



Research output

Mass spectrometry based metabolomics of volume-restricted in-vivo brain samples: Actual status and the way forward
van Mever, M., Segers, K., Mangelings, D., Hankemeier, T., Vander Heyden, Y., Van Eeckhaut, A. & Ramautar, R., Oct 2021, In: TrAC. Trends in Analytical Chemistry. 143, 116365.

UPLC-PDA-ESI-QTOF-MS/MS and GC-MS analysis of Iranian *Dracocephalum moldavica* L
Fattahi, A., Shakeri, A., Tayarani-Najaran, Z., Kharbach, M., Segers, K., Heyden, Y. V., Taghizadeh, S. F., Rahmani, H. & Asili, J., Aug 2021, In: Food Science and Nutrition. 9, 8, p. 4278-4286 9 p.

Feasibility study on exhaled-breath analysis by untargeted Selected-Ion Flow-Tube Mass Spectrometry in children with cystic fibrosis, asthma, and healthy controls: comparison of data pretreatment and classification techniques.
Segers, K., Slosse, A., Viaene, J., Bannier, M. A. G. E., Van de Kant, K. D. G., Dompeling, E., Van Eeckhaut, A., Vercammen, J. & Vander Heyden, Y., 1 Apr 2021, In: Talanta. 225, 122080.

Method development in metabolomics and its application as diagnostic tool
Segers, K., 2021, 260 p.

A comparative study of UniSpray and electrospray sources for the ionization of neuropeptides in liquid chromatography tandem mass spectrometry.
Bongaerts, J., Segers, K., Van Oudenhove, L., Van Wanseele, Y., Van Hulle, M., De Bundel, D., Mangelings, D., Smolders, I., Vander Heyden, Y. & Van Eeckhaut, A., 27 Sep 2020, In: Journal of Chromatography. A. 1628, 461462.

CE-MS metabolic profiling of volume-restricted plasma samples from an acute mouse model for epileptic seizures to discover potentially involved metabolomic features.
Segers, K., Zhang, W., Aourz, N., Bongaerts, J., Declerck, S., Mangelings, D., Hankemeier, T., De Bundel, D., Vander Heyden, Y., Smolders, I., Ramautar, R. & Van Eeckhaut, A., 1 Sep 2020, In: Talanta. 217, 121107.

Direct profiling of endogenous metabolites in rat brain microdialysis samples by capillary electrophoresis-mass spectrometry with on-line preconcentration.
van Mever, M., Segers, K., Drouin, N., Guled, F., Vander Heyden, Y., Van Eeckhaut, A., Hankemeier, T. & Ramautar, R., Jul 2020, In: Microchemical Journal. 156, 104949.

"+ Flash presentation" A comparative study of Unispray and Electrospray for the ionization of neuropeptides in LC-MS/MS.
Bongaerts, J., Van Wanseele, Y., Van Oudenhove, L., Segers, K., Van Hulle, M., De Bundel, D., Smolders, I., Mangelings, D., Vander Heyden, Y. & Van Eeckhaut, A., 2020.

"+ Flash Presentation" Optimization of an untargeted LC-MS method for metabolite profiling of restricted-volume plasma samples.
Segers, K., Frederickx, K. Y., Grech, J., Bongaerts, J., Mangelings, D., Vander Heyden, Y. & Van Eeckhaut, A., 2020.

Poster flash presentation "A comparative study of Unispray and Electrospray for the ionization of neuropeptides in LC-MS/MS"
Bongaerts, J., Van Wanseele, Y., Van Oudenhove, L., Segers, K., Van Hulle, M., De Bundel, D., Smolders, I., Mangelings, D., Vander Heyden, Y. & Van Eeckhaut, A., 2020.

Analytical techniques for metabolomic studies: a review

Segers, K., Declerck, S., Mangelings, D., Heyden, Y. V. & Eeckhaut, A. V., 17 Dec 2019, In: *Bioanalysis*. 11, 24, p. 2297-2318 22 p.

Assessing the suitability of capillary electrophoresis-mass spectrometry for biomarker discovery in plasma-based metabolomics

Zhang, W., Segers, K., Mangelings, D., Van Eeckhaut, A., Hankemeier, T., Vander Heyden, Y. & Ramautar, R., Sep 2019, In: *Electrophoresis*. 40, 18-19, p. 2309-2320 12 p.

"+ Flash Presentation" CE-MS plasma metabolomics of a mouse model for acute seizures.

Segers, K., Zhang, W., Mangelings, D., Hankemeier, T., De Bundel, D., Vander Heyden, Y., Smolders, I., Ramautar, R. & Van Eeckhaut, A., 2019.

A comparative study of Unispray and Electrospray for the ionization of neuropeptides in LC-MS/MS.

Bongaerts, J., Van Wanseele, Y., Van Oudenhove, L., Segers, K., Van Hulle, M., De Bundel, D., Smolders, I., Mangelings, D., Vander Heyden, Y. & Van Eeckhaut, A., 2019.

Assessing mixtures of supercharging agents to increase the abundance of a specific charge state of Neuromedin U

Van Wanseele, Y., Bongaerts, J., Segers, K., Viaene, J., De Bundel, D., Vander Heyden, Y., Smolders, I. & Van Eeckhaut, A., 2019, In: *Talanta*. 198, p. 206-214 9 p.

CE-MS-based plasma metabolomics for the discovery of biomarkers from a mouse model for acute epileptic seizures.

Segers, K., Zhang, W., Mangelings, D., Hankemeier, T., De Bundel, D., Vander Heyden, Y., Smolders, I., Ramautar, R. & Van Eeckhaut, A., 2019.

Comparison of Unispray and Electrospray for the ionization of neuropeptides.

Bongaerts, J., Van Wanseele, Y., Van Oudenhove, L., Segers, K., Van Hulle, M., De Bundel, D., Smolders, I., Mangelings, D., Vander Heyden, Y. & Van Eeckhaut, A., 2019.

A diagnostic tool based on SIFT-MS breath sample analysis to distinguish asthmatic and cystic-fibrosis children from healthy.

Segers, K., Slosse, A., Viaene, J., Bannier, M. A. G., Van de Kant, K. D. G., Dompeling, E., Vercammen, J., Van Eeckhaut, A. & Vander Heyden, Y., 2018.

Assessing the actual utility of capillary electrophoresis-mass spectrometry for metabolic profiling of human plasma.

Zhang, W., Segers, K., Mangelings, D., Van Eeckhaut, A., Hankemeier, T., Vander Heyden, Y. & Ramautar, R., 2018.

Biomarker selection in SIFT-MS spectra of breath samples to distinguish healthy, asthmatic and cystic-fibrosis children.

Segers, K., De Naeyer, R., Viaene, J., Bannier, M. A. G., Van de Kant, K. D. G., Dompeling, E., Vercammen, J., Van Eeckhaut, A. & Vander Heyden, Y., 2018.

Comparison of Unispray and Electrospray for the ionization of neuropeptides.

Bongaerts, J., Segers, K., Van Wanseele, Y., Van Hulle, M., Van Oudenhove, L., Smolders, I., Mangelings, D., Vander Heyden, Y. & Van Eeckhaut, A., 2018.

Comparison of Unispray and Electrospray for the ionization of neuropeptides.

Bongaerts, J., Segers, K., Van Wanseele, Y., Van Hulle, M., Van Oudenhove, L., Smolders, I., Mangelings, D., Vander Heyden, Y. & Van Eeckhaut, A., 2018.

Comparison of Unispray and Electrospray for the ionization of neuropeptides.

Bongaerts, J., Segers, K., Van Wanseele, Y., Van Hulle, M., Van Oudenhove, L., Smolders, I., Mangelings, D., Vander Heyden, Y. & Van Eeckhaut, A., 2018.

Comparison of Unispray and Electrospray for the ionization of neuropeptides.

Bongaerts, J., Segers, K., Van Wanseele, Y., Van Hulle, M., Van Oudenhove, L., Smolders, I., Mangelings, D., Vander Heyden, Y. & Van Eeckhaut, A., 2018.

Antiplasmodial Activity, Cytotoxicity and Structure-Activity Relationship Study of Cyclopeptide Alkaloids

Tuenter, E., Segers, K., Kang, K. B., Viaene, J., Sung, S. H., Cos, P., Maes, L., Heyden, Y. V. & Pieters, L., 1 Feb 2017, In: *Molecules*. 22, 2, p. 224-232 224.

POSTER: Classification of breath samples of healthy, asthmatic and cystic-fibrosis children, based on their SIFT-MS spectra.

Segers, K., Slosse, A., Viaene, J., Bannier, M., Van de Kant, K., Dompeling, E., Vercammen, J. & Vander Heyden, Y., 2017.

POSTER: SIFT-MS spectra as an alternative for GC-MS chromatograms to classify healthy, asthmatic and cystic-fibrosis breath samples of children.

Segers, K., Slosse, A., Viaene, J., Bannier, M., Van de Kant, K., Dompeling, E., Vercammen, J. & Vander Heyden, Y., 2017.

SIFT-MS spectra as an alternative for GC-MS chromatograms to classify healthy, asthmatic and cystic-fibrosis breath samples of children.

Segers, K., Slosse, A., Viaene, J., Bannier, M., Van de Kant, K., Dompeling, E., Vercammen, J. & Vander Heyden, Y., 2017.

The application of superchargers to increase nanoUHPLC-MS/MS method sensitivity for quantification of the neuropeptide neuromedin U

Van Wanseele, Y., Segers, K., Viaene, J., Smolders, I. & Van Eeckhaut, A., 15 Nov 2016.

ORAL PRES.: The application of superchargers to increase nanoUHPLC-MS/MS method sensitivity for the quantification of the neuropeptide neuromedin U.

Van Wanseele, Y., Segers, K., Viaene, J., Smolders, I. & Van Eeckhaut, A., 2016.

Activities

HTC16 - 16th International Symposium on Hyphenated Techniques in Chromatography and Separation Technology.

Karen Segers (Participant)
29 Jan 2020 → 30 Jan 2020

EMBO practical course in metabolomics and bioinformatics

Karen Segers (Participant)
16 Sep 2019 → 20 Sep 2019

Assessing the actual utility of capillary electrophoresis-mass spectrometry for metabolic profiling of human plasma.

W. Zhang (Speaker), Karen Segers (Contributor), Debby Mangelings (Contributor), Ann Van Eeckhaut (Contributor), T. Hankemeier (Contributor), Yvan Vander Heyden (Contributor) & R. Ramautar (Contributor)
15 Sep 2019 → 18 Sep 2019

HPLC 2019: the 48th International Symposium on High-Performance Liquid Phase Separations and Related Techniques, 16-20th June 2019, Milan, Italy.

Karen Segers (Participant)
16 Jun 2019 → 20 Jun 2019

CE-MS-based profiling of cationic plasma metabolomics from a mouse model for acute epileptic seizures.

Karen Segers (Speaker), W. Zhang (Contributor), Debby Mangelings (Contributor), T. Hankemeier (Contributor), Dimitri De Bundel (Contributor), Yvan Vander Heyden (Contributor), Ilse Smolders (Contributor), Rawi Ramautar (Contributor) & Ann Van Eeckhaut (Contributor)
20 May 2019

Comparison of Unispray and Electrospray for the ionization of neuropeptides.

Jana Bongaerts (Speaker), Yannick Van Wanseele (Contributor), Laurence Van Oudenhove (Contributor), Karen Segers (Contributor), Marijn Van Hulle (Contributor), Dimitri De Bundel (Contributor), Ilse Smolders (Contributor), Debby Mangelings (Contributor), Yvan Vander Heyden (Contributor) & Ann Van Eeckhaut (Contributor)
20 May 2019

ROLDUC2019, 4th NVMS-BSMS Conference on Mass Spectrometry.

Karen Segers (Participant)
31 Mar 2019 → 2 Apr 2019

Leiden Academic Centre for Drug Research

Karen Segers (Participant)
17 Sep 2018 → 28 Feb 2019

DA-PBA 2018: The 11th International Symposium on Drug Analysis & the 29th International Symposium on Pharmaceutical And Biomedical Analysis.

Karen Segers (Participant)
9 Sep 2018 → 12 Sep 2019

BSMS Annual Meeting 2018

Karen Segers (Participant)
29 Mar 2018

ORAL PRES.: Comparative classification study of Polygonum cuspidatum and Polygonum multiflorum samples based on their UHPLC-DAD and UHPL-ESI-QTOF fingerprints.

Johan Viaene (Speaker), Karen Segers (Contributor), Mourad Kharbach (Contributor), Bieke Dejaegher (Contributor), Debby Mangelings (Contributor) & Yvan Vander Heyden (Contributor)
28 Aug 2017 → 1 Sep 2017

45th International Symposium on High Performance Liquid Phase Separations and Related Techniques (HPLC 2017)

Karen Segers (Participant)
19 Jun 2017 → 22 Jun 2017

BSMS Annual Meeting

Karen Segers (Participant)
8 Feb 2017

ORAL PRES.: The application of superchargers to increase nanoUHPLC-MS/MS method sensitivity when quantifying the neuropeptide neuromedin U.

Yannick Van Wanseele (Speaker), Karen Segers (Contributor), Johan Viaene (Contributor), Yvan Vander Heyden (Contributor), Dimitri De Bundel (Contributor), Ilse Smolders (Contributor) & Ann Van Eeckhaut (Contributor)
8 Feb 2017