

INTERNATIONAL
CONFERENCE
ON FERMENTED
FOODS



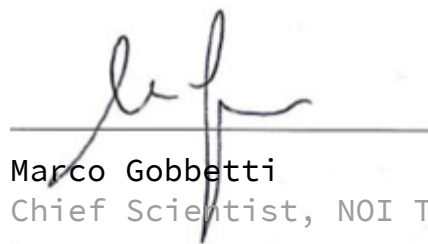
27-30TH
OF OCTOBER
2025

BOOK OF
ABSTRACTS

● The 1st International Conference on Fermented Foods 2025 (ICFF 2025) is a unique worldwide opportunity that brings together leading experts, researchers, and industry professionals from all continents and many countries to delve into the latest advancements and innovations and future exploitation of the potential. Fermented foods, cornerstones of human nutrition for millennia, have witnessed a great resurgence of interest due to their profound impact on human health, food security and safety, nutrition, industrial business, and sustainability. Because of this importance, fermented foods still face evolving challenges, such as how to advance tradition into future foods with different perspectives; how to steer the processes and guide the microbiomes; how to develop innovative biotechnologies to impact human health, the global food safety, and security and precision; and how to exploit the potential for dignifying food waste and reducing food loss and create the next generation of sustainable foods, also responding to the need of using non-conventional protein sources. Sharing knowledge and best practices globally is vital for accelerating this transformative transition.

This dedicated conference on fermented foods is essential to address these challenges and capitalise on the growing opportunities. By bringing together researchers, industry professionals, and policymakers, we can foster collaboration, advance scientific knowledge, and drive innovation in the production and consumption of fermented foods. We are committed to fostering a vibrant exchange of ideas and knowledge sharing among attendees from diverse backgrounds. Through keynote presentations, oral and poster sessions, and interactive workshops, we aim to create a stimulating environment for sharing knowledge, establishing synergistic collaboration, and supporting networking.

ICFF will become a recurring event held every three years, with its permanent locations at NOI Techpark, aiming to be the unique reference for researchers and professionals in this sector. Because of the great relevance of fermented foods in human tradition, society, well-being and economy, ICFF will be the recurrent meeting where scientific achievements will be presented and discussed, and results transferred to industry.



Marco Gobetti
Chief Scientist, NOI Techpark

● Dear participants,

Fermentation is one of humanity's oldest biotechnologies. For millennia, it has enabled us to preserve food, nourish communities, and create flavours that define cultures. Across the world – and especially here in South Tyrol – traditional dishes are rich with fermented ingredients, from cheeses and breads to cured meats and fermented vegetables. These foods are not only a testament to our heritage, but also to the ingenuity of generations who harnessed natural processes to ensure sustenance and safety.

Today, fermentation stands at the threshold of new opportunities. Thanks to advances in biotechnology, we can now understand and control fermentation processes with unprecedented precision. This opens the door to foods that are healthier, tastier, longer lasting, and more sustainable. By valorising by-products and optimising microbial activity, we are able to create products that meet the demands of modern consumers while respecting the environment.

Bozen/Bolzano has become renowned for its expertise in food fermentation. Our region's research centres and companies are at the forefront of innovation, blending tradition with cutting-edge science. It is therefore a great honour for us to host the very first ICFF Conference here in Bozen / Bolzano. With this new initiative, we are bringing together the world's leading experts in the field of fermented foods to share knowledge, spark new ideas, and build lasting collaborations in our region.

What awaits you at ICFF? Inspiring lectures from leading scientists and practitioners, engaging discussions on the future of fermented foods, and the chance to discover new approaches and solutions. The conference is not only a forum for exchanging expertise, but also a unique opportunity for networking – whether during the sessions, in informal conversations, or on our joint excursion, where you can experience South Tyrol's landscapes.

We hope you enjoy your time in South Tyrol, find inspiration in the diversity of perspectives, and leave with new connections and ideas that will shape the future of fermented foods.

With best wishes for a successful and memorable conference,



Philipp
Achammer
Provincial Minister
responsible for NOI



Helga
Thaler Ausserhofer
NOI President

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NOI Techpark

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Free University of Bozen-Bolzano, Micro4Food, ICOFF

Driving Food Innovation



Through Fermentation Expertise

At Puratos, we are a global **supplier of food ingredients and services**, driven by a **century of research and innovation in fermentation**. Our R&D teams work hand-in-hand with the scientific community and industry partners to deepen the understanding of microbial ecosystems and translate this knowledge into practical, scalable **solutions for bakery, patisserie and chocolate industry**.



Discover more at
www.puratos.com

The magic of Italian pastry art.



NATURAL LEAVENING IS BAULI'S KEY PROCESSING TECHNOLOGY, ONE THAT HAS ENABLED IT TO BECOME A MARKET LEADER.

For more than a hundred years, Bauli has been creating recipes with an extraordinary taste thanks to what has always remained unchanged: the touch of Futura Mother Yeast. Natural leavening originates in a core of fermented dough to which water and flour are gradually added. This process, introduced by the Group's founder Ruggero Bauli, has always been carried out in the same meticulous way and at the same constant pace, taking up to 40 hours. It is a process that requires skill and attention but, above all, guarantees a surprisingly softness and long life to the product.



HIGH-QUALITY
SOURDOUGH
PRODUCTS



RELEVANT
TECHNOLOGIES
FOR FOOD

it's all about
**FER
MEN
TATION**



INNOVATIVE
RAW-MATERIALS



WIDE
FLAVOUR-RANGE

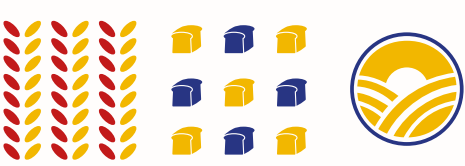
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novonosis

The world of food
and beverages
**made better
with biology**

Culinary traditions around the world have been shaped by the power of biology in the form of cultures and enzymes. Now it's time to use that power, harnessed and amplified in biosolutions, to make the world of food and beverages even better.





파란 라벨 : PARAN LABEL



멀티그레인 호밀 빵

통곡물 감바뉴

크랜베리 호밀 감바뉴

졸깃담백 쿡스틱

건강빵의 새로운 기준

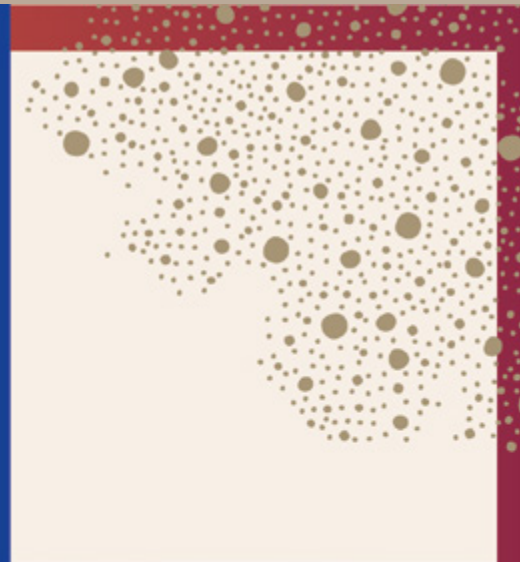
Working
together
to better nourish
and protect
the planet.

Every day at Lesaffre, a global player in fermentation, we explore and reveal the infinite potential of yeast and microorganisms.

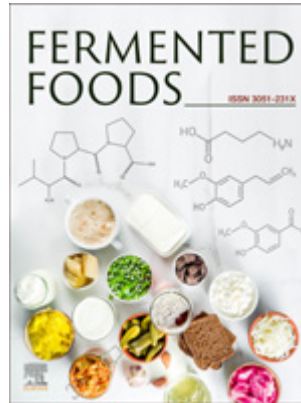
11,000
Employees

100
Nationalities

Present
in **50**
countries



Silver



Bronze



ORAL PRESENTATIONS

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Real-time, non-invasive volatilome profiling by direct injection mass spectrometry: an effective green tool to speed up fermentation research

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● Fermented foods are diverse and hold significant economic, social, and environmental value. To support R&D in this field, low-cost, time-efficient, and green analytical tools are needed. Volatile organic compounds (VOCs), produced during fermentation, reflect microbial activity and influence sensory properties. Real-time VOC monitoring during fermentation provides insights into (i) the ongoing bioprocess, (ii) product quality and safety, and (iii) flavour development. Direct Injection Mass Spectrometry (DIMS) techniques are green analytical approaches that enable direct, high-sensitivity, real-time measurement of VOCs without requiring extensive sample preparation, extraction, or chromatographic separation. In recent years, DIMS has also been successfully applied to study bioprocesses—especially fermentation—monitoring the activity of diverse microorganisms, including complex microbiomes. Here, we report integrated case studies on DIMS applications for the evaluation of VOCs in fermented products, foods, and beverages, offering a comprehensive overview of the analytical strategy's potential to support R&D in the food and beverage industry. Examples include dairy (e.g., kefir, yoghurt), cereal-based (e.g., sourdough), and complex beverage fermentations (e.g., wine, beer, kombucha), demonstrating the versatility of DIMS in enhancing process understanding and product innovation.

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