

Appendix 1 Results

Keywords analysis

The results of the temporal analysis of these categorized keywords were as follows: In the category of disease, the highest frequency of occurrence was CAD (median year: 2018, IQR: 2013-2022, number: 773), followed by cardiovascular disease (median year: 2019, IQR: 2014-2022, number: 96), diabetes (median year: 2016, IQR: 2012-2020, number: 79), acute coronary syndrome (median year: 2016, IQR: 2011-2021, number: 74), coronary heart disease (median year: 2017, IQR: 2012-2020, number: 53), myocardial ischemia (median year: 2020, IQR: 2017-2022, number: 52), myocardial infarction (median year: 2016, IQR: 2012-2021, number: 43) and inflammation (median year: 2020, IQR: 2015-2023, number: 40). In the category of atherosclerotic plaque type, the highest frequency was atherosclerosis (median year: 2017, IQR: 2012-2021, number: 543), followed by coronary calcification (median year: 2014, IQR: 2010-2018, number: 474), plaque (median year: 2017, IQR: 2011-2021, number: 223), and vulnerable plaque (median year: 2017, IQR: 2012-2021, number: 63). In the category of imaging technique, the most frequent occurrence was coronary computed tomography angiography (median year: 2020, IQR: 2016-2021, number: 410), followed by computed tomography (median year: 2015, IQR: 2010-2020, number: 288), computed tomography angiography (median year: 2020, IQR: 2016-2021, number: 151), multi-detector computed tomography (MDCT) (median year: 2012, IQR: 2009-2017, number: 149). In the category of study orientation, the highest frequency was calcium score (median year: 2018, IQR: 2013-2021, number: 196), followed by risk factor (median year: 2014, IQR: 2010-2020, number: 101), prognosis (median year: 2016, IQR: 2012-2020, number: 76), coronary artery (median year: 2013, IQR: 2010-2021, number: 71), and epicardial adipose tissue (median year: 2017, IQR: 2014-2021, number: 63).

Publication analysis of countries, institutions and authors

A total of 72 countries and 2,339 institutions were participated in research in this field. The top 10 countries of all articles included were listed in *Table 2*. The United States of America (USA) published the most number of articles (1,003), which was followed by Germany, and Netherlands. In terms of citations, USA continued to maintain its prominent place with up to 58,759 citations, followed by Germany (15,458), and Netherlands (9,777). The citations of USA, Germany, Netherlands, Japan, South Korea, United Kingdom (UK), Canada ranked more than 5,000 and higher than their publication counts (*Figure S3*). According to the H-index, USA consistently held the first position (118), followed by Germany (66), Netherlands (55) and Japan (41). The *Figure S4* illustrated the collaboration networks of the co-authorship by countries, which showed USA, Germany, Netherlands, Japan, South Korea and China have formed a close cooperative relationship among the countries.

The top 10 institutions based on the publications counts were shown in *Table 3*. There were 6 American institutions, 2 Dutch institutions and 2 South Korean institutions. University of California system took the lead as the most prolific institution with 231 publications accounting for 10.52% of the whole data sets (*Figure S5A*). Moreover, University of California system and Johns Hopkins University were the top two institutions that achieved the highest average citations with the average citations of 100.67 and 99.20 (*Figure S5B*). An overview of the authors who had notable influence in their respective areas of expertise was presented in *Table 4*. Matthew J Budoff made the most substantial research with 173 publications (*Figure S5C*). Leslee J Shaw took the lead with 70.81 average citations (*Figure S5D*).

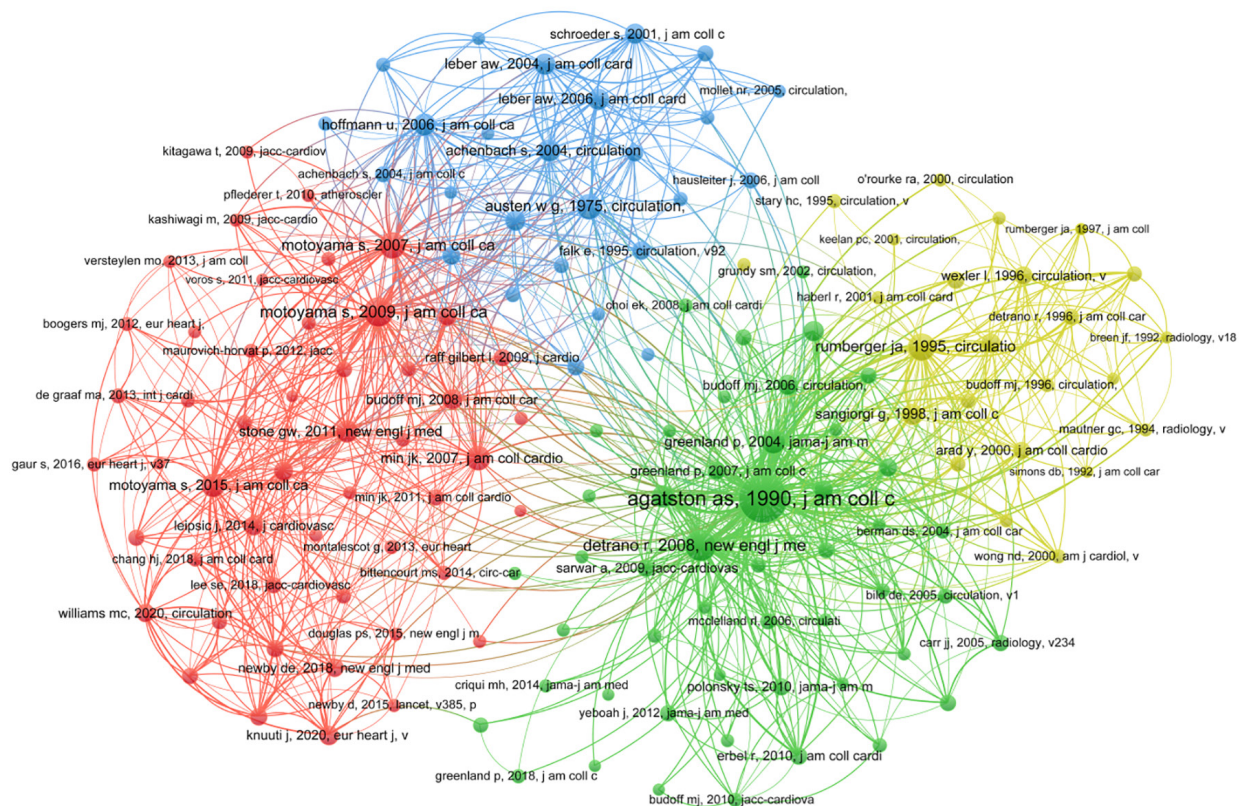


Figure S1 Co-citation network map of the cited references.

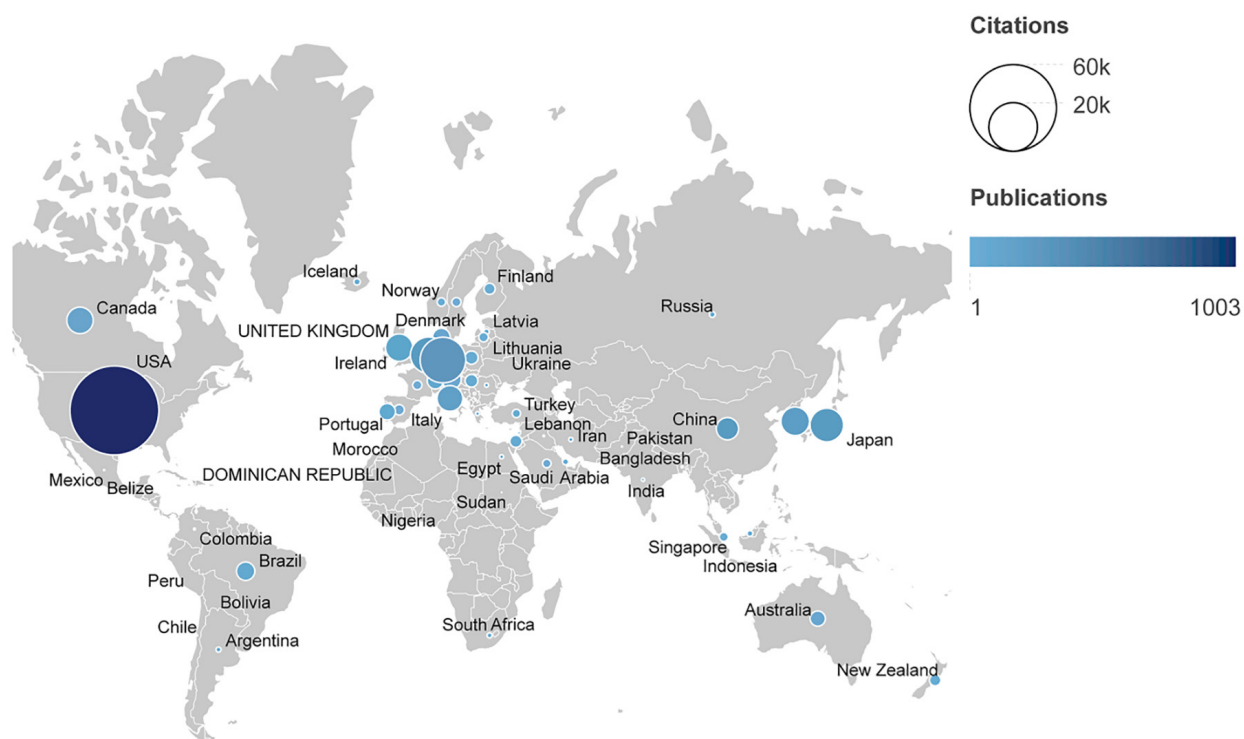


Figure S3 Global distributions of publications and citations.

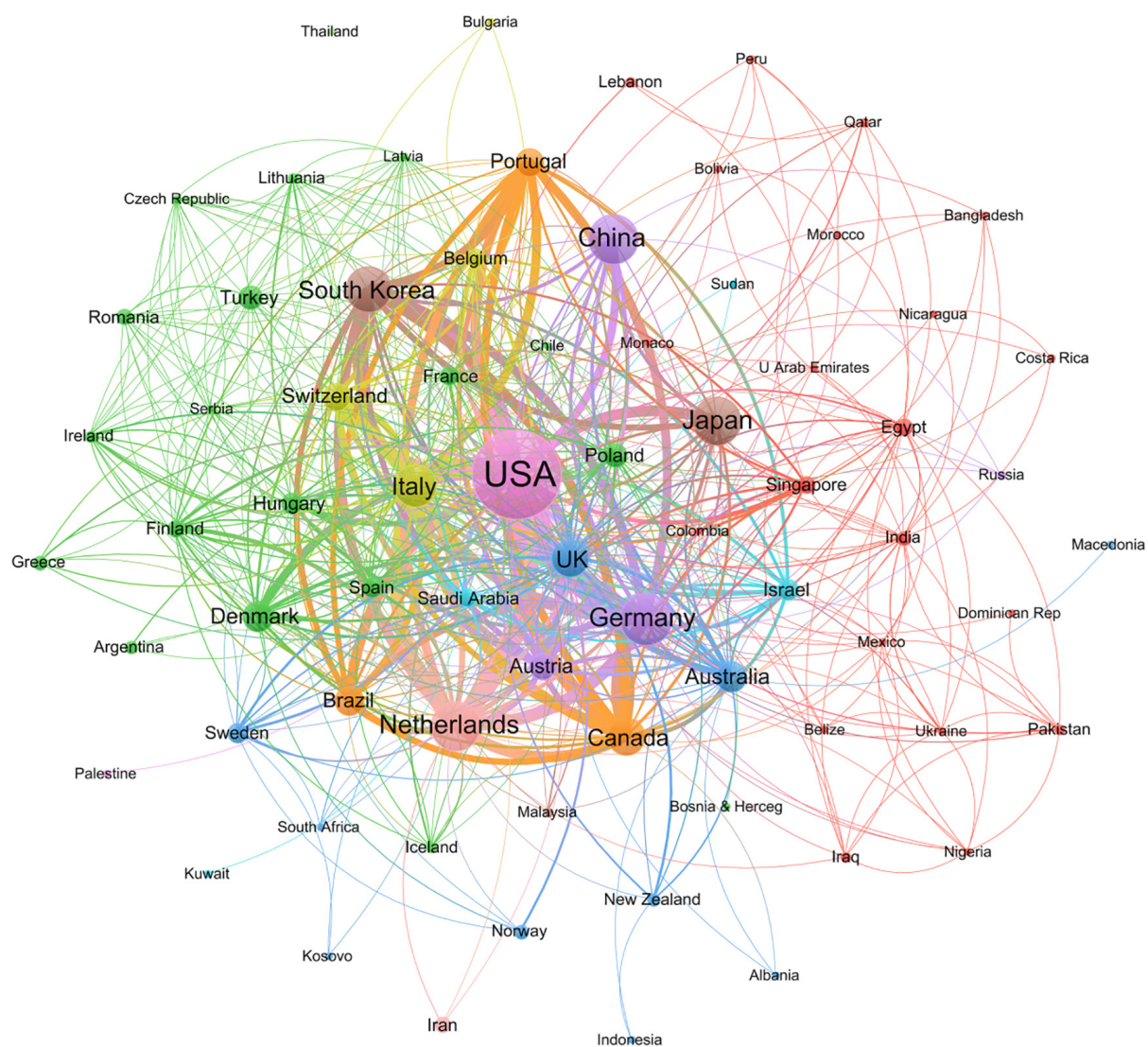
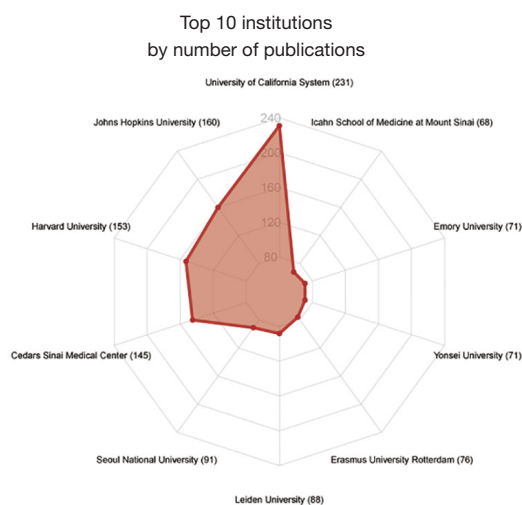
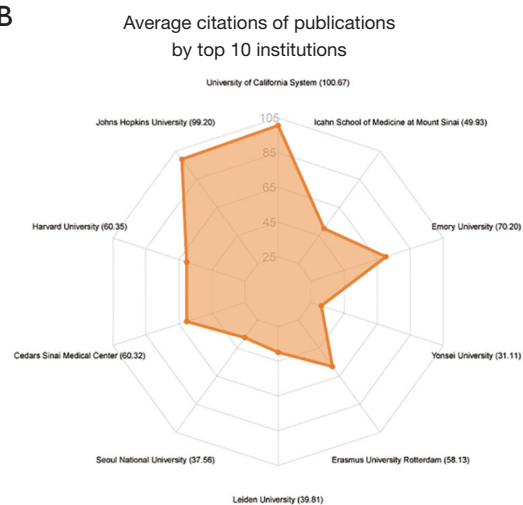


Figure S4 Collaboration network map of the co-authorship by countries. The size of the nodes indicates the number of publications. The thickness of the lines represents the strength of collaboration between them.

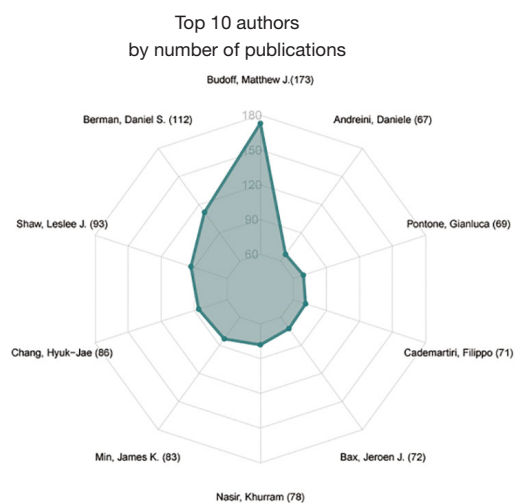
A



B



C



D

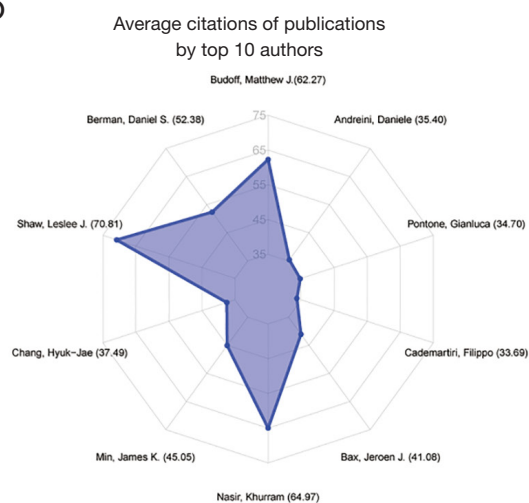


Figure S5 The top 10 Publications and citations of the institutions and authors. The top 10 institutions based on the number of publications (A). The top 10 institutions based on their average citations rank (N). The top 10 authors based on the number of publications (C). The top 10 authors based on their average citations rank (D).