2. Choi NK, et al. J Bone Miner Res. 2017;32:611–617
3. Pedersen AB, et al. JAMA Netw Open. 2019;2:e192416
4. Zullo AR, et al. Osteoporos Int. 2021;32:565–573
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SY6
A RESEARCH FRAMEWORK ON OSTEOARTHRITIS FOR THE UN DECADE ON HEALTHY AGING

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The Decade of Healthy Aging aims to build a world able to foster healthy aging, by promoting several actions, including the delivering of integrated care and primary health services that are responsive to the needs of older people.
When we consider the needs due to the burden of diseases, few disorders in medicine can match the impact of musculoskeletal conditions, in particular of Osteoarthritis (OA). Moreover, OA has a significant economic effect not only on health care budgets, but also on patients, their employers, and their caregivers. OA is the most common articular disease of the developed world and a leading cause of pain and chronic disability, mostly as a consequence of lower limb OA involving knee and/or hip districts. The prevalence of OA increases with age and is higher in women than in men. It has been estimated that more than half of people aged 65 years or older living in high-income countries have radiographic evidence of OA, while the prevalence of symptomatic OA involves up to one out of three individuals. As the world's population continues to have longer lifespan, it is estimated that degenerative joint diseases such as OA will impact at least 130 million individuals around the globe by year 2050. However, OA prevalence rates and their projections could even be underestimated due to the different joint sites considered and to the lack of a unanimous definition of the disease. This latter issue is a potential consequence of the large heterogeneity in OA pathogenesis and clinical presentation, which has been summed up in four different phenotypes, namely the biomechanical, osteoporotic, metabolic and inflammatory ones. Although such phenotypes often overlap, each of them encapsulates a predominant feature of OA pathogenetic process, which can concern mechanical stress due to previous traumatic injuries, uncontrolled physical activity or excess weight conditions, subchondral bone osteoporosis, metabolic factors or local and chronic inflammation. These aspects have to be taken into account when dealing with OA patients, since the clinical presentation, as well as the coexistence of chronic conditions could influence the course of the disease and the response to the therapies. For all these reasons, OA appears as an optimal candidate for personalized medicine, including both pharmacological and non-pharmacological interventions.

SY7
NON-PHARMACOLOGICAL APPROACH: DIET AND ITS IMPACT ON OSTEOARTHRITIS

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Nutrition plays a pivotal role in almost all chronic diseases. In osteoarthritis, we observe that obesity and weight gain are strongly associated with knee and hip osteoarthritis and with more severe forms of these conditions. The Mediterranean type diet (abundant in vegetables, fruits, beans, whole grains, olive oil and fish, and less red meat than typical Western diets) has been associated with reduction in joint inflammation in patients with rheumatoid arthritis, another common rheumatological disease. Some recent epidemiological studies reported that higher adherence to Mediterranean diet is associated with a lower presence of osteoarthritis, probably for the antiinflammatory of this healthy dietary pattern. In this presentation, I would like to report the current evidence regarding health diet, in particular Mediterranean diet, and osteoarthritis from an epidemiological and molecular point of view.

SY8
MULTIMODAL PHARMACOLOGICAL APPROACH: FROM EVIDENCE-BASED TO DAILY PRACTICE

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ESCEO published an algorithm for the management of knee osteoarthritis which recommended the combination of non-pharmacological and pharmacological treatments and, for drug treatment, a stepwise approach from background first-line treatment until a surgical solution in case the patient remains severely affected after all previous steps. Nevertheless, after discussing with patients partners, it seems that, in many cases, single interventions do not provide sufficient relief of symptoms in a large subset of the population. Multimodal treatments, combining the different pharmacological approaches recommended by ESCEO appear to be an appropriate solution, particularly for patients with moderate to severe knee osteoarthritis, patients who need an immediate relief before the prescription of crystalline Glucosamine Sulfate allows for an optimal symptomatic management or for patients who are receiving non-steroidal inflammatory drugs but who need also to be prescribed a background treatment to reduce the progression of the disease.