**Supplementary Tables**

**Table S1.** Top 10 most cited countries on related research.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| SCR | Country | TC | N | AAC |
| 1 | United States | 7149 | 214 | 33.40 |
| 2 | United Kingdom | 3424 | 90 | 38.00 |
| 3 | China | 3274 | 285 | 11.50 |
| 4 | Netherlands | 887 | 32 | 27.70 |
| 5 | South Korea | 844 | 43 | 19.60 |
| 6 | Germany | 779 | 37 | 21.10 |
| 7 | Spain | 758 | 30 | 25.30 |
| 8 | Italy | 598 | 36 | 16.60 |
| 9 | Australia | 596 | 26 | 22.90 |
| 10 | Canada | 551 | 19 | 29.00 |

Notes: SCR, Standard competition ranking; TC, Total Citation; N, Number of Articles; AAC, Average Article Citations.

**Table S2.** Top 10 most cited references on related research.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| SCR | Title | Year | TC | Journal | DOI |
| 1 | Identification of new susceptibility loci for osteoarthritis (arcOGEN): a genome-wide association study | 2012 | 103 | Lancet | 10.1016/S0140-6736(12)60681-3 |
| 2 | A functional polymorphism in the 5' UTR of GDF5 is associated with susceptibility to osteoarthritis | 2007 | 72 | Nat Gennet | 10.1038/2005 |
| 3 | Radiological assessment of osteo-arthrosis | 1957 | 69 | Ann Rheum Dis | 10.1136/ARD.16.4.494 |
| 4 | The Science of Obesity Management: An Endocrine Society Scientific Statement | 2019 | 59 | Nat Gennet | 10.1038/S41588-018-0327-1 |
| 5 | Genome-wide analyses using UK Biobank data provide insights into the genetic architecture of osteoarthritis | 2018 | 57 | Nat Gennet | 10.1038/S41588-018-0079-Y |
| 6 | Osteoarthritis: a disease of the joint as an organ | 2012 | 54 | Arthritis Rheum | 10.1002/ART.34453 |
| 7 | Role of proinflammatory cytokines in the pathophysiology of osteoarthritis | 2011 | 50 | Nat Rev Rheumatol | 10.1038/NRRHEUM.2010.196 |
| 8 | A genome-wide association study identifies an osteoarthritis susceptibility locus on chromosome 7q22 | 2010 | 44 | Arthritis Rheum | 10.1002/ART.27184 |
| 9 | Genetic influences on osteoarthritis in women: a twin study | 1996 | 44 | BMJ | 10.1136/bmj.312.7036.940 |
| 10 | Development of criteria for the classification and reporting of osteoarthritis. Classification of osteoarthritis of the knee. Diagnostic and Therapeutic Criteria Committee of the American Rheumatism Association | 1986 | 43 | Arthritis Rheum | 10.1002/ART.1780290816 |

Notes:SCR, Standard competition ranking; TC, Total Citation.

**Supplementary Figures and Legends**

**Figure S1.** Time trends of the topics during 2014-2023.



**Figure S2.** Time trends of the topics during 2014-2023.



**Figure S3.** Line chart of keywords in different time periods.



**Figure S4.** : Line chart of countries’ contribution in different time periods.



**Figure S5**. Three-field plot between references, authors, and keywords. CR: References; AU: Authors; DE: Keywords.

