



Opening editorial for exploration in musculoskeletal diseases

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The scientific and clinical landscape of musculoskeletal diseases (MDs) has revolutionized in the last decades, becoming a promising field for investigation, either basic or clinical, and therefore for publishing.

MDs enclose the most prevalent pathology in the adult population. It is an increasing tide of prevalence as the aging of populations all over the world is associated with an increasing prevalence of both spinal and peripheral joint diseases, mainly osteoarthritis (OA).

The most recent data from the Global Burden of Disease show that from 1990 to 2019 MDs ranked first in adults in years lived with disability (YLDs) and rose to rank third in disease-adjusted life-years (DALYs) and within the top twenty years of life lost (YLLs) [1]. It is not only the impact on the diseased population, for example, the health-related cost in the USA of MDs ranks first in the country [2], and yet it is not only health-related costs, but work, social, and personal costs that have also to be considered.

In most recent years genetics and mechanisms of inflammation, such as interleukin (IL) or Janus kinase (JAK) pathways have transformed the therapeutic opportunities, as new medications have developed once the diverse mechanisms of inflammation have been elucidated.

The blocking of one of the primers and shared pathways of inflammation in MDs, as tumor necrosis factor is, changed the face of clinical practice of the approach to the treatment of rheumatic diseases all over the world. Then IL-1 blockade for crystal-induced and autoinflammatory diseases, IL-6 receptor inhibition for rheumatoid arthritis, giant cell vasculitis, and Still's disease, and most recently agents that inhibit IL-17A and the IL-12/23 pathway have made the start of the end of the XXth century and the start of the XXIst, the era of the biologics, one of the most evolving periods in MD medicine [3]. In addition, new JAK inhibitors [4], some of them polyvalent, such as upadacitinib for rheumatoid arthritis, psoriatic arthritis, and ankylosing spondylitis, have been developed and approved, providing even more options to achieve proper health-related outcomes in MDs.

These new developments have been associated with increasing costs in available treatments, and a new field is open to those interested in management: health cost and efficiency analysis. The uprise in the number of biosimilars of biologic agents has also been a challenge for managers, clinicians, and clinicians



involved in management [5]. As to this, patient-reported outcomes science and pharmaco-economy are reaching outstanding importance, especially for public health systems.

Not only inflammatory MDs have been supplied with increased therapeutic arsenals, but also systemic diseases, and metabolic bone diseases. Unfortunately, the most common MD, OA, has not yet been blessed with discoveries leading to such great improvements in treatment as inflammatory arthritis [6]. Multidisciplinary coordinated approaches and public health policies are mostly lacking even in developed countries derived of the huge population affected by MDs.

Exploration of Musculoskeletal Diseases (EMD) is born to catalyze these different fields with a new, multidisciplinary approach. From basic mechanistic science to diagnosis and clinical management, through pharmacology and pharmaco-economy, patient-related outcomes, clinical efficiency, and health policies, all are welcome within the scope of EMD, devoted to all pathologies of the musculoskeletal system, including inflammatory disorders, autoinflammatory disorders, autoimmune disorders, and disorders of bones, muscles, tendons, ligaments, joints, and cartilage.

We aim for patient-centered science, stressing the importance of translational science, but supporting high standard investigation from basic fields. Clinical science on new targets, new medications, and the best knowledge on safe and efficient prescriptions are also within our scope.

Abbreviations

IL: interleukin

MDs: musculoskeletal diseases

Declarations

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The author contributed solely to the work.

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Not applicable.

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