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Study of bioactive fractions obtained from Cantabrian anchovy (*Engraulis encrasicolus*) viscera

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Chronic-degenerative diseases such as cancer are the leading causes of deaths worldwide and the costs associated to their treatment are among the highest within public health offices. On the other hand, consumers' awareness of the health risks associated to processed-food consumption has driven them to urge food industry to use more sustainable and safer food additives. The search for more efficient and potent biologically active molecules in nature is what these two issues have in common. The purpose of this research work is to search for biologically active compound in discarding material such as Cantabrian anchovy viscera and to study their potential for being used in either the biomedical area or food industry or both. Cantabrian anchovy viscera fractions obtained after solvents-serial fractionation was analyzed for antioxidant (DPPH and ABTS), antifungal (radial growth inhibition), anti-mutagenicity (Ames test) and antibacterial activity (dilutions method). Methanolic, hexanic, ethyl-acetate and butanolic as well as two interphase fractions were obtained. Methanolic, hexanic, and butanolic fractions showed high (2901-2975 mmolTrolox/L) antioxidant activity; therefore they were tested for their anti-mutagenic potential in the Ames test using *Salmonella typhimurium* TA98 and TA100 tester strains. Preliminary results suggest that biologically active compounds are present in anchovy viscera that can be isolated and characterized for a full study on their potential as chemo preventive / chemo protective agents as well as for their possible use as food preservers.

Biography

Armando Burgos Hernandez has completed his PhD from Louisiana State University. He is full-time Professor and has been Head of the Department of Research and Graduate Studies in Food Sciences at the Universidad de Sonora at Hermosillo, Sonora, México. He has published more than 30 papers in reputed journals and he is a member of the National System of Researchers of Mexico and currently he is a Visiting Professor at the Department of Agro-alimentary Technology at the Universidad Miguel Hernández de Elche at Orihuela, Spain.

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