

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

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This short review article introduces the concept or the immunological imprinting by drawing parallels to religious texts and briefly discusses its possible role in SARS-CoV-2 infection. While the article is concise and pleasant for the reader there is room for improvement. The basics of immunological imprinting have been previously described, therefore, the main value of this review is in its effort to discuss the current findings in the context of the SARS-CoV-2 pandemic. I would suggest that the authors expand their discussion of immunological imprinting in SARS-CoV-2 by adding recent publications on hybrid immunity, infections with different strains, and bi/multivalent vaccinations. Furthermore, the authors use the term "original antigenic sin" to describe any kind of cross-reactivity. The term "original antigenic sin" is in itself negative and should only be used when immunological memory formed in response to a previous infection with a similar pathogen dominates the response to the current pathogen and fails to control the infection. Cross-recognition can also be beneficial if the cross-reactive antibodies/T cells efficiently neutralize the current pathogen. In this case, we cannot talk about the "original antigenic sin" but rather immunological imprinting. The perfect example of this misconception is in the abstract.

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