



Codex

*The code of
chito-protein
interactions*

Young Researchers Symposium

Satellite Event of the EUCHIS 2026 Conference

May 14, 2026 – Murcia, Spain

Organizers

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Ivy Ann Razonado, University of Lyon 1, France

Shaghayegh Jahangir, University of Bayreuth, Germany

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Morning sessions



09:00 Welcome by the YRS Organization Team

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|----------------------|-------|--|---|---|
| Chair: Ehab El-Awaad | 09:05 | Ehab El-Awaad Siegen University, Germany | ✕ | Analysis of chito-protein interactions using grating-coupled interferometry |
| | 09:20 | Mathis Joly ICGM, Montpellier, France | | Development of chitosan-based matrices for pharmaceutical semi-solid extrusion 3D printing |
| | 09:35 | Fuzhu Yang MPI, Potsdam, Germany | ✕ | Synthesis of chitin oligosaccharides and chitin polymers with defined structure |
| | 09:50 | Anastasia Zubareva RAS, St. Petersburg, Russia | | DEAE-modified chitosan-liposome hybrids for plasmid DNA delivery in aquaculture vaccination |
| | 10:05 | Mario Wegmann Siegen University, Germany | ✕ | Chitin composition and modification in the peritrophic matrix of <i>Tribolium castaneum</i> |
| | 10:20 | Vishnu Arumughan Aalto University, Espoo, Finland | | Bioinspired nanochitin-based porous constructs for light-driven whole-cell biotransformations |



10:35 Posters + Coffee

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| Chair: Margareta Hellmann | 11:30 | Margareta Hellmann Münster University, Germany | ✕ | Hide and seek: The fungal pathogen <i>Cryptococcus neoformans</i> uses chitosans to evade human immunity |
| | 11:45 | Timmy Richardo Tübingen University, Germany | ✕ | Determinants of chitin recognition: From TLR2 modulation to innate immune training |
| | 12:00 | Jan Ludwig Stuttgart University, Germany | | <i>In vivo</i> modulation of high-aspect ratio chitin rods in <i>Thalassiosira rotula</i> |
| | 12:15 | Rubén Gil-Gonzalo UCM, Madrid, Spain | | Lipid nanoparticles coated with chitosan for curcumin encapsulation and their effect on wound healing |
| | 12:30 | Alexandra Großdorf UKE, Hamburg, Germany | ✕ | Chitinase 3 like 1 coordinates chitin sensing by the innate immune system |
| | 12:45 | Smruti Bhat MAHE, Manipal, India | | Selective by design: A unique GH18 chitinase from <i>Bacillus aryabhatai</i> with reduced domain complexity and substrate-length specificity |



13:00 Lunch

Afternoon sessions

Chair: Shaghayegh Jahangir

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| 14:00 | Shaghayegh Jahangir Bayreuth University, Germany | | Biom mineralized chitosan scaffolds and 3D bioprinting for applications in 3D cell culture and tissue engineering |
| 14:15 | Łukasz Wujcicki PoISl, Gliwice, Poland | | Eco-functional chitosan modified with 2,3-pyrazinedicarboxylic acid for efficient heavy metal removal: Insight into physicochemical properties and adsorption performance |
| 14:30 | Vinolia Dmello TU Dresden, Germany | x | Mechanisms of chitin organisation in <i>Drosophila melanogaster</i> larvae |
| 14:45 | Katharina Eickelpasch Münster University, Germany | x | Structure–function relationships of chitosans in plant disease resistance induction |



15:00 Posters + Coffee

Chair: Ivy Ann Razonado

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| 16:00 | Stefan Cord-Landwehr Münster University, Germany | x | Analytical tools to detect, quantify and localize chitin and chitosan <i>in situ</i> |
| 16:15 | Jordyn Ann Howard IMP, Villeurbanne, France | | Characterization of polyampholyte chitosan hydrogels for peptide loading and sustained release |
| 16:30 | Eugeniusz Świstuń AGH Krakow University, Poland | | From pests to polymers: Chitosan from forest insects collected during forest protection activities |
| 16:45 | Soofia Khanahmadi Frankfurt University, Germany | x | How the structure of chitooligosaccharides impacts their interactions with plant receptors and bioactivity mechanisms |



17:00 End of Codex Exhibition Events

Posters

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| 1 | Alexandra Großdorf UKE, Hamburg, Germany | X | Chitinase 3 like 1 coordinates chitin sensing by the innate immune system |
| 2 | Alma Carolina Galvez Iriqui Universidad de Sonora, Hermosillo, Mexico | | Chitosan-k-carrageenan-lysozyme nanoparticles (CS-CRG-κ/LZ) induces morphological changes on the <i>in vitro</i> growth of <i>Colletotrichum siamense</i> |
| 3 | Amrutha Shastry NITK, Surathkal, India | | Insect waste derived chitinase: A promising agent for chitin degradation and antifungal treatment |
| 4 | Ernest Simó Ramírez IATA-CSIC, Paterna, Spain | | A green click–unclick strategy to stabilize antifungal volatiles on chitosan particles via reversible imine chemistry |
| 5 | Gizem Karabiyik Würzburg University, Germany | X | Mesostructured composite chitosan membranes for the reconstruction of corneal tissue |
| 6 | Griselda Pérez-Ireta INMA CSIC-UNIZAR, Zaragoza, Spain | | Chitosan-cinnamaldehyde gels as antimicrobial tools against biodeterioration in cultural heritage |
| 7 | Henry Chijcheapaza-Flores Lille University, France | | Development and assessment of a chitosan/polymer of β-cyclodextrin hydrogel for viscosupplementation and drug delivery in osteoarthritis |
| 8 | Ivy Ann Razonado IMP/Lyon University, Villeurbanne, France | | Wet spinning of zirconium phosphate-loaded chitosan fibers |
| 9 | Jana Mounzer LAGEPP/Lyon University, Villeurbanne, France | | Microfluidic preparation of chitosan nanoparticles with either negative or positive surface charge |
| 10 | Karol Kłosiński Lodz Medical University, Poland | | From biopolymers to neuroprotection: Emerging biomaterial platforms for neurodegenerative disease therapy |
| 11 | Lia Pérez Rostgaard MPI, Potsdam, Germany | | Synthesis of well-defined monofluorinated chitin oligomers |
| 12 | Łukasz Wujcicki PolSI, Gliwice, Poland | X | Eco-functional chitosan modified with 2,3-pyrazinedicarboxylic acid for efficient heavy metal removal: Insight into physicochemical properties and adsorption performance |
| 13 | Maria Bender DWI, Aachen, Germany | X | Synthesis of chitosan-based microgels as tunable carriers for RNA delivery in plants |
| 14 | Matthias Behr Leipzig University, Germany | X | Morphology and 3D ultrastructure of the chitinous matrix of <i>Drosophila</i> larvae |
| 15 | Neethu Thomas Aalto University, Helsinki, Finland | | Moisture-enabled carbon capture: Exploring the role of water in chitin-based CO ₂ sorbents |
| 16 | Patricia Esteve-Redondo IATA-CSIC, Valencia, Spain | | One-step coupling of aldehydes with primary amines in chitosan for the design of acid-stable antifungal pH-responsive sponges |
| 17 | Ranjana Thachangade Torun University, Poland | | Chemical modification of chitosan with maleic anhydride and glycerin for tunable biomedical applications |
| 18 | Shaghayegh Jahangir Bayreuth University, Germany | | Biom mineralized chitosan scaffolds and 3D bioprinting for applications in 3D cell culture and tissue engineering |
| 19 | Sina Nabil UKE, Hamburg, Germany | X | The role of chitosan in the intracellular survival and escape of <i>Cryptococcus neoformans</i> in monocytes |
| 20 | Sirikan Pongnan VISTEC, Rayong, Thailand | | Crystal structure-based loop engineering of chitin oligosaccharide deacetylase from chitinolytic bacteria <i>Vibrio harveyi</i> (VhCOD) |
| 21 | Valentina Orlandi AIMPLAS, Paterna, Valencia, Spain | | Chitin and chitosan: Trend in ecofriendly packaging solutions from a pilot-scale point of view |
| 22 | Vinolia Dmello TU Dresden, Germany | X | Mechanisms of chitin organisation in <i>Drosophila melanogaster</i> larvae |
| 23 | Xuanyu Dong LMU Munich, Germany | | Exploring chitin sensing in olive |