup</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attachment of hybridizable oligonucleotides to a silica support and</td>
<td>S Studzińska, M Skoczylas, S Bocain, A Dembska, B Buszewski</td>
<td>RSC Advances</td>
<td>2020</td>
</tr>
<tr>
<td>its application for selective extraction of unmodified and antisense</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>oligonucleotides from serum samples</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extracellular cGAMP is a cancer-cell-produced immunotransmitter involved</td>
<td>JA Carozza, V Böhnert, KC Nguyen, G Skariah, KE Shaw, JA Brown,</td>
<td>Nature Cancer</td>
<td>2020</td>
</tr>
<tr>
<td>in radiation-induced anticancer immunity</td>
<td>M Rafat, R von Eyben, EE Graves, JS Glenn, M Smith, L Li</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CBASS immunity uses CARF-related effectors to sense 3’–5’- and</td>
<td>B Lowey, AT Whiteley, AFA Keszei, BR Morehouse, IT Mathews,</td>
<td>Cell</td>
<td>2020</td>
</tr>
<tr>
<td>2’–5’-linked cyclic oligonucleotide signals and protect bacteria from</td>
<td>SP Antine, VJ Cabrera, D Kashin, P Niemann, M Jain, F Schwede,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>phage infection</td>
<td>JJ Mekalanos, S Shao, ASY Lee, PJ Kranzusch</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C–N coupling of DNA-conjugated (hetero)aryl bromides and chlorides</td>
<td>YC Chen, JC Faver, AF Ku, G Mikloisy, K Riehle, KM Bohren,</td>
<td>Bioconjugate Chemistry</td>
<td>2020</td>
</tr>
<tr>
<td>for DNA-encoded chemical library synthesis</td>
<td>MN Ucisik, MM Matzuk, Z Yu, N Simmons</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Title</td>
<td>Authors</td>
<td>Journal</td>
<td>Date</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
<td>-----------------------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>Flavone glucosides from <em>Artemisia juncea</em></td>
<td>BS Okhendedaev, M Bacher, RF Mukhamatkhanavo, IJ Shamyarov, G Zengin, S Böhmderfer, NZ Mamadalieva, T Rosenau</td>
<td>Natural Product Research</td>
<td>2018</td>
</tr>
<tr>
<td>On-line comprehensive two-dimensional liquid chromatography tandem mass spectrometry for the analysis of <em>Curcuma kwangsiensis</em></td>
<td>W Zhou, Z Guo, L Yu, H Zhou, A Shen, Y Jin, G Jin, J Yan, Y Liu, CR Wang, JT Feng, Y Liu, X Liang</td>
<td>Talanta</td>
<td>2018</td>
</tr>
<tr>
<td>UHPLC-MS/MS quantification combined with chemometrics for comparative analysis of different batches of raw, wine-processed, and salt-processed radix Achyranthis bidentatae</td>
<td>L Yang, H Jiang, M Yan, X Xing, X Guo, B Yang, Q Wang, H Kuang</td>
<td>Molecules</td>
<td>2018</td>
</tr>
<tr>
<td>Biflavones from <em>Ginkgo biloba</em> as inhibitors of human thrombin</td>
<td>TR Chen, LH Wei, XQ Guan, C Huang, Y Liu, FJ Wang, J Hou, Q Jin, YF Liu, PH Wen, SJ Zhang, GB Ge, WZ Guo</td>
<td>Bioorganic Chemistry</td>
<td>2019</td>
</tr>
<tr>
<td>Investigating the protective effect of gross saponins of <em>Tribulus terrestris</em> fruit against ischemic stroke in rat using metabolomics and network pharmacology</td>
<td>Y Wang, W Guo, Y Liu, J Wang, M Fan, H Zhao, S Xie, Y Xu</td>
<td>Metabolites</td>
<td>2019</td>
</tr>
<tr>
<td>Study on the antihypertensive mechanism of Astragalus membranaceus and Salvia miltiorrhiza based on intestinal flora-host metabolism</td>
<td>C Han, Y Jiang, W Li, Y Liu, Z Qi</td>
<td>Evidence-Based Complementary and Alternative Medicine</td>
<td>2019</td>
</tr>
<tr>
<td>Bioactivity-guided isolation and identification of antiadipogenic compounds in shiya tea (leaves of Adinandra nitida)</td>
<td>C Yuan, L Huang, JH Suh, Y Wang</td>
<td>Journal of Agricultural and Food Chemistry</td>
<td>2019</td>
</tr>
<tr>
<td>Taeumjowi-tang, a traditional Korean sasang remedy, improves obesity-atopic dermatitis comorbidity by regulating hypoxia-inducible factor 1 alpha</td>
<td>J Park, DH Youn, JW Kang, KS Ahn, HJ Kwak, JY Um</td>
<td>Frontiers in Pharmacology</td>
<td>2019</td>
</tr>
<tr>
<td>Papaver nudicaule (Iceland poppy) alleviates lipopolysaccharide-induced inflammation through inactivating NF-κB and STAT3</td>
<td>JH Oh, M Yun, D Park, IJ Ha, CK Kim, DW Kim, EO Kim, SG Lee</td>
<td>BMC Complementary and Alternative Medicine</td>
<td>2019</td>
</tr>
<tr>
<td>Fermented dried <em>Citrus unshiu</em> peel extracts exert anti-inflammatory activities in LPS-induced RAW264.7 macrophages and improve skin moisturizing efficacy in immortalized human HaCaT keratinoctyes</td>
<td>C Kim, J Ji, SH Baek, JH Lee, IJ Ha, SS Lim, HJ Yoon, YJ Nam, KS Ahn</td>
<td>Pharmaceutical Biology</td>
<td>2019</td>
</tr>
<tr>
<td>Rapid quantitation and identification of the chemical constituents in Danhong Injection by liquid chromatography coupled with Orbitrap mass spectrometry</td>
<td>L Xu, Shang, T Bo, L Sun, Q Guo, X Qiao, M Ye</td>
<td>Journal of Chromatography A</td>
<td>2019</td>
</tr>
<tr>
<td>Simultaneous determination of five irdoid glycosides and three flavonoid glycosides in <em>Hedyotis diffusa</em> wild by UPLC-UV with ultrasound-assisted extraction</td>
<td>X Huang, Y Wu, X Zhang, B Chen, H Luo, X Lin, P Shi, H Yao</td>
<td>Current Pharmaceutical Analysis</td>
<td>2019</td>
</tr>
<tr>
<td>Simultaneous determination of thirteen Q-markers in raw and processed <em>Tussilago farfara</em> L. by UPLC-QQQ-MS/MS coupled with chemometrics</td>
<td>L Yang, H Jiang, A Hou, X Guo, W Man, M Yan, X Xing, B Yang, Q Wang, H Kuang</td>
<td>Molecules</td>
<td>2019</td>
</tr>
<tr>
<td>A UPLC-MS/MS application for comparisons of the hepatotoxicity of raw and processed <em>Xanthii Fructus</em> by energy metabolites</td>
<td>H Jiang, L Yang, X Xing, M Yan, X Guo, A Hou, W Man, B Yang, Q Wang, H Kuang</td>
<td>RSC Advances</td>
<td>2019</td>
</tr>
<tr>
<td>Title</td>
<td>Authors</td>
<td>Journal</td>
<td>Date</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>Traditional Medicine</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phytochemical analysis and biological evaluation of Lagochilus species from Uzbekistan</td>
<td>DK Akramov, M Bacher, S Böhmderfer, T Rosenau, G Zengin, A Pthast, L Nahar, SD Sarker, NZ Mamadalieva</td>
<td>Industrial Crops and Products</td>
<td>2020</td>
</tr>
<tr>
<td>An integrated microbiome and metabolomic analysis identifies immunoenhancling features of Ganoderma lucidum spores oil in mice</td>
<td>X Wu, J Cao, M Li, P Yao, H Li, W Xu, C Yuan, J Liu, S Wang, P Li, Y Wang</td>
<td>Pharmacological Research</td>
<td>2020</td>
</tr>
<tr>
<td>Pharmacokinetics and metabolism research of Shenkang injection in rats based on UHPLC-MS/MS and UHPLC-Q-Orbitrap HRMS</td>
<td>X Jiang, L Zhou, L Zou, X Wang, Y Shi, X Du, J Zhang, L Liu, L Xue, X Liu, Z Sun</td>
<td>Drug Design, Development and Theory</td>
<td>2020</td>
</tr>
<tr>
<td>Spleen and thymus metabolomics strategy to explore the immunoregulatory mechanism of total withanolides from the leaves of Datura metel L. on imiquimod-induced psoriatic skin dermatitis in mice</td>
<td>Y Cheng, Y Liu, J Tan, Y Sun, W Guan, Y Liu, B Yang, H Kuang</td>
<td>Biomedical Chromatography</td>
<td>2020</td>
</tr>
<tr>
<td>Integrated serum metabolomics and network pharmacology approach to reveal the potential mechanisms of withanolides from the leaves of Datura metel L. on immune thrombocytopenic purpura</td>
<td>Y Cheng, Y Liu, J Tan, Y Sun, W Guan, P Jiang, B Yang, H Kuang</td>
<td>Journal of Pharmaceutical and Biomedical Analysis</td>
<td>2020</td>
</tr>
<tr>
<td>Rapid characterization of chemical constituents of the tubers of Gymnadenia conopsea by UPLC-Orbitrap-MS/MS analysis</td>
<td>X Wang, XJ Zhong, N Zhou, N Cai, JH Xu, QB Wang, JJ Li, Q Liu, PC Lin, ZY Shang</td>
<td>Molecules</td>
<td>2020</td>
</tr>
<tr>
<td>Effects of Hericium erinaceus mycelium extracts on the functional activity of purinoceptors and neuropathic pain in mice with L5 spinal nerve ligation</td>
<td>PP Yang, SH Chueh, HL Shie, CC Chen, LY Lee, WP Chen, YW Chen, L Shiu, PS Liu</td>
<td>Evidence-Based Complementary and Alternative Medicine</td>
<td>2020</td>
</tr>
<tr>
<td>Pharmacokinetic comparisons of eight active components from raw Farfarae flos and honey-processed Farfarae flos after oral administration in rats by UHPLC-MS/MS approaches</td>
<td>L Yang, H Jiang, X Guo, A Hou, W Man, S Wang, J Zhang, B Yang, J Li, H Kuang</td>
<td>Journal of Analytical Methods in Chemistry</td>
<td>2020</td>
</tr>
<tr>
<td>Screening and quantification of TNF-α ligand from Angelicae pubescentis radix by biosensor and UPLC-MS/MS</td>
<td>L Yang, A Hou, S Wang, J Zhang, J Zhang, W Man, X Guo, B Yang, Q Wang, H Jiang, H Kuang</td>
<td>Analytical Biochemistry</td>
<td>2020</td>
</tr>
<tr>
<td>α-glucosidase inhibitory activity of the extracts and major phytochemical components of Smilax glabra Roxb</td>
<td>PTM Nguyen, QV Ngo, MTH Nguyen, AT Maccarone, SG Pyne</td>
<td>The Natural Products Journal</td>
<td>2020</td>
</tr>
<tr>
<td>Title</td>
<td>Authors</td>
<td>Journal</td>
<td>Date</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
<td>----------------------------------------------</td>
<td>-----------</td>
</tr>
<tr>
<td>Process-relevant concentrations of the leachable bDtBPP impact negatively on CHO cell production characteristics</td>
<td>PS Kelly, S McSweeney, O Coleman, S Carillo, M Henry, D Chandran, A Kellett, J Bones, M Clynes, P Meleady, N Barron</td>
<td>Biotechnology Progress</td>
<td>2016</td>
</tr>
<tr>
<td>Coformulation of broadly neutralizing antibodies 3BNC117 and PGT121: Analytical challenges during preformulation characterization and storage stability studies</td>
<td>A Patel, V Gupta, J Hickey, NS Nightlinger, RS Rogers, C Siska, SB Joshi, MS Seaman, DB Volkin, BA Kerwin</td>
<td>Journal of Pharmaceutical Sciences</td>
<td>2018</td>
</tr>
<tr>
<td>Development of two analytical methods bBased on reverse phase chromatographic and SDS-PAGE gel for assessment of deglycosylation yield in N-glycan mapping</td>
<td>AD Eckard, DR Dupont, JK Young</td>
<td>BioMed Research International</td>
<td>2018</td>
</tr>
<tr>
<td>Native mass spectrometry combined with enzymatic dissection unravels glycoform heterogeneity of biopharmaceuticals</td>
<td>T Wohlschlagr, K Scheffler, IC Forstenlehner, W Skala, S Senn, E Damoc, J Holzmann, CG Huber</td>
<td>Nature Communications</td>
<td>2018</td>
</tr>
<tr>
<td>Charge variant analysis of monoclonal antibodies using direct coupled pH gradient cation exchange chromatography to high-resolution native mass spectrometry</td>
<td>F, Füssl, K Cook, K Scheffler, A Farrell, S Mittermayr, J Bones</td>
<td>Analytical Chemistry</td>
<td>2018</td>
</tr>
<tr>
<td>Monoclonal antibodies sequence assessment using a hybrid quadrupole-Orbitrap mass spectrometer</td>
<td>A Farrell, S Carillo, K Scheffler, K Cook, J Bones</td>
<td>Analytical Methods</td>
<td>2018</td>
</tr>
<tr>
<td>Charge variant native mass spectrometry benefits mass precision and dynamic range of monoclonal antibodies intact mass analysis</td>
<td>AO Bailey, G Han, W Phung, P Gazis, J Sutton, JL Josephs, W Sandoval</td>
<td>MAbs</td>
<td>2018</td>
</tr>
<tr>
<td>Detection of the myostatin-neutralizing antibody Domagrozumab in serum by means of Western blotting and LC-HRMS</td>
<td>K Walpurgis, A Thomas, M Thevis</td>
<td>Drug Testing and Analysis</td>
<td>2019</td>
</tr>
<tr>
<td>Comprehensive characterisation of the heterogeneity of adalimumab via charge variant analysis hyphenated on-line to native high resolution Orbitrap mass spectrometry</td>
<td>F Füssl, A Trappe, K Cook, K Scheffler, O Fitzgerald, J Bones</td>
<td>Mabs</td>
<td>2019</td>
</tr>
<tr>
<td>SEC-ICP-MS and on-line isotope dilution analysis for characterisation and quantification of immunochemical assays</td>
<td>D Clases, RG de Vega, D Bishop, P Doble</td>
<td>Analytical and Bioanalytical Chemistry</td>
<td>2019</td>
</tr>
<tr>
<td>Impact of dextran on thermal properties, product quality attributes, and monoclonal antibody stability in freeze-dried formulations</td>
<td>C Hauser, P Goldbach, J Huwyler, W Friess, A Allmendinger</td>
<td>European Journal of Pharmaceutics and Biopharmaceutics</td>
<td>2020</td>
</tr>
<tr>
<td>Title</td>
<td>Authors</td>
<td>Journal</td>
<td>Date</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>----------------------------------------------</td>
<td>---------------------------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>Analysis of cetuximab N-Glycosylation using multiple fractionation methods and capillary electrophoresis mass spectrometry</td>
<td>C Váradi, C Jakes, J Bones</td>
<td>Journal of Pharmaceutical and Biomedical Analysis</td>
<td>2020</td>
</tr>
<tr>
<td>Fluorescent detection of O-GlcNAc via tandem glycan labeling</td>
<td>ZL Wu, A Luo, A Grill, T Lao, Y Zou, Y Chen</td>
<td>Bioconjugate Chemistry</td>
<td>2020</td>
</tr>
<tr>
<td>An evaluation of instrument types for mass spectrometry-based multi-attribute analysis of biotherapeutics</td>
<td>Z Zhang, PK Chan, J Richardson, B Shah</td>
<td>mAbs</td>
<td>2020</td>
</tr>
<tr>
<td>Mass Spectrometry characterization of higher order structural changes associated with the Fc-glycan structure of the NISTmAb reference material, RM 8761</td>
<td>K Groves, A Cryar, AE Ashcroft, M Quaglia</td>
<td>Journal of the American Society for Mass Spectrometry</td>
<td>2020</td>
</tr>
<tr>
<td>Development of a 3D-LC/MS workflow for fast, automated, and effective characterization of glycosylation patterns of biotherapeutic products</td>
<td>J Camperi, L Dai, D Guillarme, C Stella</td>
<td>Analytical Chemistry</td>
<td>2020</td>
</tr>
<tr>
<td>Comparative elucidation of Cetuximab heterogeneity on the intact protein level by cation exchange chromatography and capillary electrophoresis coupled to mass spectrometry</td>
<td>F Füssl, A Trappe, S Carillo, C Jakes, J Bones</td>
<td>Analytical Chemistry</td>
<td>2020</td>
</tr>
<tr>
<td>Rapid Intact mass based multi-attribute method in support of mAb upstream process development</td>
<td>C Lanter, M Lev, L Cao, V Loladze</td>
<td>Journal of Biotechnology</td>
<td>2020</td>
</tr>
<tr>
<td>Title</td>
<td>Authors</td>
<td>Journal</td>
<td>Date</td>
</tr>
<tr>
<td>---------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>Identification of novel phosphorus-based flame retardants in curtains purchased in Japan using Orbitrap mass spectrometry</td>
<td>Y Miyake, M Tokumura, Q Wang, T Amagai, Y Takegawa, Y Yamagishi, S Ogo, K Kume, T Kobayashi, S Takasu, K Ogawa, K Kannan</td>
<td>Environmental Science and Technology Letters</td>
<td>2018</td>
</tr>
<tr>
<td>Efficacy of endothall dimethylalkylamine salt applied to static irrigation channels during winter to control aquatic weeds in temperate Australia</td>
<td>D Clements, KL Butler, TD Hunt, Z Liu, TM Dugdale</td>
<td>Journal of Acquatic Plant Management</td>
<td>2018</td>
</tr>
<tr>
<td>Sediment facilitates microbial degradation of the herbicides endothall monoamine salt and endothall dipotassium salt in an aquatic environment</td>
<td>MS Islam, TD Hunt, Z Liu, KL Butler, TM Dugdale</td>
<td>Environmental Research and Public Health</td>
<td>2018</td>
</tr>
<tr>
<td>Rapid removal of poly- and perfluorinated compounds from investigation-derived waste (IDW) in a pilot-scale plasma reactor</td>
<td>RK Singh, N Multari, C Nau-Hix, RH Anderson, SD Richardson, TM Holsen, SM Thagard</td>
<td>Environmental Science and Technology</td>
<td>2018</td>
</tr>
<tr>
<td>Analysis of university workplace building surfaces reveals usage-specific chemical signatures</td>
<td>Li McCall, VM Anderson, RS Fogle III, JJ Haffner, E Hussain, R Liu, AH Ly, H Ma, M Nadeem, S Yao</td>
<td>Building and Environment</td>
<td>2019</td>
</tr>
<tr>
<td>Aliphatic amines at the Cape Verde atmospheric observatory: Abundance, origins and sea-air fluxes</td>
<td>M van Pinxteren, KW Fomba, D van Pinxteren, N Triesch, EH Hoffmann, CHL Cree, MF Fitzsimons, W von Tümpling, H Herrmann</td>
<td>Atmospheric Environment</td>
<td>2019</td>
</tr>
<tr>
<td>Heteroxanthin as a pigment biomarker for Gonyostomum semen (Raphidophyceae)</td>
<td>CHC Hagman, T Rohrlack, S Uhlig, V Hostyeva</td>
<td>PLOS One</td>
<td>2019</td>
</tr>
<tr>
<td>Low maize pollen collection and low pesticide risk to honey bees in heterogeneous agricultural landscapes</td>
<td>C Urbanowicz, N Baert, SE Bluer, K Böröczky, M Ramos, SH McArt</td>
<td>Apidologie</td>
<td>2019</td>
</tr>
<tr>
<td>Deposition and source identification of nitrogen heterocyclic polycyclic aromatic compounds in snow, sediment, and air samples from the Athabasca Oil Sands Region</td>
<td>L Chibwe, CA Manzano, D Muir, B Atkinson, JL Kirk, CH Marvin, X Wang, C Teixeira, D Shang, T Harner, AO De Silva</td>
<td>Environmental Science and Technology Letters</td>
<td>2019</td>
</tr>
<tr>
<td>Investigations on the decomposition of AdBlue urea in the liquid phase at low temperatures by an electrochemically induced pH shift</td>
<td>P Braun, B Durner, HP Rabl, FM Matsyik</td>
<td>Monatshefte für Chemie - Chemical Monthly</td>
<td>2019</td>
</tr>
<tr>
<td>Hydrodynamic exposure and time since application influence endothall amine potency against submersed aquatic plants</td>
<td>TM Dugdale, S Islam, TD Hunt, Z Liu, KL Butler, D Clements, MD Netherlands</td>
<td>Aquatic Botany</td>
<td>2019</td>
</tr>
<tr>
<td>Removal of tetracycline from an aqueous solution using manganese dioxide modified biochar derived from Chinese herbal medicine residues</td>
<td>Q Shen, Z Wang, Q Yu, Y Cheng, Z Lui, T Zhang, S Zhou</td>
<td>Environmental Research</td>
<td>2020</td>
</tr>
<tr>
<td>Toxin analysis of freshwater cyanobacterial and marine harmful algal blooms on the west coast of Florida and implications for estuarine environments</td>
<td>JS Metcalf, SA Banack, RA Wessel, M Lester, JG Pim, JR Cassani, PA Cox</td>
<td>Neurotoxicity Research</td>
<td>2020</td>
</tr>
<tr>
<td>Title</td>
<td>Authors</td>
<td>Journal</td>
<td>Date</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------</td>
<td>------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Quantification of brominated polycyclic aromatic hydrocarbons in environmental samples by liquid chromatography tandem mass spectrometry with atmospheric pressure photoionization and post-column infusion of dopant</td>
<td>M. Masuda, Q. Wang, M. Takumura, Y. Miyake, T. Amagai</td>
<td>Analytical Sciences</td>
<td>2020</td>
</tr>
<tr>
<td>Ecotoxicity assessment and bioconcentration of a highly brominated organophosphate ester flame retardant in two amphibian species</td>
<td>S.A. Robinson, S.D. Young, C. Brinovcar, A. McFee, A.O. De Silva</td>
<td>Chemosphere</td>
<td>2020</td>
</tr>
<tr>
<td>Title</td>
<td>Authors</td>
<td>Journal</td>
<td>Date</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
<td>----------------------------------------------</td>
<td>--------</td>
</tr>
<tr>
<td>Role of P-glycoprotein in deoxynivalenol-mediated in vitro toxicity</td>
<td>L Ivanova, CK Faeste, A Solhaug</td>
<td>Toxicology Letters</td>
<td>2018</td>
</tr>
<tr>
<td>Delphinidin protects colon carcinoma cells against the genotoxic effects of the mycotoxin altertoxin II</td>
<td>G Aichinger, H Puntscher, J Beisl, ML Kütt, B Warth, D Marko</td>
<td>Toxicology Letters</td>
<td>2018</td>
</tr>
<tr>
<td>Dietary administration of black raspberries modulates arsenic biotransformation and reduces urinary 8-oxo-2′-deoxyguanosine in mice</td>
<td>P Tu, J Xue, X Bian, L Chi, B Gao, J Leng, H Ru, TJ Knobloch, CM Weghorst, K Lu</td>
<td>Toxicology and Applied Pharmacology</td>
<td>2019</td>
</tr>
<tr>
<td>Improved accuracy of saxitoxin measurement using an optimized enzyme-linked immunosorbent assay</td>
<td>JR McCall, WC Holland, DM Keeler, DR Hardison, RW Litaker</td>
<td>Toxins</td>
<td>2019</td>
</tr>
<tr>
<td>Behavioural and metabolomic changes from chronic dietary exposure to low-level deoxynivalenol reveal impact on mouse well-being</td>
<td>CK Faeste, F Pierre, L Ivanova, A Sayyari, D Massotte</td>
<td>Archives of Toxicology</td>
<td>2019</td>
</tr>
<tr>
<td>Two novel azaspiracids from Azadinium poporum, and a comprehensive compilation of azaspiracids produced by Amphidomataceae, (Dinophyceae)</td>
<td>B Krock, U Tillmann, J Tebben, N Trefault, H Gu</td>
<td>Harmul Algae</td>
<td>2019</td>
</tr>
<tr>
<td>Dermal exposure to plasticizers in nail polishes: An alternative major exposure pathway of phosphorus-based compounds</td>
<td>M Tokumura, M Sec, Q Wang, Y Miyake, T Amagai, M Makino</td>
<td>Chemosphere</td>
<td>2019</td>
</tr>
<tr>
<td>LC–HRMS and chemical derivatization strategies for the structure elucidation of Caribbean Ciguatoxins: Identification of C-CTX-3 and -4</td>
<td>F Kryuchkov, A Robertson, CO Miles, EM Mudge, S Uhlig</td>
<td>Marine Drugs</td>
<td>2020</td>
</tr>
<tr>
<td>Second laboratory validation of β-N-methylamino-L-alanine, N-(2aminoethyl) glycine, and 2,4-diaminobutyric acid by ultra-performance liquid chromatography and tandem mass spectrometry</td>
<td>SA Banack</td>
<td>Neurotoxicity Research</td>
<td>2020</td>
</tr>
<tr>
<td>Isolation of the Tephrosia vogelii extract and rotenoids and their toxicity in the RTgill-W1 trout cell line and in zebrafish embryos</td>
<td>AH Said, A Solhaug, M Sandvik, FE Msuya, MS Kyewalyanga, AJ Mmochi, JL Lyche, S Hurem</td>
<td>Toxicon</td>
<td>2020</td>
</tr>
<tr>
<td>Thioproline formation as a driver of formaldehyde toxicity in Escherichia coli</td>
<td>JA Patterson, H He, JS Folz, Q Li, MA Wilson, O Fiehn, ST Bruner, A Barr-Even, AD Hanson</td>
<td>Biochemical Journal</td>
<td>2020</td>
</tr>
<tr>
<td>A chemical biology approach to probing the folding pathways of the inhibitory cystine knot (ICK) peptide ProTx-II</td>
<td>S McCarthy, J Robinson, K Thalassinos, AB Tabor</td>
<td>Frontiers in Chemistry</td>
<td>2020</td>
</tr>
<tr>
<td>Triphenyl phosphate permeates the blood brain barrier and induces neurotoxicity in mouse brain</td>
<td>X Liu, X Zhao, Y Wang, J Hong, M Shi, D Pfaff, L Guo, H Tang</td>
<td>Chemosphere</td>
<td>2020</td>
</tr>
<tr>
<td>Title</td>
<td>Authors</td>
<td>Journal</td>
<td>Date</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------</td>
<td>----------------------------------------------</td>
<td>--------</td>
</tr>
<tr>
<td>Total peak shape analysis: detection and quantitation of concurrent fronting, tailing, and their effect on asymmetry measurements</td>
<td>MF Wahab, DC Patel, DW Armstrong</td>
<td>Journal of Chromatography A</td>
<td>2017</td>
</tr>
<tr>
<td>A 14 parameter study of UHPLC’s for method development transfer and troubleshooting</td>
<td>IAH Ahmad, F Hrovat, A Soliven, A Clarke, P Boswell, T Tarara, A Blasko</td>
<td>Chromatographia</td>
<td>2017</td>
</tr>
<tr>
<td>Separations at the speed of sensors</td>
<td>DC Patel, MF Wahab, TC O’Haver, DW Armstrong</td>
<td>Analytical Chemistry</td>
<td>2018</td>
</tr>
<tr>
<td>A very simple resolution enhancement technique for analytical signals using the properties of even-derivatives</td>
<td>MF Wahab, TC O’Haver, F Gritti, G Hellinghausen, DW Armstrong</td>
<td>Analyst</td>
<td>2018</td>
</tr>
<tr>
<td>Improving visualization of trace components for quantification using a power law based integration approach</td>
<td>G Hellinghausen, MF Wahab, DW Armstrong</td>
<td>Journal of Chromatography A</td>
<td>2018</td>
</tr>
<tr>
<td>Power law approach as a convenient protocol for improving peak shapes and recovering areas from partially resolved peaks</td>
<td>MF Wahab, F Gritti, TC O’Haver, G Hellinghausen, DW Armstrong</td>
<td>Chromatographia</td>
<td>2019</td>
</tr>
<tr>
<td>Increasing chromatographic resolution of analytical signals using derivative enhancement approach</td>
<td>MF Wahab, TC O’Haver, F Gritti, G Hellinghausen, DW Armstrong</td>
<td>Talanta</td>
<td>2019</td>
</tr>
<tr>
<td>Ultra-high-pressure ion chromatography with suppressed conductivity detection at 70 MPa using columns packed with 2.5 μm anion-exchange particles</td>
<td>S Wouters, JL Dores-Sousa, Y Liu, CA Pohl, S Eeltink</td>
<td>Analytical Chemistry</td>
<td>2019</td>
</tr>
<tr>
<td>Extending the power transform approach for recovering areas of overlapping peaks</td>
<td>MF Wahab, A Berthod, DW Armstrong</td>
<td>Journal of Separation Science</td>
<td>2019</td>
</tr>
<tr>
<td>Improving peak capacities over 100 in less than 60 seconds: operating above normal peak capacity limits with signal processing</td>
<td>G Hellinghausen, MF Wahab, DW Armstrong</td>
<td>Analytical and Bioanalytical Chemistry</td>
<td>2020</td>
</tr>
<tr>
<td>Title</td>
<td>Authors</td>
<td>Journal</td>
<td>Date</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------</td>
<td>----------------------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>In-line Fourier-transform infrared spectroscopy as a versatile process analytical technology for preparative protein chromatography</td>
<td>S Großhans, M Rüdt, A Sanden, N Brestrich, J Morgenstern, S Heissler, J Hubbuch</td>
<td>Journal of Chromatography A</td>
<td>2018</td>
</tr>
<tr>
<td>Modification of carbon nanotubes by amphiphilic glycosylated proteins</td>
<td>W Fang, MB Linder, P Laaksonen</td>
<td>Journal of Colloid and Interface Science</td>
<td>2018</td>
</tr>
<tr>
<td>Development of a multi-functional concurrent assay using weak cation-exchange solid-phase extraction (WCX-SPE) and reconstitution with a diluted sample aliquot for anti-doping analysis</td>
<td>Y Kim, M Jeon, H Min, J Son, J Lee, OS Kwon, MH Moon, KH Kim</td>
<td>Rapid Communications in Mass Spectrometry</td>
<td>2018</td>
</tr>
<tr>
<td>LC-MS/MS quantification of airborne fungal α-amylase at a production facility</td>
<td>AC Vente, RAM van der Hoeven, F Chen, ALL Duchateau</td>
<td>Trends in Chromatography</td>
<td>2018</td>
</tr>
<tr>
<td>Development of two complementary LC-HRMS methods for analyzing sotatercept in dried blood spots for doping controls</td>
<td>T Lange, K Walpurgis, A Thomas, H Geyer, M Thevis</td>
<td>Bioanalysis</td>
<td>2018</td>
</tr>
<tr>
<td>Analysis of electrochemical properties of S-adenosyl-L-methionine and implications for its role in radical SAM enzymes</td>
<td>SA Miller, V Bandarian</td>
<td>Journal of the American Chemical Society</td>
<td>2019</td>
</tr>
<tr>
<td>Extractable impurities from fluoropolymer-based membrane filters – interference in high-throughput, untargeted analysis</td>
<td>PY Puah, DJH Lee, KH Mak, HJ Ang, HC Chen, PY Moh, ST Fong, YS Ling</td>
<td>RSC Advances</td>
<td>2019</td>
</tr>
<tr>
<td>Volatiles from the mandibular gland reservoir content of Colobopsis explodens Lacinny and Zettel, 2018, worker ants (Hymenoptera: Formicidae)</td>
<td>M Hoenigsberger, AG Kopchinskiy, C Bueschl, A Parich, A Lacinny, H Zettel, KA Salim, LBL Lim, IS Druzhinina, R Schuhmacher</td>
<td>Molecules</td>
<td>2019</td>
</tr>
<tr>
<td>Development of a validated method for the qualitative and quantitative analysis of cannabinoids in plant biomass and medicinal cannabis resin extracts obtained by super-critical fluid extraction</td>
<td>AC Elkins, MA Deseo, S Rochfort, V Ezernieks, G Spangenberg</td>
<td>Journal of Chromatography B</td>
<td>2019</td>
</tr>
<tr>
<td>Adolescent cocaine exposure enhances the GABAergic transmission in the prelimbic cortex of adult mice</td>
<td>P Shi, J Nie, H Liu, Y Li, X Lu, X Shen, F Ge, T Yuan, X Guan</td>
<td>The Journal of the Federation of American Societies for Experimental Biology</td>
<td>2019</td>
</tr>
<tr>
<td>Dissociable dopamine dynamics for learning and motivation</td>
<td>A Mohebi, JR Pettibone, AA Hamid, JMT Wong, LT Vinson, T Patriarchi, L Tian, RT Kennedy, JD Berke</td>
<td>Nature</td>
<td>2019</td>
</tr>
<tr>
<td>Incentive and dopamine sensitization produced by intermittent but not long access cocaine self-administration</td>
<td>AB Kawa, AC Valenta, RT Kennedy, TE Robinson</td>
<td>European Journal of Neuroscience</td>
<td>2019</td>
</tr>
<tr>
<td>Different effects of carbohydrate binding modules on the viscoelasticity of nanocellulose gels</td>
<td>BJM Rooijakkers, S Arola, R Velagapudi, MB Linder</td>
<td>Biochemistry and Biophysics Reports</td>
<td>2020</td>
</tr>
<tr>
<td>Gamma radiolysis of TODGA and CyMe4BTPhen in the ionic liquid tri-n-octylmethylammonium nitrate</td>
<td>P Zsabka, K Van Hecke, A Wilden, G Modolo, M Hupert, V Jespers</td>
<td>Solvent Extraction and Ion Chromatography</td>
<td>2020</td>
</tr>
<tr>
<td>Volumetric absorptive microsampling and dried blood spot microsampling vs. conventional venous sampling for tacrolimus trough concentration monitoring</td>
<td>H Veenhof, RA Koster, LAT Junier, SP Berger, SJL Bakker, DJ Youw</td>
<td>Clinical Chemistry and Laboratory Medicine</td>
<td>2020</td>
</tr>
<tr>
<td>Title</td>
<td>Authors</td>
<td>Journal</td>
<td>Date</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------</td>
<td>--------------------------------</td>
<td>----------</td>
</tr>
<tr>
<td>The Penium margaritaceum genome: Hallmarks of the origins of land plants</td>
<td>C Jiao, I Sørensen, X Sun, H Sun, H Behar, S Alseekh, G Philippe, KP Lopez, L Sun, R Reed, S Jeon, R Kiyonami, S Zhang, AR Fernie, H Brumer, DS Domozych, Z Fei, JKC Rose</td>
<td>Cell</td>
<td>2020</td>
</tr>
<tr>
<td>Quantification of endogenous steroid sulfates and glucuronides in human urine after intramuscular administration of testosterone esters</td>
<td>G Forsdahl, K Zanitzer, D Erceg, G Gmeiner</td>
<td>Steroids</td>
<td>2020</td>
</tr>
<tr>
<td>Salivary cortisol measurement in horses: immunoassay or LC-MS/MS?</td>
<td>FJ Sauer, V Gerber, S Frei, RM Bruckmaier, M Groessl</td>
<td>Domestic Animal Endocrinology</td>
<td>2020</td>
</tr>
<tr>
<td>The ethanolamine-sensing transcription factor EutR promotes virulence and transmission during Citrobacter rodentium intestinal infection</td>
<td>CA Rowley, AM Sauder, MM Kendall</td>
<td>Molecular Pathogenesis</td>
<td>2020</td>
</tr>
<tr>
<td>Interaction of maternal choline levels and prenatal Marijuana's effects on the offspring</td>
<td>MC Hoffman, SK Hunter, A D'Alessandro, K Noonan, A Wyrwa, R Freedman</td>
<td>Psychological Medicine</td>
<td>2020</td>
</tr>
<tr>
<td>Ventromedial hypothalamic nucleus neuronal subset regulates blood glucose independently of insulin</td>
<td>JN Flak, PB Goforth, J Dell-Orco, PV Sabatini, C Li, N Bozadijeva, M Sorensen, A Valenta, A Rupp, AH Affinati, C Cras-Méneur, A Ansari, J Sacksner, N Kodur, DA Sandoval, RT Kennedy, DP Olson, MG Meyers</td>
<td>The Journal of Clinical Investigation</td>
<td>2020</td>
</tr>
<tr>
<td>Profiles of human milk oligosaccharides and their relations to the milk microbiota of breastfeeding mothers in Dubai</td>
<td>CA Moubareck, M Lootah, M Tahlik, K Venema</td>
<td>Nutrients</td>
<td>2020</td>
</tr>
<tr>
<td>Rapid analysis of monosaccharides in sub-milligram plant samples using liquid chromatography–mass spectrometry assisted by post-column derivatization</td>
<td>S Li, WJ Cai, W Wang, MX Sun, YQ Feng</td>
<td>Journal of Agricultural and Food Chemistry</td>
<td>2020</td>
</tr>
<tr>
<td>Evaluation of fluralaner as an oral acaricide to reduce tick infestation in a wild rodent reservoir of Lyme disease</td>
<td>J Pelletier, JP Rocheleau, C Aenishaenslin, F Beaudry, GD Masson, LR Lindsay, NH Ogden, C Bouchard, PA Leighton</td>
<td>Parasites and Vectors</td>
<td>2020</td>
</tr>
<tr>
<td>Title</td>
<td>Authors</td>
<td>Journal</td>
<td>Date</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
<td>-----------</td>
<td>-------</td>
</tr>
<tr>
<td>Development of ultra-fast pH-gradient ion exchange chromatography for the separation of monoclonal antibodies charge variants</td>
<td>K Cook, F Steiner, M De Pra</td>
<td>TN 160</td>
<td>2014</td>
</tr>
<tr>
<td>Fast nevirapine impurity profiling using UHPLC-DAD</td>
<td>H Franz, S Fabel</td>
<td>AN170</td>
<td>2014</td>
</tr>
<tr>
<td>Improvement in speed and reproducibility of protein digestion utilizing novel sample preparation technology in a full solution work</td>
<td>J Bardsley, J Jones, V Barattini, P Humphryses, T Liddicoat</td>
<td>PN21209</td>
<td>2015</td>
</tr>
<tr>
<td>Rapid discovery of differentially expressed proteins in T2D plasma samples using improved UHPLC chromatography and pSMART data acquisition</td>
<td>S Peterman, M Lopez, D Sarracino, A Prakash, M Vogelsang, B Krastins, G Byram, G Vadali, M Mohiuddin, P Muraca, AB Goldfine, ME Patti</td>
<td>PN64369</td>
<td>2015</td>
</tr>
<tr>
<td>Combination of bottom-up and top-down characterization of biologics using a high throughput capable workflow in proteome discoverer software</td>
<td>K Scheffler, T Ueckert, C Paschke, B Delanghe</td>
<td>PN64482</td>
<td>2015</td>
</tr>
<tr>
<td>Fast and ultrafast LC-MS/MS methods for robust and reliable analysis of pesticides in food using the Vanquish UHPLC system</td>
<td>G Greco, CPB Martins, K Bousova, R Swart</td>
<td>AN 1138</td>
<td>2015</td>
</tr>
<tr>
<td>How scalable are the dispersion processes in real columns packed with solid core material?</td>
<td>T Edge, L Pereira, D Steiner</td>
<td>PN21220</td>
<td>2015</td>
</tr>
<tr>
<td>Determination of A-type and B-type procyanidins in apple, cocoa and cinnamon extracts</td>
<td>JA Glinski, D Thomas, A Wong, VB Glinski, I Acworth</td>
<td>PN71285</td>
<td>2016</td>
</tr>
<tr>
<td>The Vanquish Platform: Major improvement in throughput and resolution of xanthones in mangosteen pericarp</td>
<td>Q Zhang, B Bailey, M Plante, I Acworth</td>
<td>AN172</td>
<td>2016</td>
</tr>
<tr>
<td>The importance of correct UHPLC instrument setup for protein aggregate analysis by size-exclusion chromatography</td>
<td>A Farrell, J Bones, K Cook</td>
<td>AN 21602</td>
<td>2016</td>
</tr>
<tr>
<td>Complete Characterization of a cysteine-linked antibodies-drug conjugate performed on a hybrid quadrupole-Orbitrap mass spectrometer with high mass range</td>
<td>A Bailey, E Damoc, S Houel, K Scheffler, JL Josephs</td>
<td>PN64802</td>
<td>2016</td>
</tr>
<tr>
<td>High-throughput peptide mapping with the Vanquish UHPLC system and the Q Exactive HF mass spectrometer</td>
<td>M Samonig, K Scheffler, R Swart, J Josephs</td>
<td>AN1135</td>
<td>2016</td>
</tr>
<tr>
<td>SEC-MS with volatile buffers for characterization of biopharmaceuticalsaceuticals</td>
<td>N Samonig, R Swart</td>
<td>AN1133</td>
<td>2016</td>
</tr>
<tr>
<td>SMART Digest compared to classic in-solution digestion of rituximab for in-depth peptide mapping characterization</td>
<td>M Samonig, A Schwahn, K Cook, M Oliver, R Swart</td>
<td>AN1159</td>
<td>2016</td>
</tr>
<tr>
<td>Characterizing therapeutic monoclonal antibodies</td>
<td>M De Pra, C Pohl</td>
<td>WP21502</td>
<td>2016</td>
</tr>
<tr>
<td>Monitoring peptide PEGylation by HPLC with charged aerosol detection</td>
<td>D Thomas, I Acworth, S Meier, B Kaboord, H Yang, C Fisher</td>
<td>PN72093</td>
<td>2016</td>
</tr>
<tr>
<td>Ternary gradient for tenofovir disoproxil fumarate impurity profiling</td>
<td>S Fabel, M Martin</td>
<td>AN 1129</td>
<td>2016</td>
</tr>
<tr>
<td>Title</td>
<td>Authors</td>
<td>Journal</td>
<td>Date</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------</td>
<td>-------------</td>
<td>-------</td>
</tr>
<tr>
<td>Metoprolol and select impurities analysis using a hydrophilic interaction chromatography method with combined UV and charged aerosol detection</td>
<td>B Bailey</td>
<td>AN1126</td>
<td>2016</td>
</tr>
<tr>
<td>UHPLC method development for simultaneous determination of antihypertensive combination agents</td>
<td>S Fabel</td>
<td>AN1122</td>
<td>2016</td>
</tr>
<tr>
<td>UHPLC method development for analyzing a once-daily tablet formulation for HIV-1 infection treatment</td>
<td>S Fabel</td>
<td>AN1115</td>
<td>2016</td>
</tr>
<tr>
<td>Reliable results in peptide mapping using the vanquish flex UHPLC system</td>
<td>C Paul, M De Pra, EJ Sneekes</td>
<td>AN1132</td>
<td>2016</td>
</tr>
<tr>
<td>High salt gradient analysis of post-translational modifications - deamidation monitoring</td>
<td>M Menz, C Paul, EJ Sneekes</td>
<td>AN7181</td>
<td>2016</td>
</tr>
<tr>
<td>Analysis of subtle changes in biological systems through use of high resolution, high accuracy UHPLC generated libraries with a Q-Exactive HF mass spectrometer</td>
<td>DA Sarracino, M De Pra, K Murphy, J Neil, MF Lopez</td>
<td>PN71310</td>
<td>2016</td>
</tr>
<tr>
<td>Development of a high-throughput urine analysis for global protein profiling</td>
<td>S Peterman, D Sarracino, A Prakash, B Krastins, G Byram, G Vadali, M Vogelsang</td>
<td>PN64441</td>
<td>2016</td>
</tr>
<tr>
<td>Label-free analysis by UHPLC with charged aerosol detection of glycans separated by charge, size, and isomeric structure</td>
<td>D Thomas, I Acworth</td>
<td>AN1127</td>
<td>2016</td>
</tr>
<tr>
<td>UHPLC analysis of 2-aminobenzamide-labeled glycans with the Vanquish Flex system</td>
<td>A Manka, M De Pra</td>
<td>TN164</td>
<td>2016</td>
</tr>
<tr>
<td>Label-free profiling of O-linked glycans by UHPLC with charged aerosol detection</td>
<td>D Thomas, I Acworth, R Bauder, M Plante, L Kast</td>
<td>PN64691</td>
<td>2016</td>
</tr>
<tr>
<td>Determination of pyrethrins in pyrethrum oil extracts by UHPLC with charged aerosol detection</td>
<td>D Thomas, JA Glinski, A Wong I Acworth, D Mohindra</td>
<td>PN21431</td>
<td>2016</td>
</tr>
<tr>
<td>Fast and sensitive determination of quaternary amines by UHPLC</td>
<td>M Plante, B Bailey, I Acworth, EJ Sneekes, F Steiner</td>
<td>PN71688</td>
<td>2016</td>
</tr>
<tr>
<td>Separation of mixed-base oligonucleotides using a high-resolution, reversed-phase chromatography column</td>
<td>J Baek, J Thayer, S Lin, X Liu</td>
<td>AN21476</td>
<td>2016</td>
</tr>
<tr>
<td>Increased speed and sample throughput of opioid analysis from human urine using micro-elution solid phase extraction</td>
<td>J Bardsley, J Jones</td>
<td>AN21578</td>
<td>2016</td>
</tr>
<tr>
<td>How to realize LC-MS quantitation with Chromeleon 7.2 CDS</td>
<td>G Greco, D Barrington-Light, R Swart</td>
<td>TN167</td>
<td>2016</td>
</tr>
<tr>
<td>The role of temperature and column thermostatting in liquid chromatography</td>
<td>M Heidorn</td>
<td>WP71499</td>
<td>2016</td>
</tr>
<tr>
<td>What efficient temperature control can teach us in liquid chromatography</td>
<td>F Steiner, D Thomas, EJ Sneekes, M Heidorn</td>
<td>PN71517</td>
<td>2016</td>
</tr>
<tr>
<td>A more flexible column thermostatting technique in LC method transfer</td>
<td>M Heidorn</td>
<td>WP71500</td>
<td>2016</td>
</tr>
<tr>
<td>Title</td>
<td>Authors</td>
<td>Journal</td>
<td>Date</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
<td>------------</td>
<td>---------</td>
</tr>
<tr>
<td>Multiple wavelength data acquisition with the Vanquish variable</td>
<td>H Franz, A Manka</td>
<td>TN169</td>
<td>2016</td>
</tr>
<tr>
<td>wavelength detector</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fast and easy optimization of detection wavelengths with Vanquish</td>
<td>H Franz, A Manka</td>
<td>TN166</td>
<td>2016</td>
</tr>
<tr>
<td>fluorescence detectors</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boosting trace detection performance with the Vanquish diode array</td>
<td>A Manka, H Franz</td>
<td>TN165</td>
<td>2016</td>
</tr>
<tr>
<td>detector and high-sensitivity LightPipe flow cell</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rapid, sensitive, and easy UHPLC-MS/MS analysis of fungicides in</td>
<td>Lamb, B King</td>
<td>AN21691</td>
<td>2017</td>
</tr>
<tr>
<td>fruit juices with QuEChERS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lifetime stability of size exclusion chromatography columns for</td>
<td>A Farrell, C Jakes, A Ley, M De Pra, F Steiner, J Bones</td>
<td>AN 72362</td>
<td>2017</td>
</tr>
<tr>
<td>protein aggregate analysis</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comprehensive protein glycosylation comparison of an innovator</td>
<td>S Millán, A Trappe, A Farrell, J Bones</td>
<td>AN21651</td>
<td>2017</td>
</tr>
<tr>
<td>monoclonal antibodies to a candidate biosimilar by HILIC UHPLC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>analysis</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>An ultrafast, batch-to-batch comparison of monoclonal antibodies</td>
<td>S Millán, S Mettermayr, A Farrell, J Bones</td>
<td>AN21683</td>
<td>2017</td>
</tr>
<tr>
<td>glycosylation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full characterization of heterogeneous antibodies samples under</td>
<td>K Scheffler, E Damoc</td>
<td>AN72348</td>
<td>2017</td>
</tr>
<tr>
<td>denaturing and native conditions on the Q Exactive BioPharmaceuticals</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>mass spectrometer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fast profiling of the N-glycan population in biotherapeutic</td>
<td>S Millán, S Mettermayr, A Farrell, J Bones</td>
<td>AN21652</td>
<td>2017</td>
</tr>
<tr>
<td>antibodies by UHPLC-FLD with MS confirmation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Using the NISTmAb reference standard to demonstrate a simple</td>
<td>S Millán, A Farrell, J Bones</td>
<td>AN 21684</td>
<td>2017</td>
</tr>
<tr>
<td>approach to charge variant analysis</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Achieve confident impurity detection with the Thermo Scientific</td>
<td>S Meding, K Lovejoy, M Ruehl</td>
<td>AN72391</td>
<td>2017</td>
</tr>
<tr>
<td>ISQ EC single quadrupole mass spectrometer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A pre-concentration and online solid phase extraction setup for the</td>
<td>M Samonig, S Patzelt, M Rühl, R Swart</td>
<td>TN184</td>
<td>2017</td>
</tr>
<tr>
<td>LC-MS analysis of therapeutic protein mixtures</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High-precision, automated peptide mapping of proteins</td>
<td>A Farrell, J bones, K Cook, S Patel, A Schwahn, J Bardsley</td>
<td>AN21682</td>
<td>2017</td>
</tr>
<tr>
<td>Robust and reproducible peptide mapping and intact mass analysis</td>
<td>A Farrell, K Scheffler, K Cook, M Samonig, D Munoz, A Schwahn, J Bones</td>
<td>AN21688</td>
<td>2017</td>
</tr>
<tr>
<td>workflows on a single instrument platform</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Simultaneous determination of water- and fat-soluble vitamins in</td>
<td>S Grosse, M De Pra, F Steiner</td>
<td>AN72592</td>
<td>2018</td>
</tr>
<tr>
<td>tablets and energy drinks by using a novel Vanquish Flex Duo system</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>for Dual LC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Immunoaffinity solid-phase extraction with HPLC-FLD detection for</td>
<td>M De Pra, S Grosse, F Steiner</td>
<td>LCGC</td>
<td>2018</td>
</tr>
<tr>
<td>the determination of aflatoxins B2, B1, G2, and G1 in ground hazelnut</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Title</td>
<td>Authors</td>
<td>Journal</td>
<td>Date</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------</td>
<td>-----------</td>
<td>------</td>
</tr>
<tr>
<td>Growth media effects on post-translational modifications investigated through peptide mapping LC-MS/MS analysis of anti-IL8 monoclonal antibodies</td>
<td>G Oliviero, I Zaborowska, C Jakes, S Carillo, J Bones</td>
<td>AN 21879</td>
<td>2018</td>
</tr>
<tr>
<td>Simple charge variant profile comparison of an innovator monoclonal antibodies and a biosimilar candidate</td>
<td>S Millán, A Trappe, A Farrell, J Bones</td>
<td>AN21777</td>
<td>2018</td>
</tr>
<tr>
<td>Comparison of alternative approaches to trypsin protein digestion for reproducible and efficient peptide mapping analysis of monoclonal antibodies</td>
<td>S Millán-Martin, C Jakes, N Dorival-Garcia, N McGillicuddy, S Carillo, A Farrell, J Bones</td>
<td>AN21782</td>
<td>2018</td>
</tr>
<tr>
<td>Investigating process-related post-translational modifications in NISTmAb RM 8671 using high-throughput peptide mapping analysis</td>
<td>S Millán, C Jakes, N Dorival, S Carillo, J Bones</td>
<td>AN21781</td>
<td>2018</td>
</tr>
<tr>
<td>Subunits analysis approach for the determination of fucosylation levels in monoclonal antibodies using LC-HRAM-MS</td>
<td>C Jakes, S Carillo, I Zaborowska, J Bones</td>
<td>AN21805</td>
<td>2018</td>
</tr>
<tr>
<td>Simple charge variant profile comparison of an innovator monoclonal antibodies and a biosimilar candidate</td>
<td>S Millán, A Trappe, A Farrell, J Bones</td>
<td>AN21777</td>
<td>2018</td>
</tr>
<tr>
<td>Separation of IgG2 and IgG4 therapeutics using weak cation exchange chromatography</td>
<td>J Baek, S Bechler, S Lin, S Tremintin</td>
<td>AN21843</td>
<td>2018</td>
</tr>
<tr>
<td>An automated high-throughput workflow for peptide mapping to monitor post-translational modifications (PTMs) of monoclonal antibodies</td>
<td>A Farrell, C Jakes, J Bones</td>
<td>AN21806</td>
<td>2018</td>
</tr>
<tr>
<td>Evaluation and application of salt- and pH-based ion-exchange chromatography gradients for analysis of therapeutic monoclonal antibodies</td>
<td>S Carillo, C Jakes, I Zaborowska, J Bones</td>
<td>AN21806</td>
<td>2018</td>
</tr>
<tr>
<td>IdeS-cleaved mAb subunit analysis with LC-HRAM-MS: a quick and accurate comparison of biosimilar and originator biotherapeutics</td>
<td>S Millán-Martín, J Zaborowska, S Carillo, J Bones</td>
<td>AN21850</td>
<td>2018</td>
</tr>
<tr>
<td>Tandem UHPLC operation for high-throughput LC-MS peptide mapping analyses</td>
<td>M Samonig, S Patzelt, C Paul, M Rühl, R Swart</td>
<td>TN72203</td>
<td>2018</td>
</tr>
<tr>
<td>Comparability study for the determination of posttranslational modifications of biotherapeutic drug products and biosimilars by automated peptide mapping analysis</td>
<td>A Farrell, S Martin, C Várad, J Bones</td>
<td>AN21918</td>
<td>2019</td>
</tr>
<tr>
<td>Using UHPLC with charged aerosol detection to identify and quantify paclitaxel, its degradants, and other related impurities</td>
<td>M Manz, F Steiner, I Acworth</td>
<td>Chromatography Today</td>
<td>2018</td>
</tr>
<tr>
<td>Tomorrow’s quantitation with the TSQ Fortis mass spectrometer: quantitation of phenylephrine hydrochloride for QA/QC laboratories</td>
<td>N Wijeratne, C Martins, M Blackburn, D Bhattacharyya, A Potts, B Bailey</td>
<td>AN65200</td>
<td>2018</td>
</tr>
<tr>
<td>Use of alternative chromatographic phases and LC-MS for characterization of N-glycans from NISTmAb RM 8671</td>
<td>A Farrell, S Martin, C Várad, J Bones</td>
<td>AN 21738</td>
<td>2018</td>
</tr>
<tr>
<td>Accurate and precise quantification of mAb-released N-glycans with an amide HILIC column</td>
<td>X Zhang, Z Sun</td>
<td>AN21764</td>
<td>2018</td>
</tr>
<tr>
<td>Easy, fast and reproducible analysis of host cell protein (HCP) in monoclonal antibodies preparations</td>
<td>G Oliviero, K Cook, K Scheffler, F Füssl, J Bones</td>
<td>AN21918</td>
<td>2018</td>
</tr>
</tbody>
</table>

Metabolites | Lipids | Pharma | Proteins | Food | (Bio)Synthesis | Nucleic Acids | Traditional Medicine | Antibodies | Environmental | Toxicology | Chromatography | Misc | Thermo

Thermo Scientific
<table>
<thead>
<tr>
<th>Title</th>
<th>Authors</th>
<th>Journal</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance evaluation of MAbPac RP columns for monoclonal antibodies</td>
<td>MR da Silva, S Carillo, C Jakes, J Bones</td>
<td>AN21910</td>
<td>2019</td>
</tr>
<tr>
<td>IdeS subunit analysis</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Confident monoclonal antibodies sequence verification by complementary</td>
<td>A Farrell, S Carillo, J Bones, K Sheffler, K Cook</td>
<td>AN21919</td>
<td>2019</td>
</tr>
<tr>
<td>LC-MS techniques</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Degradation pathways analysis of adalimumab drug product performed</td>
<td>F Füssl, S Carillo, J Bones, K Cook, K Scheffler</td>
<td>AN21920</td>
<td>2019</td>
</tr>
<tr>
<td>using native intact CVA-MS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A global pH-gradient based charge variant analysis directly coupled</td>
<td>F Füssl, J Bones, K Cook, K Scheffler</td>
<td>AN21917</td>
<td>2019</td>
</tr>
<tr>
<td>to HRAM-MS (CVA-MS) for mAb analysis</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Be sure, today and tomorrow — LC-MS in clinical research</td>
<td>D Bhattacharyya</td>
<td>WP73006</td>
<td>2019</td>
</tr>
<tr>
<td>Flexible HPLC instrument setups for double usage as one</td>
<td>M Grübner, G Greco</td>
<td>TN73298</td>
<td>2019</td>
</tr>
<tr>
<td>heart-cut-2D-LC system or two independent 1D-LC systems</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comparative analysis of innovator and biosimilar monoclonal antibodies</td>
<td>X Zhang, H Liu, R Quintyn, M Du</td>
<td>AN73912</td>
<td>2020</td>
</tr>
<tr>
<td>using a multi-attribute method</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seamless LC-MS method transfer in a biopharmaceutical development</td>
<td>DB Kristensen, TM Sloth, M Ørgaard, PF Jensen, K Radi</td>
<td>CAN73898</td>
<td>2020</td>
</tr>
<tr>
<td>laboratory</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sensitive profiling of IgG1 monoclonal antibodies variants under</td>
<td>S Carillo, J Bones</td>
<td>AB73554</td>
<td>2020</td>
</tr>
<tr>
<td>native conditions</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The collective power of chromatography
LC that takes your productivity to new heights

Laboratories are constantly asked to do more with less. Built from the ground up, Thermo Scientific HPLC and UHPLC instruments enable you to raise your productivity to the next level and give you confidence in your results. Time and cost associated with staff training are minimized allowing your laboratory to meet ever-increasing productivity demands, making it faster to bring products to market. With the largest portfolio of LC solutions, we remain a steadfast and committed partner in your endeavor to improve the world around us.

Find out more at thermofisher.com/HPLC