

# SAVE THE DATE!

## 17 NOV 2022



## 1<sup>st</sup> International Congress on Food, Nutrition & Public Health Towards a sustainable future

Instituto Nacional de Saúde Doutor Ricardo Jorge  
17<sup>th</sup> November 2022 | Lisbon | Portugal



In recent years, scientific evidence continues to show us that there is a strong relationship between diet, lifestyle, and the early development of serious public health problems, which lead to a decrease in quality of life and premature mortality of the population.

The ICFNH 2022 will address the following main topics:

- Sustainable food production and consumption
- Sustainable diets and human nutrition
- Impact of sustainable food and nutrition in Public Health

Ensuring that healthy eating translates into sustainable food with benefits for public health requires everyone's collaboration.

We look forward to welcoming you in November 2022 in the lovely city of Lisbon!

Please register at: <https://forms.gle/K3j6n94vxSazaF998>

Please submit your abstract at: <https://forms.gle/V4ApSo1fLx47eZZq5>

Important dates		Registration	30/09/2022	31/10/2022
09/06/2022	Registration opening	Regular <sup>a)</sup>	40 eur	50 eur
26/08/2022	Abstract submission – oral presentations	Student <sup>a)</sup>	20 eur	30 eur
14/09/2022	Abstract submission – poster presentations	Online <sup>b)</sup>	10 eur	

Conference Registration includes:

- Access to all sessions; Conference kit and abstract proceedings; Coffee breaks; Certificate of Participation/Recognition; Presentation of 2 research works.
- Access to all sessions; Abstract proceedings; Certificate of Participation/Recognition; Presentation of 1 research work (poster).

# Food preservative extracts from pumpkin by-products

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Pumpkin is a vegetable widely consumed around the world, popularly known for its nutritional and pharmacological properties. Some reports in the literature reveal the rich profile of nutrients and bioactive compounds of pumpkin varieties [1,2]. However, the seeds, peels, and fibers resulting from pumpkin processing are still poorly explored by food industry. Considering the alarming scenario of losses and waste during all the food supply chain worldwide [3] and seeking to promote a more sustainable food system, the present study purposed to investigate the by-products of different varieties of pumpkin as a source of extracts with preservative capacity for food application. For that purpose, hydroethanolic extracts from the varieties “Butternut squash”, “Common pumpkin”, and “Kabocha squash” from Portugal, and “Butternut squash”, “Common pumpkin”, and “Musquée de provence” from Algeria, were evaluated in terms of their bioactivities, more specifically the antioxidant, antimicrobial, and cytotoxic capacities. All the samples presented great antioxidant capacity through two based-cell assays, namely the lipid peroxidation inhibition capacity (TBARS) and the anti-hemolytic activity (OxHLIA). Interestingly, the seeds of the common pumpkin from Algeria did not present anti-hemolytic properties, despite showing the strongest lipid peroxidation inhibition capacity. In fact, the seeds stood out for all the pumpkin varieties in the TBARS assay, while in the OxHLIA assay, the results were quite similar between the type of bioresidues and between the varieties. Moreover, the samples from Portugal showed greater antioxidant capacity than the Algerian ones. Regarding cytotoxicity, the effect of inhibiting non-tumor cell growth was not observed, even at the highest tested concentration of 400 µg/mL. This first validation is of great importance to prevent food safety issues. These preliminary results are the basis for future studies aiming at the valorization of these bioresidues from food industry as a great source of preservative compounds toward the replacement of synthetic additives with natural alternatives allied to health benefits, as also the promotion of a circular economy.

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