

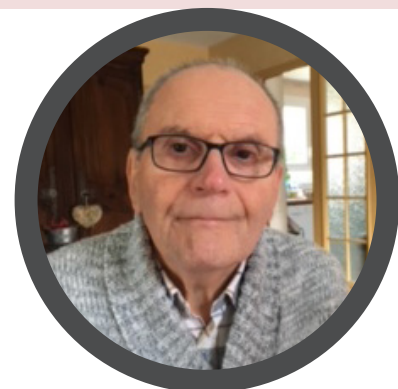
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SEA STAR IMMUNOLOGY: 50 YEARS OF BUSY RESEARCH ACTIVITIES

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The main point of the sea star immunology remains the discovery of the invertebrate primitive antibody (IPA) of the sea star, the Ig kappa gene, with 2 Ig sites which implies the sea star complement system. To be initiated, 9 component genes from C1 to C9 have been updated these last years and IRF2, IRF4, IRF8 genes which play a fundamental rôle in the sea star immune response, have been discovered, for the first time, in an invertebrate. Evidences of Fc receptor gene, Fab gene and Cr gene corroborate the presence of IPA. Mostly, IL2 is linked to T vertebrate lymphocytes. On the other hand, an IL2 activity was demonstrated in sea star (Echinodermata) but was not found in sea star genome. Recently after hard research, it was discovered that in the first sister of the sea star *Asterias rubens*: the ophiurid: *Ophiocomina nigra*. The aim of this paper is to present the IL2 sequence in the ophiurid we just studied as it is demonstrated in sea star (Echinodermata) but was not found in sea star genome.



Biography

Dr Michel Leclerc was born the 31th of January 1941 at Saint Benoit sur Loire (France) He obtained his Master in Biological Sciences at the University of Orléans. He possessed a "D.E.S in Biology" and then a "Doctorat ès Sciences" in 1977 in this last University. Later he collaborated to the Institut Pasteur of Paris as a co-researcher for five years and then directed the laboratory of Immunology of Invertebrates, in the University of Orléans. He has been the first to culture invertebrate cells *in vitro* and more particulaly sea star lymphocytes. In 1975 he spoke already in a paper at the Science Academy of France of Invertebrate antibody, in a world Where this last notion was "forbidden"! Again he is the first to immunize sea stars with various antigens. In the years 1980 he published a papet at Eur.J.Immunol with Francis Delmotte et al, about the isolation and purification of Antibody-like substances in the sea star *Asterias rubens*. Then the last period comes with the genomics: He discovered the sea star IGKappa gene (2014) with 2 Ig sites. It is the first time we can speak of IAP (Invertebrate Primitive Antibody). So the Fab gene, the Fc receptor gene, the Cr gene. Besides the sea star Innate response, he spoke of ADAPTATIVE IMMUNITY in an Invertebrate for the first time. With 170 international publications, he said: "What is wrong yesterday is true to-day".

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