In vitro culture of gilthead seabream *(Sparus aurata)* skin cells

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Teleost skin is a living non keratinised tissue. Its outermost layer, the epidermis, performs an important protective barrier against environmental changes, external aggressors and phathogen [1]. Fish epidermis is composed by several cell types which allow animals to survive in a harmful milleau; perhaps the most important type of these cells is the motile keratocyte. Keratocytes can cover fish skin wound surfaces with a new protective layer of cells within hours after wounding [2,3,4]. In addition to keratocytes, other cell types are present in fish epidermis acting as important contributors to the fish innate immune response [2]. Interest in fish skin has increased in last decade because of its extraordinary mucosal immunity its potent antimicrobial activity and its high tissue regenerative ability [5,6]. Therefore it is neccesary to study the *in vitro* behavior of skin cells to understand how them can carry out so many important functions. This work used the gilthead seabream (*Sparus aurata*) as a model due to its significant commercial value on the marine aquaculture. Our aim was to establish and evaluate the epidermal cell culture at different incubation times. Our results showed an active cell migration of high viable cell at the beginning of the explant culture. Those cells maintained their morphological characteristics and viability after 3 days in culture. This is useful to optimize the culture protocol of fish skin cells as a tool for developing future *in vitro* approaches.

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Acknowledgements

H.C. and D.C.F. wish to thank the Spanish Ministry of Economy and Competitiveness for both F.P.I. scholarships. The financial support of the Spanish Ministry of Economy and Competitiveness (grant numbers AGL2011-30381-C03-01 and AGL2014-51839-C5-1-R) and the *Fundación Séneca de la Región de Murcia* (grant no. *19883/GERM/15*, Grupo de Excelencia de la Región de Murcia, Spain) is also acknowledged.