

Table S1 Web of Science Core Collection (SCI-Expanded) search strategy

Item	Description
Database	Web of Science Core Collection (Science Citation Index Expanded)
Search date	April 17th, 2026
Timespan	1991.1.1–2026.4.17
Language	English
Document types	Article, Review
Search field	Topic search (TS = Title, Abstract, Author Keywords, Keywords Plus)
Full search query	TS=(“lung cancer*” OR “pulmonary cancer*” OR “lung carcinoma*” OR “pulmonary carcinoma*” OR “lung tumor*” OR “pulmonary tumor*” OR “lung neoplas*” OR “pulmonary neoplas*” OR NSCLC OR “non-small cell lung cancer*” OR SCLC OR “small cell lung cancer*” OR “bronchogenic carcinoma*” OR “lung adenocarcinoma*” OR “squamous cell lung carcinoma*” OR “large cell lung carcinoma*” OR “lung malignan*”) AND TS=(“atrial fibrillation*” OR AFib OR “atrial flutter*” OR “paroxysmal atrial fibrillation*” OR “persistent atrial fibrillation*” OR “long-standing persistent atrial fibrillation*” OR “permanent atrial fibrillation*” OR “postoperative atrial fibrillation*” OR “subclinical atrial fibrillation*” OR “atrial tachyarrhythmia”)

Table S2 PubMed search strategy

Item	Description
Database	PubMed
Search date	April 28th, 2026
Timespan	1978.1.1–2026.4.28
Language	English
Publication types	Clinical trial
Search field	MeSH Terms + Title/Abstract
Full search query	((“lung neoplasms”[MeSH Terms] OR lung cancer*[tiab] OR pulmonary cancer*[tiab] OR lung carcinoma*[tiab] OR pulmonary carcinoma*[tiab] OR lung tumor*[tiab] OR pulmonary tumor*[tiab] OR NSCLC[tiab] OR “non-small cell lung cancer”[tiab] OR SCLC[tiab] OR “small cell lung cancer”[tiab] OR “bronchogenic carcinoma”[tiab] OR “lung adenocarcinoma”[tiab] OR “squamous cell lung carcinoma”[tiab] OR “large cell lung carcinoma”[tiab]) AND (“atrial fibrillation”[MeSH Terms] OR atrial fibrillation*[tiab] OR AFib[tiab] OR atrial flutter*[tiab] OR paroxysmal atrial fibrillation*[tiab] OR persistent atrial fibrillation*[tiab] OR permanent atrial fibrillation*[tiab] OR postoperative atrial fibrillation*[tiab] OR subclinical atrial fibrillation*[tiab] OR atrial tachyarrhythmia*[tiab]))

Table S3 Definitions of key bibliometric indicators

Indicator	Definition
H-index	A metric evaluating author/institution impact and overall citation productivity; number of papers with $\geq H$ citations each
G-index	A metric evaluating author/institution impact that emphasizes highly cited papers; largest integer where total citations of the top G papers $\geq G^2$
Betweenness centrality	A measure of a node's influence in a network; reflects its role as an intermediary or bridge connecting other nodes
Citation burst	An indicator detecting emerging research hotspots; a sharp, sustained increase in citation frequency of a keyword or article
Co-occurrence	A measure of term association strength; the frequency with which two terms appear together in the same publication
Co-citation	An indicator of thematic similarity; a relationship where two papers are cited together by a third publication
Local citations	A measure of influence within the target field; citations received from within the analyzed dataset of LC-AF publications
Global citations	A measure of overall academic impact; total citations received from all publications indexed in the source database
Single-country publications (SCP)	A category of publication output; papers authored by researchers from only one country
Multi-country collaborative publications (MCP)	An indicator of international cooperation; papers jointly authored by researchers from two or more countries
Modularity Q	An index evaluating clustering rationality; $Q > 0.3$ indicates a meaningful and stable cluster structure
Weighted mean Silhouette S	A metric assessing cluster consistency; $S > 0.5$ indicates good clustering quality with tight within-cluster cohesion and clear between-cluster separation

Table S4 Software tools and parameter settings used for bibliometric analyses

Analysis type	Software	Key parameters
Publication trend analysis	R 4.3.3 (Bibliometrix package 4.3.2)	Default settings; Time span: 1991–2025
Country/institution collaboration	R 4.3.3 (Bibliometrix package 4.3.2)	Default settings; Time span: 1991–2026
Thematic Map	R 4.3.3 (Bibliometrix package 4.3.2)	Clustering algorithm: Louvain Algorithm
Factorial Analysis	R 4.3.3 (Bibliometrix package 4.3.2)	Analysis method: Multiple Correspondence Analysis (MCA)
Keyword clustering network	CiteSpace 6.4.R1	Selection criteria: Top 5 per time slice (Slice length: 1 year)
Journal co-citation network	R 4.3.3 (Bibliometrix package 4.3.2)	Clustering algorithm: Walktrap Algorithm
Dual-map overlay	CiteSpace 6.4.R1	Default settings
Keyword burst detection	CiteSpace 6.4.R1	Selection criteria: g-index ($k=5$); Time slice: 1 year
TrendTopics timeline	R 4.3.3 (Bibliometrix package 4.3.2)	Default settings; Time span: 1991–2026
Author Collaboration Network	R 4.3.3 (Bibliometrix package 4.3.2)	Clustering algorithm: Walktrap Algorithm
Institution Collaboration Network	R 4.3.3 (Bibliometrix package 4.3.2)	Clustering algorithm: Walktrap Algorithm
Keyword co-occurrence network	VOSviewer 1.6.18	Default settings