

Special Issue

30 Years of Alternative Macrophage Activation—a Simple Complexity

Message from the Guest Editor

Three decades ago, a highly important paper from the lab of Prof. Siamon Gordon appeared in the *Journal of Experimental Medicine*, describing the effects of IL-4 on the expression of the macrophage mannose receptor (*J Exp Med*. 1992 Jul 1;176(1):287-92. doi:

10.1084/jem.176.1.287). This study, which introduced the term “alternative macrophage activation”, became a milestone in immunity research and a foundation for a new concept of macrophage activation. Several years later, alternatively activated macrophages were re-named as type 2 macrophages, and the concept of macrophage activation dichotomy was extended significantly, leading to an explosive growth of studies dedicated to macrophage activation and polarization. Many additional macrophage phenotypes, sub-phenotypes, and activation states were described. Various experimental systems were used to characterize peculiarities of macrophage biology, including macrophage tolerance and macrophage training. In this issue, we plan to collect the latest advances in macrophage biology research, and to open new horizons by defining new markers as well as diagnostic and therapeutic approaches.

Guest Editor

Dr. Alexei Gratchev

N.N. Blokhin Cancer Research Center, Institute of Carcinogenesis,
115478 Moscow, Russia

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Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
biomedicines@mdpi.com

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Editor-in-Chief

Prof. Dr. Felipe Fregni

1. Neuromodulation Center and Center for Clinical Research Learning, Spaulding Rehabilitation Hospital and Massachusetts General Hospital, Harvard Medical School, Boston, MA 02114, USA
2. Department of Epidemiology, Harvard T.H. Chan School of Public Health, Boston, MA 02115, USA

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