

Special Issue on
**New Insights in Immunology Related to Physical Exercise,
Performance, and Functioning**

CALL FOR PAPERS

In recent years, many advances have been observed concerning the interplay between exercise, physical functioning, and the immune system. Science has turned attention to the interaction between exercise-related statuses, underlying conditions (e.g., age or chronic diseases), and the elements of the innate immunity, so to interfere with the immunogenetics associated with aging, microRNA production, T-lymphocytes activation, pro- and anti-inflammatory profiles, and antiatherogenic trends, immunomodulation resulting from the exercise and nutrition interaction. Therefore, these new concepts associated with the immunomodulation resulting from exercise show that there is a knowledge gap that interests the scientific community and deserves space in this prestigious journal. For instance, the immunosuppression phenomena associated with strenuous exercise, especially among athletes, is still a challenge to be addressed and avoided, so that highly trained individuals are not affected.

For this special issue, we suggest original articles and review studies with a research focus on the following current themes: 1) immunosuppression or immunostimulation according to intensity of exercise; 2) possible cellular or humoral pathways by effects of physical intervention; 3) antiatherogenic or antitumorogenic effects of the exercise; 4) immunosenescence, chronic conditions, and physical fitness; 5) immunomodulation, exercise, and nutrition.

Potential topics include but are not limited to the following:

- ▶ High intensity exercise and immunosuppression
- ▶ Pro- or anti-inflammatory effects of exercise
- ▶ Exercise and apoptosis
- ▶ Effect of exercise on cancer treatment
- ▶ Effect of exercise on innate and/or adaptive immunities
- ▶ Physical fitness and immunosenescence
- ▶ Immunomodulation associated with exercise and nutrition

Authors can submit their manuscripts through the Manuscript Tracking System at <https://mts.hindawi.com/submit/journals/jir/niir/>.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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