

MoBi 2023

**6th GyMIC
Molecular Imaging Symposium**

Where?

Alte Aula, University of Tübingen

When?

24.-25.08.2023

Welcome to Tübingen!

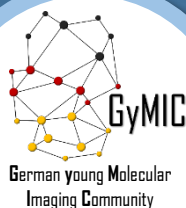
KEYNOTE SPEAKERS

Bettina Weigelin, Tübingen

Andreas Bucher/Constantin Lux,
Frankfurt

Susanne Kossatz, München

David Maresca, Delft



Contact us via email: gymic@esmi-insight.eu

Follow us on Twitter: [@GyMIC_youngESMI](https://twitter.com/GyMIC_youngESMI)

More information on:

<https://e-smi.eu/young-esmi/yesmi-events/mobi-2023/>

Content

Welcome	3
Conference venue	4
Schedule	5
Sponsors	8
About the GyMIC	9



Welcome

Dear colleagues, students, and friends,

Welcome to the MoBi 2023, the 6th MoBi meeting organized by the *German Young Molecular Imaging Community* (GyMIC) under the umbrella of the *German Interdisciplinary Network for Molecular Imaging* and the *European Society for Molecular Imaging (ESMI)*.

The MoBi is a young-scientists-driven meeting that provides an easy entry into the broader community of the ESMI and the German imaging community. As in previous years, we have secured a number of excellent senior and junior speakers. Beyond this, the MoBi provides a platform for our young scientists in the field of molecular imaging to present and discuss their own research as well as to extend their scientific network in a relaxed atmosphere.

After a successful MoBi last year in Leipzig, we are happy to welcome you in the vibrant student city of Tübingen. With over 25 000 students within only about 90 000 inhabitants, Tübingen has a very renowned university and provides a lot of opportunities for students. Maybe you want to check out the historical castle once you are here? Or explore the lovely old town?

We are certain that you will enjoy the meeting, its exceptional scientific program, the chance to exchange ideas with your friends and colleague. Thank you for attending our conference and bringing your expertise to the MoBi 2023.

Yours,

Jan-Niklas May

Chair of GyMIC

Institute for Experimental Molecular Imaging, Aachen

Daniel Gündel

Co-Chair of GyMIC

Helmholz-Zentrum Dresden-Rossendorf (HZDR), Leipzig

Sophie Stotz

Co-Chair of GyMIC

Preclinical Imaging and Radiopharmacy, WSIC, Tübingen

Emily Hoffmann

Co-Chair of GyMIC

Clinic of Radiology, Münster

And the MoBi organizing committee:

Daniel Gündel, Dresden/Leipzig

Emily Hoffman, Münster

Jan-Niklas May, Aachen

Vera Jörke, Tübingen

Saskia Mühlig, Würzburg

Sophie Stotz, Tübingen

Conference Venue



Conference Venue

Alte Aula, University of Tübingen

Münzgasse 30

72070 Tübingen

Parking space: there are some public parking spots nearby (e.g. Parkhaus Altstadt-Mitte (5 min), Parkhaus Metropol (10 min), Neckar-Parkhaus (5 min))

Public transport: Bus lines from the main train station (stop: Neckarbrücke or Wilhelmstraße)
Bus lines from the city (stop: Nonnenhaus or Neckarbrücke)

Social Event Venue (Thursday 18:30)



Haaggasse 4, 72070 Tübingen
Beers, Burgers and Swabian Kitchen

Alternative (Fast) Food Places

Name	Food Type	Adress	Name	Food Type	Adress
IssWas	Kebap, Pizza	Mühlstraße 18	Kalender	Falafel, Kebap, Shawarma	Gartenstraße 1
Aksaray	Kebap, Pizza	Mühlstraße 10/1	Kichererbse	Falafel	Metzgergasse 2
Salam Box	Lebanese	Mühlstraße 14	Köstlich Vegan	Turkish	Lange Gasse 22
Esszimmer	Bowls	Am Lustnauer Tor 4	Salam's Burger	Burger	Mühlstraße 12
Gaststätte X	Burger, Curry Sausage	Kornhausstraße 6	Salam Imbiss	Kebap, Pizza	Am Lustnauer Tor 9
Hao's Box	Thai Noodles	Lange Gasse 1 Mühlstraße 2	Ivan Imbiss	Falafel, Shawarma	Kornhausstraße 26

Schedule – Thursday, 24 August 2023

09:00	<i>Registration</i>	12:30	Lunch + Poster Session
	Welcome <i>Jan-Niklas May, Aachen</i>	Session 2: PET/Oncology <i>Chairs: Daniel Gündel, Leipzig & Vera Jörke, Tübingen</i>	
09:30	<i>Daniel Gündel, Leipzig/Dresden</i> <i>Sophie Stotz, Tübingen</i> <i>Emily Hoffmann, Münster</i>		
Session 1: Immunology <i>Chairs: Saskia Mühlig, Würzburg & Sophie Stotz, Tübingen</i>			
	Dynamic and multiscale microscopy to understand systemic cancer immunotherapy <i>Bettina Weigelin, Tübingen</i>		Multimodal molecular imaging – how optical and nuclear imaging can complement each other in theranostic applications <i>Susanne Kossatz, München</i>
10:00		13:30	
	2-deoxy-2-[18F]-fluoro-D-sorbitol and Escherichia coli Nissle 1917: towards PET Imaging of Bacterial Replacement Strategies <i>Maria Gonzalez Lopez, Tübingen</i>		Optimization for Selective Internal Radiation Therapy Imaging on a Total-Body PET/CT Scanner <i>Pia Lindner, Tübingen</i>
10:40		14:10	
	Specific PET-Imaging of Bacterial Infections Utilizing Maltodextrin Based Radiotracers <i>Lea Göbel, Münster</i>		Implementation and Optimization of Short Dynamic Imaging Protocols for Parametric Imaging with a Population Based Input Function for Total-Body PET <i>Wenhong Lan, Tübingen</i>
10:55		14:25	
	Multimodal imaging techniques could detect dynamic immune cell infiltration and metabolic activity during immunotherapy in vivo <i>Sixing Li, Tübingen</i>		Advancing PET Tracers for Neurodegenerative Diseases: A Reliable In Vitro Workflow for Accurate Protein Aggregates Detection <i>Daniel Bleher, Tübingen</i>
11:10		14:40	
	Sublethal T cell hits induce melanoma cell senescence during immuno-thermal therapy <i>Oliver Hihn, Tübingen</i>		Multiscale imaging of metastatic prostate cancer in bone <i>Martina Giampetraglia, Tübingen</i>
11:25		14:55	
	Coffee Break	15:10	Coffee Break
11:40		15:30	Meet & Greet with the Keynote Speakers
	Flash Talks 1 – odd numbers	16:30	GyMIC Member Meeting
12:10		18:30	Social Get Together – Tübingen City

Schedule – Friday, 25 August 2023

Session 3: Ultrasound/pH Imaging

Chairs: Jan-Niklas May, Aachen &

- 09:00 **Biomolecular Ultrasound Imaging**
David Maresca, Delft
- 09:40 Systematic review and meta-analysis of ultrasound-induced immune effects in peripheral tumors
Anne Rix, Aachen
- 09:55 Development of Novel Hyperpolarizable ¹³C-labeled Agents for Quantitative Magnetic Resonance Imaging of pH
Alexander Huber, München
- 10:10 Shift/acidoCEST MRI for non-invasive detection of extracellular lactosis and acidosis
Anais Choffart, Tübingen
- 10:25 Fast 3D pH imaging in vitro using hyperpolarized [1,5-¹³C₂]Z-OMPD
Andre Wendlinger, München
- 10:40 **Coffee Break**
- 11:10 **Flash Talks 2 - even numbers**
- 11:30 **Lunch + Poster Session**

Session 4: Miscellaneous

Chairs: Emily Hoffmann, Münster & Daniel Bleher, Tübingen

- 12:30 **From Radiology to Reconstruction: The Interdisciplinary Approach of Forensic Analysis**
Andreas Bucher & Constantin Lux, Frankfurt
- 13:10 Improved temporal resolution of single-cell Time-Lapse MRI using radial compressed sensing and TrueFISP acquisition
Enrica Wilken, Münster
- 13:25 Evaluation of DNP- and PHIP-polarized [1-¹³C]pyruvate to characterize the metabolic patterns of non-alcoholic steatohepatitis by hyperpolarized MRI in vivo
Vera Jörke, Tübingen
- 13:40 Regular physical activity and motor learning induce white matter myelination: a longitudinal, multi-shell diffusion MRI study in rats
Lisa-Marie Goncalves, Magdeburg
- 13:55 Discrimination learning induces performance-dependent changes in auditory brain activation patterns - an auditory fMRI study in the Mongolian gerbil
Annika Michalek, Magdeburg
- 14:15 **Awarding & Farewell**
Jan-Niklas May, Aachen
Daniel Gündel, Leipzig/Dresden
Sophie Stotz, Tübingen
Emily Hoffmann, Münster

ca 14:30 **END**

Poster Session

P1

Towards Hybrid Molecular Brain Imaging An Investigation Of Mechanical Ventilation & Anesthesia On [^{11}C]Raclopride PET Tracer Kinetics In Rats

Yan Ma, Tübingen

P3

Label-free Raman spectroscopy-based characterization of functional macrophage phenotypes

Max Naumann, Jena

P5

Installing alternating ionic charges on radiotracers to improve PET-imaging

Sarinya Palakhachane, Münster

P7

Extracellular Lactate Imaging with CEST MRI and Ytterbium- and Europium-based Shift Reagents

Remy Chiaffarelli, Tübingen

P9

Dynamic metabolic imaging of hyperpolarized [^{1-13}C]pyruvate using a multi-echo bSSFP sequence at 7T

Jakob Gaubatz, München

P11

Investigating neurochemical changes in the septum after ventral hippocampal disinhibition using ^1H MR spectroscopy in rats

Joanna Loayza, Nottingham, UK

P2

Series of self-assembling NIR I aza-BODIPYs as contrast agent for multispectral optoacoustic tomography (MSOT)

Shivadharshini Kuberasivakumaran, Münster

P4

Deuteration of ^{13}C -labelled Z-OMPD yields extended T1 relaxation time constants

Ann-Marie Wintergerst, München

P6

celltrackR: An R package for a quantitative analysis of T cell-tumor cell interaction for live-cell imaging

Julia Quach, Tübingen

P8

Measuring BOLD Delay Times and Oxygen Level Estimates in Brain Subregions and Lesions

Claudia Paarmann-Chien, Berlin

P10

Single-sided Magnetic Particle Spectrometer for Imaging with improve Penetration Depth via Ferrite Core

Qibin Wang, Aachen

Sponsors

The MoBi would not be possible without our amazing sponsors from industry! We would like to thank all sponsors that contributed to the MoBi2023!



Thank you so much for supporting us!

About the GyMIC

The MoBi is organized by the **German Young Molecular Imaging Community (GyMIC)** under the umbrella of the *European Society for Molecular Imaging (ESMI)*. The main goal of the **GyMIC** is the establishment of a national network for young imaging scientists in order to provide opportunities for knowledge exchange within a collaborative environment. In this context we would like to host creative meetings which will give members the opportunity to gain experience in presenting data and public speaking, participate in inspiring discussions, or get involved in the organization of the MoBi itself (**would you like to host the MoBi in your city? Get in touch!**). Overall we aim to provide an easy entrance into the international environment of the ESMI – see also <https://e-smi.eu/young-esmi/yesmi-groups/gymic/>.

How to join the GyMIC?

For ESMI Members:

Just log-in to your ESMI member portal www.esmi-insight.eu/membership/, proceed to edit your membership details and tick the respective GyMIC box.

For Non-ESMI Members: Just contact us through gymic@esmi-insight.eu.

Be invited to join the **GyMIC** and to forward the announcement to your colleagues and collaborators. There is no age limitation or the need to speak German as long as you feel like a young ambitious imaging scientist!

We are looking forward to welcoming you as a new member of the GyMIC. Please do not hesitate to contact us for further information either via the ESMI office, through gymic@esmi-insight.eu or directly at the MoBi 2023!

Best regards,

Your **German young Molecular Imaging Community**

