BOOK OF ABSTRACTS

12TH MEETING
OF YOUNG RESEARCHERS
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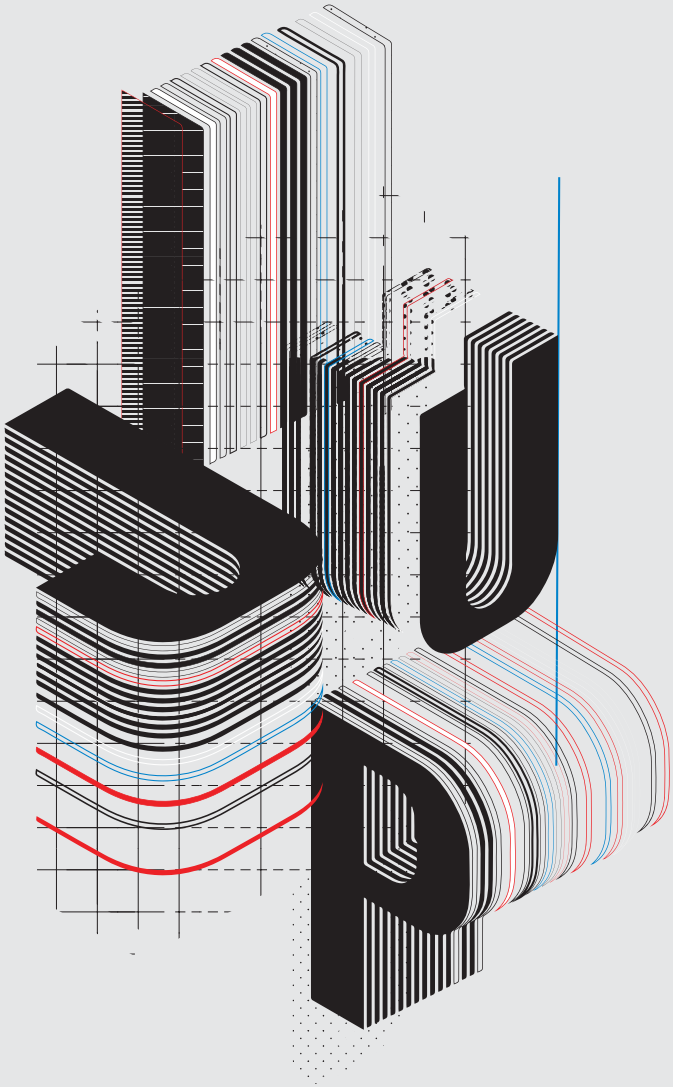

- ## 15209 | Non-typhoidal Salmonella serotypes adapted to diverse stresses in a poultry meat processing unit in Portugal

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Salmonella causes frequently foodborne infections mainly associated with eggs/poultry products. A decreasing trend in human salmonellosis, particularly of S. Enteritidis, has been observed in EU due to successful control programs at the avian production level. However, the effectiveness of control practices on the elimination of Salmonella, and particularly of EU targeted serotypes, in poultry has been scarcely explored. Here, we investigated the presence of Salmonella, and their clinically-relevant serotypes, among fresh chicken-meat samples at poultry processing level in Portugal. Pooled chicken-meat samples (n=53; each sample=25g of neck skin from 10 carcasses; 29 producers) were collected in 2018 (spring/summer). Samples were processed following ISO-6579-1:2017 cultural standard and a molecular approach (PCR-invA gene) applied directly in the pre-enrichment/enrichments broths. Search of EU targeted serotypes (Enteritidis/Typhimurium/4,5,12:i:-) and their antibiotic/metal resistance markers were performed by PCR. Ability to survive/grow at acidic pH (2-6.5) was evaluated by broth-microdilution. Salmonella was detected in two samples of fresh chicken-meat (4%) from different poultry-farms in both seasons, by cultural and molecular approaches. The isolates belonged to a non-H2S-producing serotype S. 4,5,12:i:- (n=6 isolates/spring sample), with the typical antibiotic/metal resistance genotypic features of clones currently circulating in Europe, or S. Enteritidis (n=3 isolates/summer sample). All isolates grew at minimal pH=4 and survived until pH=3.5. A low occurrence of Salmonella in chicken carcasses was observed, although with detection of two serotypes of public health significance with ability to grow under diverse stresses. Our results alert for the need to evaluate current biosafety measures to prevent the spread of these pathogens in the poultry production through the final consumer.

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