



# FIRST CIRCULARITY CONFERENCE

Re-Thinking Packaging for *Circular* and *Sustainable* Food Supply Chains of the *Future*

26-29 September 2021

On-line



European Commission

Horizon 2020  
European Union Funding  
for Research & Innovation

## CONFERENCE PROGRAM<sup>(\*)</sup>

### Sunday, September 26th

- 17:00 – 17:15** **Opening/Greetings (Milena Corredig, Aarhus University, Chair of CA19124)**
- 17:15 – 18:00** **Prologue Talk 1: "Microplastics an invisible risk" Margherita Ferrante (University of Catania, Italy)**
- 18:00 – 18:45** **Prologue Talk 2: "Everything connects us to the Ocean" Andrea Morello (Sea Shepherd Italia)**

### Monday, September 27th

- 09:00 – 09:30** **Greetings (Pierpaolo Limone, Rector of the University of Foggia)**
- 09:30 – 10:00** **Session 1A (Chair: Giancarlo Colelli)**  
**Keynote 1: "Packaging requirements for reducing food losses" Victor Rodov (ARO Volcani Institute, Israel)**
- 10:00 – 10:15** Impact of different packaging strategies on the shelf-life of semi-hard cheese - Ana G. Azevedo, Portugal (130)
- 10:15 – 10:30** Effects of retail compostable packages on retaining fruit and vegetable quality - Ron Porat, Israel (053)
- 10:30 – 10:45** Tailor-made packaging strategies to extend the shelf life of fresh pork belly - Begonya Marcos-Muntal, Spain (083)
- 10:45 – 11:00** The applicability of PHBV thermoformed trays to pack fresh food products under modified atmosphere packaging - An Vermeulen, Belgium (113)
- 11:00 – 11:30** **Coffee break**
- 11:30 – 12:00** **Session 2A (Chair: Matthijs Dekker)**  
**Keynote 2: "Active and intelligent packaging as tool to improve food quality and safety" Rafael Gavara (CSIC-IATA, Spain)**
- 12:00 – 12:15** A novel breathable package system to improve the fresh fig (*Ficus carica* 'Dottato') shelf life – Attilio Matera, Italy (070)
- 12:15 – 12:30** Bioactive antioxidant coating for active poly(lactic acid) film packaging- polyphenols affect coating structure and their release in a food simulant – Frédéric Debeaufort, France (052)
- 12:30 – 13:30** **Stakeholder Forum (Chair: Emmanouil Tsochatzis)**  
**Introduction: "Towards sustainable food packaging legislation from the prospective of EU policymakers" Anna Trubetskaya (University of Limerick, Ireland)**  
**Forum contributors:**  
**Bastiaan Schupp, DG Health and Food Safety - European Commission**  
**Eddo Hoekstra, JRC, EURL-FCM - European Commission**
- 13:30 – 14:30** **Lunch break**
- 14:30 – 15:00** **Poster session**
- 15:00 – 15:30** **Session 3A (Chair: Loredana Incarnato)**  
**Keynote 3: "Challenges on obtaining high oxygen and water barrier compostable films" Rafael Auras (Michigan State University, USA)**
- 15:30 – 15:45** The Green Dairy Cup - Kenneth Kisbye, Denmark (108)
- 15:45 – 16:00** Design and development of innovative high performance PVOH/PLA bio-coatings for food packaging - Annalisa Apicella, Italy (098)
- 16:00 – 16:15** Improving starch-based biomaterial properties by addition of spent frying potato oil - Silvia Petronilho, Portugal (090)
- 16:15 – 16:30** Multilayer barrier paperboard based on nanocellulose and biodegradable thermoplastics - Johanna Lahti, Finland (134)

<sup>(\*)</sup>Minor changes can be still possible: please visit the event website the look at the most updated version



# FIRST CIRCULARITY CONFERENCE

Re-Thinking Packaging for *Circular* and *Sustainable* Food Supply Chains of the *Future*

26-29 September 2021

On-line



European Commission

Horizon 2020  
European Union Funding  
for Research & Innovation

- 16:30 – 16:45 NeoPalea: bio-based material for packaging applications - Leonardo Conti, Italy (054)  
16:45 – 17:00 Investigation of stereocomplexed poly(lactide acid)/layered double hydroxides for high-performance mono-material packaging solutions – Qi Chen, Denmark (128)

## **17:00 – 17:30** **Coffee break**

### **Session 2B (Begonya Marcos-Muntal)**

- 17:30 – 17:45 Use of gallic acid based oxygen scavenger to prevent the discoloration of processed meat products under industrial conditions - Selcuk Yildirim, Switzerland (116)  
17:45 – 18:00 Lavender extract surface treatment of packaging paper for antimicrobial activity - Dimitrina Todorova, Bulgaria (087)  
18:00 – 18:15 Bioactive complexes of chitosan and green coffee bean or artichoke extracts for food packaging applications - Ramune Rutkaite, Lithuania (105)  
18:15 – 18:30 Diffusion of thyme, cinnamon and oregano essential oils in different nanocellulose matrices – Sara Casalini, Italy (059)

## **Tuesday, September 28th**

### **Session 4 (Chair: Elena Arranz)**

- 09:00 – 09:30 **Keynote 4: "The challenge of NIAS migration from emerging food packaging materials" Cristina Nerin (University of Zaragoza, Spain)**  
09:30 – 09:45 *Deactivation kinetics of inoculated SARS-CoV-2 on a patented cardboard activated with natural antimicrobials* - Lorenzo Siroli, Italy (103)  
09:45 – 10:00 *Next generation screening methodologies for the advanced and comprehensive monitoring of intentionally and non-intentionally added substances in food contact materials* - Chrysoula Kanakaki, Greece (073)  
10:00 – 10:15 *Urinary levels of endocrine-disrupting chemicals, including triclosan and 4-nonylphenol in School-Aged Children of Southern Italy population with a Plastic-Free Lifestyle* – Francesco Sessa, Italy (086)  
10:13 – 10:30 *Microplastics releases by packaging, a new risk for consumers* – Eloise Pulvirenti, Italy (114)  
10:30 – 10:45 *Chemical testing of mechanically recycled polyethylene terephthalate* – Emmanouil D. Tsochatzis, Denmark (055)  
10:45 – 11:00 *Risk assessment in use of recycled polyethylene from post-consumer waste as food contact material* - Tanja Radusin, Norway (119)

## **11:00 – 11:30** **Coffee break**

### **Session 5 (Chair: Victoria Krauter)**

- 11:30 – 12:00 **Keynote 5: "Consumer Trends and Perceptions toward Sustainable Packaging Solutions" Polymeros Chrysochou (Aarhus University, Denmark)**  
12:00 – 12:15 *Science and media framing the future of plastics in a transition to the circular economy* - Ivanna Colijn, The Netherlands (102)  
12:15 – 12:30 *Analysis of sustainable packaging attributes in the confectionary sector* - Anna-Sophia Bauer, Austria (112)  
12:30 – 12:45 *Navigating sustainable packaging solutions for food waste minimization in downstream activities* – Carlos Martin-Rios, Switzerland (096)  
12:45 – 13:00 *Sustainability message outlook impacts consumer response toward sustainable packaging* - Polymeros Chrysochou, Denmark (084)  
13:00 – 13:15 *Twitter is garbage: what kind of packaging waste materials do people tweet about? Exploration of #zerowaste hashtag usage* - Greg Ganczewski, Poland (133)  
13:15 – 13:30 *Intention to purchase milk packaged by biodegradable packaging: evidence from Italian consumers* – Antonella Cammarelle, Italy (068)

## **13:30 – 14:30** **Lunch break**

## **14:30 – 15:00** **Poster session**

### **Session 8 (Chair: Selcuk Yildirim)**

(\*)Minor changes can be still possible: please visit the event website the look at the most updated version



# FIRST CIRCUL-A-BILITY CONFERENCE

Re-Thinking Packaging for *Circular* and *Sustainable* Food Supply Chains of the *Future*

26-29 September 2021

On-line



- 15:00 – 15:30** **Keynote 8: "Disposable or Returnable Packaging: searching optimal solution using fuzzy mathematical approach" Péter Böröcz (Széchenyi István University, Hungary)**
- 15:30 – 15:45** *Sense-Fruit: a fruit simulator for advanced monitoring of postharvest supply chains - Seraina Schudel, Switzerland (074)*
- 15:45 – 16:00** *The effect of transportation vibration to the microbiological status of bottled mineral water - Renáta Tihanyi-Kovács, Hungary (111)*
- 16:00 – 16:15** *Reducing food waste by quality controlled logistics using intelligent packaging - Matthijs Dekker, The Netherlands (075)*
- 16:15 – 16:30** **Session 3B (Chair: Selçuk Yildirim)**  
*Development of cellulose-based packaging films from the residues after alginate extraction - Vera Cebrián-Lloret, Spain (106)*
- 16:30 – 16:45** *ByPro3D – Can agri-food and forest byproducts be reused in the ecological production of 3D food packaging? - Idalina Gonçalves, Portugal (088)*
- 16:45 – 17:00** *Functional biobased barriers for sustainable and renewable packaging materials – Samir Kopacic, Austria (062)*
- 17:00 – 17:30** **Coffee break**
- 17:30 – 17:45** **Session 2C (Chair: Fátima Poças)**  
*Polysaccharide-based active coatings for fresh and minimally processed fruits - Marina Ramos-Santonja, Spain (104)*
- 17:45 – 18:00** *Design concept of an enzymatic time-temperature integrator device for chromatic quality prediction of cherries - Pedro D. Gaspar, Portugal (125)*
- 18:00 – 18:15** *Development of essential oil incorporated polymer PLA/PBAT active film for food packaging applications - Kalpani Y. Perera, Ireland (101)*
- 18:15 – 18:30** *When nanochemistry meets food packaging: development of active materials based on polyoxymetalates and nanocelluloses - Filomena Silva, Spain (107)*

## Wednesday, September 29th

- 09:00 – 09:30** **Session 7 (Chair: Philip Scholten)**  
**Keynote 7: "One Bin To Rule Them All" Michael Shaver (University of Manchester, UK)**
- 09:30 – 09:45** *Recycling of polypropylene by supercritical CO<sub>2</sub> for extraction of contaminants from beverage cups - Srishti Singh, Portugal (072)*
- 09:45 – 10:00** *Deinking efficiency of industrial waste and invasive plant papers for paper bags - Igor Karlovič, Slovenia*
- 10:00 – 10:15** **Session 1B (Chair: Frédéric Debeaufort)**  
*Impact of polylactic acid packages on microbiological spoilage of fresh produce: A case study with cherry tomatoes – Salvatore D'Aquino, Italy (121)*
- 10:15 – 10:30** *Effect of humidity on ethylene removal kinetics of various scavengers in active packaging - Spoorthy Shenoy, Germany (117)*
- 10:30 – 10:45** *Advances to save the packaging plastic film in Grapefruits - Rafael Torregrosa-Coque, Spain (056)*
- 10:45 – 11:00** *Zein based antimicrobial edible coating for 'granny smith' apple quality - Zinash A. Belay, South Africa (060)*
- 11:00 – 11:30** **Coffee break**
- 11:30 – 11:45** **Session 3C (Chair: Ilke Unalan)**  
*Biopolymer-based electrically conductive biocomposite films for food packaging applications - Ana Barra, Portugal (092)*
- 11:45 – 12:00** *Utilization of chestnut shell lignin in alginate films - Ece Soğut, Turkey (064)*
- 12:00 – 12:15** *High solids, solvent free modification of engineered poly-saccharides for food packaging applications - Athanasios D. Porfyrís, Greece (109)*
- 12:15 – 12:30** *Bio-based platelet-shaped biochars as reinforcements in biopolymers for food packaging applications – Jon Trifol, Finland (079)*



# FIRST CIRCUL-A-BILITY CONFERENCE

Re-Thinking Packaging for *Circular* and *Sustainable* Food Supply Chains of the *Future*

26-29 September 2021

*On-line*



European  
Commission

Horizon 2020  
European Union Funding  
for Research & Innovation

- 12:30 – 13:30**     **Industry forum (Chair: Milena Corredig, Aarhus University)**  
**Contributors:**  
**Thomas Bak Thellesen, Faerch A/S, Denmark**  
**Tim Van Caelenberg, Puratos, Belgium**
- 13:30 – 14:30**     **Lunch break**
- 14:30 – 15:00**     **Poster session**
- 15:00 – 15:30**     **Session 6 (Chair: Marit Kvalvåg Pettersen)**  
**Keynote 6: "The most sustainable packaging: how to define your best individual solution" Peter Désilets (Pacoon GmbH, Germany)**
- 15:30 – 15:45     *Assessing the environmental sustainability of packaging on seafood supply chains: A critical review - Paula Quinterio, Portugal (115)*
- 15:45 – 16:00     *Food waste and eco-design: synergy between food and packaging LCA – Andrea Casson, Italy (076)*
- 16:00 – 16:30**     **Final Remarks & Conference conclusions (Milena Corredig & Giancarlo Colelli)**