

The IPA (Invertebrate Primitive Antibody) and COVID 19

Michel Leclerc

Immunology of Invertebrates, 556 Rue Isabelle Romée, Sandillon (France)

In the years 1980, we have discovered vaccination in Echinodermata by immunizations with various antigens (with or without Freund' adjuvant). Later, with coworkers, we discovered the sea star Ig kappa gene. Its sequence was composed of about 435 nucleotides. The work was published at Meta-Gene.

We have studied the effects of sea star Ig kappa gene on cancerous human cells (Hela cells, Melanoma cells). Mainly the sea star Ig kappa gene, incorporated in a plasmid (CMV plasmid), exerts a high spontaneous cytotoxicity against HeLa cells.

However, it does not constitute, in fact, in the present time, a good therapy for cancer diseases.

On the other hand, we consider that the sea star Ig kappa gene and the IPA (Invertebrate primitive antibody) are "PRIMITIVE" A primitive gene, a primitive protein.

Hence, as "Young" elements, they may play a role, in immunotherapy of various diseases.

It is why; we envisage using them in coronavirus disease and particularly COVID 19 disease. We think that this primitive antibody may add a positive effect to immunodeficiency pathology which was provoked by COVID invading.

As researcher, I look for coworkers who can help me in this work.

Today, we envisage immunology with a new light: We have a sea star Ig kappa gene, An Invertebrate Primitive Antibody:

The sea star Ig kappa gene is very high in the phylogeny of the immune system of animals.

It shows already two Ig sites! The forms of Ig kappa genes are all found in vertebrates, they share many details with the sea star, including the presence of Ig sites.

The preservation of the Ig kappa gene in treated and not treated sea stars is an excellent opportunity for further experiment. It is important to notice that the Ig kappa chain V-III region HAH of *Tupaia chinensis* is situated (in the assumptions behind the theory of evolution) between the Ig kappa chain precursor V-II region (RPMI/133) and Ig kappa chain precursor V-IV region/121.

How to cite this article: Leclerc M. The IPA (Invertebrate Primitive Antibody) and COVID 19. *Clin Res Immunol* 2020;3(1):1.

Address for correspondence:

Michel Leclerc, Immunology of Invertebrates, 556 Rue Isabelle Romée 45640, Sandillon (France).

© 2020 The Author(s). This open access article is distributed under a Creative Commons Attribution (CC-BY) 4.0 license.