Bekzod Khakimov
Associate Professor, Associate Professor
Food Analytics and Biotechnology
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CV

SCIENTIFIC FOCUS AREAS

Foodomics
Metabolomics
Multivariate Data Analysis
Analytical Chemistry
Nuclear Magnetic Resonance (NMR) spectroscopy
Gas Chromatography-Mass Spectrometry (GC-MS)
Liquid Chromatography-Mass Spectrometry (LC-MS)

EDUCATION

2013 PhD in Plant Metabolomics, Department of Food Science, University of Copenhagen
2009 MSc in Chemical Research, Queen Mary, University of London, UK
2006 BSc in Chemistry, Faculty of Chemistry, National University of Uzbekistan

POSITIONS

2017 - present Associate Professor, Department of Food Science, University of Copenhagen
2013 - 2017 Postdoc, Department of Food Science, University of Copenhagen
2010 - 2013 PhD fellow, Department of Food Science, University of Copenhagen

AWARDS

2016 Nils Foss Talent Prize, International Award for a ground-breaking science in the area of advanced technologies for improved food quality and safety, FOSS Analytics, Denmark
2015 The Best Young Investigator Award in Plant Metabolomics, 10th International Conference of the Metabolomics Society, San Francisco, USA

TEACHING

Responsible Foodomics and Plant Foods, Full Degree Master Course, 7.5 ECTS
Teacher Thematic Course in Food Science and Technology, Full Degree Master Course, 7.5 ECTS
Teacher Quantitative Bio-spectroscopy, Full Degree Master Course, 7.5 ECTS
Teacher Advanced Carbohydrate Technologies, Full Degree Master Course, 7.5 ECTS

SUPERVISION

Currently I am a main supervisor of three postdocs, one PhD student and two MSc students

RESPONSIBILITIES

Responsible for four high-throughput GC-MS systems (incl. Agilent GC-singleQ-MS, LECO Pegasus HT GC-TOF-MS and Bruker EVOQ QQQ systems), one LC-QTof-MS (Bruker Impact II), and one LC-UV/Vis-FC system (Thermo Ultimate 3000)
Co-responsible for three Nuclear Magnetic Resonance (NMR) spectrometers from Bruker (600, 500, and 400 MHz)

FUNDING ACQUIRED AS PRINCIPAL INVESTIGATOR (PI)/Co-PI

2022 – 2025 CoPI - Learning to EXplore the 2nd Order Advantage of 2D NMR (LEX2), Source: *Independent R esearch Fund Denmark*
2020 – 2023 PI - Introduction of statistical causality modelling and deep learning to solve the cage of covariance problem in Foodomics/Metabolomics, Source: *UCPH Funding*
2019 – 2022 CoPI - Low molecular weight compounds in milk and dairy streams - a potential new source for value added products (MilkStreamValue), Source: *Danish Dairy Research Foundation*
2018 – 2021 PI - Erasmus+ Credit Mobility with Partner Countries (Training students and staff members of HEIs in Uzbekistan at UCPH), Source: *European Union*

Google Scholar: https://scholar.google.dk/citations?user=vhBBNdUAAAAJ&hl=en

Qualifications

Chemistry, MSc in Chemical Research, University of London
Award Date: 31 Jul 2010

Employment

Associate Professor
Food Analytics and Biotechnology

Frederiksberg C, Denmark
30 Jun 2010 → nu

Associate Professor
Food Analytics and Biotechnology

Frederiksberg C, Denmark
1 Jul 2010 → nu

Research outputs

Characterization of different high amylose starch granules. Part I: Multi-scale structures and relationships to thermal properties
Tian, Yu, Liu, X., Kirkensgaard, Jacob Judas Kain, Khakimov, Bekzod, Enemark-Rasmussen, K., Hebelstrup, K. H., Blennow, Andreas & Zhong, Yuyue, 2024, In: Food Hydrocolloids. 146, Part B, 13 p., 109286.

Characterization of different high amylose starch granules. Part II: Structure evolution during digestion and distinct digestion mechanisms
Tian, Yu, Petersen, Bent L, Liu, X., Li, H., Kirkensgaard, Jacob Judas Kain, Enemark-Rasmussen, K., Khakimov, Bekzod, Hebelstrup, K. H., Zhong, Yuyue & Blennow, Andreas, 2024, In: Food Hydrocolloids. 149, 17 p., 109593.

Efficient Quantification of Milk Metabolites from ^{1}H NMR Spectra Using the Signature Mapping (SigMa) Approach: Chemical Shift Library Development for Cows' Milk and Colostrum
Tsermoula, Paraskevi, Kristensen, N. B., Mobaraki, N., Engelsen, Søren Balling & Khakimov, Bekzod, 2024, In: Analytical Chemistry. 96, 5, p. 1861-1871 11 p.

Green preparation of small-sized starch nanoparticles using nanoprecipitation
Chen, Yongxian, Ding, Li, Di, H., Kirkensgaard, Jacob Judas Kain, Khakimov, Bekzod, Sun, B., Pang, C., Chen, Junsheng & Blennow, Andreas, 2024, In: Food Hydrocolloids. 153, 9 p., 109974.

A Novel PLS2-Based Algorithm for Imputing Missing Values in Foodomics/Metabolomics Studies with multiple response variables
Tashk, Ashkan, Engelsen, Søren Balling, Khakimov, Bekzod, Steenstrup Pedersen, Kim, Sørensen, Klavs Martin & Engstrøm, Ole-Christian Galbo, 2023.

Age-related effects on the modulation of gut microbiota by pectins and their derivatives: an *in vitro* study
Gu, Fangjie, Larsen, Nadja, Pascale, N., Petersen, S. A., Khakimov, Bekzod, Respondek, F. & Jespersen, Lene, 2023, In: Frontiers in Microbiology. 14, 14 p., 1207837.

Alterations in Healthy Adult Canine Faecal Microbiome and Selected Metabolites as a Result of Feeding a Commercial Complete Synbiotic Diet with *Enterococcus faecium* NCIMB 10415
Nybroe, S., Horsman, P. B., Krag, K., Hosbjerg, T. G., Jensen, Kathrine Stenberg, Khakimov, Bekzod, Baymler, J., Bjørnvad, Charlotte Reinhard & Kieler, Ida Nordang, 2023, In: Animals. 13, 1, 144.

Alterations of NMR-Based Lipoprotein Profile Distinguish Unstable Angina Patients with Different Severity of Coronary Lesions
Ye, Y., Fan, J., Chen, Z., Li, X., Wu, M., Liu, W., Zhou, S., Rasmussen, Morten Arendt, Engelsen, Søren Balling, Chen, Y. , Khakimov, Bekzod & Xia, M., 2023, In: Metabolites. 13, 2, 19 p., 273.

Associations between sheep meat intake frequency and blood plasma levels of metabolites and lipoproteins in healthy Uzbek adults
Kurmaeva, D., Ye, Yongxin, Bakhytkyzy, I., Aru, Violetta, Dalimova, D., Turdikulova, S., Dragsted, Lars Ove, Engelsen, Søren Balling & Khakimov, Bekzod, 2023, In: Metabolomics. 19, 5, 14 p., 46.

Dietary Fish Meal Level and a Package of Choline, *β*-Glucan, and Nucleotides Modulate Gut Function, Microbiota, and Health in Atlantic Salmon (*Salmo salar*, L.)
Krogdahl, Å., Chikwati, E. M., Krasnov, A., Dhanasiri, A., Berge, G. M., Aru, Violetta, Khakimov, Bekzod, Engelsen, Søren Balling, Vinje, H. & Kortner, T. M., 2023, In: Aquaculture Nutrition. 2023, 29 p., 5422035.

Effect of 1-year daily protein supplementation and physical exercise on muscle protein synthesis rate and muscle metabolome in healthy older Danes: a randomized controlled trial
Bülow, J., Khakimov, Bekzod, Reitelseder, S., Bechshøft, R., Jensen, M., van Hall, Gerrit, Engelsen, Søren Balling & Holm, L., 2023, In: European Journal of Nutrition. 62, p. 2673–2685

Effects of natural starch-phosphate monoester content on the multi-scale structures of starches
Ding, Li, Liang, Wenxin, Qu, J., Persson, Staffan, Liu, X., Herburger, K., Kirkensgaard, Jacob Judas Kain, Khakimov, Bekzod, Enemark-Rasmussen, K., Blennow, Andreas & Zhong, Yuyue, 2023, In: Carbohydrate Polymers. 310, 10 p., 120740.

Human blood plasma biomarkers of diet and weight loss among centrally obese subjects in a New Nordic Diet intervention
Trimigno, A., Khakimov, Bekzod, Rasmussen, Morten Arendt, Dragsted, Lars Ove, Larsen, T. M., Astrup, A. & Engelsen, Søren Balling, 2023, In: Frontiers in Nutrition. 10, 13 p., 1198531.

In-depth Investigation on Triterpenoid Production from the Desert Plants *Aloe vera* (L.) Burm.f. and *Opuntia robusta* JC Wendl. Prompted by Their Low Specific Methane Production
Almeida, A., Raadam, Morten Hessellund, Lopez-Villanueva, A., Omar Hernandez-De Lira, I. & Khakimov, Bekzod, 2023, In: BioEnergy Research. 16, p. 898–911

Insights into high hydrostatic pressure pre-treatment generating a more efficient catalytic mode of maltogenic α-amylase: Effect of multi-level structure on retrogradation properties of maize starch
Liu, Z., Zhong, Yuyue, Khakimov, Bekzod, Fu, Y., Czaja, Tomasz Pawel, Kirkensgaard, Jacob Judas Kain, Blennow, Andreas, Shen, Q. & Engelsen, Søren Balling, 2023, In: Food Hydrocolloids. 138, 10 p., 108480.

Molecular profiling of whey permeate reveals new insights into molecular affinities related to industrial unit operations during lactose production
Tsermoula, Paraskevi, Rostved Bechshøft, M., Friis, C., Engelsen, Søren Balling & Khakimov, Bekzod, 2023, In: Food Chemistry. 420, 10 p., 136060.

Predicting weight loss success on a new Nordic diet: an untargeted multi-platform metabolomics and machine learning approach
Pigsborg, Kristina, Stentoft-Larsen, V., Demharter, S., Aldubayan, Mona Adnan Y, Trimigno, A., Khakimov, Bekzod, Engelsen, Søren Balling, Astrup, A., Hjorth, Mads Fiil, Dragsted, Lars Ove & Magkos, Faidon, 2023, In: Frontiers in Nutrition. 10, 12 p., 1191944.

Screening of non-protein nitrogen compounds in lactose refining streams from industrial whey permeate processing
Tsermoula, Paraskevi, Bechshøft, M. R., Friis, C., Engelsen, Søren Balling & Khakimov, Bekzod, 2023, In: Food Chemistry. 405, 9 p., 134716.

Soluble, Diferuloylated Corn Bran Glucuronoarabinoxylans Modulate the Human Gut Microbiota In Vitro
Lin, S., Xu, X., Holck, J., Agger, J. W., Wilkens, C., Xie, Zhuqing, Khakimov, Bekzod, Nielsen, Dennis Sandris & Meyer, A. S., 2023, In: Journal of Agricultural and Food Chemistry. 71, 8, p. 3885-3897

The relationship between starch structure and digestibility by time-course digestion of amylopectin-only and amylose-only barley starches
Liang, Wenxin, Ding, Li, Guo, K., Liu, Yang, Wen, X., Kirkensgaard, Jacob Judas Kain, Khakimov, Bekzod, Enemark-Rasmussen, K., Henrik Hebelstrup, K., Herburger, K., Liu, X., Persson, Staffan, Blennow, Andreas & Zhong, Yuyue, 2023 , In: Food Hydrocolloids. 139, 11 p., 108491.

1–2 drinks per day affect lipoprotein composition after 3 weeks — Results from a cross-over pilot intervention trial in healthy adults using nuclear magnetic resonance-measured lipoproteins and apolipoproteins
Wilkens, Trine, Ziegler, Z., Aru, Violetta, Khakimov, Bekzod, Overgaard, S. L., Engelsen, Søren Balling & Dragsted, Lars Ove, 2022, In: Nutrients. 14, 23, 19 p., 5043.

Effect of Supplementing Dairy Goat Diets With Rapeseed Oil or Sunflower Oil on Performance, Milk Composition, Milk Fatty Acid Profile, and *in vitro* Fermentation Kinetics
Vargas Bello Perez, Einar, Pedersen, N. C., Khushvakov, J., Ye, Yongxin, Dhakal, Rajan, Hansen, Hanne Helene, Ahrné, Lilia & Khakimov, Bekzod, 2022, In: Frontiers in Veterinary Science. 9, 9 p., 899314.

Effect of refinement and production technology on the molecular composition of edible cottonseed oils from a large industrial scale production
Ye, Yongxin, Khushvakov, J., Boboev, A., Akramova, R., Yunusov, O., Dalimova, D., Turdikulova, S., Mirzaakhmedov, S., Engelsen, Søren Balling & Khakimov, Bekzod, 2022, In: Journal of Functional Foods. 99, 11 p., 105326.

Ethanol pretreatment increases the efficiency of maltogenic α-amylase and branching enzyme to modify the structure of granular native maize starch
Zhong, Yuyue, Herburger, K., Xu, J., Kirkensgaard, Jacob Judas Kain, Khakimov, Bekzod, Hansen, A. R. & Blennow, Andreas, 2022, In: Food Hydrocolloids. 123, 13 p., 107118.

Goat Milk Foodomics. Dietary Supplementation of Sunflower Oil and Rapeseed Oil Modify Milk Amino Acid and Organic Acid Profiles in Dairy Goats
Vargas Bello Perez, Einar, Khushvakov, J., Ye, Yongxin, Pedersen, N. C., Hansen, Hanne Helene, Ahrné, Lilia & Khakimov, Bekzod, 2022, In: Frontiers in Veterinary Science. 9, 11 p., 837229.

Gut Microbiome and Its Cofactors Are Linked to Lipoprotein Distribution Profiles
Castro-Mejía, J. L., Khakimov, Bekzod, Aru, Violetta, Lind, M. V., Ahlmann, Eva Garne, Paulová, P., Tavakkoli, E., Hansen, Lars Hestbjerg, Smilde, Age Klaas, Holm, L., Engelsen, Søren Balling & Nielsen, Dennis Sandris, 2022, In: Microorganisms. 10, 11, 2156.

Gut colonization in preterm infants supplemented with bovine colostrum in the first week of life: An explorative pilot study
Jiang, Pingping, Muk (Mudi), Tik, Krych, Lukasz, Nielsen, Dennis Sandris, Khakimov, Bekzod, Li, Y., Juhl, S. M., Greisen, Gorm & Sangild, Per Torp, 2022, In: Journal of Parenteral and Enteral Nutrition. 46, 3, p. 592-599

Human blood lipoprotein predictions from ^{1}H NMR spectra: Protocol, model performances, and cage of covariance
Khakimov, Bekzod, Hoefsloot, H. C. J., Mobaraki, N., Aru, Violetta, Kristensen, M., Lind, M. V., Holm, L., Castro-Mejía, J. L., Nielsen, Dennis Sandris, Jacobs, D. M., Smilde, Age Klaas & Engelsen, Søren Balling, 2022, In: Analytical Chemistry. 94, 2, p. 628-636 9 p.

Metabolic engineering of cucurbitacins in *Cucurbita pepo* hairy roots
Almeida, A., Dong, L., Thorsen, T. H., Raadam, Morten Hessellund, Khakimov, Bekzod, Carreno-Quintero, N., Kampranis, Sotirios & Bak, Søren, 2022, In: Frontiers in Plant Science. 13, 18 p., 1021907.

Non-volatile molecular composition and discrimination of single grape white of chardonnay, riesling, sauvignon blanc and silvaner using untargeted GC–MS analysis
Khakimov, Bekzod, Bakhytkyzy, I., Fauhl-Hassek, C. & Engelsen, Søren Balling, 2022, In: Food Chemistry. 369, 11 p., 130878.

Reciprocal mutations of two multifunctional β-amyrin synthases from *Barbarea vulgaris* shift α/β-amyrin ratios
Günther, Jan, Erthmann, P. O., Khakimov, Bekzod & Bak, Søren, 2022, In: Plant Physiology. 188, 3, p. 1483-1495

Urinary and plasma metabolome of farm mink (*Neovison vison*) after an intervention with raw or cooked poultry offal: a ^{1}H NMR investigation
Trimigno, A., Khakimov, Bekzod, Quaade, Michelle Lauge, Honoré, O. L., Clausen, T., Blaabjerg, K., Engelsen, Søren Balling & Hammer, Anne Sofie Vedsted, 2022, In: Archives of Animal Nutrition. 76, 1, p. 74-91

An independent evolutionary origin for insect deterrent cucurbitacins in *Iberis amara*
Dong, L., Almeida Robles, A. R., Pollier, J., Khakimov, Bekzod, Bassard, J. A., Miettinen, K., Stærk, Dan, Mehran, R., Olsen, C. E., Motawie, Mohammed Saddik, Goossens, A. & Bak, Søren, 2021, In: Molecular Biology and Evolution. 38, 11 , p. 4659-4673 15 p., msab213.

Cascading effects of root microbial symbiosis on the development and metabolome of the insect herbivore *Manduca sexta* L.
Papantoniou, D., Vergara, F., Weinhold, A., Quijano, T., Khakimov, Bekzod, Pattison, David, Bak, Søren, van Dam, N. M. & Martínez-Medina, A., 2021, In: Metabolites. 11, 11, 23 p., 731.

Digestion patterns of proteins in pasteurized and ultra-high temperature milk using *in vitro* gastric models of adult and elderly
Aalaei, K., Khakimov, Bekzod, De Gobba, Cristian & Ahrné, Lilia, 2021, In: Journal of Food Engineering. 292, 8 p., 110305.

Gastric Digestion of Milk Proteins in Adult and Elderly: Effect of High-Pressure Processing
Aalaei, K., Khakimov, Bekzod, De Gobba, Cristian & Ahrné, Lilia, 2021, In: Foods. 10, 4, 13 p., 786.

Generation of short-chained granular corn starch by maltogenic α-amylase and transglucosidase treatment
Zhong, Yuyue, Keeratiburana, T., Kirkensgaard, Jacob Judas Kain, Khakimov, Bekzod, Blennow, Andreas & Hansen, A. R., 2021, In: Carbohydrate Polymers. 251, 9 p., 117056.

High throughput in vitro characterization of pectins for pig(let) nutrition
Wiese, M., Hui, Y., Holck, J., Sejberg, J. J. P., Daures, C., Maas, E., Kot, Witold, Borne, J. M., Khakimov, Bekzod, Thymann, Thomas & Nielsen, Dennis Sandris, 2021, In: BMC Animal Microbiome. 3, 15 p., 69.

Human fecal metabolome reflects differences in body mass index, physical fitness, and blood lipoproteins in healthy older adults
Cui, M., Trimigno, A., Castro-Mejía, J. L., Reitelseder, S., Bülow, J., Bechshøft, R. L., Nielsen, Dennis Sandris, Holm, L., Engelsen, Søren Balling & Khakimov, Bekzod, 2021, In: Metabolites. 11, 11, 16 p., 717.

Influence of Age, Sex, and Diet on the Human Fecal Metabolome Investigated by ^{1}H NMR Spectroscopy
Cui, M., Trimigno, A., Aru, Violetta, Rasmussen, Morten Arendt, Khakimov, Bekzod & Engelsen, Søren Balling, 2021, In: Journal of Proteome Research. 20, 7, p. 3642-3653

Physiological Genetics Reformed: Bridging the Genome-to-Phenome Gap by Coherent Chemical Fingerprints – the Global Coordinator
Munck af Rosenschøld, Lars M, Rinnan, Åsmund, Khakimov, Bekzod, Jespersen, Birthe P Møller & Engelsen, Søren Balling, 2021, In: Trends in Plant Science. 26, 4, p. 324-337 14 p.

Plasma metabolomics to evaluate progression of necrotising enterocolitis in preterm pigs
Jiang, Y. N., Ye, Yongxin, Sangild, Per Torp, Thymann, Thomas, Engelsen, Søren Balling, Khakimov, Bekzod & Jiang, Pingping, 2021, In: Metabolites. 11, 5, 283.

Progression of postprandial blood plasma phospholipids following acute intake of different dairy matrices: A randomized crossover trial
Thøgersen, R., Lindahl, I. E. I., Khakimov, Bekzod, Kjølbæk, Louise, Jensen, K. J., Astrup, A., Hammershøj, M., Raben, Anne & Bertram, H. C., 2021, In: Metabolites. 11, 7, 13 p., 454.

Sequential maltogenic α-amylase and branching enzyme treatment to modify granular corn starch
Zhong, Yuyue, Herburger, K., Kirkensgaard, Jacob Judas Kain, Khakimov, Bekzod, Hansen, A. R. & Blennow, Andreas, 2021, In: Food Hydrocolloids. 120, 11 p., 106904.

The plasma metabolome of Atlantic salmon as studied by ^{1}H NMR spectroscopy using standard operating procedures: effect of aquaculture location and growth stage
Aru, Violetta, Khakimov, Bekzod, Sørensen, Klavs Martin, Chikwati, E. M., Kortner, T. M., Midtlyng, P., Krogdahl, Å. & Engelsen, Søren Balling, 2021, In: Metabolomics. 17, 6, 13 p., 50.

WHEY: The waste-stream that became more valuable than the food product
Tsermoula, Paraskevi, Khakimov, Bekzod, Nielsen, J. H. & Engelsen, Søren Balling, 2021, In: Trends in Food Science and Technology. 118, p. 230-241

A Multi-Omics Approach Reveals New Signatures in Obese Allergic Asthmatic Children
Gomez-Llorente, M. A., Martínez-Cañavate, A., Chueca, N., Rico, M. D. L. C., Romero, R., Anguita-Ruiz, A., Aguilera, C. M., Gil-Campos, M., Mesa, M. D., Khakimov, Bekzod, Morillo, J. A., Gil, Á., Camacho, J. & Gomez-Llorente, C., 2020, In: Biomedicines. 8, 9, 16 p., 359.

Comparison of statistical methods for predicting penetration capacity of drugs into human breast milk using physicochemical, pharmacokinetic and chromatographic descriptors
Wanat, K., Khakimov, Bekzod & Brzezinska, E., 2020, In: SAR and QSAR in Environmental Research. 31, 6, p. 457-475 19 p.

First-principles identification of C-methyl-scyllo-inositol (mytilitol) – A new species-specific metabolite indicator of geographic origin for marine bivalve molluscs (Mytilus and Ruditapes spp.)
Aru, Violetta, Motawie, Mohammed Saddik, Khakimov, Bekzod, Sørensen, Klavs Martin, Møller, Birger Lindberg & Engelsen, Søren Balling, 2020, In: Food Chemistry. 328, 7 p., 126959.

Human Faecal ^{1}H NMR Metabolomics: Evaluation of Solvent and Sample Processing on Coverage and Reproducibility of Signature Metabolites
Cui, M., Trimigno, A., Aru, Violetta, Khakimov, Bekzod & Engelsen, Søren Balling, 2020, In: Analytical Chemistry. 92, 14, p. 9546-9555 10 p.

Human urine ^{1}H NMR metabolomics reveals alterations of the protein and carbohydrate metabolism when comparing habitual Average Danish diet vs. healthy New Nordic diet
Trimigno, A., Khakimov, Bekzod, Savorani, F., Poulsen, S. K., Astrup, A., Dragsted, Lars Ove & Engelsen, Søren Balling, 2020, In: Nutrition. 79-80, 11 p., 110867.

IDDF2020-ABS-0174 Onset of hypertriglyceridemia in relation to dietary intake, gut microbiome and metabolomics signatures among home dwelling elderly
Ahmad, H. F., Mejia, J. L. C., Krych, Lukasz, Khakimov, Bekzod, Kot, W., Bechshoft, R. L., Reitelseder, S., Engelsen, Søren Balling, Holm, L. & Faust, K., 2020, In: Gut. 69, Suppl 2, p. A21-A21 1 p.

Physical fitness in community-dwelling older adults is linked to dietary intake, gut microbiota, and metabolomic signatures
Castro-Mejia, J. L., Khakimov, B., Krych, L., Bülow, J., Bechshøft, R. L., Højfeldt, G., Mertz, K. H., Garne, E. S., Schacht, S. R., Ahmad, H. F., Kot, W., Hansen, L. H., Perez-Cueto, F. J. A., Lind, M. V., Lassen, A. J., Tetens, I., Jensen, T., Reitelseder, S., Jespersen, A. P., Holm, L. & 2 others, Engelsen, Søren Balling & Nielsen, Dennis Sandris, 2020, In: Aging Cell. 19, 3, 13 p., e13105.

Signature Mapping (SigMa): an efficient approach for processing complex human urine ^{1}H NMR metabolomics data
Khakimov, Bekzod, Mobaraki, N., Trimigno, A., Aru, Violetta & Engelsen, Søren Balling, 2020, In: Analytica Chimica Acta. 1108, p. 142-151 10 p.

Structurally different mixed linkage β-glucan supplements differentially increase secondary bile acid excretion in hypercholesterolaemic rat faeces
Iaccarino, N., Khakimov, Bekzod, Mikkelsen, M. S., Nielsen, T. S., Jensen, M. G., Randazzo, A. & Engelsen, Søren Balling, 2020, In: Food & Function. 11, 1, p. 514-523

Synthetic Biology of Cannabinoids and Cannabinoid Glucosides in *Nicotiana benthamiana* and *Saccharomyces cerevisiae*
Gülck, T., Booth, J. K., Carvalho, Â., Khakimov, Bekzod, Crocoll, C., Motawie, Mohammed Saddik, Møller, Birger Lindberg , Bohlmann, J. & Gallage, N. J., 2020, In: Journal of Natural Products. 83, 10, p. 2877-2893 17 p.

The cytochrome P450 CYP72A552 is key to production of hederagenin-based saponins that mediate plant defense against herbivores
Liu, Q., Khakimov, Bekzod, Cárdenas, Pablo D., Cozzi, F., Olsen, C. E., Jensen, Karen Rysbjerg, Hauser, T. P. & Bak, Søren, May 2019, In: New Phytologist (Online). 222, 3, p. 1599-1609

Biomarkers of individual foods, and separation of diets using untargeted LC-MS-based plasma metabolomics in a randomized controlled trial
Acar, E., Gürdeniz, G., Khakimov, Bekzod, Savorani, F., Korndal, S. K., Larsen, T. M., Engelsen, Søren Balling, Astrup, A. & Dragsted, Lars Ove, 2019, In: Molecular Nutrition & Food Research. 63, 1, 10 p., 1800215.

Effect of fecal microbiota transplantation route of administration on gut colonization and host response in preterm pigs
Brunse, Anders, Martin, L., Rasmussen, Torben Sølbeck, Christensen, Lars, Cilieborg, Malene Skovsted, Wiese, M., Khakimov, Bekzod, Pieper, R., Nielsen, Dennis Sandris, Sangild, Per Torp & Thymann, Thomas, 2019, In: ISME Journal. 13, p. 720–733

Investigation of Variations in the Human Urine Metabolome amongst European Populations: An Exploratory Search for Biomarkers of People at Risk-of-Poverty
Trimigno, A., Khakimov, Bekzod, Savorani, F., Tenori, L., Hendrixson, V., Civilis, A., Glibetic, M., Gurinovic, M., Pentikäinen, S., Sallinen, J., Diaz, S. G., Pasqui, F., Khokhar, S., Luchinat, C., Bordoni, A., Capozzi, F. & Engelsen, Søren Balling, 2019, In: Molecular Nutrition & Food Research. 63, 1, p. 1-11 1800216.

The effect of charcoal on medicinal compounds of seeds of fenugreek (*Trigonella foenum-graecum* L.) exposed to drought stress
Bitarafan, Z., Asghari, H. R., Hasanloo, T., Gholami, A., Moradi, F., Khakimov, Bekzod, Liu, Fulai & Andreasen, Christian, 2019, In: Industrial Crops and Products. 131, p. 323-329

A Single Oxidosqualene Cyclase Produces the *Seco*-Triterpenoid α-Onocerin
Almeida, A., Dong, L., Khakimov, Bekzod, Bassard, J. A., Moses, T., Lota, F., Goossens, A., Appendino, G. & Bak, Søren , 2018, In: Plant Physiology. 176, 2, p. 1469-1484 16 p.

Biogenic amines: a key freshness parameter of animal protein products in the coming circular economy
Sørensen, Klavs Martin, Aru, Violetta, Khakimov, Bekzod, Aunskjaer, U. & Engelsen, Søren Balling, 2018, In: Current Opinion in Food Science. 22, p. 167-173

Chemical characterization by gas chromatography-mass spectrometry and inductively coupled plasma-optical emissionn spectroscopy of membrane permeates from an industrial dairy ingredient production used as process water
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