

Supplementary Table1 Summary of data sources and collection strategies

Category	Results
Database	Web of Science core collection
Editions	SCI-EXPANDED
Timespan	January 01 2001 to September 30 2024
Language	English
Document types	“Articles” and “Review”
Date types	Full record and cited references
Documents	855

Supplementary Table 2 The top 10 institutions in terms of number of publications

Rank	Publications	Centrality	Institution	Country
1	22	0.21	University of California System	United States
2	20	0.04	Mayo Clinic	United States
3	17	0	Hospital Clinic de Barcelona	Spain
4	16	0.04	CIBER - Centro de Investigacion Biomedica en Red	Spain
5	15	0.06	Shanghai Jiao Tong University	China
6	13	0.02	University of Barcelona	Spain
7	12	0.02	CIBEREHD	Spain
8	11	0.19	Icahn School of Medicine at Mount Sinai	United States
9	11	0.02	Harvard University	United States
10	11	0.02	University of Pennsylvania	United States

Supplementary Table 3 The top 10 cited authors in term of citations

Rank	Author	Citations	TLS	H-index	Country
1	Guanabens, Nuria	234	3595	36	Spain
2	Monegal, Ana	186	2579	34	Spain
3	Guichelaar, Maureen M. J.	149	2305	13	Netherland
4	Diamond, Terrence	143	2450	20	Australia
5	Giovanni Targher	131	1615	106	Italy
6	Yakar, S.	120	534	17	United States
8	Hay, J. Eileen	108	1772	36	United States
9	Ninkovic, Minja	108	1810	8	Serbia
10	Compston, Juliet E.	106	1506	83	England

TLS: Total link strength.

Supplementary Table 4 The top 10 cited articles

Rank	Title	First authors	Source	Year	Citations	AC	Type
1	High prevalence of vitamin D inadequacy and implications for health	Holick, MF	<i>Mayo Clinic Proceedings</i>	2006	1367	71.95	Review
2	Non-alcoholic fatty liver disease and its relationship with cardiovascular disease and other extrahepatic diseases	Adams, Leon A.	<i>Gut</i>	2017	762	95.25	Article
3	Circulating levels of IGF-1 directly regulate bone growth and density	Yakar, S	<i>Journal of Clinical Investigation</i>	2002	737	32.04	Article
4	Gut microbiota induce IGF-1 and promote bone formation	Yan, Jing	<i>Proceedings of The National Academy Of Sciences Of</i>	2016	456	50.67	Article

	and growth		<i>The United States Of America</i>					
5	The bone marrow functionally contributes to liver fibrosis	Russo, Francesco P.	<i>Gastroenterology</i>	2006	388	20.42	Article	
6	The Role of Liver-Derived Insulin-Like Growth Factor-I	Ohlsson, Claes	<i>Endocrine Reviews</i>	2009	335	20.94	Review	
7	Adiponectin increases bone mass by suppressing osteoclast and activating osteoblast	Oshima, K	<i>Biochemical and Biophysical Research Communications</i>	2005	321	16.05	Article	
8	Control of growth by the somatropic axis: Growth hormone and the insulin-like growth factors have related and	Butler, AA	<i>Annual Review of Physiology</i>	2001	284	11.83	Review	

	independent roles						
9	The GH/IGF1 axis and signaling pathways in the muscle and bone: mechanisms underlying age-related skeletal muscle wasting and osteoporosis	Perrini, Sebastio	<i>Journal of Endocrinology</i>	2010	243	16.2	Review
10	Hesperidin, a citrus flavonoid, inhibits bone loss and decreases serum and hepatic lipids in ovariectomized mice	Chiba, H	<i>Journal of Nutrition</i>	2003	230	10.45	Article

AC: Average citation.