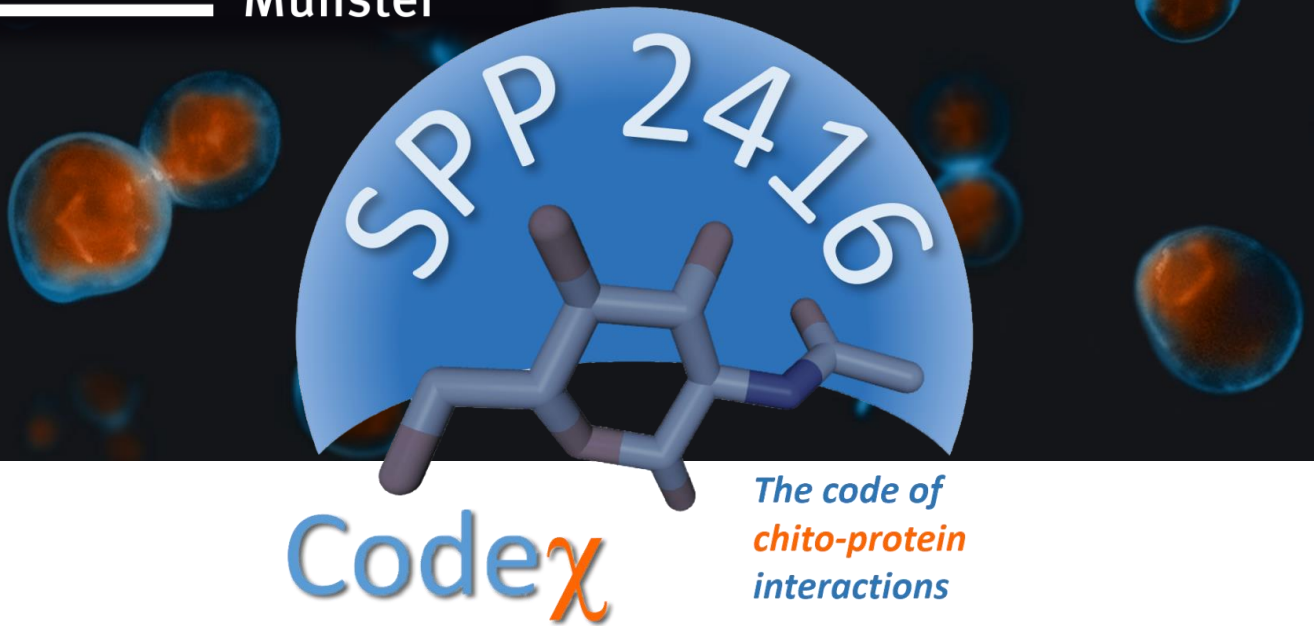




Universität
Münster



Codex

*The code of
chito-protein
interactions*

Codex Annual Retreat 2025

February 24-25

Münster

Organizer

Prof. Dr. Bruno Moerschbacher & Team
Institute for Biology and Biotechnology of Plants
University of Münster
Schlossplatz 8, 48143 Münster

Contact

Cordula Kurth
cordula.kurth@uni-muenster.de
phone: +49 251 83 24795
(also available during the retreat)

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Monday, February 24


 **12:00** Arrival + Lunch at Schlossplatz 4

 **12:45** Welcome by Bruno Moerschbacher & Hans Merzendorfer

Session A (chair: Maik Böhmer)

13:00	Ehab El-Awaad (HM+EEA)	Applications of Grating-Coupled Interferometry (GCI) for the analysis of chito-protein molecular interactions
13:15	Fabian Kolodzy (AK+AP)	Synthesis and postmodification of chitosan microgels
13:30	Katharina Eickelpasch (BM)	From structure to function - Systematic production of defined chitosans and analysis of their agriculturally relevant bioactivities
13:45	Stefan Cord-Landwehr (BM)	Tools for analyzing chitosans and chitosan-modifying enzymes
14:00	Soofia Khanahmadi (MB)	How the structure of chitosan oligomers impacts their interactions with plant receptors and bioactivity mechanisms
14:15	Vinolia Melisha Dmello (LB+SM)	Mechanisms of chitin organization in <i>Drosophila melanogaster</i>
14:30	Linus Stegbauer (TU Freiberg)	The influence of degree of deacetylation and polymerization of chitosans on their photomodulated water vapor permeabilities
14:45	Margareta Hellmann (BM+CG)	Hide and seek - How <i>Cryptococcus</i> produces chitosans to avoid host immunity

 **15:00** Posters + Coffee

 **16:00** Stefan Linder (UKE Hamburg) **Keynote lecture: Intracellular trafficking of lytic enzymes in human macrophages (chair: Christian Gorzelanny)**

Session B (chair: Martina Delbianco)

16:30	Rebecca Forth (KA)	Single molecule visualization of chitin/chitosan structures and their protein interactions
16:45	Benjamin Moorlach (HS Bielefeld)	Interpolyelectrolyte complexes of dsRNA with chitosan and alginate for enhanced plant protection
17:00	Dhyey Rabadiya (GLG+BM+MB)	Chitin: A key defense against xenobiotics in <i>Drosophila legs</i> ?
17:15	Carlotta Imelmann (CG+AOM)	Role of chitin sensing in the inflammatory activation of human keratinocytes
17:30	Alexandra Großdorf (CG+AOM)	From chitin and chitosan to inflammation: The molecular role of the human enzyme YKL-40
17:45	Pengfei Zhao (SR)	Decoding the chitin signatures generated by <i>Xylella fastidiosa</i>

 **18:00** Walk to dinner

 **19:00** Dinner at 1648, top floor of Stadthaus 1

PI of the respective Codex project

AK+AP: Aline Koch, Andrij Pich

AW: Alexander Weber

BM: Bruno Moerschbacher

BM+CG: Bruno Moerschbacher, Christian Gorzelanny

BM+FOL+SG: Bernard Moussian, Fritz-Olaf Lehmann, Stanislav Gorb

CG+AOM: Christian Gorzelanny, Anayancy Osorio-Madrado

GLG+BM+MB: Gaelle Le Goff, Bernard Moussian, Matthias Behr

HM: Hans Merzendorfer

HM+EEA: Hans Merzendorfer, Ehab El-Awaad

JC+HG: Jonathan Cramer, Holger Gohlke

KA: Kelvin Anggara

LB+SM: Luca Bertinetti, Simone Mattei

MB: Maik Böhmer

MD+YO: Martina Delbianco, Yu Ogawa

SR: Silke Robatzek

SZ+GL: Sarah Zwingelberg, Gregor Lang

Notes

WiFi

- eduroam (unlimited data, access with valid account and password from home university)
- GuestOnCampus (1 GB per day, no account or password required)
- additional guest accounts (unlimited data) are available from the organizers

Tuesday, February 25

Session C (chair: Bernard Moussain)	8:00	Timmy Richardo (AW)	Intracellular chitin perception by mammalian pattern recognition receptors
	8:15	Euan W. Pyle (LB+SM)	Characterizing chitin biosynthesis by <i>in situ</i> cryo-electron tomography of <i>C. elegans</i>
	8:30	Ruben Eichfeld (AG Alga Zuccaro, Köln)	Deciphering effector dynamics in root endophytic fungi reveals a plant protective chitinase
	8:45	Sarah Zwingelberg (SZ+GL)	Chitosan for the reconstruction of the ocular surface
	9:00	Chuchu Li (BM+FOL+SG)	Muscle morphology and function in <i>Drosophila</i> legs
	9:15	Isabel Fraile-Guitérrez (CG+AOM)	Chito-based hydrogels of controlled chemistry and microstructure for tissue engineering
	9:30	Sarah Oefter (BM+FOL+SG)	The role of elastic chitin/chitosan matrix assembly in insect locomotion
	9:45	Fuzhu Yang (MD+YO)	The synthesis of chitin oligosaccharides with defined structure toward materials design
	10:00	Posters + Coffee	
	10:45	Francisco Goycoolea (University of Murcia)	Keynote lecture: Decoding chitosans-mucin interactions (chair: Bruno Moerschbacher)
Session D (chair: Hans Merzendorfer)	11:15	Gizem Karabiyik (SZ+GL)	Customizable chitosan membranes with melt-electrowritten reinforcements and microstructures for corneal healing
	11:30	Laure Jabaud (BM+FOL+SG)	Timing of chitin/chitosan matrix assembly in insects
	11:45	Önder Kurç (JC+HG)	Unraveling the mechanisms of chitin binding by human CLPs: Insights from biophysical and computational approaches
	12:00	Nick Rähse (JC+HG)	Unraveling the mechanisms of chitin binding by human CLPs: Insights from biophysical and computational approaches
	12:15	Moritz Dobrowitsch (AK+AP)	Screening formulations for sufficient RNA transport after spray application on plants
	12:30	Mario Wegmann (HM)	Chitin composition and modification in the peritrophic matrix of <i>Tribolium castaneum</i>
	12:45	Wrap up by Hans Merzendorfer & Bruno Moerschbacher	
	13:00	Lunch at Schlossplatz 4	

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Posters

Room 1	1	Pengfei Zhao (SR)	Decoding the chitin signatures generated by <i>Xylella fastidiosa</i>
	2	Sonja Raetz (AG Yvonne Becker, Braunschweig)	Cell wall modification in the barley pathogen <i>Ramularia collo-cygni</i> as an endophytic hiding strategy?
	3	Matthias Behr (GLG+BM+MB)	Chitin proteins enable insect locomotion
	4	Lea Theile (AG Bruno Moerschbacher, Münster)	Does the induction of defense related genes correlate with higher plant disease resistance?
	5	Alexandra Großdorf (CG+AOM)	From chitin and chitosan to inflammation
	6	Max Linhorst (AG Guillaume Delaitre, Wuppertal)	Multifunctional chitooligo- and polymers through selective chemo-enzymatic modification
	7	Marius Beck (AG Hans Merzendorfer, Siegen)	Auxiliary proteins of chitin synthase and their function in <i>T. castaneum</i>
Room 2	8	Linus Stegbauer (TU Freiberg)	The influence of degree of deacetylation and polymerization of chitosans on their photomodulated water vapor
	9	Vânia Passo (AG Bruno Moerschbacher, Münster)	Effect of chitosans on the development of leaf spot disease caused by <i>Xanthomonas campestris</i> pv. <i>raphani</i>
	10	Gregor Dürre (Fraunhofer IPK, Berlin)	Mikrofluidische Produktion von CNP-Wirkstoffträger-systemen für Nukleinsäuren
	11	Fabian Kolodzy (AK+AP)	Chitosan microgels for plant protection
	12	Benjamin Moorlach (HS Bielefeld)	Interpolyelectrolyte complexes of dsRNA with chitosan and alginate for enhanced plant protection
	13	Ruben Eichfeld (AG Alga Zuccaro, Köln)	Deciphering effector dynamics in root endophytic fungi reveals a plant protective chitinase
	14	Felizia Pöhlchen (AG Bruno Moerschbacher, Münster)	Chitinosanases – a novel class of hydrolytic enzymes with a unique specificity

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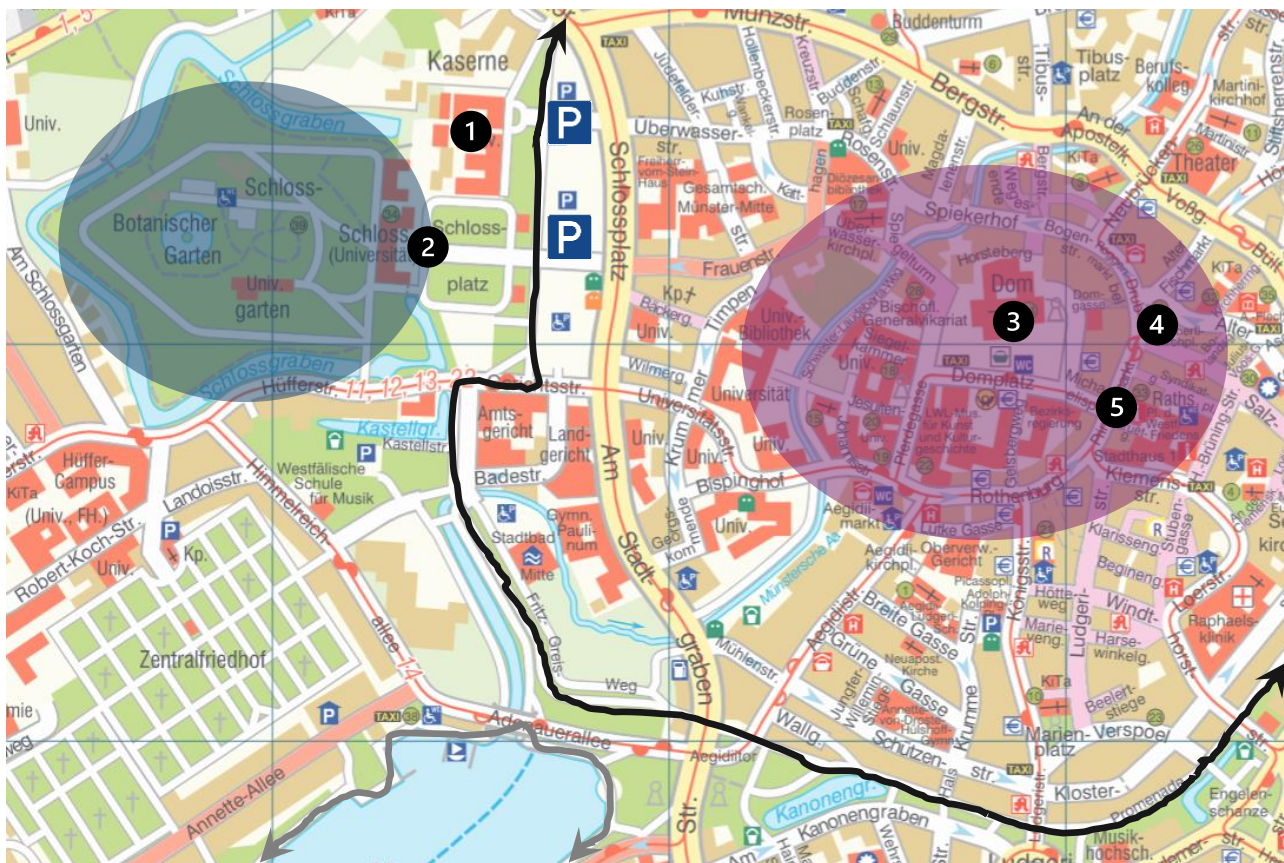
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SR: Silke Robatzek

Notes

What to do with my free time in Münster?



- ❶ Venue for presentations, posters, and lunches (Schlossplatz 4)
 - ❷ Schloss and Schlossplatz
 - ❸ St.-Paulus-Dom (Münster cathedral) and Domplatz
 - ❹ Lambertikirche with “Himmelsleiter“ (Ladder to Heaven)
 - ❺ Prinzipalmarkt and Historical City Hall with “Friedenssaal“ (Peace of Westphalia in 1648)
- Vouchers for free entry into the “Friedenssaal“ are available from the organizers!**
- P** Parking Schlossplatz Nord (with parking fee)

Nice walks

- Oldtown with historical buildings (along Rothenburg, Prinzipalmarkt, Drubbel, Spiekerhof, Spiegelturm, Domplatz and Pferdegasse)
- Schloss, Schlossgarten and Botanical Gardens
- around the city on the Promenade (our highway for everything but cars, about 4.5 km)
- around the Aasee (about 5.0 km)

Museums

- Geomuseum (geology, paleontology)
 - LWL-Museum für Kunst und Kultur (art and cultural history)
 - Stadtmuseum Münster (history of the city)
 - Historical City Hall with “Friedenssaal“
- Free entry vouchers available from organizers!**

Food

- Oldtown
- Stadthafen Münster
- Wolbecker Straße (close to main station)

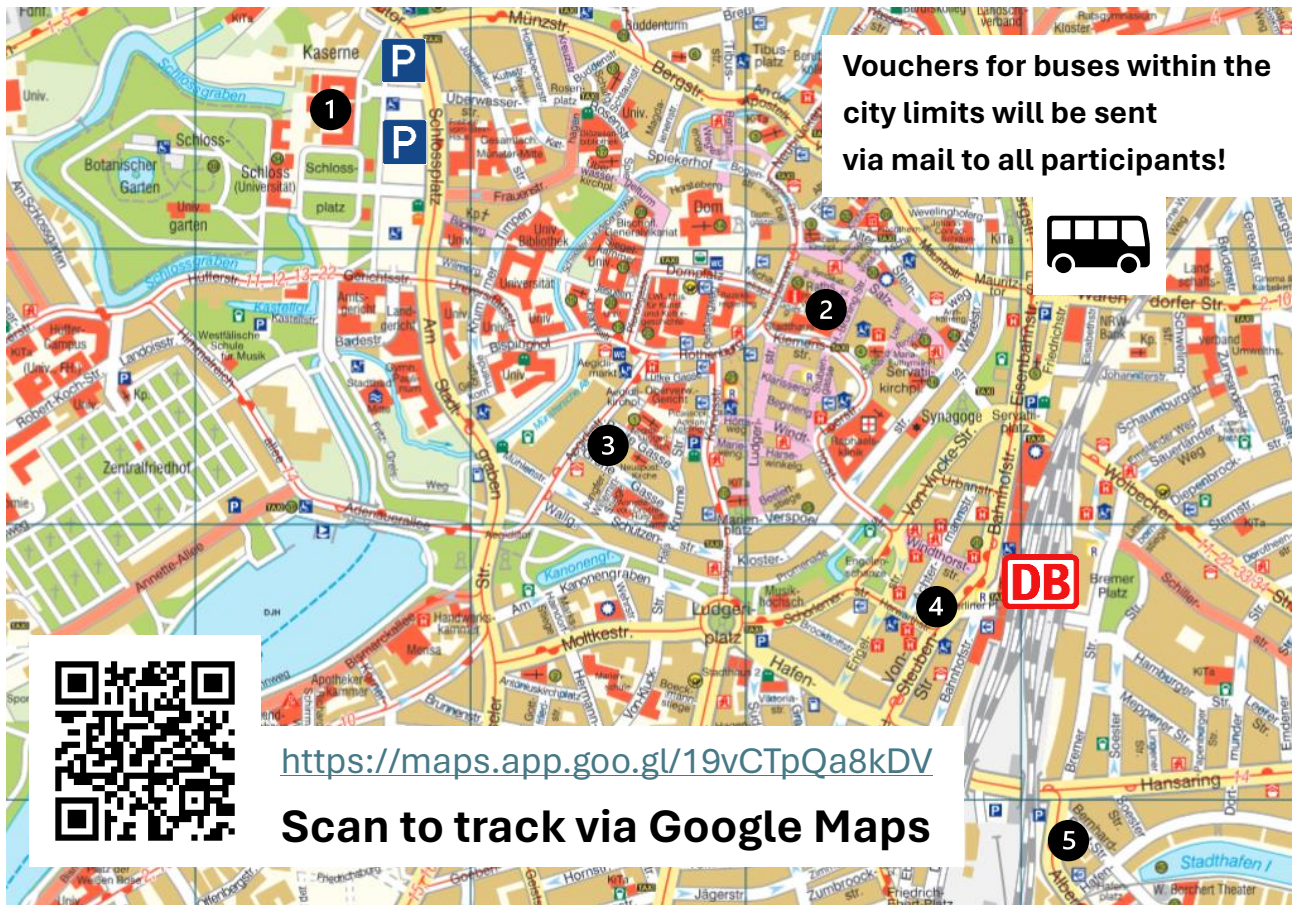
Drinks/coffee

- Oldtown
- Kreuzstraße, Rosenplatz
- Stadthafen Münster
- Hansaviertel



Vouchers for buses within the city limits will be sent via mail to all participants!

Locations Codex Retreat



- ❶ Venue for presentations, posters, and lunches (Schlossplatz 4)
- ❷ 1648 – dinner on Monday evening (Heinrich-Brüning-Straße 5)
- ❸ Stadthotel Münster (Aegidiistraße 21)
- ❹ ibis budget Münster (Herwarthstraße 8)
- ❺ B&B Hotel Münster-Hafen (Albersloher Weg 7-13)
- P** Parking Schlossplatz Nord (with parking fee)
- DB** Münster main station (Münster (West) Hbf)

How to find the entrance to the event location at Schlossplatz 4

