

acid, oxalic acid), amino acids (e.g., tyrosine, threonine), lipids (e.g., cholesterol), and carbohydrates (galactose). The individual exposure to B[a]P and Phe may induce the perturbation of phenylalanine, tyrosine, and tryptophan biosynthesis. On the other hand, the combined exposure to Phe and B[a]P may have an impact in aminoacyl-

tRNA biosynthesis, galactose metabolism, tricarboxylic acid (TCA) cycle, and steroid biosynthesis. **Conclusions:** These findings unveiled that the effects on intracellular metabolome of hepatocytes caused by the exposure to the binary mixtures of PAHs are different from those induced by the individual compounds.

**Keywords:** Polycyclic Aromatic Hydrocarbons (PAHs); untargeted metabolomics; mixture effects; environmental toxicology; risk assessment.

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## COMUNICAÇÃO ORAL 2

### Fortificação alimentar: a propósito de um caso clínico

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### Resumo

**Introduction:** Aging is a complex, irreversible and progressive process that involves morphological, functional, biochemical and psychosocial changes, which, although physiological, make the elderly more susceptible to changes in nutritional status. The prevalence of malnutrition in the elderly has been increasing [1]. This scenario is particularly a concern as this population group is experiencing exponential worldwide growth. Nutritional therapy for malnutrition in elders includes several Nutritional Support strategies, including Food Fortification, which, based on the "food-first" approach, seems to be well accepted, promoting increased energy and protein intake [2–4]. **Objective:** To describe a clinical case of malnutrition and anorexia in an elderly woman and a nutritional intervention based on Food Fortification. **Material and Methods:** Report of a clinical case of a 93-year-old woman, with severe

weight loss, dehydrated and malnourished, with relevant personal history: Meniere's syndrome, age-related macular degeneration, urinary incontinence, recurrent urinary tract infections and bipolar hemiarthroplasia of the hip for subcapital fracture of the femur (2017). Dependent on activities of daily living and did not consume the totality of her daily meals. **Results:** Despite the poor general condition, the elderly woman showed a very significant improvement in nutritional status, after being prescribed a food plan, using Food Fortification, without including oral nutritional supplements (ONS). Weight and other parameters were recovered. **Conclusions:** Food Fortification seems to be a well-tolerated and accepted strategy, with a lower cost than SNO, presenting a positive cost-benefit, as well as proving to be effective in increasing food and nutritional intake and promoting the psychosocial dimension of food.

**Keywords:** malnutrition; elderly; food fortification; anorexia; nutrition.

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[1] Leij-Halfwerk S, Verwijs MH, van Houdt S, Borkent JW, Guaitoli PR, Pelgrim T, Heymans MW, Power L, Visser M, Corish CA, de van der Schueren MAE. Prevalence of protein-energy malnutrition risk in European older adults in community, residential and hospital settings, according to 22 malnutrition screening tools validated for use in adults  $\geq 65$  years: A systematic review and meta-analysis. *Maturitas* [Internet]. 2019 Aug 1;126:80–9. Available from: <https://doi.org/10.1016/j.maturitas.2019.05.006>.

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## COMUNICAÇÃO ORAL 3

### Profiling of rat mRNA transcripts degradation for the postmortem interval estimation

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#### Resumo

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