

# BOOK OF ABSTRACTS



Organização



Apoio



# YOUNG RESEARCHERS MEETING



U. PORTO



## TÍTULO | *TITLE*

Livro de Resumos do 17.º Encontro de Investigação Jovem da U.Porto / *Book of Abstracts  
Young Researchers Meeting of U.Porto*

Universidade do Porto

Vice-Reitor para a investigação e Inovação

Professor Doutor Pedro Rodrigues

[ijup@reit.up.pt](mailto:ijup@reit.up.pt)

ISBN

978-989-746-378-5

Design

Serviço de Comunicação e Imagem da U.Porto

## 22022 | Histamine Poisoning, the toxin that escapes through our nose

António Magalhães<sup>1</sup>, Ana Pacheco<sup>1</sup>, Marco Cosme<sup>1</sup>, Rúben Silva<sup>1</sup>, Patrícia Antunes<sup>1,2,3</sup>

Faculty of Nutrition and Food Sciences, Porto University, Porto, Portugal<sup>1</sup>; UCIBIO-Applied Molecular Biosciences Unit, Laboratory of Microbiology, Department of Biological Sciences, Faculty of Pharmacy, University of Porto. Porto, Portugal<sup>2</sup>; Associate Laboratory i4HB - Institute for Health and Bioeconomy. Faculty of Pharmacy. University of Porto. Porto, Portugal<sup>3</sup>

---

**Background & Aim:** Histamine poisoning (HP) occurs after consuming certain fish species (e.g., tuna/mackerel/sardine/anchovy) improperly handled or stored due to bacterial spoilage with histidine decarboxylase producers. Despite being preventable with proper fish care, European Food Safety Authority (EFSA) reports HP as the second most common hazard in fish products. This study assesses the knowledge and practices of fishermen, fish sellers and consumers in Spain (SP) and Portugal (PT) and aims to understand why SP has the second-highest reported cases of HP in Europe. **Methods:** An online survey (MyForms) involved 99 PT and 21 SP consumers, focusing on exploring their understanding of HP and related practices. Face-to-face interviews with 11 fish professionals (3 fish sellers from Lota Matosinhos/PT; 4 fish sellers from Lota Almeria/SP; 2 fishermen from PT and 2 fishermen from SP) were conducted to characterize sales and storage practices. Excel was used for data analysis (proportions and means). **Results:** 71% of surveyed consumers in PT (70/99) and SP (15/21) were unfamiliar with HP. One SP consumer reported HP symptoms and was hospitalized, while 5 PT consumers had symptoms, with only one requiring hospitalization. Fish professionals in PT (4/5) and SP (4/6) were also unfamiliar with HP. In both countries, all fish sellers reported adhering to safety practices like daily ice reloads and cleaning. Notably, PT fish sellers demonstrated superior practices, storing fish for a maximum of 2 days (3/3 surveyed), while 3 out of 4 fish sellers in Spain admitted storing fish for 3-4 days. This may contribute to higher reported HP cases/outbreaks in SP if widespread across the country. **Conclusions:** This academic study provides valuable insights into fish storing and selling conditions despite its modest scale. Increasing awareness among the general population about food safety from an "Ocean-to-Fork" perspective appears to be one effective approach to prevent microbial hazards related to fish products and HP.

**Keywords:** Histamine Poisoning, Scombridae, Food Hygiene, One Health, Fish Consumption.