

# **Encontro Investigação Jovem da Universidade do Porto**

**BOOK OF  
ABSTRACTS**

**06 - 07 - 08  
Maio 2026**

**19.<sup>a</sup> Edição**



ORGANIZAÇÃO



APOIO



**Encontro  
Investigação  
Jovem da  
Universidade  
do Porto**

**YOUNG  
RESEARCHERS  
MEETING**

**06 - 07 - 08  
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ORGANIZAÇÃO



APOIO



TÍTULO | *TITLE*

Livro de Resumos do 19.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

978-989-746-462-1

Design

Serviço de Comunicação e Imagem da U.Porto

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# Encontro Investigação Jovem da Universidade do Porto



PROGRAM

**06 - 07 - 08  
Maio 2026**

**19.<sup>a</sup> EDIÇÃO**

**May, 6<sup>th</sup>**

**May, 7<sup>th</sup>**

**May, 8<sup>th</sup>**

|               |                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                 |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8H            | Opening of the secretariat for all participants                                                                                                                                                                                                                              |                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                 |
| 8H30 > 10H30  | <p>PARALLEL ORAL SESSIONS I</p> <p>A1 – Criminology and Law I<br/>A2 – Health Sciences I<br/>A3 – Sport Sciences I<br/>A4 – Architecture I<br/>A5 – Engineering I<br/>A6 – Biological Sciences I</p>                                                                         | <p>PARALLEL ORAL SESSIONS IV</p> <p>A1 – AgroFood I<br/>A2 – Health Sciences IV<br/>A3 – Sport Sciences III<br/>A4 – Astronomy<br/>A5 – Chemistry I<br/>A6 – Biological Sciences IV</p>                                        | <p>PARALLEL ORAL SESSIONS VII</p> <p>A1 – Arts I<br/>A2 – Health Sciences VII<br/>A3 – HSS IV – History, Archeology, Cultural Studies and Communication Sciences<br/>A4 – Physics I<br/>A5 – Chemistry III<br/>A6 – Biological Sciences VII</p> |
| 10H30 > 11H   | Coffee Break                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                 |
| 11H > 13H     | <p>PARALLEL ORAL SESSIONS II</p> <p>A1 – Criminology and Law II<br/>A2 – Health Sciences II<br/>A3 – Sport Sciences II<br/>A4 – Architecture II<br/>A5 – Engineering II<br/>A6 – Biological Sciences II</p>                                                                  | <p>PARALLEL ORAL SESSIONS V</p> <p>A1 – AgroFood II<br/>A2 – Health Sciences V<br/>A3 – Sport Sciences IV<br/>A4 – Maths &amp; Physics<br/>A5 – Engineering IV<br/>A6 – Biological Sciences V</p>                              | <p>PARALLEL ORAL SESSIONS VIII</p> <p>A1 – Environment II<br/>A2 – Health Sciences VIII<br/>A3 – Psychology &amp; Education Sciences III<br/>A4 – Physics II<br/>A5 – Chemistry IV<br/>A6 – Economics &amp; Management</p>                      |
| 13H > 14H30   | Lunch Break                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                 |
| 14H30 > 16H   | <p>POSTER SESSION I</p> <p>Architecture<br/>Biological Sciences I<br/>Criminology and Law<br/>Engineering I<br/>Health Sciences I<br/>Sport Sciences I</p>                                                                                                                   | <p>POSTER SESSION II</p> <p>AgroFood<br/>Biological Sciences II<br/>Chemistry<br/>Engineering II<br/>Health Sciences II<br/>Sport Sciences II</p>                                                                              | <p>POSTER SESSION III</p> <p>Arts<br/>Astronomy, Physics &amp; Maths<br/>Economics &amp; Management<br/>Environment &amp; Geology<br/>Health Sciences III<br/>History &amp; Sociology<br/>Psychology &amp; Education Sciences</p>               |
| 16H > 16H30   | Coffee Break                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                 |
| 16H30 > 18H30 | <p>PARALLEL ORAL SESSIONS III</p> <p>A1 – HSS I – Political Sciences<br/>A2 – Health Sciences III<br/>A3 – Psychology &amp; Education Sciences I<br/>A4 – HSS II – Political Sciences, Sociology and Geography<br/>A5 – Engineering III<br/>A6 – Biological Sciences III</p> | <p>PARALLEL ORAL SESSIONS VI</p> <p>A1 – Environment I<br/>A2 – Health Sciences VI<br/>A3 – Psychology &amp; Education Sciences II<br/>A4 – HSS III – History of Art<br/>A5 – Chemistry II<br/>A6 – Biological Sciences VI</p> | <p>PARALLEL ORAL SESSIONS IX</p> <p>A1 – Arts II<br/>A2 – Health Sciences IX<br/>A3 – Psychology &amp; Education Sciences IV<br/>A4 – HSS V – History<br/>A5 – HSS VI – Literature and Philosophy<br/>A6 – Health Sciences X</p>                |

## 24903 | Genomic Diversity of *Escherichia coli* and *Klebsiella pneumoniae* Species Complex in the Gut of Community-based Portuguese Adults

Lúcia Nova<sup>1,2,3</sup>; Joana Mourão<sup>4</sup>; Cátia Matos<sup>1,2</sup>; Beatriz Gonzalez<sup>1,2</sup>; Luísa Peixe<sup>2</sup>; Ana R. Freitas<sup>2,5</sup>; Carla Novais<sup>2</sup>; Patrícia Antunes<sup>1,2</sup>

<sup>1</sup>Faculty of Nutrition and Food Sciences, University of Porto, Rua do Campo Alegre 823, 4150-180 Porto, Portugal;

<sup>2</sup>UCIBIO/i4HB, Laboratory of Microbiology, Faculty of Pharmacy, University of Porto, Porto, Portugal; <sup>3</sup>Faculty of Medicine, University of Porto, Alameda Prof. Hernâni Monteiro, 4200-319, Porto, Portugal; <sup>4</sup>Technical University of Denmark, National Food Institute, Kongens Lyngby – Copenhagen (Denmark); <sup>5</sup>UCIBIO/i4HB, University Institute of Health Sciences (1H-TOXRUN, IUCS-CESPU), Gandra, Portugal

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**Background & Aim:** *Escherichia coli* (Ec) and *Klebsiella pneumoniae* (Kp) species complex (KpSC) are human gut commensals/pathobionts that may include pathogenic and antimicrobial-resistant (AMR) strains [1,2]. However, their genomic diversity and links with clinical and food-chain isolates remain poorly understood [3]. We characterized the genomic diversity of gut-colonizing Ec and KpSC in Portuguese adults and assess their relatedness to strains from other sources. **Methods:** Fourteen Ec and 22 KpSC isolates from 27 colonized adults (41%women/18–73 years/2022) underwent Illumina WGS. Assemblies (SPAdes) were analysed for species/serotype/KL-type, MLST, AMR/virulence genes and plasmids (CGE, Enterobase, Pathogenwatch, MOB-RECON). Comparative genomics used cgMLST clustering (Ec-HierCC; KpSC-≤10 alleles). **Results:** Ec (12 STs) included globally disseminated ST69, ST95 and ST131, while KpSC (3 species; 19 STs) included ST15-KL19 and ST35-KL22. ST69 and ST131 clustered with clinical and food-chain isolates (ST69:HC20,≤20 alleles; ST131:HC50≤50 alleles). Kp ST15-KL19 and ST35-KL22 were related to Portuguese clinical and livestock strains and other lineages to human, animal and environmental sources. Six Ec carried plasmid-borne AMR genes (aminoglycosides/β-lactams/sulphonamides/tetracyclines/trimethoprim) and resistant mutations to ciprofloxacin (*gyrA/parC/parE*-n=6) and colistin (*basR*-n=1). Only 3 KpSC isolates carried AMR genes (aminoglycosides/β-lactams/tetracyclines), one also with *gyrA/parC* mutations. ExPEC (7/14), aEPEC (2/14) and STEC (1/14) pathotypes were detected. Kp ST35-KL22 carried yersiniabactin (*ybt9/ICEKp3*). Metal decreased susceptibility genes (*ars/sil/pco*) were frequent (Ec-64%; KpSC-68%) and mainly plasmid-associated in KpSC. **Conclusions:** Portuguese adults harbor diverse and clinically relevant Ec and KpSC lineages, including globally disseminated clones genetically related to clinical and food-chain strains, highlighting the importance of community-based One Health genomic surveillance.

**Keywords:** Enterobacterales, Whole-genome sequencing, Genomic diversity; One-health; Human gut.

**Acknowledgments:** This work is funded by national funds from FCT- Fundação para a Ciência e a Tecnologia under the projects UIDP/04378/2020, and UIDB/04378/2020 of the Research Unit in Applied Molecular Biosciences–UCIBIO, and project LA/P/0140/2020 from the Associated Laboratory i4HB.

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