

# LABORATÓRIO DE MICROBIOLOGIA



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## Microbiology, Immunology and Oncobiology:

Interdisciplinary approaches to control infectious diseases and cancer

# Abstract Book

## P-13. IMPLEMENTATION OF MICROMUNDO@UPORTO: A PEDAGOGICAL PROJECT OF SERVICE-LEARNING FOR EDUCATION IN MICROBIOLOGY AND ANTIMICROBIAL RESISTANCE AWARENESS

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**Background:** Small World Initiative (originally from USA) is a successful experimental educational project based on Service-Learning implemented in Spain since 2016/2017, which intends to contribute to solve the societal challenge of Antimicrobial Resistance (AMR) across clinical-food-environmental areas (“One Health”).

**Objectives:** To adapt and implement this project in Portugal with MicroMundo@UPorto designation, through two Curricular Units-UCs (Bacteriology-Pharmacy Faculty and Microbiology-Nutrition and Food Science Faculty) of Porto University and to estimate its impact in the improvement of university students’ academic performance, acquisition of social/soft skills and AMR awareness.

**Methods:** University-students, trained/guided by university professor/researcher, are responsible for the organization/teaching of 4 sessions (2h/each-4 weeks) to Basic/Secondary school-students, whose experimental challenge is the discovery of microorganisms producing new antibiotics while exploring microbial diversity of Portuguese soils. After MicroMundo@UPorto announcement, 45 university-students volunteered to participate in 8 teams (5-6 university-students+1-2 supervisors) and to be responsible for a class (20-25 school-students) from one of three Porto schools. After theoretical and laboratory classes, students are expected to work as a team and meet with their tutor for school’ sessions preparation (S1-S4). Post-survey-based evaluation of the project will be applied to university-students.

**Results/Conclusions:** School sessions (February-March/2019) involved: S1-project explanation+AMR+biodiversity and soil collection (total-n=80); S2-soil weighing+dilution+seeding; S3-colonies identification+selection (total-n=1600) for the antibiosis assays; S4-Results interpretation+discussion. Besides AMR awareness, we expect an improvement in university-students’ perception related to the two Microbiology-UCs effects on professional practice and an enrichment in autonomy, responsibility/commitment, planning, public communication, teamwork, improvisation and empathy, essential skills for better prepared future health professionals.