Jørn Smedsgaard - DTU Orbit (08/11/2018)

Smedsgaard, Jørn

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National Food Institute - Professor, Head of Research Group

Research Group for Analytical Food Chemistry

Research outputs:

Exploring the chemistry of complex samples by tentative identification and semi-quantification: a food contact material case
Pieke, E. N., Smedsgaard, J. & Granby, K. 2018 In : Journal of Mass Spectrometry. 53, 4, p. 323-335
Research output: Research - peer-review › Journal article – Annual report year: 2018

Prioritization before risk assessment: The viability of uncertain data on food contact materials
Research output: Research - peer-review › Journal article – Annual report year: 2018

A framework to estimate concentrations of potentially unknown substances by semi-quantification in liquid chromatography electrospray ionization mass spectrometry
Research output: Research - peer-review › Journal article – Annual report year: 2017

Big Data fra jord til bord
Research output: Communication › Report – Annual report year: 2015

Exposure to perfluorononanoic acid combined with a low-dose mixture of 14 human-relevant compounds disturbs energy/lipid homeostasis in rats
Research output: Research - peer-review › Journal article – Annual report year: 2015

LC-MS analysis of the plasma metabolome—a novel sample preparation strategy
Research output: Research - peer-review › Journal article – Annual report year: 2014

Metabolomics – an analytical strategy for identification of toxic mechanism of action

A combined metabolomic and phylogenetic study reveals putatively prebiotic effects of high molecular weight arabino-oligosaccharides when assessed by in vitro fermentation in bacterial communities derived from humans
Research output: Research - peer-review › Journal article – Annual report year: 2014

Dynamic Metabolic Footprinting Reveals the Key Components of Metabolic Network in Yeast Saccharomyces cerevisiae
Research output: Research - peer-review › Journal article – Annual report year: 2014
Lactobacillus acidophilus NCFM affects vitamin E acetate metabolism and intestinal bile acid signature in monocolonized mice
Research output: Research - peer-review › Journal article – Annual report year: 2014

Effects of perfluorononanoic acid (PFNA) on the metabolic profiling of rat serum by UHPLC-ESI-Q-TOF MSMS
Research output: Research - peer-review › Poster – Annual report year: 2013

Mono-colonization with Lactobacillus acidophilus NCFM affects the intestinal metabolome as compared to germ-free mice
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2013

Mono-colonization with Lactobacillus acidophilus NCFM affects the intestinal metabolome in mice
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2013

Quantification of vitamin D3 and its hydroxylated metabolites in waxy leaf nightshade (Solanum glaucophyllum Desf.), tomato (Solanum lycopersicum L.) and bell pepper (Capsicum annum L.)
Research output: Research - peer-review › Journal article – Annual report year: 2013

Bacterial Impact on the Gut Metabolome
Research output: Research › Ph.D. thesis – Annual report year: 2013

Design and Fabrication of Polymer-based Lab-on-a-Chip Devices Towards Applications in Food and Environmental Analysis
Research output: Research › Ph.D. thesis – Annual report year: 2013

Metabolic footprint of Lactobacillus acidophilus NCFM at different pH
Research output: Research - peer-review › Journal article – Annual report year: 2011

Metabolic footprint of Lactobacillus acidophilus NCFM at different pH
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2012

Metabolomics of UC bacterial ecosystem compared to the healthy donors
Research output: Research › Conference abstract for conference – Annual report year: 2012

Vitamin D3 in plants: effect of UVB exposure
Research output: Research - peer-review › Poster – Annual report year: 2012

LC–MS/MS with atmospheric pressure chemical ionisation to study the effect of UV treatment on the formation of vitamin D3 and sterols in plants
Metabolome Analysis: An Introduction
Research output: Education › Book – Annual report year: 2007

Production of mycotoxins by Aspergillus lentulus and other medically important and closely related species in section Fumigati
Research output: Research - peer-review › Journal article – Annual report year: 2007

Standard reporting requirements for biological samples in metabolomics experiments: Microbial and in vitro biology experiments
Research output: Research - peer-review › Journal article – Annual report year: 2007

The exo-metabolome in filamentous fungi
Research output: Research - peer-review › Book chapter – Annual report year: 2007

Elucidating the mode-of-action of compounds from metabolite profiling studies
Research output: Research - peer-review › Book chapter – Annual report year: 2006

Host-derived media used as a predictor for low abundant, in planta metabolites production by necrotrophic fungi.
Research output: Research - peer-review › Journal article – Annual report year: 2006

Identification of an Abscisic Acid Gene Cluster in the Grey Mold Botrytis cinerea
Siewers, V., Kekkelink, L., Smedsgaard, J. & Tudzynski, P. 2006 In : Applied and Environmental Microbiology. 72, 7, p. 4619-4626
Research output: Research - peer-review › Journal article – Annual report year: 2006

Real-time PCR quantification of the AM-toxin gene and HPLC quantification of toxigenic metabolites from Alternaria species from apples
Research output: Research - peer-review › Journal article – Annual report year: 2006

Soyasaponins resist extrusion cooking and are not degraded during gut passage in Atlantic salmon (Salmo salar L.)
Research output: Research - peer-review › Journal article – Annual report year: 2006

Andrastins A-D, Penicillium roqueforti metabolites consistently produced in blue mold fermented cheese
Research output: Research - peer-review › Journal article – Annual report year: 2005

A new algorithm for novelty detection and de-replication of spectroscopic analysis of complex mixtures of natural products
Research output: Research - peer-review › Conference abstract in journal – Annual report year: 2005
Automated and unbiased classification of chemical profiles from fungi using high performance liquid chromatography
Research output: Research - peer-review › Journal article – Annual report year: 2005

Automated and unbiased image analyses as tools in phenotypic classification of small-spored Alternaria species.
Andersen, B., Hansen, M. E. & Smedsgaard, J. 2005 In : Phytopathology. 95, 9, p. 1021-1029
Research output: Research - peer-review › Journal article – Annual report year: 2005

Global metabolite analysis of yeast: evaluation of sample preparation methods
Research output: Research - peer-review › Journal article – Annual report year: 2005

LC-MS contra direct infusion-MS for profiling of secondary metabolites in fungi
Smedsgaard, J. 2005 In : Journal of Biotechnology. 118, p. S159-S159
Research output: Research - peer-review › Conference abstract in journal – Annual report year: 2005

Metabolite profiling of fungi of yeast: From phenotype to metabolome by MS and informatics
Research output: Research - peer-review › Journal article – Annual report year: 2005

Metabolome analysis by mass spectrometry
Research output: Research - peer-review › Journal article – Annual report year: 2005

Phenotypic taxonomy and metabolite profiling in microbial drug discovery
Research output: Research - peer-review › Journal article – Annual report year: 2005

Roquefortine/Oxaline biosynthesis pathway metabolites in Penicillium SER. Corymbifera: IN PLANTA production and implication for competitive fitness
Research output: Research - peer-review › Journal article – Annual report year: 2005

X-hitting: A new algorithm for novelty detection and dereplication by UV spectra of complex mixtures of natural products
Research output: Research - peer-review › Journal article – Annual report year: 2005

A new matching algorithm for high resolution mass spectra
Research output: Research - peer-review › Journal article – Annual report year: 2004

Analysis of amino acid isotopomers by ion trap LC-MS
Hejær-Pedersen, J., Smedsgaard, J., Åkesson, M. & Nielsen, J. 2004
Research output: Research › Poster – Annual report year: 2004

An integrated approach for the detection and analysis of mycotoxins
Research output: Research › Article in proceedings – Annual report year: 2004
A proposed framework for the description of plant metabolomics experiments and their results
Research output: Research - peer-review › Journal article – Annual report year: 2004

Automatic In-Vial MCF Derivatization Coupled to GC-MS for Simultaneous Determination of Amino and non-Amino Organic Acids
Hansen, K. K., Villas-Bôas, S. G., Smedsgaard, J. & Nielsen, J. 2004
Research output: Research › Poster – Annual report year: 2004

Chemical diversity of fungi - metabolite profiling and metabolomics
Research output: Research - peer-review › Book chapter – Annual report year: 2004

Classification of terverticillate Penicillia by electrospray mass spectrometric profiling
Research output: Research - peer-review › Journal article – Annual report year: 2004

Emericella astellata, a new producer of aflatoxin B-1, B-2 and sterigmatocystin
Research output: Research › Poster – Annual report year: 2004

Identification of novel natural products using intelligent screening based on mass and UV spectometric methods
Research output: Research › Poster – Annual report year: 2004

Mass spectrometry for metabolite fingerprinting
Højær-Pedersen, J., Hansen, M. E., Smedsgaard, J. & Nielsen, J. 2004
Research output: Research › Poster – Annual report year: 2004

Mycotoxins, drugs and other extrolites produced by species in Penicillium subgenus Penicillium
Research output: Research - peer-review › Journal article – Annual report year: 2004

Penicillium expansum: Consistent production of patulins, chaetoglobosins, and other secondary metabolites in culture and their natural occurrence in fruit products
Andersen, B., Smedsgaard, J. & Frisvad, J. C. 2004 In : Journal of Agricultural and Food Chemistry. 52, 8, p. 2421-2428
Research output: Research - peer-review › Journal article – Annual report year: 2004

The p450 monooxygenase BcABA1 is essential for abscisic acid biosynthesis in Botrytis cinerea
Siewers, V., Smedsgaard, J. & Tudzynski, P. 2004 In : Applied and Environmental Microbiology. 70, 7, p. 3868-3876
Research output: Research - peer-review › Journal article – Annual report year: 2004

Automated data processing of high-resolution mass spectra
Hansen, M. A. E. & Smedsgaard, J. 2003
Research output: Research › Poster – Annual report year: 2003

Flavor release measurement by atmospheric pressure chemical ionization ion trap mass spectrometry, construction of interface and mathematical modeling of release profiles
Research output: Research - peer-review › Journal article – Annual report year: 2003
Micro-scale extraction procedure for standardized screening of fungal metabolite production in cultures
Smedsgaard, J. 1997 In : Journal of Chromatography A. 760, p. 264-270
Research output: Research - peer-review › Journal article – Annual report year: 1997

Terverticillate Penicillia studied by direct electrospray mass spectrometric profiling of crude extracts: I. Chemosystematics
Smedsgaard, J. & Frisvad, J. C. 1997 In : Biochemical Systematics and Ecology. 25, 1, p. 51-64
Research output: Research - peer-review › Journal article – Annual report year: 1997

Terverticillate penicillia studied by direct electrospray mass spectrometric profiling of crude extracts II. Database and identification
Smedsgaard, J. 1997 In : Biochemical Systematics and Ecology. 25, p. 65-71
Research output: Research - peer-review › Journal article – Annual report year: 1997

Using direct electrospray mass spectrometry in taxonomy and secondary metabolite profiling of crude fungal extracts
Smedsgaard, J. & Frisvad, J. C. 1996 In : Journal of Microbiological Methods. 25, p. 5-17
Research output: Research - peer-review › Journal article – Annual report year: 1996

Projects:

Screening of unknown compounds for food monitoring by high resolution mass spectrometry
Wang, T., Smedsgaard, J. & Frandsen, H. L.
Institut stipendie (DTU)
01/06/2016 → 31/05/2019
Project: PhD

Proof of food authenticity by chemical methods
Wilde, A. S., Smedsgaard, J. & Fromberg, A.
Institut stipendie (DTU)
01/05/2016 → 30/04/2019
Project: PhD

Sample preparation for screening analyses by high resolution mass spectrometry
Eyring, P., Frandsen, H. L. & Smedsgaard, J.
Institut stipendie (DTU)
01/06/2016 → 31/05/2019
Project: PhD

Miniaturization of food safety analysis
Zhai, D. S., Smedsgaard, J. & Boisen, A.
Institut stipendie (DTU)
15/03/2016 → 14/03/2019
Project: PhD

Predictive food microbiology - new models for safety and quality assessment of a broad range of dairy products
Martinez Rios, V., Dalgaard, P. & Smedsgaard, J.
Samfinansieret - Andet
01/08/2015 → 18/03/2019
Project: PhD

SERS based Sensing and Centrifugal Microfluidics
Durucan, O., Boisen, A., Matteucci, M., Rindzevicius, T., Schmidt, M. S., Smedsgaard, J., Golcuk, K. & Hakonen, A.
Samfinansieret - Andet
15/01/2015 → 03/05/2018
Project: PhD
Identification and risk assessment of unknown contaminants migrating from Food Contact Materials
Institut stipendie (DTU)
01/12/2014 → 16/05/2018
Project: PhD

Anvendelse af LC-MS til specifik Bestemmelse af skimmelsvampe metabolitter i cerealier
Smedsgaard, J. & Frisvad, J. C.
Program-stipendium
01/04/1992 → 14/01/1996
Project: PhD

Tackling challenges in food safety with lab-on-chip technologies
1/3 DTU-stip, 2/3 FUR/andet
01/10/2009 → 04/04/2013
Project: PhD

Bacterial Impact on the Gut Metabolome
Institut stipendie (DTU) Samf.
01/08/2009 → 06/02/2013
Project: PhD

Metabolomanalyse
Hejer-Pedersen, J. J., Nielsen, J., Smedsgaard, J., Larsen, T. O., Arneborg, N. & Heinemann, M.
DTU-lønnet stipendie
01/03/2003 → 07/11/2008
Project: PhD

Carry-Over of Mycotoxins from Cattle Feed into Dairy Products
Storm, I. M. L. D., Thrane, U., Smedsgaard, J., O'Kiely, P. & Schnürer, J.
1/3 DTU-stip, 2/3 FUR/andet
Project: PhD

The preesence of spores, micro-particles and metabolites in the indoor environment
Dosen, I., Andersen, B., Clausen, G., Nielsen, K. F., Smedsgaard, J., Miller, J. D. & Stadler, M.
Institut stipendie (DTU)
01/03/2013 → 26/05/2016
Project: PhD

Multivariate and multi-target analysis of UHPLC-TOFMS data for linking of fungal metabolites to their biosynthetic genes and for revealling of crossta lk between pathways
Klitgaard, A., Nielsen, K. F., Andersen, M. R., Frisvad, J. C., Smedsgaard, J., Sørensen, J. L. & Wolfender, J.
Institut stipendie (DTU)
01/12/2011 → 25/03/2015
Project: PhD

Metabolomics study of endocrine disrupting chemicals
Skov, K., Frandsen, H. L., Hadrup, N., Smedsgaard, J., Harrison, S. J., Christensen, L. P. & Dunn, W.
Institut stipendie (DTU) Samf.
15/12/2011 → 29/02/2016
Project: PhD
Vitamin D in plants
Jäpelt, R. B., Jakobsen, J., Smedsgaard, J., Jacobsen, C. M., Bjorn, L. O. & Höller, U.
Institut stipendie (DTU) Samf.
01/09/2008 → 29/02/2012
Project: PhD

Intestinal Microbial Metabolomics
Institut stipendie (DTU)
15/12/2012 → 21/04/2016
Project: PhD

Biosynthesis of cancer-preventive organoselenium compounds by metabolically engineered yeast (YESSEL)
01/01/2007 → 31/12/2009
Project: Research

Multivariate Statistics in Predictive Biotechnology
Larsen, R., Carstensen, J. M., Frisvad, J. C. & Smedsgaard, J.
01/01/2000 → 31/12/2003
Project: Research

Use of secondary metabolites and volatiles from filamentous fungi in quality assessment of foods
Frisvad, J. C. & Smedsgaard, J.
01/01/1996 → …
Project: Research

Bacterial Impact on Gut Metabolomics
Sulek, K., Licht, T. R., Smedsgaard, J. & Wilcks, A.
01/08/2009 → 31/07/2011
Project: Research

Bacterial Impact on Gut Metabolomics
Wilcks, A., Sulek, K., Licht, T. R. & Smedsgaard, J.
01/08/2009 → 31/07/2011
Project: Research

Activities:

32nd Mycotoxin Workshop: Mycotoxins and other secondary metabolites in maize silage
Smedsgaard, J. (Speaker)
14 Jun 2010
Activity: Talks and presentations › Conference presentations

Press clippings:

Fremtidige kompetencebehov for laboranter
Jørn Smedsgaard
05/05/2017
1 item of media coverage
Press/Media: Press / Media

Meget høje indhold af PCB fundet i hvaler.
Jørn Smedsgaard
12/01/2016
1 media contribution
Press/Media: Press / Media

DTUs sektorudviklingsrapport for Big Data der kommer den 29/10 2015
Jørn Smedsgaard
28/10/2015
1 media contribution
Press/Media: Press / Media

Test på æg
Jørn Smedsgaard
07/06/2013
1 media contribution
Press/Media: Press / Media