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Visit the updated MSIS website



You can now post job opportunities, check future events, and view past newsletters on our updated website

<https://ms-imaging.org/wp/>

OURCON SERIES: Update on OurCon2022:

Dear MSIS members,

With a heavy heart we have had to cancel the OurCon conference which was planned to be held in Japan in November 2022. The still uncertain COVID-19 travel regulations in Japan (tourists from Europe are still not permitted to enter) have made the organization of the conference very difficult, and the financial risk was unacceptably high. While this news will undoubtedly be disappointing, we hope to temper this disappointment with the announcement of future meetings. We are very happy to announce that Associate Professor Shuichi Shimma from Osaka University is organizing a 2-day symposium together with Professor Masaya Ikegawa from Doshisha University, Kyoto, Japan. From January 30 (Mon) and 31 (Tue), 2023 the Kyoto Biomolecular Mass Spectrometry Society (<http://en.kbmss.org/>) will host the “International symposium on mass spectrometry imaging 2023 - Crossing disciplinary borders to generate new research fields” at Doshisha University. The symposium is planned to be in hybrid style and the schedule for all activities will allow virtual participation from different time zones. Please have a look at our homepage to download the official invitation from the organizers.

On behalf of the MSIS board,

The president,

Martina Marchetti-Deschmann

We have the pleasure to announce further activities in 2023:

A “**European Regional IMSIS Meeting**” will be organized by *Prof. Per Andren* together with the Swedish Pharmaceutical Society in Uppsala **March 2023**. Follow our news on the website for more information.

“**The 1st IMSIS Conference-Annual Conference on Mass Spectrometry Imaging and Integrated Topics**”

will be organized by *Prof. Pierre Chaurand* in Montreal in **October 2023**. This conference will also be the natural continuation for OurCon, which was organized jointly by MSIS and IMSS since 2019 (Charleston). Visit the website of the conference:

<http://www.imsis2023.org>



Join the community and shape the future of MSI...

Join the International symposium on mass spectrometry imaging 2023 in Japan:

Crossing disciplinary borders to generate new research fields

Host: Kyoto Biomolecular Mass Spectrometry Society
(<http://en.kbmss.org/>)

Date: January 30 (afternoon)-31 (whole day), 2023 <- 1.5-day symposium

Style: Hybrid (in-person and online)

Registration fee: free

Mixer fee: 2000JPY (mixer is an optional event)

The 1st IMSIS conference will be launched in Montreal in 2023

Keep an eye on the official website for updates:

<http://www.imsis2023.org>



A BIG THANK YOU TO:

Liam McDonnell for his service as President of the MSIS

President's message:

I would like to acknowledge the valuable contribution of former MSIS president Prof. Liam McDonnell. Liam is a very important pillar of our society. In his function as chair of the COST Action Mass Spectrometry Imaging: New Tools for Healthcare Research (2011-2015) he brought together well-established scientists and highly enthusiastic young researchers who did not want to accept the fact that the community might drift apart after the successful ending of the project. So together with a group of enthusiasts he founded MSIS and served as a board member from the very beginning. He was and is the driving force to establish and continue the the MSIS conference series and he initiated the organisation of many workshops. During his period as president between 2018–2021, he was a very active and highly respected president who supported all activities to keep the community together - also during the COVID-19 pandemic. His support and encouragement helped the society to strive and to bring the international community even closer together.

I am very thankful that Liam is still active on the MSIS board in his new function as past president.

The president:

Martina Marchetti-Deschmann

Prof. Liam McDonnell:



Liam McDonnell was Chair of the MSI COST Action and has been a co-organizer of the OurCon conference series. He was a founder member and inaugural Vice President of MSIS, and was voted to be MSIS president in December 2018. Martina Marchetti-Deschmann took over the Presidency in October 2021.

What accomplishment are you most proud of?

That MSIS remained active during the COVID pandemic. We organized a range of virtual activities that provided some semblance of continuity to our MSI community. We initiated newsletters, redesigned and updated the website, organized a highly successful virtual OurCon, an extensive series of seminars (Virtual OurCon Mass Spectrometry Imaging Seminars), and a 24hr virtual MSI event (24 hours of International Mass Spectrometry Imaging). These accomplishments relied upon the effort of many different people (Malcolm Clench, Tiffany Porta, Stefania Maneta Stavrakaki, Mark McDowall, Peggi Angel) and would not have been possible without the support of partner societies (the British Mass Spectrometry Society who provided extensive technical support for the Virtual OurCon Mass Spectrometry Imaging Seminars, and the North American Imaging Mass Spectrometry Society with who MSIS organized the 24hrs MSI event).



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The International Mass Spectrometry Conference 2022 (IMSC 2022):

At IMSC, Aug 28 - Sept 2, 2022 in Maastricht, MSIS together with IMSS is organizing a short course and a workshop.

The 2-day Shortcourse on Sat Aug 27th and Sun 28th will introduce you to the basic concepts involved in running an Imaging Mass Spectrometry experiment. This course will be presented at the beginner to intermediate level. The primary focus will be on biomolecular analysis applications, but other mass spectrometry sources and concepts will be presented as well.

The MS Imaging Focus Group is "Taking Mass Spectrometry Imaging one step further". Everyone with an interest for MSI, from new to the field, early career researchers, to experts, is encouraged to join the discussion and brainstorm gaps we are facing in the field and on how we do take our technique one step further.

Imaging Mass Spectrometry Short Course

If you are joining the International Mass Spectrometry Conference (IMSC 2022) in Maastricht register now for the **short course in Imaging Mass spectrometry**, where *Martina Marchetti-Deschmann* & *Eva Cuypers* will introduce the basic concepts involved in running an Imaging Mass Spectrometry experiment in a two-day workshop. The course will include an introduction to the different types of instrumentation you can use, instrumental parameters, sample preparation for biological

Did you achieve everything you hoped for during your time as MSIS president?

The pandemic has made planning events throughout my time as MSIS president difficult. We had hoped to organize an MSIS symposium (Sweden) and an OurCon meeting in Japan in 2020, but both were cancelled because of national and institutional travel restrictions. We originally organized the 2021 OurCon to take place as an in-person meeting in Sheffield (UK), however continued travel restrictions forced us to change the format to a virtual conference. We had organized ourselves for a 2022 OurCon in Kyoto, Japan. The local organizer Dr. Shuichi Shimma had finalized the dates, location, and organized substantial commercial support. However, the national travel restrictions in Japan again forced us to accept that there would be limited scope for widespread international participation, and so the Japanese OurCon plans were again postponed. This period has been characterized by a need to adapt to ever changing situations, and to be cautious so as not to expose MSIS or the local organizers to financial liabilities due to a poorly attended in-person event.

Is there anything that you would have liked to do but didn't have the time?

It is with profound regret that we were not yet able to organise the OurCon meeting in Japan. MSIS and IMSS are moving toward a unified society. For this new society to represent international MSI it is important that it includes our many excellent colleagues from outside of Europe and North America.

What do you think was the most challenging aspect of being the president of MSIS?

The most challenging aspects is maintaining communication with all stakeholders and partner organizations, given that we all have competing commitments that place high demands on our time.

MSIS has had active discussions with our North American colleagues, the Imaging Mass Spectrometry Society, for approximately 2 years. These discussions have confirmed the many common interests between the two societies and have now progressed to the point that the societies will unify into a single international mass spectrometry imaging society.

MSIS has instigated the MSIS newsletter to keep all members informed, and we strive to keep an actively updated website and social media presence.

What do you envision for the future of the society?

It is expected that MSIS will formally merge with IMSS at the end of 2022, and it is hoped that additional regions will join in the near future. I expect the society to emerge from the COVID-instigated lull with renewed activity, in terms of MSI-focused conferences, workshops, and training.



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material and other surfaces including matrix application in case of MALDI, imaging acquisition data analysis, imaging processing and quantitative aspects. This course will be presented at the beginner to intermediate level and will be appropriate for mass spectrometrists looking to apply this technology to different kind of samples, but is also suited for e.g., clinicians/pathologists or material scientist looking to learn more about Imaging Mass Spectrometry. The focus will be on molecular analysis, but other mass spectrometry sources and concepts will be touched as well (e.g., elemental imaging by laser ablation inductively-coupled plasma mass spectrometry).

The MS Imaging Focus Group is "Taking Mass Spectrometry Imaging one step further" Evening Workshop

Date: Tuesday 30 August 2022

Time: 18:00 - 20:30hrs

Lecturers: Martina Marchetti-Deschmann (A, TU Wien), Peggi Angel (US, MUSC College of Medicine), Ingela Lanekoff (S, Uppsala University), Tiffany Porta-Siegel (D, Boehringer Ingelheim) together with early-stage researchers: Stefania Maneta Stavarakaki (UK, Imperial College), Samuele Zoratto (TU Wien) and Leonidas Mavrouidakis (S, Uppsala University).

www.ims2022.com/programme/evening-workshops/

INTERVIEW:

Meet distinguished members of the MSI community:

Prof. Andreas Römpp

Chair and Full Professor for Bioanalytical Sciences and Food Analysis at the University of Bayreuth and newly elected executive board member of MSIS



Andreas studied environmental chemistry at the University of Bayreuth and Colorado State University in Fort Collins, CO, USA. He received his PhD from the Faculty of Chemistry and Pharmacy at the University of Mainz for his work on the analysis of organic atmospheric aerosol which he conducted at the Max Planck Institute for Chemistry in Mainz, Germany. Following his PhD he worked as a postdoctoral researcher with Ron Heeren at the FOM Institute for Atomic and Molecular Physics (AMOLF), Amsterdam, The Netherlands, focusing on method development for bioanalytical applications. In 2005 he joined Bernhard Spengler's lab at the Justus Liebig University Giessen where he completed his habilitation in Analytical Chemistry. In 2015 Andreas returned to the University of Bayreuth as Full Professor and Chair for Bioanalytical Sciences and Food Analysis in the Department of Biology, Chemistry and Geosciences. He has been involved in establishing the new Department for Life Sciences: Food, Nutrition and Health, which he officially joined in 2022.

Andreas is initiator and co-chair of the interest group "MS imaging" of the German Society for Mass Spectrometry (DGMS) and coordinator of the common data format for mass spectrometry imaging—imzML. He was a steering committee member and workgroup leader in the EU COST network "Mass Spectrometry Imaging: New Tools for Healthcare Research" (BM1104). He is a founding member of the Mass spectrometry imaging Society (MSIS). In 2015 he was guest editor of a special issue 'Mass Spectrometry Imaging' in Analytical and Bioanalytical Chemistry. Andreas received several awards for his work in mass spectrometry imaging including the Robert Feulgen Prize of the Society for Histochemistry 2012, the Mattauch Herzog Award of the German Society for Mass Spectrometry 2012, the Adolf Martens Award (Analytical Chemistry) and most recently the Beynon Award 2020 (Best Paper Award of Rapid Communications in Mass Spectrometry). His most recent publications include mass spectrometry imaging for tuberculosis antibiotics (<https://doi.org/10.1021/acs.analchem.1c03462>), analysis of processed food (<https://doi.org/10.1016/j.foodchem.2022.132529>) and ecotoxicological model systems (<https://doi.org/10.1038/s41598-022-09659-y>).

How you came to be involved in MSI?

I attended a mass spectrometry workshop in Antwerp towards the end of my PhD. I was scheduled to leave early, but decided on an impulse to stay for the barbecue on the last day. That evening I ended up having beers and animated conversation with two guys: Ron Heeren and Liam McDonnell. A year later, I shared an office with Liam in Ron's lab at AMOLF in Amsterdam. Afterwards I moved to the lab of Bernhard Spengler and worked in the COMPUTIS project together with Markus Stoeckli, Alain Brunelle, Olivier Laprevote and others. It was a great time and it finally got me hooked on MS imaging.



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MSIS Calendar

IMSS SUMMER WORKSHOP 2022

JULY 30TH - AUG 2ND, 2022
BALTIMORE, MD
DETAILS:

WWW.IMAGINGMSSOCIETY.ORG/IMSS4/

IMSC 2022: SHORT COURSE IN IMAGING MASS SPECTROMETRY

AUG 27TH – AUG 28TH, 2022
MAASTRICHT, THE NETHERLANDS
DETAILS:

WWW.IMSC2022.COM/PROGRAMME/SHORT-COURSES/

IMSC 2022: “TAKING MASS SPECTROMETRY IMAGING ONE STEP FURTHER” EVENING WORKSHOP

30TH AUG 2022
MAASTRICHT, THE NETHERLANDS
DETAILS:

WWW.IMSC2022.COM/PROGRAMME/EVENING-WORKSHOPS/

THE INTERNATIONAL SYMPOSIUM ON MASS SPECTROMETRY IMAGING 2023

30TH AND 31ST JAN 2023
IN PERSON IN KYOTO, JAPAN AND ONLINE
DETAILS:

EN.KBMSS.ORG/

EUROPEAN REGIONAL IMSIS MEETING

MAR 2023
UPPSALA, SWEDEN

THE 1ST IMSIS CONFERENCE

OCT 2023
MONTREAL, CANADA
DETAILS:

[HTTP://WWW.IMSIS2023.ORG](http://WWW.IMSIS2023.ORG)

What do you think MSIS brings to the MSI field? What else would you like to see from the society?

Working together is curial in science, especially for a (still) relatively young and interdisciplinary field such as MS imaging. The COST action (and also the COMPUTIS project) were important steps towards more collaboration between MS imaging groups in Europe and beyond. MSIS was the logical consequence to keep this spirit alive and I am proud to be a founding member. I am happy to be back on the board again and to contribute to the development of the society. Making mass spectrometry imaging accessible for more people while helping them to understand and efficiently use the technique would be an important activity for MSIS in the next years.

Have you participated in OurCon and if yes what are your best memories?

I have actually attended each and every OurCon and was on the organizing committee for most of them. Memories, where to start? The isolated location of the first conference in Ourense certainly created a unique atmosphere, but taking a break on the beach in Antalya or having oysters in the ‘coffee break’ in Saint Malo were also lasting memories. OurCon is a great experience that nobody in the field should miss and I try to bring as many people as possible from my group. There is no better place for getting up to speed with MS imaging, networking – and having fun. This might be illustrated by an encounter late night / early morning in a club in Saint Malo during OurCon 2019. A younger scientist: “It is amazing, there is so much interaction at this conference, you can talk to everybody and ask questions!” My answer: “Yes ... of course. This is OurCon!” It actually took me a while to understand why he was so surprised, for me it was just normal. By the way, next to me on the dance floor were the (then) president and vice-president of MSIS (I promised to share no pictures, sorry).



Andreas and his group at OurCon VII in St Malo



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Job Announcement

Investigator, Bioimaging

Bioimaging team at GSK
R&D site in Collegeville, PA,
USA

Details:

[gsk.wd5.myworkdayjobs.com/
GSKCareers/job/USA](https://gsk.wd5.myworkdayjobs.com/GSKCareers/job/USA)

Postdoctoral Positions:

Signal Processing and
Machine Learning for
Multimodal Molecular Imaging
Delft University of Technology
(TU Delft)
Netherlands

Details:

[https://euraxess.ec.europa.eu/
obs/805042](https://euraxess.ec.europa.eu/obs/805042)

Ludwig Postdoctoral Research Associate

Princeton University
Princeton, New Jersey, USA

Details:

[puwebp.princeton.edu/AcadHir
e/apply/](https://puwebp.princeton.edu/AcadHire/apply/)

Postdoctoral Researcher

University of Bremen
Bremen, Germany

Details:

[https://euraxess.ec.europa.eu/
obs/807726](https://euraxess.ec.europa.eu/obs/807726)

What drives your enthusiasm for the field of MS imaging?

I started working with mass spectrometry as a second year student, but I am still amazed at how versatile this technique is and how much information you can obtain from it. On the other hand: "A picture is worth a thousand words." If you can link a picture to valid chemical information, it becomes a very powerful analytical tool - this is exactly what we do in MS imaging. And there are virtually no limits to what mass spectrometry imaging can do. We just have to push the limits a bit further every day in the lab. Although I have to say that I have far too little time to spend in the lab nowadays, so I am very grateful to my past and present PhD students and postdocs for their great work.

And of course there are a lot of great colleagues and friends in the MS imaging community. To quote from an interview I gave about 10 years ago: "Discussing the details of matrix application while having an Islay whisky at 4 o'clock in the morning or arguing about the usefulness of normalizing mass spectra while hiking in the Rocky Mountains can be very stimulating." This is still very true.

How do you think the field will be in 5-10 years from now?

My work is typically focused on getting as much information as possible out of a sample, often by combining different analytical methods. Multimodal imaging is certainly an active trend, which will likely continue in the coming years. The limits of spatial and mass resolution are constantly pushed and this will help us to obtain even more comprehensive information from MS imaging experiments. On the other hand we also need high throughput methods to be able to account for (biological) variability in our studies, so I am looking forward to also see faster imaging systems being developed. In general, MS imaging is used in more and more labs around the world. So we will hopefully see many interesting applications being developed and new colleagues joining the field.

What are the main challenges and the biggest success you have encountered in your career and what do you think can be improved in the field of MSI?

I guess my biggest challenge and success was to develop 'MS imaging with high resolution in mass and space' for biological samples. This is done routinely now, but more than 10 years ago MS imaging methods provided high mass OR high spatial resolution. I was told more than once that it was not possible to combine both (not enough material and so on). Overcoming this challenge required a lot of patience and taking care of numerous details from sample preparation through instrumentation to data processing (<https://doi.org/10.1007/s00418-013-1097-6>).

Another challenge was combining and comparing data from different instrument platforms in the COMPUTIS project starting in 2006. This has led to the development of the data format imzML (www.imzml.org), which is now used in many labs around the world and is supported by open software and instrument vendors alike.

My most recent challenge was setting up a new lab at the University of Bayreuth. It took a bit longer than planned, we just moved again a few weeks ago. Now we have very nice labs and a great environment for developing new methods for MS imaging – with applications currently ranging from microplastics to Cognac barrels.



Join the community and shape the future of MSI...

General Assembly 2021

New MSIS executive board member

Prof. Liam McDonnell resigned from his position as MSIS President and Prof. Martina Marchetti-Deschmann was elected President. Prof. Malcolm Clench was elected in the position of Vice President. Prof. Andreas Römpf was elected in the position of international liaison representative and executive member of the board.

Unification of MSIS and IMSS

The Society has decided to postpone the board elections for another year due to COVID-19 pandemic and for the conclusion of the unification work with IMSS.

What advice would you give to a student entering an MSc/PhD project?

1. Aim high, but take small steps! This advice might be kind of worn out, but it is still very true. MS imaging is a very complex technique with multiple steps that have to be established one by one and need to be coordinated carefully. There is nothing wrong with a quick and dirty experiment to test a new approach/hypothesis, but don't be disappointed if it doesn't work. You will find a solution in the end – although it might be different from what you were expecting.
2. Look at your mass spectra! MS images are great and the human mind is very efficient in processing visual information. However, the images are only as good as the underlying data, which are your mass spectra. Always make sure that your measurement worked and that the image represents the signal you expect (and not another adduct, a shifted peak or). This should be your first step in evaluating an MS imaging measurement, before you conduct elaborate data processing or start your next experiment.
3. Go to the barbecue! This might help you to find your next career opportunity and to meet great people - see above.

PS: We are always looking for new colleagues on a PhD student or postdoc level. For example, we are about to start an EU project on food authenticity where MS imaging is combined with fast in situ approaches and chromatography-based techniques. A project with French colleagues on cultural heritage (Cognac barrels and associated microorganisms) employing SIMS and MALDI imaging has just been launched. If you are interested in joining our group, please contact me at andreas.roempp@uni-bayreuth.de.

MSIS Executive Committee



President:
Martina Marchetti-Deschmann



Vice president:
Malcolm Clench



Treasurer:
Markus Stoeckli



Communication:
Tiffany Porta Siegel



Secretary:
Ingela Lanekoff



International liaison:
Andreas Römpf



Student rep:
Stefania Maneta-Stavarakaki



Outreach:
Gregory Hamm



Initiatives:
Ann-Christin Niehoff



Industry rep:
Peter Marshall



Academia rep:
Gerard Hopfgartner



Past president:
Liam McDonnell



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