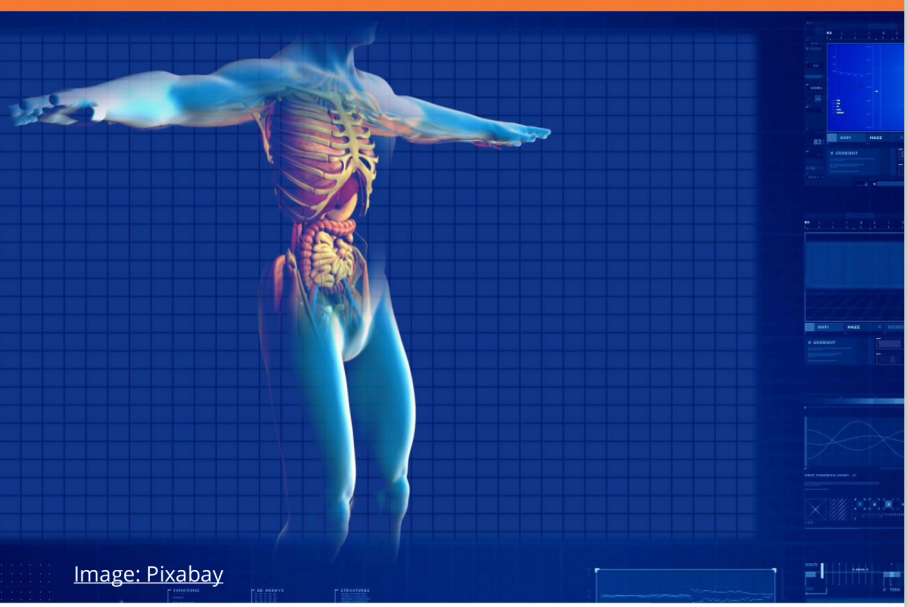

Image: Pixabay

## SHORT TERM MISSIONS

Short Term Missions (STMs) are small travel grants with the aim of:

- Sharing scientific expertise, methodologies, equipment and facilities to harmonise the existing approaches and methodologies within the large OHEJP European network
- Driving the research forward in a collaborative and non-duplicative fashion to strengthen both the scientific capacity within the OHEJP
- Contributing to future prevention, preparedness, detection and response of the EU to foodborne and other emerging threats across human-animal-environmental sectors.

# *Study of the interactions between STEC and human gut microbiota in the ARtificial COLon (ARCOL) model*


**Theme:** Skills Development Missions
**Home Institute:** Istituto Superiore di Sanità (ISS), Italy
**Mission Hosting Institute:** Université Clermont Auvergne, France
**Duration of mission:** 5 weeks

**“...The experience was very formative for my career. It involved the use of the innovative ARCOL system, which is not present in Italy, and only present in a few institutes world wide. I’m grateful to have visited this excellence centre and to acquire a skill in the use of such model and of a holistic approach...”**
***Paola Chiani, ISS***

Shiga toxin-producing E. coli (STEC) are zoonotic pathogens, causing severe afflictions in humans. Upon STEC infection, the host can present a wide range of symptoms including uncomplicated diarrhoea, haemorrhagic colitis and the life-threatening haemolytic uremic syndrome.

The aim of this mission was to investigate the interactions between STEC and human intestinal microbiota, during experimental infection using the ARtificial COLon (ARCOL) model, which simulates the human large intestine functionality. During the STM all the parameters to simulate the proper conditions for the ARCOL model of the intestine of subjects belonging to the considered age groups were determined and all the samples were collected for the following analyses.

The realisation of this project was possible thanks to the collaboration with colleagues from the Université Clermont Auvergne, in Clermont-Ferrand who developed the model, and hosted the mission.

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