HPLC 2025 BRUGES BELGIUM

June 15-19, 2025

hplc2025-bruges.org

54th International Symposium on High Performance Liquid Phase Separations & Related Techniques

The Bruges Meeting & Convention Centre (BMCC)

FINAL PROGRAM

Contact: **Symporg SA**, Rue Rousseau 30, 1201 Geneva / Switzerland
contact@hplc2025-bruges.org

16.06.2025

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MOBILE APPLICATION

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Event Code
hplc2025

Login Details
Your user name and passwords have been sent by email to your address used for the HPLC 2025 registration. You can ask the staff at the registration desk for any help regarding the app.

WELCOME FROM THE CHAIRS

Dear HPLC delegate,

It is a great pleasure to welcome you to the HPLC 2025 Bruges. Having the great honour to chair the 54th edition of this prestigious symposium series, we are proud to offer you a scientific program featuring 227 outstanding oral presentations (including 5 plenaries and 40 young scientist short orals) given by a panoply of leading experts and emerging talents in analytical separation science.

The scientific program basically runs in 3 parallel streams, with a 4th stream added on Wednesday and Thursday to give 40 emerging young scientists a chance to earn an oral presentation credit while simultaneously competing for the Best Poster Pitch Award. The latter is complimentary to the regular Best Poster Competition, which will be held during two Poster & Exhibition fests on Monday and Tuesday afternoon, culminating in the top 20-final on Wednesday noon.

Packed with over 45 exhibitors showcasing their newest products, we're confident the exhibition and catering hall will serve as the vibrant heart of the conference. Also because we are stimulating interactions between vendors and delegates via our €500 Exhibition MVP (Most Valuable Participant) award. And to further acquaint yourself with the latest technological innovations for enhancing your analysis or upgrading your lab, we also gladly offer you a selection of 14 vendor seminars, held from Monday to Wednesday immediately following lunch breaks.

Another not-to-miss event will be HPLC's proper "Chromatography 's Got Talent" show held right after Monday's lectures, wherein you will decide on the winners of the Science Slam and HPLC Tube competitions while simultaneously participating in the first edition of the "Who Wants to Be a Chromatography Millionaire?" audience quiz.

Please also don't miss the "Quo Vadis HPLC in Industry" debate on Tuesday evening. Based on your own input (collected via the ideation board at the exhibition entrance), this promises to be very vivid and insightful. And yet another event we're glad to host is the first edition of an Education in Separation Science workshop (Wednesday morning) where you can share teaching experiences with your colleagues and get new inspiration for your lectures.

Other satellite event we would like to promote are the Career Accelerator Program (incl. a workshop, testimonial panel and job fair), Simone Dimartino's Innovation Hub and the Icebreaker Corner in the lounge area, the place to go to connect with new people.

And of course, we also hope that, after the program, you will be able to take the opportunity to enjoy the beautiful city of Bruges and its many historic sites and savour Belgium's lavish food and drink culture.

Have a great conference!


Gert Desmet


Sebastiaan Eeltiink


Ken Broeckhoven


Frederic Lynen


Deirdre Cabooter


Pat Sandra

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*member of the HPLC Permanent Scientific Committee (PSC)

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HISTOY OF THE HPLC CONFERENCES AND FUTURE MEETINGS

Since its first edition in 1973 in Interlaken, Switzerland, the HPLC Symposium Series has established itself as the world's most important conference series in separation sciences. The conference provides an international forum for the discussion of advances in the field of liquid phase and related technologies; it has a strong methodological and technological focus. The topics of these conferences comprises fundamentals of separation science, especially liquid chromatography (HPLC, UHPLC) and supercritical fluid chromatography, their coupling with mass spectrometry, multidimensional separations, sample preparation and their applications in various fields. In addition, capillary separations, microfluidic, nanofluidic and chip separations, diagnostic systems and other leading technologies are also discussed. The meetings are held alternately in Europe (odd years) and the United States (even years). Since 2008 an additional meeting has been organized in Asia/Pacific.

Year	No.	Location	Chair(s)
1973	1st	Interlaken, Switzerland	Willy Simon
1975	2nd	Wilmington, USA	Jack J. Kirkland
1977	3rd	Salzburg, Austria	Joseph F.K. Huber
1979	4th	Boston, USA	Barry L. Karger
1981	5th	Avignon, France	Georges Guiochon
1982	6th	Cherry Hill, USA	Robert Bardford
1983	7th	Baden-Baden, Germany	Klaus Peter Hupe
1984	8th	New York City, USA	Csaba Horvath
1985	9th	Edinburgh, UK	John H. Knox
1986	10th	San Francisco, USA	Ronald E. Majors
1987	11th	Amsterdam, The Netherlands	Hans Poppe
1988	12th	Washington, USA	Georges Guiochon
1989	13th	Stockholm, Sweden	Douglas Westerlund
1990	14th	Boston, USA	Barry L. Karger
1991	15th	Basel, Switzerland	Fritz Erni
1992	16th	Baltimore, USA	Fred E. Regnier
1993	17th	Hamburg, Germany	Klaus K. Unger
1994	18th	Minneapolis, USA	Larry D. Bowers and Peter W. Carr
1995	19th	Innsbruck, Austria	Wolfgang Lindner
1996	20th	San Francisco, USA	William S. Hancock
1997	21st	irmingham, UK	Anthony F. Fell
1998	22nd	St. Louis, USA	Daniel W. Armstrong
1999	23rd	Granada, Spain	Emilio Gelpi
2000	24th	Seattle, USA	Edward S. Yeung
2001	25th	Maastricht, The Netherlands	Hans Poppe and Henk Lingeman
2001	-	Kyoto, Japan	Nobuo Tanaka and Shigeru Terabe
2002	26th	Montreal, Canada	Irving W. Wainer
2003	27th	Nice, France	Antoine M. Siouffi
2004	28th	Philadelphia, USA	Mark R. Schure
2005	29th	Stockholm, Sweden	Douglas Westerlund
2006	30th	San Francisco, USA	John H. Frenz
2007	31st	Gent, Belgium	Jacques Crommen and Pat Sandra
2008	32nd	Baltimore, USA	Georges Guiochon and Steven Jacobson
2008	33rd	Kyoto, Japan	Koji Otsuka and Nobuo Tanaka
2009	34th	Desden, Germany	Christian Huber
2010	35th	Boston, USA	Steven A. Cohen
2011	36th	Budapest, Hungary	Attila Felinger
2011	37th	Dalian, China	Yukui Zhang and Peter Schoenmakers
2012	38th	Anaheim, USA	Frantisek Svec
2013	39th	Amsterdam, The Netherlands	Peter Schoenmakers
2013	40th	Hobart, Australia	Paul Haddad
2014	41st	New Orleans, USA	J. Michael Ramsey
2015	42nd	Geneva, Switzerland	Gérard Hopfgartner
2015	43rd	Beijing, China	Guibin Jiang
2016	44th	San Francisco, USA	Robert T. Kennedy
2017	45th	Prague, Czech Republic	Michal Holčapek and František Foret
2017	46th	Jeju Island, Korea	Doo Soo Chung
2018	47th	Washington, DC, USA	Norman Dovichi
2019	48th	Milan, Italy	Alberto Cavazzini and Massimo Morbidelli
2019	49th	Kyoto, Japan	Koji Otsuka
2020	-	San Diego, USA	Mary J. Wirth (postponed due to COVID pandemic)
2022	50th	San Diego, USA	Frantisek Svec
2023	51st	Düsseldorf, Germany	Michael Lämmerhofer and Oliver J. Schmitz
2024	52nd	Denver, USA	Susan Olesik
2024	53rd	Dalian, China	Guowang Xu
2025	54th	Bruges, Belgium	Gert Desmet, Ken Broeckhoven, Deirdre Cabooter, Sebastiaan Eeltink, Frederic Lynen
2026	55th	Indianapolis, USA	Todd Maloney, Jared Anderson
2027	56th	Innsbruck, Austria	Christian Huber, Gunda Köllensperger
2027	57th	Fukuoka, Japan	Yasushi Ishihama, Kenji Hamase

SOCIAL EVENTS

SUNDAY, JUNE 15, 2025 — 4:30pm – 6:45pm
OPENING CEREMONY
Concertgebouw Bruges, 't Zand 34, 8000 Brugge

The opening ceremony will take place at the Concertgebouw, situated by the 't Zand Place, 350 meters from the Conference Centre.

SUNDAY, JUNE 15, 2025 — 7:00pm – 9:00pm
WELCOME RECEPTION IN THE EXHIBITION
Conference Centre, BMCC – Exhibition Hall

The welcome reception will take place at the Conference Centre BMCC, in the exhibition hall on the groundfloor.

MONDAY, JUNE 16, 2025 — 6:45pm – 8:00pm
PRE-DINNER COCKTAIL
Conference Centre, BMCC – Exhibition Hall

Sponsored by ThermoFisher SCIENTIFIC, KNAUER, RIC group

WEDNESDAY, JUNE 18, 2025 — 7:00pm – 11:30pm
CONFERENCE DINNER
La Brugeoise, Vaartdijkstraat 7, 8200, Brugge

Buses will be available near the BMCC for a 10-minute ride to La Brugeoise. Please follow the instructions from the HPLC staff for directions. If the weather is good, you may also enjoy a pleasant walk along the river to La Brugeoise. HPLC staff will assist you in finding your way to the venue. Return buses to the BMCC will be available starting at 10:00 pm.

THURSDAY, JUNE 19, 2025 — 1:00pm – 1:30pm
AWARD CEREMONY
Conference Centre, BMCC – Exhibition Hall

To maximize the cheering, the winners of the various competitions will be presented with their prizes during a compact yet festive ceremony in the exhibition hall during lunch on Thursday.

THURSDAY, JUNE 19, 2025 — 3:15pm – 3:45pm
FAREWELL DRINK
Conference Centre, BMCC – The View, Level 4

As HPLC 2025 Bruges draws to a close, let's come together one final time to reflect on the meaningful experiences we've shared. Raise a glass, connect with fellow attendees, and exchange your last insights and memories before returning to your loved ones. Every participant and their accompanying person are warmly invited to join. Wishing you all a pleasant and safe journey home!

CHROMATOGRAPHY'S GOT TALENT

MONDAY, JUNE 16, 2025 5:30pm – 6:50pm

CHROMATOGRAPHY'S GOT TALENT

Conference Centre, BMCC – Auditorium A&B, Level 1

Get ready for an exciting new addition to the program: the finals of Thermo Fisher Scientific's HPLC Tube and KNAUER's Science Slam in a dynamic, interactive show hosted by Rich Whitworth (The Analytical Scientist).

With €1,250, €750, and €500 up for grabs in the two competitions, you — the audience — will serve as the sole jury, voting live via an online poll to select the winners.

But that's not all — everyone can take part in our brand-new online quiz: "Who Wants to Be a Chromatography Millionaire?", generously sponsored and organized by the RIC Group, with €500, €300, and €100 prizes for the top three participants.

Time to brush up on your chromatography basics — it's going to be a show you won't want to miss!

Program

5:30pm	Welcome & Warm-up quiz questions
5:45pm	Finals HPLC Tube
6:05pm	Second Round of quiz questions
6:15pm	Finals Science Slam
6:35pm	Final quiz questions + announcement of Tube & Slam & Quiz winners

DEBATE SESSION "QUO VADIS HPLC IN INDUSTRY"

TUESDAY, JUNE 17, 2025 5:30pm – 6:30pm

DEBATE SESSION "Quo Vadis HPLC in industry"

Conference Centre, BMCC – Auditorium A&B, Level 1

Current challenges and future opportunities for HPLC analysis in industry

Using ideas and remarks spawned by the delegates via 2 ideation boards (initiative from and graciously sponsored by Merck) and those collected among the participants of the industry leadership track, the perfect ingredients will be available to entertain a vivid debate on the current challenges and future needs for chromatographic analysis in industry.

Moderators and Panel Members:

- Dave Bell (Askprime)
- Steve Groskreutz (Eli Lily, USA)
- Elia Psillakis (Technical Uni Crete, Greece)
- Stefan Lamotte (BASF, Germany)
- Michael Laemmerhofer (Uni Tuebingen, Germany)
- Paul Ferguson (Astra Zeneca, UK)
- Isabelle Francois (Chromisa, Belgium)

Please share your thoughts, concerns, ideas on the future of HPLC with us on the ideation boards located at the entrance of the exhibition hall

COMPETITIONS AWARDS

CSABA HORVÁTH YOUNG SCIENTIST AWARD

About the Award

The purpose of the Award is to honor the memory of Csaba Horváth and recognize his contributions to HPLC, including his interest in fostering the careers of young people in separation science and engineering. The award includes an invitation to speak at the HPLC 2024 Symposium, a grant to support travel to that meeting, and a trophy engraved with the winner's name. The award is sponsored by HPLC, Inc. The award will be presented during the Closing Ceremony on Thursday, June 22.

Eligibility Criteria

All presenters of oral contributions (excepting past winners) who are less than 35 years of age at the time of their lecture are eligible for consideration. Candidates will be required to provide evidence of eligibility (e.g., passport, driver's license).

Selection Process

The Scientific Committee selects abstracts for inclusion in the oral program. An Award Jury judges the eligible presentations and chooses a winner. The winner will be announced at the Closing Ceremony.

About Csaba Horváth

Professor Csaba Horváth (1930-2004) was born in Hungary and graduated in chemical engineering from the Budapest Institute of Technology. After receiving his Ph.D. in physical chemistry at the J.W. Goethe University in Frankfurt under the direction of Prof. Halász, he immigrated to the United States in 1963 and started research at the Harvard Medical School. In the following year, Dr. Horváth moved to Yale where he designed and built the first high performance liquid chromatograph to demonstrate the feasibility and potential of HPLC in bioseparation sciences. He chaired the Department of Chemical Engineering at Yale from 1987 to 1993 and was named as Roberto C. Goizueta Professor of Chemical Engineering in 1998. Professor Horváth contributed close to 300 publications to the field of separation sciences and had nine patents. His main topics were all fundamental aspects of separations, including instrumentation, stationary phase designs, and mechanisms of separation processes, as well as their application mainly to biological and biomedical research, especially for the high-resolution separation of proteins and peptides.

Past recipients of the Csaba Horváth Young Scientist Award

HPLC 2006	San Francisco, USA – Norma Scully, University of Cork, Ireland
HPLC 2007	Gent, Belgium – Caterina Temporini, University of Pavia, Italy
HPLC 2008	Baltimore, USA – Jude Abia, University of Tennessee, USA
HPLC 2009	Dresden, Germany – André de Villiers, Stellenbosch University, South Africa
HPLC 2010	Boston, USA – Jesse Omamogho, University College Cork, Ireland
HPLC 2011	Budapest, Hungary – Matthias Verstraeten, Free University of Brussels, Belgium
HPLC 2012	Anaheim, USA – Stefan Bruns, Philipps-University Marburg, Germany
HPLC 2013	Amsterdam, The Netherlands – James Grinias, University of North Carolina Chapel Hill, USA
HPLC 2014	New Orleans, USA – William Black, University of North Carolina Chapel Hill, USA
HPLC 2015	Geneva, Switzerland – Andrea Gargano, University of Amsterdam, The Netherlands
HPLC 2016	San Francisco, USA – Simone Dimartino, University of Edinburgh, UK
HPLC 2017	Prague, Czech Republic – Bob Pirok, University of Amsterdam, The Netherlands
HPLC 2018	Washington, DC, USA – Martina Catani, Università degli Studi di Ferrara, Italy
HPLC 2019	Milan, Italy – Sebastian Piendl, University of Leipzig, Germany
HPLC 2022	San Diego, USA – Brady Anderson, University of Michigan, Ann Arbor, MI, USA
HPLC 2023	Dusseldorf - Simona Felleti, University of Ferrara, Italy
HPLC 2024	Denver - Devon Makey, University of Michigan, USA

HPLC 2025 Bruges Csaba Horváth Young Scientist Award Finalists

Rick van den Hurk, University of Amsterdam	OR02 – Monday, June 16 - 9:35am / 9:55am
Bram Huygens, Vrije Universiteit Brussel	OR12 – Monday, June 16 – 11:50am / 00:10pm
Clara Whyte Ferreira, University of Liège	OR26 – Monday, June 16 – 9:15am / 9:35am
Christina Brenner, y, University of Vienna	OR28 – Monday, June 16 – 9:55pm / 10:15am
Emery Bosten, KU Leuven	OR37 – Tuesday, June 17 – 0:10pm / 0:30pm
Jonathan Maurer, University of Geneva	OR42 – Tuesday, June 17 – 11:30am / 11:50am
Oskar Munk Kronik, University of Copenhagen	OR62 – Wednesday, June 18 – 11:50am / 0:10pm
Hannes Westphal, Leipzig University	OR75 – Wednesday, June 18 – 3:40pm / 4:00pm
Gaëlle Spileers, Ghent University	OR83 – Wednesday, June 18 – 5:15pm / 5:35pm
Katerina Hruzova, Masaryk University	OR89 – Wednesday, June 18 – 5:35pm / 5:55pm

POSTER AWARDS

Presentation of scientific work on a poster is an essential part of the scientific program of the HPLC Symposium Series. A poster is an efficient way to disseminate, share, and discuss the results of liquid phase separation research, progress in new instrumentation and separation method development, applications in life science research, (bio)pharmaceutical product R&D, for the safety and authenticity of consumer goods, in forensics, and environmental monitoring and protection with one's peers.

Agilent Technologies

This year, poster presenters have the opportunity to participate in **two main separate competitions**, both generously sponsored by Agilent Technologies. In addition, there are also **5 topical poster awards** that will be awarded.

The first main competition, the "**Best Poster Competition**", will award 3 prizes (€ 1,500; € 1,250; € 750) to the posters that showcase innovative work in a clear, engaging manner and are presented with competence during one-on-one interactions with the jury. The second main competition, the "**Young Scientists Poster Pitch Competition**", will recognize the 3 young scientists who can best 'sell' the work in their poster in a 5-minute pitch talk (€ 1,500; € 1,250; € 750). Admission to the latter competition was based on abstract reviews. Selected papers are presented as a short oral during the Young Scientists Poster Pitch sessions on Wednesday and Thursday held in Auditorium B.

All participating posters will be reviewed by an international panel of scientific experts, headed by Dr. Deirdre Cabooter as chairperson. The reviewers will be evaluating all participating posters and poster pitches using the following criteria:

- Novelty, originality, and creativity of the work
- The scope of the work, the quality of the experimental design, and practical execution
- The presentation of the poster, especially the author's presence, and explanation during the designated poster session or the Young Scientists Poster Pitch sessions
- Impact of the work

Among the abstracts accepted as poster, around 250 posters participate in the HPLC 2025 "**Best Poster Competition**". All selected posters are marked accordingly. In the first round of evaluation, held during the designated poster session, reviewers will select the top 20 poster for a second-round review. The selected candidates should present their nominated poster on Wednesday 10:15am-10:45am and 1:15pm-2:15pm in the Top-20 poster area in the exhibition hall.

Next to this, there is also a series of **topical poster awards** that can be won for specific sub-categories:

- € 500 for best poster on "Sustainability Awareness" generously sponsored by **KNAUER** and to be selected among all posters showing an AGREEprep calculation
- € 500 for best poster on "Biopharmaceutical Analysis" generously sponsored by **RIC group**
- € 500 for best poster on "Pharmaceutical Analysis" generously sponsored by **Janssen Pharma**
- € 500 for best poster on "Method Development and Retention Modelling" generously sponsored by **Waters**
- € 250 for best poster on "Sample Preparation" generously sponsored by the **Division of Analytical Chemistry of the EuChemS**

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Division of Analytical Chemistry

HPLC TUBE

HPLC Tube : Shorter, Sharper, Smarter!

Since its introduction in 2019, HPLC Tube has provided a unique and enjoyable opportunity for scientists to creatively express themselves and unwind at the HPLC conference. This year, the excitement continues, generously sponsored by Thermo Fisher Scientific, offering prizes of €1,250 for first place, €750 for second place, and €500 for third place. New this year is that the winner be selected by through an electronic audience poll, and that the competition is open to groups and all age categories.

What else is new this year?

We're making it easier for everyone to join in! This year, we invite scientists to create short videos (up to 1 minute) that showcase how your chromatography work impacts the world. No need for professional editing, just grab your smartphone and start filming. Make it informative, make it funny, make it cheesy – just make it you! This contest is open to ALL scientists, so let's see your creativity shine!

HPLC Tube 2025

This is a science competition – not a scientific presentation. It's about bringing your research closer to the HPLC 2025 audience in an entertaining yet understandable way.

Rules for Participation:

1. **Format:** While we are keeping the prompt broad, we would like to provide you with some options as to how you can best create this video to resonate with your audience:
   - Infomercial. (Think science information + commercial!) Sell us on your chromatography and practices that are making the world a healthier, cleaner and safer place.
   - Sports highlights. Memorable sports moments, like a game-winning shot with a lab flair! You're the lab's Michael Jordan – what analysis is like a slam dunk?
   - Movie Trailers. Your chromatography is the newest blockbuster movie, what are the chromatographic highlights that will grab the audience's attention and make them run to buy tickets to the first showing?
2. **Content:** Make your video engaging and persuasive. Promote your chromatography research and laboratory practices with style.
3. **Creativity:** Have you ever participated in teleshopping before? Watched a game winning goal? Watched the famous "Star Wars: The Force Awakens" trailer? What grabbed your attention? Think about your audience investing in your amazing chromatography!
4. **Awards:** • Gold: €1,250 • Silver: €750 • Bronze: €500

Criteria for Evaluation

- Best video will be selected via electronic audience poll, based on scientific content, entertainment value, creativity and technical skills.
- Contributions with discriminative, insulting, or offensive language will be excluded.

Who Can Participate?

- **Eligibility:** Scientists (academic or industrial) of any age involved in research projects related to the liquid chromatography workflow (before, during, or after).
- **Submissions:** Both individual and group submissions are welcome.
- **Content:** The video must be based on the presenter's own findings or work.
- **Selection:** Based on the submitted proposals, the best contributions will be selected for the final round.

Get ready to showcase your research in the most entertaining way possible and take part in the 2025 HPLC Tube, sponsored by Thermo Fisher Scientific.

ThermoFisher SCIENTIFIC

SEPARATION SCIENCE SLAM

An event that has been unmissable at HPLC conferences since its introduction in 2019 is the Separation Science Slam, which this year is once again generously sponsored by KNAUER (resp. € 1,250; € 7,50 and € 500 for the nrs. 1, 2 and 3). New this year is that the winner be selected by through an electronic audience poll, and that the **competition is open to groups and all age categories**.

Who will be the first professor daring to take on the challenge?

The Separation Science Slam

- The Separation Science Slam is a science competition –not a scientific presentation. It is about bringing your own research closer to the HPLC 2025 audience in an entertaining but understandable way.
- You are on stage and have 3 minutes to impress the HPLC 2025 attendees with free speech, animated PowerPoint presentations, illustrative images, a poem, a rap, a cabaret, ...your creativity!
- **Awards:** • Gold: €1250 • Silver: €750 • Bronze: €500

Criteria for evaluation

- Best performance will be selected via electronic audience poll, insisting contributions would be judged, in addition to the scientific content, the entertainment value, comprehensibility, creativity and technical skills.
- Contributions with discriminative, insulting, or offensive language will be excluded.

Who can participate?

- Scientists (academic or industrial) of any age involved in research projects related to the liquid chromatography workflow (before, during or after).
- Submissions from individuals or groups are welcome.
- The presentation must be based on the presenter's own findings or work.
- Based on the submitted proposal, the best contributions will be selected for the final round

KNAUER

EXHIBITION MVP (MOST VALUABLE PARTICIPANT)

The HPLC 2025 Bruges organization will offer a € 500 cheque to the person who had the most and best interactions with our exhibitors in our unique "Exhibition MVP (Most Valuable Participant)" competition. Winner will be the one who's badge got scanned most in the different exhibitor booths. Should there be a tie, the winner will be drawn by an impartial hand.

The scan count will conclude following the final morning coffee break on Thursday at 10:45 am.

To get things started, we'll use generative AI to do a presenter-vendor pairing and provide each presenter who submitted an abstract with a list of the 5 companies selling a technology that is most relevant for the topic of the presenter's abstract.

HPLC 2025
BRUGES BELGIUM

AWARDS

CHROMATOGRAPHIC SOCIETY MARTIN MEDAL

In 1978 Professor Archer. J.P Martin gave permission for his name to be associated with the 'Martin Medal'.

This is awarded to scientists who have made outstanding contributions to the advancement of separation science.

https://chromsoc.com/martin-medal

Winner of the Martin Medal 2025:
Prof. **Boguslaw Buszewski**
Nicolaus Copernicus University, Poland

CHROMATOGRAPHIC SOCIETY JUBILEE MEDAL

Created in 1982 to mark the 25th anniversary of the Society, the 'Jubilee Medal' is awarded to up-and-coming separation scientists, those who have made major use of separation science in their own field or to scientists who have made important contributions to a particular area of separation science.

Winners of the Silver Jubilee Medal 2025:
Prof. **Elia Psilakis**, Technical University of Crete, Greece

https://chromsoc.com/jubilee-medal

J. F. K. HUBER LECTURE AWARD

The J. F. K. Huber Lecture Award is presented by the Austrian Society of Analytical Chemistry (ASAC). This Award was created in 2014 to honor scientists who have made major contributions to the advancement of HPLC in theory and practice. Prof. Joseph Franz Karl Huber (1st January 1925 – 15th August 2000) who gives this Award the name, received his doctoral degree in 1960 about a physico-chemical topic under the supervision of Prof. Erica Cremer of the University Innsbruck (Austria). 1964 Joseph Huber moved to the Free University of Amsterdam.

In 1974 he moved back to Austria accepting the Chair of Analytical Chemistry at the University of Vienna where he became Emeritus in 1995. He is considered as one of the founding fathers of HPLC whereby his vision of the impact of small particles on the high efficiency of LC and of multidimensional LC marks the two corner stones of his research.

Awardee 2025 is:
Prof. **Caroline West** (University of Orléans, France)
The Award will be presented during the Session "SFC"
on Monday, June 16 from 15:50 to 16:15, in The View, level 4.

Past Awardees

2014	Attila Felinger (Pécs, Hungary) at ISC 2014 Salzburg
2017	Gert Desmet (Brussels, Belgium) at HPLC 2017 Prague
2019	Fabrice Gritti (Milford, MA, USA) at HPLC 2019 Milano
2021	Michael Lämmerhofer (Tübingen, Germany) at Analytica virtual 2020
2022	Alberto Cavazzini (Ferrara, Italy) at ISC 2022 Budapest
2023	Deirdre Cabooter (Leuven, Belgium) at HPLC 2023 Duesseldorf
2024	Torgny Fornstedt (Karlstad, Sweden) at ISC 2024 Liverpool

UWE D. NEUE AWARD IN SEPARATION SCIENCE

About the Award

The Uwe D. Neue Award was created to recognize scientists that have made and continue to make significant contributions to the field of separation science, in honor of the legacy of Dr. Uwe D. Neue, late scientist and Waters® Corporate Fellow.

Eligibility Criteria

The award will honor a distinguished industrial scientist, 15-20 years or more after receiving his or her degree, who has made a significant contribution to the field of separation science. In addition, the awardee should be an industrial scientist, and one who was instrumental in the embodiment of technology in commercial products.

Awardees

The award recipient will receive a commemorative plaque, a $7,500 check and travel support. The recipient of the 2025 Uwe D. Neue Award in Separation Science is **Tivadar Farkas** (Tbilisi State University).

Dr. Farkas will present a research lecture during the Session “Chiral” on Tuesday, June 17 from 08:55 to 09:15 in The View, level 4.

The award is sponsored by Waters.

Waters™

Past Awardees

HPLC 2013	Dr. Jack Kirkland
HPLC 2014	Dr. Gerard Rozing
HPLC 2015	Dr. Mark Schure
HPLC 2016	Dr. Lloyd Snyder
HPLC 2017	Dr. Andrew Alpert
HPLC 2018	Christopher Pohl
HPLC 2019	Dr. Christopher Welch
HPLC 2022	Dr. John Dolan
HPLC 2023	Dr. Thomas H. Walter
HPLC 2024	Dr. Miroslav Janco

GENERAL INFORMATION

Mobile Application for HPLC 2025

A Conference Mobile Application will be available for all participants. It enables you to get the most out of the conference: create your personalized agenda, interact with participants, have a swift access to the practical information, and much more.

The use of the app is free of charge. For information on downloading the app, please see page 4.

Badges

Badges will be delivered at HPLC 2025 registration desk. All participants and exhibitors have to wear the name badge in the conference area completely visible at all times. In case you have lost your name badge, please report at the registration desk.

No conference bags will be distributed to participants.

Breaks – (Coffee breaks and lunches)

Coffee, tea and soft drinks as well as a lunch buffet will be served in the exhibition during the coffee / lunch breaks.

Buffets are free for registered participants and accompanying persons. Please wear your name badge throughout the congress.

Certificate of Attendance

A certificate of attendance will be sent out by e-mail to all participants after the conference.

Cloakroom

You can leave your wardrobe and, if necessary, your luggage in the cloakroom, which is located on the ground floor of the BMCC. Please note, that the organizer assumes no liability for wardrobe, valuables and any kind of damages.

The cloakroom is open at the following times:

- Sunday, June 18 08:00 a.m. – 10:00 p.m.
- Monday, June 19 08:00 a.m. – 9:00 p.m.
- Tuesday, June 20 08:00 a.m. – 08:30 p.m.
- Wednesday, June 21 08:00 a.m.–07:00 p.m.
- Thursday, June 22 08:00 a.m. – 05:00 p.m.

Exhibition Area

The exhibition is an important component of the conference. Take the opportunity to see the exhibitors’ newest products and speak to their representatives. Please take the time to acknowledge the exhibitors for their generous support of the program by visiting the booths located on the ground floor of the BMCC.

You can find the list of exhibitors on page 34 (wait for programme to be finished for the exact page).

Emergency Numbers

- Police: **101**
- Fire Department: **112**
- Medical Emergencies: **112**

Electricity

Electric current in Belgium is supplied at 230 volts with a frequency of 50 Hz, just like in most European countries. The sockets in Belgium are designed for round two-pin plugs, specifically Type C and Type E. Type E sockets feature a male earth pin, and both Type C and Type E plugs are commonly used and widely compatible. If your devices use a different plug type, you will need an appropriate adapter to connect them to Belgian sockets.

Insurance and Liability

The organizers do not accept liability for personal injury or loss or damage of private property of participants and accompanying persons either during or while travelling to the conference. Participants are strongly recommended to seek insurance coverage for health and accident, lost luggage and trip cancellation.

Language

English is the official symposium language. No translation will be provided.

Lost & Found

The Lost & Found Counter is located at the registration desk at the entrance of the BMCC.

Oral Presentations

All presentations must be in Powerpoint 16:9 format. If your presentation contains videos, it is highly recommended to embed them in the PowerPoint presentation.

Speakers are requested to upload their presentation at the Speaker Room (level 2 of the BMCC) preferably on the day before the lecture but at least 2 hours before the beginning of the session.

It is not possible to bring presentations directly to the lecture hall unless you received other instructions. At the Speaker Room, speakers will have the possibility to:

- Review their power-point presentations
- Make last minute changes of power-point presentations
- Being supported by technical staff
- Upload power-point presentation in the dedicated session conference room

The Speaker Room is located on the level 2 of the BMCC and is open at the following times:

Sunday, June 15:	from 18:00 to 20:00
Monday, June 16:	from 08:00 to 19:00
Tuesday, June 17:	from 08:00 to 18:00
Wednesday, June 18:	from 08:00 to 18:00
Thursday, June 19:	from 08:00 to 11:00

Speakers are recommended to arrive in the lecture hall at least 15 minutes before the start of the session to introduce themselves to the session chairs.

Speakers are strongly recommended to respect time limits for their talks.

Kindly note that session chairs are under very strict instructions to keep their sessions on schedule. Suitable devices to control the time and communicate it to the speakers are in each session hall. There are four to five sessions running in parallel with strict time constraints.

Allocated time for your talk has been communicated by email.

Photographs Taken at HPLC 2025

Participants are not allowed to take photos or videos of the lectures or the poster presentations without the prior permission of the respective author.

Poster Sessions

Posters are located on the ground floor of the BMCC, in the Exhibition Hall. Posters will be available during the whole conference and are regrouped by topics.

Odd numbers will be presented on Monday, June 16 and even numbers will be presented on Tuesday, June 17. Poster sessions will start at 13:15 and end at 15:50.

Please refer to the exhibition hall floor plan to locate the position of your poster topic.

Topics:

- 2D-LC
- Biopharma
- Column Technology
- Doping, Drugs & Diagnosis
- Detection
- Environmental
- Food
- Ion Mobility
- Large Molecules
- LC-MS
- Method Development
- OMICS
- Pharma
- Preparative
- Retention Modeling
- Sample Preparation
- SFC
- Stationary Phases

Set-up on Sunday, June 15 from 5:30pm to 8:30pm and Monday, June 16 from 8:00am to 1:00pm. The material to hang your poster (pins) will be available at the registration desk.

Program Changes

The organizers are not liable for any changes made to the program. Updates may be found on the official website (https://www.hplc2025-bruges.org) and/or will be communicated via the symposium app.

Registration Desk Opening Hours

The registration desk is situated at the entrance hall of the Confrence Centre BMCC.

Sunday, June 15: from 08:00 am to 9:00 pm
Monday, June 16: from 07:30 am to 8:30 pm
Tuesday, June 17: from 08:00 am to 7:00 pm
Wednesday, June 18: from 08:00 am to 7:00 pm
Thursday, June 19: from 08:00 am to 4:00 pm

Registration onsite

You can register in person for either the full conference or for a single day. Payment is accepted by cash or credit card.

Cancellations and refunds

No refund will be made for cancellations.

Special Issue Publication – Elsevier - JCA

Journal of Chromatography A will be publishing a Special Issue of contributions presented at the 54th International Symposium on High Performance Liquid Phase Separations and Related Techniques (HPLC 2025), that will be held from 15 to 20 June 2025 in Bruges, Belgium. The Special Issue will cover all topics related to liquid phase separations comprising sample preparation, (U)HPLC, SFC, electro-driven separations, microfluidics, hyphenation with mass spectrometry, ion-mobility mass spectrometry, other detection technologies, multidimensional separations, data handling and analysis, machine learning and so forth as well as their applications in (bio)pharmaceutical and bioanalysis, omics, environmental and food analysis, preparative chromatography, process analytical technologies, automation and robotization, etc. The HPLC 2025 conference will have a strong focus on today's and tomorrow's practice in industrial HPLC labs.

You are invited to submit your manuscript at any time before the submission deadline. The journal's submission platform (Editorial Manager®) will be available for receiving submissions to this Special Issue from July 1, 2025 onwards. Please refer to the Guide for Authors to prepare your manuscript, and select the article type of "VSI:HPLC2025" when submitting your manuscript online.

Both the Guide for Authors and the submission portal can be found on the Journal Homepage: http://www.elsevier.com/locate/issn/0021-9673.

Submission deadline: December 31, 2025

Tourist Information - Bruges

Bruges is a charming, historic city in the heart of Belgium, often called the "Venice of the North." It is renowned as one of Europe's most picturesque destinations, celebrated for its well-preserved medieval architecture and enchanting canals.

Visitors will be delighted by attractions such as the Markt square with its iconic Belfry, the tranquil Minnewater (Lake of Love), and the bustling shopping streets lined with chocolatiers and lace boutiques.

The city's museums, including the Groeningemuseum and the Historium, offer fascinating glimpses into Bruges' rich past, while the many cozy cafés and restaurants invite you to savor Belgian specialties.

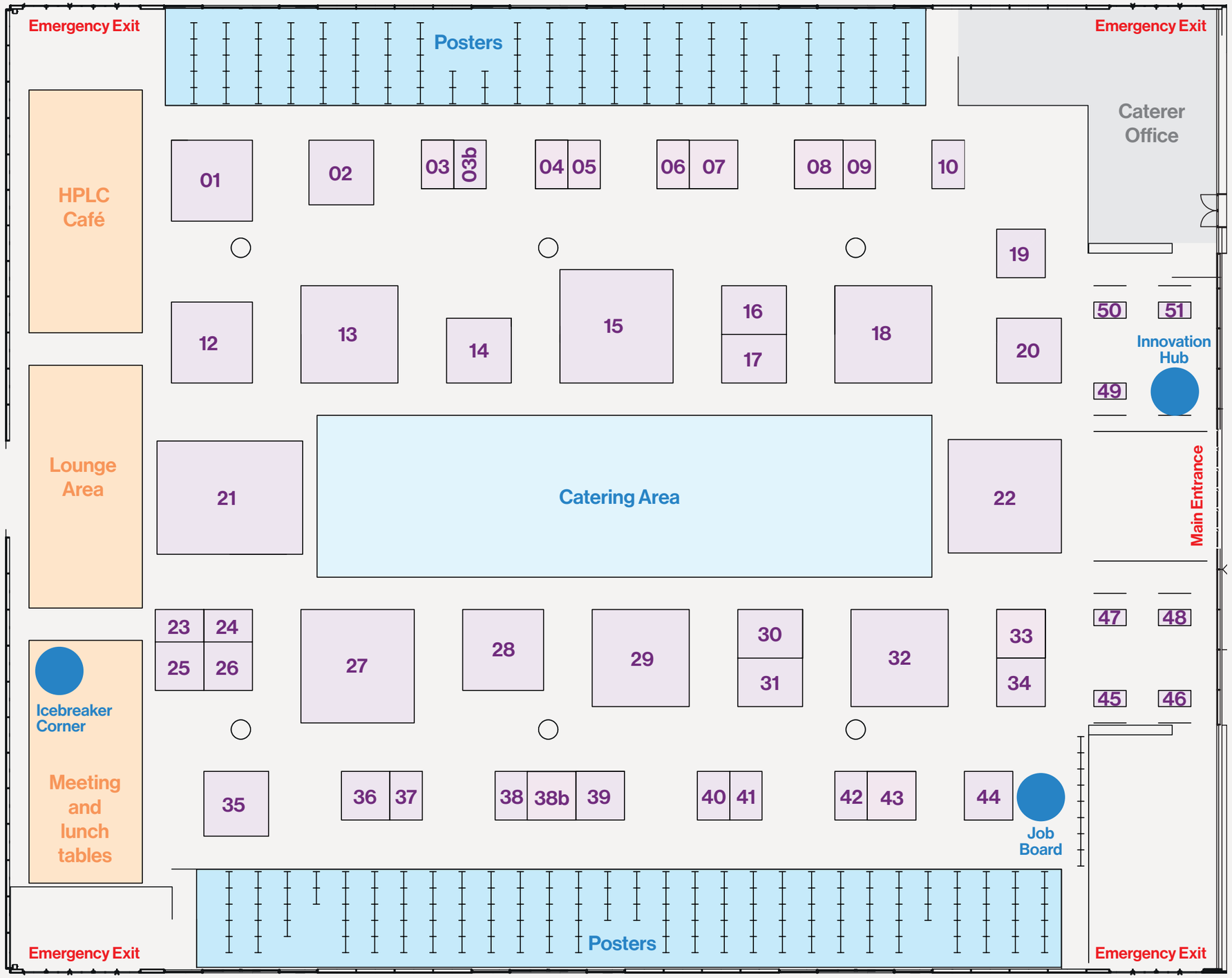
The knowledgeable staff at the Bruges Tourist Information Centre are ready to help you uncover the city's hidden gems and most scenic corners.

Visit the Bruges Tourist Information at Markt 1, 8000 Brugge, or find more information online at https://www.visitbruges.be/en.

WiFi HPLC 2025

Free WiFi is provided within the conference centre, connect to the "BMCC public" network.

EXHIBITION FLOOR PLAN



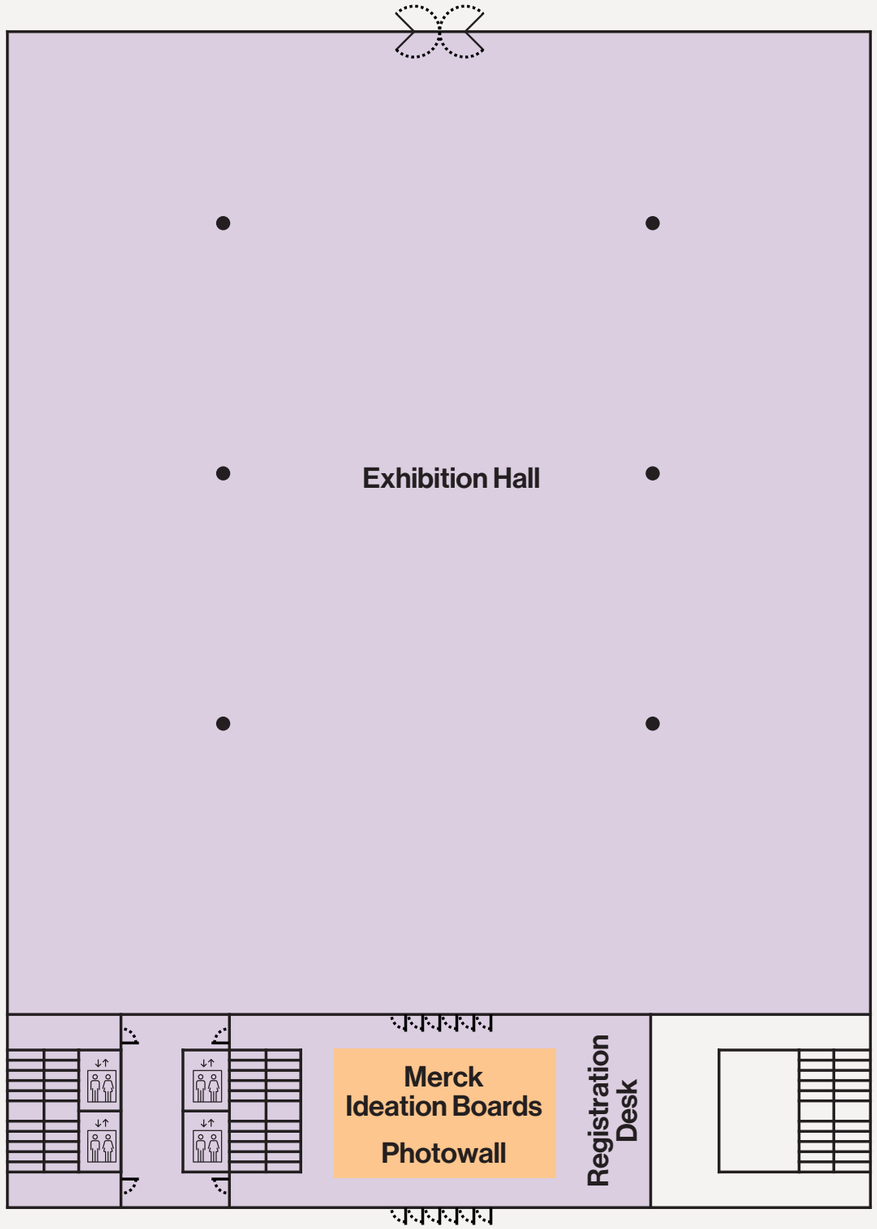
List of Exhibitors by booth number:

01 Avantor
02 RESTEK
03 Nacalai Tesque
03b Resonac Europe
04 Bioanalytic
05 Dr. Maisch
06 ChromaNik Technologies Inc.
07 VICI AG
08 GL Sciences
09 Regis Technologies Inc.
10 ACD Labs
12 Macherey Nagel
13 RIC group
14 DryLab – Molnar Institute
15 Merck
16 Phenomenex
17 IonBench / SCAT
18 Thermo Fisher
19 ECOM / Chromservis
20 CMC Instruments
21 Agilent
22 Shimadzu
23 Axcend
24 Silcotek
25 The Analytical Scientist
26 Welch Materials
27 Janssen
28 Chiral Technologies Europe
29 Knauer
30 Bohlender
31 S-Matrix Corporation
32 Waters
33 TOSOH Bioscience
34 Chromsword
35 YMC
36 Teledyne
37 Advanced Material Technology
38 SPM
38b Sepax
39 Postnova
40 Fortis Technologies
41 Bruker
42 TECAN
43 Microsolv
44 Porvair Sciences Ltd
45 HPLC 2026
46 HPLC 2027 Innsbruck
47 Book: Modern HPLC separations in theory and practice
48 ISC 2026 Prague
49 LC-GC International
50 Book: Analytical Separation Sciences
51 HPLC 2027 Kyoto

CONFERENCE CENTRE FLOORPLAN

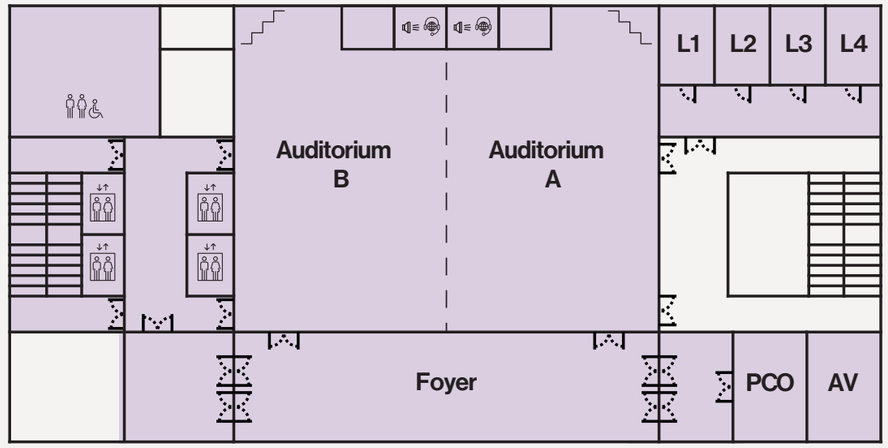
Groundfloor

- Exhibition Hall
- Poster Sessions
- Catering
- Registration Desk
- Merck Ideation Boards
- Photowall



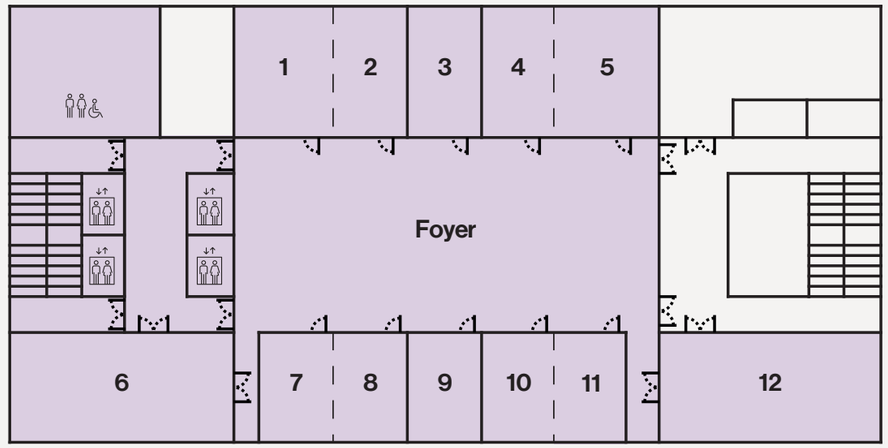
Level 1

- Auditorium A & B



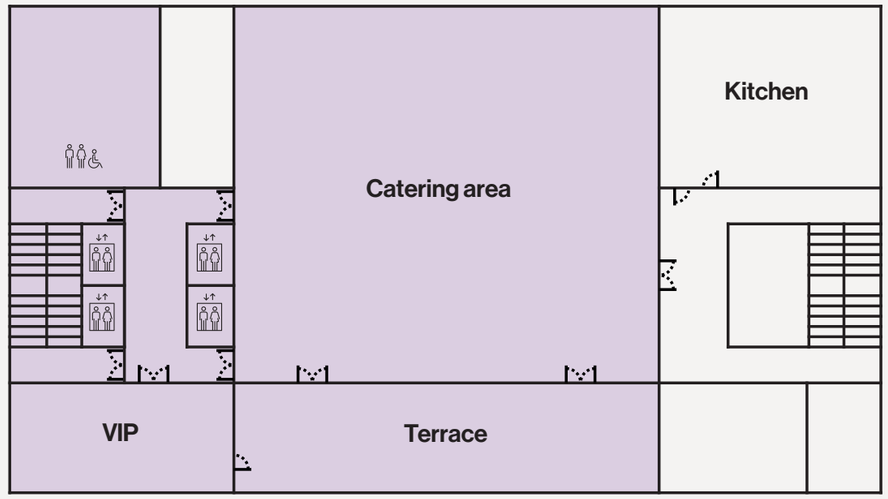
Level 3

- Foyer
- Rooms 1 - 12



Level 4

- The View
- VIP Room



CARRER ACCELERATOR PROGRAM

TUESDAY, JUNE 17, 2025 — 3:50pm–5:20pm

HPLC2025 Career Accelerator: Explore and Engage
Career Insights Session & Panel Discussion

Not sure what's next after your PhD or postdoc? Wondering if academia is still the norm? Curious about the full range of career options available to you? Interested to know what industry is really looking for?

Join the **Career Insights** session to explore diverse career paths after a PhD/Postdoc – from traditional academic roles to industry, NGOs, government, science communication, editing, entrepreneurship, and beyond.

Following this, an **interactive panel discussion** will feature experts from academia, industry, and other sectors related to separation sciences. Learn from their journeys, gain insider perspectives, and get inspired to shape your own career path.

WEDNESDAY, JUNE 18, 2025 — 4:30pm-6:15pm

HPLC2025 Career Accelerator: Connect
Speed-Dating Job Interviews

Are you a PhD student or postdoc ready to take the next step in your career? Or an employer (sponsoring or exhibition company, academic PIs), looking for top talent?

Join our speed-dating session to connect with potential employers or candidates!

Speed-dating interview format:
- Each pair meets at a designated table
- Speed-dating time: 5 minutes
- Introduce yourself, exchange contact details, and explore opportunities

HPLC2025 JOB BOARD — Whole conference

A **job board will** be available in the exhibition hall throughout the conference, where employers can showcase open positions.

SUNDAY - June 15

The short courses are taking place at the level 3 of the BMCC

09h00 - 12h00

Morning Short Courses
SC-1 Room 1
SC-2 Room 10
SC-3 Room 12
SC-4 Room 7

All Day Short Course
SC-10 Room 4

Lunch

13h00 - 16h00

Afternoon Short Courses
SC-5 Room 12
SC-6 Room 6
SC-7 Room 10
SC-8 Room 1
SC-9 Room 7

All Day Short Course
SC-10 Room 4

16h30 - 18h45

Welcome Ceremony
PL01 - K. Sandra
PL02 - K. Thurow

Concertgebouw Brugge
't Zand 34

19h00 - 21h00

Welcome Reception
BMCC
Sint-Maartensbilk 1

MONDAY - June 16

	Auditorium A+B, Level 1	Foyer, Level 3	The View, Level 4	VIP Room, Level 4
08h30 - 10h15	**MO-01 Multidimensional LC**	**MO-02 Lab Automation**	**MO-03 Column Technology**	
	KN01 D. Guillarme	**KN03** P. Mieville	**KN05** B. Zhang	
	KN02 O. Schmitz	**KN04** T. Teutenberg	**OR07** T. Walter	
	OR01 S. Chapel	**KN04'** C. Haas	**OR08** D. Yeung	
	OR02 R. van den Hurk**	**OR05** T. Leek	**OR09** K. Horvath	
	OR03 J. Dale	**OR06** G. Schad	**OR10** J. Zhao	
	Coffee Break 30'			
10h45 - 12h30	**MO-04 Fundamentals**	**MO-05 Data & ML**	**MO-06 3D printing & miniaturization**	
	KN06 F. Gritti	**KN08** B. Pirok	**KN10** L. Mondello	
	KN07 A. Felinger	**KN09** J. Richert	**KN11** M. Breadmore	
	OR11 A. Adrover	**OR14** R. Peters	**OR17** M. Belka	
	OR12 B. Huygens**	**OR15** R. Cunha	**OR18** S. Dimartino	
	OR13 J. Samuelsson	**OR16** I. Niezen	**OR19** J. Anspach	
	Lunch			
13h15 - 15h50		**Vendor Seminars** **Agilent** - Room 1, level 3 **Avantor** - Room 12, level 3 **Knauer** - The View, level 4 **Shimadzu** - Room 4, level 3		13h30 - 17h30
	Poster & Exhibition			**Industry Leadership Track 1**
15h50 - 17h20	**MO-07 Oligomer Separations 1**	**MO-08 (Bio)Particle Separations 1**	**MO-09 SFC**	
	KN12 D. Stoll	**KN14** L. Nilsson	**KN16** C. West*	
	KN13 M. Gilar	**KN15** G. Somsen	**KN17** L. Novakova	
	OR20 S. Fekete	**OR22** T. Kubo	**OR24** K. Faure	
	OR21 T. Fornstedt	**OR23** R. Drexel	**OR25** S. Olesik	
	Technical Break 10'			
17h30 - 18h50	Auditorium A+B, Level 1			
	«Chromatography's got talent» Separation Science Slam HPLC Tube Who wants to be a Chromatography Millionaire?			
18h50 - 20h00	**Pre-Dinner Cocktail**			

TUESDAY - June 17

	Auditorium A+B, Level 1	Foyer, Level 3	The View, Level 4	VIP Room, Level 4
08h30 - 10h15	**TU-01 LC-MS**	**TU-02 Stationary Phases**	**TU-03 Chiral**	08h30 - 12h30
	KN18 Alexander Makarov	**KN20** M. Catani	**KN22** M. Laemmerhofer	
	KN19 G. Hopfgartner	**KN21** C. Pohl	**KN23** T. Farkas*	
	OR26 C. Whyte Ferreira**	**KN21'** K. Otsuka	**OR32** B. Chankvetadze	
	OR27 R. Giraud	**OR30** Y. Chen	**OR33** S. Felletti	
	OR28 C. Brenner**	**OR31** H. Qiu	**OR34** D. Mangelings	
	Coffee Break 30'			**Industry Leadership Track 2**
10h45 - 12h30	**TU-04 Method Development**	**TU-05 Bioseparations**	**TU-06 HILIC separations**	
	KN24 P. Schoenmakers	**KN26** M.-L. Riekkola	**KN28** M. Schure	
	KN25 K. Schug	**KN27** S. Wilson	**OR41** T. Ikegami	
	OR35 M. Besenhard	**OR38** B. Buszweski*	**OR42** J. Maurer**	
	OR36 J.-R. Torres-Lapasio	**OR39** T. Chen	**OR43** J. Jiang	
	OR37 E. Bosten**	**OR40** J. De Vos	**OR44** L. Tutis	
	Lunch			
13h15 - 15h50		**Vendor Seminars** **Agilent** - Room 1, level 3 **Thermo Fischer** - The View, level 4 **Restek** - Room 12, level 3 **RIC group** - Room 4, level 3		
	Poster & Exhibition			
15h50 - 17h20	**TU-07 Proteomics**	**TU-08 Preparative Chromatography**	**TU-09 Pharmaceutical separations**	
	KN29 R. Kelly	**KN32** A. Jungbauer	**KN33** E. Regalado	
	KN30 L. Zhang	**OR46** Krauke /81	**KN34** F. Cuyckens	
	KN31 J. Yates	**OR47** L. Audoy	**OR49** G. Nys	
	OR45 J. Van Eyk	**OR48** I. Sallay	**OR50** N. J. Nielsen	**Career Workshop**
	Technical Break 10'			
17h30 - 18h30	Auditorium A+B, Level 1			
	Plenary debate «Quo vadis HPLC?»			

Room 6: **live streaming auditorium A+B or A**
Room 3: **Innovation Hub: during breaks & poster sessions** (contact simone.dimartino@ed.ac.uk)

*Award Celebration Talk
**Horváth Finalist

WEDNESDAY - June 18

	Auditorium A, Level 1	Foyer, Level 3	The View, Level 4	Auditorium B, Level 1	VIP Room, Level 4
08h30 - 10h15	**WE-01 Metabolomics and Lipidomics**	**WE-02 Sample preparation**	**WE-03 Industry stories 1**	**Tutorial 1**	
	KN35 M. Holcapek	**KN37** V. Pichon	**KN39** S. Groskreutz	L. Nilsson	
	KN36 G. Koellensperger	**KN38** M. Segundo	**KN40** A. Clarke		
	OR51 S. Rudaz	**KN38'** G. Li	**OR57** S. Vlyminck	**OR156** S. Wiedmer	
	OR52 X. Liu	**OR55** E. Gionfriddo	**OR58** A. Asokan	**OR157** Y. Guo	
	OR53 G. Theodoridis	**OR56** S. Studzinka	**OR59** J. Wu Ludvigsson	**OR158** A. Cerrato	
	Coffee Break 30'				
10h45 - 12h30	**WE-04 Hyphenation**	**WE-05 (Bio)Particle Separations 2**	**WE-06 Industry stories 2**	**Tutorial 2**	**Education in Separation Sciences**
	KN41 M. Fillet	**KN42** A. Astefanei	**KN44** Alexey Makarov	T. Causon	
	OR60 T. Tuzimskii	**KN43** M. H. Moon	**KN45** S. Lamotte		
	OR61 J. Op de Beeck	**OR64** M. Marioli	**OR67** M. Bashir	**FP01 Young Scientists OR111-OR118**	
	OR62 O. Kronik**	**OR65** V. Marassi	**OR68** CJ Venkatramani		
	OR63 T. Kawai	**OR66** V. Biagioni	**OR69** J. Dores-Sousa		
	Lunch				
13H15 - 14H15	**Poster & Exhibition**		**Vendor Seminars** **Agilent** - Room 1, level 3 **Merck** - Room 4, level 3 **Waters** - The View, level 4 **Tosoh Bioscience** - Room 12, level 3		
14h15 - 16h00	**WE-07 PFAS & Environmental**	**WE-08 Microfluidics**	**WE-09 LC – IMS & MS/MS**	**Tutorial 3**	**WE-13 Recent Advances**
	KN46 J. Christensen	**KN48** R. Kennedy	**KN50** V. Gabelica	S. Fekete M. Imiolek	**OR151** A. Gargano
	KN47 J. Guibin	**KN49** A. Woolley	**KN51** T. Causon		**OR152** S. Lin
	OR70 P. Forbes	**OR73** D. Belder	**OR76** G. Eppe		**OR153** W. Hewelt-Belka
	OR71 M. Pardon	**OR74** W. De Malsche	**OR77** P. Mueller	**FP02 Young Scientists OR119-OR126**	**OR154** C. Brunelli
	OR72 M. Hayder	**OR75** H. Westphal**	**OR78** K. Welters		**OR155** T. Vercammen
	Coffee Break 30'				
16h30 - 18h15	**WE-10 Oligomer Separations 2**	**WE-11 Instrument Hardware & Detection**	**WE-12 Modelling & AI**	**Tutorial 4**	**Job Fair**
	KN52 K. Zhang	**KN54** J. Grinias	**OR86** Cerbelli / 161	E. Psilakis	
	KN53 J. Anderson	**OR82** B. Paull	**OR87** S. Deridder		
	OR79 J. Jones	**OR83** G. Spileers**	**OR88** T. Letzel	**FP03 Young Scientists OR127-OR134**	
	OR80 T. Deschrijver	**OR84** G. Musile	**OR89** K. Hruzova**		
	OR81 L. Durham	**OR85** G. Ward	**OR90** A. Buica		
19h30	**Congress Dinner @ La Brugeoise**				

THURSDAY - June 19

	Auditorium A, Level 1	Foyer, Level 3	The View, Level 4	Auditorium B, Level 1
08h30 - 10h15	**TH-01 Separation Modes 2**	**TH-02 GC**	**TH-03 Euchem Sample Preparation**	**Tutorial 5**
	KN55 D. McCalley	**KN56** J. Focant	**KN58** S. Pedersen-Bjergaard	P. Schoenmakers
	OR91 H. Cottet	**KN57** G. Purcaro	**KN59** P. Kuban	
	OR92 S. Boye	**OR95** P. Cardinael	**OR98** Vidal, Lorena	**FP04 Young Scientists OR135-OR142**
	OR93 R. Cageling	**OR96** T. Cucu	**OR99** Halvorsen, Trine	
	OR94 J. Urban	**OR97** A. Michel	**OR100** P. Štěrbová-Kovaříková	
	Coffee Break 30'			
10h45 - 12h30	**TH-04 Sustainability**	**TH-05 Food**	**TH-06 Retention modelling**	**Tutorial 6**
	KN60 E. Psillakis*	**KN61** P. Dugo	**KN63** M. Garcia Alvarez-Coque	M. Schure
	OR101 P. Ferguson	**KN62** A. De Villiers	**KN64** P. Wiczling	
	OR102 X. Subirats	**KN62'** A. García Campaña	**OR108** U. Tallarek	**FP05 Young Scientists OR143-OR150**
	OR103 O. Kalisz	**OR106** J.-P. Chervet	**OR109** M. Roses	
	OR104 M. Frank	**OR107** O. Núñez	**OR110** A. Castellaneta	
	Lunch & Award ceremonies			
13h30 - 15h15	The View, Level 4			
	Closing Ceremony & Plenary Sessions **PL03** - K. Hamase (Plenary Lecture & Invitation to HPLC 2027 Asia) **PL04** - C. Huber (Plenary Lecture & Invitation to HPLC 2027 Europe) **PL05** - T. Maloney (Plenary Lecture & Invitation to HPLC 2026)			
15h15 - 15h45	**Farewell Drink**			

SC1 - Chromatography for dummies – everything you need to know to be able to follow the HPLC conference
P. Schoenmakers / B. Pirok

SC2 - Introduction to practical supercritical fluid chromatography
C. West / B. Caux

SC-3: Two-dimensional Liquid Chromatography: Principles, Instrumentation, Method Development, and Applications
D. Stoll

SC-4: Microfluidics in separation science: basic principles, microfabrication, analytical and continuous separations of molecules and particles
W. de Malsche / I. Bihi

SC-5: The analytical toolbox for the characterization of biopharmaceuticals
D. Guilarme / J. Maurer

SC-6: Introduction to Artificial Intelligence for Liquid-phase Separations - B. Pirok / T. Bos

SC-7: Chiral Separations
B. Chankvetadze / W. Lindner

SC-8: Data treatment processes for large and diverse analytical data sets - R. Cunha / G. Renner

SC-9: LC-MS and SFC-MS: techniques and data evaluation
G. Hopfgartner / P. Mueller

SC-10: Designing good reversed phase methods: fundamentals and hands-on practicals - M. Euerby

SHORT COURSES

PROGRAM AT A GLANCE

SHORT COURSES

MORNING SHORT COURSES

Coffee break and lunch included

SUNDAY, JUNE 15, 2025 9:00am – 0:00pm

SC-1: Chromatography for dummies – everything you need to know to be able to follow the HPLC conference

Room 1, Level 3

Peter Schoenmakers, Bob Pirok

We do not expect any real dummies at this course. We do invite participation from scientists with an emerging interest in liquid chromatography (LC) or those for whom it is a minor part of their job. For all of you, HPLC2025 Bruges offers a unique opportunity to learn an awful lot in a single week. However, any of the presentations at the conference may be hard to follow for newcomers. The intention of this very short course is to provide you with sufficient knowledge to make the most out of your participation in the HPLC2025 conference.

In the course we will try to answer the question “What are they talking about?”. For example,

- how can we use LC to achieve a separation?
- what’s mobile and what’s stationary?
- is HPLC high-performance or high-pressure liquid chromatography?
- what is the difference between HPLC and ultra-high-pressure liquid chromatography (UHPLC)?
- what are core shell particles?
- how small is micro-LC? (and how small is nano-LC?)
- what is reversed-phase liquid chromatography the opposite of?
- why do liquid chromatographers love mass spectrometers?
- what is two-dimensional LC and what purposes does it serve?

You should learn the answers to these and many other questions and you will love HPLC2025 Bruges even more after attending this course.

SC-2: Introduction to practical supercritical fluid chromatography

Room 10, Level 3

Caroline West, Benjamin Caux

In this short course, we will introduce you to the basics of analytical supercritical fluid chromatography (SFC) method development. After this course, you will know how to approach any new sample with SFC, starting from sample preparation to final (possibly validated) method, going through choice of detection system, initial screening conditions and optimization steps to achieve a quick, sensitive and robust method. We will also provide comparisons to GC and HPLC, to emphasize the differences and make you understand when SFC should be a good option.

Following the theoretical session, one example will be detailed with a practical "hands-on" session operating a remote instrument.

SC-3: Two-dimensional Liquid Chromatography: Principles, Instrumentation, Method Development, and Applications

Room 12, Level 3

Dwight Stoll

Many industries are developing increasingly complex products that require separations with substantially more resolving power than that offered by state-of-the-art one-dimensional liquid chromatography. Two-dimensional liquid chromatography (2D-LC) techniques meet that need and are finding ever more application to the analysis of samples of moderate to high complexity.

This short course will cover:

- **Concepts** of the technique including the theoretical underpinnings of the advantages of 2D separations over their conventional 1D-LC counterparts.
- **Practical aspects** of modern 2D-LC that are critical for the development of successful separations including experimental details, column selection, and the management of the interface between the two separation dimensions.
- **Applications** of 2D-LC described in the literature that address problems in a variety of industries ranging from the analysis of small molecular weight compounds to polymers, which can be chemical as well as biological in nature.
- **Recent trends** towards MD-LC that, by adding further dimensions, allow for deep insights into the structure of biomolecules and have the potential for more automation in analytical workflows.

SC-4: Microfluidics in separation science: basic principles, microfabrication, analytical and continuous separations of molecules and particles

Room 7, Level 3

Wim de Malsche, Ilyesse Bihi

The course will start with a brief overview of microfluidic principles. Typical flow configurations and resulting flow patterns are discussed and relation is made to applications. Next, the most important microfabrication techniques capable to make structures with micron-scale critical dimensions in glass, Si and polymeric material is given. The relation between characteristic dimensions and geometrical channel profiles to chromatographic dispersive behavior is discussed, and solutions to reduce dispersive sources is addressed (pillar array columns, vortex chromatography). Next, configurations that allow to manipulate, direct and separate particles are introduced and discussed (acoustic focusing, di-electrophoresis, deterministic lateral displacement, centrifugal).

AFTERNOON SHORT COURSES

Coffee break and lunch included

SUNDAY, JUNE 15, 2025 1:00pm – 4:00pm

SC-5: The analytical toolbox for the characterization of biopharmaceuticals

Room 12, Level 3

Davy Guillarme, Jonathan Maurer

In recent years, there has been a strong evolution of the pharmaceutical landscape, towards more complex, targeted, and personalized therapies, including monoclonal antibodies, and emerging modalities such as oligonucleotides, mRNA, and gene therapies. These innovative molecules are specifically designed to address challenging diseases, like cancer, autoimmune disorders, and rare genetic diseases.

However, to fully benefit from these sophisticated therapies, it is essential to ensure that their quality is consistently high. In this context, advanced analytical techniques are indispensable to ensure batch-to-batch reproducibility, long-term stability under various storage conditions, and the precise detection and quantification of impurities, contaminants and degradation products.

The goal of this short course will be to highlight recent advances to rapidly and accurately characterize these new modalities using diverse chromatographic techniques. Topics will include reversed phase liquid chromatography (RPLC), ion exchange chromatography (IEX), size exclusion chromatography (SEC), hydrophobic interaction chromatography (HIC), hydrophilic interaction chromatography (HILIC), ion pairing reverse phase liquid chromatography (IP-RPLC), or affinity chromatography. Additionally, the short course will explore the integration of chromatographic methods with mass spectrometry (MS) and the application of two-dimensional liquid chromatography (2D-LC) for enhanced analysis.

SC-6: Introduction to Artificial Intelligence for Liquid-phase Separations

Room 6, Level 3

Bob Pirok, Tijmen Bos

It's no exaggeration to say that artificial intelligence (AI) is transforming science and society. From breakthroughs in molecular discovery to advancements in AI language models, the potential of AI to drive innovation at an unprecedented pace is staggering. Its influence continues to expand, reshaping how we work, learn, and connect with one another. It is therefore not surprising that scientists in analytical separation science also try to capitalize on this potential.

In this course, we will introduce you to artificial intelligence. Like chromatography, artificial intelligence is a vast umbrella representing a large number of techniques. The most important of AI techniques will be discussed.

It is interesting to note that AI has been around for more than half a century. In fact, the technique has undergone two periods of low development, with the Second AI Winter starting around 1984 due to the claims of what AI systems were capable of once more not fulfilling their promise. Indeed, there are also quite some limitations to the successful use of AI, which is why a component of this course will also devote attention to understanding what these limitations are, and that they sometimes cannot be mitigated.

The third component of the course will be a critical overview of less and more successful applications of AI in chromatography and data analysis as well as an attempt to piece together a plausible prediction of what is to come in the upcoming years.

At the conclusion of the course, participants will have the opportunity to see the impact of some of the discussed concepts. A specialized tool will be provided, enabling participants to assess the effects of AI on the optimization process using simulated chromatograms. These chromatograms can either be generated from randomized retention models or derived from user-provided data for personalized testing and analysis. To actively participate in this final interactive part of the course, a (windows) laptop capable of installing third-party software is useful. Performance may vary depending on the device's computational power.

SC-7: Chiral Separations

Room 10, Level 3

Bezhan Chankvetadze, Wolfgang Lindner

What will be taught?

- Short basics of stereochemistry and separation of enantiomers;
- Comparative characteristics of gas chromatography (GC), high-performance liquid chromatography (HPLC), super/sub-critical fluid chromatography (SFC), capillary electrophoresis (CE) and capillary electrochromatography (CEC) from the viewpoint of chiral separations and enantioselective analysis;
- Non-covalent interactions and the importance of their control for preparation and use of chiral stationary phases and chiral selectors;
- Currently available chiral columns and chiral selectors for practical problem solving and their comparative characteristics;
- Some unusual effects in chiral separations;
- Understanding enantioselective recognition and chiral separations (kinetics, thermodynamics, molecular modeling).

What we hope to convey to the participants?

- Understanding of critical differences between achiral and chiral separations;
- Proper selection of technique for particular problem solving;
- Proper selection of separation and detection conditions;
- Understanding of major tools for adjustment and fine tuning of separation process;
- Adequate interpretation and understanding of separation results;
- Recent trends in chiral column development and applications.

SC-8: Data treatment processes for large and diverse analytical data sets

Room 1, Level 3

Ricardo Cunha, Gerrit Renner

With the increasing complexity of modern analytical techniques and instruments, handling large and diverse datasets has become a crucial skill. This short course gives participants the competencies to flexibly process, inspect, and extract meaningful insights from analytical data.

The session will introduce generic open-source software tools (e.g., StreamFind, KNIME and OpenChrom) and high-level programming languages (i.e., R and Python) and demonstrate how they can efficiently handle analytical data, covering key aspects such as data pre-processing techniques and statistical analysis approaches.

A special focus will be placed on machine learning concepts, particularly the fundamental train-test-predict framework, essential for building reliable predictive models. Participants will gain practical knowledge on applying these techniques effectively in their analytical workflows.

The attendees are encouraged to bring their laptops to maximize their learning experience. This allows hands-on exercises with live demonstration examples – such as quality control of pharmaceuticals using Raman spectroscopy and non-target screening (NTS) based on liquid chromatography and mass spectrometry.

By the end of the short course, participants will have gained competencies in:
- The challenges posed by large and complex analytical data sets
- Available software tools and techniques for efficient data processing
- Statistical methods for extracting valuable patterns and trends
- The principles of machine learning and predictive modeling for analytical applications

This interactive session is ideal for professionals, researchers and PhD students looking to enhance their data-handling capabilities and apply advanced analytical techniques in their work.

SC-9: LC-MS and SFC-MS: techniques and data evaluation

Room 7, Level 3

Gérard Hopfgartner, Patrick Mueller

Since its introduction in the early 90's liquid and supercritical fluid chromatography, using atmospheric pressure ionization, coupled with tandem mass spectrometry (LC-MS, SFC-MS) has become the method of choice in bioanalysis. The goal of this short course is to highlight the benefits and limitations, as well as new developments, of LC-MS and SFC-MS for the analysis of low molecular weight compounds and peptides.

In the first part of the course, the hyphenation of separation sciences with mass spectrometry using electrospray, atmospheric pressure chemical ionization and photoionization is presented. Various current combinations of low- and high-resolution mass instruments and acquisition workflows (e.g. data dependent and date independent acquisition) will be discussed with selected examples.

The second part starts with ion mobility spectrometry, which can be added as an additional separation dimension and various approaches will be presented. Additional MS/MS fragmentation techniques such as ultraviolet photodissociation and electron activated dissociation are described. Quantitative analysis also plays an important role and will be discussed.

The last part of the short course will present data analysis workflows for the general screening of compounds, from feature annotation, feature reduction to library search in large databases.

FULL DAY SHORT COURSE

Coffee breaks and lunch included

SUNDAY, JUNE 15, 2025 9:00am – 4:00pm

SC-10: Designing good reversed phase methods: fundamentals and hands-on practicals

Room 4, Level 3

Mel Euerby

The course will be split into two parts: a theory session in the morning and then a practical "hands-on" session in the afternoon to reinforce the chromatographic principles that have been explained in the morning. The course is aimed at individuals just beginning their chromatographic careers no matter how old they are. The contents will be delivered in an informal and interactive manner. The aims of the course will be to provide the attendees with the relevant chromatographic information to allow them to start to solve chromatographic troubleshooting (not instrumentation), robustness, method development and optimization issues. The course is NOT designed to answer all questions but to set the attendees off in the correct direction to becoming a good chromatographer. The focus of the course will centre on the Resolution Equation and how changing chromatographic operating parameters can have a dramatic effect on the performance of your method. In the afternoon, attendees will have the opportunity to virtually use "state of the art" instrumentation to consolidate what they have learnt in the morning.

VENDOR SEMINARS

MONDAY, JUNE 16, 2025 1:15pm - 2:15pm

Agilent Technologies
Room 1, level 3

Innovative Workflows in Chromatography: Real-World Applications of the Infinity III LC System
Martijn Schuiling, Scientist, Johnson & Johnson
Lee Bertram, Agilent Technologies

The recent introduction of the Agilent Infinity III LC platform marks a significant advancement in high-performance liquid chromatography (HPLC), offering enhanced efficiency, sensitivity, and robustness for pharmaceutical, food, and environmental applications. This presentation highlights key innovations within the Infinity III family and demonstrates how they are being successfully integrated into routine laboratory workflows.

Attendees will gain insights into novel hardware and software features that streamline sample preparation, improve data confidence, and simplify maintenance and troubleshooting. A real-world case study will showcase the Agilent 1290 Infinity III Hybrid Multisampler with Feed Injection, demonstrating its ability to optimize peak shape under strong solvent effects without additional sample preparation. The evaluation of varying feed speeds and injection volumes illustrates the system's flexibility and performance. Furthermore, the multisampler's multiple solvent wash capability significantly reduces carryover, supporting high-throughput, low-contamination workflows.

This session will also introduce additional innovations, including highly sensitive and robust MS and fluorescence detectors, and purification with mass-based fraction collection.

Avantor
Room 12, level 3

No Sample Prep Analysis utilizing Therapeutic Affinity Sensing Chromatography (TASC™)
Fred Regnier, Novilytic, Lafayette Indiana, USA
Gemma Lo, Avantor, Reading, UK

Process Analytical Technology is a critical component of therapeutic antibodies (mAb, bi-specifics, Antibody Drug Conjugates, etc.) discovery, production, purification, and product formulation. The common practices today require significant sample preparation. Following host-cell removal from fermenter growth media, preparation of a mAb proteoform family for analysis is widely achieved through some form of analyte specific solid phase extraction, followed by enzymatic digestion and quality attribute analysis by LC-MS/MS.

A limitation of this protocol is that it fails to assess Biological Quality Attributes (BQAs) of the intact protein. The technology described in this report advances mAb quality assessment through direct recognition and quantification of multiple, BQA associated structure attributes in a multimodal affinity chromatography format without preliminary sample preparation, solid phase extraction, or column recycling. These assays were achieved in minutes through the use of a fluorophore labeled affinity selector called a Luminon. This allows coding and quantification of therapeutic function conveying structural features within intact mAbs proteoforms.

A defining feature of this approach is that a ~2 kDa fluorophore labeled constant region Luminon (Lc*) affinity selector and similar low Mw secondary affinity selector Luminons (Ls+) are components of a molecular sizing column mobile phase within which the functionality of multiple BQAs is simultaneously appraised. Injection of a ~150 kDa mAb bearing sample leads to rapid mAb and Luminon mixing with concomitant formation of mAb:(Lc/s*/+)2 and [mAb:(Lc/s*/+)2]n complexes that are subsequently resolved during transport to a fluorescence detector. Concentration of the mAb sequestered Lc* Luminon provides the mAb sample titer while the Ls+ to Lc* concentration ratio is mAb fraction of potential therapeutic functionality. The great value in this approach is that it appraises potential therapeutic functionality directly in the intact molecule while circumventing the need for sample preparation. Moreover, the method assesses mAb monomer and aggregate concentration in addition to the therapeutical potential of mAbs in minutes.

Damage to mAbs through host-cell oxidative stress (OS) during synthesis was assessed by sensing associated PTMs, also through feature coding. The mAb titer and PTM to titer ratios saved days and weeks of analysis time in Discovery, Clone Selection, and Process R&D. Similarly, this data would easily be used to proactively sense problems in the fermenter environment in time to address impending problems in production.

Knauer
The View, level 4

Discover the power of automation and high-throughput sample analysis and purification!

Automation and high throughput sample processing are key components in the effective use of laboratory equipment in liquid chromatography. With the right equipment, sample processing can be significantly accelerated in both analytical and preparative chromatography. In analytical chromatography, the use of an autosampler is the standard for achieving high sample throughput. However, autosamplers have their limitations when it comes to the analysis of several hundred

samples at a time and more flexibility regarding the use of different wash solutions. The new KNAUER Liquid Handler LH 8.1L brings more automation and higher sample throughput to the lab. We present our latest system configuration for High Throughput Quality Control (HTQC). See how easy it is to automate purification tasks and simplify analytical method development with our KNAUER valves and check out our application examples.

Shimadzu
Room 4, level 3

Supercritical Fluid Chromatography Coupled with Mass Spectrometry: A Green and Sustainable Alternative for Pesticide Residue Analysis

Víctor Cutillas Juárez, EURL Almeria, Spain

Supercritical Fluid Chromatography (SFC) coupled with Mass Spectrometry (MS) is emerging as a green and sustainable alternative to conventional Reverse Phase Liquid Chromatography-Tandem Mass Spectrometry (RP-LC-MS/MS) for pesticide residue analysis. This study presents a comprehensive comparison between SFC-MS and RP-LC-MS/MS using the same mass spectrometer, evaluating their performance in multiresidue analysis.

Key aspects investigated include the behavior of different pesticide substance groups, as well as the impact of temperature, matrix effects, and sensitivity differences between the two techniques. The results highlight the advantages of SFC-MS, such as reduced solvent consumption, faster analysis times, reduced matrix effects, and enhanced selectivity/sensitivity for certain pesticide classes. These findings support the adoption of SFC as a more sustainable and efficient tool for pesticide residue monitoring.

Software-Aided Method Development and Optimization for SFC separations

Gesa Schad, Shimadzu Europa GmbH, Duisburg, Germany

In the evolving landscape of analytical chemistry, Supercritical Fluid Chromatography (SFC) emerges as a transformative technique, enhancing both efficiency and versatility in compound separation. While computer-assisted method development is a common practice in HPLC, the distinct differences in retention behaviour previously limited its application in SFC—until now. This presentation will explore the use of innovative method development software designed to streamline the workflows of method screening and optimization in analytical SFC. By utilizing a standard peptide mixture as a model sample, we will demonstrate how this approach can elevate SFC method development and expand its practical applications.

Agilent Technologies
Room 1, level 3

Guided Workflow and Automation

Bettina Schuhn, Agilent Technologies
Yolanda Casas, Global Sales & Marketing Manager, Service Robotics, Life Sciences & Healthcare, ABB Robotics

Guided Workflows and laboratory automation represent the transformation to state-of-the-art scientific research, resulting in enhanced efficiency, accuracy, and reproducibility. While workflow guidance aims to perform manual lab tasks without errors and in a reproducible manner, laboratory automation uses advanced technologies, such as automated instruments, robotic systems & robots, and software solutions. By integration of guided workflows, such as advanced sample tracking solutions, in an automated lab environment, researchers can achieve higher throughput, optimize resource utilization, and maintain stringent quality control.

This presentation will highlight how cutting-edge technologies will reduce human error, accelerate data collection and distribution, and enhance overall research outcomes, paving the way for the future of autonomous laboratory environments.

Thermo Fisher
The View, level 4

Celebrating 20 years of CAD technology – the past, present, and future

Paul Gamache, Consultant, Liquid Chromatography
Frank Steiner, Senior Manager of Product Applications, Thermo Fisher Scientific

Did you know the first Charged Aerosol Detector (CAD) was introduced in 2005? Now two decades later, this near-universal detector is an essential part of the analytical chemist's quantitative toolbox. Join Paul Gamache, one of the original inventors, for a lunchtime seminar celebrating 20 years of CAD technology. His lecture will cover the history of the invention, when the detector found a place for everyday use by separation scientists, and how the CAD compares to ELSD. More technical parts of the talk will showcase why detector settings like the evaporation temperature drive application versatility, and how the power function affects linearity and response curves.

Restek
Room 12, level 3
PFAS: The Chemicals That Never Leave (And the Peaks That Never Show Up)

Per- and polyfluoroalkyl substances (PFAS) are everywhere – in the environment, food, and even the human body. Although they are prevalent in all areas chemists are interested in, their analysis remains a challenge. Different matrices require tailored sample preparation strategies, and the getting sensitivity and selectivity for a given analyte panel requires the choice of the correct analytical column.

In this talk, we explore how modern LC-MS/MS methods can be optimized to reliably quantify PFAS in complex samples; which columns provide the best separation performance, and which sample preparation techniques maximize recovery whilst minimizing matrix effects. We will highlight best practices, common pitfalls, and innovative approaches for robust and precise PFAS analysis – from environmental samples to clinical research.

RIC group
Room 4, level 3

How ancient diseases require modern approaches: providing new tools to manage leprosy patients
Ole Lagatie - Scientific Director Biomarkers at Janssen

The first recorded description of leprosy is believed to be in the ancient Sanskrit hymns of the Atharva Veda, dating back to approximately 2000 BC. The disease was also described in the Book of Leviticus in the Bible. Despite this long history, it remains one of the most neglected and stigmatized diseases with 200,000 new cases being reported on a yearly basis. Today, leprosy diagnosis relies on clinical signs and symptoms, followed by slit skin smear bacillary index determination, or invasive skin biopsy. Treatment monitoring requires visual inspection of skin lesions with sensory and motor nerve function assessments. Since the 1960s, clinical research regulatory requirements dictate the use of sacrificing multiple mice for the mouse footpad model to determine treatment efficacy. The availability of a simple blood-based biomarker test would allow physicians to detect leprosy, monitor treatment efficacy, and predict relapse/recurrence in a minimally invasive way and possibly eliminate the use of mice in clinical studies evaluating new drug regimens. Using multimodal metabolomics, we identified two blood-based biomarkers that have the potential to fulfil all these needs. These findings will pave the way for a paradigm shift in how patients with leprosy are being managed, a shift that is urgently needed for one of the most stigmatized but also most neglected diseases in the world.

Studying structure function relation of antibodies using innovative chromatographic and ma spectrometric tools
Hilde Stals - Director CMC

Argenx is developing transformative antibodies, engineered at the variable and Fc region, for the treatment of a range of autoimmune diseases with high unmet medical need. This presentation will discuss the exciting analytical journey argenx and RIC embarked on to study structure and function of these unique therapeutic modalities, using innovative chromatographic and mass spectrometric technologies.

WEDNESDAY, JUNE 17 1:15pm - 2:15pm

Agilent Technologies
Room 1, level 3

Transformative Therapies: Analytical Mastery of GLP-1 RA Drugs and mRNA LNPs
Sonja Schneider and Martin Vollmer, Agilent Technologies

GLP-1 receptor agonists are a class of drugs that have recently gained significant attention due to their effective treatment of obesity and other metabolic diseases. With numerous candidates in clinical development, there is a pressing need for in-depth characterization and method development. Lipid nanoparticles (LNPs) have become particularly prominent during the COVID-19 pandemic as vehicles for delivering mRNA drugs into target cells. Analyzing LNPs requires novel analytical approaches and methods to fully characterize these vehicles and ensure the safety and efficacy of the enclosed mRNA.

In this seminar, Agilent will present state-of-the-art solutions in two Biopharma-related talks, addressing the analytical challenges associated with these two emerging drug modalities. LC and LC/MS based techniques hyphenated to different detection possibilities will be used to highlight the specifics related to key workflows to characterize and analyze therapeutic

Merck
Room4, level 3

Narrowing Down Success: The Art of advancing HPLC
Egidijus Machtejevas
Petra Lewits

Part 1: Small I.D. – Big impact: The secrets of Capillary-LC
Capillary High-Performance Liquid Chromatography (HPLC) columns enhance sensitivity and sustainability in analytical chemistry by reducing solvent consumption and enabling trace-level analyses. This seminar presents the use of complementary phases, including RPLC, HILIC, and porous graphitized carbon (PGC) LC columns, to address various analytical challenges.

We demonstrate the rapid separation of nucleosides and the integration of Purospher® STAR RP-18e (2 µm) and SeQuant® ZIC®-HILIC phases in two-dimensional liquid chromatography (2D-LC) for protein digests. Additionally, we investigate the retention behavior of reduced and non-reduced hexose monosaccharides and disaccharides on a Supel™ Carbon column. Our findings reveal robust retention patterns and emphasize the influence of molecular structure on retention, aiding in glycan profiling.

Part 2: Mastering superficially porous particles: Maximize Efficiency in RP-LC and HILIC
Fused core® columns, also known as superficially porous particulate (SPP) columns or CoreShell®, represent a significant advancement in chromatography technology, maximizing separation power and efficiency for HPLC.

This seminar will present several new additions to the Ascentis® Express and BIOshell™ portfolio, including the Ascentis® Express PCS-C18 and Phenyl-Hexyl columns with positively charged surface (PCS) chemistry for improved peak shapes of basic compounds. We will also introduce the Ascentis® Express 120 Å C18 pH+ column, designed for excellent stability in high pH environments (pH 2-12), and the BIOshell™ Oligo column for superior separation of oligonucleotides. Additionally, the new Ascentis® Express ZIC®-cHILIC columns will be showcased, enhancing the separation of hydrophilic bio-related molecules, including phosphorylated compounds and peptides, with applications in OMICS fields such as metabolomics and glycomics.

Waters
The View, level 4

LC-MS and Light Scattering Solutions for Analysis of GLP-1 Analogs
Pawel Bigos, Waters Corporation

Glucagon-like-peptide-1 (GLP-1) analogs have recently gained significant attention as a metabolic regulator for the treatment of type 2 diabetes and obesity. Their increased visibility as weight-loss treatments has driven increased demand and accelerated research into new analogs and delivery methods. This surge in demand has introduced analytical challenges from peptide synthesis, impurity profiling, and stability monitoring, as manufacturers look to drive efficiency and scale-up production. To address these challenges, analytical techniques such as LC-MS and light scattering detectors have become essential tools for characterization of GLP-1 analogs. The discussion will demonstrate the value of orthogonal mass detection for confirming molecular identity and rapidly screening impurities, as well as the importance of light scattering in directly measuring aggregation, mass, stability, and interactions.

Tosoh Bioscience
Room 12, Level 3

From Small to Complex Biotherapeutics: Comprehensive Characterization with SEC and Light Scattering

Join us to explore how size exclusion chromatography (SEC) combined with multi-angle light scattering (MALS) enables precise and comprehensive characterization of a wide range of biotherapeutics—from peptides and oligonucleotides to mAbs, LNPs, RNA, and gene delivery vectors.

This session will introduce how MALS works and how it can be seamlessly integrated into SEC workflows to provide absolute molar mass, size, and even compositional insights—without relying on calibration standards. You'll learn how to easily generate high-quality data and gain critical information on aggregation and molecular heterogeneity. Whether you're optimizing an existing workflow or exploring new modalities, this seminar offers practical guidance to maximize the value of your SEC analyses.

ORAL PRESENTATIONS

Sunday, June 15, 2025

	Concertgebouw Bruges		
16:30 18:50	**WELCOME CEREMONY**		
16:30 17:30	**Opening Ceremony** Welcome from the chairs, combined with JFK Huber Lecture, Uwe D. Neue, Jubilee Medal and Martin Medal award ceremonies and live entertainment		
17:30 18:10	PL01	**Unraveling mRNA structure – The coming-of-age of the analytical toolbox** Koen Sandra[1], Helena Vanluchene[1], Kris Morreel[1], Jelle De Vos[1], Liesa Verscheure[1], Ine Vandendriessche[1], Piotr Alvarez[1], Ruben t'Kindt[1], Pat Sandra[1] *[1]RIC group, Kortrijk, Belgium*	
18:10 18:50	PL02	**Automating the Analytical Laboratory - Current Developments and Future Perspectives** Kerstin Thurow[1] *[1]Celisca, University Of Rostock, Rostock, Germany*	
	BMCC Exhibition Hall		
19:00 21:00	**WELCOME RECEPTION**		

Monday, June 16, 2025

	Auditorium A+B, Level 1		
08:30 10:15	MO-01	**MULTIDIMENSIONAL LC** *Chairs of the session: Michael Laemmerhofer, André de Villiers*	
08:30	KN01	**Streamlining method development in comprehensive 2D-LC using a freely accessible tool** Davy Guillarme[1], Megane Aebischer[1], Sabine Heinisch[2] *[1]University Of Geneva, 1 Rue Michel Servet, Switzerland, [2]University of Lyon, Lyon, France*	
08:55	KN02	**Boosting the separation power of LC×LC** Katharina Wetzel[1], Oliver J. Schmitz[1], Jaqueline Leddin[1], Sven W. Meckelmann[1] *[1]University of Duisburg-Essen*	
09:15	OR01	**Simplifying Method Development in Online Comprehensive 2D-LC with a New Tool-Based approach for Orthogonal Condition Selection** Soraya Chapel[1], Jessy Saint-Auret[2], Marie Pardon[1,3], Deirdre Cabooter[1] *[1]Laboratory for Pharmaceutical analysis, Department of Pharmaceutical and Pharmacological Sciences, KU Leuven, Leuven, Belgium, [2]Laboratory for Molecular Biodiscovery, Department of Pharmaceutical and Pharmacological Sciences, KU Leuven, Leuven, Belgium, [3]Freelance developer, Fukuoka, Japan*	
09:35	OR02	**Significance of radial dispersion in modulation interfaces for two-dimensional liquid chromatography** Rick van den Hurk[1,2], Tijmen Bos[1,2,3], Dwight Stoll3. Bob Pirok[1,2,3] *[1]Analytical Chemistry group, HIMS, University of Amsterdam, Amsterdam, the Netherlands, [2]Centre for Analytical Sciences Amsterdam (CASA), Amsterdam, the Netherlands, [3]Department of Chemistry, Gustavus Adolphus College, Saint Peter, United States*	
		Csaba Horváth Nominee	
09:55	OR03	**Direct mRNA Sequence Mapping Using Online Partial RNase T1 Digestions in Conjunction with 2-D LC-MS/MS** Jessica Dale[1], Ken Cook, Alexander Schwahn, Fiona Rupprecht, Mark Dickman *[1]University of Sheffield, Sheffield, United Kingdom*	
	Foyer, Level 3		
08:30 10:15	MO-02	**LAB AUTOMATION** *Chairs of the session: Adrian Clarke, Ron Peters*	
08:30	KN03	**Integrating HPLC and SFC methods into an entirely automated synthetic laboratory : On the road toward a self-driving laboratory** Pascal Mieville[1], Ngoc Van Thanh Nguyen[1], Jean-Charles Cousty[1], Leander Choudhury[1], Elisa Clerc[1] *[1]EPFL Swiss Cat+, Lausanne, Switzerland*	
08:55	KN04	**Approaching the «dark lab»: Can we run it fully automated?** Thorsten Teutenberg[1] *[1]Institut für Umwelt & Energie, Technik & Analytik e.V. (IUTA), Bliersheimer Str. 58-60, 47229 Duisburg, Germany*	
09:15	KN04'	**Bridging physical and digital worlds: The new role of analytical instrumentation in the automated lab** Christian P. Haas[1] *[1]Agilent Technologies, Waldbronn, Germany*	
09:35	OR05	**Analytical LabAutomation in early drug discovery chemistry labs** Tomas Leek[1], Lena von Sydow[2], Marta Passamonti[3], Manasses Jora[4], Christian Manz[5], Werngard Czechtizky[6] *[1]Medicinal Chemistry, [2]Research and Development, [3]Respiratory and Immunology (R&I), [4]BioPharmaceuticals R&D, [5]AstraZeneca, [6]Gothenburg, Sweden*	
09:55	OR06	**AI-Enhanced Method Development for Synthetic Peptides and Impurities** Gesa Schad[1], Shinichi Fujisaki[2] *[1]Shimadzu Europa Gmbh, Duisburg, Germany, [2]Shimadzu Corporation, Kyoto, Japan*	

The View, Level 4

08:30 10:15	MO-03	**COLUMN TECHNOLOGY** *Chairs of the session: Fabrice Gritti, Tivadar Farkas*
08:30	KN05	**Precision Manufacture of Ordered Chromatographic Material** Bo Zhang[1] *[1]Xiamen University, Xiamen, China*
08:55	OR07	**Recent Developments in Inert Columns for HPLC Separations of Small Molecule** Thomas Walter[1] *[1]Waters Corporation, Milford, United States*
09:15	OR08	**Selection of optimal stationary phase for reversed-phase peptide separations in proteomics: interplay between pore size (60-300 Å) and the length of alkyl ligands (C4, C8, C18)** Darien Yeung[1], Victor Spicer[2], Oleg Krokhin[2] *[1]Princess Maxima Center For Pediatric Oncology, Utrecht, Netherlands, [2]University of Manitoba, Winnipeg, Canada*
09:35	OR09	**Column Length Optimization in HPLC: Is It the Key to Gradient Separation Success?** Krisztián Horváth[1] *[1]University of Pannonia, Veszprém, Hungary*
09:55	OR10	**Revolutionizing HPLC: Columns Coated with Diamond-Like Carbon (DLC) for Superior Separation of Metal-Sensitive Analytes** Chuping Luo[1], Xiaomei Wu[1], Liangxiang Li[1], Yan Han[1], Deyun Liu[1], Hui Yang[1], Jack Zhao[1] *[1]Welch Materials, Songjiang, China*

Exhibition Hall

10:15 10:45	**COFFEE BREAK** *Sponsored by Macherey & Nagel* MACHEREY-NAGEL

Auditorium A+B, Level 1

10:45 12:30	MO-04	**FUNDAMENTALS** *Chairs of the session: Kirstzian Horvath, Szcabols Fekete*
10:45	KN06	**Rebirth of slalom chromatography: separation fundamentals and key applications in cell and gene therapy** Fabrice Gritti[1], Kevin Wyndham[1] *[1]Waters Corporation, MILFORD, United States*
11:10	KN07	**The thermodynamics of liquid chromatograph** Attila Felinger[1] *[1]University of Pécs, Pécs, Hungary*
11:30	OR11	**Dispersion properties of triply periodic minimal surface (TPMS) supports for LC** Carolina Lauriola[1], Ali Moussa[2], Gert Desmet[2], Alessandra Adrover[1] *[1]Sapienza Università Di Roma, Rome, Italy, [2]Vrije Universiteit Brussel, Brussels, Belgium*
11:50	OR12	**Columns, capillaries and chaos: on the relation between disorder and band broadening** Bram Huygens[1], Gert Desmet[1] *[1]Vrije Universiteit Brussel, Belgium* **Csaba Horváth Nominee**
12:10	OR13	**Indirect Detection of Non-UV-Absorbing Analytes: Modeling, Application, and Experimental Evaluation** Jörgen Samuelsson[1], Marek Lesko[1], Torgny Fornstedt[1] *[1]Department of Engineering and Chemical Sciences, Karlstad University, SE-651 88 Karlstad, Sweden*

Foyer, Level 3

10:45 12:30	MO-05	**DATA & ML** *Chairs of the session: Thorsten Teutenberg, Max Besenhard*
10:45	KN08	**Strategies to Improve Robustness and Effectiveness of Retention-Time Alignment, Peak Tracking and Machine Learning for Comprehensive Two-dimensional Chromatography Separations** Bob Pirok[1], Tijmen Bos[1], Nino Milani[1] *[1]University of Amsterdam, Amsterdam, Netherlands*
11:10	KN09	**Digital Transformation of the Analytical Lab - it's Mind over Matter!** Joachim Richert[1] *[1]TU Darmstadt, Weinheim, Germany*
11:30	OR14	**Digitalization in analytical R&D labs: boosting innovation by efficiency and effectivity enhancement** Ron A.H. Peters[1,2,3] *[1]Centre of Analytical Sciences Amsterdam (CASA), Science Park 904, 1098 XH Amsterdam, the Netherlands, [2]University of Amsterdam, van 't Hoff Institute for Molecular Sciences (HIMS), Analytical-Chemistry Group, Science Park 904, 1098 XH Amsterdam, the Netherlands, [3]Covestro (Netherlands) B.V., Group Innovation & Sustainability, Testing, Analytics, and Physics group, Sluisweg 12, 5145 PE, Waalwijk, the Netherland*
11:50	OR15	**StreamFind: open source, agnostic and flexible data processing workflow designer** Ricardo Cunha[1], Walter Laurito[2], Steffen Thoma[2], Thorsten Teutenberg[1] *[1]InstitUmwelt & Energie, Technik & Analytik e. V. (IUTA), Duisburg, Germany, [2]FZI Forschungszentrum Informatik, Karlsruhe, Germany*
12:10	OR16	**Reinforcement learning for automated method development in liquid chromatography** Leon Niezen[1], Pieter Libin[2], Deirdre Cabooter[3], Gert Desmet[1] *[1]Vrije Universiteit Brussel, Department of Chemical Engineering, Brussel, Belgium, [2]Vrije Universiteit Brussel, Department of Computer Science, Artificial Intelligence Laboratory, Brussel, Belgium, [3]University of Leuven (KU Leuven), Department for Pharmaceutical and Pharmacological Sciences, Pharmaceutical Analysis, Leuven, Belgium*

The View, Level 4

10:45 12:30	MO-06	**3D PRINTING & MINIATURIZATION** *Chairs of the session: Detlev Belder, Adam Woolley*
10:45	KN10	**Theoretical and practical aspects of miniaturization in Liquid Chromatography** Francesca Rigano[1], Luigi Mondello[1] *[1]ChiBioFarAm Department, University of Messina, Messina, Italy*
11:10	KN11	**3D printed devices and components for 3D for chemical analysis and separations** Michael Breadmore[1] *[1]University Of Tasmania, Hobart, Australia*
11:30	OR17	**3D-printed sorbents: optimizing technology and geometry for drug extraction** Mariusz Belka[1] *[1]Department of Pharmaceutical Chemistry, Medical University of Gdańsk, Gdańsk, Poland*
11:50	OR18	**Technoeconomic and sustainability evaluation of 3D printed monolithic adsorbers for integrated clarification and capture of therapeutic antibodies** Simone Dimartino[1], Mariachiara Conti, Yuki Abe, Andrew Sinclair, James Pullen *[1]The University Of Edinburgh, Edinburgh, United Kingdom*
12:10	OR19	**Column Geometry Optimization for Micro-Flow LC/MS** Jason Anspach[1], Roxana Eggleston-Rangel[1], Gareth Friedlander[1] *[1]Phenomenex, Torrance, United States*

Exhibition Hall

13:15 15:50	**POSTER & EXHIBITION FEST** (XXL Coffee break) Odd numbers

13:15 14:15	**VENDOR SEMINARS**	
	AGILENT (Rooms 1-2, level 3) **Innovative Workflows in Chromatography: Real-World Applications of the Infinity III LC System**	Agilent Technologies
	SHIMADZU (Rooms 4-5 , level 3) **Green and Clean: Pioneering Advanced SFC Methods**	SHIMADZU Excellence in Science
	AVANTOR (Room 12, level 3) **No Sample Prep Analysis utilizing Therapeutic Affinity Sensing Chromatography (TASC™)**	avantor™
	KNAUER ("The View", level 4) **Discover the power of automation and high-throughput sample analysis and purification!**	KNAUER

		Auditorium A+B, Level 1
15:50 17:20	MO-07	**OLIGOMER SEPARATIONS 1** *Chairs of the session: Davy Guillarme, Kelly Zhang*
15:50	KN12	**Recent advances in 1D- and 2D-LC separations of oligonucleotides - Something old, something new, and some surprises** Dwight Stoll[1] *[1]Gustavus Adolphus College, Saint Peter, United States*
16:15	KN13	**Nucleic acid melting temperature and its importance for LC analysis** Martin Gilar[1] *[1]Waters Corporation, Milford, United States*
16:40	OR20	**Weak to Strong Ion Pairing Elution Gradients to Improve the Selectivity of Oligonucleotide RPLC Separations** Szabolcs Fekete[1], Mateusz Imiolek[1], Matthew Lauber[2] *[1]Waters Corporation, Geneva, Switzerland, 2Waters Corporation, Milford, USA*
17:00	OR21	**Analytical and preparative separations of therapeutic oligonucleotides: Current understanding and challenges** Torgny Fornstedt[1], Martin Enmark[1], Jörgen Samuelsson[1], Patrik Forssén[1] *[1]Karlstad University, Karlstad, Sweden*

		Foyer, Level 3
15:50 17:20	MO-08	**(BIO)PARTICLE SEPARATIONS 1** *Chairs of the session: Myeyong Hee Moon, Susanne Boye*
15:50	KN14	**Asymmetric Flow-Field Flow Fractionation (AF4) for the characterization of biopharmaceuticals** Lars Nilsson[1] *[1]Lund University, Lund, Sweden*
16:15	KN15	**Assessment of nanoparticle distributions: divide and conquer** Govert Somsen[1,2], Joshka Verduin[1,2], Jordy Kruijswijk[1,2], Tijmen Bos[2,3], Ton Brooijmans[4], Ron Peters[2,3,4], Amin Famili[5], Bob Pirok[2,3], Kevin Jooss[1,2] *[1]Vrije Universiteit Amsterdam, Amsterdam, Netherlands, [2]Centre for Analytical Sciences Amsterdam (CASA), Amsterdam, Netherlands, [3]University of Amsterdam, Amsterdam, Netherlands, [4]Covestro Coating Resins, Waalwijk, Netherlands, [5]Genentech, South San Francisco, USA*
16:40	OR22	**Macroporous Material for the Effective Separation of Extracellular Vesicles, Viruses, and Cells** Takuya Kubo[1], Eisuke Kanao[2], Tetsuya Tanigawa[2], Yoshiyuki Watabe[3], Sayaka Yamada-Konishi[1], Yasushi Ishihama[2] *[1]Kyoto Prefectural University, Kyoto, Japan, [2]Kyoto University, Kyoto, Japan, [3]Shimadzu General Service, Inc., Kyoto, Japan*

17:00	OR23	**In-line coupling of asymmetrical-flow field-flow fractionation with small angle X-ray scattering (AF4-SAXS) for the quantitative size-resolved characterization of mRNA nanoparticles** Roland Drexel[1] *[1]Postnova Analytics, Landsberg Am Lech, Germany*

		The View, Level 4
15:50 17:20	MO-09	**SFC** *Chairs of the session: Susan Olesik, Claudio Brunelli*
15:50	KN16	**From Science-Fiction Chromatography to modern SFC** Caroline West[1], Clément De Saint Jores[1], Laurine Réset[1], Benjamin Caux[1], Ramy Abou-Naccoul[2], Shinnosuke Horie[3] *[1]University Of Orléans, Orléans, France, [2]Shimadzu France, Marne-la-Vallée, France, [3]Shimadzu Europa, Duisburg, Germany*
		JFK Huber Lecture Award
16:15	KN17	**Breaking Boundaries in Natural Product Analysis with SFC-MS** Lucie Novakova[1], Kateřina Plachká[1], Veronika Pilařová[1], Štefan Kosturko[1], Karel Vraj[1] *[1]Charles University, Faculty of Pharmacy, Department of Analytical Chemistry, Heyrovského 1203, Hradec Králové, Czech Republic*
16:40	OR24	**Searching for orthogonality: Supercritical Fluid Chromatography in Multidimensional Separation Techniques** Karine Faure[1] *[1]Institute of Analytical Sciences (ISA), University of Lyon, France*
17:00	OR25	**Enhanced Fluidity or Subcritical Liquid Chromatographic Separations- the impact on chromatography of biological compounds** Susan Olesik[1], O'Donnell Sylester[1], Navid Tabrizi[1] *[1]Department of Chemistry and Biochemistry, The Ohio State University, 100 West 18th Ave., Columbus, OH 43210*

		Auditorium A+B, Level 1
17:30 18:50		**CHROMATOGRAPHY'S GOT TALENT-SESSION** Audience quiz: Who wants to be a Chromatography Millionaire? Finals HPLC Tube competition Finals Separation Science Slam competition

		Exhibition Hall
18:50 20:00		**PRE-DINER COCKTAIL**

Tuesday, June 17, 2025

Auditorium A+B, Level 1

08:30 10:15 TU-01 LC-MS
Chairs of the session: Valerie Gabelica, Lihua Zhang

08:30 KN18 **Frontiers of high-resolution accurate mass analysis for LC/MS**
Alexander Makarov[1]
[1]Thermo Fisher Scientific, Bremen, Germany

08:55 KN19 **How much chromatography is needed for the multimodal mass spectrometric analysis of metabolites and lipids in plasma and urine?**
Gérard Hopfgartner[1]
[1]University Of Geneva, Geneva, Switzerland

09:15 OR26 **Porous Silicon Micropillar Arrays in Thin-Layer Chromatography for High-Performance Separation and Laser Desorption Ionization Mass Spectrometry Integration**
Clara Whyte Ferreira[1,2,3], Bastien Cabrera-Tejera[2], Romain Tuyaerts[1], Gilles Scheen[1], Yannick Coffinier[3], Gauthier Eppe[2], Edwin De Pauw[2]
[1]Incize, Louvain-la-Neuve, Belgium, [2]Mass Spectrometry Laboratory (MolSys Research Unit), University of Liège, Liège, Belgium, [3]Univ. Lille, CNRS, UMR 8520 - IEMN, Lille, France

Csaba Horváth Nominee

09:35 OR27 **Multimodal Tandem Mass Spectrometry Activation Methods for the Enhanced Screening of Pesticides in Wines and Juices by Column-Switching Liquid Chromatography - Mass Spectrometry**
Romain Giraud[1], Yves Le Blanc[2], Mircea Guna[2], Gérard Hopfgartner[1]
[1]Unige, Genève, Switzerland, [2]SCIEX, Toronto, Canada

09:55 OR28 **Decoding Tumoral Heterogeneity in Glioblastoma: A Dual HPLC-MS/MS Workflow for Metabolomics in Brain Tumors**
Christina Brenner[1,2], Lisa Panzenböck[1,2], Sagar Acharya[3], Cornelius Cadrien[3], Gilbert Hangel[4], Gunda Köllensperger[1]
[1]Institute of Analytical Chemistry, Faculty of Chemistry, University Of Vienna, Vienna, Austria, [2]Vienna Doctoral School in Chemistry, Faculty of Chemistry, University of Vienna, Vienna, Austria, [3]Department of Neurosurgery, Medical University Of Vienna, Austria, [4]High-field MR Center, Department of Biomedical Imaging and Image-guided Therapy, Medical University of Vienna, Austria

Csaba Horváth Nominee

Foyer, Level 3

08:30 10:15 TU-02 STATIONARY PHASES
Chairs of the session: Zhengjin Jiang, Alois Jungbauer

08:30 KN20 **Exploring retention properties and selectivity of different stationary phases for the characterization of natural extracts through ultra-high performance liquid chromatography coupled to high resolution mass spectrometry**
Martina Catani[1], Davide Barboni[1], Desiree Bozza[1], Nicoletta Bianchi[2], Brunilda Myftari[3], Natasha Damiana Spadafora[4], Paola Tedeschi[1], Chiara De Luca[1], Simona Felletti[4], Luisa Pasti[4], Alberto Cavazzini[1,5]
[1]Department of Chemical, Pharmaceutical and Agricultural Sciences; University of Ferrara, Ferrara, Italy, [2]Department of Translational Medicine; University of Ferrara, Ferrara, Italy, [3]Department of Pharmacy; University of Medicine, Tirana, Italy, [4]Department of Environmental and Prevention Sciences; University of Ferrara, Ferrara, Italy, [5]Council for Agricultural Research and Economics (CREA), Rome, Italy

08:55 KN21 **Application of high pH anion exchange chromatography for the separation of carbohydrates**
Christopher Pohl[1]
[1]Cap Chromatography Llc, Union City, United States

09:15 KN21' **Retrospective of the Development of Microscale High Performance Liquid Phase Separation Techniques**
Koji Otsuka[1,2]
[1]Osaka Metropolitan University, Osaka, Japan, [2]Professor Emeritus, Kyoto University, Kyoto, Japan

09:35 OR30 **Construction of Novel Chiral Covalent Organic Frameworks for Chromatographic Enantioseparation**
Yuan Chen[1]
[1]Sichuan University, Chengdu, China

09:55 OR31 **New stationary phases for rare earth ion separation**
Hongdeng Qiu[1,2]
[1]Ganjiang Innovation Academy, Chinese Academy of Sciences, Ganzhou, China, [2]Lanzhou Institute of Chemical Physics, Chinese Academy of Sciences, Lanzhou, China

The View, Level 4

08:30 10:15 TU-03 CHIRAL
Chairs of the session: Alberto Cavazzini, Caroline West

08:30 KN22 **Toolbox for isomer separations in (bio-)pharmaceutical analysis and biosciences**
Michael Laemmerhofer[1], Cornelius Knappe[1], Ryan Karongo1, Simon Jaag[1], Xiaoqing Fu[1], Min Su[1], Benedikt Masberg[1], Niklas Carstensen[1], Feiyang Li[1]
[1]University of Tuebingen, Institute of Pharmaceutical Sciences, Tuebingen, Germany

08:55 KN23 **Chiral Stationary Phases Based on Polysaccharide Derivatives and Superficially Porous Silica – Present and Future**
Tivadar Farkas[1,2]
[1]Tbilisi State University, Tbilisi, Georgia, [2]Phenomenex, Inc., Torrance, United States

Uwe D. Neue Award Winner

09:15 OR32 **Separation of enantiomers and isotopically labelled compounds: Similarities and differences**
Bezhan Chankvetadze[1]
[1]Tbilisi State University, Tbilisi, Georgia

09:35 OR33 **The potentiality of DMC as an alternative co-solvent in chiral SFC and its impact on selectivity and retention**
Simona Felletti[1], Greta Compagnin[1], Chiara De Luca[1], Martina Catani[1], Alberto Cavazzini[1,2]
[1]University Of Ferrara, Ferrara, Italy, [2]CREA, Rome, Italy

09:55 OR34 **Development of Quantitative Structure Enantioselectivity Retention Relationships to Predict Enantioseparations on Polysaccharide-Based Chiral Stationary Phases**
Debby Mangelings[1], Pieter De Gauquier[1], Jordy Peeters[1], Fardine Ameli[1], Yvan Vander Heyden[1], Kenno Vanommeslaeghe[1]
[1]Vrije Universiteit Brussel (VUB), Faculty of Medicine and Pharmacy, Department of Analytical Chemistry, Applied Chemometrics and Molecular Modelling, Laarbeeklaan 103, 1090 Brussels, Belgium

Exhibition Hall

10:15 10:45 COFFEE BREAK

Auditorium A+B, Level 1

10:45 12:30 TU-04 METHOD DEVELOPMENT
Chairs of the session: Lucie Novakova, Marià Celia Garcia Alvarez-Coque

10:45 KN24 **A New Generation of LC-Method-Development Tools**
Peter Schoenmakers[1,2], Bob Pirok[1,2]
[1]University of Amsterdam, Amsterdam, Netherlands, [2]Centre for Analytical Sciences Amsterdam, Amsterdam, Netherlands

11:10 KN25 **Data Science Tools for Advanced Method Development and Prediction in Analytical Measurements**
Kevin Schug[1]
[1]The University Of Texas At Arlington, Arlington, United States

11:30	OR35	**HPLC on Autopilot: AI for Self-Driven Method Development** Fanyi Duanmu[1], Dian Ning Chia[1], Luca Mazzei[1], Eva Sorensen[1], Maximilian Besenhard[1] *[1]University College London, Department of Chemical Engineering, London, United Kingdom*
11:50	OR36	**Application of Global Models in HPLC Method Development with Serially Coupled Columns** José-Ramón Torres-Lapasió[1], Pau Peiró-Vila[1], María-Celia García-Álvarez-Coque[1] *[1]University Of Valencia, Burjassot (Valencia), Spain*
12:10	OR37	**Knowledge-Informed and Data Driven Method Development in Liquid Chromatography** Emery Bosten[1,2], Marie Pardon[1], Kai Chen[2], Valerie Koppen[2], Gerd Van Herck[2], Mario Hellings[2], Deirdre Cabooter[1] *[1]Department for Pharmaceutical and Pharmacological Sciences, Pharmaceutical Analysis, KU Leuven, Leuven, Belgium, [2]Therapeutics Development & Supply, Johnson & Johnson Innovative Medicine, Beerse, Belgium* **Csaba Horváth Nominee**

	Foyer, Level 3	
10:45 **12:30**	TU-05	**BIOSEPARATIONS** *Chairs of the session: Ana Garcia Campana, Marianne Fillet*
10:45	KN26	**Potential of Immunoaffinity Chromatography and Field-Flow Fraction for the Fractionation and Isolation of Biomacromolecules** Marja-Liisa Riekkola[1], Evgen Multia[1], Thanaporn Liangsupree[1], Matti Jussila[1], Torgny Fornstedt[2], Patrik Forssén[2] *[1]Department of Chemistry, University of Helsinki, Helsinki, Finland, [2]Department of Engineering and Chemical Sciences, Karlstad University, Karlstad, Sweden*
11:10	KN27	**Fewer animals, Less Waste: Automated Analysis of Organoids and Organ-on-a-Chip Systems** Steven Ray Wilson[1] *[1]University of Oslo, Norway*
11:30	OR38	**Characterization, identification and determination of microbiomes by different separation and spectral techniques** Bogusław Buszewski[1,2], Dominika Błońska[2], Michał Szumski[3] *[1]Prof. Jan Czochralski Kuyavian-Pomeranian Research & Development Centre, Krasińskiego 4, Toruń, Poland, [2]Nicolaus Copernicus University in Toruń, Faculty of Chemistry, Chair of Environmental Chemistry and Bioanalytics, Gagarina 7, 87-100 Toruń, Poland, [3]Interdyscyplinary Center of Modern Technology, Nicolaus Copernicus University, Wileńska 4, 87 100 Toruń, Poland* **Martin Medal Winner**
11:50	OR39	**Accelerating and Innovating Drug Development Through Analytical Automation, Digital Transformation and AI/ML** Tao Chen[1] *[1]Genentech, Inc., South San Francisco, United States*
12:10	OR40	**One- and two-dimensional miniaturized affinity chromatography-mass spectrometry to study structure-function relation of therapeutic monoclonal antibodies** Jelle De Vos[1], Evert Van Hoestenberghe[1], Urs Lohrig[2], Christian Graf[3], Pat Sandra[1], Koen Sandra[1] *[1]RIC group, Kortrijk, Belgium, [2]Novartis Pharmaceutical Manufacturing GmbH, Kundl, Austria, [3]Novartis Business Services GmbH, München, Germany*

	The View, Level 4	
10:45 **12:30**	TU-06	**HILIC SEPARATIONS** *Chairs of the session: David McCalley, Xavier Subirats*
10:45	KN28	**Molecular Simulations and Retention Measurements of Hydrophilic Interaction Liquid Chromatography (HILIC): How HILIC works** Mark Schure[1], Hsiao-Feng Liu[2], Chun-Kai Chang[2], J. Ilja Siepmann[2], Stephanie Schuster[3], Peter Pellegrinelli[3], William Miles[3], Tim Horchuck[3] *[1]Kroungold Analytical, Inc., Blue Bell, United States, [2]Dept. of Chemistry & Chemical Theory Center and Dept. of Chemical Engineering & Materials Science, Minneapolis, United States, [3]Advanced Materials Technology, Inc., Wilmington, United States*

11:10	OR41	**Development of amine oxide-containing HILIC stationary phase** Tohru Ikegami[1], Kento Tsubakihara[1] *[1]Kyoto Institute Of Technology, Kyoto, Japan*
11:30	OR42	**The promises of HILIC for intact mRNA-based therapeutics analysis** Jonathan Maurer[1,2,3], Matthew A. Lauber[4], Szabolcs Fekete[5], Mateusz Imiołek[5], Camille Malburet[3], Marc François-Heude[3], Davy Guillarme[1,2] *[1]Institute of Pharmaceutical Sciences of Western Switzerland, University of Geneva, Geneva, Switzerland, [2]School of Pharmaceutical Sciences, University of Geneva, Geneva, Switzerland, [3]mRNA Center of Excellence, Analytical Sciences, Sanofi, Marcy l'Etoile, France, [4]Waters Corporation, Milford, USA, [5]Waters Corporation, Geneva, Switzerland* **Csaba Horváth Nominee**
11:50	OR43	**Effect of spatial arrangement of zwitterions on HILIC separation performance** Zhengjin Jiang[1] *[1]College of Pharmacy, Jinan University, Guangzhou, China*
12:10	OR44	**Ion-pairing hydrophilic interaction chromatography: a powerful separation technique for impurity profiling of therapeutic phosphorothioated oligonucleotides** Luca Tutiš[1,2], Govert Somsen[1,2], Andrea Gargano[2,3] *[1]Vrije Universiteit Amsterdam, Amsterdam, The Netherlands, [2]Centre for Analytical Sciences Amsterdam (CASA), Amsterdam, The Netherlands, [3]University of Amsterdam, Amsterdam, The Netherlands*

	Exhibition Hall	
13:15 **15:50**		**POSTER & EXHIBITION FEST** (XXL Coffee break) Even numbers
13:15 **14:15**		**VENDOR SEMINARS**
		AGILENT (Rooms 1-2, level 3) **Transforming laboratories: The Power of Guided Workflows and Automation**
		RIC GROUP (Rooms 4-5 , level 3) **Structure function relation of antibodies & new tools for ancient diseases**
		RESTEK (Room 12, level 3) **PFAS: The Chemicals That Never Leave (And the Peaks That Never Show Up)**
		THERMO FISHER ("The View", level 4) **Celebrating 20 years of CAD technology – the past, present, and future**

	Auditorium A+B, Level 1	
15:50 **17:20**	TU-07	**PROTEOMICS** *Chairs of the session: Robert Kennedy, Gunda Koellensperger*
15:50	KN29	**An In-Depth Single-Cell Proteome Every 5 minutes or Less** Ryan Kelly[1] *[1]Brigham Young University, Provo, United States*
16:15	KN30	**High-Throughput Spatial Proteome Analysis by Top-down and Bottom-up Strategies** Yue Sun, Haofei Sun, Chao Wang, Dan Liu, Yu Liang, Lihua Zhang *[1]Dalian Institute Of Chemical Physics, Chinese Academy Of Sciences, Dalian, China*
16:40	KN31	**In vivo Protein Footprinting Reveals the Dynamic Conformational Changes of the Proteome of Multiple Tissues in Progressing Alzheimer's Disease** Yates John[1], Ahrum Son[1], Hyunsoo Kim[2], Jolene K. Diedrich[1], Casimir Bamberger[1], Daniel B. McClatchy[1], Stuart Lipton[3,4,5] *[1]Department of Integrated Structural and Computational Biology, Scripps Research, Lajolla, United States, [2]Department of Convergent Bioscience and Informatics, Chungnam National University, 99 Daehak-ro, Yuseong-gu, Daejeon, Republic of Korea, [3]Department of Molecular and Cellular Biology, The Scripps Research Institute, La Jolla, United States, [4]Neurodegeneration New Medicines Center, The Scripps Research Institute, La Jolla, United States, [5]Department of Neurosciences School of Medicine University of California, San Diego, La Jolla, United States*

17:00	OR45	**HPLC: a critical component of proteomics in precision medicine** Jennifer Van Eyk[1] *[1]Cedars Sinaï Medical Center, Los Angeles, United States*

Foyer, Level 3

15:50 17:20	TU-08	**PREPARATIVE CHROMATOGRAPHY** *Chairs of the session: Bo Zhang, Chiara De Luca*
15:50	KN32	**Preparative and Industrial Chromatography of Viral Gene therapy Vectors, Vaccine and Bionanoparticles** Alois Jungbauer[1] *[1]BOKU University, Vienna, Austria*
16:15	OR46	**Optimization of a Simulated Moving Bed (SMB) chromatography system for SMB method development of chiral and non-chiral compounds in analytical scale** Yannick Krauke[1], Lena Steuter[1], Giorgia Greco[1] *[1]Knauer Wissenschaftliche Geräte GmbH, Berlin, Germany*
16:40	OR47	**Simplifying Process Intensification: The Advantages of Multi-Frequency Chromatography** Lisa Audoy[1] *[1]Cromaoak, Porcheville, France*
17:00	OR48	**Large Scale Peptide Purifications Never Cease to Astonish** Imre Sallay[1] *[1]Osaka Soda, Osaka, Japan*

The View, Level 4

15:50 17:20	TU-09	**PHARMACEUTICAL SEPARATIONS** *Chairs of the session: Debby Mangelings, Todd Maloney*
15:50	KN33	**Automated multicolumn screening workflow in ultra-high pressure hydrophilic interaction chromatography for streamlined method development of polar analytes** Erik Regalado[1], Mohamed Hemida, Rodell Barrientos, Davy Guillarme. Gioacchino Luca Losacco *[1]Merck & Co., Inc., Rahway, United States*
16:15	KN34	**Boosting sensitivity in drug metabolism research with cutting-edge LC configurations** Filip Cuyckens[1] *[1]Johnson & Johnson, Beerse, Belgium*
16:40	OR49	**Multi-Attribute Monitoring for QC release testing of a therapeutic nanobody** Gwenael Nys[1], Rani Moons[1], Lien Gerits[1], Hilde de Busser[1] *[1]Sanofi, Geel, Belgium*
17:00	OR50	**Going micro: Pharmacokinetic insulin-profiles obtained from microsampled rat plasma and a microflow LC-MS/MS assay results in higher sensitivity and statistical power, less trauma imposed on animals and fewer animals used, compared to a conventional approach** Gaudry Bruno Troché[1,2], Tue Søeborg[2], Thorá Bödvarsdottir[2], Mads Bjelke[2], Nikoline Juul Nielsen[1] *[1]Dept. Plant and Environmental Sciences, University of Copenhagen, Frederiksberg C, Denmark, [2]Global Discovery and Development Sciences, Novo Nordisk, Måløv, Denmark*

VIP Room, Level 4

15:50 17:20	**WORKSHOP & PANEL DISCUSSION Career Insights**

Auditorium A+B, Level 1

17:30 18:30	**QUO VADIS HPLC IN INDUSTRY-DEBATE**

Wednesday, June 18, 2025

Auditorium A, Level 1

08:30 10:15	WE-01	**METABOLOMICS AND LIPIDOMICS** *Chairs of the session: Kenji Hamase, Christian Huber*
08:30	KN35	**Can we combine high-throughput and comprehensive lipidomic quantitation?** Michal Holčapek[1], Ondřej Peterka[1], Petra Peroutková[1], Robert Jirásko[1] *[1]University Of Pardubice, Pardubice, Czech Republic*
08:55	KN36	**Delving into tissue metabolomics** Gunda Koellensperger[1], Helena Kim[1], Christina Brenner[1], Lisa Panzenboeck[1], Veronika Fitz[1], Fiammetta Di Marco[1], Harald Schoeny[1] *[1]University Of Vienna, Vienna, Austria*
09:15	OR51	**Improved metabolome coverage with conventional and miniaturized approaches for separation techniques hyphenated with mass spectrometry** Serge Rudaz[1,2], Sergey Girel, Mathieu Galmiche[1], Mathis Fiault[1], Valentin Miéville[1], Patrycja Nowak-Sliwinska[1], Isabel Meister[1,2] *[1]University of Geneva, Switzerland, [2]Swiss Center of Human Applied Toxicology (SCAHT), Switzerland*
09:35	OR52	**Novel Methods for Simultaneously Untargeted Metabolome and Targeted Exposome Analysis in One Injection of LC-MS** Pengwei Guan[1], student Yuting Wang[1], Xinyu Liu[1], Guowang Xu[1] *[1]Dalian Institute of Chemical Physics, Chinese Academy of Sciences, Dalian, China*
09:55	OR53	**LC-MS Metabolomics. Constraints, Perspectives and Potential for biomarker discovery and clinical application** Georgios Theodoridis[1,2], Helen Gika[1,3] *[1]Biomic_CIRI, Aristotle University Thessaloniki, Thermi, Greece, [2]Dept. Chemistry, Aristotle University Thessaloniki, Greece, [3]Dept. Medicine, Aristotle University Thessaloniki, Greece*

Foyer, Level 3

08:30 10:15	WE-02	**SAMPLE PREPARATION** *Chairs of the session: Stig Pedersen-Bergjaard, Guibin Jiang*
08:30	KN37	**Functionalized monoliths for sample preparation** Valérie Pichon[1,2], Alice Taxil-Paloc[1], Lorenzo Avigo[1], Chistophe Chendo[1], Nathalie Delaunay[1], Audrey Combès[1] *[1]ESPCI Paris - PSL University, Paris, France, [2]Sorbonne Université, Paris, France*
08:55	KN38	**Automation of flow-based sample treatment for bioanalysis** Marcela Segundo[1] *[1]Faculdade de Farmácia da Universidade do Porto, Porto, Portugal*
09:15	KN38'	**Sample preparation and detection all in one for rapid analysis** Gongke Li[1] *[1]School of Chemistry, Sun Yat-sen University, Guangzhou, China*
09:35	OR55	**Efficient strategies for selective preconcentration of per- and polyfluoroalkyl substances prior to liquid chromatography-mass spectrometry** Emanuela Gionfriddo[1], Aghogho Abigail Olomukoro[1], Erasmus Cudjoe[2], Ruichao Xie[3], Neil Danielson[3], Derek Eitzmann[4], Jared Anderson[4] *[1]University At Buffalo, The State University Of New York, Buffalo, United States, [2]Perkin Elmer, LLC, Canada, [3]Miami University, Buffalo, United States, [4]Iowa State University, Ames, United States*
09:55	OR56	**Methods for Therapeutic Oligonucleotides (Nusinersen) Extraction and Determination in the Serum and Cerebrospinal Fluid Samples** Sylwia Studzińska[1], Szymon Bocian[1], Anna Lemska[2], Jakub Szymarek[2], Maria Mazurkiewicz-Bełdzińska[2] *[1]Chair of Environmental Chemistry and Bioanalytics, Faculty of Chemistry, Nicolaus Copernicus University in Toruń, Toruń, Poland, [2]Department of Developmental Neurology, Faculty of Medicine, Medical University of Gdansk, Gdańsk, Poland*

		The View, Level 4
08:30 10:15	WE-03	**INDUSTRY STORIES 1** *Chairs of the session: Amanda Guiraldelli, Stefan Lamotte*
08:30	KN39	**Design and application of Online Liquid Chromatography-Based Process Analytical Technology to Enable Synthetic Peptide Process Development and Manufacturing** Steve Groskreutz[1] *[1]Eli Lily, Indianapolis, USA*
08:55	KN40	**Necessity is the Mother of Invention: the challenges of novel pharmaceutical entities and the analytics they inspire** Adrian Clarke[1] *[1]Novartis Pharma AG, Basel, Switzerland*
09:15	OR57	**Beyond Conventional Methods: Novel RP-HPLC Method Development for NANOBODY®-Oligonucleotide** Silke Vlyminck[1], Sarah Greiner[1], Kevin O'Connell[1], Héloïse Quillay[1], Gauthier Husson[1], Aurélie Delangle[1] *[1]Sanofi Ghent, Ghent, Belgium*
09:35	OR58	**Innovative Approaches to Tackle Challenges in UHPLC Method Development for Peptides** Aromal Asokan[1] *[1]Johnson & Johnson*
09:55	OR59	**Accelerate pharmaceutical analytical method development using digital tools** Jufang Wu Ludvigsson[1], Paul Ferguson[1] *[1]AstraZeneca, Molndal, Sweden*

		Auditorium B, Level 1
08:30 09:15		**TUTORIAL 1** *Chair of the session: Jan Christensen*
08:30	TUT-01	**Asymmetric flow field-flow fractionation (AF4) coupled to synchrotron small angle x-ray scattering (SAXS) – A new tool for characterization of proteins and nanoparticles** Lars Nilsson[1] *[1]Lund University, Lund, Sweden*

		Auditorium B, Level 1
09:15 10:15	WE-03'	**SEPARATION MODES 1** *Chair of the session: Jan Christensen*
09:15	OR156	**Liposome electrokinetic chromatography for studies on analyte interactions with cholesterol- and ergosterol-rich membranes** Susanne Wiedmer[1], Dumidu Perera[1], Hanna Lai[1], Tuuliina Tuominen[1], Valeriia Lishchuk[1], Shshir Jaikishan[1], Amin Hedayati Moghaddam[2], Juha Mylläri[3] *[1]Department of Chemistry, University Of Helsinki, Helsinki, Finland, [2]Department of Chemical Engineering, Islamic Azad University, Iran, [3]Department of Computer Science, University of Helsinki, Finland*
09:35	OR157	**Quantitative Assessment of Retention Mechanisms for Ionized Compounds in Hydrophilic Interaction Chromatography (HILIC)** Yong Guo[1] *[1]Fairleigh Dickinson University, Florham Park, United States*
09:55	OR158	**An innovative photochemical reaction for the in-depth characterization of hempseeds by untargeted lipidomics** Andrea Cerrato[1], Chiara Cavaliere[1], Aldo Laganà[1], Carmela Maria Montone[1], Enrico Taglioni[1], Anna Laura Capriotti[1] *[1]Department Of Chemistry, Sapienza University Of Rome, Rome, Italy*

		Exhibition Hall
10:15 10:45		**COFFEE BREAK**

		Exhibition Hall
10:15 10:45		**TOP-20 POSTER FINALS-PART I**

		Auditorium A, Level 1
10:45 12:30	WE-04	**HYPHENATION** *Chairs of the session: Ryan Kelly, Michal Holcapek*
10:45	KN41	**SEC-UV-MALS: a valuable tool for monitoring disruption of self-assembled proteins in the context of drug design** Oceane Bauwens[1], Lionel Pochet[2], Caroline Mathieu[3], Juhans Dechenne[3], Johan Wouters[2], Quentin Spiller[3], Raphael Frederick[3], Marianne Fillet[1] *[1]Université de Liège, Liège, Belgium, [2]University of Namur, Namur, Belgium, [3]University of Louvain, Louvain, Belgium*
11:10	OR60	**Use of Liquid Chromatography Combined with Fluorescence Detection and Triple Quadrupole Mass Spectrometry for Analysis of Bisphenols in Pericardial Fluid from Patients with Coronary Artery Disease and Potential Clinical Application** Tomasz Tuzimski[1], Szymon Szubartowski[1], Janusz Stążka[2], Kamil Baczewski[2], Daria Janiszewska[3], Viorica Railean[4,5], Bogusław Buszewski[3,6], Małgorzata Szultka-Młyńska[3] *[1]Department of Physical Chemistry, Medical University of Lublin, Chodźki 4a, 20-093, Lublin, Poland, [2]Department of Cardiac Surgery, Medical University of Lublin, Jaczewskiego 8 (USK Nr 4), 20-093, Lublin, Poland, [3]Department of Environmental Chemistry and Bioanalytics, Gagarina 7, Faculty of Chemistry, Nicolaus Copernicus University, 87-100, Toruń, Poland, [4]Department of Infectious, Invasive Diseases and Veterinary Administration, Institute of Veterinary Medicine, Nicolaus Copernicus University in Torun, Gagarina 7, 87-100, Toruń, Poland, [5]Centre for Modern Interdisciplinary Technologies, Nicolaus Copernicus University, Wilenska 4, 87-100, Toruń, Poland, [6]Professor Jan Czochralski Kuyavian-Pomeranian Scientific Technological Centre, Krasinskiego 4, 87-100, Toruń, Poland*
11:30	OR61	**Advancing Low Flow LC/MS for Single Cell Proteomics with Variable Flow and 50 cm Microfabricated Pillar Array Columns** Jeff Op De Beeck[1], Marcel Bühler[2], Emin Araftpoor Araftpoor[2], Julia Kraegenbring[3], Bernard Delanghe[3], Kris Gevaert[2], Ir. Paul Jacobs[1] *[1]Thermo Fischer Scientific, Ghent, Belgium, [2]Ugent Gevaert Lab, Ghent, Belgium, [3]Thermo Fischer Scientific, Bremen, Germany*
11:50	OR62	**Advancing Non-Target Screening in Environmental Analysis with LC×LC-HRMS: Assessing Chromatographic Stability for Large Sample Sets and Developing Automated Data Processing Workflows** Oskar Munk Kronik[1], Ryland T. Giebelhaus[2,3], Selina Tisler[1], Giorgio Tomasi[1], Jan H. Christensen[1], Nikoline Juul Nielsen[1] *[1]University of Copenhagen, Frederiksberg, Denmark, [2]University of Alberta, Edmonton, Canada, [3]The Metabolomics Innovation Centre, Canada* **Csaba Horváth Nominee**
12:10	OR63	**Ultra-sensitive LC/CE 2D Profiling of N-linked Glycans by Dual Stacking Strategy** Takayuki Kawai[1], Takaya Miki[1], Suen He[1], Chenchen Liu[1], Sachio Yamamoto[2], Kohei Torikai[1], Mitsuhiro Kinoshita[2], Nobuaki Matsumori[1] *[1]Kyushu University, Fukuoka, Japan, [2]Kindai University, Higashi-Osaka, Japan*

		Foyer, Level 3
10:45 12:30	WE-05	**(BIO)PARTICLE SEPARATIONS 2** *Chairs of the session: Lars Nilsson, Susanne Wiedmer*

10:45	KN42	**Beyond Conventional Methods: AF4 for Advanced Analysis of (Bio)Molecular Assemblies** Alina Astefanei[1,2], Iro K. Ventouri[1,2], Maria Hayder[1,2], Claudia Zielke[3], Susanne Boye[4] *[1]Van 't Hoff Institute for Molecular Science (HIMS), Universiteit van Amsterdam, Science Park 904, 1098 XH Amsterdam, The Netherlands, [2]Centre of Analytical Sciences Amsterdam, Science Park 904, 1098 XH Amsterdam, The Netherlands, [3]Department of Bioengineering, Stanford University, Schools of Medicine and of Engineering, Stanford 94305, CA, USA, [4]Polymer Separation Group, Center for Macromolecular Structure Analysis, Leibniz-Institut für Polymerforschung Dresden, Germany*
11:10	KN43	**Flow FFF-ESI-MS for the Direct Lipid Analysis of Extracellular Vesicles** Myeong Hee Moon[1] *[1]Yonsei University, Seoul, South Korea*
11:30	OR64	**Characterization of nanomedicines by asymmetric flow field-flow fractionation** Maria Marioli[1] *[1]Ardena Nanomedicines, Oss, Netherlands*
11:50	OR65	**Field-Flow Fractionation for the Characterization and Purification of mi3-SpyCatcher: A Robust Nanoscaffold for Vaccine and Biopharmaceutical Applications** Valentina Marassi[1,2], Stefano Giordani[1], Anna Placci[1], Prof Matteo Calvaresi[1], Alberto Danielli[3], Barbara Roda[1,2], Andrea Zattoni[1,2], Pierluigi Reschiglian[1,2] *[1]Department of Chemistry, University of Bologna, Bologna, Italy, [2]INBB - Biostructures and Biosystems National Institute, Rome, Italy, [3]Department of Pharmacy and Biotechnology, University of Bologna, Bologna, Italy*
12:10	OR66	**Hydrodynamic Chromatography with Deterministic Lateral Displacement** Valentina Biagioni[1] *[1]Sapienza University of Rome, Italy*

The View, Level 4

10:45 12:30	WE-06	**INDUSTRY STORIES 2** *Chairs of the session: Alexandre Grand-Guillaume-Perrenoud, Steve Groskreutz*
10:45	KN44	**Advancing the analytical toolbox to enable macrocyclic peptide pharmaceutical drug discovery** Alexey Makarov[1] *[1]Merck & Co. Inc., Boston, United States*
11:10	KN45	**Bridge over troubled water - How to overcome solvent strength issues in industrial HPLC applications** Stefan Lamotte[1], Mo Legelli[1] *[1]BASF SE, Ludwigshafen, Germany*
11:30	OR67	**Utilization of Two-Dimensional Liquid Chromatography for Problem Solving in the Chemical Industry** Mubasher Ahmed Bashir[1], Meng Jing[2], Matthias Pursch[3] *[1]Analytical Science, Dow Core R&D, Terneuzen, Netherlands, [2]Analytical Science, Dow Core R&D, Collegeville, USA, [3]Analytical Science, Dow Core R&D, Wiesbaden, Germany*
11:50	OR68	**Applications of One and Multidimensional Chromatography in Modern Day Pharmaceuticals** CJ Venkatramani[1] *[1]Genentech Inc, South San Francisco, United States*
12:10	OR69	**Navigating the dual challenges of speed and efficiency in automated high-throughput purification (HTP) to accelerate drug discovery** José Luís Dores-sousa[1], Lars Van Eynde[1], Evelien Renders[1], Peter J.J.A. Buijnsters[1]. David Corens[1] *[1]Chemistry Capabilities, Analytical and Purification (CCAP), Janssen Pharmaceutica NV, a Johnson & Johnson company, Beerse, Belgium*

VIP Room, Level 4

10:45 12:30	**WORKSHOP EDUCATION FOR IMPACT** **Innovate learning in separation sciences**

Auditorium B, Level 1

10:45 11:30		**TUTORIAL 2** *Chair of the session: Sebastiaan Eeltink*
10:45	TUT-02	**Ion mobility-mass spectrometry and its hyphenation** Tim Causon[1] *[1]BOKU University, Vienna, Austria*

Auditorium B, Level 1

11:30 12:30	FP-01	**YOUNG SCIENTISTS SHORT ORALS** *Chair of the session: Sebastiaan Eeltink*
11:35	OR111	**Non-targeted Analysis of Agrochemical Compounds in Honeybees** Audrey Dewar[1], Pedro Alejandro Segura[1] *[1]Université De Sherbrooke, Sherbrooke, Canada*
11:42	OR112	**Chiral chromatography on polysaccharide-based chiral selectors: exploration of their conformational diversity and chiral recognition mechanisms using computational methods** Fardine Ameli[1], Yvan Vander Heyden[1], Debby Mangelings[1], Kenno Vanommeslaeghe[1] *[1]Vrije Universiteit Brussel (VUB), Faculty of Medicine and Pharmacy, Department of Analytical Chemistry, Applied Chemometrics and Molecular Modelling, Laarbeeklaan 103, 1090 Brussels, Belgium, Brussels, Belgium*
11:49	OR113	**An automated platform for the monitoring and screening of microfluidic immobilized enzyme reactors** Sanjay Lama[1], Hannes Westphal[1], Simon Schmidt[1], Rico Warias[1], Tanja Gulder[2,3,4], Detlev Belder[1] *[1]Institute of Analytical Chemistry, Leipzig University, Leipzig, Germany, [2]Institute of Organic Chemistry, Faculty of Chemistry and Mineralogy, Leipzig University, Leipzig, Germany, [3]Organic Chemistry I, Saarland University, Saarbrücken, Germany, [4]Synthesis of Natural-Product Derived Drugs, Helmholtz Institute for Pharmaceutical Research Saarland (HIPS) Helmholtz Centre for Infection Research (HZI), Saarbrücken, Germany*
11:56	OR114	**Revealing Extensive Glycoform Diversity Of C1-INH By Nanoscale Liquid Chromatography Separation Strategies Coupled To Mass Spectrometry** Sigourney Karijodikoro[1], Constantin Blöchl[1], Christoph Gstöttner[1], Vojtech Franc[2], Manfred Wuhrer[1], Elena Domínguez-Vega[1] *[1]Leiden University Medical Center, Leiden, Netherlands, [2]Pharming Technologies B.V., Leiden, Netherlands*
12:03	OR115	**Sustainable Advances in Therapeutic Peptide Purification: Dimethyl Carbonate as a Green Alternative to Acetonitrile in RP-LC** Chiara De Luca[1], Chiara Nosengo[1], Matteo Spedicato[1], Laura Magagnato[2], Giacomo Fogli[2], Marco Carraro[2], Walter Cabri[3], Marco Macis[2], Alberto Cavazzini[1,4], Simona Felletti[5], Antonio Ricci[2], Martina Catani[1] *[1]Department of Chemical, Pharmaceutical and Agricultural Sciences, University Of Ferrara, Ferrara, Italy, [2]Fresenius Kabi iPSUM, Villadose (RO), Italy, [3]Department of Chemistry "G. Ciamician", Alma Mater Studiorum, University of Bologna, Bologna, Italy, [4]Council for Agricultural Research and Economics (CREA), Rome, Italy, [5]Department of Environmental and Prevention Sciences, University of Ferrara, Ferrara, Italy*
12:10	OR116	**Multi-²D LC × LC and more for a comprehensive analysis of European medicinal plants** Katharina Wetzel[1], Priscilla Nhan, Marvin Häßler, Tatyana Tishakova, Lidia Montero, Oliver J. Schmitz *[1]University of Duisburg-essen, Essen, Germany, [2]Instituto de Investigación en Ciencias de la Alimentación (CSIC-UAM), Madrid, Spain*
12:17	OR117	**Automated Method Development for High-Performance Liquid Chromatography for Integration into Self-Optimizing Flow Reactors** Vinaya Francis[1,2], Aravind Senthil Vel[1], Julian Spils[1], Daniel Cortes-Borda[1], François-Xavier Felpin[1], Niket S Kaisare[2] *[1]Nantes Université, CEISAM, CNRS UMR 6230, Nantes, Nantes, France, [2]Department of Chemical Engineering, Indian Institute of Technology Madras, Chennai, India*
12:24	OR118	**Ionic liquid-functionalized silica-graphene oxide hybrid sorbent: development and application in microextraction packed sorbent for multiclass pesticide determination** Alessandra Timóteo Cardoso[1,2], Alejandro Cifuentes[2], Fernando Mauro Lanças[1] *[1]Universidade de São Paulo, São Carlos, Brazil, [2]Instituto de Investigación en Ciencias de la Alimentación, Madrid, Spain*

Exhibition Hall

13:15 14:15 **TOP-20 POSTER FINALS-PART II**

13:15 14:15 **VENDOR SEMINARS**

AGILENT (Rooms 1-2, level 3)
Transformative Therapies:
Analytical Mastery of GLP-1 RA Drugs and mRNA LNPs

MERCK (Rooms 4-5 , level 3)
Narrowing Down Success: The Art of advancing HPLC

TOSOH BIOSCIENCE (Room 12, level 3)
From Small to Complex Biotherapeutics:
Comprehensive Characterization with SEC and Light Scattering

WATERS ("The View", level 4)
LC-MS and Light Scattering Solutions for Analysis of GLP-1 Analogs

Auditorium A, Level 1

14:15 16:00 WE-07 **PFAS & ENVIRONMENTAL**
Chairs of the session: Paola Dugo, Martina Catani

14:15 KN46 **Non-Target Screening of Environmental Samples: Strategies for Quantification, Prioritization, and Identification Using LC-HRMS and Multidimensional Chromatography**
Jan Christensen, Selina Tisler[1], Kristoffer Kilpinen[1], Nikoline Nielsen[1], Thomas Karlsson[1], Jonathan Zweigle[1], Giorgio Tomasi[1]
[1]University Of Copenhagen, Denmark

14:40 KN47 **Machine learning-assisted liquid chromatography-mass spectrometry analysis for the identification of new contaminants with toxic effects**
Ting Ruan[1], Hao Jiang[1], Yu Zhang[1], Guibin Jiang[1]
[1]Research Center For Eco-environmental Sciences, Chinese Academy Of Sciences, Beijing, China

15:00 OR70 **Insights into the composition of aquatic natural organic matter: UPLC-HRMS of SPE fractions with PCA**
Patricia Forbes[1], Boitumelo Nokeri[1], Savia Marais[2]
[1]University Of Pretoria, Pretoria, South Africa, [2]Rand Water, Vereeniging, South Africa

15:20 OR71 **Multi-dimensional liquid chromatography coupled to high-resolution mass spectrometry for the assessment of risk and removal of organic micropollutants from wastewater**
Marie Pardon[1,2], Warich Leekitratanapisan[3], Soraya Chapel[1], Peter de Witte[2], Karel de Schamphelaere[3], Deirdre Cabooter[1]
[1]KU Leuven, Laboratory for Pharmaceutical analysis, Department of Pharmaceutical and

15:40 OR72 **Tools for Analysis of Environmental Fate of Polymeric Nano- and Microparticles in Various Types of Samples**
Maria Hayder[1], Cloé Veclin[1], Aislinn Ahern[1], Aleksandra Chojnacka[1], Gert-Jan M. Gruter[1,2], Annemarie P. van Wezel[3], Alina Astefanei[1]
[1]Van 't Hoff Institute for Molecular Sciences, University Of Amsterdam, Amsterdam, Netherlands, [2]Avantium BV, Amsterdam, Netherlands, [3]Institute for Biodiversity and Ecosystem Dynamics, University of Amsterdam, Amsterdam, Netherlands

Foyer, Level 3

14:15 16:00 WE-08 **MICROFLUIDICS**
Chairs of the session: Simone Dimartino, James Grinias

14:15 KN48 **Coupling Droplet Microfluidics to LC and Ion Mobility Spectrometry for High-Throughput Analysis**
Robert Kennedy[1]
[1]University Of Michigan, Ann Arbor, United States

14:40 KN49 **3D printed microfluidic chromatography systems**
Adam Woolley[1], Timothy Skaggs[1], Dallin Miner[1], James Holladay[1], Zachary Berkheimer[1], Michael Haggard[1], Prof. Gregory Nordin[1]
[1]Brigham Young University, Provo, United States

15:00 OR73 **Chip-HPLC, Microfluidic Breadboards, and the Future of Integrated Chemical Processing**
Detlev Belder[1]
[1]Leipzig University, Leipzig, Germany

15:20 OR74 **Realization of vortex chromatography in polymeric devices**
Dariush Bahrami[1], Ilyesse Bihi[1], Daniel Borstner[2], Philipp Melchior[2], Gerburg Schider[2], Barbara Stadlober[2], Wim De Malsche[1]
[1]µFlow group (Vrije Universiteit Brussel), Brussels, Belgium, [2]Joanneum Research Forschungsgesellschaft mbH, Weiz, Austria

15:40 OR75 **Coupling continuous µ-reactors with chipHPLC/MS detection for the investigation of heterogeneously catalysed reactions**
Hannes Westphal[1], Rico Warias[1], Detlev Belder[1]
[1]Institute of Analytical Chemistry, Leipzig University, Leipzig, Germany

Csaba Horváth Nominee

The View, Level 4

14:15 16:00 WE-09 **LC – IMS & MS/MS**
Chairs of the session: Oliver Schmitz, Gerard Hopfgartner

14:15 KN50 **New Omnitrap-enabled activation techniques for oligonucleotide analysis**
Valérie Gabelica[1]
[1]Unige, Genève, Switzerland

14:40 KN51 **Implementing high-resolution ion mobility and mass spectrometry for fast(er) analytical methods**
Sabrina M Cramer[1], Viktoria Kowarz[2], Diethard Mattanovich[2], Stephan Hann[1], Tim Causon[1]
[1]BOKU University, Department of Natural Sciences and Sustainable Resources, Institute of Analytical Chemistry, Vienna, Austria, [2]BOKU University, Department of Biotechnology and Food Science, Institute of Microbiology and Microbial Biotechnology, Vienna, Austria

15:00 OR76 **How to improve the resolving power in ion mobility in hyphenation with front end chromatography for environmental contaminants**
Gauthier Eppe, Hugo Muller[1], Aurore Schneiders[1], Johann Far[1]
[1]MSLab ULiège, Liège, Belgium

15:20 OR77 **Isomer-Resolved Metabolomics: Chromatography versus Differential Mobility Spectrometry Mass Spectrometry of Radical Cations and Protonated Molecules**
Patrick Mueller[1], Gérard Hopfgartner[1]
[1]University Of Geneva, Geneva, Switzerland

15:40 OR78 **Coupling Supercritical Fluid Chromatography with Ion Mobility Spectrometry: A Miniaturized Chip-Based platform for Rapid Analysis**
Klaus Welters[1], Julius Schwieger[1], Christian Thoben[2], Alexander Nitschke[2], Stefan Zimmermann[2], Detlev Belder[1]
[1]Leipzig University, Leipzig, Germany, [2]Leibniz University, Hannover, Germany

VIP ROOM, Level 4

14:15 16:00 WE-13 **RECENT ADVANCES**
Chairs of the session: Simona Feletti, Boguslaw Buszewski

14:15	OR151	**HILIC-MS: A Powerful Characterization Method for Biomacromolecule Analysis** Annika van der Zon[1], Ziran Zhai[1], Luca Tutis[1,2], Govert Somsen[2], Andrea Gargano1 *[1]University Of Amsterdam, Amsterdam, Netherlands, [2]VU Amsterdam, Amsterdam, Netherlands*
14:40	OR152	**Evolution of Ion-Exchange Columns for Biologics Characterization** Shanhua Lin[1], Shane Bechler, Ryan Cowley[1], Brandon Robson[1], Ke Ma[1], Ken Cook[1] *[1]Thermo Fisher Scientific, Sunnyvale, United States*
15:00	OR153	**Towards new approaches for extracellular vesicles purification and lipidome analysis** Weronika Hewelt-Belka[1], Michał Młynarczyk[1], Jorge Matinha-Cardoso[2,3,4], Paulo Oliveira[3,5], Felicja Gajdowska[6], Mikołaj Klimczuk[7], Raphael Ewonde Ewonde[8], Sebastiaan Eeltink[8], Mariusz Belka[9], Danuta Gutowska-Owsiak[7] *[1]Department of Analytical Chemistry, Faculty of Chemistry, Gdańsk University of Technology, Gdańsk, Poland, [2]MCbiology Doctoral Program, ICBAS – School of Medicine and Biomedical Sciences Abel Salazar, University of Porto, Portugal, [3]CIIMAR – Interdisciplinary Centre of Marine and Environmental Research, University of Porto, Portugal, [4]i3S - Instituto de Investigação e Inovação em Saúde, University of Porto, Portugal, [5]Department of Biology, Faculty of Sciences, University of Porto, Portugal, [6]Laboratory of Experimental and Translational Allergology and Pneumology, Medical University of Gdańsk, Poland, [7]Laboratory of Experimental and Translational Immunology, University of Gdansk, Intercollegiate Faculty of Biotechnology, University of Gdansk and Medical University of Gdansk, Gdansk, Poland, [8]Department of Chemical Engineering, Vrije Universiteit Brussel, Belgium, [9]Department of Pharmaceutical Chemistry, Medical University of Gdańsk, Poland*
15:20	OR154	**Perspectives and Challenges in the Analysis of Radio Pharmaceuticals** Claudio Brunelli[1], Nicoletta Fabiano[1] *[1]Advanced Accelerator Applications, a Novartis Company, Colleretto Giacosa, Italy*
15:40	OR155	**Robots and Analytics: Trends & Advances in Lab Automation** Tom Vercammen[1] *[1]Sampleq, Belgium*

Auditorium B, Level 1

14:15 – 15:00 **TUTORIAL 3**
Chair of the session: Ken Broeckhoven

14:15	TUT-03	**Chromatographic strategies for the analytical characterization of cell and gene therapy products** Szabolcs Fekete[1], Mateusz Imiolek[1] *[1]Waters Corporation*

Auditorium B, Level 1

15:00 – 16:00 FP-02 **YOUNG SCIENTISTS SHORT ORALS**
Chair of the session: Ken Broeckhoven

15:05	OR119	**Engineering Multi-Modal Magnetic Nanovitality for PFCs: From Extraction to Degradation with UHPLC-MS/MS Monitoring** Uday Shashikumar[1], Vinoth Kumar Ponnusamy[1] *[1]Department of Medicinal and Applied Chemistry, Kaohsiung Medical University, Kaohsiung, Taiwan-807*
15:12	OR120	**Energetic and kinetic criteria for the use of collision induced unfolding as quality control for biopolymers** Thomas Tilmant[1], Loic Quinton[1], Gauthier Eppe[1], Edwin De Pauw[1], Johann Far[1] *[1]University Of Liège, Mass Spectrometry Laboratory (MSlab), Belgium*
15:19	OR121	**Antibody-drug conjugates: a strategy of purification and characterization** Margherita Marino[1], Paolo Rovero[1], Walter Mier[2], Hendrik Rusche[3], Anna Maria Papini[1] *[1]Interdepartmental Research Unit of Peptide & Protein Chemistry & Biology, Departments of Chemistry "Ugo Schiff" and NeuroFarba, University of Florence, 50019-Sesto F.no, Italy, Sesto Fiorentino (FI), Italy, [2]Radiopharmaceutical Chemistry, University Clinic of Heidelberg, Neuenheimer Feld 400 69120 Heidelberg Gebaude 6400, Germany, Heidelberg, Germany, [3]Fischer Analytics GmbH, Saarlandstrasse 377, 55411-Bingen, Germany, Bingen am Rhein, Germany*
15:26	OR122	**Improving robustness and applicability of TRLC** Adriaan Ampe[1], Ken Broeckhoven[2], Frederic Lynen[1] *[1]Ghent University, Ghent, Belgium, [2]VUB, Brussels, Belgium*

15:33	OR123	**Nanoflow Size Exclusion Chromatography – Native Mass Spectrometry of Intact Proteoforms and Protein Complexes** Ziran Zhai[1], Andrea F.G. Gargano[1] *[1]University of Amsterdam, Netherlands*
15:40	OR124	**The First Cut is the Deepest: In-Depth Glycosphingolipid Characterization in Human Mesenchymal Stem Cells Using 2D-LC-HRMS** Amirreza Dowlati Beirami[1,2], Antonio Branchaccio[1], Linda Johnsen[3], Cornelia Kasper[3], Dominik Egger[4], Ursula Hiden[5], Evelyn Rampler[1,2] *[1]Department of Analytical Chemistry, Faculty of Chemistry, University of Vienna, Waehringer Str. 38, 1090, Vienna, Austria, [2]Vienna Doctoral School in Chemistry (DoSChem), University of Vienna, Waehringer Str. 42, 1090, Vienna, Austria, [3]Department of Biotechnology and Food Science, Institute of Cell and Tissue Culture Technologies, University of Natural Resources and Life Sciences, Vienna, Austria, [4]Institute of Cell Biology and Biophysics, Leibniz University Hannover, Hannover, Germany, [5]Department of Obstetrics and Gynaecology, Medical University of Graz, Graz, Austria*
15:47	OR125	**Benchmarking EAD spectra of lipids through pattern matching of labeled and unlabeled yeast samples** Marlene Puehringer[1,2], Leonida M. Lamp[3], Lisa Panzenboeck[1,2], Juergen Hartler[3,4], Evelyn Rampler[1] *[1]Department of Analytical Chemistry, Faculty of Chemistry, University of Vienna, Vienna, Austria, [2]University of Vienna, Vienna Doctoral School in Chemistry (DoSChem), Waehringer Str. 42, 1090 Vienna, Vienna, Austria, [3]Institute of Pharmaceutical Sciences, University of Graz, Graz, Austria, [4]Field of Excellence BioHealth – University of Graz, Graz, Graz*
15:54	OR126	**Normal-phase HPLC as a superior alternative to epoxidation for biogenic interferences removal in mineral oil aromatic hydrocarbon analysis in food** Aleksandra Gorska[1], Grégory Bauwens[1], Marco Beccaria[2], Prof. Giorgia Purcaro[1] *[1]Analytical Chemistry Laboratory, Gembloux Agro-Bio Tech, University of Liège, Gembloux, Belgium, [2]Department of Chemical, Pharmaceutical, and Agricultural Sciences (DOCPAS), University of Ferrara, Ferrara, Italy*

Exhibition Hall

16:00 – 16:30 **COFFEE BREAK**

Auditorium A, Level 1

16:30 – 18:15 WE-10 **OLIGOMER SEPARATIONS 2**
Chairs of the session: Martin Gilar, Filip Cuyckens

16:30	KN52	**Analysis of Diastereomers of Oligonucleotides: Strategies and Technologies** Kelly Zhang[1] *[1]Genentech Inc., United States*
16:55	KN53	**Rapid Oligonucleotide Analysis using Sample Preparation and HPLC** Jared Anderson[1] *[1]Iowa State University, Ames, United States*
17:15	OR79	**sgRNA single nucleotide resolution by ion-pairing reversed phase chromatography** Joshua Jones[1], Todd Maloney *[1]Eli Lilly And Co., Indianapolis, United States*
17:35	OR80	**Why a complementary analytical toolbox is essential for correct siRNA duplex content determination** Tiny Deschrijver[1], Laure-Elie Carloni[1], Kirsten Ryvers[1], Bart Noten[1], Lukas Strattman[1], Thomas De Vijlder[1] *[1]Johnson And Johnson, Turnhout, Belgium*
17:55	OR81	**Validity of Reversed Phase Ion Pair Liquid Chromatography for Non-Denaturing Analysis of siRNA Oligonucleotides** Lucy Durham[1], Joanna Hemming Taylor[1], Edward Ahearne[1], Faith Eldred-Butler[1], David Whittaker[1] *[1]Early Chemical Development, Pharmaceutical Sciences, AstraZeneca, Macclesfield, United Kingdom*

Foyer, Level 3

16:30 – 18:15 WE-11 **INSTRUMENT HARDWARE & DETECTION**
Chairs of the session: Michael Breadmore, Kevin Schug

16:30	KN54	**Analyzing Complex Samples with Compact Capillary LC** James Grinias[1] *[1]Rowan University, Glassboro, United States*
16:55	OR82	**Portable ion chromatograph for simultaneous in-field analysis of ammonium, nitrate and nitrite in agricultural samples and industrial wastewaters** Brett Paull[1], Kurt Debruille[1], Yonglin Mai[1], Eoin Murray[2] *[1]Australian Centre for Research on Separation Science (ACROSS), University Of Tasmania, Sandy Bay, Hobart, Australia, [2]Research and Development, Aquamonitrix Ltd, Tullow, Ireland*
17:15	OR83	**Exploiting the potential of X-Ray Fluorescence spectroscopy: a novel flow-through HPLC detector for universal elemental detection** Gaëlle Spileers[1], Pieter Tack[2], Laszlo Vincze[3], Frédéric Lynen[1] *[1]Separation Science Group, Department of Organic and Macromolecular Chemistry, Ghent University, Gent, Belgium, [2]Ghent University Centre for Tomography (UGCT), Department of Physics and Astronomy, Ghent University, Gent, Belgium, [3]X-ray Microspectroscopy and Imaging Group, Department of Chemistry, Ghent University, Gent, Belgium* **Csaba Horváth Nominee**
17:35	OR84	**Development of a Portable Capillary Electrophoresis System for On-Site Analytical Applications** Giacomo Musile[1], Marc-Aurèle Boillat[1], Götz Schlotterbeck[2], Peter C. Hauser[1] *[1]Department of Chemistry, University of Basel, Basel, Switzerland, [2]Institute of Forensic Medicine, University of Basel, Basel, Switzerland*
17:55	OR85	**On-line Sample Introduction and Detection Methods for Small Footprint Capillary LC** M. Lee[1], Greg Ward[1], M. Morse[1], E. Gates[1], T. Truong[1] *[1]Axcend, Lehi, USA*

The View, Level 4

16:30 18:15	WE-12	**MODELLING & AI** *Chairs of the session: Attila Felinger, Bob Pirok*
16:30	OR86	**Gas Chromatography with a Twist** Valentina Biagioni[1], Bram Huygens[2], Desmet Gert[2], Stefano Cerbelli[1] *[1]Sapienza Univeristà Di Roma - Dipartimento di Ingegneria Chimica Materiali Ambiente, Roma, Italy, [2]Vrije Universiteit Brussel - Dept. of Chemical Engineering, Brussel, Belgium*
16:55	OR87	**Numerical Investigation of Spiky Particles as a Novel Support Structure for UHPLC** Sander Deridder[1], Yassine El Alali[1], Gert Desmet[1] *[1]Vrije Universiteit Brussel, Brussels, Belgium*
17:15	OR88	**Modern chromatography for non-target screening and (statistical) data handling concepts** Thomas Letzel[1], Stefan Bieber[1] *[1]AFIN-TS, Augsburg, Germany*
17:35	OR89	**Data-Driven Insight: Deep Learning Revolutionizes Separation in Proteomics** Katerina Hruzova[1], Alexander Kensert[2,3], Robbin Bouwmeester[2,3], Lennart Martens[2,3], Jiri Urban[1] *[1]Masaryk University, Brno, Czech Republic, [2]VIB-UGent Center for Medical Biotechnology, VIB, Ghent, Belgium, [3]Department of Biomolecular Medicine, Ghent University, Ghent, Belgium* **Csaba Horváth Nominee**
17:55	OR90	**Data Science meets Chromatography: Predicting chiral separations in SFC using Machine Learning** Astrid Buica[1,2], Christoph Bauer[2], Kristina Öhlén[1], Hanna Leek[1] *[1]Early Chemical Development, Pharmaceutical Sciences, Biopharmaceuticals R&D, AstraZeneca, Gothenburg, Sweden, [2]Data Science & Modeling, Pharmaceutical Sciences, Biopharmaceuticals R&D, AstraZeneca, Gothenburg, Sweden*

Auditorium B, Level 1

16:30 17:15		**TUTORIAL 4** *Chair of the session: Frederic Lynen*

16:30	TUT-04	**How to quantify the greenness of your methods?** Elia Psillakis[1] *[1]Technical University of Crete, Chania-Crete, Greece*

Auditorium B, Level 1

17:15 18:15	FP-03	**YOUNG SCIENTISTS FLASH PRESENTATIONS** *Chair of the session: Frederic Lynen*
17:20	OR127	**From discovery to quantitation: development and optimization of a fast targeted HILIC-HRMS approach for liquid biopsy of Hepatocellular Carcinoma** Danila La Gioia[1,2], Fabrizio Merciai[1], Eduardo Sommella[1], Pietro Campiglia[1] *[1]University of Salerno, Italy, Italy, [2]PhD Program in Drug Discovery and Development, University of Salerno, Fisciano, (SA) Italy*
17:27	OR128	**Unveiling the Altered Protein Landscape in Extracellular Vesicles Released from TBEV-Infected Dendritic Cells using Nanoflow-UHPLC Coupled to Mass Spectrometry** Shubham Kaushik[1], Ritesh Khanna[1,3], Helena Langhansová[3], Zuzana Beránková[3], Jaroslava Lieskovská[3], Christof Regl[1], Nicole Meisner-Kober[1,2], Christian Huber[1,2] *[1]Department of Biosciences & Medical Biology, University of Salzburg, Hellbrunnerstrasse 34, 5020, Salzburg, Austria, [2]Ludwig Boltzmann Institute for Nanovesicular Precision Medicine, Salzburg, Austria, [3]Department of Medical Biology, Faculty of Science, University of South Bohemia, České Budějovice, Czech Republic*
17:34	OR129	**Porous polyamide 3D-printed devices for the extraction of hydrophilic compounds** Dagmara Kroll[1], Phaedra Verding[2,3], Debby Mangelings[2], Yvan Vander Heyden[2], Ann Van Eeckhaut[3], Gino V. Baron[4], Tomasz Bączek[1], Mariusz Belka[1] *[1]Department of Pharmaceutical Chemistry, Medical University of Gdańsk, Gdańsk, Poland, [2]Department of Analytical Chemistry, Applied Chemometrics and Molecular Modelling (FABI), Vrije Universiteit Brussel, Brussels, Belgium, [3]Research group of Experimental Pharmacology (EFAR), Center for Neurosciences (C4N), Vrije Universiteit Brussel, Brussels, Belgium, [4]Department of Chemical Engineering, Vrije Universiteit Brussel, Brussels, Belgium*
17:41	OR130	**Theoretical Prediction of the Optimal Support Shape for 3D Ordered Liquid Chromatography Structures** Ali Moussa[1], Alessandra Adrover[2], Gert Desmet[1] *[1]Vrije Universiteit Brussel, Brussels, Belgium, [2]Sapienza Università di Roma, Rome, Italy*
17:48	OR131	**Aureobasidium pullulans: A promising source of biosurfactants – Deciphering the chemical space of polyol lipids by HPLC-HRMS** Philipp Otzen[1], Vera Schwantes[1], Tiago Vanacker[1], Heiko Hayen[1] *[1]Institute of Inorganic and Analytical Chemistry, University Münster, Münster, Germany*
17:55	OR132	**Selective Glycoform Separations of Intact Monoclonal Antibodies by Acrylamide Monolithic Stationary Phases** Annika van der Zon[1,2], Loïs Hana[1,2], Huda Husein[1,2], Andrea Gargano[1,2] *[1]University of Amsterdam, Amsterdam, Netherlands, [2]Centre of Analytical Sciences Amsterdam, Amsterdam, Netherlands*
18:02	OR133	**Downscaling HPLC-MS(/MS): paving the way for single-cell lipidomics analysis** Fiammetta Di Marco[1], Rupert Mayer[2], Harald Schoeny[1], Karl Mechtler[2,3,4], Gunda Koellensperger[1] *[1]Department of Analytical Chemistry, Faculty of Chemistry, University of Vienna, Vienna, Austria, [2]Institute of Molecular Biotechnology (IMBA), Austrian Academy of Sciences, Vienna BioCenter (VBC), Vienna, Austria, [3]Research Institute of Molecular Pathology (IMP), Vienna BioCenter (VBC), Vienna, Austria, [4]Gregor Mendel Institute of Molecular Plant Biology (GMI), Austrian Academy of Sciences, Vienna BioCenter (VBC), Vienna, Austria*
18:09	OR134	**Online LCxSFC : how to make a successful coupling?** Margaux Sanchez[1,2], Julien Crepier[2], Karine Faure[1] *[1]Université Claude Bernard Lyon 1, ISA UMR 5280, CNRS, Villeurbanne, France, [2]TotalEnergies OneTech, Centre de Recherches de Solaize TotalEnergies, Solaize, France*

La Brugeoise

19:00 23:30		**CONFERENCE DINNER**

Thursday, June 19, 2025

Auditorium A, Level 1

08:30 10:15	TH-01	**SEPARATION MODES 2** *Chairs of the session: Govert Somsen, Tohru Ikegami*
08:30	KN55	**A study of the potential of peraqueous liquid chromatography (PALC) as a green chemistry analytical approach** David McCalley[1], James Heaton[2], Stephan Buckenmaier[3] *[1]University of the West of England, Bristol, Bristol, United Kingdom, [2]GSK, Stevenage, United Kingdom, [3]Agilent Technologies, Waldbronn, Germany*
08:55	OR91	**Getting the best out of CE and CE-MS using polyelectrolyte multilayer capillary coatings** Laura Dhellemmes[1], Laurent Leclercq[1], Alisa Höchsmann[2], Christian Neusüß[2], Michel Martin[3], Herve Cottet[1] *[1]IBMM, University of Montpellier, Montpellier, France, [2]Faculty of Chemistry, Aalen University, Aalen, Germany, [3]PMMH, CNRS, ESPCI Paris-PSL, Sorbonne Université, Université de Paris, Paris, France*
09:15	OR92	**Field-Flow Fractionation of Polymersomes: Cracking the Conformation Code** Susanne Boye[1], Silvia Moreno[1,2], Dietmar Appelhans[1], Lars Nilsson[3], Albena Lederer[1,4] *[1]Leibniz Institute For Polymer Research Dresden, Dresden, Germany, [2]University of Alcalá, Madrid, Spain, [3]Lund University, Lund, Sweden, [4]Stellenbosch University, Stellenbosch, South Africa*
09:35	OR93	**Streamlining Biosimilar Development: Rapid and Robust Charge-Variant and Glycoform Assessment by Microfluidic CE-MS** Ruben Cageling[1,2,3], Sara Carillo[4], Anja Boumeester[2], Karin Lubbers-Geuijen[2], Jonathan Bones[4,5], Kevin Jooß[1,3], Govert Somsen[1,3] *[1]Division of BioAnalytical Chemistry, Department of Chemistry and Pharmaceutical Sciences, Vrije Universiteit Amsterdam, Amsterdam, The Netherlands, [2]Protein Purification & Characterization, Polpharma Biologics Utrecht, Utrecht, The Netherlands, [3]Centre for Analytical Sciences Amsterdam (CASA), Amsterdam, The Netherlands, [4]National Institute for Bioprocessing Research and Training (NIBRT), Dublin, Ireland, [5]School of Chemical and Bioprocess Engineering, University College Dublin, Dublin, Ireland*
09:55	OR94	**Development of a comprehensive two-dimensional liquid chromatography combining top-down and bottom-up protocols** Jiri Urban[1], Anna Kosmakova[1], Aryna Paulenka[1] *[1]Masaryk University, Brno, Czech Republic*

Foyer, Level 3

08:30 10:15	TH-02	**GC** *Chairs of the session: Luigi Mondello, Frederic Lynen*
08:30	KN56	**GC and GC×GC in 2025** Jef Focant[1] *[1]University Of Liège, Liège, Belgium*
08:55	KN57	**GC-BASED HYPHENATED TECHNIQUES IN FOOD ANALYSIS** Giorgia Purcaro[1] *[1]University Of Liège, Gembloux Agro-Bio Tech, Gembloux, Belgium*
09:15	OR95	**GC-HRMS and GC×GC-HRMS, versatile tools for characterization of complex matrices and quantification of targeted compounds** Pascal Cardinael[1], Saida Belarbi[1], Amel Meziani[1], Victoria Bohm[1], Marie Vaccaro[1], Valerie Peulon-Agasse[1] *[1]University of Rouen Normandy, Laboratoire SMS-UR3233, FR3038, Place Emile Blondel, F-76000, Rouen, France, Mont-Saint-Aignan, France*
09:35	OR96	**Untargeted flavor profiling of beer, our national product, with high analytical performance and a green touch?** Tatiana Cucu[1], Pat Sandra[1] *[1]RIC-group, Kortrijk, Belgium*
09:55	OR97	**Micropillar array columns and nanogravimetric detector to miniaturize gas chromatography** Jérôme Randon[1], Ambroisine Michel[1], Guy Raffin[1], Eric Colinet[2], Régis Barattin[2] *[1]Université Claude Bernard Lyon1, Villeurbanne, France, [2]APIX Analytics, Grenoble, France*

The View, Level 4

08:30 10:15	TH-03	**EUCHEM SAMPLE PREPARATION** *Chairs of the session: Elia Psillakis, Marcela Segundo*
08:30	KN58	**Electromembrane extraction prior to liquid chromatography** Stig Pedersen-Bjergaard[2] *[1]University of Oslo, Oslo, Norway, [2]University of Copenhagen, Copenhagen, Denmark*
08:55	KN59	**Automated analyses of volumetrically collected dried blood spot samples** Pavel Kuban[1], Milos Dvorak[1], Richard Marsala[1], Manuel Miro[2] *[1]Institute of Analytical Chemistry of the Czech Academy of Sciences, Brno, Czech Republic, [2]FI-TRACE Group, Department of Chemistry, University of the Balearic Islands, Palma de Mallorca, Spain*
09:15	OR98	**Deep Eutectic Solvents and Chromatography: A Good Combination?** Lorena Vidal[1,2], Iván Rubio[1,2], Cristina Zapater[1], Miguel Ángel Aguirre[1], Antonio Canals[1] *[1]Departamento de Química Analítica, Nutrición y Bromatología e Instituto Universitario de Materiales, Universidad de Alicante, 03080, Alicante, Spain, [2]Laboratorio de Investigación, Hospital General Universitario Dr. Balmis, Instituto de Investigación Sanitaria y Biomédica de Alicante (ISABIAL), 03080, Alicante, Spain*
09:35	OR99	**Smart samplers: A 'spot-on' approach to simplify LC-MS analysis of proteins from dried biological samples** Trine G Halvorsen[1], Léon Reubsaet[1] *[1]University of Oslo, Oslo, Norway*
09:55	OR100	**Volumetric absorptive microsampling meets microextraction for the first time to advance preclinical drug research** Petra Štěrbová-Kovaříková[1], Adam Reguli[1], Hana Bavlovič Piskáčková[1], Olga Lenčová-Popelová[2], Petra Kollárová-Brázdová[2], Martin Štěrba[2], Stig Pedersen-Bjergaard[3,4] *[1]Faculty of Pharmacy in Hradec Králové, Charles University, Hradec Králové, Czech Republic, [2]Faculty of Medicine in Hradec Králové, Charles University, Hradec Králové, Czech Republic, [3]Department of Pharmacy, University of Oslo, Oslo, Norway, [4]Department of Pharmacy, Faculty of Health and Medical Sciences, University of Copenhagen, Copenhagen, Denmark*

Auditorium B, Level 1

08:30 09:15		**TUTORIAL 5** *Chair of the session: Ken Broeckhoven*
08:30	TUT-05	**No molecule is above the law (no matter how big and strong they are)** Peter Schoenmakers[1] *[1]University Of Amsterdam, Amsterdam, Netherlands*

Auditorium B, Level 1

09:15 10:15	FP-04	**YOUNG SCIENTISTS FLASH PRESENTATIONS** *Chair of the session: Ken Broeckhoven*
09:20	OR135	**Artificial Neural Networks-Driven Elucidation of Ionization Processes In Supercritical Fluid Chromatography-Mass Spectrometry** Katerina Plachka[1], Veronika Pilarova[1], Tatana Gazarkova[1], Jean-Christophe Garrigues[2], Lucie Novakova[1] *[1]Charles University, Faculty of Pharmacy, Hradec Kralove, Czech Republic, [2]SOFTMAT (IMRCP) Laboratory, SMODD Team, CNRS, Toulouse III Paul Sabatier University, Toulouse, France*
09:27	OR136	**Combination of HPLC and SLIM: An extremely powerful analysis platform** Cedric Thom[1], Sven W. Meckelmann[1], Oliver J. Schmitz[1] *[1]University Of Duisburg-Essen - Applied Analytical Chemistry, Essen, Germany*

Thursday

09:34	OR137	**In silico simulations to investigate the enantiorecognition mechanism in liquid chromatography: a case study with a dipeptide and four zwitterionic Cinchona alkaloid-based chiral stationary phases** Ina Varfaj[1], Magdalena Labikova[2], Elisa Bianconi[1], Antonio Macchiarulo[1], Michal Kohout[2], Leonid Asnin[3], Roccaldo Sardella[1], Andrea Carotti[1] *[1]University Of Perugia, Perugia, Italy, [2]University of Chemistry and Technology, Prague, Czech Republic, [3]Perm National Research Polytechnic University, Perm, Russia*
09:41	OR138	**Quantification of affinity constants between pentamidine and pentamidine-like compounds with RNA probes representative of myotonic dystrophy type 1 by Affinity Capillary Electrophoresis** Mathieu Leveque[1], Mathilde Wells[1], Stéphanie Hambye[1], Victor Lefebvre[1], Delphine Beukens[1], Bertrand Blankert[1] *[1]University Of Mons, Mons, Belgium*
09:48	OR139	**Microsampling vs. Chemical Biopsy: A Comparative Study on Tissue Metabolome Extraction** Helena Kim[1,2], Joanna Bogusiewicz[4], Harald Schoeny[1], Fiametta di Marco[1], Natalia Treder[5], Barbara Bojko[4], Janusz Pawliszyn[5], Gunda Koellensperger[1,3] *[1]Department of Analytical Chemistry, Faculty of Chemistry, University of Vienna, Waehringer Str. 38, 1090, Vienna, Austria, [2]University of Vienna, Vienna Doctoral School in Chemistry (DoSChem), Waehringer Str. 42, 1090, Vienna, Austria, [3]Vienna Metabolomics Center (VIME), University of Vienna, Althanstr. 14, 1090, Vienna, Austria, [4]Department of Pharmacodynamics and Molecular Pharmacology, Faculty of Pharmacy, Collegium Medicum in Bydgoszcz, Nicolaus Copernicus University in Torun, Dr. A. Jurasza 2, Bydgoszcz 85-089, Poland, [5]Department of Chemistry, University of Waterloo, 200 University Avenue West, Waterloo, ON, Canada N2L 3G1*
09:55	OR140	**Asymmetric Flow Field Flow Fractionation (AF4) and Consequent Pyrolysis Gas Chromatography/Mass Spectrometry (Py-GC/MS): A Powerful Off-line Analytical Workflow to Characterize Nanoplastics** Xiaoyu Zhang, Geraldine Dumont, Kristof Tirez, Adrian Covaci, Stefan Voorspoels, Milica Velimirovic *[1]VITO, Mol, Belgium, [2]University of Antwerp, Antwerp, Belgium*
10:02	OR141	**Advanced separation and spectral techniques for identification of microbiomes and bacterial metabolites** Dominika Błońska[1,2], Michał Szumski[2], Bogusław Buszewski[3] *[1]Department of Environmental Chemistry and Bioanalytics, Faculty of Chemistry, Nicolaus Copernicus University, Toruń, Poland, [2]Centre for Modern Interdisciplinary Technologies, Nicolaus Copernicus University, Poland, [3]Prof. Jan Czochralski Kuyavian-Pomeranian Research & Development Centre, Poland*
10:09	OR142	**Method development for targeted screening of chlorinated fatty acids (CFA) in refined vegetable oils** Tomáš Kouřimský[1], Jakub Tomáško[1], Beverly Hradecká[1], Vojtěch Hrbek[1], Jan Kyselka[2], Jana Pulkrabová[1], Jana Hajšlová[1] *[1]Department of Food Analysis and Nutrition, University of Chemistry and Technology Prague, Prague, Czech Republic, [2]Department of Dairy, Fat and Cosmetics, University of Chemistry and Technology Prague, Prague, Czech Republic*

Exhibition Hall

10:15 10:45 **COFFEE BREAK**

Auditorium A, Level 1

10:45 12:30	TH-04	**SUSTAINABILITY** *Chairs of the session: Emanuela Gionfriddo, Jared Anderson*
10:45	KN60	**Green and Sustainable Analytical Chemistry: Myths, Truths and Opportunities** Elia Psillakis[1] *[1]Technical University of Crete, Chania-Crete, Greece*
		Jubilee Medal

11:10	OR101	**Sustainability considerations in the development of New Modality therapeutic chromatographic methods** Paul Ferguson[1] *[1]AstraZeneca, Macclesfield, United Kingdom*
11:30	OR102	**Towards greener liquid chromatography: characterization of solvents and systems** Xavier Subirats[1], Laura Portell[1], Martí Rosés[1] *[1]University of Barcelona, Barcelona, Spain*
11:50	OR103	**Dimethyl carbonate as an green extraction solvent and mobile phase constituent in reversed-phase liquid chromatography for caffeine and theobromine analysis in tea extracts** Oktawia Kalisz[1], Martina Catani[2], Szymon Bocian[1] *[1]Department of Environmental Chemistry and Bioanalytics, Faculty of Chemistry, Nicolaus Copernicus University, 7 Gagarin St., 87-100 Toruń, Poland, [2]Department of Chemical, Pharmaceutical and Agricultural Sciences, University of Ferrara, via L. Borsari 46, Ferrara 44121, Italy*
12:10	OR104	**Evaluation of Greener Solvents for HPLC** Frank Michel[1], Benjamin Peters[2], Gisela Jung[2], Anita Pieper[2], Peter Knoell[2] *[1]Sigma-Aldrich Chemie GmbH, part of Merck, Taufkirchen, Germany, [2]Merck KGaA, Darmstadt, Germany*

Foyer, Level 3

10:45 12:30	TH-05	**FOOD** *Chairs of the session: Giorgia Purcaro, Mariusz Belka*
10:45	KN61	**Multidimensional liquid chromatography strategies for the analysis of natural products** Paola Dugo[1], Katia Arena[1], Roberto Laganà Vinci[1], Francesco Cacciola[1], Luigi Mondello[1] *[1]University of Messina, Messina, Italy*
11:10	KN62	**Comprehensive 2D LC-MS to study phenolic evolution in single vineyard wines** André de Villiers[1], Eugene Nell[1], Jochen Vestner[2] *[1]Stellenbosch University, Stellenbosch, South Africa, [2]DLR Rheinpfalz, Neustadt, Germany*
11:30	KN62'	**Advances in the monitoring of natural toxins in food and environmental samples by chromatographic and electrophoretic techniques** Ana M. García-Campaña[1], Rocio Carmona-Molero, María Alvárez-Romero, Laura Carbonell-Rozas, Maria del Mar Aparicio-Muriana, María del Mar Delgado-Povedano, Maykel Hernández-Mesa, Francisco J. Lara, Laura Gámiz-Gracia, Monsalud del Olmo Iruela *[1]University of Granada, Granada, Spain, [2]University of Granada, Granada, Spain, [3]University of Granada, Granada, Spain, [4]University of Granada, Granada, Spain, [5]Queen's University Belfast, Belfast, United Kingdom, [6]University of Antwerp, Antwerp, Belgium, [7]University of Granada, Granada, Spain, [8]University of Granada, Granada, Spain, [9]University of Granada, Granada, Spain, [10]University of Granada, Granada, Spain*
11:50	OR106	**Novel Stationary Phase for Comprehensive Separation of Carbohydrates** Jean-Pierre Chervet[1], Christopher Paul[2], Christian Marvelous[1], Hendrik-Jan Brouwer[1] *[1]Antec Scientific, Alphen a/d Rijn, Netherlands, [2]Consultant, 32572 Monterey Ct., Union City, United States*
12:10	OR107	**Geographical Characterization and Authentication of Honey by LC-ESI(-)-HRMS (Q-Orbitrap) Metabolomic Fingerprinting and Polyphenolic Profiling** Oscar Núñez[1,4,5], Danica Mostoles[1], Benedetta Fanesi[2], Paolo Lucci[2], Andrea Mara[3], Gavino Sanna[3], Javier Saurina[1,4], Sònia Sentellas[1,4,5] *[1]Department of Chemical Engineering and Analytical Chemistry, Universitat de Barcelona, Barcelona, Spain, [2]Department of Agricultural, Food and Environmental Sciences, Università Politecnica delle Marche, Ancona, Italy, [3]Department of Chemical, Physical, Mathematical, and Natural Sciences, University of Sassari, Sassari, Italy, [4]Research Institute in Food Nutrition and Food Safety, Universitat de Barcelona, Santa Coloma de Gramenet, Barcelona, Spain, [5]Serra Húnter Program, Generalitat de Catalunya, Barcelona, Spain*

The View, Level 4

10:45 12:30	TH-06	**RETENTION MODELLING** *Chairs of the session: Dwight Stoll, Soraya Chapel*
10:45	KN63	**Global retention models: An alternative approach to handling complex samples in HPLC** María Celia Garcia-Alvarez-Coque[1], Pau Peiro-Vila[1], José Ramón Torres-Lapasió[1] *[1]University of Valencia, Burjassot (Valencia), Spain*

11:10	KN64	**Multilevel/hierarchical modeling of chromatographic retention** Pawel Wiczling[1] *[1]Department of Biopharmaceutics and Pharmacodynamics, Medical University of Gdańsk, Gen. J. Hallera 107, 80-416 Gdańsk, Poland, Gdansk, Poland*
11:30	OR108	**Mobile-Phase Contributions to Analyte Retention and Selectivity in Reversed-Phase Liquid Chromatography** Alexandra Höltzel[1], Andreas Steinhoff[1], Ulrich Tallarek[1] *[1]Philipps-University of Marburg, Marburg, Germany*
11:50	OR109	**Characterization of HPLC columns. Comparison between the Snyder's Hydrophobic Subtraction and the Abraham's Solvation Parameter Models** Marti Roses[1], Xavier Subirats[1] *[1]University of Barcelona, Barcelona, Spain*
12:10	OR110	**Comparative HPLC Separation of Oxysterols Using Analytical Design Space Modeling: Insights from Three Stationary Phases (ES-CN, C18, F5)** Andrea Castellaneta[1], Ilario Losito[1,2], Tommaso Cataldi[1,2], Imre Molnár[3], Hans-Jürgen Rieger[3] *[1]Department of Chemistry, University of Bari «Aldo Moro», Bari, Italy, [2]SMART interdepartmental Center, University of Bari «Aldo Moro», Bari, Italy, [3]Molnár-Institute for Applied Chromatography, Berlin, Germany*

Auditorium B, Level 1

10:45 11:30		**TUTORIAL 6** *Chair of the session: Sebastiaan Eeltink*
10:45	TUT-06	**Molecular simulations, molecular measurements, how they work and what we can learn for chromatography** Mark Schure[1] *[1]Affiliation*

Auditorium B, Level 1

11:30 12:30	FP-05	**YOUNG SCIENTISTS FLASH PRESENTATIONS** *Chair of the session: Sebastiaan Eeltink*
11:35	OR143	**Membrane Surface Coatings Influence the Elution Behavior of Differently Charged Liposomes in Asymmetric Flow Field-Flow Fractionation** Johann Savinsky[1], Lukas Hirschwald[1], Merten Sommer[1], Sebastian Rauer[1], John Linkhorst[2], Matthias Wessling[1] *[1]RWTH Aachen University - Chair Of Chemical Engineering, Aachen, Germany, [2]Technical University of Darmstadt, Process Engineering of Electrochemical Systems, Darmstadt, Germany*
11:42	OR144	**Optimizing Low-Field NMR as an Online Detector for HPLC** Johanna Tratz[1], Marianne Gaborieau[1], Markus Matz[1], Michael Pollard[1], Manfred Wilhelm[1] *[1]Karlsruhe Institute of Technology, Karlsruhe, Germany*
11:49	OR145	**Comparative Analysis of Maleimide and NHS-Ester JQ1-Trastuzumab Conjugates Using Orthogonal Analytics** Sophie Jolliffe[1], Georgina Armstrong[1], Andrea Taladriz Sender[2], Glenn Burley[2], Craig Jamieson[2], Zahra Rattray[1] *[1]Strathclyde Institute of Pharmacy and Biomedical Sciences (SIPBS), University of Strathclyde, Glasgow, United Kingdom, [2]Department of Pure and Applied Chemistry, University of Strathclyde, Glasgow, UK, Glasgow, United Kingdom*
11:56	OR146	**Accurate Quantitation of Single Cell Drug Uptake by a Novel Suction-to-Clog Sampling Method and Dual-Stacking Capillary Electrophoresis-Mass Spectrometry** Daiki Sakai[1], Taichi Fujimura[1], Miyuki Ito[1], Chenchen Liu[1], Kohei Torikai[1], Nobuaki Matsumori[1], Takayuki Kawai[1] *[1]Kyushu University, Fukuoka, Japan*
12:03	OR147	**One- and two-dimensional liquid chromatography for the analysis of mRNA drug substances** Niklas Carstensen[1], Michael Lämmerhofer[1] *[1]University Of Tuebingen, Tuebingen, Germany*

12:10	OR148	**Affinity capillary electrophoresis in near-physiological conditions coupled to mass spectrometry for ligand-protein interaction's assessment in the context of drug discovery** Clara Davoine[1], Marianne Fillet[1] *[1]Laboratory for the Analysis of Medicines (LAM), CIRM, University of Liege, Liège, Belgium*
12:17	OR149	**Ion-mobility derived CCS-m/z trendlines for improved annotation confidence of contaminants of emerging concern and their biotransformation products** Lidia Belova[1], Maosen Zhao[1], Mikel Musatadi[2], Maarten Roggeman[1], Giulia Poma[1], Celine Gys[1], Paulien Cleys[1], Fatima den Ouden[1], Maitane Olivares[2], Alexander L. N. van Nuijs[1], Adrian Covaci[1] *[1]Toxicological Centre, University of Antwerp, Wilrijk, Belgium, [2]Department of Analytical Chemistry, University of the Basque Country, Leioa, Spain*
12:24	OR150	**Online SEC-UV-RP-MS method for multi-attribute characterization of gene therapy products** Megane Aebischer[1,2], Serge Rudaz[1,2], Davy Guillarme[1,2] *[1]School of Pharmaceutical Sciences, University of Geneva, Geneva, Switzerland, [2]Institute of Pharmaceutical Sciences of Western Switzerland, University of Geneva, Geneva, Switzerland*

Exhibition Hall

13:00 13:30		**AWARD CEREMONIES** Csaba Horvath Young Scientist, Best Poster Award, Best Poster Pitch Award, Best Topical Poster Awards and Exhibition MVP prize

The View, Level 4

13:30 15:15		**CLOSING CEREMONY**
13:30 14:00	PL03	**Multi-dimensional and enantioselective LC analysis of chiral amino acids and dipeptides –method development and biological applications** **And invitation to HPLC 2027 Fukuoka** Kenji Hamase[1] *[1]Graduate School of Pharmaceutical Sciences, Kyushu University, Japan*
14:00 14:30	PL04	**Hybrid HPLC-MS techniques employed to the characterization protein structure: lessons learned from the analysis of simple and highly complex glycoproteins** **And invitation to HPLC 2027 Innsbruck** Katharina Böttinger[1], Christof Regl[1], Fiammetta Di Marco[1], Maximilian Lebede[1], Gabriele Blümel[1], Christian Huber[1] *[1]Department of Biosciences and Medical Biology, University of Salzburg, Salzburg, Austria*
14:30 15:00	PL05	**Novel Characterization Strategies for Therapeutic Oligonucleotides** **And invitation to HPLC 2026 Indianapolis** Todd Maloney[1], Matthew Sorensen[1], Joshua Jones[1], Daniel Meston[2], Dwight Stoll[2] *[1]Eli Lilly and Company, Indianapolis, United States, [2]Gustavus Adolphus College, Saint Peter, United States*
15:00 15:15		**Closing remarks**

Terrace, Level 4

15:15 15:45	**FAREWELL DRINK**

POSTER SESSIONS

Poster sessions are taking place on Monday June 15 and Thursday June 16, 2025, between 13:15 and 15:50.
Odd numbers are presented on Monday, even numbers are presented on Tuesday.
Posters will stay available for the participants in the exhibition hall during the whole conference.

2DLC

2DLC-01 **Optimizing Active Modulation in Recycling Liquid Chromatography After Light Induced Degradation Using the Perpendicular Illumination Light Cell**
Merel Konings[1,2], Pascal Camoiras Gonzalez[1,2], Bob W.J Pirok[1,2], Maarten R. van Bommel[1,2,3]
[1]University of Amsterdam, van't Hoff Institute for Molecular Sciences, Analytical Chemistry Group, Amsterdam, Netherlands, [2]Centre for Analytical Sciences Amsterdam (CASA), Amsterdam, Netherlands, [3]University of Amsterdam, Amsterdam School for Heritage, Memory and Material Culture, Conservation and Restoration of Cultural Heritage, Amsterdam, Netherlands

2DLC-02 **Quantitative assessment of 2D-LC analysis of polyolefins for multiway applications; Calibration of the Log M axis**
Paul DesLauriers[1], Jan-Hendrik Arndt[2], Guru Geertz[2], Robert Brüll[2], Subrajeet Deshmukh[2]
[1]The Paulymer Group, Owasso, United States, [2]Fraunhofer Institute for Structural Durability and System Reliability (LBF), Darmstadt, Germany

2DLC-03 **Multidimensional LC Isolation and Purification of Exosomes from Diverse Media**
R. Kenneth Marcus[1], Chris Topper[1], Aastha Pandey[1]
[1]Clemson University, Clemson, United States

2DLC-04 **Development of a comprehensive HILIC x IP-RPLC method to address solvent strength mismatch for oligonucleotides analysis**
Megane Aebischer[1,2], Davy Guillarme[1,2]
[1]School of Pharmaceutical Sciences, University of Geneva, CMU-Rue Michel Servet 1, 1211 Geneva, Switzerland., Geneva, Switzerland, [2]Institute of Pharmaceutical Sciences of Western Switzerland, University of Geneva, CMU-Rue Michel Servet 1, 1211 Geneva, Switzerland., Geneva, Switzerland

2DLC-05 **Multi-^{2}D LC × LC and more for a comprehensive analysis of European medicinal plants**
Katharina Wetzel[1]
[1]University of Duisburg-essen, Essen, Germany

2DLC-06 **Online SEC-UV-RP-MS method for multi-attribute characterization of gene therapy products**
Megane Aebischer[1,2], Davy Guillarme[1,2], Serge Rudaz[1,2]
[1]School of Pharmaceutical Sciences, University of Geneva, Geneva, Switzerland, [2]Institute of Pharmaceutical Sciences of Western Switzerland, University of Geneva, Geneva, Switzerland
Adeno-associated virus (AAV) vectors have become one of the preferred choices for gene therapies, with several FDA-approved products and numerous clinical trials underway. This preference is attributed to AAV's broad tissue tropism, non-pathogenic nature, favorable safety profile, and ability to sustain long-term transgene expression.

2DLC-07 **The First Cut is the Deepest: In-Depth Glycosphingolipid Characterization in Human Mesenchymal Stem Cells Using 2D-LC-HRMS**
Amirreza Dowlati Beirami[1,2]
[1]Department of Analytical Chemistry, Faculty of Chemistry, University of Vienna, Waehringer Str. 38, 1090, Vienna, Austria, [2]Vienna Doctoral School in Chemistry (DoSChem), University of Vienna, Waehringer Str. 42, 1090, Vienna, Austria

2DLC-08 **One- and two-dimensional liquid chromatographyfor the analysis of mRNA drug substances**
Niklas Carstensen[1], Michael Laemmerhofer[1]
[1]University Of Tuebingen, Tuebingen, Germany

2DLC-09 **Two-dimensional liquid chromatography in combination with mass spectrometry to unravel the polyphenol profile of tamarind juice**
Toon Verdonck[1], Deirdre Cabooter[1], Patrick Augustijns[1], Christophe Matthys[2]
[1]Department of Pharmacy and Pharmacological Sciences, KU Leuven, Leuven, Belgium, [2]Clinical and Experimental Endocrinology, Department of Chronic Diseases and Metabolism, KU Leuven, Leuven, Belgium

2DLC-10 **Two-Dimensional Chromatography-Tandem Mass Spectrometry Method for Monitoring Diflubenzuron in Brazilian Fish Pond Water**
Sylvio Viamonte[1], Anna Paula Rocha de Queiroga[1], Susanne Rath[1]
[1]University Of Campinas, Campinas, Brazil

2DLC-11 **Online LCxSFC: how to make a successful coupling?**
Margaux Sanchez[1,2]
[1]Université Claude Bernard Lyon 1, ISA UMR 5280, CNRS, Villeurbanne, France, [2]TotalEnergies OneTech, Centre de Recherches de Solaize TotalEnergies, Solaize, France

2DLC-12 **Data-independent profiling of phenolic constituents in shea using comprehensive two-dimensional liquid chromatography (RPLC × HILIC) hyphenated to cyclic ion mobility-quadrupole-time-of-flight mass spectrometry**
Nikoline Juul Nielsen[1], Oskar M. Kronik[1], Romina A. F. Neran[1], Jan H. Christensen[1], Tore K. Ravn[2], André de Villiers[3]
[1]University Of Copenhagen, Frederiksberg C, Denmark, [2]AAK Denmark, Aarhus, Denmark, [3]Stellenbosch University, Stellenbosch, South Africa

2DLC-13 **Comprehensive two-dimensional liquid chromatography of proteins and peptides**
Anna Kosmakova[1], Aryna Paulenka[1], Jiri Urban[1]
[1]Department of Chemistry, Faculty of Science, Masaryk University, Brno, Czech Republic

2DLC-14 **Study of the transfer conditions for an online 2D SFC system**
Laurine Réset[1], Clement De Saint Jores[1], Caroline West[1]
[1]Université d'Orléans, CNRS, ICOA, UMR 7311, Orléans, France

2DLC-15 **Chiral Identification and Separation of Proteinogenic Amino Acids Using Comprehensive Two-Dimensional Liquid Chromatography (2D-LC)**
José Meneses[1], Frédéric Lynen[1]
[1]Ghent University, Ghent, Belgium

2DLC-16 **Leveraging Mechanistic and Machine Learning Models to Simplify Two-dimensional Liquid Chromatography (2D-LC) Method Development for Peak Purity Analysis**
Jane Kawakami[1], Rob North, Tony Yan, Doug Farrand, Giuseppe Cogoni
[1]Pfizer, Groton, United States

2DLC-17 **High-sensitive multi-attribute analysis of ADCs under native conditions by using an online multiple heart-cutting 2D-LC-HRAM mass spectrometry system**
Xuepu Li[1], Xiaoxi Zhang[1], Maria Gruebner[2], Frank Steiner[2], Min Du[3]
[1]Thermo Fisher Scientific, Shanghai, China, [2]Thermo Fisher Scientific, Germering, Germany, [3]Thermo Fisher Scientific, Lexington, USA

2DLC-18 **Investigation of polyphenols in wine grape pomace using comprehensive two-dimensional chromatography (LC×LC)**
Taher Sahlabji[1], Yassine Oulad El Majdoub[2], Florian Stappert[2], Lidia Montero[2], Marvin Häßler[2], Oliver J. Schmitz[2]
[1]King Khalid University, Abha, Saudi Arabia, [2]Applied Analytical Chemistry, University of Duisburg-Essen, Universitatsstr. 5, 45141 Essen, Germany

2DLC-19 **Enantioselective determination of cysteine residues in peptides/proteins using a two-dimensional LC-MS/MS system combined with reductive carboxymethylation and ^{2}HCl/^2H_2O hydrolysis**
Chiharu Ishii[1], Rie Sueyoshi[1], Masashi Mita[2], Yusuke Murakami[3], Takeyuki Akita[1], Tadashi Ueda[1], Kenji Hamase[1]
[1]Graduate School of Pharmaceutical Sciences, Kyushu University, Japan, [2]KAGAMI, Inc.,é Japan, [3]Graduate School of Medical Sciences, Kyushu University, Japan

2DLC-21 **Exploring Allium cepa PDO Leaf Extracts chemical and antioxidant profile through online RP-LC × RP-LC-HRMS platform**
Giovanna Aquino[1], Eduardo Maria Sommella[1], Emanuela Salviati[1], Michele Manfra[2], Giulia Auriemma[1], Pietro Campiglia[1], Giacomo Pepe[1], Manuela Giovanna Basilicata[3]
[1]University Of Salerno, Italy, [2]University of Basilicata, Italy, [3]University of Campania "Luigi Vanvitelli", Italy

Biopharma

BIO-01	**Automated, Quantitative Capillary Western Blots to Analyze Host Cell Proteins in COVID-19 Vaccine Produced in Vero Cell Line** Richard R. Rustandi[1], Paul F. Gillespie[1], Emily Groegler[1], Nicholas Cunningham[1], Alyssa Q. Stiving[1], Jessica Raffaele[1], Natalia Marusa[1], Christopher M. Tubbs[1], John W. Loughney[1], Michael A. Winters[1] *[1]Analytical Research & Development, Merck Sharpe & Dohme (MSD), Rahway, United States*
BIO-02	**Polysorbates: How to manage Degradation by Quantifying and Profiling the complex excipient?** Matjaz Kracun[1] *[1]Novartis, Menges, Slovenia*
BIO-03	**Lipid content and purity in LNPs with HPLC-ELSD and HPLC-MS** Mareike Prüfer[1], Giorgia Greco[1], Juliane Kramer[1] *[1]KNAUER Wissenschaftliche Geräte Gmbh, Berlin, Germany*
BIO-04	**Enhancing mRNA-Lipid Nanoparticle Encapsulation Efficiency Determination with the Agilent 1290 Infinity II Bio LC System** Aveline Neo[1], Yulan Bian[1], Sonja Schneider[1], Suresh Babu C.V.[1], Zhi Ting Teo[1], Li Zhang[2], Yi Yan Yang[2] *[1]Agilent Technologies, Inc, Singapore, [2]Bioprocessing Technology Institute, Agency for Science, Technology and Research (A*STAR), Republic of Singapore, Singapore*
BIO-05	**Selective Glycoform Separations of Intact Monoclonal Antibodies by Acrylamide Monolithic Stationary Phases** Annika van der Zon[1,2] *[1]University of Amsterdam, Amsterdam, Netherlands, [2]Centre of Analytical Sciences Amsterdam, Amsterdam, Netherlands*
BIO-06	**Optimization of the Chromatographic Resolution of Individual DAR Species in Native RPLC-HRMS for Rapid Characterization of Antibody Drug Conjugates** A. Carl Sanchez[1], Miklos Czaun[1], Juan M. Perfetti[1], James Song[1], ChengKang Mai[1], Cuong Hoang[1], Ismail Rustamov[1] *[1]Phenomenex, Inc., Torrance, United States*
BIO-07	**Analytical characterization of solid oral protein therapeutics** Lulu Dai[1] *[1]Genentech, South San Francisco, United States*
BIO-08	**Anion exchange chromatography to determine mRNA encapsulation in lipid nanoparticles** Jonathan Maurer[1], Sofiane Mahjoubi[1], Athanasios Tsalmpouris[1], Camille Malburet[2], Chamsan Daher Assan[2], Marc François-Heude[2], Davy Guillarme[1] *[1]Institute of Pharmaceutical Sciences of Western Switzerland, University Of Geneva, Geneva, Switzerland, [2]Sanofi, mRNA Center of Excellence, Marcy l'Etoile, France*
BIO-09	**UHPLC-MS/MS determination of therapeutic monoclonal antibodies** Veronika Pilarova[1], Katerina Plachka[1], Irena Murinova[2,3], Juraj Lenco[1], Lucie Novakova[1] *[1]Department of Analytical Chemistry, Faculty of Pharmacy in Hradec Králové, Charles University, Hradec Kralove, Czech Republic, [2]Department of Social and Clinical Pharmacy, Faculty of Pharmacy, Charles University, Hradec Kralove, Czech Republic, [3]Department of Clinical Pharmacy, Military Faculty Hospital Prague, Prague, Czech Republic*
BIO-10	**Comparative Analysis of Maleimide and NHS-Ester JQ1-Trastuzumab Conjugates Using Orthogonal Analytics** Sophie Jolliffe[1] *[1]Strathclyde Institute of Pharmacy and Biomedical Sciences (SIPBS), University of Strathclyde, Glasgow, United Kingdom*
BIO-11	**Advanced Size Exclusion Chromatography with Online LS/DLS Detection for the Analysis of Critical Quality Attributes of Lipid Nanoparticles** Sonja Dr. Schneider[1], Johanna Simon[2], Jenny Hong Hoang[2] *[1]Agilent Technologies, Waldbronn, Germany, [2]Merck Life Science KGaA, Darmstadt, Germany*
BIO-12	**Comparability of carrrier ampholytes in icIEF: Differences and potential adjustments** Nelly Luong[1], Hermann Wätzig[1] *[1]TU Braunschweig, Brunswick, Germany*

Biopharma

BIO-13	**Direct comparison of single peak and gradient chromatographic methods for routine analysis of surfactants in biopharmaceuticals** Georg Schuster[1], Maksymilian M. Zegota[1], Juliane Achenbach[1], Christian Schöneich[2], Tim Menzen[1], Andrea Hawe[1] *[1]Coriolis Pharma Research, Martinsried, Germany, [2]Department of Pharmaceutical Chemistry, University of Kansas, Lawrence, USA*
BIO-14	**Quality Attributes of Therapeutic Proteins Depend on Process Parameters Employed in the Bioprocessing: Why Are Both Critical?** Thomas Berger[1], Veronika Schäpertöns[1], Larissa Hofer[2], Jerneja Štor[2], Thomas Rauter[1], Dominik Hofreither[3], Laura Liesinger[3], Ruth Birner-Gruenberger[3], Nikolaus Fortelny[1], Nicole Borth[2], Christian G. Huber[1] *[1]Department of Biosciences and Medical Biology, Paris Lodron University Salzburg Salzburg, Austria, [2]Department of Biotechnology, BOKU University Vienna, Vienna, Austria, [3]Institute of Chemical Technologies and Analytics, TU Wien, Vienna, Austria*
BIO-15	**Single Step Method for Multi-Attribute Analysis of therapeutic antibodies without sample purification** Meena Narsimhan[1], Mary Bower[1], Miriam Walker[1], Jessica Westland[1], Eric Bowen[1] *[1]Novilytic, West Lafayette, United States*
BIO-16	**High throughput multidimensional liquid chromatography approach for online protein removal and characterization of polysorbates and poloxamer in monoclonal antibody formulations** Maksymilian M. Zegota[1], Georg Schuster[1], Mauro De Pra[2], Tim Menzen[1], Frank Steiner[2], Andrea Hawe[1] *[1]Coriolis Pharma Research, Martinsried, Germany, [2]Thermo Fisher Scientific, Germering, Germany*
BIO-17	**Development of Two Affinity Columns Immobilized with Two Types of Fc Receptors: FcγR IIIa and FcRn for Detailed Antibody Drug Characterization** Tatsuya Yumoto[1], Ryoko Otake[1], Linko Hirono[1], Yosuke Terao[1] *[1]Tosoh Corporation, Ayase, Japan*
BIO-18	**Evaluating long-term stability of a monoclonal antibody by using Accelerated Stability Assessment Program modelling and high resolution mass spectrometry** Kevin Roeleveld[1], Geert Van Raemdonck[1] *[1]AnaBioTec, Evergem, Belgium*
BIO-19	**Slalom Chromatography Coupled to Multiangle Light Scattering: Advanced Characterization of Large Nucleic Acids** Mateusz Imiolek[1], Kennedy Sawyer[2], Jamuna Vaishnav[2], Szabolcs Fekete[1], Fabrice Gritti[2], Kevin Wyndham[2], Matthew Lauber[2] *[1]Waters Corporation, Geneva, Switzerland, [2]Waters Corporation, Milford, United States*
BIO-20	**Quantifying impurities in cationic lipids raw materials with the inverse gradient method using LC-CAD-MS** Sissi White[1], Mark Netsch[1], Min Du[1], Sylvia Grosse[2] *[1]Thermo Fisher Scientific, Lexington, United States, [2]Thermo Fisher Scientific, Germering, Germany*
BIO-21	**Improved LC Separations of Nucleic Acids Using Large Pore Superficially Porous Particles** Barry Boyes[1], Peter Pellegrinelli[1], Timothy Langlois[1], Joshua McBee[1], Brian Wagner[1], Joseph Destefano[1] *[1]Advanced Materials Technology, Wilmington, United States*
BIO-22	**Development of separative methods for harmonizing Quality Control of Monoclonal Antibodies by using an Analytical Quality by Design approach** Virginia Ghizzani[1,2], Alessandro Ascione[2], Serena Orlandini[3], Benedetta Pasquini[3], Sara Tengattini[1], Caterina Temporini[1], Sandra Furlanetto[3], Gabriella Massolini[1], Francesca Luciani[2] *[1]University Of Pavia, Pavia, Italy, [2]National Centre for the Control and Evaluation of Medicines (CNCF), Istituto Superiore di Sanità, Rome, Italy, [3]University of Florence, Florence, Italy*
BIO-23	**Antibody-drug conjugates: a strategy of purification and characterization** Margherita Marino[1] *[1]Interdepartmental Research Unit of Peptide & Protein Chemistry & Biology, Departments of Chemistry "Ugo Schiff" and NeuroFarba, University of Florence, 50019-Sesto F.no, Italy, Sesto Fiorentino (FI), Italy*

BIO-24 **Quantification of affinity constants between pentamidine and pentamidine-like compounds with RNA probes representative of myotonic dystrophy type 1 by Affinity Capillary Electrophoresis**
Mathieu Leveque[1]
[1]University Of Mons, Mons, Belgium

BIO-25 **Injection of Large Volumes of Eluotropic Sample Diluents in Reversed Phase Chromatography**
Daniel Foshag[1], Hannes Graf[1], Matthias Pursch[2], Jan-Andre Boeth[3], Ulrich Tallarek[3], Tom van de Goor[1,3]
[1]Agilent Technologies, Waldbronn, Germany, [2]Dow, Core R&D Analytical Science, Wiesbaden, Germany, [3]Department of Chemistry, Philipps-Universität Marburg, Marburg, Germany

BIO-26 **Characterization of polysorbate 80 in (bio)pharmaceuticals using HPLC-CAD**
Sylvia Grosse[1], Katherine Lovejoy[1], Susanne Fabel[1], Frank Steiner[1]
[1]Thermo Fisher Scientific, Germering, Germany

BIO-27 **Determination of Fatty Acids Composition in Polysorbates 80 and 20 Pharmaceutical Raw Materials by HPLC with Mass Detection**
Margaret Maziarz[1], Paul Rainville[1]
[1]Waters Corporation, Milford, United States

BIO-28 **Method development for analysis of antibody-drug-conjugates by ion exchange chromatography**
Daniel Esser[1], Chiaki Matsumura[2], Ken Tsutsui[2]
[1]YMC Europe GmbH, Dinslaken, Germany, [2]YMC Co., Ltd., Kyoto, Japan

BIO-29 **Advances in hydrophobic interaction chromatography stationary phases: new applications in biomolecule analysis from proteins to nucleic acids**
Andrea Krumm[1]
[1]Tosoh Bioscience Gmbh, Griesheim, Germany

BIO-30 **Affinity capillary electrophoresis in near-physiological conditions coupled to mass spectrometry for ligand-protein interaction's assessment in the context of drug discovery**
Clara Davoine[1]
[1]Laboratory for the Analysis of Medicines (LAM), CIRM, University of Liege, Liège, Belgium

BIO-31 **Characterization of Polysorbate Degradation Mode in Biopharmaceuticals**
Denis Klemm[1]
[1]F.Hoffmann-La Roche, Basel, Switzerland

BIO-32 **Analytical Characterization of DMG-PEG 2000: Foundations for a monograph in the Ph. Eur.**
Benedikt Sperber[1]
[1]University of Wuerzburg, Germany

BIO-33 **Development of HILIC-HRMS analysis for the characterization of microRNA methylation**
Khaoula Adouairi[1], Carole Farre[1], Carole Chaix[1], Karine Faure[1]
[1]Université Claude Bernard Lyon 1, ISA UMR 5280, CNRS, Villeurbanne, France

BIO-34 **Salt Enhances the Suitability of Ion-Pair Reversed-Phase Liquid Chromatography for the Non-Denaturing Analysis of siRNA**
Christian Manz[1], Martin Enmark[3], Illaria Furlan[2], Porya Habibollahi[2], Torgny Fornstedt[3], Jörgen Samuelsson[3], Eivor Örnskov[2], Manasses Jora[1]
[1]Medicinal Chemistry, Research and Early Development, Respiratory and Immunology, BioPharmaceuticals R&D, AstraZeneca, Mölndal, Sweden, [2]Advanced Drug Delivery, Pharmaceutical Sciences, BioPharmaceuticals R&D, AstraZeneca, Mölndal, Sweden, [3]Department of Engineering and Chemical Sciences, Karlstad University, Karlstad, Sweden

BIO-35 **Strategies for the Stereointegrity Control of Synthetic and Therapeutic Peptides**
Ryan Karongo[1]
[1]Bayer AG, Berlin, Germany

BIO-36 **Development of a Downstream Processing Platform for Adeno-associated virus (AAV) including reliable Empty/Full ratio determination by SEC-MALS**
Rico Schmidt[1], Jule Nickel[1]
[1]IDT Biologika, Dessau-Roßlau, Germany

BIO-37 **Characterization of adeno-associated virus capsid proteins using denaturing size-exclusion chromatography coupled with mass spectrometry**
Tim Tiambeng[1], Yuetian Yan, Shailin Patel, Victoria Cotham, Shunhai Wang, Ning Li
[1]Regeneron Pharmaceuticals, Tarrytown, United States

Column Technology

COL-01 **New Monodisperse fully porous particles (MFPP) for HPLC analysis**
Mark Woodruff[1], Ken Butchart[1]
[1]Fortis Technologies, Neston, United Kingdom

COL-03 **A Novel Carbon HPLC Column for Polar Analyte Analysis**
Egidijus Machtejevas[1], William Maule[2], Clinton Corman[2], Benjamin Peters[1], Michael Ye[2], Petra Lewits[1]
[1]Merck Life Science KGaA, Darmstadt, Germany, [2]Milliporesigma, Bellefonte, USA

COL-04 **Innovations in Particle Technology for Ultra High Performance Affinity Columns for Application in Bioprocessing**
Beatrice Muriithi[1], Yeliz Sarisozen[1], Martin Gilar[1], Fabrice Gritti[1], Kevin Wyndham[1], Emery Domain[1], Stephen Shiner[1]
[1]Waters Corporation, MILFORD, United States

COL-05 **New 3D Monolithic Architecture for Enhanced Analytical Performance**
Pavel Karásek[1], Josef Planeta[1], Michal Roth[1], Pavlina Dadajová[1]
[1]Institute of Analytical Chemistry of the CAS, Brno, Czech Republic

COL-06 **Governing selectivity in HILIC column technology**
Alla Chernobrovkina[1]
[1]Lomonosov Moscow State University, Moscow, Russian Federation

COL-07 **High Quality Reproducibility in SPP HPLC Product Manufacturing**
Stephanie Schuster[1], Harry Ritchie[1], Stephanie Rosenberg[1], Timothy Langlois[1], Joseph DeStefano[1]
[1]Advanced Materials Technology, Inc., Wilmington, De 19810, United States

COL-08 **Development and Evaluation of a Non-Porous Protein-A Silica Column for Monoclonal Antibody Analysis by High-Performance Affinity Chromatography**
Devansh Shah[1], John Hanrahan, Eric Moore[1]
[1]University College Cork, Cork, Ireland, [2]Glantreo Limited, Cork, Ireland

COL-09 **Modification of Conventional HPLC for Capillary Chromatography: A Practical, Green, and Cost-Effective Approach to Enhanced Efficiency, Sensitivity, and Sustainability**
Ahmad Agel[1], Ayman Ghfar[1], Zeid ALOthman[1]
[1]King Saud University, Riyadh, Saudi Arabia

COL-10 **Exploring Acoustic Streaming for Particle Focusing in Round-Cross-Section Capillaries**
Jakub Novotny[1], Anna Tycova
[1]Institute of Analytical Chemistry of the Czech Academy of Sciences, Brno, Czech Republic

COL-11 **Customized 3D-printed device integrated in a flow platform for the determination of anticoagulant agents in urine**
Sara R. Fernandes[1,2], Diana R. Cunha[2], Luisa Barreiros[1,2], Manuel Miró[3], Marcela A. Segundo[2]
[1]ESS, Polytechnic of Porto, Porto, Portugal, [2]LAQV, REQUIMTE, Dep. Chemical Sciences, Faculty of Pharmacy, University of Porto, Portugal, [3]FI-TRACE group, Dep. Chemistry, University of the Balearic Islands, Palma de Mallorca, Spain

COL-12 **Porous polyamide 3D-printed devices for the extraction of hydrophilic compounds**
Dagmara Kroll[1]
[1]Department of Pharmaceutical Chemistry, Medical University of Gdańsk, Gdańsk, Poland

COL-13 **Development of ordered particle monolayer arrays on silicon-glass microfluidic chips**
Mitch De Waard[1,2], Ignaas Jimidar[1,2], Han Gardeniers[2], Gert Desmet[1]
[1]Vrije Universiteit Brussel, Brussel, Belgium, [2]University of Twente, Enschede, Netherlands

COL-14 **An automated platform for the monitoring and screening of microfluidic immobilized enzyme reactors**
Sanjay Lama[1]
[1]Institute of Analytical Chemistry, Leipzig University, Leipzig, Germany

COL-15 **Towards open tubular columns with hypercrosslinked layer**
Jan Valasek[1], Matej Lohnicky[1], Radovan Metelka[2], Jiri Urban[1]
[1]Department of Chemistry, Faculty of Science, Masaryk University, Brno, Czech Republic, [2]Department of Analytical Chemistry, Faculty of Chemical Technology, University of Pardubice, Pardubice, Czech Republic

COL-16	**Particle separation by hydrodynamic chromatography in micropillar array columns and 3D-printed columns** Alessandra Adrover[1], Claudia Venditti[1], Ali Moussa[2], Gert Desmet[1] *[1]Sapienza Università Di Roma, Rome, Italy, [2]Vrije Universiteit Brussel, Brussel, Belgium*
COL-17	**Theoretical Prediction of the Optimal Support Shape for 3D Ordered Liquid Chromatography Structures** Ali Moussa[1] *[1]Vrije Universiteit Brussel, Brussel, Belgium*
COL-18	**Enhancing Analytical Sensitivity: New Complementary HPLC Phases for Versatile Separations in Capillary LC** Petra Lewits[1], Anita Piper[1], Gabriel Odugbesi[2], Clinton Corman[2], Patrik Appelblad[3] *[1]Merck KGaA, Darmstadt, Germany, [2]MilliporeSigma, Bellefonte, USA, [3]Merck KGaA, Oslo, Norway*
COL-19	**Achieving Consistent SEC Performance Through the Use of 3 µm, 550 Å Monodisperse Media in Novel Bioinert Column Hardware** Audrius Žvirblis[1], Mauro De Pra[2], Ke Ma[3], Elina Pasečnaja[1], Matas Damonskis[1] *[1]Thermo Fisher Scientific, Vilnius, Lithuania, [2]Thermo Fisher Scientific, Segrate, Italy, [3]Thermo Fisher Scientific, Sunnyvale, USA*
COL-20	**Evaluation of Durability of Hybrid Silica with Ethylene Chains** Norikazu Nagae[1], omoyasu Tsukamoto[1], Ryuji Koyama[1], Etsuko Shearer[2] *[1]ChromaNik Technologies Inc., Osaka, Japan, [2]BioNik Inc., Fuji, Japan*
COL-21	**Evaluation of Bidentate End-capping Silylation Reagents for HPLC** Norikazu Nagae[1], Tomoyasu Tsukamoto[1], Ryuji Koyama[1], Etsuko Shearer[2] *[1]ChromaNik Technologies Inc., Osaka, Japan, [2]BioNik Inc., Fuji, Japan*
COL-22	**Evaluation of Hybrid Silica C18 End-capped with Bidentate Silylating Reagent for HPLC** Norikazu Nagae[1], Tomoyasu Tsukamoto[1], Ryuji Koyama[1], Etsuko Shearer[2] *[1]ChromaNik Technologies Inc., Osaka, Japan, [2]BioNik Inc., Fuji, Japan*
COL-23	**Quantitative analysis of biological compounds using a pillar array column** Dr. Makoto Tsunoda[1] *[1]University of Tokyo, Japan*
COL-24	**Monolithic capillary columns for RP and HILIC chromatography prepared from polyhedral oligomeric silsesquioxane** Josef Planeta[1], Dana Moravcová[1], Pavel Karásek[1], Michal Roth[1] *[1]Institute Of Analytical Chemistry of the CAS, Brno, Czech Republic*
COL-25	**New Approaches in (HP)TLC: The Role of Sustainable Solvents and New Miniaturized Devices in Traditional and High-Performance Thin-Layer Chromatography** Michaela Oberle[1], Markus Burholt[1] *[1]Merck Life Science KGaA, Darmstadt, Germany*
COL-26	**Development of new Capillary HPLC Columns with Porous Graphitic Carbon** Frank Michel[1], Michael Ye[2], Hugh Cramer[2], Gabriel Odugbesi[2] *[1]Sigma-Aldrich Chemie GmbH, part of Merck, Taufkirchen, Germany, [2]MilliporeSigma, Bellefonte, USA*
COL-27	**Multiscale simulation of liquid chromatography: Effective diffusion in macro–mesoporous beds and the B-term of the plate height equation** Ulrich Tallarek[1], Dzmitry Hlushkou[1], Alexandra Höltzel[1] *[1]Department of Chemistry, Philipps-University of Marburg, Marburg, Germany*
COL-28	**Machine learning approaches for real-time chromatographic data analysis in the field** Ali Salehi-Reyhani[1] *[1]Dept. Surgery & Cancer, Faculty of Medicine, Imperial College London, London, United Kingdom, [2]Institute for Molecular Science and Engineering, Imperial College London, London, United Kingdom*
COL-29	**At the intersection between chromatographic performance, ESI efficiency and instrument productivity: nano to capillary flow LC/MS on long µPAC columns** Jeff Op De Beeck[1], Riccardo Stucci[2], Dominic Hoch[2], Natalie Van Landuyt[1], Paul Jacobs[1] *[1]Thermo Fisher Scientific, Ghent, Belgium, [2]Thermo Fisher Scientific, Rheinach, Switzerland*
COL-30	**Generating Spatiotemporal Temperature Gradients in Chromatography** Adam Hakansson[1], Sarah O'Bryan[1], Laurent Lessard[1], Timothy Lannin[1] *[1]Northeastern University, Boston, United States*
COL-31	**Separation characterization of a new zwitterion-bonded HILIC column** Tomoaki Shimpo[1,2], Takashi Hara[2], Tohru Ikegami[1] *[1]Kyoto Institute of Technology, Kyoto, Japan, [2]Shimadzu coporation, Kyoto, Japan*
COL-32	**Colloid Convection-assembled NanoLC Columns: A Next Generation Column Technique for Ultra-fast Proteomics under Extreme Pressure** Hanrong Wen[1], Bo Zhang[2], Ken Broeckhoven[1], Sebastiaan Eeltink[1] *[1]Vrije Universiteit Brussel, Brussels, Belgium, [2]Xiamen University, Xiamen, China*
COL-33	**Sharpen Your Peaks: Novel Column Hardware for Improved HILIC Polar Metabolite Chromatography** Olivier Chevallier[1], Cate Simmermaker[1], Sierra Durham[1], Karen Yannell[1], Jordy Hsiao[1] *[1]Agilent Technologies Inc., Santa Clara, United States*
COL-34	**Development of LC-MS-Compatible Columns with High Positional Isomer Resolution and Reduced Curtain Plate Contamination** Hiromi Miyagawa[1], Koji Suzuki[2], Hiroshi Oikawa[2], Yuko Yui[1], Kensuke Okusa[1], Yuka Hiramatsu[1], Mengmin Terashima[3], Shota Miyazaki[1] *[1]GL Sciences Inc., Iruma, Japan, [2]GL Sciences Inc., Japan, [3]GL Sciences Inc., Shinjuku-ku, Japan*
COL-35	**Development of a Novel Mixed-Mode C18 Column with Enhanced Retention of Highly Polar Acidic Compounds** Hiroshi Oikawa[1], Yukinori Konno[1], Junichi Hashimoto[1], Hiromi Miyagawa[2], Mengmin Terashima[3], Shota Miyazaki[2] *[1]GL Sciences Inc., Japan, [2]GL Sciences Inc., Iruma, Japan, [3]GL Sciences Inc., Shinjuku-ku, Japan*
COL-36	**Improved Pillar Array Design Using Bayesian Optimization** Marwan Elkhettabi[1], Ali Moussa[1], Sander Deridder[1], Pieter Libin[2,3], Han Gardeniers[4], Gert Desmet[1] *[1]Department of Chemical Engineering, Brussels, Belgium, [2]Department of Computer Science, Brussels, Belgium, [3]Artificial Intelligence Laboratory, Brussels, Belgium, [4]Department of Mesoscale Chemical Systems, Eschede, The Netherlands*
COL-37	**Revisiting previous concepts of chiral stationary phases using contemporary organic chemistry strategies** Magdaléna Labíková[1], Wolfgang Lindner[1], Michal Kohout[1] *[1]University of Chemistry and Technology Prague, Prague, Czech Republic*

Doping, Drugs & Diagnosis

DDD-01	**Utilising the Chromatographic Toolbox to Evaluate Novel Regioisomeric Fluorofentanyl Derivatives and Related Compounds: The Development and Comparison of Supercritical Fluid Chromatography, High pH Reversed Phase-UHPLC and Hydrophilic Interaction Liquid Chromatography Methodologies** Jennifer Field[1], Melvin Euerby[1,2], Oliver Sutcliffe[3], Benjamin Barrett[1], Richard Hodgson[1], William Campbell[4], Erika Sitch[4] *[1]Shimadzu Uk, Milton Keynes, United Kingdom, [2]The Open University, Milton Keynes, United Kingdom, [3]MANchester Drug Analysis & Knowledge Exchange (MANDRAKE), Manchester Metropolitan University, Manchester, United Kingdom, [4]Penn State University, United States*
DDD-02	**Urinary steroid purification prior to isotope ratio mass spectrometry in anti-doping** Tobias Langer[1], Alessandro Musenga[1], Aline Bayerle[2], Jens Trafkowski[2], Tiia Kuuranne[1], Raul Nicoli[1] *[1]Fortis Technologies, Neston, United Kingdom*
DDD-03	**Supercritical fluid chromatography and endogenous steroids - super possibilities and critical aspects** Tobias Langer[1], Raul Nicoli[1], Davy Guillarme[2], Tiia Kuuranne[1], Alessandro Musenga[1] *[1]Swiss Laboratory for Doping Analyses, Epalinges, Switzerland, [2]School of Pharmaceutical Sciences, Institute of Pharmaceutical Sciences of Western Switzerland (ISPSO), University of Geneva, Geneva, Switzerland*
DDD-04	**Exploring transdermal SARMs exposure: Analysis of the elimination profiles and metabolism for doping control purposes** Linus Korsmeier[1], Sophia Krombholz[1], Hana Alhalabi[1], Andreas Thomas[1], Mario Thevis[1,2] *[1]Center for Preventive Doping Research/Institute of Biochemistry, German Sport University, Cologne, Germany, [2]European Monitoring Center for Emerging Doping Agents (EuMoCEDA), Cologne/ Bonn, Germany*

DDD-05 **Evaluation of Rycal Compounds in Anti-Doping Research: Synthesis, Metabolism, and Characterization**
Tristan Möller1, Mario Thevis[1,2]
[1]German Sport University Cologne, Cologne, Germany, [2]European Monitoring Center for Emerging Doping Agents, Cologne/Bonn, Germany

DDD-06 **Investigations into the Metabolism of JTV-519 and S-107, two Substances Prohibited in Sport, Using a Human Liver Microphysiological System**
Insa Peters[1], Judith Harth[1,2], Nana Naumann[1], Mario Thevis[1,3]
[1]Center for Preventive Doping Research - Institute of Biochemistry, German Sport University Cologne, Cologne, Germany, [2]University of Cologne, Cologne, Germany, [3]European Monitoring Center for Emerging Doping Agents (EuMoCEDA), Cologne/ Bonn, Germany

DDD-07 **In vitro metabolism of doping agents (stanozolol, LGD-4033, anastrozole, GW1516, trimetazidine) by seminal vesicle and pooled human liver fractions**
Johanna Sternberg[1], Insa Peters[1], Nana Naumann[1], Andreas Thomas[1], Mario Thevis[1,2]
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DDD-08 **Development of an environmentally friendly method for detection of tryptophan metabolism in the gut microbiome**
Rene Braakman[1], Kas Blomberg[1], Frank Schuren[1], Rob Vreeken[1]
[1]TNO, Leiden, Netherlands

DDD-09 **Development of a dilute-and-shoot LC-MS/MS method for urinary steroidome investigation in adrenal tumor characterization**
Laura Leoni[1], Mirko Parasiliti-Caprino[2], Giulia Montesano[1], Martina Bollati[2], Fabio Settanni[3], Ezio Ghigo[2], Giulio Mengozzi[1], Federico Ponzetto[2]
[1]Clinical Biochemistry Laboratory, Department of Medical Sciences, University of Turin, Turin, Italy, [2]Division of Endocrinology, Diabetology and Metabolism, Department of Medical Sciences, University of Turin, Turin, Italy, [3]Clinical Biochemistry Laboratory, City of Health and Science University Hospital, Turin, Italy

DDD-10 **Investigation of Tryptophan Metabolites as Biomarkers for Acute Kidney Injury (AKI) in COVID-19 Patients´ Plasma Samples Using HPLC-MS/MS Targeted Metabolomics**
Pamela Padovani[1], Carla Bottoli[1], Lúcia Andrade[2]
[1]UNICAMP - Universidade Estadual de Campinas, Campinas, Brazil, [2]USP - Universidade de São Paulo, São Paulo, Brazil

DDD-11 **Unravelling Women's Fertility: Enhancing the Performance of UHPLC-HESI-MS/MS for Profiling Endocannabinoids in Follicular Fluid**
Esther González-Infante[1,2], Maddi Salvoch[1,2], Igarki Grande[1], Ane Moriña[1], Lide Totorikaguena[3], Estibaliz Olabarrieta[3,4], Naiara Agirregoitia[3], Juan F. Ayala-Cabrera[1,2], Olatz Zuloaga[1,2]
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DDD-12 **Optimization of a Sample Preparation Method for O-Glycan Profiling in Tear Fluid and Tears Absorbed on Schirmer Strips**
Hana Kočová Vlčková[1], Hana Chmelařová[1], Kateřina Plachká[1], Taťána Gazárková[1], Simona Motešická[2], Jan Novák[2], Lucie Nováková[1]
[1]Department of Analytical Chemistry, Faculty of Pharmacy in Hradec Králové, Charles University, Hradec Králové, Czech Republic, [2]Ophthalmic Department of Pardubice Hospital, Pardubice Region Hospital, a.s., Pardubice, Czech Republic

DDD-13 **Utilization of preparative IEF and MALDI-TOF MS in the microbial identification**
Jiri Salplachta[1], Anna Kubesova[1], Filip Ruzicka[2], Karel Slais[1]
[1]Institute Of Analytical Chemistry Of The Cas, Brno, Czech Republic, [2]Department of Microbiology, Faculty of Medicine, Masaryk University, Brno, Czech Republic

DDD-14 **Development of HILIC-UHPLC-HRMS method for N-glycan profiling in tear fluid as a potential diagnostic tool for ocular rosacea**
Hana Chmelařová[1], Hana Kočová Vlčková[1], Kateřina Plachká[1], Taťána Gazárková[1], Simona Motešická[2], Jan Novák[2], Lucie Nováková[1]
[1]Department of Analytical Chemistry, Faculty of Pharmacy in Hradec Králové, Charles University, Hradec Králové, Czech Republic, [2]Ophthalmic Department of Pardubice hospital, Pardubice Region Hospital, a.s., Pardubice, Czech Republic

DDD-15 **Method development and validation for the detection of GLP-1 receptor agonists in serum and plasma by LC-HRMS/MS in sports drug testing**
Lisa Borschel[1], Andreas Thomas[1], Mario Thevis[1,2]
[1]Center for Preventive Doping Research – Institute of Biochemistry, German Sport University, Cologne, Germany, [2]European Monitoring Center for Emerging Doping Agents, Cologne, Germany

DDD-16 **Investigations into the urinary metabolite elimination profile of the selective androgen receptor modulator S-23 in studies mimicking contaminated product ingestion for Doping Control Purposes**
Hana Alhalabi[1], Andreas Thomas[1], Mario Thevis[1,2]
[1]Sporthochschule Köln, Cologne, Germany, [2]European Monitoring Center for Emerging Doping Agents, Cologne, Germany

DDD-17 **Research on rapid screening method for 39 anabolic androgenic steroids based on UPLC-Q-TOF-MS with SWATH**
Zhenhua Qian[1], Yu Huang[1], Yu Du[1], Zhendong Hua[1]
[1]Drug Intelligence and Forensic Center, Ministry of Public Security of China, Beijing, China

DDD-18 **Identification of a new psychoactive substance in human matrices: structural isomers of methyl-fluoro-α-pyrrolidinovalerophenone (MVPVP)**
Lauriane Drouin[1], Peter Van Swinderen[1], Theo Klein[1], Bas Van de Velde[1], Dick-Paul Kloos[1]
[1]Netherlands Forensic Institute, Department of Toxicology, The Hague, Netherlands

DDD-19 **Development of an LC-MS/MS Method for the Analysis of Δ8-THC, Δ9-THC, and Their Metabolites in Whole Blood**
Cyrille Lamboley[2], Haley Berkland[1]
[1]Restek Corporation, Bellefonte, United States of America, [2]Restek France, Lisses, France

DDD-20 **A cutting-edge RP-LC-DAD assay for small-middle molecular mass uremic toxins analysis**
Denise Biagini[1], Silvia Ghimenti[1], Alessio Lenzi[2], Mariano De Cristofaro[1], Tommaso Lomonaco[1], Federico Maria Vivaldi[1], Lorenzo Sembranti[1], Fabio Di Francesco[1]
[1]Dept. of Chemistry and Industrial Chemistry, University of Pisa, Pisa, Italy, [2]Department of Veterinary Sciences, University of Pisa, Pisa, Italy

DDD-21 **Simplified analysis of steroid esters in dried blood spots by LC-MS3**
Andreas Thomas[1], Jasmin Thelen[1], Panagiotis Sakellariou[1], Mario Thevis[1]
[1]Institute of Biochemistry/Center for Preventive Doping Research, German Sport University Cologne, Cologne, Germany

DDD-22 **Quantitative analysis of D/L-serine and D/L-proline in serum using a highly sensitive chiral resolution labeling reagent D-FDLDA**
Daniel Keck[1], Yasunari Yamada[1], Tsunehisa Hirose[1], Motoshi Shimotsuma[1], Akari Ikeda[2], Takahiro Kawase[3], Ai Tsuji[4], Shozo Tomonaga[5], Takefumi Kuranaga[6], Hideaki Kakeya[6], Makoto Ozaki[1]
[1]Nacalai Tesque, Inc., Japan, [2]TAIYO NIPPON SANSO Corporation, SI Innovation Center, Japan, [3]Kyoto Institute of Nutrition and Pathology, Inc., Japan, [4]Health Sciences Studies, Faculty of Regional Development, Prefectural University of Hiroshima, Japan, [5]Division of Applied Biosciences, Graduate School of Agriculture, Kyoto University, Japan, [6]Department of System Chemotherapy and Molecular Sciences, Division of Medicinal Frontier Sciences, Graduate School of Pharmaceutical Sciences, Kyoto University, Japan

Detection

DET-01 **The Global Network of Optical Magnetometers for Exotic physics searches (GNOME)**
Jose zaragoza-calderon[1]
[1]California State University, East Bay, Hayward, United States

DET-02 **Optimizing Low-Field NMR as an Online Detector for HPLC**
Johanna Tratz[1]
[1]Karlsruhe Institute of Technology, Karlsruhe, Germany

DET-03 **The Hyphenation of HPLC with X-Ray Fluorescence for Universal, Flow-Through Analysis of Organobromines**
Gaëlle Spileers[1], Pieter Tack[2], Laszlo Vincze[3], Frédéric Lynen[1]
[1]Separation Science Group, Department of Organic and Macromolecular Chemistry, Ghent University, Ghent, Belgium, [2]Ghent University Centre for Tomography (UGCT), Department of Physics and Astronomy, Ghent University, Ghent, Belgium, [3]X-ray Microspectroscopy and Imaging Group, Department of Chemistry, Ghent University, Ghent, Belgium

DET-04 **Combining HPLC with a 3D-printed solid-phase extraction syringe filter for the detection and enrichment of triclosan and 2,4-dichlorophenol**
Shivangi Singh[1], You-Rong Wu[1], Yeou-lih Huang[1]
[1]Kaohsiung Medical University, Kaohsiung, Taiwan

DET-05 **HPLC-ICP-MS technique for the speciation of polysulfides in battery electrolytes**
Aleksei Sadykov[1,2], Martin Winter[1,3], Simon Wiemers-Meyer[1], Sascha Nowak[1]
[1]MEET Battery Research Center, University of Münster, Münster, Germany, [2]International Graduate School for Battery Chemistry, Characterization, Analysis, Recycling and Application (BACCARA), University of Münster, Münster, Germany, [3]Helmholtz Institute Münster, IMD-4, Forschungszentrum Jülich GmbH, Münster, Germany

DET-06 **Peak Integration of Electropherograms – progress based on consolidated data sets**
Timothy Blanc[1], Lu Huixin[1], Cari Sänger[1], Hermann Waetzig[1]
[1]Univ. of Braunschweig, Braunschweig, Germany

DET-07 **Advancements Towards a Universal, Sensitive, and Selective Detection Technology for Liquid Chromatography**
Dale Harrison[1]
[1]VUV Analytics, Cedar Park, United States

DET-08 **Wide-Ranging Polynucleotide Separation Capabilities using Reversed Phase Particles with Variable Pore Geometry**
Shane Bechler[1], Simonas Dapkus[2], Simonas Balčiūnas[5], Binalkumari Mistry[1], James Peterman[1], Brandon Robson[1], Mauro De Pra[3], Christof Mitterer[4]
[1]Thermo Fisher Scientific, Sunnyvale, United States, [2]Thermo Fisher Scientific, Vilnius, Lithuania, [3]Thermo Fisher Scientific, Segrate, Italy, [4]Thermo Fisher Scientific, Langerwehe, Germany, [5]Dept. of Analytical and Environmental Chemistry, Vilnius University, Vilnius, Lithuania

DET-09 **Screening and qualitative and quantitative analysis of 17 indole synthetic cannabinoids based on surface-enhanced Raman spectroscopy coupled with liquid chromatography-tandem mass spectrometry**
Zhixu Tang[1], Honghua Huang[1], Lidong Che[1]
[1]Technology Center Of Qingdao Customs, Qingdao, China

DET-10 **Characterization of four saturated fatty acids using gradient HPLC-CAD highlighting optimized evaporation temperature control features**
Dennis Koehler[1], Ian Acworth[2], Katherine Lovejoy[1], Benjamin Eggart[1], Florian Broghammer[1], Frank Steiner[1]
[1]Thermo Fisher Scientific, Germering, Germany, [2]Thermo Fisher Scientific, Cambridge, United States

DET-11 **Method Transfer and Optimization of Deoxycholic Acid Analysis Using HPLC-CAD**
Sylvia Grosse[1], Kelechi Amatobi[1], Katherine Lovejoy[1], Susanne Fabel[1], Frank Steiner[1]
[1]Thermo Fisher Scientific, Germering, Germany

DET-12 **Enhancing CAD Quantitation Through the Use of In Silico Values**
Brian Edwards[1]
[1]Neurocrine Biosciences, San Diego, United States

DET-13 **A versatile semi-preparative HPLC platform, including HR-MS and NMR, to support process development in industrial biotechnology**
Burhan Ozalp[1]
[1]Dsm-firmenich, Delft, Netherlands

DET-14 **Improving mass spectrometer robustness using a novel slotted bandpass ion guide**
Benjamin Anwar Jones[1]
[1]Waters™ Corporation, Wilmslow, United Kingdom

DET-15 **Ultra-low dispersion microfluidic cell design for UHPLC with online radio-activity detection**
Sam Wouters[1], Cis Van Looveren[1], Filip Cuyckens[1]
[1]Johnson & Johnson, Beerse, Belgium

Environmental

ENV-01 **Chemical characterisation of sewage sludge biocrude under varying processing conditions by supercritical fluid chromatography-mass spectrometry**
Josephine Lübeck[1], Magnus Stummann[2], Karina Sjøholm[2], Jens Hansen[2], Asger Hansen[1], Jan Christensen[1]
[1]University Of Copenhagen, Frederiksberg, Denmark, [2]Topsoe A/S, Kgs. Lyngby, Denmark

ENV-02 **Bioremediation of PFAS by Pseudomonas spp.: Insights from Non-targeted LC-HRMS Analysis**
Felina Hildebrand[1], Ha Anh Thai[1], Teresa Steininger-Mairinger[1], Stefan Heinl[2], Reingard Grabherr[2], Stephan Hann[1]
[1]Department of Natural Sciences and Sustainable Resources, BOKU University, Vienna, Austria, [2]Department of Department of Biotechnology and Food Science, BOKU University, Vienna, Austria

ENV-03 **Impregnated Chromatographic Columns for Studying Rare Earth Elements Ion Exchange at the Solid-Liquid Interface: Extraction and Separation in Acidic Solutions for Recycling Applications**
Angelina Noclain[1], Yohann Le Guennec[2], Laurence Muhr[2], Alexandre Chagnes[1]
[1]Laboratoire GeoRessources, Université De Lorraine, Vandoeuvre-Lès-Nancy, France, [2]Laboratoire Réactions et Génie des Procédés, Université De Lorraine, Nancy, France

ENV-04 **Direct and Efficient Analysis of Short Chain Dicarboxylic Acids by UHPLC Coupled with Charged Aerosol Detector**
Liyan Jiang[1], Shiyao Song[1], Xiaoyu Wang[1], Xinyu Wang[1], Jiwen Li[1]
[1]Sinopec, Shanghai, China

ENV-05 **Suspect and untargeted characterization of total suspended particles collected in Porto Marghera, an industrial site in the Northeast of Italy**
Roberta Zangrando[1], Elisa Scalabrin[1], Warren Raymond Lee Cairns[1], Elena Gregoris[1], Marco Roman[2], Andrea Gambaro[2]
[1]Institute of Polar Sciences, National Research Council of Italy, Venice, Italy, [2]Department of Environmental Sciences, Ca' Foscari University of Venice, Venice, Italy

ENV-06 **Non-targeted Analysis of Agrochemical Compounds in Honeybees**
Audrey Dewar[1]
[1]Université De Sherbrooke, Sherbrooke, Canada

ENV-07 **Combining asymmetric flow field-flow fractionation with pyrolysis-gas chromatography-mass spectrometry for analysis of nanoplastics**
Maria Hayder[1], Cloé Veclin[1], Aleksandra Chojnacka[1], Florian Meier[2], Gert-Jan M. Gruter[1,3], Annemarie P. van Wezel[1], Alina Astefanei[1]
[1]University of Amsterdam, Amsterdam, Netherlands, [2]Postnova Analytics GmbH, Landsberg am Lech, Germany, [3]Avantium BV, Amsterdam, Netherlands

ENV-08 **Specific Separation of TR Active Compounds via Molecularly Imprinted Polymers Based on Halogen Bonding**
Ryo Yamaguchi[1], Takuya Kubo[1,2]
[1]Kyoto University, Katsura Nishikyo-ku, Japan, [2]Kyoto Prefectural University, Shimogamo Hangi-cho Sakyo-ku, Japan

ENV-09 **Qualitative Analysis of Plastic Additives and Emerging Pollutants in the Waters of the Drainage Basin of the Venice Lagoon**
Greta Palombella[1], Elisa Scalabrin[1,2], Roberta Zangrando[1,2], Fabiana Corami[1,2], Beatrice Rosso[1,2], Andrea Gambaro[1,2]
[1]Ca' Foscari University, Venezia, Italy, 2National Research Council, Institute of Polar Sciences, Venezia, Italia

ENV-10 **Toxicological Profiling of Stone Wool Binder Degradation Products in Simulated Lung Fluids Using Machine Learning Approach**
Daniil Salionov[1,2], Miroslav Nikolic[1], Denis V. Okhrimenko[1], Marianne Glasius[2]
[1]ROCKWOOL A/S, Hedehusene, Denmark, 2Aarhus University, Aarhus, Denmark

ENV-11 **Pesticide analysis of honey bees (Apis mellifera) in incurred samples**
Stéphanie Beaumont[1], Marie-Lou Morin[2], Pierre Giovenazzo[2], Pedro A. Segura[1]
[1]Université De Sherbrooke, Sherbrooke, Canada, 2Université Laval, Québec, Canada

ENV-12 **Fast and Sensitive HPAEC-PAD Analysis of Neutral Sugars and Uronic Acids in Biomass Hydrolyzates**
Christian Marvelous[1], Jade van Schaik[1], Younes Tazini[1], Hendrik-Jan Brouwer[1], Jean-Pierre Chervet[1], M. Eysbeg[1]
[1]Antec Scientific, Alphen A/d Rijn, Netherlands

ENV-13 **Determination of 19 pharmaceutical pollutants in synthetic urine using RPLC/HILIC-ESI-QqQ-MS/MS: Method development and environmental applications**
Zhongda Liu[1], Toon Verdonck[1], Raf Dweil[1,2], Deirdre Cabooter[1]
[1]Ku Leuven, Leuven, Belgium, [2]University of Oxford, Oxford, United Kingdom

ENV-14 **Asymmetric Flow Field Flow Fractionation (AF4) and Consequent Pyrolysis Gas Chromatography/Mass Spectrometry (Py-GC/MS): A Powerful Off-line Analytical Workflow to Characterize Nanoplastics**
Xiaoyu Zhang[1]
[1]VITO, Mol, Belgium

ENV-15 **Strategies for dealing with matrix effect in non-target screening of urban runoff samples using LC-ESI-MS**
Thomas Karlsson[1], Jan H. Christensen[1]
[1]University of Copenhagen, Copenhagen, Denmark

ENV-16 **Assessing Uncertainties in HPLC Phytoplankton Pigment Analysis: Insights from 14 Years of Interlaboratory Comparisons**
Elisabetta Canuti[1]
[1]European Commission, Joint Research Cantre (JRC), Ispra, Italy

ENV-17 **Direct injection non-suppressed ion chromatography-mass spectrometry (IC-MS) method to monitor trifluoroacetic acid (TFA) levels in Antarctic ice cores**
Brett Paull[1], Strella Sanz Rodriguez[1], Harrison Stevens[1], Mingxia Lai[1], Andrew Bowie[2], Mark Curran[3]
[1]Australian Centre for Research on Separation Science (ACROSS), University Of Tasmania, Sandy Bay, Hobart, Australia, [2]Institute for Marine and Antarctic Studies (IMAS), University of Tasmania, Hobart, Australia, [3]Australian Antarctic Division, Kingston, Australia

ENV-18 **Spectral Analysis of Broad-Spectrum Sunscreens Using HPLC and a Photo Diode Array Detector**
Catharine Layton[1], Paul Rainville, Amy Woodsmall
[1]Waters Corporation, Milford, United States

ENV-19 **Laboratory considerations and solutions for the analysis of PFAS by LC-MS/MS**
Matt James[1], Arianne Soliven[1], Gemma Lo[1], Tony Edge[2]
[1]Avantor, Reading, United Kingdom, [2]University of Liverpool, Liverpool, United Kingdom

ENV-20 **Study of Thermal Decomposition Reactions in Lithium-ion Batteries by Integrating TGA and TOF-MS System**
Byung Gwun Jin[1], Jooyeon Oh[1], Hyun Sik Kim[1], Kun Cho[2], Young-Kwan Kim[3], Young Hwan Kim[2,4]
[1]ASTA corporation, Suweon, South Korea, [2]Korea Basic Science Institute, Daejeon, South Korea, [3]Dongguk University, Seoul, South Korea, [4]Chungnam National University, Daejeon, South Korea

ENV-21 **Development and validation of an analytical method to quantify TFA in water by liquid chromatography coupled to tandem mass spectrometry**
Caroline Dufour[1], Marie Faure[1], Karim Kedim[1], Clara Leroux[2], Mickaël Nicolas[1], Philippe Favre[1]
[1]Carso Lsehl, venissieux, France, [2]WATERS Corporation, Guyancourt, France

ENV-22 **Extraction of bisphenol analogues from water samples using hydrophobic eutectic solvents monitored by HPLC-MS/MS**
Zuzana Bosakova[1], Michal Adamek[1], Lucia Molnarova[1]
[1]Charles University, Faculty of Science, Prague 2, Czech Republic

ENV-23 **Determination of medium to very low polarity pollutants in whole water samples using direct aqueous injection LC–ESI-MS/MS analysis**
Alena Bednarikova[1], Peter Tölgyessy[1]
[1]Water Research Institute, Slovak National Water Reference Laboratory, Bratislava, Slovakia

ENV-24 **Retention behavior of Per- and Polyfluoroalkyl Substances (PFAS) in Anion Exchange Chromatography**
Jumana Khoury1, Andreas Seubert[1]
[1]Philipps-Universität Marburg, Marburg, Germany

ENV-25 **High performance liquid chromatography and molecular imprinting polymers for analysis of samples of environmental interest**
Elizabete Lima[1], Viviane Bianchi[1]
[1]Universidade Federal Do ABC, Santo Andre, Brazil

ENV-26 **Investigation of Solvents & Additives Regarding Suitability for LC-MS/MS Analysis of 40 PFAS Analytes Following EPA Method 1633A**
Lara Rosenberger[1], Yannick Hövelmann[1], Patrik Appelblad[2], Romana Rigger[3]
[1]Merck KGaA, 64293 Darmstadt, Germany, [2]Merck Life Science AS, 0277 Oslo, Norway, [3]Merck Chemicals and Life Science GesmbH, 1120 Wien, Austria

ENV-27 **Trends in airborne pesticides: A retrospective analysis of the last two decades (2007-2024) in a Mediterranean Region**
Antonio López[1], Esther Fuentes-Ferragud[1,2], Amalia Muñoz[3], Esther Borràs[3], Teresa Vera[3], Clara Coscollà[1]
[1]FISABIO, Valencia, Spain, [2]Environmental and Public Health Analytical Chemistry, Research Institute for Pesticides and Water, University Jaume I, Castelló de la Plana, Spain, [3]CEAM Foundation, Paterna, Spain

ENV-28 **Oxidative degradation of finasteride from water – analysis and identification of transformation products**
Tereza Marikova[1], Adam Loos[2], Petra Cihlarova[1], Lenka McGachy[2], Martin Kuchar[1]
[1]Forensic Laboratory of Biologically Active Substances, University of Chemistry and Technology, Prague, Prague, Czech Republic, [2]Department of Environmental Chemistry, University of Chemistry and Technology, Prague, Prague, Czech Republic

ENV-29 **Analysis of Ionic Compounds in Recycled Lithium-Ion Battery Material**
Vadim Kraft[1], Waldemar Weber[1], Gesa Schad[1]
[1]Shimadzu Europa GmbH, Germany

ENV-30 **Field-deployable compact LC-MS for determination of per, and polyfluoroalkyl substances (PFAS)**
Hans Jurgen Wirth[1], Shing Chung Lam[1], Boyjie Firme[1], Matthew Askeland[2], Brett Paull[3], Ibraam Mikhail[3], Hans Jurgen Wirth[1,3]
[1]Trajan Scientific And Medical, Ringwood, Australia, [2]ADE Consulting Group, Port Melbourne, Australia, [3]HyTECH, School of Natural Sciences, University of Tasmania, Hobart, Australia

ENV-31 **Methodologies for Ultrashort-Chain and Comprehensive PFAS Analysis in Water Samples**
Tina Brandscher[1], Shun-Hsin Liang[2], Justin Steimling[2]
[1]Restek GmbH, Bad Homburg v.d.H., Germany, [2]Restek Corporation, Bellefonte, United States of America

ENV-32 **Do You Know the Environmental Impact of Your HPLC?**
Energy consumption of four InfinityLab LC systems during routine operation
Lena Höninger[1], Florian Rieck[1]
[1]Agilent Technologies, Waldbronn, Germany

ENV-33 **Analysis of PFAS in Tap Water Using a Pentafluorophenyl Column**
Norikazu Nagae[1], Tadashi Kitta[2], Hirotake Takahashi[2], Ryuji Koyama[1], Tomoyasu Tsukamoto[1]
[1]ChromaNik Technologies Inc., Osaka, Japan, [2]Japan Food Inspection Corporation, Tokyo, Japan

ENV-34 **Exposure of Slovak adults to DINCH plasticizer assessed as urinary concentration of its metabolites determined by online SPE- HPLC-MS/MS**
Renáta Górová[1], Helena Jurdáková[1], Ľubica Murínová[2]
[1]Comenius University in Bratislava, Faculty of Natural Sciences, Department of Analytical Chemistry, Bratislava, Slovakia, [2]Slovak Medical University, Faculty of Public Health, Department of Environmental Medicine, Bratislava, Slovakia

ENV-35 **Characterization of humic acids isolated from soil by off-line combination of preparative isotachophoresis and size-exclusion chromatography**
Róbert Góra[1], Róbert Bodor[1], Marian Masár[1]
[1]Department Of Analytical Chemistry, Faculty Of Natural Sciences, Comenius Unoversizy In Bratislava, Bratislava, Slovakia

Food

FOO-01 **Nutritionally safer and in-situ green degradation of selected pesticides in the honey of various agro-climatic regions**
Muhammad Zubair[1], Sana Anwar[1], Sajjad Hussain Sumrra[1], Adnan Ayub[2]
[1]Department of Chemistry, University of Gujrat, 50700 Pakistan, Gujrat, Pakistan, [2]Department of Chemistry, University of Sahiwal, Pakistan, Sahiwal, Pakistan

FOO-02 **Simultaneous determination of multiple nitrated polycyclic aromatic hydrocarbons (nitro-PAHs) and PAH 4 in chicken drumsticks using QuEChERS process and HPLC-fluorescence detection**
Tuzz-Ying Song[1], Chao-Chun Liao[2], Deng-Jye Yang[2]
[1]Da-Yeh University, Changhua/Dacun, Taiwan, [2]National Yang Ming Chiao Tung University, Taipei City, Taiwan

FOO-03 **Are Your Herbal Teas Safe? Tropane Alkaloid Analysis Using SPE Combined With LC-MS/MS**
James Edwards[1]
[1]Porvair Sciences, Wrexham, United Kingdom

FOO-04 **Characterization of antifungal surfactants synthesized by the antarctic Bacillus subtilis WA 51 strain**
Magdalena Biesaga[1], Renata Godlewska[1], Inga Suchodolska[1], Sc. Dorota Korsak[1]
[1]University of Warsaw, Warsaw, Poland

FOO-05 **Migration of (non-) intentionally added substances from food contact materials and their migration into food simulants. Semi-quantitative approach using LC-QTOF-MS for targeted/non-targeted compounds**
Agata Kot-Wasik[1], Eng Grzegorz Jasik[2], Eng Ewa Łopuchin[2], Andrzej Wasik[1]
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FOO-06 **Advanced separation and spectral techniques for identification of microbiomes and bacterial metabolites**
Dominika Błońska[1,2]
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FOO-07 **Development of an Innovative HILIC-MS/MS Method for Accurate Sugar Analysis in Agri-Food Extracts**
Alex Hidalgo[1], Mercè Granados[1,2], Javier Saurina[1,2], Sònia Sentellas[1,2,3], Oscar Núñez[1,2,3]
[1]Department of Chemical Engineering and Analytical Chemistry, University of Barcelona, Barcelona, Spain, [2]Research Institute in Food Nutrition and Food Safety, University of Barcelona, Santa Coloma de Gramenet, Barcelona, Spain, [3]Serra Húnter Program, Generalitat de Catalunya, Barcelona, Spain

FOO-08 **Comparison of modern analytical platforms for residue control of growth promoters in biological samples**
Sebastian Löbbecke[1], Florian Stappert[1], Florian Uteschil[1], Marco H. Blokland[2], Ane Arrizabalaga-Larrañaga[2], Juan F. Ayala-Cabrera[3], Oliver J. Schmitz[1]
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FOO-09 **Development of Multi-Residue Analytial Method for 10 Veterinary drugs in bee products using LC-MS/MS**
Sora Park[1], Hyesu Lee[1], Jin Ha Sim[1], So-Yeon Noh[1], Gui-Hyun Jang[1]
[1]Pesticide and Veterinary Drug Residues Division, National Institue of Food and Drug Safety Evaluation, Ministry of Food and Drug Safety, Cheongju-si, South Korea

FOO-10 **Automatic optimization of gradient profile using AI algorithms on functional food analysis with HPLC**
Yoshiyuki Watabe[1], Tetsuya Tanigawa[1], Shinichi Fujisaki[2], HIdetoshi Terada[2]
[1]Kyoto University, Kyoto, Japan, [2]Shimadzu Corporation, Kyoto, Japan

FOO-11 **LC-MS Analysis of Food Additives and Contaminants in Processed Foods**
Jelle Verdonck[1], Katrien Poels[1], Lode Godderis[1]
[1]Ku Leuven, Leuven, Belgium

FOO-12 **The Sweet and Bitter Truth of Honey: Detecting Adulteration Using HPAEC-PAD**
Christian Marvelous[1], Thijs Mulder[1], Younes Tazini[1], Hendrik-Jan Brouwer[1], Jean-Pierre Chervet[1], M. Eysbeg[1]
[1]Antec Scientific, Alphen a/d Rijn, Netherlands

FOO-13 **Rapid Detection of Aspergillus spp. and Quantitative Simultaneous Analysis of Aflatoxins (B1, B2, G1 and G2) in Kenyan Hybrid Maize Cultivars Using FT-IR and LC-ESI-MS/MS Spectro-analysis Techniques**
Grace Gachara[1,2], Rashid Suleiman[2], Beatrice Kilima[2]
[1]Sokoine University Of Agriculture, Dar es Salaam, Tanzania, United Republic of, [2]Mohammed VI Polytechnic University, Ben Guérir, Morocco

FOO-14 **Analysis of tocopherol profiles by cyclic ion mobility – mass spectrometry**
Dominik Halman[1], Alena Šubová[2], Karel Lemr[3]
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FOO-15 **Validation of high-performance liquid chromatography coupled with LTQ orbitrap mass spectrometry for analysis of acrylamide**
Abdalla Elbashir[1]
[1]Applied Analytical Chemistry, Faculty of Chemistry, University of Duisburg-Essen, Essen, Germany, Essen, Germany

FOO-16 **Method development for targeted screening of chlorinated fatty acids (CFA) in refined vegetable oils**
Tomáš Kouřimský[1]
[1]Department of Food Analysis and Nutrition, University of Chemistry and Technology Prague, Prague, Czech Republic

FOO-17 **Comparison of organic compounds in natural wine, red wine and grape juice by HPLC**
Carsten Losch[1], Julia Wesolowski[1], Juliane Kramer[1]
[1]Knauer Wissensschaftliche Geräte GmbH, Berlin, Germany

FOO-18 **New methodological approaches to improve the accuracy of analytical results in the chromatographic determination of bisphenols contained in food-related products**
Paweł Świt[1], Joanna Orzeł[1], Sławomir Maślanka[1]
[1]University of Silesia in Katowice, Faculty of Science and Technology, Institute of Chemistry, Katowice, Poland

FOO-19 **Development of a new calibration method for study and elimination of interference effects on the example of determining ascorbic acid in juices by chromatographic technique**
Paweł Świt[1], Sławomir Maślanka[1]
[1]University of Silesia in Katowice, Faculty of Science and Technology, Institute of Chemistry, Katowice, Poland

FOO-20 **HPLC-HRMS Characterization and Functional Evaluation of Cistus x incanus L. and Scutellaria lateriflora L. Extracts**
Hammad Ullah[1], Maria Vittoria Morone[2], Lorenza Francesca De Lellis[1], Daniele Giuseppe Buccato[1], Alessandro Di Minno[1,3], Anna De Filippis[2], Massimiliano Galdiero[2], Maria Daglia[1,4]
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FOO-21 **Normal-phase HPLC as a superior alternative to epoxidation for biogenic interferences removal in mineral oil aromatic hydrocarbon analysis in food**
Aleksandra Gorska[1]
[1]Analytical Chemistry Laboratory, Gembloux Agro-Bio Tech, University of Liège, Gembloux, Belgium

FOO-22 **Determination of multiple mycotoxins in rice samples by QuEChERS-based extraction and UHPLC-MS/MS analysis**
Deng-Jye Yang[1], Yu Wu[2], Yi-Hsieng Samuel Wu[3]
[1]National Yang Ming Chiao Tung University, Taipei, Taiwan, [2]Taiwan Food and Drug Administration, Taipei, Taiwan, [3]National Taiwan Ocean University, Kee-lung, Taiwan

FOO-23 **Chromatographic Separation and Photodiode Array Identification of Synthetic Industrial Dyes in Foods, OTC Drugs, and Cosmetics**
Catharine Layton[1], Paul D. Rainville, Amy Woodsmall
[1]Waters Corporation, Milford, United States

FOO-24 **Separation challenges for hydrophilic aquatic biotoxins**
Andrew Turner[1]
[1]Cefas, Weymouth, United Kingdom

FOO-25 **Determination of Chloropropanols in oil-based supplements**
Thamer Alghamdi[1], Arwa Alhafi[2], Mohamed Habila[2], Ahmed Aqel[2]
[1]Saudi Food and Drug Authority, RIYADH, Saudi Arabia, [2]King Saud University, RIYADH, Saudi Arabia

FOO-26 **LC-MS/MS-Based QuEChERS Method for Simultaneous analysis of 11 OPFRs in Grains**
Jumi Lee[1], Xin Song[1], Hyung Min Kim[1]
[1]Chungnam National University, Daejeon, South Korea

FOO-27 **Simultaneous Analysis of UV Stabilizers in Pork by using QuEChERS and LC-MS/MS**
Hye Jeong Jeong[1], Xin Song[1], Hyung Min Kim[1]
[1]Chungnam National University, Daejeon, South Korea

FOO-28 **Isolation of phenolic compounds from olive pomace by means of preparative HPLC**
Carmelo Coppolino[1], Francesco Cacciola[1], Marina Russo[1], Paola Dugo[1,2], Luigi Mondello[1,2]
[1]Messina Institute of Technology, c/o Department of Chemical, Biological, Pharmaceutical and Environmental Sciences, Former Veterinary School, University of Messina, Messina, Italy, [2]Chromaleont s.r.l., c/o Department of Chemical, Biological, Pharmaceutical and Environmental Sciences, University of Messina, Messina, Italy

FOO-29 **Gluten Intolerance Triggered by Fructans: A Sensitive Method for the Analysis of Fructans Using HPAEC-PAD**
Jean-Pierre Chervet[1], Chrsitian Marvelous[1], Younes Tazini[1], Thijs Mulder[1], Hendrik-Jan Brouwer[1]
[1]Antec Scientific, Alphen a/d Rijn, Netherlands

FOO-30 **Analysis of amino acids in plant-based proteins and pet foods – Modification of AOAC 2018.06 to fit for novel foods and ingredients**
Jinchuan Yang[1], Paul Rainville[1], Stephanie Harden[1]
[1]Waters Corporation, Hopkinton, United States

FOO-31 **Proteolytic digestion of gliadins and glutenins by using tripsin and chymotripsin**
Katarzyna Zamłyńska[1,2], Agata Sumara[1], Anna Kozub[1], Emilia Fornal[1], Agnieszka Nawrocka[3]
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FOO-32 **Sustainable approaches to olive oil quality testing: using HPLC and TLC for comprehensive analysis**
Markus Burholt[1], Michaela Oberle[1]
[1]Merck Lifescience KGaA, Darmstadt, Germany

FOO-33 **Green NADES-SLE approach for detecting Non-Phthalate Plasticizers in radish (Raphanus sativus) via UHPLC-Q-Orbitrap**
Raquel Capilla Flores[1], Laura Carbonell Rozas[1], Rosalía López Ruíz[1], Roberto Romero González[1], Antonia Garrido Frenich[1]
[1]Research Group "Analytical Chemistry of Contaminants", Department of Chemistry and Physics, Research Centre for Mediterranean Intensive Agrosystems and Agri-Food Biotechnology (CIAIMBITAL), University of Almeria, Agrifood Campus of International Excellence, ceiA3, E-04120 Almeria, Almería, Spain

FOO-34 **Sugars Short-Term Stability Study on a Candidate Reference Material of Bee Honey**
Iman Charaf Aldin[1], Khalid F. Fawy[1], Khalid Ali Khan[2,3], Hamed A. Ghramh[2,4], Abubakr M. Idris[1,5]
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FOO-35 **Benefits of MaxPeak High Performance Surfaces in the Analysis of Bovine Lactoferrin in Infant Formula and Pediatric/Adult Nutritional Formula**
Jinchuan Yang[1], Paul Rainville[1], Stephanie Harden[1]
[1]Waters Corporation, Milford, United States

FOO-36 **Separation and purification of fat content of chocolate products for the analysis of polycyclic aromatic hydrocarbons by microwave-assisted extraction and selective solid-phase extraction**
Pablo Dualde[1], Pablo Miralles[1], Antonio Lopez[1], Cristina Aleixandre[2], Miguel Angel Cortes[2], Carmen Igualada[2], Clara Coscolla[1]
[1]Fisabio, Spain, [2]Public Health Laboratory of Valencia, Spain

FOO-37 **Features and benefits of using a slotted bandpass ion guide**
Stephen Ayrton[1], David Gordon[1]
[1]Waters Corporation, Wilmslow, United Kingdom

FOO-38 **Adaptive Responses of Garlic to Climate Stressors: Linking Primary Energy Metabolism and Organosulfur Compound Biosynthesis via LCMS-Based Metabolite Profiling**
Tvrtko Karlo Kovačević[1], Smiljana Goreta Ban[1], Marina Krpan[2], Dean Ban[1], Anja Batel[1], Nikola Major[1]
[1]Department of Chemistry, University of Gujrat, 50700 Pakistan, Gujrat, Pakistan, [2]Department of Chemistry, University of Sahiwal, Pakistan, Sahiwal, Pakistan

FOO-39 **Evaluation of the phytochemical profile and pesticide contamination in aloe vera produced in the Canary Islands**
Ruth Rodríguez Ramos[1], Carla Calzadilla García[1], Adrián Conde Díaz[1], Álvaro Santana Mayor[1], Antonio V. Herrera Herrera[1,2], Miguel Ángel Rodríguez Delgado[1]
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FOO-40 **Non-targeted analysis for emerging pesticides in plant-based food using LC-HRMS**
Hong-Jhang Chen[1]
[1]National Taiwan University, TAIPEI, Taiwan

FOO-41 **Assessment of bioactive compounds in banana peels as by-products of the banana industry in the Canary Islands**
Ruth Rodríguez Ramos[1], Gerad de Jesús Morales Gutiérrez[1], Adrián Conde Díaz[1], Álvaro Santana Mayor[1], Antonio V. Herrera Herrera[1,2], Bárbara Socas Rodríguez[1]
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FOO-42 **HPLC Profiling of Barley-Derived Melanin: Method Development Using a HILIC Column**
Veronika Batková[1], Štefan Šatka[1], Lenka Jourová[1], Veronika Frýbortová[1], Petr Martinek[2], Marta Zavřelová[2], Eva Anzenbacherová[1]
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Ion Mobility

IM-01 **Fast, low-noise, high-gain current amplifier for synchronizing droplet microfluidics and ion mobility spectrometry via the electrospray current**
Tim Ostermeier[1], Alexander Nitschke[1], Christian Thoben[1], Moritz Hitzemann[1], Klaus Welters[2], Detlef Belder[2], Stefan Zimmermann[1]
[1]Leibniz University Hannover, Hannover, Germany, [2]Leipzig University, Leipzig, Germany

IM-02 **Ultra-high Throughput Electrospray Droplet Microfluidics Enabled by Ultra-fast Ion Mobility Spectrometry**
Christian Thoben[1], Alexander Nitschke[1], Klaus Welters[2], Julius Schwieger[2], Detlev Belder[2], Stefan Zimmermann[1]
[1]Leibniz University Hannover, Institute of Electrical Engineering and Measurement Technology, Hannover, Germany, [2]Leipzig University, Institute of Analytical Chemistry, Leipzig, Germany

IM-03 **Ion-mobility derived CCS-m/z trendlines for improved annotation confidence of contaminants of emerging concern and their biotransformation products**
Lidia Belova[1]
[1]Toxicological Centre, University of Antwerp, Wilrijk, Belgium

IM-04 **Microbore-UHPLC 4D-Trapped Ion Mobility for sensitive and robust low-input Untargeted Lipidomics**
Fabrizio Merciai[1], Eduardo Maria Sommella[1], Pietro Campiglia[2]
[1]University Of Salerno, Fisciano, Italy

IM-05 **Combination of HPLC and SLIM: An extremely powerful analysis platform**
Cedric Thom[1]
[1]University Of Duisburg-Essen - Applied Analytical Chemistry, Essen, Germany

IM-06 **Ultra-High Throughput Qualitative and Quantitative Analysis of Cannabinoids Using Differential Mobility Spectrometry of Radical Cations and Acoustic Ejection Mass Spectrometry**
Juliette Bottagisi[1], Patrick Mueller[1], Chang Liu[2], Tom Covey[2], Yves Le Blanc[2], Gérard Hopfgartner[1]
[1]University of Geneva, Geneva, Switzerland, [2]SCIEX, Concord, Canada

IM-07 **Bridging the Gap in Ion Mobility: Constructing an In-House LC-MS Library for Metabolites**
Daniel Marques de Sa e Silva[1,2], Marlene Thaitumu[3,2], Klidel Relin[4], Theano Rizou[5], Aiko Barsch[6], Michael Witting[7], Georgios Theodoridis[1,2], Prof. Helen Gika[3,2], Christina Virgiliou[2,5]
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IM-08 **Dual Polarity Ion Mobility Spectrometer with High Repition Rate for Coupling with Hyper-Fast Gas Chromatography**
Alexander Nitschke[1], Moritz Hitzemann[1], Jonas Winkelholz[1], Ansgar T. Kirk[1], Christoph Schaefer[1], Tim Kobelt[1], Christian Thoben[1], Martin Lippmann[1], Jan A. Wittwer[1], Stefan Zimmermann[1]
[1]Leibniz University Hannover, Institute of Electrical Engineering and Measurement Technology, Hannover, Germany

IM-09 **Fragmentation in cyclic traveling wave ion mobility cell**
Karel Lemr[1,4], Štěpán Dostál[2], František Tureček[3]
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Large Molecules

LAR-01 **Characterization of human papillomavirus virus-like particles using SEC and AF4 coupled with MALS**
Aurore Boclinville[1], Nicolas Thelen[2], Marc Thiry[2], Nathalie Jaccobs[3], Marianne Fillet[1], Anne-Catherine Servais[1]
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LAR-02 **Potential of CZE for analysing of nucleic acid-based molecules**
Elisa Renard[1], Clara Davoine[1], Marianne Fillet[1]
[1]University Of Liège - Department of pharmacy - Laboratory for the Analysis of Medicines - Center for Interdisciplinary Research on Medicines, Liège, Belgium

LAR-03 **Studying structure/function relation of therapeutic antibodies using affinity chromatography and affinity-resolved size exclusion chromatography**
Liesa Verscheure[1,2], Isabel Vandenheede[1], Eline De Rore[1], Mabelle Meersseman[1], Valerie Hanssens[3], Kris Meerschaert[3], Hilde Stals[3], Frederic Lynen[2], Pat Sandra[1,2], Filip Borgions[3], Koen Sandra[1,2]
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LAR-04 **Critical Figures of Merit for the Isolation of Exosomes from Urine, Bovine Milk, and Cell Culture on Capillary-Channeled Polymer Fiber Phases: Dynamic Binding Capacities, Throughput, Purity, and Biological Efficacy**
Kenneth Marcus[1], Khalid bin Islam[1], Carolina Mata[1], William Pons[1], Raphael Ewonde[1]
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LAR-05 **Insights into the chemical composition distribution of linear low-density polyethylene by analytical techniques**
Subrajeet Deshmukh[1], Jan-Hendrik Arndt[1], Tibor Macko[1], Masud Monwar[2], Jeff Fodor[2], Eric Schwerdtfeger[2], Robert Bruell[1]
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LAR-06 **Novel Strategy for Characterisation of Extracellular Vesicles Based on Hydrophobic Interaction Chromatography and Lipidomic Profiling by LC-MS**
Michal Mlynarczyk[1], Raphael Ewonde-Ewonde[2], Felicja Gajdowska[3], Mikołaj Klimczuk[3], Jorge Matinha-Cardoso[4,5,7], Paula Tamagnini[6,7], Paulo Oliveira[5,7], Mariusz Belka[8], Danuta Gutowska-Owsiak[3], Sebastiaan Eeltnik[9], Weronika Hewelt-Belka[1]
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LAR-07 **Characterization of the oligomerization state of LDH-B by SEC-UV-MALS**
Océane Bauwens[1], Caroline Mathieu[2], Raphael Frédérick[2], Marianne Fillet[1]
[1]Laboratory for the analysis of Medecines - Department of Pharmacy - University Of Liege, Liege, Belgium, [2]Louvain drug research institute - University Of Louvain, Woluwe-Saint-Lambert, Belgium

LAR-08 **Membrane Surface Coatings Influence the Elution Behavior of Differently Charged Liposomes in Asymmetric Flow Field-Flow Fractionation**
Johann Savinsky[1]
[1]RWTH Aachen University - Chair Of Chemical Engineering, Aachen, Germany

LAR-09 **Evaluation of non-chlorinated Solvents for high-temperature HPLC analysis of polyolefins**
Subrajeet Deshmukh[1], Jan-Hendrik Arndt[1], Tibor Macko[1], Robert Bruell[1], Masud Monwar[2], Jeff Fodor[2], Eric Schwerdtfeger[2]
[1]Fraunhofer Institute for Structural Durability and System Reliability, Darmstadt, Germany, [2]Bartlesville Research & Technology Center, Chevron Phillips Chemical, Bartlesville, USA

LAR-10 **Separation and Characterization of High Molar Mass Polymers using Thermal Field-Flow Fractionation Hyphenated with Multi-Angle Light Scattering, Intrinsic Viscosity Detection and Concentration Detection**
Roland Drexel[1]
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LAR-11 **Comprehensive Analysis of Adeno-Associated Virus Quality Using 3 µm Monodisperse Strong Anion Exchange and Size Exclusion Chromatography Columns**
Christof Mitterer[1], Ke Ma[2], Jessie Ashworth[3], Victor Nieves[3], Steven Milian[3], Shane Bechler[2], Shanhua Lin
[1]Thermo Fisher Scientific, Langerwehe, Germany, [2]Thermo Fisher Scientific, Sunnyvale, USA, [3]Thermo Fisher Scientific, Alachua, USA

LAR-12 **Energetic and kinetic criteria for the use of collision induced unfolding as quality control for biopolymers**
Johann Far[1]
[1]University Of Liège, Mass Spectrometry Laboratory (MSlab), Belgium

LAR-13 **Multiple characterization of protein-DNA droplets by free zone capillary electrophoresisn**
Hailin Wang[1], Xingting Lin, Qiang Zhao, Guibin Jiang
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LAR-14 **SFC meets SEC - 3 modes in one application**
Mijo Stanic[1], Adrian Schust[1]
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LC-MS

LCMS-01 **The development of three novel mass spectrometric-based bioanalytical approaches evading the challenging interference from tryptophan to determine the psychoactive drug psilocin in plasma and brain tissues**
Amir Khajavinia[1], Jordan Reekie[1], Randy W. Purves[1,2], Robert B. Laprairie[1,3], Anas El-Aneed[1]
[1]College of Pharmacy and Nutrition, University Of Saskatchewan, Saskatoon, Canada, [2]Canadian Food Inspection Agency, Saskatoon, Canada, [3]Department of Pharmacology, College of Medicine, Dalhousie University, Halifax, Canada

LCMS-02 **A Novel Pinhole Emitter Chip for Micro SFC-MS with Integrated Dilution-Free Fluidic Back-Pressure Regulation**
Julius Schwieger[1], Chris Weise[1], Detlev Belder[1]
[1]University Leipzig, Leipzig, Germany

LCMS-03 **Complex formulating agents in plant protection products – A deep dive into ethoxylated and propoxylated alcohols**
Jonathan Falchetto-Bruckner[1], Christoph Czerwenka[1]
[1]Austrian Agency For Health And Food Safety - Ages, Vienna, Austria

LCMS-04 **Elucidation of Glycosylation Profiles in Anti-SARS-CoV-2 Human Monoclonal Antibodies by FcγRIIIa Affinity Chromatography coupled with native mass spectrometry**
Sunil Kumar[1], Barbara Oliviero[2], Stefania Mantovani[2], Gaia Donetti[3], Mario Umberto Mondelli[2], Sara Tengattini[1], Gabriella Massolini[1], Marco Terreni[1], Caterina Temporini[1]
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LCMS-05 **Nanoflow Size Exclusion Chromatography – Native Mass Spectrometry of Intact Proteoforms and Protein Complexes**
Ziran Zhai[1]
[1]University of Amsterdam, Netherlands

LCMS-06 **Aureobasidium pullulans: A promising source of biosurfactants – Deciphering the chemical space of polyol lipids by HPLC-HRMS**
Philipp Otzen[1]
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LCMS-07 **Development and comprehensive evaluation of novel bioanalytical methods for therapy individualisation for combinations of CDK4/6 inhibitors and antihormonal drugs in breast cancer**
Lu Turković[1], Zvonimir Mlinarić[1], Tajana Silovski[2,3], Biljana Nigović[1], Miranda Sertić[1]
[1]University of Zagreb Faculty of Pharmacy and Biochemistry, Zagreb, Croatia, [2]Department of Oncology, University Hospital Centre Zagreb, Zagreb, Croatia, [3]University of Zagreb School of Medicine, Zagreb, Croatia

LCMS-08 **Magnetic particle-based immobilized enzyme reactors for bioanalysis**
Yachao Hao[1], Michael Laemmerhofer[1]
[1]University of Tuebingen, Tuebingen, Germany

LCMS-09 **Development of a LC-MS/MS analysis method to quantify bufalin and marinobufagenin in plasma**
Laëtitia Ghiande[1,4], Mathilde Wells[1], Aline Genbauffe[2], Fabrice Journé[2], Victor Lefebvre[1], Delphine Beukens[1], Tania Karasiewicz[3], Baptiste Leroy[3], Ruddy Wattiez[3], Bertrand Blankert[1]
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LCMS-10 **A Multi-Faceted Approach to Understanding Complex Chromatography of Acylcarnitine Profiles: Triple-Quadrupole, Orbitrap, and Beyond**
Dahai Shao[1]
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LCMS-11 **Novel LC-MS techniques for the development of covalent kinase inhibitors**
Benedikt Masberg[1], Matthias Gehringer[2,3], Michael Laemmerhofer[1]
[1]Pharmaceutical Bioanalysis, University of Tuebingen, Tuebingen, Germany, [2]Cluster of Excellence iFIT - Image-Guided & Functionally Instructed Tumor Therapies, Tuebingen, Germany, [3]Pharmaceutical/Medicinal Chemistry, University of Tuebingen, Tuebingen, Germany

LCMS-12 **Liquid chromatography and SWATH mass spectrometry of esterified full chain length oxylipins**
Philipp Seyfried[1], Cornelius Knappe[1], Michael Lämmerhofer[1]
[1]University Of Tuebingen, Tübingen, Germany

LCMS-13 **Targeted UHPLC-MS/MS analysis of steroids and hormonal contraceptives in plasma using surrogate calibration for accurate quantification**
Tamara Sabrina Janker[1], Min Su[1], Bernhard Drotleff[2], Zoé Bürger[3,4], Ann-Christin S. Kimmig[3], Birgit Derntl[3,5], Michael Lämmerhofer[1]
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LCMS-14 **Sex-specific Alterations in Serum IgG N-glycosylation as Potential Biomarkers of Multiple Sclerosis revealed by HILIC-QToF-MS Analysis**
Dalma Dojcsák[1], Csaba Váradi[1]
[1]University Of Miskolc, Miskolc, Hungary

LCMS-15 **How electrospray tuning counteracts the matrix effect**
Ivan Petrik[1], Michal Kaleta[1], Jitka Siroka[1], Ondrej Novak[1]
[1]Laboratory Of Growth Regulators, Palacky University in Olomouc & IEB ASCR, Czech Rebublic, Olomouc, Czech Republic

LCMS-16 **DirectInject-LCMS: Real-time Analysis by LCMS for Reaction Monitoring**
Yusuke Sato[1], Yusuke Sato[1], Lars Yunker[1], Shad Grunert[1], Paloma Prieto[1], Tomohiro Shagawa[2], Kyoko Watanabe[1]
[1]Telescope Innovations Crop., Vancouver, Canada, [2]Shimadzu Scientific Instruments, Inc., Columbia, USA

LCMS-17 **Fast liquid and ionic chromatography coupled with mass spectrometer: breaking new ground in ice core investigation**
Elena Barbaro[1,2], Azzurra Spagnesi[1,2,3], Stefano Frassati[2], Matteo Feltracco[2], Jacopo Gabrieli[1,2], Fabrizio De Blasi[1,2], Andrea Spolaor[1,2], Daniele Zannoni[2], Andrea Gambaro[1,2], Carlo Barbante[1,2]
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LCMS-18 **Identification of Per- and Polyfluoroalkyl Substances in Food Contact Materials**
Chia-Yang Chen[1,2], Yun-Chan Lin[1]
[1]Institute of Food Safety and Health, College of Public Health, National Taiwan University, Taipei City, Taiwan, [2]Institute of Environmental and Occupational Health Sciences, College of Public Health, National Taiwan University, Taipei City, Taiwan

LCMS-19 **Revealing Extensive Glycoform Diversity Of C1-INH By Nanoscale Liquid Chromatography Separation Strategies Coupled To Mass Spectrometry**
Sigourney Karijodikoro[1]
[1]Leiden University Medical Center, Leiden, Netherlands

LCMS-20 **Methodology for risk assessment of nitrosamine drug substance-related impurities in Glipizide antidiabetic formulations**
Ravisinh Solanki[1]
[1]Gujarat Technological University, Ahmedabad, India, Ahmedabad, India

LCMS-21 **Method development and validation of a simple and rapid LC-MS/MS method for Semaglutide in human plasma**
Stephanie Keane[1], Geoff Wallace[1]
[1]Resolian, Fordham, United Kingdom

LCMS-22 **UHPLC-HRMS/MS characterization of Nabumetone degradation products formed by ionizing radiation treatment**
Nives Galić[1], Ivana Tartaro Bujak[2], David Klarić[1]
[1]Faculty Of Science, University Of Zagreb, Zagreb, Croatia, [2]Radiation Chemistry and Dosimetry Laboratory, Ruđer Bošković Institute, Zagreb, Croatia

LCMS-23	**UHPLC-HRMS method development and stability assessment of Cinnarizine:β-cyclodextrin binary systems under forced degradation conditions** David Klarić[1], Mario Jug[2], Nives Galić[1] *[1]Faculty Of Science, University Of Zagreb, Zagreb, Croatia, [2]Faculty of Pharmacy and Biochemistry, University of Zagreb, Zagreb, Croatia*
LCMS-24	**Development of a simple multi-residue determination method of 80 veterinary drugs in Oplegnathus punctatus by liquid chromatography coupled to quadrupole Orbitrap mass spectrometry** Zhixu Tang[1], Lidong Che[1], Shicheng Fang[2], Honghua Huang[1], Xin Gao[2] *[1]Technology Center Of Qingdao Customs, Qingdao, China, [2]Ocean University of China, Qingdao, China*
LCMS-25	**Determination of Aromatic Amino Acids and their sulfated-conjugated metabolites in urine by LC-QqQ-MS** Georgios Theodoridis[1], Domniki Gallou[1,2], Jaime Morillas Armenta[3], Alma Villaseñor[3,4], Olga Begou[2,5], Helen Gika[2,6], Ana Gradillas Nicolás[3], Coral Barbas[3], Victor González Ruiz[1] *[1]Aristotle University Thessaloniki, Thermi, Greece, [2]Biomic AUTh, Center for Interdisciplinary Research and Innovation (CIRI-AUTH), Balkan Center B1.4, Thessaloniki, Greece, [3]Centro de Metabolómica y Bioanálisis (CEMBIO), Facultad de Farmacia, Universidad San Pablo-CEU, CEU Universities, Boadilla del Monte, Madrid, Spain, [4]Departamento de Ciencias Médicas Básicas, Instituto de Medicina Molecular Aplicada (IMMA) Nemesio Diez, Facultad de Medicina, Universidad San Pablo-CEU, CEU Universities, Boadilla del Monte, Madrid, Spain, [5]ThetaBiomarkers, Balkan Center, Thessaloniki, Greece, [6]Aristotle University of Thessaloniki, Department of Medicine, Thessaloniki, Greece*
LCMS-26	**Efficient Tandem Capillary Flow LC-MS with Short µPAC Columns and a Single Ionization Source** Natalie Van Landuyt[1], Jeff Op de Beeck[1], Paul Jacobs[1] *[1]Thermo Fisher Scientific, Zwijnaarde, Belgium*
LCMS-27	**Effect of impurities and matrix compounds of ADME samples in HPLC-MS analysis** Ildikó Kálomista[1] *[1]Gedeon Richter Plc., Hungary*
LCMS-28	**Polyphenols of sour cherry and change in their content due to lactic acid fermentation** Kamila Borowiec[2], Anna Stachniuk[1], Elwira Komoń-Janczara[2] *[1]Medical University of Lublin, Department of Bioanalytics, Jaczewskiego 8b St., 20-090 Lublin, Poland, [2]University of Life Sciences in Lublin, Department of Biotechnology, Microbiology and Human Nutrition, Skromna 8 St., 20-704 Lublin, Poland*
LCMS-29	**Determination of indole-acetic acid in tomato plants treated with biopreparations containing Methylobacterium oryzae CBMB20** Katarzyna Zamłyńska[1,2], Katarzyna Suśniak[2,3], Adam Choma[2], Iwona Komaniecka[1] *[1]Medical University of Lublin, Department of Bioanalitics, Jaczewskiego 8b, 20-090 Lublin, Poland, [2]Maria Curie-Sklodowska University, Institute of Biological Science, Department of Genetics and Microbiology, Akademicka 19, 20-033 Lublin, Poland, [3]Medical University of Lublin, Department of Pharmaceutical Microbiology, Chodźki 1, 20-093 Lublin, Poland*
LCMS-30	**Targeted and untargeted LC-(HR)MS strategies for the determination of cucurbitacins in food** Ilaria Di Marco Pisciottano[1], Sylvia Kalli[1], Patrick Mulder[1], Elena de Vries[1], Timo Jellema[1], Josipa Grzetic Martens[1] *[1]Wageningen Food Safety Research, Wageningen, The Netherlands*
LCMS-31	**Benchmarking EAD spectra of lipids through pattern matching of labeled and unlabeled yeast samples** Marlene Puehringer[1,2] *[1]Department of Analytical Chemistry, Faculty of Chemistry, University of Vienna, Vienna, Austria, [2]University of Vienna, Vienna Doctoral School in Chemistry (DoSChem), Waehringer Str. 42, 1090 Vienna, Vienna, Austria*
LCMS-32	**N-hydroxysuccinimidyl derivatization reagents, friends or foes? From synthesis to derivatization of amino compounds and their analysis using liquid chromatography-tandem mass spectrometry** Nguyen Kim Ngan Bui[1,2], Ernesto Zapata[1], Sigrid Selberg[1], Ivo Leito[1], Koit Herodes[1] *[1]University of Tartu, Tartu, Estonia, [2]RPTU Kaiserslautern - Landau, Kaiserslautern, Germany*
LCMS-33	**Quantitative Analysis of the Uptake of Antibiotics in Pathogenic Bacteria** Giulia Wöhrmann[1] *[1]Helmholtz Centre for Infection Research, Germany*

LCMS-34	**An LC-MS/MS method for simultaneous determination of 15 bile acid concentrations in plasma: Development and Validation** Thomas Tarnowski[1], Ann Qin[1], Aaron Ledvina[2], David Humphries[2], Owen Walcott[2], Wildaliz Nieves[1] *[1]Gilead Sciences, Inc., Foster City, USA, [2]Labcorp Early Development Laboratories, Inc., Madison, USA*
LCMS-35	**LC-MS/MS Profiling of Malaysian Cobra and Pit Viper Venoms Uncover Cross-reactive Antigens for Broad-spectrum Antivenom Design** Preetha Rajendiran[1], Rakesh Naidu[1], Iekhsan Othman[1], Syafiq Asnawi[1] *[1]Monash University, Subang Jaya, Malaysia*
LCMS-36	**A Robust, Native Reverse Phase LC-MS for the Separation and Identification of Individual Intact Antibody Drug Conjugate Species** Miklos Czaun[1], Carl Sanchez[1], James Song[1], Jesse Hoang[1], Juan Perfetti[1], Ismail Rustamov[1], ChengKang Mai, Nazli Asgari[1], Zijie Wang[1] *[1]Phenomenex, Torrance, United States*
LCMS-37	**HPLC-HRMS method for the determiantion of 23 per- and polyfluoroalkyl substances (PFAS) in human serum** Pablo Dualde[1], Pablo Miralles[1], Antonio López[1], Juana María Vaquer[2], Julia Bellver[2], Clara Coscollà[1] *[1]Foundation for the Promotion of Health and Biomedical Research of the Valencian Community (FISABIO), Valencia, Spain, [2]General Directorate of Public Health -Generalitat Valenciana, Valencia, Spain*
LCMS-38	**Enhanced Robustness in LC-MS/MS Bioanalysis Using a Slotted Bandpass Ion Guide in Tandem Quadrupole Mass Spectrometry** Simon Keenan-Evans[1] *[1]Waters, United Kingdom*
LCMS-39	**Evaluation of system robustness for a high performance small form factor LC/MS Single Quadrupole System** Olivier Chevallier[1], Patrick Batoon[1], Xiaoli Dong[1], Lee Bertram[1], Russell Burge[1] *[1]Agilent Technologies Inc., Santa Clara, United States*
LCMS-40	**Aromatic Complexity in Rosin Esters: Elucidating Aromatic Isomerism in Hydrogenated Rosin Esters via uHPLC-HRMS and Computational Modelling** Marco Albertini[1] *[1]Domino Printing UK, Cambridge, United Kingdom*
LCMS-41	**GLP-1 Analogs: Accelerating Method Development and Manufacturing with LC-UV/MS** Duanduan Han[1], Samantha Ippoliti[1], Robert Birdsall[1], Pawel Bigos[1], Karen Nyholm[1] *[1]Waters Corporation, Milford, United States*
LCMS-42	**Effect of flavonoids on amyloid beta by native mass spectrometry** Hanna Nikolaichuk[1], Professor Emilia Fornal[1] *[1]Department of Bioanalytics, Faculty of Medical Sciences, Medical University of Lublin, Lublin, Poland*

Method Development

MD-01	**AQbD driven HPLC method for Simultaneous Estimation of Caffeine and Misoprostol** Nitasha Chauhan[1], Shruti Chopra[1], Amit Bhatia[1] *[1]Maharaja Ranjit Singh Punjab Technical University Bathinda, Punjab,India, Bathinda, India*
MD-02	**Development of a method for parathyroid hormone fragments quantitation using liquid chromatography coupled with tandem mass spectrometry** Marine Piette[1], Philippe Massonnet[1], Elodie Grifnée[1], Justine Demeuse[1], Thomas Dubrowski[1], Loreen Huyghebaert[1], Alix Mackowiak[1], Stephanie Peeters[1], Caroline Le Goff[1], Etienne Cavalier[1] *[1]CHU of Liège, Liège, Belgium*
MD-03	**Balancing objectives in automated liquid chromatography method development: a closer look at chromatographic response functions** Gerben B. van Henten[1,2], Tijmen S. Bos[1,2], Bob W.J. Pirok[1,2] *[1]Analytical Chemistry Group, HIMS, University of Amsterdam, Amsterdam, The Netherlands, 2Centre for Analytical Science Amsterdam (CASA), Amsterdam, The Netherlands*

MD-04	**High Dose, Weak Chromophore and ICH Q3a: An Avibactam Prodrug Case Study** Morgan Duffy[1], Stephen Chesnut[1], John Salisbury[1], Sam Molesworth[1], Katie Launer-Felty[1], Holly Strohmeyer[1], Nicole Andersen[1], Victoria Bozhulich[1], Jane Kawakami[1] *[1]Pfizer, Groton, United States*
MD-05	**Automated Method Development for High-Performance Liquid Chromatography for Integration into Self-Optimizing Flow Reactors** Vinaya Francis[1,2] *[1]Nantes Université, CEISAM, CNRS UMR 6230, Nantes, Nantes, France, [2]Department of Chemical Engineering, Indian Institute of Technology Madras, Chennai, India*
MD-06	**Mapping Key Elements in the Current ICH Q14 and USP <1210> and <1220> Guidances to Analytical Procedure Development** Richard Verseput[1] *[1]S-Matrix Corporation, United States*
MD-07	**Downscaling HPLC-MS(/MS): paving the way for single-cell lipidomics analysis** Fiammetta Di Marco[1] *[1]Department of Analytical Chemistry, Faculty of Chemistry, University of Vienna, Vienna, Austria*
MD-08	**Accurate Quantitation of Single Cell Drug Uptake by a Novel Suction-to-Clog Sampling Method and Dual-Stacking Capillary Electrophoresis-Mass Spectrometry** Daiki Sakai[1] *[1]Kyushu University, Fukuoka, Japan*
MD-09	**Using a OneFAST System as a µLC System for the Determination of Cr(VI) and Cr(III)** Jelle Verdonck[1], Lode Godderis[1], Katrien Poels[1], Jeroen Vanoirbeek[1], Erik Smolders[1] *[1]Ku Leuven, Leuven, Belgium*
MD-10	**One year after the adoption of ICH Q14 and Q2(R2): the quarrel between traditionalists and modernists?** Jean-Marc Roussel[1] *[1]Independent Consultant, Mâcon, France*
MD-11	**Isomer separation by reversed-phase liquid chromatography with conventional and green, binary and ternary mobile phases** Robin Simon Beers[1], Alexandra Höltzel[1], Ulrich Tallarek[1] *[1]Philipps-Universität Marburg, Marburg, Germany*
MD-12	**Simultaneous quantification of TCA cycle metabolites by capillary HPLC-MS/MS** Sara Lomuscio[1], Yvonne Reinders[1], Andreas Hentschel[1], Albert Sickmann[1] *[1]Leibniz-Institut für Analytische Wissenschaften – ISAS – e.V., Dortmund, Germany*
MD-13	**Investigation of the Binding Constant of the Membrane Protein CXCR2 and Its Ligand Mz438 Using Affinity Capillary Electrophoresis** Jana Haegner[1], Max E. Huber[2], Taha El-Jourani[1], Matthias Schiedel[1], Hermann Wätzig[1] *[1]Institute of Medicinal and Pharmaceutical Chemistry, Technische Universität Braunschweig, Braunschweig, Germany, [2]Department of Chemistry and Pharmacy, Medicinal Chemistry, Friedrich-Alexander-University Erlangen-Nürnberg, Erlangen-Nürnberg, Germany*
MD-14	**Box–Behnken Design-Based RP-HPLC Optimization for Malondialdehyde Quantification in Plasma** Zineb Chellouai[1,2], Youcef Hadef[3], Rachid Moussaoui[1,2], Mourad Nachi[2] *[1]Department of Pharmacy, Faculty of Medicine, University Oran 1 Ahmed Ben Bella, B.P 1510 El M'Naouer 31000, Algeria, [2]Service de Biochimie, Établissement Hospitalier Universitaire (EHU Oran), 1er Novembre 1954, Algeria, [3]Department of Analytical Chemistry, Pharmacy Department, Faculty of Medicine, Badji Mokhtar University, Algeria*
MD-15	**Optimized Preanalytical Conditions and Derivatization Strategies for Malondialdehyde Quantification Using HPLC-FLD** Zineb Chellouai[1,2], Youcef Hadef[3], Rachid Moussaoui[1,2], Mourad Nachi[2] *[1]Department of Pharmacy, Faculty of Medicine, University Oran 1 Ahmed Ben Bella, B.P 1510 El M'Naouer 31000, Algeria, [2]Service de Biochimie, Établissement Hospitalier Universitaire (EHU Oran), 1er Novembre 1954, Algeria, [3]Department of Analytical Chemistry, Pharmacy Department, Faculty of Medicine, Badji Mokhtar University, Algeria*
MD-16	**Evaluation of Antioxidants in Metformin Hydrochloride Stability and Genotoxicity Mitigation: A Novel RP-HPLC and Comet Assay Approach** Sangita Gadilohar[1], Dande Aishwarya[1], Ramalingam Peraman[1] *[1]National Institute of Pharmaceutical Education and Research (NIPER) Hajipur, Hajipur, India*

MD-17	**Optimising HPLC-DAD analysis of Orcein dye from lichen: Comparative evaluation of hydrolysis and extraction pretreatment protocols** Jonas Veenhoven[1], Ina vanden Berghe[1] *[1]Royal Institute for Cultural Heritage (KIK-IRPA), Brussels, Belgium*
MD-18	**Injection of Large Volumes of Eluotropic Sample Diluents in Reversed Phase Chromatography** Daniel Foshag[1], Hannes Graf[1], Matthias Pursch[2], Jan-Andre Boeth[3], Ulrich Tallarek[3], Tom van de Goor[1,3] *[1]Agilent Technologies, Waldbronn, Germany, [2]Dow, Core R&D Analytical Science, Wiesbaden, Germany, [3]Department of Chemistry, Philipps-Universität Marburg, Marburg, Germany*
MD-19	**Labile Mobile Phase - Ester Formation in Acidified Solvents** Konstantin Shoykhet[1], Stephan Buckenmaier[1], Benedikt Metzger[1], Dwight Stoll[2] *[1]Agilent Technologies, Waldbronn, Germany, 2Gustavus Adolphus College, Saint Peter, USA*
MD-20	**DoE Based Development of an HPLC-UV Method for Evaluation of Amoxicillin and Tinidazole Co-loaded Pharmacosome Formulation for H. pylori Eradication** Sudheer Moorkoth[1], Shiran Shetty[2], Srinivas Mutalik[3], Moumita Saha[1] *[1]Department of Pharmaceutical Quality Assurance, Manipal College of Pharmaceutical Sciences,Manipal Academy Of Higher Education, Manipal, India, [2]Department of Gastroenterology and Hepatology, Kasturba Medical College, Manipal Academy of Higher Education, Manipal, India, [3]Department of Pharmaceutics, Manipal College of Pharmaceutical Sciences, Manipal Academy of Higher Education, Manipal, India*
MD-21	**Chromatographic Separation Prediction System: A Prototype for Dry Lab Applications** Ratih Ratih[1] *[1]University of Surabaya, Surabaya, Indonesia*
MD-22	**A High-Throughput Solution-Phase Assay for Screening Reactive Oxygen Species Generation in Organic Compounds** Joseph Kaye[1,2], Saif Haque[1,3], Ali Salehi-Reyhani[2,3] *[1]Dept. Chemistry, Imperial College London, London, United Kingdom, [2]Dept. Surgery & Cancer, Imperial College London, London, United Kingdom, [3]Institute of Molecular Sciences and Engineering, Imperial College London, London, United Kingdom*
MD-23	**A quantitative method for the analysis of PAHs metabolites in solid animal tissues** Luca Sorarù[1] *[1]Ca' Foscari University, Venice, Italy*
MD-24	**Enhancing RPLC Method Development for Natural Products based on Transferable Predictions using Generalised Models** José-Ramón Torres-Lapasió[1], Pau Peiró-Vila[1], María-Celia García-Álvarez-Coque[1] *[1]University Of Valencia, Burjassot (valencia), Spain*
MD-25	**Feed injection in liquid chromatography: Reducing the effect of large-volume injections from purely organic diluents in reversed-phase liquid chromatography** André Böth[1], Daniel Foshag[2], Ulrich Tallarek[1], Tom van de Goor[1,2] *[1]Philipps-Universität Marburg, Marburg, Germany, [2]Agilent Technologies R&D and Marketing GmbH & Co. KG, Waldbronn, Germany*
MD-26	**Case study: Instrument and LC column migration for the purification and analysis of synthetic oligonucleotides** Dennis Koehler[1], Talia Hill[2], Susanne Fabel[1], Maria Gruebner[1] *[1]Thermo Fisher Scientific, Germering, Germany, [2]Thermo Fisher Scientific, Pleasanton, United States*
MD-27	**Automated Feedback-Controlled HPLC Optimization with different types of reversed-phase columns** Maryna Maliarevska[1] *[1]Technical University, Darmstadt, Muehltal, Germany*
MD-28	**Simplify and Streamline Method Transfer** Anne Marie Smith[1], Shahriar Jahanbakht[2], Richard Visser[3], Baljit Bains[4] *[1]ACD/Labs, Toronto, Canada, [2]ACD/Labs, Strasbourg, France, [3]ACD/Labs, Frankfurt, Germany, [4]ACD/Labs, Bracknell, United Kingdom*
MD-29	**LC-MS analysis of insulin, somatostatin 14, and glucagon secreted by islet organoids** Helena Hrušková[1,2], Mads T.S. Gisle Johnsen[1], Steven Ray Haakon Wilson[1,2], Hanne Røberg-Larsen[1,2] *[1]Section of Chemical Life Science, Department of Chemistry, University of Oslo, Oslo, Norway, [2]Hybrid Technology Hub, Faculty of Medicine, University of Oslo, Oslo, Norway*

MD-30 **Determination of cladribine in sheep plasma and cerebrospinal fluids by a validated liquid chromatography-tandem mass spectrometry method**
Tomasz Pawiński[1], Dorota Marszałek[1], Tomasz Misztal[2], Maciej Sierakowski[3], Paweł Grieb[4], Dorota Gołąbek-Sulejczak[4], Paulina Michalczuk[1], Magdalena Bodnar-Broniarczyk[1]
[1]Department of Drug Chemistry, Pharmaceutical and Biomedical Analysis, Medical University of Warsaw, Warsaw, Poland, [2]The Kielanowski Institute of Animal Physiology and Nutrition, Polish Academy of Science, Jabłonna near Warsaw, Poland, [3]Institute of Biological Sciences, Cardinal Stefan Wyszynski University, Warsaw, Poland, [4]Department of Experimental Pharmacology, Mossakowski Medical Research Institute, Polish Academy of Science, Warsaw, Poland

MD-31 **Beyond Phthalates: The Analytical Struggle to Detect Emerging Plastic Additives in Soil and Water**
Raquel Capilla Flores[1], Rosalía López Ruíz[1], Roberto Romero González[1], Antonia Garrido Frenich[1]
[1]Research Group "Analytical Chemistry of Contaminants", Department of Chemistry and Physics, Research Centre for Mediterranean Intensive Agrosystems and Agri-Food Biotechnology (CIAIMBITAL), University of Almeria, Agrifood Campus of International Excellence, ceiA3, E-04120 Almeria, Spain, Almería, Spain

MD-32 **Development of Sensitive and Simultaneous Determination Method for Thirty-Seven D/L-Amino Acids by Automatic Pre-column Derivatization with Chiral Thiol Using UHPLC**
Vadim Kraft[1], Natsuki Iwata[2]
[1]Shimadzu Europa GmbH, Duisburg, Germany, [2]Shimadzu Corporation, Kyoto, Japan

MD-33 **Automated Peptide Mapping: A Feasibility Study Feasibility Showcase of an Automated Approach for the Method Development of a Peptide Mapping Method, Including Sample Preparation as well as LC Method Development**
Simon Zachhuber[1], Hans Yu[1], Carsten Buengener[1]
[1]Analytical Development Europe, Baxalta Innovations GmbH, a Takeda company, Vienna, Austria

MD-34 **Optimization of isolation, verifying the concentration and purification of the common freshwater cyanobacterial toxins ATX-a, CYN and MC-LR using standard techniques. - a quantitative analysis**
Saravana Selvaraj[1], Ariel Kamiński[2], Dariusz Dziga[3]
[1]Doctoral School of Exact and Natural Sciences, Faculty of Biochemistry, Biophysics and Biotechnology, Jagiellonian University, Krakow, Poland, [2]Faculty of Biochemistry, Biophysics and Biotechnology, Jagiellonian University, Krakow, Poland, Krakow, Poland, [3]Faculty of Biochemistry, Biophysics and Biotechnology, Jagiellonian University, Krakow, Poland, Krakow, Poland

MD-35 **Investigating the Feasibility of Theoretical Plate Height Modelling for Automated Peak Width Prediction in Liquid Chromatography**
Rebecca Gibkes[1], Tijmen Bos[1,2], Dwight Stoll[2], Ken Broeckhoven[3], Gert Desmet[3], Bob Pirok[1,2]
[1]University of Amsterdam, Amsterdam, Netherlands, [2]Gustavus Adolphus College, Saint Peter, USA, [3]Vrije Universiteit Brussel, Brussels, Belgium

MD-36 **AI-Driven Optimization of HILIC Methods for Enhanced Nucleoside Separation**
Martin Meyer[1], Thomas Schüßeler[1]
[1]Shimadzu Europa, Duisburg, Germany

MD-37 **Bridging Quantification and Structural Resolution in Lipidomics: A Dual-Derivatisation Approach Based on GC-MS and LC-MS/MS**
Yicen Yue[1,2], Lei Fu[1], Chris Goldring[2]
[1]Xi'an Jiaotong-Liverpool University, Suzhou, China, [2]University of Liverpool, Liverpool, United Kingdom

MD-38 **Minimizing Background Contamination and Improving Separation of Short-Chain Compounds in PFAS Analysis**
KANA Tanaka[1], Yuko Yui[1], Reika Takahara[1], Mengmin Terashima[1]
[1]GL Sciences Inc., 237-2, Sayamagahara, Iruma, Japan

MD-39 **Performing automatic peak detection and integration using deep learning techniques**
Lonneke Van Dalen[1,2], Tijmen Bos[1,2], Bob Pirok[1,2], Hans-Gerd Janssen[3,4], Boudewijn Hollebrands[3]
[1]Analytical Chemistry Group, Van 't Hoff Institute for Molecular Sciences, The Netherlands, [2]Centre for Analytical Sciences Amsterdam (CASA), The Netherlands, [3]Unilever's Food Innovation Centre (HIVE), The Netherlands, [4]Wageningen University and Research, The Netherlands

MD-40 **Development and validation of surfactant-enhanced emulsification liquid-liquid microextraction followed by micellar electrokinetic chromatography-tandem mass spectrometry for determination of alpelisib and fulvestrant in human plasma**
Zvonimir Mlinarić[1], Lu Turković[1], Miranda Sertić[1]
[1]University Of Zagreb Faculty Of Pharmacy And Biochemistry, Zagreb, Croatia

MD-41 **Investigating Chemicals of Concern: A Study on Recycling and Bioactive Substances**
Christian Clappier[1]
[1]BASF SE, Ludwigshafen am Rhein, Germany

MD-42 **A Novel Strategy for Rapid Development of Chiral Chromatographic Methods with UV Detection**
Risa Suzuki[1], Yuichiro Fujita[2], Keita Nakane[3], Masato Kawakami[2], Keiko Matsumoto[2], Akira Noda[2], Kyoko Watanabe[1], Seiya Kitamura[3]
[1]Shimadzu Europa, Duisburg, Germany

MD-43 **Simultaneous determination of rifampicin and its metabolites in cell medium using chromatographic methods**
Lukas Lochman[1], Tomas Smutny[2], Petr Pavek[2], Radim Kucera[1]
[1]Department of Pharmaceutical Chemistry and Pharmaceutical Analysis, Faculty of Pharmacy in Hradec Kralove, Charles University, Hradec Kralove, Czech Republic, [2]Department of Pharmacology and Toxicology, Faculty of Pharmacy in Hradec Kralove, Charles University, Hradec Kralove, Czech Republic

MD-44 **Utilizing Analytical Quality by Design Principles to Optimize a Platform HILIC Method for Man-5 Analysis**
Pawel Bigos[1], Robert Birdsall[1], Karen Nyholm[1]
[1]Waters Corporation, Milford, United States

MD-45 **Development and validation of capillary electrophoresis method for the determination of PARP inhibitor talazoparib in pharmaceutical dosage form**
Kristian Morić-Španić[1], Valentina Petrinac[1], Zvonimir Mlinarić[1], Lu Turković[1], Tajana Silovski[2], Full Biljana Nigović[1], Miranda Sertić[1]
[1]University of Zagreb, Faculty of Pharmacy and Biochemistry, Department of Pharmaceutical Analysis, Zagreb, Croatia, [2]University Hospital Centre Zagreb, Department of Oncology, Zagreb, Croatia

MD-46 **Optimization of SEC-MALS measurements for Biomolecule Analysis**
Subin Damodaran[1], Gesa J. Schad[2], Snežana Đorđević[1], Andrea Krumm[1]
[1]Tosoh Bioscience GmbH, Griesheim, Germany, [2]Shimadzu Europa GmbH, Duisburg, Germany

MD-47 **Optimization of a liquid chromatography tandem mass spectrometry method for the enantioselective analysis of amino acids using a chiral derivatization reagent**
Cinzia Lella[1], Liam Nestor[1], Ulrich Hennecke[2], Yvan Vander Heyden[3], Ann Van Eeckhaut[1]
[1]Vrije Universiteit Brussel, Research group Experimental Pharmacology (EFAR), Center for Neurosciences (C4N), Brussel, Belgium, [2]Vrije Universiteit Brussel, Organic Chemistry Research Group (ORGC), Brussel, Belgium, [3]Vrije Universiteit Brussel, Department of Analytical Chemistry, Applied Chemometrics and Molecular Modelling (FABI), Brussel, Belgium

OMICS

OMI-01 **Utilization of Monodisperse Fully Porous Particles for Chromatographic Improvement in Mass Spectrometry based Metabolomics for Disease Detection**
Mark Woodruff[1], Ken Butchart[1], Geoff Faden[2], Tim Garrett[3]
[1]Fortis Technologies, Neston, United Kingdom, [2]Mac-Mod, Philadelphia, USA, [3]University of Florida, Gainesville, USA

OMI-02 **From discovery to quantitation: development and optimization of a fast targeted HILIC-HRMS approach for liquid biopsy of Hepatocellular Carcinoma**
Danila La Gioia[1,2]
[1]University of Salerno, Italy, Italy, [2]PhD Program in Drug Discovery and Development, University of Salerno, Fisciano, (SA) Italy

OMI-03 **Untargeted and targeted MS-based analysis of biological matrices: challenges and strategies towards elucidating the association human metabolome-health status**
Luisa Barreiros[1,2], Sara R. Fernandes[1,2], Marcela A. Segundo[2]
[1]ESS, Polytechnic of Porto, Porto, Portugal, [2]LAQV, REQUIMTE, Faculty of Pharmacy, University of Porto (FFUP), Porto, Portugal

OMI-04 **Porous carbon HPLC column for retention behavior of mono- and disaccharides**
Egidijus Machtejevas[1], Andras Komaromy[2], Morten Thaysen-Andersen[2], Benjamin Peters[1], Michael Ye[3], Petra Lewits[1]
[1]Merck Life Science KGaA, Darmstadt, Germany, [2]School of Natural Science, Macquarie University, Sydney, Australia, [3]Supelco Inc, an affiliate of Merck, Bellefonte, United States

OMI-05	**Comparative performance of HILIC-HRMS and CE-HRMS approaches in metabolomics for identifying biomarkers of effect of PCBs and BPA exposure** Maykel Hernández-Mesa[1], Luca Narduzzi[1], Alfonso Narváez[1], María del Mar Delgado-Povedano[2], Bruno Le Bizec[2], Ana M. García-Campaña[1], Gaud Dervilly[2] *[1]Universidad de Granada, Granada, Spain, [2]ONIRIS, INRAE, LABERCA, Nantes, France*
OMI-06	**Proteomics of extracellular vesicle preparations highlights short-comings in purification methods** Verena Braunschmid[1], Gabriele Blümel[1], Dr. Cristian-Tudor Matea[1,2], Patrick Zimmerebner[1], Patricia Hrasnova[1,2,3], Andreas Marl[1,2], Nicole Meisner-Kober[1,2], Christian G. Huber[1,2], Christof Regl[1] *[1]Paris-lodron Universität Salzburg, Salzburg, Austria, [2]Ludwig Boltzmann Institute for Nanovesicular Precision Medicine, Salzburg, Austria, [3]Paracelsus Medical University, Salzburg, Austria*
OMI-07	**Unveiling the Altered Protein Landscape in Extracellular Vesicles Released from TBEV-Infected Dendritic Cells using Nanoflow-UHPLC Coupled to Mass Spectrometry** Shubham Kaushik[1] *[1]Department of Biosciences & Medical Biology, University of Salzburg, Hellbrunnerstrasse 34, 5020, Salzburg, Austria*
OMI-08	**Integration of parallel chromatography and HRMS for comprehensive metabolic analysis** Felina Hildebrand[2,3], Matteo Spedicato[1], Harald Schoeny[2], Martina Catani[1], Alberto Cavazzini[1], Gunda Koellensperger[1] *[1]University Of Ferrara, Ferrara, Italy, [2]University of Vienna, Vienna, Austria, [3]Vienna Doctoral School in Chemistry (DoSChem), Vienna, Austria*
OMI-09	**Why a retention time and m/z database make sense for metabolomics** Constantin P. Krempe[1,2], Jonas Rösler[1,2], Sven W. Meckelmann[1], Alpaslan Tasdogan[2], Oliver J. Schmitz[1] *[1]University of Duisburg-Essen - Applied Analytical Chemistry, Essen, Germany, [2]University Hospital Essen - Department of Dermatology, Essen, Germany*
OMI-10	**Determination of antimicrobial peptides in natural and recombinant microbial producers using LC-MS/MS** Renée Isabel Ahr[1], Lisa Prigolovkin[1], Christian Riedel[2], Wolfgang Wiechert[3], Marco Oldiges[3] *[1]Forschungszentrum Jülich, Jülich, Germany, [2]Universität Ulm, Ulm, Germany, [3]RWTH Aachen Universität, Aachen, Germany*
OMI-11	**Increasing sensitivity and reducing carryover for IgG glycoform characterization with monolithic hydrophilic interaction liquid chromatography-mass spectrometry** Thomas Holmark[1,2], Annika A.M. van der Zon[1,2], Andrea F.G. Gargano[1,2] *[1]University of Amsterdam, van 't Hoff Institute for Molecular Sciences (HIMS), Analytical-Chemistry Group, Amsterdam, The Netherlands, [2]Centre for Analytical Sciences Amsterdam (CASA), The Netherlands*
OMI-12	**Validation by UHPLC-MS/MS of 5 glioblastoma cell surface proteins to be targeted by nanobodies** Anna Laurent[1], Adrien Allard[1], Virginie Neirinckx[2], Marianne Fillet[1] *[1]Laboratory for the Analysis of Medicines (LAM), Department of Pharmacy, CIRM, University of Liege, Liège, Belgium, [2]GIGA Neurosciences, Department of Biomedical and Preclinic Sciences, GIGA, University of Liege, Liège, Belgium*
OMI-13	**Miniaturization Improves Reversed-Phase Chromatographic Analysis of HIV-Infected Cells: A Proof of Concept** Lander Iterbeke[1], Frederic Lynen[1], Linos Vandekerckhove[2], Jeff Op De Beeck[3] *[1]Separation Science Group, Department of Organic and Macromolecular Chemistry, Ghent University, Gent, Belgium, [2]Vakgroep Inwendige ziekten en Pediatrie (GE35), Ghent University, Ghent, België, [3]ThermoFisher, Ghent, België*
OMI-14	**Ultra-Sensitive Neuro-Metabolomics of Cerebrospinal Fluid by Salt-Tolerant Dual-Stacking Capillary Electrophoresis-Mass Spectrometry** Haruka Kuwagi[1], Naoko Sai[1], Chenchen Liu[1], Kohei Torikai[1], Nobuaki Matsumori[1], Takayuki Kawai[1] *[1]Kyushu University, Fukuoka, Japan*
OMI-15	**Addressing interfering peaks in biomarker analysis in tissue samples via benzoyl derivatization and LCMS/MS analysis** Liesbeth Vereyken[1], Eline Rutten[1], Begona Barroso[1] *[1]Johnson&Johnson, Beerse, Belgium*
OMI-16	**Analysis of the global histone modification landscape in mouse tissue using nano C18-monolithic column and timsTOF HT** Bella Bruszel[2], Domenico Marano[2], Gaia Novarino[2], Armel Nicolas[2], Mario Mirabelli[1], Petra Martinović[1], Goran Mitulović[1] *[1]Bruker, Wien, Austria, [2]Institute of Science and Technology Austria, Klosterneuburg, Austria*
OMI-17	**Application of LC/MS-based proteomics for the identification of peptide markers differentiating poultry liver and skeletal muscle tissues in processed food products** Anna Stachniuk[1], Alicja Wielgosz[1], Natalia Kasałka-Czarna[2], Magdalena Montowska[2], Emilia Fornal[1] *[1]Medical University of Lublin, Department of Bioanalytics, Jaczewskiego 8b St., 20-090 Lublin, Poland, [2]Poznań University of Life Sciences, Institute of Meat Technology, Wojska Polskiego 31 St., 60-624 Poznań, Poland*
OMI-18	**Biostatistical insights into metabolic and endocannabinoid changes in biological studies using the RP-LC/MS approach** Eva Cífková[1], František Štaud[2], Miroslav Lísa[1] *[1]Faculty of Science, University of Hradec Králové, Hradec Králové, Czech Republic, [2]Faculty of Pharmacy in Hradec Kralove, Charles University, Hradec Králové, Czech Republic*
OMI-19	**Robust discovery proteomics using nanoliquid chromatography with pillar-array column technology and high-resolution mass spectrometry with data-independent acquisition** Daniel Papp[1], Jeff Op de Beeck[2], Goran Mitulović[3], Sebastiaan Eeltink[1] *[1]Vrije Universiteit Brussel, Brussels, Belgium, [2]Thermo Fisher Scientific, Gent, Belgium, [3]Bruker Daltonics, Wien, Austria*
OMI-20	**Lipidomic insights into ticks: composition and its association with pathogen prevalence and environmental factors** Hanna Nikolaichuk[1], Joanna Kulisz[2], Anna Kozub-Pędrak[1], Zbigniew Zając[2], Aneta Woźniak[2], Katarzyna Bartosik[2], Angélique Foucault-Simonin[3], Sara Moutailler[3], Alejandro Cabezas-Cruz[3], Emilia Fornal[1] *[1]Department of Bioanalytics, Faculty of Medical Sciences, Medical University of Lublin, Jaczewskiego 8b, 20-090 Lublin, Poland, [2]Department of Biology and Parasitology, Medical University of Lublin, Radziwiłłowska 11, 20-080 Lublin, Poland, [3]Anses, INRAE, Ecole Nationale Vétérinaire d'Alfort, UMR BIPAR, Laboratoire de Santé Animale, 94700 Maisons-Alfort, France*
OMI-21	**Evaluation of Micro-Pillar Array Columns (µPAC) for Brain Tissue Proteomics in Neurodegenerative Disease Research** Eline Rutten[1], Farid Jahouh[1], Sam Wouters[1], Filip Cuyckens[1], Begona Barroso[1] *[1]Johnson&johnson, Beerse, Belgium*

Pharma

PHA-01	**Detailed study into ASO impurity analysis, lessons learned, and myths dispelled while moving to compliant platform methods** Ken Cook[1] *[1]Thermo Fisher Scientifc, Hemel Hempstead, United Kingdom*
PHA-02	**Impurity separation of oligonucleotides by polysaccharide-based chiral columns and achiral polymeric columns** Hideki Motoda[1], Mireille Schaeffer[2], Christophe Kientzy[2], Kanji Nagai[1], Takafumi Onishi[1], Pilar Franco[2], Atsushi Ohnishi[1] *[1]Daicel Corporation, Japan, [2]Chiral Technologies Europe, France*
PHA-03	**Sensitive and high-throughput analysis of nitrosamine contaminants in sartans and their co-formulations with hydrochlorothiazide** Ravi Patel[1], Chhaganbhai Patel[1] *[1]School of Pharmacy, Gujarat Technological University, Gandhinagar, India, [2]Department of Medicinal Chemistry, Shri Sarvajanik Pharmacy College, Mehsana, India*
PHA-04	**Oligonucleotide Mass Confirmation and Impurities Identification by LC/MS Single Quad** Yulan Bian[1], Aveline Neo[1], Lee Bertram[1] *[1]Agilent Technologies Inc., Singapore*
PHA-05	**Optimized LC-MS Method for the Quantitative Analysis of Semaglutide and Liraglutide in Human Plasma** Hao Yang[1], Ke Ma[2], Min Du[3] *[1]Thermo Fisher Scientific, San Jose, United States, [2]Thermo Fisher Scientific, Sunnyvale, United States, [3]Thermo Fisher Scientific, Lexington, United States*

PHA-06	**HILIC analysis of GLP-1 receptor agonists, related impurities and excipients using low-adsorption and corrosion-resistant LC hardware** Piotr Alvarez[1], Sonja Schneider[2], Cindy Lecluyse[1], Ine Vandendriessche[1], Griet Debyser[1], Martin Vollmer[2], Pat Sandra[1], Udo Huber[2], Koen Sandra[1] *[1]RIC Group, Kortrijk, Belgium, [2]Agilent Technologies, Waldbronn, Germany*
PHA-07	**Metal complexation challenges in RLT analytical development** Olivia Luige[1], Lorena Baietto[1], Elisabeth Vey[1] *[1]Novartis Pharma AG, Basel, Switzerland*
PHA-08	**Green ion pair and HFIP free method for ASO RNA analysis with GLP compliant automated data handling** Ken Cook[1], Alexander Schwahn[1], Marcus Hoffmann[1], Fiona Rupprechta[1] *[1]Thermo Fisher Scientifc, Hemel Hempstead, United Kingdom*
PHA-09	**Predicting long-term stability of oligonucleotides by using Accelerated Stability Assessment Program modelling and High-Resolution Mass Spectrometry** Kevin Roeleveld[1], Fatemeh Khosravi, Geert Van Raemdonck[1] *[1]AnaBioTec, Evergem, Belgium*
PHA-10	**An automatic on-line method for screening PTP1B inhibitors by capillary electrophoresis** Juan Gao[1], Erwin Adams[1], Zhengjin Jiang[2], Ann Van Schepdael[1] *[1]Ku Leuven, Leuven, Belgium, [2]Jinan University, Guangzhou, People's Republic of China*
PHA-11	**Size-exclusion chromatography–electrospray-ionization mass spectrometry and normal-phase liquid chromatography analysis to characterize molecular-weight, chemical-composition, functionality, and sequence distributions on polylactic co-glycolic acid co-polymers** Masashi Serizawa[1], Andrea Gargano[1] *[1]van 't Hoff Institute for Molecular Science (HIMS), Universiteit van Amsterdam, Science Park 904, 1098 XH Amsterdam, Netherlands*
PHA-12	**A deep delve into molecular diffusion coefficients of oligonucleotides using the Taylor-Aris method** Judith Mollen[1,2], Gert Desmet[2], Deirdre Cabooter[1] *[1]KU Leuven, Pharmaceutical Analysis, Leuven, Belgium, [2]VUB, Department of Chemical Engineering, Brussels, Belgium*
PHA-13	**Enhancing the Characterization and Optimization of Oligonucleotide Separations Using Chemometric Approaches** Sanne Boot[1,2], Tijmen S. Bos[1,2], Saer Samanipour[1,2,3], Bob W.J. Pirok[1,2] *[1]University Of Amsterdam, Amsterdam, The Netherlands, [2]Center of Analytical Sciences Amsterdam, Amsterdam, The Netherlands, [3]Queensland Alliance for Environmental Health Sciences, Queensland, Australia*
PHA-14	**Development of a Green Stability-Indicating HPLC Method for Quantifying Nirmatrelvir in Self-Emulsifying Drug Delivery Systems: Optimization, Validation, and Permeability Enhancement** Ravi Patel[1], Ritu Sharma[1], Dignesh Khunt[1] *[1]School of Pharmacy, Gujarat Technological University, Gandhinagar, India*
PHA-15	**Development and Validation of a Stability-Indicating RP-HPLC Method for Remogliflozin Etabonate: Comprehensive Impurity Profiling and In-Silico Toxicity Assessment** Neha Mochi[1], Rajesh Patel[1] *[1]Gujarat Technological University School of Pharmacy, Gandhinagar, India*
PHA-16	**Compatibility Study of ritlecitinib with Chitosan, Hyaluronic Acid, and Xanthan Gum Using Isothermal Stress Testing and Analytical Techniques** Jelena Kovačić[1], Daniela Amidžić Klarić[1], Nikša Turk[2], Ana Mornar Turk[1] *[1]Faculty of Pharmacy and Biochemistry Zagreb, Zagreb, Croatia, [2]Department of Gastroenterology, University Hospital Centre, Zagreb, Croatia*
PHA-17	**A dual approach of liquid chromatography (LC) methods coupled to mass spectrometry (MS) for qualitative polyphenol identification (QTOF) and targeted quantification (QQQ)** Neerodha Edirisinghe[1], Dan Dias[1], Dodie Pouniotis[1], Matthew Flavel[1], Kosta Lim[1], Rosita Zakaria[1] *[1]RMIT University, Bundoora, Australia*

PHA-18	**Isolation and idetification of hyperglycemic active compounds from guava (Psidium guajava L.) leaf extract in rat hepatocytes using column chromatography, HPLC, and NMR analysis** Szu-chuan Shen[1], Fan-Chi Cheng[1], Wen-Chang Chang[1], Da-Wei Huang[1], James Swi-Bea Wu[1] *[1]National Taiwan Normal University, Taipei, Taiwan*
PHA-19	**Strong solvent effects: addressing gaps to facilitate scale up of liquid chromatography separations of siRNA therapeutics** Gregory Jones[1], Yuan (David) Ren[1] *[1]Alnylam Pharmaceuticals, Cambridge, United States*
PHA-20	**Reliable Analysis of Omeprazole and Its Related Compounds using a High pH Stable SPP Stationary Phase** Petra Lewits[1], Anita Piper[1], Egidijus Machtejevas[1] *[1]Merck KGaA, Darmstadt, Germany*
PHA-21	**An LC-MS/MS method for an extended set of mutagenic small molecule nitrosamines and N,N-dimethylformamide in metformin drug substance** Matt James[1], Gemma Lo[1] *[1]Avantor, Reading, United Kingdom*
PHA-22	**Analysis of short 2-6mer phosphorothioate oligonucleotides in various modes of liquid chromatography** Zuzana Vosáhlová[1,2], Sylwia Studzińska[1], Martin Gilar[3], Květa Kalíková[2] *[1]Department of Environmental Chemistry and Bioanalytics, Faculty of Chemistry, Nicolaus Copernicus University, Toruń, Poland, [2]Department of Physical and Macromolecular Chemistry, Faculty of Science, Charles University, Prague, Czech Republic, [3]Waters Corporation, Milford, USA*
PHA-23	**Identification of Dexamethason by TLC** Markus Burholt[1], Michaela Oberle[1], Monika Bäumle[1] *[1]Merck Lifescience KGaA, Darmstadt, Germany*
PHA-24	**Adopting ICH Q14 principles to establish an efficient LC method development strategy for basic analytes** Jonas Neumann[1], Mijo Stanic[1], Alexander H. Schmidt[1] *[1]Chromicent GmbH, Berlin, Germany*
PHA-25	**Determination of ritlecitinib in plasma using high performance liquid chromatography coupled with quadrupole time of flight mass spectrometry (HPLC-QTOF)** Snježana Zubčić[1], Jelena Kovačić[2], Daniela Amidžić Klarić[2], Siniša Tomić[1], Ana Mornar Turk[2] *[1]HALMED - Agency for Medicinal Products and Medicinal Devices of Croatia, Zagreb, Croatia, [2]Department of Analytical Sciences, Faculty of Pharmacy and Biochemistry, Zagreb, Croatia*
PHA-26	**Impurities Investigation of ARV-825 Proteolysis Targeting Chimera (PROTAC) Compound through Fraction Collection** Margaret Maziarz[1], Paul Rainville[1] *[1]Waters Corporation, Milford, United States*
PHA-27	**Cleanup of pharmaceutical drugs in biological fluids by automated microSPE prior to LC/MS** Andrew Minett[1], Raquel Gonzalez de Vega[2], Cassandra Rusher[3], Philip Doble[4] *[1]ePrep Pty Ltd, Oakleigh, Australia, [2]Karl-Franzens Universitaet, Graz, Austria, [3]ePrep Europe Ltd, Westcliff-on-Sea, United Kingdom, [4]University of Technology Sydney, Sydney, Australia*
PHA-28	**Ensuring Sustainable BP and USP Compliance using automated extraction workflows for Hydrocortisone and Miconazole Nitrate analysis** Justin Lacomel[1], Helen Evans-Lemmo[1], Cassandra Rusher[2], Andrew Minett[3] *[1]Ego Pharmaceuticals, Australia, [2]ePrep Europe Ltd, Westcliff-on-Sea, United Kingdom, [3]ePrep Pty Ltd., Oakleigh, Australia*
PHA-29	**Optimisation of HPLC separation for peptide-oligonucleotide conjugates: Enhancing sensitivity in purity analysis using optimal ion-pairing reagents** Daniel Esser[1], Misato Amiya[2], Reira Hirai[2], Yuki Higuchi[2], Naoko Hata[2], Saoko Nozawa[2], Miyako Naganuma[3], Genichiro Tsuji[3], Yosuke Demizu[3], Taeko Nakajima[2] *[1]YMC Europe GmbH, Dinslaken, Germany, [2]YMC Co., Ltd., Kyoto, Japan, [3]National Institute of Health Sciences, Kawasaki, Japan*

PHA-30 **Purification and quality control of oligonucleotides**
Ulrike Krop[1], Yannick Krauke[1], Juliane Kramer[1]
[1]KNAUER wissenschaftliche Geräte GmbH, Berlin, Germany

PHA-31 **Development and validation of UPLC-MS/MS method for monitoring nintedanib in plasma of patients with progressive pulmonary fibrosis associated with rheumatoid arthritis**
Tomasz Pawiński[1], Anna Kiełczyńska[1], Edyta Gilant[2], Edyta Pesta[2], Daria Kuc[3]
[1]Department of Drug Chemistry, Pharmaceutical and Biomedical Analysis, Medical University of Warsaw, Warsaw, Poland, [2] Pharmacokinetics Section, Łukasiewicz Research Network-Industrial Chemistry Institute, Warsaw, Poland, [3]Clinic of Early Arthritis, Institute of Geriatrics, Rheumatology and Rehabilitation, Warsaw, Poland

PHA-32 **Overcoming Challenges Within The Pharmaceutical Industry in Going For Green Chromatographic Analysis**
Matthew Osborne[1]
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PHA-33 **Sustainable Advances in Therapeutic Peptide Purification: Dimethyl Carbonate as a Green Alternative to Acetonitrile in RP-LC**
Chiara De Luca[1]
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PHA-34 **Platform analytical procedure for the analysis of residual solvents in active pharmaceutical ingredients by HS-GC**
Dang Nhung[1], Mikael Nilsson[1],Anna Ander[1], Maria Bholin[1], Mikael Nilsson[1]
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PHA-35 **Thin layer chromatography coupled to MALDI in source decay imaging (TLC/MALDI-MSI-ISD) for whole sequence coverage of oligonucleotides and impurities profillng**
Charles Delvaux, Gauthier Eppe, Johann Far, Edwin De Pauw[1]
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PHA-36 **Evaluation of Batch-to-Batch Consistency of Reversed Phase HPLC Columns for Long-term Method Validation**
Sandra Kmieliauskaite[1]
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PHA-37 **Method migration and troubleshooting for challenging UHPLC compendial methods on HPLC systems**
Norris Wong[1], Paula Hong[1]
[1]Waters Corporation, Milford, United States

PHA-38 **Liquid chromatography-tandem mass spectrometry analysis of flavonoids in Cucumis melo L. extract for hangover relief**
Eun Jung Son[1], Seung-Hyung Kim[2], Dong-Seon Kim[1]
[1]Korea Institute Of Oriental Medicine, 1672 Yuseong-daero, Yuseong-gu, South Korea,[2]Daejon University, 62 DaehakOro, Dong-gu, South Korea

PHA-39 **Bioanalytical LC-MS/MS Method for the Analysis of Clopidogrel and its Major and Active Metabolites in Human Plasma**
Yahya M. Alshehri[1], Monerah Altamimy[1], Othman Alahmed[2], Badr Alghamdi[2], Salam Massadeh[2]
[1]Saudi Food And Drug Authority, Saudi Arabia, [2]King Abdullah International Medical Research Center, Saudi Arabia

PHA-40 **Investigations of Glycols Impurities in Sorbitol-Based Syrups**
Monerah Altamimy[1], Yahya M. Alshehry[1], Fahad S. Aldawsari[1]
[1]Saudi Food And Drug Authority, Saudi Arabia

PHA-41 **Continuous Reaction Co-Monitoring Utilizing Trajan's Prototype Miniature HPLC – A Comparison with Waters Patrol and Agilent Online HPLCs**
Angel Diaz[1], Samuel Britner[1], Frank Riley[1]
[1]Pfizer Inc, Groton, United States

PHA-42 **Assessing the purity of an Antisense Oligonucleotide by LC/MS using a novel high-sensitivity unit mass detector**
Lee Bertram[1]
[1]Agilent Technologies, Inc, Santa Clara, United States

PHA-43 **Impact of carbonated additives on impurity profiles and duplex stability in oligonucleotides**
Quang Dong Bui[1], Willy Verluyten[2], Bart Noten[2], Tiny Deschrijver[2], Sebastiaan Eeltink[1]
[1]Vrije Universiteit Brussel, Brussel, Belgium, [2]Johnson and Johnson Innovative Medicine, Beerse, Belgium

PHA-44 **Industry Hot Topic: A Guidance on Analytical Life Cycle Management of Nitrosamines in Pharmaceuticals via Risk Assessment and Control Strategy**
Partha Mukherjee[1]
[1]Amicus Therapeutics, princeton, United States

PHA-45 **A Compact, Versatile and Modular LC System**
Hans Jurgen Wirth[1], Shing Chung Lam[1], Priya Vasudevan[1], Yibo Guo[2], Hans Jurgen Wirth[1]
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PHA-46 **Advanced Separation of Nitrosamine Drug Substance-Related Impurities Using Alkaline Eluent in LC/MS/MS**
Shinya Ogata[1], Tomoya Omura[1], Hirsohi Sakamaki[1]
[1]CERI, Japan

PHA-47 **Non-Specific Adsorption during HILIC Analysis of Oligonucleotides on an Ultra Performance Liquid Chromatography System**
Tony Reinhold[1], Jennifer Simeone[1], Martin Gilar[1], Paula Hong[1]
[1]Waters Corporation, Milford, United States

PHA-48 **Identification Testing of Herbal Medicinal Resources in Korea Using High-Performance Thin Layer Chromatography (HPTLC)**
Jaehee Hyun[1], Soyoung Shin[1], Youngmi Kim[1], Wookyu Lee[1], Jaeuk Seo[1], Changsoo Kim[1], Jinhee Hwang[1]
[1]National Center for Medicinal Resources Management, Herbal Medicine Research Division, National Institute of Food and Drug Safety Evaluation, seogwipo-si, South Korea

PHA-49 **Enhancing Drug Discovery efficiency: The role of laboratory information management system in reducing the Design-Make-Test-Analyze (DMTA) cycles in automated high-throughput purification (HTP)**
Karolina Bartkowiak[1], José Luís Dores-Sousa[1], Lars Van Eynde[1], Kristien Raeymaekers[1], David Corens[1]
[1]Johnson & Johnson, Beerse, Belgium

PHA-50 **(Semi)-automated LC-UV-MS platform approach for purity analysis and impurity profiling of oligonucleotides in early drug discovery**
Kathrin Stavenhagen[1], Manasses Jora[1], Carina Leandersson[1], Rebecca Rae[1], Julien Bourquin[2], Vahid Golghalyani[3], Werngard Czechtizky[1], Tomas Leek[1]
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PHA-51 **Elevating Oligonucleotide Analysis With Superficially Porous Particle Oligo Columns**
Benjamin Peters[1], Egidijus Machtejevas[1]
[1]Merck Life Science KGaA, Darmstadt, Germany

PHA-52 **LC-MS/MS Profiling of Daunorubicin and Its Metabolite Daunorubicinol in Myocardial Tissue: Impact of ATM Inhibitor AZD0156 Co-Administration in Rabbits**
Nela Váňová, Petra Štěrbová-Kovaříková[1], Olga Lenčová-Popelová[2], Martin Štěrba[2]
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PHA-53 **Development of a Workflow for Purity Assessment of Oligonucleotides and Their Conjugates Using Genedata Expressionist**
Annika Langborg Weinmann[1], Kayla Borland[1], Elisabeth Dietze[2], Manasses Jora[3], Christian Manz[3], Linda Thunberg[1]
[1]Early Chemical Development, Pharmaceutical Sciences, BioPharmaceuticals R&D, AstraZeneca, Gothenburg, Sweden, [2]Digitisation, Pharmaceutical Sciences, BioPharmaceuticals R&D, AstraZeneca, Gothenburg, Sweden, [3]Medicinal Chemistry, Research and Early Development, Respiratory and Immunology, BioPharmaceuticals R&D, AstraZeneca, Gothenburg, Sweden

PHA-54 **Ultra-sensitive Analysis of Oligonucleotide Drugs by Capillary Electrophoresis-Mass Spectrometry**
Manato Yamashita[1], Chenchen Liu[1], Nobuaki Matsumori[1], Takayuki Kawai[1]
[1]Kyushu University, Fukuoka, Japan

PHA-55 **Micro-HPLC-UV Method for Assessing Ibuprofen Content in Pediatric Mini-Tablets and Identification of a Process-Related Impurity**
Giorgio Marrubini[1], Luca Formichetti[1], Sofia Mattsson[2], Patrik Appelblad[3], Cary Anne Simpson[4], Enrica Calleri[1]
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PHA-56 **An end-to-end technical approach to the Analytical Method Lifecycle**
Clementine Castel1, Brooks Ligon[2], Máire Welham[1]
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Preparative

PRE-01 **Enhancing Achiral Purification Workflows in Drug Discovery with Open-Access SFC-MS Purification Platform**
Yusuke Masuda[1], Ryo Kubota[1]
[1]Shimadzu Corporation, Kyoto, Japan

PRE-02 **Isolation of Melittin from Bee Venom by Means of Preparative Liquid Chromatography and use of Green Solvents**
Chiara Nosengo[1], Amin Tabesh[2], Simona Felletti[3], Chiara De Luca[1], Alberto Cavazzini[1,4], Hassan Rezadoost[2], Martina Catani[1]
[1]Department of Chemical, Pharmaceutical and Agricultural Sciences, University of Ferrara, Ferrara, Italy, [2]Department of Phytochemistry, Medicinal Plants and Drugs Research Institute, Shahid Beheshti University, G.C., Evin, Tehran, Iran, [3]Department of Environmental and Prevention Sciences, University of Ferrara, Ferrara, Italy, [4]Council for Agricultural Research and Economics (CREA), Roma, Italy

PRE-03 **Isolation of Ovatoxin-a from Ostreopsis cf. ovata.From a LC-HRMS based procedure to a LC-UV based procedure**
Valeria Tegola[1], Chiara Melchiorre[1], Martina Carelli[1], Michela Varra[1], Carmela Dell'Aversano[1]
[1]University of Naples Federico II, Napoli, Campania

PRE-04 **Optimisation of the chromatographic purification of seaweed polysaccharides to enhance biological activity**
Matthew Chadwick[1,2], Simone Dimartino[1], Richard Sloan[2,3], Loïc Carvalho[4], Carlos Vanegas[4]
[1]Institute of BioEngineering, The University Of Edinburgh, Edinburgh, United Kingdom, [2]Institute of Regeneration and Repair, The University Of Edinburgh, Edinburgh, United Kingdom, [3]Zhejiang University-University of Edinburgh Institute, Zheijang University, Haining, China, [4]BioMara Ltd, Edinburgh, United Kingdom

PRE-05 **Bio-guided fractionation strategy by centrifugal partition chromatography to reveal the bioactive potential of toad venom extracts**
Mathilde Wells[1], Alexandre Hervé[2], Djabou Konare[2], Abdellah Tiflit[2], Delphine Beukens[1], Aline Genbauffe[1], Sandrine Zubrzycki[2], Laëtitia Fougère[2], Thomas Michel[3], Bertrand Blankert[1], Emilie Destandau[2]
[1]University Of Mons - Lab. of Pharmaceutical Analysis, Mons, Belgium, [2]University of Orléans - Institute of Organic and Analytical Chemistry, Orléans, France, [3]Gilson Purification, Saint-Avé, France

PRE-06 **Application of in – and offline tools for purification of natural compounds in simulated moving bed (SMB) chromatography method development**
Yannick Krauke[1], Julia Wesolowski[1], Greta Compagnin[2], Simona Felleti[3], Giorgia Greco[1]
[1]Knauer Wissenschaftliche Geräte GmbH, Berlin, Germany, [2]Dep. of Chemical, Pharmaceutical and Agricultural Sciences University of Ferrara, Ferrara, Italy, [3]Dep. of Environmental and Prevention Sciences University of Ferrara, Ferrara, Italy

PRE-07 **Inject, collect, repeat – Workflow for establishing a stacked injection method**
Carsten Losch[1], Johannes Menke[1], Yannick Krauke[1]
[1]Knauer Wissensschaftliche Geräte GmbH, Berlin, Germany

PRE-08 **The strength of peak recycling in sustainable and challenging purification of natural compounds**
Juliane Kramer[1], Julia Wesolowski[1], Greta Compagnin[2], Simona Felletti[3], Yannick Kraukey[1]
[1]Knauer Wissenschaftliche Geräte GmbH, Berlin, Germany, [2]University of Ferrara, Department of Chemical, Pharmaceutical and Agricultural Sciences, Ferrara, Italy, [3]University of Ferrara, Department of of Environmental and Prevention Sciences, Ferrara, Italy

PRE-09 **High Recovery Purification of 8-Aminopyrene-1,3,6-trisulfonic Acid Labeled Glycans via Capillary Electrophoresis**
Chenchen Liu[1], Takayuki Kawai[1]
[1]Kyushu University, Fukuoka, Japan

PRE-10 **Skip sample preparation in NMR analysis of HPLC fractions**
Johannes Menke[1], Ulrike Krop[1], Ruth Boetzel[2], Federico Casanova[2], Jürgen Kolz[2]
[1]KNAUER wissenschaftliche Geräte GmbH, Berlin, Germany, [2]Magritek Limited, Aachen, Germany

PRE-11 **Selective Fractionation Using Supermacroporous Polymer Resin for Nucleic Acid Impurity Profiling**
Simonas Balčiūnas[1,2], Matas Damonskis[2], Odeta Dembovskytė[2], Vytautas Tamošiūnas[2], Evaldas Naujalis[1], Dr. Lukas Taujenis[2]
[1]Vilnius University, Vilnius, Lithuania, [2]Thermo Fisher Scientific Baltics, UAB, Vilnius, Lithuania

PRE-12 **Streamlining Peptide Purification Workflows through Analytical to Preparative Scale-up Strategy**
Yusuke Masuda[1], Shotaro Hirota[1], Tomoko Kuriki[1], Hidetoshi Terada[1], Ryo Kubota[1]
[1]Shimadzu Corporation, Kyoto, Japan

PRE-13 **Isomer separation of Polyfluorinated Alkyl Substances (PFAS) by Preparative Chromatography**
Annalena Werner[2]
[1]Merck, Buchs, Switzerland

Retention Modeling

RTM-01 **Mobile-Phase Contributions to Analyte Retention and Selectivity in Reversed-Phase Liquid Chromatography**
Andreas Steinhoff1, Alexandra Höltzel1, Ulrich Tallarek[1]
[1]Philipps-Universität Marburg, Marburg, Germany

RTM-02 **Molecular dynamics simulation study of the differential retention of carboxylic acids and their carboxylates in reversed-phase liquid chromatography**
Daniel Frerichs[1], Andreas Steinhoff[1], Alexandra Höltzel[1], Ulrich Tallarek[1]
[1]Philipps-Universität Marburg, Germany

RTM-03 **Extended multidimensional Design Space Studies of Volatile and Non-volatile Buffer Systems**
Arnold Zoeldhegyi[1,2], Krisztián Horváth[2], Imre Molnár[1], Róbert Kormány[3]
[1]Molnár-Institute For Applied Chromatography, Berlin, Germany, [2]University of Pannonia, Veszprém, Hungary, [3]Egis Pharmaceuticals Plc., Budapest, Hungary

RTM-04 **Molecular-level Insights into Hydrophilic Interaction Liquid Chromatography and Mixed-Mode Retention via Molecular Simulations**
Hsiao-Feng Liu[1,2], J. Ilja Siepmann[1,2], Mark Schure[3], Stephanie Schuster[4], Peter Pellegrinelli[4]
[1]Department of Chemical Engineering and Materials Science, University of Minnesota, Minneapolis, United States, [2]Department of Chemistry and Chemical Theory Center, University of Minnesota, Minneapolis, United States, [3]Kroungold Analytical Inc, Blue Bell, United States, [4]Advanced Materials Technology, Wilmington, United States

RTM-05 **A Molecular Simulation Study of the Separation of Molar Weight-Distributed Polyethylene Oxides by Reversed-Phase Liquid Chromatography**
Hsiao-Feng Liu[1,2], J. Ilja Siepmann[1,2], Mark Schure[3], Stephanie Schuster[4]
[1]Department of Chemical Engineering and Materials Science, University of Minnesota, Minneapolis, United States, [2]Department of Chemistry and Chemical Theory Center, University of Minnesota, Minneapolis, United States, [3]Kroungold Analytical Inc, Blue Bell, United States, [4]Advanced Materials Technology, Wilmington, United States

RTM-06 **Advanced modelling of retention time data: addressing hybrid RPLC and HILIC behaviour**
Kristof Vynckier[1], Leon Niezen[1], Bram Huygens[1], Deirdre Cabooter[2], Gert Desmet[1]
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RTM-07 **Open Source Chromatography Data Analysis with OpenChrom**
Matthias Mailänder[1]
[1]Lablicate GmbH, Hamburg, Germany

RTM-08 **Adsorption Energy Distribution for Competitive Adsorption Systems**
Abdul Haseeb[1], Yosief Wondmagegne[1], Miguel X. Fernandes[1], Jörgen Samuelsson[1]
[1]Karlstad University, Karlstad, Sweden

RTM-09 **Speeding up liquid chromatography method development in early phases of pharmaceutical development by using strategies of hybrid retention modeling**
Kai Chen[1], Emery Bosten[2], Robbin Bouwmeester[3], Alexander Kensert[3], Thomas Neefs[1], Lennart Martens[3], Deirdre Cabooter[2], Mario Hellings[1]
[1]Johnson & Johnson Innovative Medicine, Beerse, Belgium, [2]KU Leuven, Leuven, Belgium, [3]VIB / University of Ghent, Ghent, Belgium

RTM-10 **In silico simulations to investigate the enantiorecognition mechanism in liquid chromatography:a case study with a dipeptide and four zwitterionic Cinchona alkaloid-based chiral stationary phases**
Ina Varfaj[1]
[1]University Of Perugia, Perugia, Italy

RTM-11 **Prediction of retention, separation and elution sequence of enantiomers on polysaccharide-based stationary phases using QSERR models**
Pieter De Gauquier[1], Jordy Peeters[1], Fardine Ameli[1], Kenno Vanommeslaeghe[1], Yvan Vander Heyden[1], Debby Mangelings[1]
[1]Vrije Universiteit Brussel, Brussels, Belgium

RTM-12 **Machine Learning-Assisted Retention Time Predictions on Polysaccharide-based Chiral Columns in Polar Organic Mode**
Attila Imre[1,2], Gergely Dombi[2,3], Máté Dobó[2,3], Elek Ferencz[4], Balázs Balogh[2,5], Anna Vincze[2,3], Zoltán-István Szabó[6,7], György Tibor Balogh[2,3,8], Anita Rácz[9], Gergő Tóth[2,3]
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RTM-13 **Exploring pH-Dependent Retention Mechanisms in Mixed-Mode Liquid Chromatography: Theoretical and Modeling Insights**
Abdul Haseeb[1], Miguel Fernandes[1], Jörgen Samuelsson[1]
[1]Karlstad University, Karlstad, Sweden

RTM-14 **Optimization and validation of a cheaper, safer, and more sustainable methodology for aflatoxins determination in rich-lipidic matrices using deep eutectic solvent extraction and SPE-UHPLC-FLD analysis**
Marco Beccaria[1], Andrea Schincaglia[1,2], Alberto Cavazzini[1], Giorgia Purcaro[2]
[1]University of Ferrara, Ferrara, Italy, [2]University of Liège, Liège, Belgium

RTM-15 **Mechanistic Modeling of Indirect Detection in Ion-Pair Liquid Chromatography**
Jörgen Samuelsson[1], Marek Lesko[1], Torgny Fornstedt[1]
[1]Karlstad University, Karlstad, Sweden

RTM-16 **The Helfferich Paradox Revisited**
Torgny Fornstedt[1], Morgan Stefansson[2], Jörgen Samuelsson[1]
[1]Karlstad University, Karlstad, Sweden, [2]Aprilgatan 8B, Göteborg, Sweden

RTM-17 **Application of a deep learning model to predict HPLC retention times of food peptides across chromatographic conditions**
Boudewijn Hollebrands[1,2], Hageman[3], Hans-Gerd Janssen[1,2]
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RTM-18 **The Solvation Shell of Small Solutes in Aqueous–Organic Solvent Mixtures and Its Implications for Reversed-Phase Liquid Chromatography**
Andreas Steinhoff[1], Alexandra Höltzel[1], Ulrich Tallarek[1]
[1]Philipps-Universität Marburg, Marburg, Germany

Sample Preparation

SAP-01 **Utilizing novel phenylpyridine tags for N-linked glycan profiling by capillary electrophoresis with laser-induced fluorescence and/or mass spectrometry detection**
Jana Lavicka[1], Denisa Smolkova[1], Michal Gregus[2], Richard Cmelik[1], Ross D. Jansen-van Vuuren[3], Pavel Bobal[2]
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SAP-02 **On-line sample preparation procedure for the monitoring of albumin adduction on Cysteine 34 exposed to mustard agents**
Lorenzo Avigo[1,3], Audrey Combès[1], Charlotte Desoubries[2], Christine Albaret[2], Emmanuel Joubert[2], Anne Bossée[2], Pr. Valérie Pichon[1,3]
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SAP-03 **Engineering Multi-Modal Magnetic Core-Shell Systems for Simultaneous Extraction, Detection and Remediation of PFCs: Quantification via UHPLC-MS/MS**
Uday Shashikumar[1], Jeganathan Chinnadurai[2], Vinoth Kumar Ponnusamy[1,2,3]
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SAP-04 **Is Commercial Electromembrane Extraction Device Capable of Extracting Pharmaceuticals from Whole Blood Microsamples?**
Adam Reguli[1], Samira Dowlatshah[2], Frederik André Hansen[2], Petra Štěrbová-Kovaříková[1], Pedersen-Bjergaard[2,3]
[1]Charles University, Faculty of Pharmacy in Hradec Králové, Hradec Králové, Czech Republic, [2]University of Oslo, Department of Pharmacy, Oslo, Norway, [3]University of Copenhagen, Faculty of Health and Medical Sciences, Copenhagen, Denmark

SAP-05 **Toward 4,000,000-fold Sensitivity Enhancement in CE-MS N-Glycan Analysis Using Multi-Cationic Fluorescent Dye and Novel Dual Stacking Method**
Yuki Miike[1], Suen He[1], Chenchen Liu[1], Kohei Torikai[1], Nobuaki Matsumori[1], Takayuki Kawai[1]
[1]Kyushu University, Fukuoka, Japan

SAP-06 **Accelerating Sample Preparation Development in Pharmaceutical Context Using Machine Learning and Supercritical Fluid Extraction**
Moritz Effner[1,2], Alexander Schmidt[2], Mijo Stanic[2], Michael Lämmerhofer[1]
[1]Universät Tübingen, Tübingen, Germany, [2]Chromicent GmbH, Berlin, Germany

SAP-07 **Recent advances in sample preparation for the sampling of volatile organic compounds in wood-based panels**
Rui Ramos[1], Fátima Daniela Gonçalves[1], Luísa Carvalho[2,3,4], José António Rodrigues[1]
[1]LAQV-REQUIMTE, Departamento de Química e Bioquímica, Faculdade de Ciências, Universidade do Porto, Rua do Campo Alegre s/n, Porto, 4169-007, Portugal, [2]DEMad-Departamento de Engenharia de Madeiras, Instituto Politécnico de Viseu, Campus Politécnico de Repeses, Viseu, 3504-510, Portugal, [3]LEPABE-Faculdade de Engenharia, Universidade do Porto, Rua Dr. Roberto Frias, Porto, 4200-465, Portugal, [4]ALiCE – Associate Laboratory in Chemical Engineering, Faculdade de Engenharia, Universidade do Porto, Rua Dr. Roberto Frias, Porto, 4200-465, Portugal

SAP-08 **Purification of 2-Aminobenzamide Labeled Glycans Using Monolithic Solid-phase Extraction Centrifugal Columns**
Kana Tanaka[1], Yuko Yui[1], Mengmin Terashima[1], Shigenori Ota[1]
[1]GL Sciences Inc., Japan

SAP-09 **Extracting amino acids from mice plasma with a novel polyamide 3D-printed device compared to protein precipitation as sample pretreatments: design-of-experiments-based optimization**
Phaedra Verding[1,2], Dagmara Kroll[3], Mariusz Belka[3], Tomasz Bączek[3], Yvan Vander Heyden[1], Ann Van Eeckhaut[2], Debby Mangelings[1]
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SAP-10	**The first application of amino-acid based adsorbents for the dispersive solid phase extraction of antisense oligonucleotides** Karolina Ostrowska[1], Zuzana Vosáhlová[1], Szymon Bocian[1], Sylwia Studzińska[1] *[1]Nicolaus Copernicus University in Toruń, Toruń, Polska*
SAP-11	**Ionic liquid-functionalized silica-graphene oxide hybrid sorbent: development and application in microextraction packed sorbent for multiclass pesticide determination** Alessandra Timóteo Cardoso[1,2] *[1]Universidade de São Paulo, São Carlos, Brazil, [2]Instituto de Investigación en Ciencias de la Alimentación, Madrid, Spain*
SAP-12	**Microsampling vs. Chemical Biopsy: A Comparative Study on Tissue Metabolome Extraction** Helena Kim[1,2] *[1]Department of Analytical Chemistry, Faculty of Chemistry, University of Vienna, Waehringer Str. 38, 1090, Vienna, Austria, [2]University of Vienna, Vienna Doctoral School in Chemistry (DoSChem), Waehringer Str. 42, 1090, Vienna, Australia*
SAP-13	**Micro-Nanofabrication in Analytical Chemistry: Streamlining Sample Preparation for Organoid Drug Studies** Frøydis Sved Skottvoll[1], Stian Kogler[2,3], Helena Hrušková[2,3], Anna Thu Hoai Nguyen[4], Aleksandra Aizenshtadt[3], Frederik André Hansen[5], Stefan Krauss[3], Michal Marek Mielnik[1], Jörg P. Kutter[4], Hanne Røberg-Larsen[2,3], Steven Ray Wilson[2,3] *[1]Sintef Digital, Oslo, Norway, [2]Department of Chemistry, University of Oslo, Oslo, Norway, [3]Hybrid Technology Hub, University of Oslo, Oslo, Norway, [4]Department of Pharmacy, University of Copenhagen, Copenhagen, Denmark, [5]Department of Pharmacy, University of Oslo, Oslo, Norway*
SAP-14	**New Compact Sampling and Sample Preparation Technologies for Portable Capillary Liquid Chromatography to Meet Today's Evolving Needs** Matthew Morse[1], M Powell[1], M Lunsford[1], M Lee[1], J Grinias[2], S Foster[2], J Boughton[2], E Hanson[2], N Doupsas[3], P Richardson[3], Cary Simpson[1] *[1]Axcend, Lehi, United States, [2]Rowan University, Glassboro, United States, [3]Pfizer, United States*
SAP-15	**Evaluation of trap discs for root exudate eco-friendly sampling using rhizoboxes: Application to untargeted screening of organic compounds by gas chromatography hyphenated with high resolution mass spectrometry** Victoria Bohm[1], Pascal Cardinael[1], Matthieu Chauvat[2], Estelle Forey[2], Valerie Agasse[1] *[1]SMS UR3233, FR3038, Université de Rouen Normandy, Mont-Saint-Aignan, France, [2]ECODIV URA/EA-1293, FR CNRS 3730 SCALE, Université de Rouen Normandie, Mont-Saint-Aignan, France*
SAP-16	**Green solvent-based microelution solid phase extraction for top-down CE-MS analysis of proteins** Katarína Maráková[1,2], Martina Opetová[1,2], Radovan Tomašovský[1,2] *[1]Comenius University Bratislava, Faculty of Pharmacy, Department of Pharmaceutical Analysis and Nuclear Pharmacy, Bratislava, Slovakia, [2]Comenius University Bratislava, Faculty of Pharmacy, Toxicological and Antidoping Center, Bratislava, Slovakia*
SAP-17	**High levels of benzene in benzoyl peroxide – a sample preparation artefact?** Johan Mattsson[1], Nhung Dang[1], Ricardo Neto[1], Adam Lanebjer[1], Mikael Nilsson[1] *[1]Cambrex, Karlskoga, Sweden*
SAP-18	**Single Lipid Analysis by Hyphenation of the Micro-Extraction based on the Solid-Liquid Transition Phenomena and the Nanopore Single Molecular Detection/Machine Learning** Yukihiro Okamoto[1], Sho Asano[1], Takahito Oshiro[1] *[1]Division of Chemical Engineering, Graduated School of Engineering Science, Osaka University, Toyonaka/Osaka, Japan, [2]SANKEN, Osaka University, Suita/Osaka, Japan*
SAP-19	**Sample preparation approaches followed by GC×GC-TOFMS analysis to facilitate the characterization of wastes from new energy materials** Giulia Giacoppo[1], Charlotte Mase[2], Marco Piparo[2], Pierre Giusti[2], Caroline Mangote[2], Luisa Pasti[1], Alberto Cavazzini[1], Flavio Antonio Franchina[1], Giorgia Purcaro[3], Marco Beccaria[1] *[1]Institute*

SAP-20	**Sodium alginate/supra molecular solvent composite beads for the extraction of triazole fungicides followed by ultra-performance liquid chromatography** Rawikan Kachangooon[1], Yanawath Santaladchaiyakit[2], Jitlada Vichapong[1,3] *[1]Creative Chemistry and Innovation Research Unit, Department of Chemistry, Faculty of Science, Mahasarakham University, Maha Sarakham 44150, Thailand, Kantharawichai, Thailand, [2]Department of Chemistry, Faculty of Engineering, Rajamangala University of Technology Isan, Khon Kaen Campus, Khon Kaen 40000, Thailand, Khon Kaen, Thailand, [3]Multidisciplinary Research Unit of Pure and Applied Chemistry (MRUPAC), Department of Chemistry and Center of Excellent for Innovation in Chemistry, Faculty of Science, Mahasarakham University, Maha Sarakham 44150, Thailand, Maha Sarakham, Thailand*
SAP-21	**Magnetic sugarcane bagasse biosorbent as green sorbents for extraction of carbamates followed by ultra-performance liquid chromatography** Phatchara Rattanaphonsaen[1], Pirom Suwannasom[2], Norio Teshima[3], Jitlada Vichapong[1] *[1]Mahasarakham University, Maha Sarakham, Thailand, [2]Rajabhat Maha Sarakham University, Maha Sarakham, Thailand, [3]Aichi Institute of Technology, Toyota, Japan*
SAP-22	**Magnetic vinylene-based covalent organic framework as micro-dispersive solid phase extraction for eight beta-agonists in meat samples by UHPLC–MS/MS** Hui Ling Lee, Chih-Ling Yeh, Yi-Hsuan Hsieh *[1]Fu Jen Catholic University, Department Of Chemistry, New Taipei City, Taiwan*
SAP-23	**Selective extraction and liquid chromatography determination of panthothenic acid in natural products** Katarína Hroboňová[1], Oleg Turčan[1] *[1]Slovak University of Technology in Bratislava, Faculty of Chemical and Food Technology, Institute of Analytical Chemistry, Bratislava, Slovakia*
SAP-24	**Selective extraction using a molecularly imprinted polymeric adsorbent and HPLC-UV determination of organolepric compound β-damascenone** Katarína Hroboňová[1], Ján Hronček[1], Tomáš Spišák[1] *[1]Slovak University of Technology in Bratisla, Faculty of Chemical and Food Technology, Institute of Analytical Chemistry, Bratislava, Slovakia*
SAP-25	**Overcoming Nonspecific Binding in Liquid Chromatography: Enhancing Assay Sensitivity, Accuracy, and Reproducibility in Peptide/Protein Workflows** Audrius Dorofejus[1], Elina Pasecnaja[1], habil. Frank Steiner[2], Dennis Koehler[2] *[1]Thermo Fisher Scientific, Vilnius, Lithuania, [2]Thermo Fisher Scientifics, Germering, Germany*
SAP-26	**Heat-assisted solvent flotation for the enrichment of β-Caryophyllene from mikania micrantha** Mengyao Gao, Yuchi Zhang, Yun Wei[1] *[1]Beijing University Of Chemical Technology, Beijing, China*
SAP-27	**One-Click reaction of a novel adsorbent phase for In-Tube SPME** Carmela Maria Montone[1], Chiara Cavaliere[1], Andrea Cerrato[1], Aldo Laganà[1], Enrico Taglioni[1], Anna Laura Capriotti[1] *[1]Sapienza, University of Roma, Piazzale Aldo Moro 5, Italy*
SAP-28	**Systematic approach to sample preparation optimisation for determination of organic acids in iron-sugar complex drug** Mario-Livio Jeličić[1], Tamara Grgić[1], Iva Erak[1], Dunja Božić[1] *[1]Pliva Hrvatska d.o.o., Zagreb, Croatia*
SAP-29	**Synthesis and Performance of Molecularly Imprinted Sorbents for Catecholamines and their Metabolites Under In Situ Induced Anion Exchange Solid-Phase Extraction Conditions** Antons Podjava[1], Artūrs Šilaks[1] *[1]University of Latvia, Riga, Latvia*
SAP-30	**Online SBSE-SFE-SFC-MS to Analyze Migrating Plastic Additives in Medical Solutions and Biological Matrices** Benjamin Caux[1,2], Clément De Saint Jores[1], Ramy Abou-Naccoul[2], Shinnosuke Horie[3], Toshiyuki Yamashita[4], Takeshi Bamba[4], Caroline West[1] *[1]University of Orleans, CNRS, ICOA, UMR 7311 ; Pôle de chimie, rue de Chartres - BP 6759 45067, Orléans Cedex 2, France, Orléans, France, [2]Shimadzu France, Le luzard 2, Bat A, Bd Salvador Allende Noisiel, 77448 Marne-la-Vallée, France., Noisiel, France, [3]Shimadzu Europa Gmbh, Albert-Hahn-Straße 6-10, 47269 Duisburg, Germany., Duisburg, Germany, [4]Division of Metabolomics, Medical Research Center for High Depth Omics, Medical Institute of Bioregulation, Kyushu University, 3-1-1 Maidashi, Higashi-ku, Fukuoka-shi, Fukuoka 812-8582, Japan, Fukuoka, Japan*

SAP-31	**SPME-LC-MS/MS method for monitoring the metabolites of kynurenine and serotonin pathways in real biological samples** Julia Zadrożna[1], Julia Kasprowicz[1], Agnieszka Mosińska[1], Lena Jeżewska[1], Dominika Zapalska[1], Marcin Lipiński[2], Joanna Bogusiewicz[3], Karol Jaroch[3], Barbara Bojko[3], Natalia Miękus[1], Kamila Langowska[4], Tomasz Bączek[1], Anna Roszkowska[1] *[1]Department of Pharmaceutical Chemistry, Medical University of Gdańsk, Poland, Gdańsk, Poland, [2]Department of Pharmaceutical Biochemistry, Medical University of Gdańsk, Poland, Gdańsk, Poland, [3]Department of Pharmacodynamics and Molecular Pharmacology, Collegium Medicum, Nicolaus Copernicus University, Poland, Bydgoszcz, Poland, [4]Department of Cardiology of the St. Vincent a Paulo Hospital in Gdynia, Gdynia, Poland, Gdynia, Poland*
SAP-32	**Semi-automated SPE of PFAS from human serum** Christine Meinert[1], Hans Rainer Wollseifen[1], Sarah Henze[1], Torsten Kretschmer[1], Rebecca Nuessgen[1] *[1]MACHEREY-NAGEL GmbH & Co. KG, Dueren, Germany*
SAP-33	**Analysis of PFAS in aqueous samples by SPE and LC-MS/MS according to EPA Method 1633** Christine Meinert[1], H.R. Wollseifen[1], Rebecca Nüssgen[1] *[1]MACHEREY-NAGEL GmbH & Co. KG, Dueren, Germany*
SAP-34	**Evaluation of the overall efficiency of breast milk pretreatment procedures for the determination of DINCH metabolites by HPLC-MS/MS** Helena Jurdáková[1], Alžbeta Oravcová[1], Renáta Górová[1] *[1]Comenius University in Bratislava, Faculty of Natural Sciences, Bratislava, Slovakia*
SAP-35	**Isolation and HPLC characterization of antifungal agents from Eryngium biebersteinianum using modern extraction techniques** Mereke Alimzhanova[1], Nurkanat Meirbekov[1], Rebeca López-Serna[2] *[1]Al-Farabi Kazakh National University, Almaty, Kazakhstan, [2]University of Valladolid, Valladolid, Spain*

SFC

SFC-01	**Separation of neutral and acidic natural cannabinoids using supercritical fluid chromatography (SFC) and liquid chromatography (LC) hyphenated to hybrid mass spectrometry (Q-TOF)** Radosław Porada[1], Małgorzata Herman[1], Wojciech Piekoszewski[1] *[1]Jagiellonian University, Kraków, Poland*
SFC-02	**Optimization of SFC-MS/MS working conditions for aflatoxin determination** Radosław Porada[1], Wojciech Piekoszewski[1] *[1]Jagiellonian University, Kraków, Poland*
SFC-03	**Super critical method transfer: Inter-manufacturer qualification and comparison of three SFC instruments** Mo Legelli[1,2], Michaela Wirtz[1], Stefan Lamotte[2] *[1]University of Applied Sciences Bonn-Rhein-Sieg, Rheinbach, Germany, [2]BASF SE, Ludwigshafen am Rhein, Germany*
SFC-04	**Generic method development for untargeted brain metabolomic profiling using supercritical fluid chromatography-mass spectrometry** Sarah Bilal[1], Ann Van Eeckhaut[2], Yvan Vander Heyden[1], Debby Mangelings[1] *[1]Vrije Universiteit Brussel (VUB), Faculty of Medicine and Pharmacy, Department of Analytical Chemistry, Applied Chemometrics and Molecular Modelling, Laarbeeklaan 103, 1090 Brussels, Belgium, Belgium, [2]Vrije Universiteit Brussel (VUB), Faculty of Medicine and Pharmacy, Research group of Experimental Pharmacology (EFAR), Center for Neurosciences (C4N), Laarbeeklaan 103, 1090 Brussels, Belgium, Belgium*
SFC-05	**Artificial Neural Networks-Driven Elucidation of Ionization Processes In Supercritical Fluid Chromatography-Mass Spectrometry** Katerina Plachka[1] *[1]Charles University, Faculty of Pharmacy, Hradec Kralove, Czech Republic*
SFC-06	**Fast, Efficient, and Green: Comparing UHPLC-UV and UHPSFC-UV for Advanced Ginsenoside Analysis** Katerina Prazakova[1], Tatiana Valkova[1], Lucie Novakova[1] *[1]Charles University, Faculty of Pharmacy, Department of Analytical Chemistry, Hradec Kralove, Czech Republic*
SFC-07	**Chiral SFC Separation of Indole-Containing Triarylmethanes** Do Hyun Ryu[1], Jin Won Lee, Hee Seo Jung, Seunghun Kim[1] *[1]Sungkyunkwan University, Suwon, South Korea*
SFC-08	**Chiral/achiral separation of synthetic cannabinoids in sub/supercritical fluid chromatography** Květa Kalíková[1], Matúš Kapusta[1], Eva-Maria Hubner[2], Martin Schmid[2] *[1]Charles University, Faculty Of Science, Prague 2, Czech Republic, [2]Institute of Pharmaceutical Sciences, Department of Pharmaceutical Chemistry, Graz, Austria*
SFC-09	**One for All: A SFC-MS/MS Platform Method for Multiple Nitrosamine Analysis in Accordance with the Guidelines of Good Manufacturing Practice** Andreas Zappe[1], Mijo Stanic[1], Alexander Schmidt[1] *[1]Chromicent Gmbh, Berlin, Germany*
SFC-10	**Supercritical fluid chromatography for analysis of materials of technological interest** Petra Vaňkátová[1], Martin Cigl[1], Květa Kalíková[2] *[1]Institute of Physics, Czech Academy of Sciences, Prague, Czech Republic, [2]Department of Physical and Macromolecular Chemistry, Faculty of Science, Charles University, Prague, Czech Republic*
SFC-11	**Navigating Complexities in Achiral PROTAC Separation Using Supercritical Fluid Chromatography** Astrid Buica[1,2], Alva Musleh[1], Carolina Sanchez[1], Christoph Bauer[2], Kristina Öhlén[1], Hanna Leek[1] *[1]Early Chemical Development, Pharmaceutical Sciences, Biopharmaceuticals R&D, AstraZeneca, SE-431 83 Mölndal, Sweden, Gothenburg, Sweden, [2]Data Science & Modeling, Pharmaceutical Sciences, Biopharmaceuticals R&D, AstraZeneca, SE-431 83 Mölndal, Sweden, Gothenburg, Sweden*
SFC-12	**Method Development of a Single SFC-SEC Method for Analysis of Plastic Additives** Mijo Stanic[1], Alexander H. Schmidt[1] *[1]Chromicent GmbH, Berlin, Germany*
SFC-13	**Chiral SFC-MS enantioselective profiling of monoacylglycerols, diacylglycerols, and FAHFAs in complex biological samples** Oleksandr Kozlov[1], Miroslav Lísa[1], Nela Štěrbová[1], Martin Riecan[2], Ondrej Kuda[2] *[1]Department of Chemistry, Faculty of Science, University of Hradec Králové, Rokitanského 62, 50003 Hradec Králové, Czech Republic, [2]Institute of Physiology of the Czech Academy of Sciences, Videnska 1083, 14200 Prague, Czech Republic*
SFC-15	**Efficient SFC Method Optimization for benzoic acid derivates using Shimadzu LabSolutions MD** Annika Malz[1], Brigitte Bollig, Vadim Kraft, Philipp Jochems, Gesa J. Schad *[1]Shimadzu Europe Gmbh, Duisburg, Germany*
SFC-16	**Exploring Novel Separation Mechanisms for MOHs Using Supercritical Fluid Chromatography: Preliminary Results** Damien Pierret[1], Quentin Gros[2], Clément De Saint Jores[3], Caroline West[3], Giorgia Purcaro[1] *[1]Gembloux Agro-Bio Tech, Uliege, Gembloux, Belgium, [2]Shimadzu Europa Gmbh, Duisburg, Germany, [3]University of Orléans, CNRS, ICOA, UMR7311, Orléans, France*
SFC-17	**Analysis of Alkaloids and Triglycerides in Lotus Seeds Using Supercritical Fluid Chromatography** Yiting Zhou[1], Eric Lesellier[2], Caroline West[2] *[1]Shimadzu Corporation, Kyoto, Japan, [2]University of Orleans, ICOA, CNRS UMR 7311, Orleans, France*

Stationary Phases

STP-01	**Anion exchange properties of HILIC and mixed-mode stationary phases** Anna Khrisanfova[1], Maria Smagina[1], Alla Chernobrovkina[1] *[1]Lomonosov Moscow State University, Moscow, Russian Federation*
STP-02	**New porous monodisperse particles for increasing resolution in Liquid Chromatography** Mark Woodruff[1], Ken Butchart[1] *[1]Fortis Technologies, Neston, United Kingdom*
STP-03	**Superficially porous particles with grafted zwitterionic functional groups: Recent developments** Benjamin Peters[1], Clinton Corman[2], Patrik Appelblad[1], Petra Lewits[1] *[1]Merck Life Science KGaA, Darmstadt, Germany, 2MilliporeSigma, Bellefonte, USA*

STP-04	**Laboratory-designed mixed-mode resins for HPLC and simple assessment of their hydrophilicity and shielding degree** Anastasiia Gorbovskaia[1], Anna Uzhel[1], Ilsina Talipova[1], Arsenii Timichev[1], Oleg Shpigun[1] *[1]Lomonosov Moscow State University, Moscow, Russian Federation*
STP-05	**Improving robustness and applicability of TRLC** Adriaan Ampe[1] *[1]Ghent University, Ghent, Belgium*
STP-06	**Novel High pH Stable SPP Columns for Enhanced LC and LC-MS Separations of Basic Compounds** Stephanie Schuster[1], Conner McHale[1], Peter Pellegrinelli[1], Joshua McBee[1], Mark Haynes1, William Miles[1] *[1]Advanced Materials Technology, Inc., Wilmington, United States*
STP-07	**Preparation and post-modification of cyclic anhydride-methacrylate copolymers as reactive and functionalizable stationary phases for chromatographic applications** Ayman Ahmed[1] *[1]king saud university, Riyadh, Saudi Arabia*
STP-08	**Development and Characterization of HILIC Columns with Polyamine Derivatives** Saki Kimoto[1] *[1]Kyoto Institute of Technology, Kyoto city sakyo-ku simogamohigashimorigamae-chyo, Japan*
STP-09	**Designing Mass Transfer-Enhanced Chromatographic Microspheres** Hanchen Cao[1], Bo Zhang[1] *[1]Xiamen University, Xiamen, China*
STP-10	**Immobilized recombinant FcγIIIA receptor and FcγIIIA receptor as a useful tool for characterization of human IgG antibodies** Djuro Josic[1] *[1]Faculty Of Medicine, Juraj Dobrila University, Pula, Croatia, Pula, Croatia*
STP-11	**Liquid Chromatographic Separation of H/D Isotopologues Enabled by Aromatic π Interactions** Xiaoting Li[1], Takuya Kubo[1] *[1]Kyoto Prefectural University, Kyoto, Japan*
STP-12	**Development of Novel Solid-Phase Organic Reaction Field for The Compounds with Catechol Structure Using a Triptycene-Based Polymer Packed Column** Mai Sasaki[1], Takuya Kubo[1,2] *[1]Kyoto University, Kyoto, Nisikyo-ku, Katsura, Japan, [2]Kyoto Prefectural University, Kyoto, Sakyo-ku, Shimogamo Hangi-cho, Japan*
STP-13	**Development of Innovative Chiral Stationary Phases for Improved HPLC Enantioseparations** Magdaléna Labíková[1], Jiří Svoboda[1], Ivana Jevtic[2], Jiří Tůma[1], Wolfgang Lindner[3], Michal Kohout[1] *[1]Department of Organic Chemistry, Univeristy of Chemistry and Technology Prague, Prague, Czech Republic, [2]Department of Chemistry, University of Belgrade, Belgrade, Serbia, [3]Department of Analytical Chemistry, University of Vienna, Vienna, Austria*
STP-14	**Toward Ideal Sphere Packing: Solvent-Free Single-Layer Assembly for Chromatography** Ignaas Jimidar[1,2], Bo Zhang[4], Gertrud E. Morlock[3], Gert Desmet[1] *[1]Vrije Universiteit Brussel, Brussels, Belgium, [2]University of Twente, Enschede, Netherlands, [3]Justus Liebig University Giessen, Giessen, Germany, [4]Xiamen University, China*
STP-15	**Integrated (Bio)-Analytical Assessments of BADGE Derivatives: A Multimodal Investigation into Toxicokinetics and Human Exposure** Lucia Grumetto[1], Ilaria Neri, Giacomo Russo *[1]Department of Pharmacy, School of Medicine and Surgery, University of Naples Federico II, Napoli, Italy*
STP-16	**Chiral chromatography on polysaccharide-based chiral selectors: exploration of their conformational diversity and chiral recognition mechanisms using computational methods** Fardine Ameli[1] *[1]Vrije Universiteit Brussel (VUB), Faculty of Medicine and Pharmacy, Department of Analytical Chemistry, Applied Chemometrics and Molecular Modelling, Laarbeeklaan 103, 1090 Brussels, Belgium., Brussels, Belgium*

STP-17	**Alkyne-azide click chemistry-based immobilization of cellulose per(phenyl carbamate) chiral selector on silica gel for HPLC utilization** Anna Malyshenko[1], David Schachamayr[1], Anna F. Lehrhofer[2], Simona Petroni[2,3], Markus Bacher[2], Michal Kohout[4], Thomas Rosenau[2,5], Laura Cipolla[3], Hubert Hettegger[2,6] *[1]Institute of Applied Chemistry, Department Science and Technology, IMC University of Applied Sciences, Krems, Austria, [2]Institute of Chemistry of Renewable Resources, Department of Chemistry, University of Natural Resources and Life Sciences, Vienna (BOKU), Austria, [3]Department of Biotechnology and Biosciences, University of Milano-Bicocca, Milano, Italy, [4]Department of Organic Chemistry, University of Chemistry and Technology Prague, Prague, Czech Republic, [5]Laboratory of Natural Materials Technology, Faculty of Science and Engineering, Åbo Akademi University, Finland, [6]Christian Doppler Laboratory for Cellulose High-Tech Materials, University of Natural Resources and Life Sciences, Vienna (BOKU), Austria*
STP-18	**HILIC and novel hydrophilic stationary phases as a way to develop rapid approaches to determining enzymatic activity** Natalia Chikurova[1,2], Leonid Shaposhnikov, Anastasiia Gorbovskaia[1,2], Anastasiia Pometun[1,2], Alla Chernobrovkina[1] *[1]Lomonosov Moscow State University, Moscow, Russia, Russian Federation, [2]Bach Institute of Biochemistry, Federal Research Centre "Fundamentals of Biotechnology" of the Russian Academy of Sciences, Moscow, Russia, Russian Federation*
STP-19	**Aqueous liquid chromatography with anionic surfactant and 1-alkyl-3-methylimidazolium ionic liquid associated to chloride** María Celia Garcia-Alvarez-Coque[1], Carlos Josué Tereba-Mamani[1], María Blázquez-Mateu[1], María José Ruiz-Ángel[1] *[1]University of Valencia, Burjassot (Valencia), Spain*
STP-20	**Novel stationary phases and solvents for bioanalysis** Szymon Bocian[1], Sylwia Studzińska[1], Oktawia Kalisz[1], Marek Tobiszewski[2] *[1]Nicolaus Copernicus University in Toruń, Toruń, Poland, [2]Gdańsk University of Technology, Gdańsk, Poland*
STP-21	**Synthesis of mixed acid stationary phases with alkyne azide click chemistry and atom transfer radical polymerization for the application in cation chromatography** Luca Schipplick[1], Jürgen Decani[1], Andreas Seubert[1] *[1]Philipps University Marburg, Marburg, Germany*
STP-22	**The CHROMATOGRAPHY COMPASS ver. 2.0 Is Here!** Mizuki Aoi[1] *[1]Development div., Japan*
STP-23	**Investigating Column Efficiency for Oligonucleotides: The Role of Particle Type and Pressure** Judith Mollen[1,2], Gert Desmet[2], Deirdre Cabooter[1] *[1]KU Leuven, Pharmaceutical Analysis, Leuven, Belgium, [2]VUB, Department of Chemical Engineering, Brussels, Belgium*
STP-24	**Comparing C18-Type Stationary Phases to Biphenyl Using an LC Virtual Method Development Tool** John Gallant[1], Melinda Ulrich[2] *[1]Restek Corporation, United States of America*

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June 15-19, 2025

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