

# BOOK OF ABSTRACTS

**YOUNG  
RESEARCHERS  
MEETING**



**IJUP**  
4.5.6 MAIO 2022

**ONLINE  
REITORIA  
DA U.PORTO**

**15.ª EDIÇÃO**

**U. PORTO**

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**U.PORTO**

 **Santander**  
Universidades

## TÍTULO | *TITLE*

Livro de Resumos do 15.º Encontro de Investigação Jovem da U.Porto

### Universidade do Porto

Vice-reitor para a investigação, inovação e internacionalização

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### ISBN

978-989-746-329-7

### Design

Serviço de Comunicação e Imagem da U.Porto

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# PROGRAMA PROGRAM



**ONLINE EVENT LINK (CLICK HERE)**

**RECTORATE OF THE UNIVERSITY OF PORTO**

## MAY, 4<sup>TH</sup>

## MAY, 5<sup>TH</sup>

## MAY, 6<sup>TH</sup>

08:00 – 18:00

### PARALLEL ORAL SESSIONS I

- A1 – Mathematics
- A2 – Architecture I
- A3 – Chemistry I
- A4 – Environment I
- A5 – AgroFood I
- A6 – Health Sciences I


### PARALLEL ORAL SESSIONS VI

- A1 – Biological Sciences IV
- A2 – Engineering I
- A3 – Physics II
- A4 – Language & Communication 
- A5 – Health Sciences VI
- A6 – Psychology & Sciences of Education I

09:00 – 10:30

Break

### PARALLEL ORAL SESSIONS II

- A1 – Health Sciences II
- A2 – Architecture II
- A3 – AgroFood II
- A4 – Environment II 
- A5 – Physics I

### PARALLEL ORAL SESSIONS VII

- A1 – Biological Sciences V
- A2 – Engineering II
- A3 – Chemistry II
- A4 – Geo-Politics I
- A5 – Health Sciences VII
- A6 – Psychology & Sciences of Education II

10:40 – 12:00

12:00 – 12:20

Break

### PARALLEL ORAL SESSIONS III

- A1 – Economics & Management
- A2 – Biological Sciences I
- A3 – Architecture III
- A4 – Chemistry III
- A5 – Sport Sciences I
- A6 – Health Sciences III

### PARALLEL ORAL SESSIONS VIII


- A1 – Biological Sciences VI
- A2 – Engineering III
- A3 – Geo-Politics II
- A4 – Health Sciences VIII
- A5 – Health Sciences IX
- A6 – Psychology & Sciences of Education III

12:20 – 13:40

13:40 – 14:30

Lunch Break

### PARALLEL ORAL SESSIONS IV

- A1 – Arts I
- A2 – Biological Sciences II
- A3 – Sport Sciences II
- A4 – Chemistry IV
- A5 – Architecture IV
- A6 – Health Sciences IV 

### PARALLEL ORAL SESSIONS IX

- A1 – Biological Sciences VII
- A2 – Engineering IV
- A3 – Law and Criminology I
- A4 – Health Sciences X
- A5 – Heritage & History I
- A6 – Psychology & Sciences of Education IV 

14:30 – 16:00

16:00 – 16:10

Break

### PARALLEL ORAL SESSIONS V

- A1 – Astronomy & Physics
- A2 – Arts II
- A3 – Sport Sciences III
- A4 – Biological Sciences III
- A5 – Health Sciences V

### PARALLEL ORAL SESSIONS X

- A1 – Law and Criminology II
- A2 – Health Sciences XI
- A3 – Psychology & Sciences of Education V
- A4 – Heritage & History II

16:10 – 17:40

08:30 – 09:00

*Opening of the secretariat for all participants*

09:00 – 10:00

### POSTER SESSION I

10 min

Coffee-break

10:10 – 11:00

### POSTER SESSION I

11:00 – 11:15

Break

11:15 – 12:00

### POSTER SESSION II

10 min

Coffee-break

12:10 – 13:15

### POSTER SESSION II

13:15 – 15:00

Lunch Break

15:00 – 18:00

### CLOSING SESSION AND CELEBRATION OF THE 15-YEARS ANNIVERSARY OF IJUP



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## Salt content in meals served in university canteens - results of an intervention to reduce and control the added salt

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### Abstract

**Background:** The reduction of salt consumption by populations has been recognized as a priority by the World Health Organization and governments around the world to reduce the prevalence of non-communicable diseases. Previous studies demonstrated that the salt content of foods available in the market and restaurants is high and varies greatly, making it difficult for consumers to comply with dietary recommendations. Indeed, most food handlers of canteens recognize that they use a random amount of cooking salt based on personal flavour.

**Objective:** Analyse the amount of total salt and added salt present in meals served in university canteens and implement an intervention to control and reduce up to 30% the added salt levels in meals using an innovative dosage equipment – SALT CONTROL C, and evaluate the impact on consumers satisfaction.

**Methods:** Baseline period - the salt content of meals (soup, meat/fish/vegetarian main dishes) served in two university canteens was analysed on five random days through atomic emission spectrophotometry. Intervention period - the canteens were randomized into a control canteen and an intervention canteen. The Salt Control C device was used in the intervention canteen to gradually reduce added salt by 0.5%/day over eight weeks. Throughout the study, the consumers' acceptance was evaluated by an online satisfaction questionnaire and food waste was evaluated by weighing the leftovers on consumers' plates. The content of total salt in meals was compared with the WHO recommendations of less than 5g/day.

**Results:** The average total salt content per meal (soup and main dish) of both canteens was  $5.9 \pm 1.9$  g/portion, which corresponds to 118% of the WHO maximum daily intake recommendations. The added salt corresponded between 84% to 94% of the total salt analysed in the dishes. Through the use of the Salt Control C device in the intervention canteen, there was a reduction of more than 30% of added salt. On the last intervention week, a complete meal provided a total salt value of  $3.9 \pm 1.1$  g/portion, corresponding to 77% of the recommended daily salt intake. There was no decrease in consumer satisfaction, and no significant differences were found in food waste.

**Conclusions:** This work showed a great variation in the values of added salt within and between canteens, revealing the inexistence of a standard of cooking salt addition. Also, consumers of university canteens can easily exceed the WHO maximum daily salt intake recommendations. Salt Control C device may be a good and practical tool to help food handlers control and approximate the added amount of cooking salt to values that respect the WHO recommendations.