

20th

International

CYCL  **DEXTRIN**
S ymposium

Giardini Naxos (ME)

Italy | June 13-17, 2022

■ Chair: Antonino MAZZAGLIA (CNR-ISMN)

Venue: Unahotels Naxos Beach Sicilia, Messina

INTERNATIONAL SCIENTIFIC ADVISORY BOARD

- **Carmen ALVAREZ LORENZO** (*University of Santiago de Compostela, Spain*)
- **Hidetoshi ARIMA** (*Kumamoto University, Japan*)
- **Daniele DALLAPRIA** (*Roquette, Italy*)
- **Chris EASTON** (*Australian National University, Australia*)
- **Sophie FOURMENTIN** (*University of Littoral, France*)
- **Ram S. GAUD** (*SVKM's NMIMS, Mumbai, India*)
- **Gustavo GONZÁLEZ GAITANO** (*University of Navarra, Spain*)
- **Takashi HAYASHITA** (*Sophia University, Japan*)
- **Kohzo ITO** (*The University of Tokyo, Japan*)
- **Kim LARSEN** (*Aalborg University, Denmark*)
- **Jun LI** (*National University of Singapore, Singapore*)
- **Yu LIU** (*Nankai University, China*)
- **Thornsteinn LOFTSSON** (*University of Iceland, Iceland*)
- **Marcela LONGHI** (*University of Córdoba, Argentina*)
- **Bernard MARTEL** (*University of Lille, France*)
- **Antonino MAZZAGLIA** (*CNR-ISMN, Italy*)
- **Oliver MINGE** (*Wacker Chemie AG, Germany, Head of Innovation Biosolutions*)
- **Eric MONFLIER** (*University of Artois, France*)
- **James D. PIPKIN** (*Ligand Pharmaceuticals, USA*)
- **Bart Jan RAVOO** (*University of Münster, Germany*)
- **Gerhard SCHMID** (*Honorary Member, former President of Wacker Biosolution, Wacker Chemie AG, Germany*)
- **Lajos SZENTE** (*CycloLab Ltd., Hungary*)
- **Jeffrey TATE** (*CTD Holdings Inc., USA*)
- **Francesco TROTTA** (*University of Torino, Italy*)
- **Helmut VIERNSTEIN** (*University of Vienna, Austria*)

ITALIAN SCIENTIFIC ADVISORY BOARD

- **Paolo CALICETI** (*University of Padua*)
- **Roberta CAVALLI** (*University of Turin*)
- **Pinalysa COSMA** (*University of Bari*)
- **Paola FINI** (*CNR-IPCF, Bari*)
- **Massimo FRESTA** (*University of Catanzaro "Magna Graecia"*)
- **Alessandro GIUFFRIDA** (*University of Catania*)
- **Francesca MAESTRELLI** (*University of Florence*)
- **Ilse MANET** (*CNR-ISOF, Bologna*)
- **Andrea MELE** (*Polytechnic of Milan*)
- **Fabiana QUAGLIA** (*University of Naples, Federico II*)
- **Serena RIELA** (*University of Palermo*)
- **Gloria UCCELLO BARRETTA** (*University of Pisa*)
- **Graziella VECCHIO** (*University of Catania*)

ORGANIZING COMMITTEE

- **Maria Pia CASALETTO** (CNR-ISMN, Palermo)
- **Maria Angela CASTRICIANO** (University of Messina)
- **Annalaura CORDARO** (Cogentech, Catania)
- **Massimiliano CORDARO** (University of Messina)
- **Giuseppe GATTUSO** (University of Messina)
- **Franz H. KOHNKE** (University of Messina)
- **Nicola MICALE** (University of Messina)
- **Luigi MONSÙ SCOLARO** (University of Messina)
- **Michele MUCCINI** (CNR-ISMN, Bologna)
- **Anna PIPERNO** (University of Messina)
- **Andrea ROMEO** (University of Messina)
- **Angela SCALA** (University of Messina)
- **Maria Teresa SCIORTINO** (University of Messina)
- **Mariachiara TRAPANI** (CNR-ISMN, Messina)
- **Cinzia VENTURA** (University of Messina)
- **Roberto ZAGAMI** (University of Messina)

SCIENTIFIC SECRETARIAT

- **Maria Angela CASTRICIANO** (University of Messina)
- **Anna PIPERNO** (University of Messina)
- **Angela SCALA** (University of Messina)
- **Mariachiara TRAPANI** (CNR-ISMN, Messina)
- **Cinzia VENTURA** (University of Messina)

WEB MASTER

- **Francesco Maria GIORDANO** (CNR-ISMN, Palermo)

Giardini Naxos (ME)

Italy | June 13-17, 2022

SUNDAY, 12th JUNE, 2022

17.30-19.30 Registration

MONDAY, 13th JUNE, 2022

08.30-17.00 Excursion Tour
(meeting point at Unahotels Naxos Beach)

17.30-19.30 Registration

20.00-22.30 Welcome reception
(Unahotels Naxos Beach Garden)

TUESDAY, 14th JUNE, 2022

08.15 Registration

08.30-08.50 **Opening Remarks**

■ **SESSION 1** Chairs: Franz H. KOHNKE, Angel PIÑEIRO

08.50-09.30 **PL1 James Fraser STODDART**
Nobel Laureate 2016, Northwestern University, United States of America

Cyclodextrin-based molecular-organic frameworks: emergence opens up a whole new world of wonders

09.30-09.45 **O1 Jindrich JINDRICH**
Charles University, Prague, Czech Republic

Positively charged cyclodextrin derivatives for stable modification of negatively charged solids

09.45-10.00 **O2 Florence DJEDAINI-PILARD**
CNRS/UPJV, Amiens, France

Structural analysis of new lipidyl-cyclodextrins isomers

10.00-10.15 **O3 Giuseppina RAFFAINI**
Politecnico di Milano, Italy

Concentration role in drug delivery: inclusion complexes and surface interaction in β -CD nano-sponges

10.15-10.30 **O4 Heydari ABOLFAZI**
*Polymer Institute of the Slovak Academy of Sciences
 Bratislava, Slovakia*

Influence of guanidine as a cationic crosslinker on the characteristics of β -cyclodextrin polymer

10.30-10.45 **O5 Livia BASILE**
University of Catania, Italy

Synthesis, characterization and in silico study of novel cyclodextrin dimers

10.45-11.05 **Coffee break**

■ **SESSION 2** *Chairs: Kohzo ITO, Bernard MARTEL*

11.05-11.30 **KN1 Carmen ALVAREZ LORENZO**
University of Santiago de Compostela, Spain

Cyclodextrin supramolecular structures for drug delivery and regenerative medicine

11.30-11.45 **O6 Eleftheria DOSSI**
Cranfield University, Shrivenham, United Kingdom

"Two in one" PEG-cyclodextrin polymers enhancing curcumin's bioavailability

11.45-12.00 **O7 Enxu LIU**
Sorbonne University, Paris, France

Molecular information ratchet based on cyclodextrin [2]rotaxane

12.00-12.15 **O8 Franca CASTIGLIONE**
Politecnico di Milano, Italy

Transport phenomena and release kinetics of small drugs encapsulated in cyclodextrin nanosponges

12.15-12.30 **O9 Milo MALANGA**
Budapest, Hungary

Cyclodextrin dimers as the antidote for toxic oxysterols: an all-around spectroscopic investigation

■ **SESSION 3** Chair: Sebastien TILLOY

12.30-13.00

SC1 Giulia NERI

University of Messina, Italy

SC2 Michal REZANKA

Technical University of Liberec , Czech Republic

SC3 Iolanda FUSTES-DAMOC

University Côte d'Azur, Nice, France

SC4 Balázs Attila KONDOROS

University of Szeged, Hungary

SC5 Askar GATIATULIN

Kazan Federal University, Russian Federation

13:00-14:00

Lunch

(Parallel Lunch with International Scientific Advisory Board)

14:00-15:00

POSTER SESSION

■ **SESSION 4** Chairs: Alex FRAGOSO, Milo MALANGA

15:00-15:25

KN2 Salvatore SORTINO

University of Catania, Italy

Photoactivatable branched cyclodextrin polymers for biomedical applications

15.25-15.40

O10 Haipeng LIU

Sorbonne University, Paris, France

Coordination-induced modular supramolecular hierarchical assemblies of cyclodextrins

15.40-15.55

O11 Marco AGNES

ISOF-CNR, Bologna, Italy

Novel CyD-carrier tackling hypoxia in breast cancer: cooperation of chemotherapy, PDT & O₂-releasers

15.55-16.10

O12 Géraldine GOUHIER

University of Rouen, Normandy, France

New theranostic probes for the treatment of glioblastoma

■ **SESSION 5** Chair: Thorbjørn Terndrup NIELSEN

16.10-16.40 **SC6 Roberto ZAGAMI**
CNR-ISMN, University of Messina, Italy

SC7 Ilona KRABICOVÁ
Technical University of Liberec, Czech Republic

SC8 Sébastien RIGAUD
CNRS/UPJV, Amiens, France

SC9 Andrea CESARI
University of Pisa, Italy

SC10 Eszter KALYDI
University of Budapest, Hungary

16.40-17.00 **Coffee break**

■ **SESSION 6** Chairs: Francisco J. OTERO ESPINAR, James D. PIPKIN

17.00-17.25 **KN3 Pravin SHENDE**
SVKM's NMIMS, Mumbai, India

Cyclodextrin-complexed particulate systems using combinational drugs for antimalarial action

17.25-17.40 **O13 Marzia CIRRI**
University of Florence, Italy

Cyclodextrins complexation: a useful formulation strategy in the pediatric field

17.40-17.55 **O14 Matthew O'CONNOR**
Underdog Pharmaceuticals, Mountain View, USA

Reversing cardiovascular disease with dimerized cyclodextrins

17.55-18.10 **O15 Anna Maria PIRAS**
University of Pisa, Italy

2-Methyl- β -cyclodextrin-ammonium chitosans: a family of versatile functional excipients

■ **SESSION 7** Chairs: Takashi HAYASHITA, Luigi MONSÙ SCOLARO

18.10-18.35 **KN4 Janusz LEWINSKI**

Polish Academy of Sciences, Warsaw, Poland

Metal complexes and inorganic-organic nanohybrids based on native cyclodextrins

18.35-18.50 **O16 Jolanta ROUSSEAU**

University of Artois, CNRS, France

Synthesis of carboxymethyl cyclodextrins coated Zr-MOF as original hybrid materials

18.50-19.05 **O17 Claudio CECONE**

University of Turin, Italy

Sub-micrometric cross-linked mats and fibrous carbons produced from nades-derived β CD-based polymers

19.05-19.20 **O18 Adrian MATENCIO**

University of Turin, Italy

Cyclodextrin based nanosponges enhance nisin antimicrobial activity by combinatorial effect

WEDNESDAY, 15th JUNE, 2022

8.15 Registration

■ **SESSION 8** Chairs: Sophie FOURMENTIN, Graziella VECCHIO

08.30-08.55 **KN5 Takashi HAYASHITA**

Sophia University, Tokyo, Japan

Supramolecular cyclodextrin complex sensors for ion and molecule recognition in water

Takashi Hayashita: "In memory of Keiko Takahashi"

08.55-09.10 **O19 Angel PIÑEIRO**

University of Santiago de Compostela, Spain

Computational experiments of cyclodextrins and cyclodextrin complexes: latest news

09.10-09.25 **O20 David LANDY**
Université du Littoral, France
Thermodynamic and kinetic characterization of cyclodextrin complexes : how far can we go?

09.25-09.40 **O21 Alessandra RECCHIMURZO**
University of Pisa, Italy
Enantiodiscrimination phenomena of chiral isoflurane by acetylated-silylated cyclodextrins

■ **SESSION 9** *Chairs: David LANDY, Francesco TROTTA*

09.45-10.10 **KN6 Eric MONFLIER**
University of Artois, France
Transition metal catalysis and cyclodextrins: recent developments and future opportunities

10.10-10.25 **O22 Vincenzo PATAMIA**
University of Catania, Italy
Functionalization of cyclodextrins for the adsorption of carbon dioxide

10.25-10.40 **O23 Dario LACALAMITA**
UMR, BESANCON, France
Hemp felts coated with cyclodextrin polymers to remove metals and organic pollutants from effluents

10.40-11.00 **Coffee Break**

■ **SESSION 10** *Chairs: Kim L. LARSEN, Olga RUSSINA*

11.00-11.45 **PL2 Kohzo ITO**
The University of Tokyo "Kashiwa", Japan
Slide-ring materials and nanosheet from cyclodextrin-based polyrotaxane

11.45-12.00 **O24 Gustavo GONZALES GAITANO**
Universidad de Navarra, Pamplona, Spain
Kinetics of the formation of polyethylene glycol pseudopolyrotaxanes in solid state

12.00-12.15 **O25 Sophie FOURMENTIN**

Université du Littoral, France

Combining cyclodextrins and deep eutectic solvents: new media for inclusion complexes formation

■ **SESSION 11** Chair: Antonino PUGLISI

12.20-13.00 **SC11 Alex FRAGOSO**

Universitat Rovira i Virgili, Tarragona, Spain

SC12 Serge PILARD

CNRS, Université de Picardie Jules Verne, Amiens, France

SC13 Zsófia BERKL

Budapest University of Technology, Hungary

SC14 Maria Antonietta CASULLI

Sophia University, Tokyo, Japan

SC15 Lamia NAKHLE

Université du Littoral, France

SC16 Riccardo FERRERO

University of Turin, Italy

13.00-14:00 **Lunch**

14:00-15:00 **POSTER SESSION**

■ **SESSION 12** Chairs: Giuseppe GATTUSO, Ruibing WANG

15.00-15.25 **KN7 Bart Jan RAVOO**

University of Münster, Germany

Responsive soft materials made by cyclodextrin host-guest chemistry

15.25-15:40 **O26 Kawthar BOUCHEMAL**

Université Paris-Saclay, France

Cyclodextrin-mediated nonspherical nanomaterials to navigate mucosal barriers

- 15.40-15.55 **O27 Ilse MANET**
CNR-ISOF, Bologna
Polymeric CyD-based for the delivery of multiple therapeutic agents to treat severe diseases
- 15.55-16.15 **Coffee Break**
- **SESSION 13** Chair: Maria Pia CASALETTO
- 16.15-16.30 **O28 Rebeca GARCIA-FANDINO**
University of Santiago de Compostela, Spain
Cyclodextrinft: the first collection of cyclodextrins where science and art meets
- 16.30-17.00 **KN8 Eva FENYVESI**
Cyclolab Budapest, Hungary
Cyclodextrin-enabled green environmental technologies
Announcement of EuroCD2023, Budapest
- 17.30 Taormina walking Tour and social dinner.
Proclamation of J. Szejtli Prize and poster winners.

THURSDAY, 16th JUNE, 2022

8:30 Registration

- **SESSION 14** Chair: Fabiana QUAGLIA
- 08.45-09.10 **KN9 Caitriona O'DRISCOLL**
University College Cork, Ireland
Functionalised cyclodextrins helping to deliver the promise of RNAi therapeutics
- 09.10-09.25 **O29 Safiye AKKIN**
Hacettepe University, Ankara, Turkey
Cyclodextrin polymer nanoplex with IL-2 and 5-FU as effective immunochemotherapeutic delivery system

09.25-09.40 **O30 Antonino PUGLISI**
University of Natural Resources and Life Sciences (BOKU), Vienna, Austria
Lysosome-triggered, cholesterol-mopping nanoparticles for treatment of neurodegenerative diseases

■ **SESSION 15** *Chairs: Jindrich JINDRICH, Florence PILARD*

09.40-10.05 **KN10 Dong-Sheng GUO**
Nankai University, Tianjin, China
Heteromultivalent recognition by amphiphilic CD/CA co-assembly

10.05-10.20 **O31 Brunella GRASSIRI**
University of Pisa, Italy
Thiolated 2-methyl- β -cyclodextrin nanoaggregates, a mucoadhesive excipient for poorly soluble drugs

10.20-10.35 **O32 Alberto RUBIN PREDAZZO**
University of Turin, Italy
Cyclodextrins as templating agent in solvent-free kneading-based syntheses of nanosized SnO₂ and ZnO

■ **SESSION 16** *Chair: Geraldine GOUHIER*

10.35-11.05 **SC17 Federica DE GAETANO**
University of Messina, Italy

SC18 Ágnes RUSZNYÁK
University of Debrecen, Hungary

SC19 Laura Andrea URIBE
Universitat Rovira i Virgili, Tarragona, Spain

SC20 Henry CHIJCHEAPAZA-FLORES
University of Lille, France

SC21 Nurbanu DEMIRTÜRK
Hacettepe University, Ankara, Turkey

11.05-11:25 **Coffee Break**

■ **SESSION 17** Chairs: Pinalysa COSMA, G. GONZÁLEZ GAITANO

11.25-11.50 **KN11 Cecile DREISS**

Kings College London, UK

Cyclodextrins threading on polymer chains to direct self-assembly

11.50-12.05 **O33 Zeng-guo FENG**

Beijing Institute of Technology, Beijing, China

Self-assemblies of β -/ γ -CDs with phema/pnipam and end-capping via in situ CuAAC

12.05-12.20 **O34 Olga RUSSINA**

University of Rome "La Sapienza", Rome, Italy

Solvation of cyclodextrins in hydrophilic and hydrophobic deep eutectic solvents

■ **SESSION 18** Chair: Lajos SZENTE

12.20-12.45 **KN12 Erem BILENSOY**

Hacettepe University, Ankara, Turkey

Cyclodextrin nanoparticles and nanoplexes for improved oral immuno-chemotherapy of colon tumors

12.45-12.55 **Szejtli Prize presentation**

12.55-13.10 **O35 (Szejtli Prize) Aurore FRAIX**

University of Catania, Italy

A fluorescent nanoassembly for bimodal phototherapy imaged by two-photon excitation with NIR light

13.10-13.25 **O36 (Szejtli Prize) Angela SCALA**

University of Messina, Italy

Cultivating the passion for amphiphilic cyclodextrins: our scientific runway

13.25-14.30 **Lunch**

■ **SESSION 19** Chairs: Kawthar BOUCHEMAL, Serena RIELA

14.30-14.55 **KN13 Giancarlo CRAVOTTO**

University of Turin, Italy

Greener synthesis under enabling technologies and cyclodextrin-based heterogeneous catalysis

14.55-15.10 **O37 Sebastien TILLOY**

University of Artois, CNRS, France

Hydrogenation and hydroformylation promoted by amphiphilic cyclodextrins bearing oleic grafts

15.10-15.25 **O38 Jennifer GUBITOSA**

University of Bari "Aldo Moro", Italy

Cyclodextrin nanosponges as adsorbent materials to remove emerging pollutants from water

■ **SESSION 20** Chairs: Francesca MAESTRELLI, Serge PILARD

15.25-15.50 **KN14 José Manuel LÓPEZ-NICOLÁS**

Universidad de Murcia, Spain

General application of cyclodextrins in food science and their uses with stilbenes

15.50-16.05 **O39 Anthony VERDIN**

Université du Littoral, France

Effect of essential oils encapsulation in β -cyclodextrin on their biological properties

16.05-16.25 **O40 Francesco TROTTA**

University of Turin, Italy

Cyclodextrin nanosponges enhances the nutraceutical bioavailability: kynurenic acid, a case study

Announcement of V Summer School on Cyclodextrin, 4-7 September 2022, Italy

■ **SESSION 21** Chair: Antonino MAZZAGLIA

16.30-17.10 **PL3 Matthieu SOLLOGOUB**
Sorbonne University, Paris, France

Are we doomed to see cyclodextrins as artificial proteins?

17.10-17.30 Committee CYCLONET
Announcement of the Winners CYCLONET YITP ACRI (Associazione Casse di Risparmio Italiane)

FRIDAY, 17th JUNE, 2022

8:30 Registration

■ **SESSION 22** Chairs: Rebeca GARCIA-FANDINO, Tamas SOHAJDA

08.45-09.05 **KN15 Tamas SOHAJDA**
Budapest, Hungary

Cyclodextrins as antiviral agents and drug delivery tools: an update since the 2021 bridge meeting

09.05-09.35 **KN16 Stephanie M. RAINEY**
University of Glasgow, Scotland, UK

Cyclodextrins as antiviral agents against coronaviruses and other enveloped respiratory viruses

09.35-09.50 **O41 Bernard MARTEL**
University of Lille, France

From laboratory to mass production of cidaltex® antiviral masks during the Covid-19 pandemic

■ **SESSION 23** Chair: Gloria UCCELLO BARRETTA

09.50-10.10 **KN17 Susan SANTOS BRAGA**

University of Aveiro, Portugal

Inclusion of antivirals in cyclodextrins: current status and practical example

10.10-10.25 **O42 Arnaud MACHELART**

University of Lille, France

Antibacterial activity of Poly- β -CD potentiates their effect as nanocarriers against tuberculosis

10.25-10.55 **KN18 Anna PIPERNO**

University of Messina, Italy

Symbiotic combination of cyclodextrins with noble metal nanoparticles for antimicrobial therapeutics

10.55-11.15 **Coffee Break**

■ **SESSION 24** Chairs: Paola FINI, Ilse MANET

11.15-11.45 **KN19 Ruibing WANG**

University of Macau, China

Enhanced antibacterial function of a supramolecular artificial receptor-modified macrophage

11.45-12.00 **O43 Vito RIZZI**

University of Bari "Aldo Moro", Italy

Photoactive hybrid chlorophyll a/chitosan/2-HP- β -cyclodextrin films for ROS production

12.00-12.15 **O44 Chloé GODEAU**

UMR 6249 Chrono-environnement, BESANCON, France

Cyclodextrins to reduce the unintentional impact of fungicides on a mould causing human infections

■ **SESSION 25** *Chair: Nicola MICALE*

12.20-12.30 **Poster winners flash presentations**

12.30-13.00 **Announcement of ICS2024
and Closing Remarks**



POSTERS

P01 Federica AIELLO

CNR-IPCF, Pisa, Italy

Solvent dependent conformational features of α -, β - and γ -AcSiCD: an NMR investigation

P02 Amelia ANDERSON

Underdog Pharmaceuticals, Mountain View, CA, United States of America

Reversing cardiovascular disease: computational approaches to molecular design

P03 Monica ARGENZIANO

University of Turin, Turin, Italy

ICOS-loaded β -cyclodextrin based nanosponges enhanced gemcitabine efficacy on pancreatic cancer

P04 Zsófia BERKL

Budapest University of Technology and Economics, Budapest, Hungary

Effect of alkyl-substituted cyclodextrins on the quorum sensing of *aliivibrio fischeri*

P05 Noemi BOGNANNI

University of Catania, Catania, Italy

Cross-linked cyclodextrin polymers for chelation therapy

P06 Nina BURDUJA

University of Messina and CNR-ISMN, Messina, Italy

Captisol® / porphyrin nanocomplexes for pathogens sensing and antimicrobial photodynamic therapy

P07 Maria Pia CASALETTO

CNR-ISMN, Palermo, Italy

Exploring versatile applications of cyclodextrins in heritage science

P08 Marzia CIRRI

Dept. Chemistry 'Ugo Schiff' (DICUS), Sesto Fiorentino (FI), Italy

Improved robustness and performance of flufenamic acid dissolution from tablets by CD complexation

- P09 Angel CONCHEIRO**
Universidade de Santiago de Compostela, Santiago de Compostela, Spain
Hetero-polypseudorotaxanes for topical formulation of acyclovir
- P10 Angel CONCHEIRO**
Universidade de Santiago de Compostela, Santiago de Compostela, Spain
Hydrophilic and hydrophobic cyclodextrins as excipients in quick/slow release bilayer tablets
- P11 Zeinab DIRANY**
University of Navarra, Pamplona, Spain
Characterization and antileishmanial activity of cyclodextrin-miltefosine inclusion complexes
- P12 Martina DRAGONE**
Università della Campania Luigi Vanvitelli Distabif, Caserta, Italy
Tyrosine inclusion with β -CD in model pentapeptides
- P13 Davide FABBRI**
Institute of Biomolecular Chemistry-National Research Council, Sassari, Italy
 β -CD: a matrix to improve bioavailability of valuable phenols in sustainable agriculture strategies
- P14 Parisa FEREIDOUNPOUR**
Aalborg University, Aalborg, Denmark
Molecular dynamics studies to estimate free energies of binding for cyclodextrin-steroid complexes
- P15 Sophie FOURMENTIN**
Université du Littoral, Dunkerque, France
Cyclodextrin-based low melting mixtures for the solubilization of poorly-water soluble drugs
- P16 Alex FRAGOSO**
Universitat Rovira i Virgili, Tarragona, Spain
Passive sampling of lipophilic toxins in algae cultures and sea with cyclodextrin polymers
- P17 Rebeca GARCIA-FANDINO**
Universidade de Santiago de Compostela, Santiago de Compostela, Spain
Immersive visualization of cyclodextrins in the metaverse era

- P18 Alexandru-Milentie HADA**
Babes-Bolyai University, Cluj-Napoca, Romania
Cationic cyclodextrin polymer vs chitosan for SERS-nanotags fabrication
- P19 Andreea Alexandra IONESCU**
UMF Carol Davila, Bucharest, Romania
Effect of cyclodextrin based nanosponges on oseltamivir transfer through a synthetic membrane
- P20 Petra KARMAZINOVA**
Technical University of Liberec, Liberec, Czech Republic
Cyclodextrin as a nanoreactor for reductive amination in water
- P21 Ayse KONT**
University College Cork, Cork, Ireland
Co-formulating anionic and cationic cyclodextrins for siRNA delivery in acute myeloid leukaemia
- P22 Dario LACALAMITA**
Université de Bourgogne Franche Comté, BESANCON, France
Removal of alkylphenols by cyclodextrin polymers
- P23 Kim LARSEN LAMBERTSEN**
Aalborg University, Aalborg, Denmark
Use of ITC to determine thermodynamic parameters for cyclodextrin / poorly soluble drugs complexes
- P24 Kim LARSEN LAMBERTSEN**
Aalborg University, Aalborg, Denmark
Assessment of baking performance for wheat breads supplemented with α -, β - and γ -cyclodextrin
- P25 Kim LARSEN LAMBERTSEN**
Aalborg University, Aalborg, Denmark
Effect of experimental conditions on the HP- β -CD phase solubility profiles for cholesterol
- P26 Alonso LEOCADIO**
Consejo Superior de Investigaciones Científicas (CSIC), Villaviciosa, Asturias, Spain
Effect of curd washing in ewe's milk cheese on reduction of cholesterol by beta cyclodextrin

- P27 Paolo LO MEO**
University of Palermo, Palermo, Italy
Application of FFC-NMR techniques for the study of the features of nanosponges
- P28 Francesca MAESTRELLI**
University of Florence, Florence, Italy
In-vivo evaluation of anti-osteoarthritis potential of curcumin-in-HP β -cyclodextrin-in liposomes
- P29 Francesca MAESTRELLI**
University of Florence, Florence, Italy
Development of thermosensitive cyclodextrin-based in situ gel of clonazepam for intranasal delivery
- P30 Francesca MAESTRELLI**
University of Florence, Florence, Italy
Interaction studies between hydroxypropyl- β -cyclodextrin and metal composite
- P31 Rita MÁRTON**
Budapest University of Technology and Economics, Budapest, Hungary
Bioactivity of cyclodextrins on *saccharomyces cerevisiae* and *candida boidinii* yeasts
- P32 Marina MASSARO**
University of Palermo, Palermo, Italy
Nanocomposites based on cyclodextrins and halloysite nanotubes and their applications
- P33 Nicola MICALE**
University of Messina, Messina, Italy
Synthesis, characterization and biological profile of pentamidine-based nano-antimicrobials
- P34 Chiara MIGONE**
University of Pisa, Pisa, Italy
Hydroxypropyl- β -cyclodextrin for “off-label” respiratory administration
- P35 Mónika MOLNÁR**
Budapest University of Technology and Economics, Budapest, Hungary
Cyclodextrin-mediated modification of quorum sensing in the *chromobacterium violaceum* model system

- P36 Silvia NAVARRO-ORCAJADA**
Universidad de Murcia, Murcia, Spain
Development of stable inclusion complexes with gnetol, a more antioxidant analogue of resveratrol
- P37 Silvia NAVARRO-ORCAJADA**
Universidad de Murcia, Murcia, Spain
Role of isomerism and protonation state in the encapsulation constants of caffeoylquinic acids
- P38 Thorbjørn Terndrup NIELSEN**
Aalborg University, Aalborg, Denmark
Effect of DS of SBE- β -CD's on solubilizing efficacy and thermodynamics of complex formation
- P39 Thorbjørn Terndrup NIELSEN**
Aalborg University, Aalborg, Denmark
Thermodynamics of complex formation between NSAIDs and cyclodextrins by non-classical ITC
- P40 Roberto OLIVA**
University of Messina, Messina, Italy
Supramolecular assembly of adamantane-functionalized bodipy and polylactide-cyclodextrin conjugate
- P41 Francisco Javier OTERO-ESPINAR**
University of Santiago De Compostela, Santiago De Compostela, Spain
Cyclotech®, cyclodextrins-poloxamer soluble polypseudotaxane based lacquers for nail treatments
- P42 Francisco Javier OTERO-ESPINAR**
University of Santiago De Compostela, Santiago de Compostela, Spain
MicroPET/CT-ocular surface mucoadhesion studies and ophthalmic safety of cyclodextrin eye solutions
- P43 Roberta PANEBIANCO**
University of Catania, Catania, Italy
Terpyridine functionalized cyclodextrin nanoparticles: metal complexes for targeting delivery?
- P44 Carmen POPESCU**
Roquette America Inc., Geneva, IL, United States of America
Griseofulvin and itraconazole solubility boost via beta cyclodextrin derivatives complex formation

- P45 Olga RUSSINA**
Sapienza Università di Roma, Rome, Italy
Solvation of cyclodextrins in ionic liquids and deep eutectic solvents
- P46 Ágnes RUSZNYÁK**
University of Debrecen, Debrecen, Hungary
Cyclodextrin polymer-based siRNA delivery systems
- P47 Keivan SADRERAFI**
Underdog Pharmaceuticals, Mountain View, United States of America
Reversing cardiovascular disease: approaches to manufacturing dimerized cyclodextrins
- P48 Anna SCOMPARIN**
University of Turin, Torino, Italy
 β -cyclodextrin-based nanosponges for ibrutinib and temozolomide combination therapy
- P49 Atul SHERJE**
SVKM's Dr. Bhanuben Nanavati College of Pharmacy, Mumbai, India
Development of beta-cyclodextrin nanosponges-based inhalable dry powder of bosentan
- P50 Suppakan SRIPETCH**
University of Iceland, Reykjavik, Iceland
Effect of gamma-CD concentration and dexamethasone on degradation of gamma-CD by alpha-amylase
- P51 Casper STEINMANN**
Aalborg University, Aalborg, Denmark
Simulations of hydroxypropyl-beta-cyclodextrin complexes by extending the GLYCAM06 force field
- P52 Yao SUN**
University College Cork, Cork, Ireland
M2PEP-targeted CD-based nanoparticles for siRNA delivery to reprogram M2 TAMs in prostate cancer
- P53 Yota SUZUKI**
Sophia University, Tokyo, Japan
Sensing of a rare sugar by inclusion complex of benzoxaborole-based probe with cyclodextrin

P54 Olga SWIECH

University of Warsaw, Warsaw, Poland

Water-soluble galactosamine derivative of β -CD as protective ligand for doxorubicin

P55 Péter Soma SZAKÁLY

CycloLab Ltd., Budapest, Hungary

Determination and relevancy of the substitution pattern of methylated cyclodextrin-derivatives

P56 Mabel TORRENS

Universitat Rovira i Virgili, Tarragona, Spain

Synthesis and characterization of soluble anionic and cationic cyclodextrin polymers

P57 Laura Andrea URIBE

Universitat Rovira i Virgili, Tarragona, Spain

Hydrolysis protection of SBCD to nafamostat mesylate proof of concept for new administration method

P58 Erzsébet VARGA

CycloLab Ltd., Budapest, Hungary

Sulfobutylether-cyclodextrins: structure, degree of substitution and functional performance

P59 Bianka VÁRNAI

Semmelweis University, Budapest, Hungary

Molecular interactions in remdesivir-cyclodextrin systems probed by NMR and CE

P60 Francisco José VIDAL-SÁNCHEZ

Universidad de Murcia, Murcia, Spain

Comparative evaluation of cyclodextrins to promote the use of isorhapontigenin in functional foods

P61 Anna VLASOVA

Technological University Dublin, Dublin, Ireland

Study of folate derivatives of cyclodextrins as drug delivery systems

P62 Tomoko YAMAGUCHI

Niigata University, Niigata, Japan

Effect of cyclodextrin on eating quality and postprandial glycemic response of high-amylose rice



XTTRIN

Giardini Naxos (ME)

Italy | June 13-17, 2022

CONFERENCE RESEARCH TOPICS

- CD chemistry and modeling
- Supramolecules, polymers and self-assembly
- Nanomaterials
- Hybrid, soft and biomaterials
- Life science
- Therapy and diagnosis
- Nutraceuticals
- Analytical applications
- Green technologies
- Catalysis
- Cyclodextrins for fighting virus and pathogen agents

CONFERENCE VENUE

UNAHotels Naxos Beach Sicily

<https://www.gruppouna.it/unahotels/unahotels-naxos-beach-sicilia>

SCIENTIFIC SECRETARIAT

ics2020@ismn.cnr.it

antonino.mazzaglia@ismn.cnr.it

TECHNICAL SECRETARIAT



ics2020@lisciotto.it

meetings@lisciotto.it

www.lisciottocongressi.it

Conference Website: <http://www.ismn.cnr.it/ics20/>



SPECIAL THANKS TO OUR SPONSORS

PLATINUM SPONSOR



GOLD SPONSOR

**BEREN
THERAPEUTICS**

Novel medicines.
Aligned with patients.
Accessible to all.



SILVER SPONSOR

WACKER

PARTNERS



MERCK



International Journal of
Molecular Sciences
an Open Access Journal by MDPI

NEWCHEM



deltek D>>

JASCO



processes
an Open Access Journal by MDPI



Frontiers in
Chemical Engineering

Under the patronage of



Società Chimica Italiana



European Federation for
Pharmaceutical Sciences