

# BOOK OF ABSTRACTS

8<sup>TH</sup> MEETING OF YOUNG RESEARCHERS  
OF UNIVERSITY OF PORTO



## “Operação Mãos Limpas” – a Community Intervention Project

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“Operação Mãos Limpas” was a community intervention project, developed by Didáxis V.S. Cosme in cooperation with FCNAUP (one food microbiology teacher and three students), between 2013 and 2015, funding by Ciência Viva - Programa Pais com a Ciência. The main goals were to promote hand hygiene habits and to improve the scientific knowledge in microbiology and food safety among students and school community. This project was developed due to perception of poor personal hygiene, including lack of students hand-washing at mealtime in the local canteen. In order to promote hand hygiene among school community, theoretical (for teachers, parents/caregivers and students) and practical sessions (for students) were designed and performed. To achieve success in this educational program, sessions design took into account several key points such as target audience (e.g. previous knowledge/skills), supporting material (e.g. appropriate to capture attention and to facilitate learning; containing clear, concise and simple messages) and presentation/discussion of recent examples about food safety failures and its health impact. To facilitate learning throughout sessions, simple concepts were previously defined, being the most relevant: “hands have microorganisms and are a major vehicle for spreading pathogens”; “cleaning hands appropriately is an important health protection measure”; “hands can contaminate food”; “foodborne diseases can be serious”, and “wash your hands properly and frequently”. In the theoretical sessions, important key concepts related to foodborne diseases were firstly introduced (e.g. definition, symptoms, associated costs, risk factors and transmission routes), including examples about large and severe outbreaks related to poor hand hygiene and appropriated educational videos and figures to highlight the importance of prevention practices (e.g. showing effective procedures to hand-washing). In the practical session, we included the same introductory contents, but the main focus was the experimental approach, where students learned how to collect hand samples and to apply several microbiological techniques. The students were organized in groups (2 students) and they had the opportunity to collect at least one hand sample and to perform poor-plate method using two different culture medium (*Plate Count Agar* and *COLI-ID*). A lack of knowledge related to health risks associated with poor hand hygiene and food-borne diseases in this school community was observed, but from our experience food safety key messages were well accepted and learned by all the targeted audience. In summary, community intervention projects about food safety and hygiene issues should largely be promoted among school communities (students, teachers and parents/caregivers) in order to improve knowledge and personal hygiene/safe-food handling behaviours.