EDITORIAL

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INFLAMMATION IS AT THE ROOT OF ALL NON-COMMUNICABLE DISEASES

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Inflammation is the root of all degenerative diseases, and its role is appreciated by basic researchers and clinicians. One paradigmatic example is atherosclerosis. For many years, this disease was thought to be the consequence of an excessive accumulation of cholesterol and lipids in the arterial wall. This, of course, is true, but the late Dr. Russel Ross, in a groundbreaking paper published in 1999 called atherosclerosis 'an inflammatory disease' (1). Indeed, evidence builds up and confirms this hypothesis. In 2017 the CANTOS trial reported reduced re-infarction rates in patients given canakinumab, an IL-1β antibody (2, 3). Of note, is the finding that "the lower the better" in terms of reducing inflammation without lowering blood lipoproteins.

Cancer has been termed "the wound that does not heal" (4) and high inflammation is associated with poor outcomes (5, 6). The same line of reasoning holds true for neurodegeneration and its sequelae (7).

In recent times, much of the mortality associated with Covid 19 is due to a 'cytokine storm' and anti-inflammatory therapy is being proven useful (8).

From a pharmacological point of view, it is interesting to note that acute inflammation is quite manageable with the available drugs, be they NSAIDs or corticosteroids. The subtler form of inflammation is the low-grade chronic form. For instance, aging is becoming a public health concern with an important socio-economic dimension. Aging is characterized by an increase in the concentration of inflammatory markers in the bloodstream, a phenomenon that has been termed "inflammaging" (9). The inflammatory response is beneficial as an acute, transient response to harmful conditions, facilitating the repair, turnover and adaptation of many tissues. However, chronic and low-grade features of inflammation might be detrimental to many tissues and normal functions (9). In summary, treating inflammation goes beyond the mere treatment of acute pathologies characterized by pain, swelling, and redness. It is

a great challenge for the entire medical community that requires active pharmacological research.
In this frame, the ***15th World Congress on Inflammation*** **(WCI2022)** is being in Rome for the first time and this issue of PharmAdvances features the abstracts of the many presentations that enrich the meeting.
In conclusion, WCI2022 addresses one of the most important topics in medicine and brings together a top-notch lineup of scientists and clinicians. Perusing this issue of PharmAdvances will certainly help grasp a complete picture of inflammation research and will foster collaborations and innovative investigations.

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