

Review of: "Christ Bearing the Cross: the original antigenic sin of the immune system and its potential role in emerging diseases"

Heinz Kohler¹

¹ University of Kentucky

Potential competing interests: No potential competing interests to declare.

I have two suggestions for the authors:

The Biological IMPRINTING in the B-cell immunity would be better explained by referring to the work of Konrad Lorenz who described the behavior imprinting in greylag geese.

The term of immune antigen sin is in some way misleading. Imprinting the antigen response in the B-cell repertoire can have two effects.

Immune memory for a quick response against later infections is beneficial and also the principle in vaccination.

Response to cross-reacting antigens can lead to a misfiring response that is not protecting and pathogen neutralizing. This is not a "sin" reaction but a failure in the regulation of B-cell immunity. Thus the term "DECEPTIVE IMPRINTING" proposed earlier seems more appropriate to describe the so-called SIN reaction.

[1] H. Kohler, and P. Nara, A Novel Hypothesis for Original Antigenic Sin in the Severe Disease of SARS-CoV-2 Infection. *Monoclon Antib Immunodiagn Immunother* 39 (2020) 107-111.

[2] H. Kohler, S. Muller, and P.L. Nara, Deceptive imprinting in the immune response against HIV-1. *Immunol Today* 15 (1994) 475-8.