iMeta: Biology and Medicine in Informatics and MetaOmics Era

A decade of research and the iMeta Conference 2026

All conference participants



Conference Organizers: *iMeta* Editorial Office; Ningbo R-Institute of Science Communication

Hosts: Changsha Longping Industrial Park Administrative Committee; Hunan Academy of Agricultural Sciences; The Second Xiangya Hospital of Central South University; Hunan Agricultural University; Institute of Bast Fiber Crops, Chinese Academy of Agricultural Sciences; Central South University of Forestry and Technology; Hunan Academy of Forestry; Key Laboratory of Agricultural Gene Data Analysis, Ministry of Agriculture and Rural Affairs

Co-organizers: Hubei University of Chinese Medicine; Xianghu Laboratory; EcLab

Gousi Li, Qiao Yu, Zhihao Zhu, Xiaofang Yao, Yao Wang, Hao Luo, Defeng Bai, et al. 2026. iMeta: Biology and Medicine in Informatics and MetaOmics Era. ***iMeta*** 5: e70189.
https://doi.org/10.1002/imt2.70189

Study design

- We examined six informatics and eight omics categories in the Web of Science biomedical corpus from 2016 to 2025.
- We selected 1,000 papers using annual quotas proportional to candidate counts and ranked papers within each year by cumulative citations at export.
- Terms in titles and abstracts supported co-occurrence analysis, theme identification and comparisons over time.

Candidates: informatics- or omics-related papers. Retrieval: titles, abstracts and author keywords.

Research trends and international collaboration

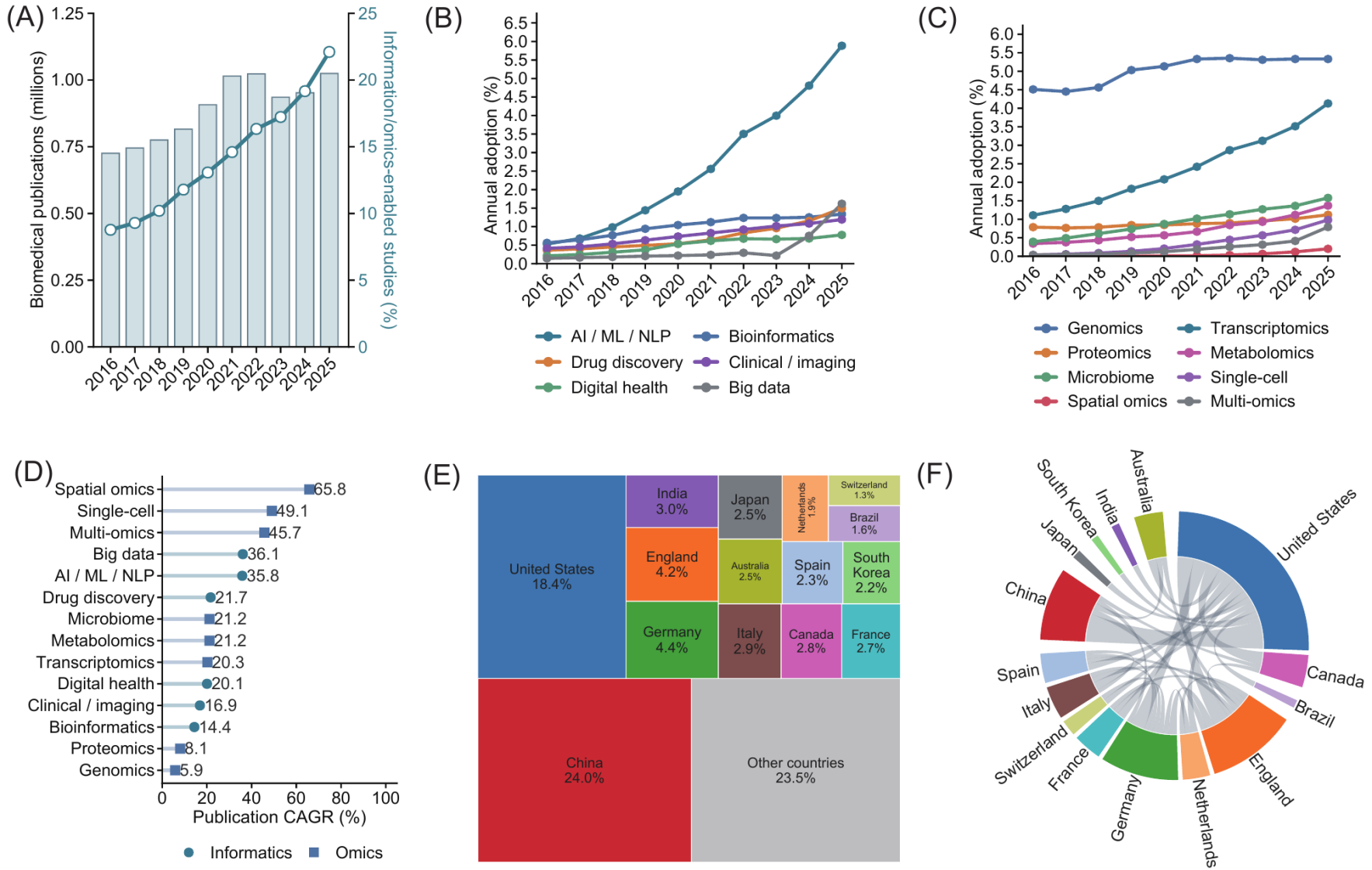
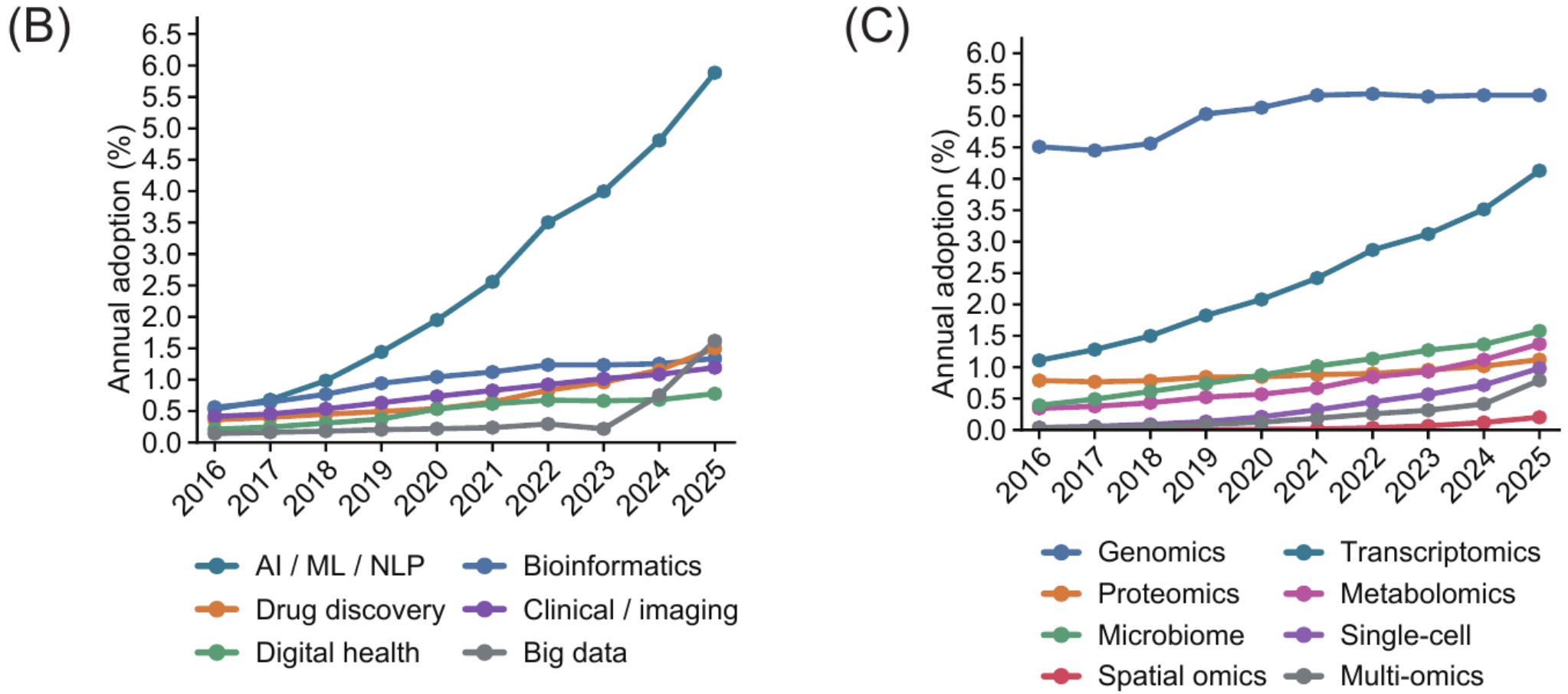


Figure 1. Informatics or omics share in the biomedical corpus rose from 8.8% to 22.1% (2016–2025).

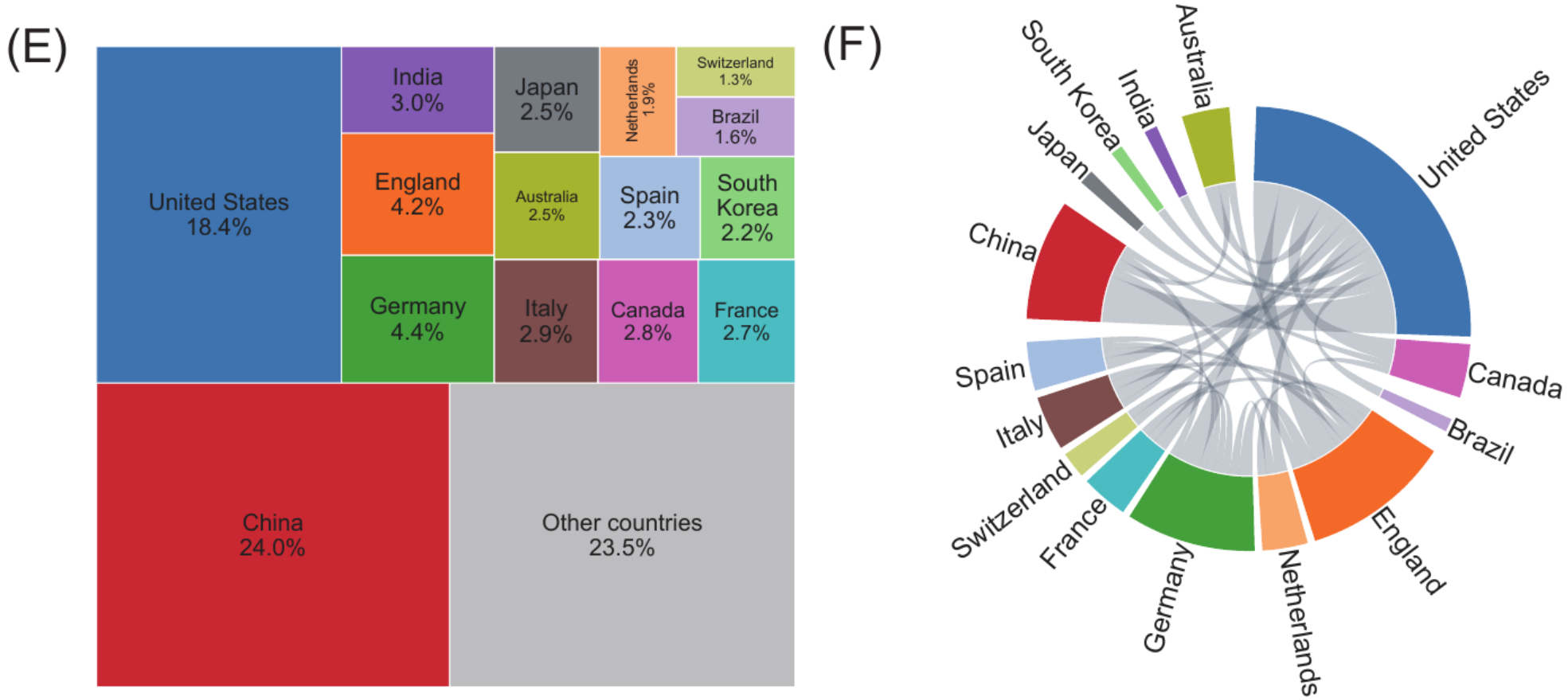
Trends across informatics and omics categories



AI-related share increased from 0.53% to 5.89%
Publication CAGR: spatial 65.8%, single-cell 49.1%, multi-omics 45.7%

Figure 1B–C. Annual shares by research category. Growth rates are from Figure 1D.

International participation and collaboration



Country-participation records: China 24.0%, United States 18.4%
China and the United States have the strongest bilateral connection

Figure 1E–F. Country participation and collaboration. Papers can count toward several countries.

Research themes in highly cited papers

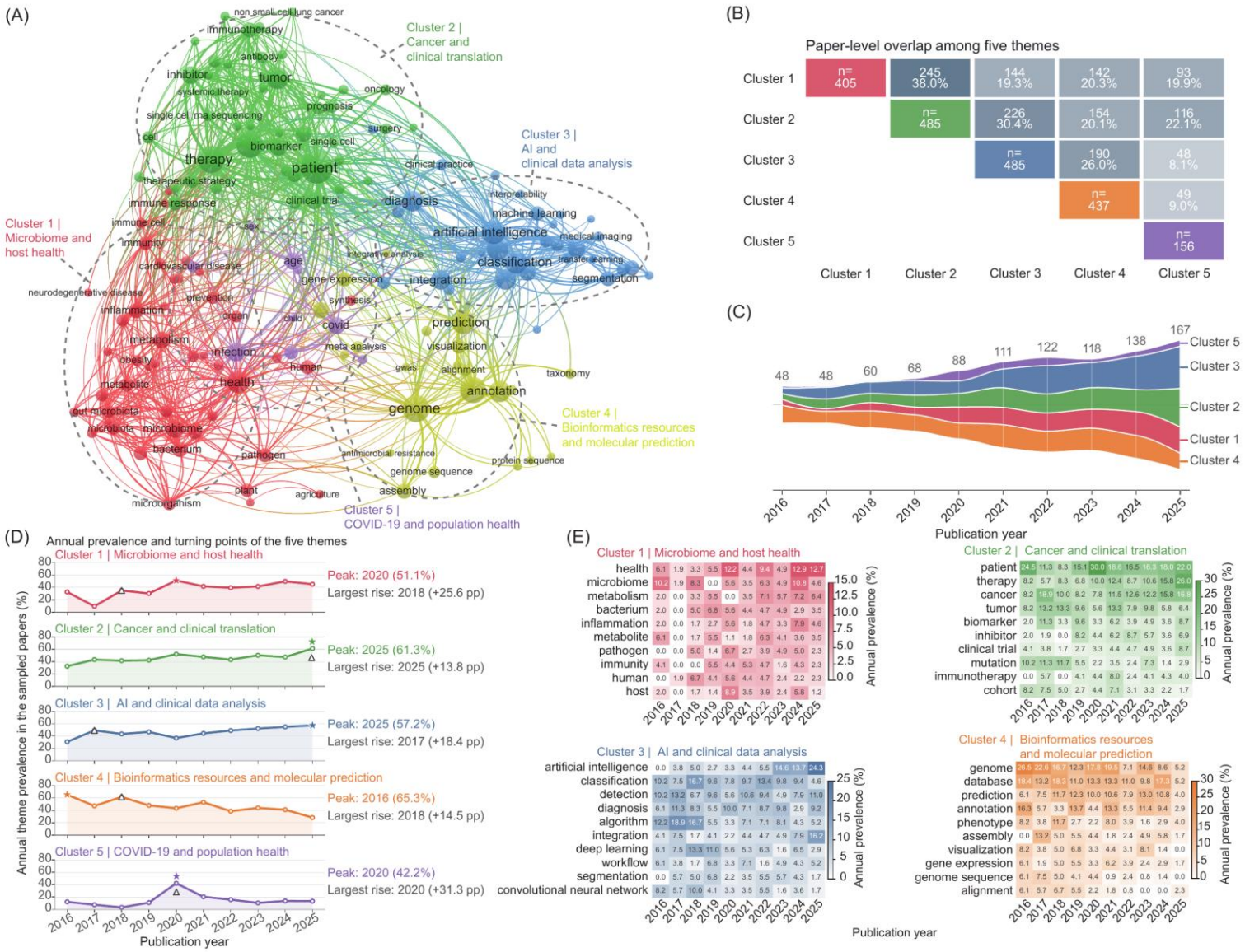
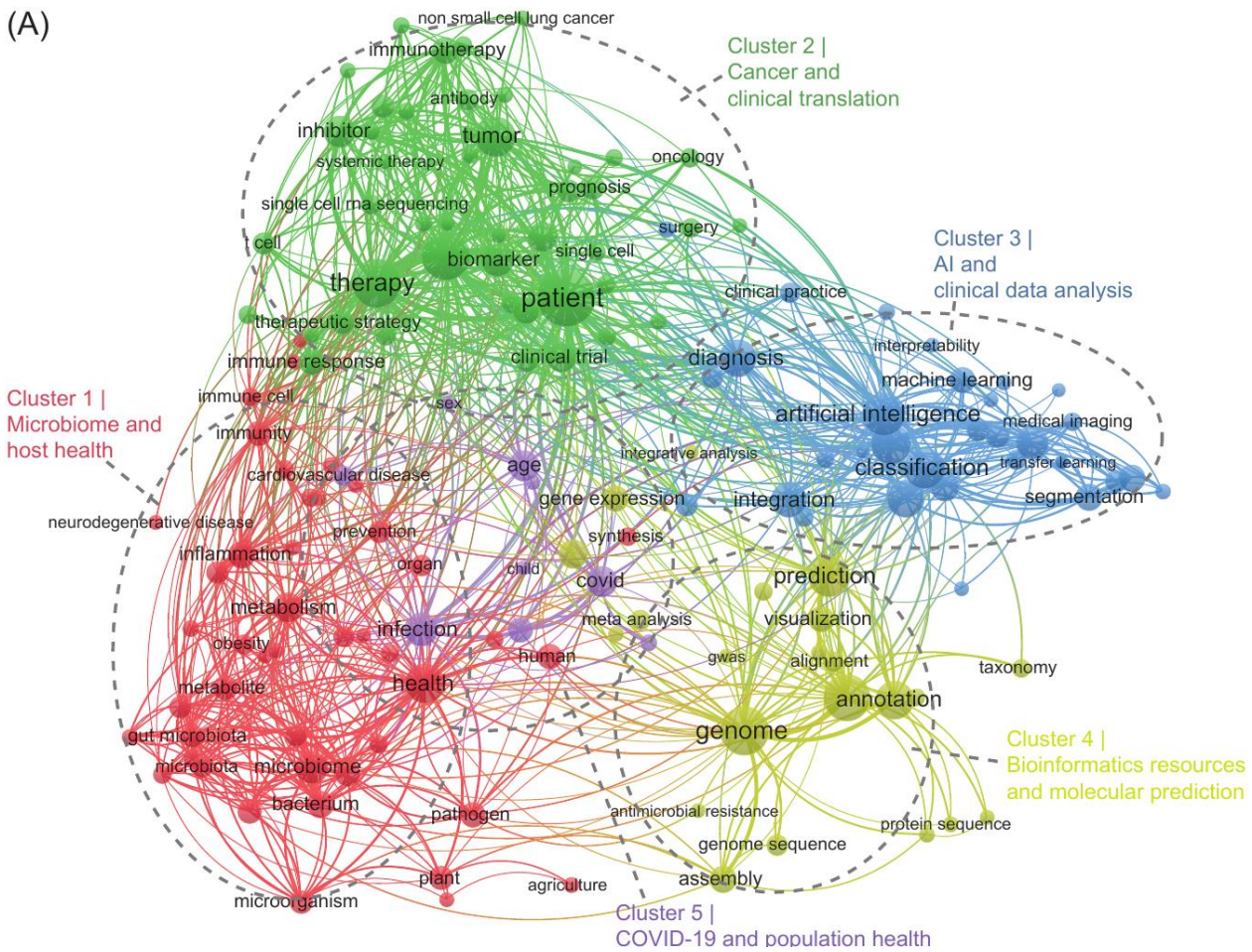


Figure 2. Five themes encompass 968 papers, including 663 with multiple themes.

Term co-occurrence and theme overlap



(B)

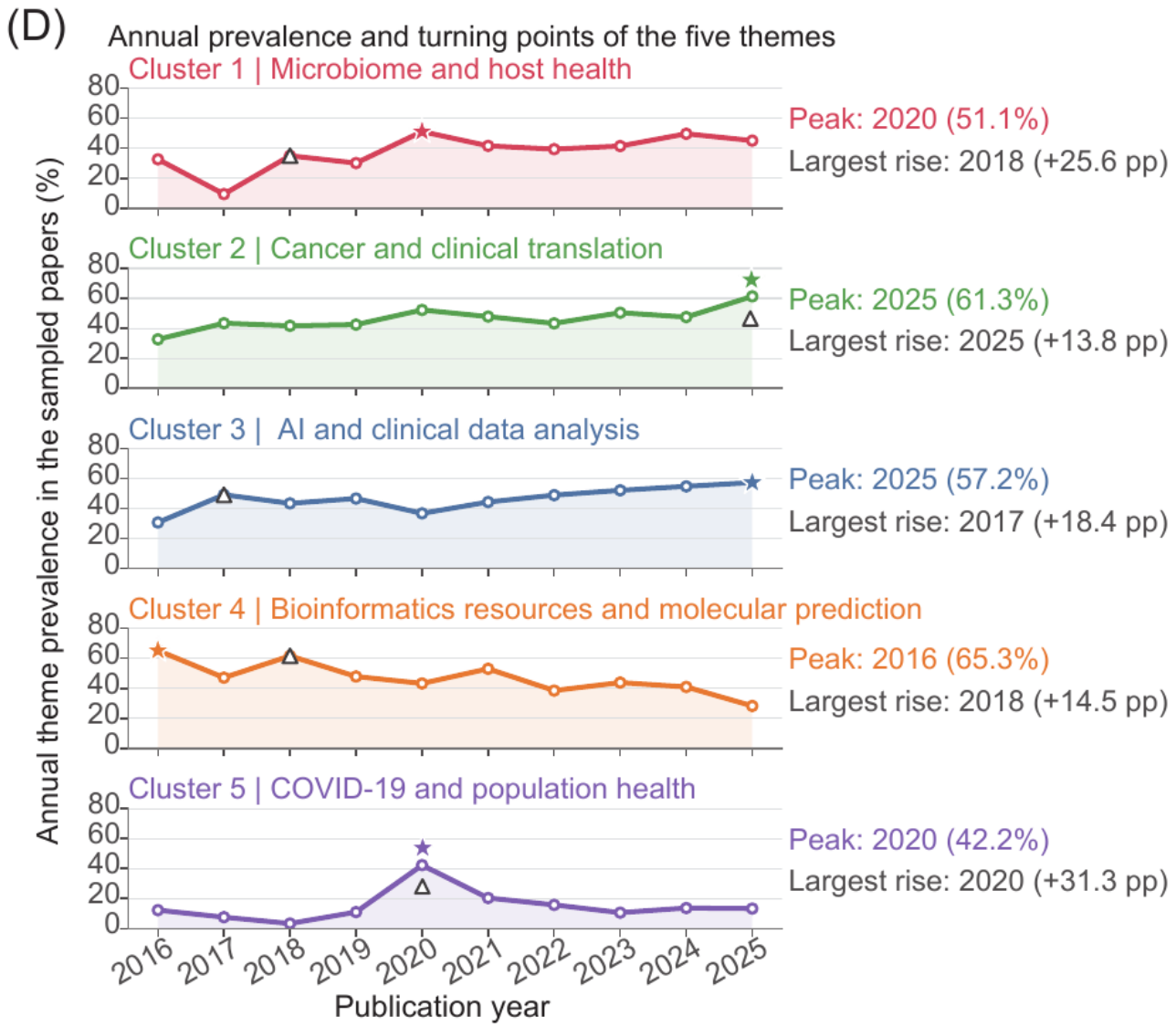
Paper-level overlap among five themes

	Cluster 1	Cluster 2	Cluster 3	Cluster 4	Cluster 5
Cluster 1	n= 405	245 38.0%	144 19.3%	142 20.3%	93 19.9%
Cluster 2		n= 485	226 30.4%	154 20.1%	116 22.1%
Cluster 3			n= 485	190 26.0%	48 8.1%
Cluster 4				n= 437	49 9.0%
Cluster 5					n= 156

245 papers span microbiome and cancer, and 226 span cancer and AI
AI and bioinformatics resources share 190 papers

Figure 2A–B. Term co-occurrence and shared theme membership at the paper level.

Annual changes in theme coverage



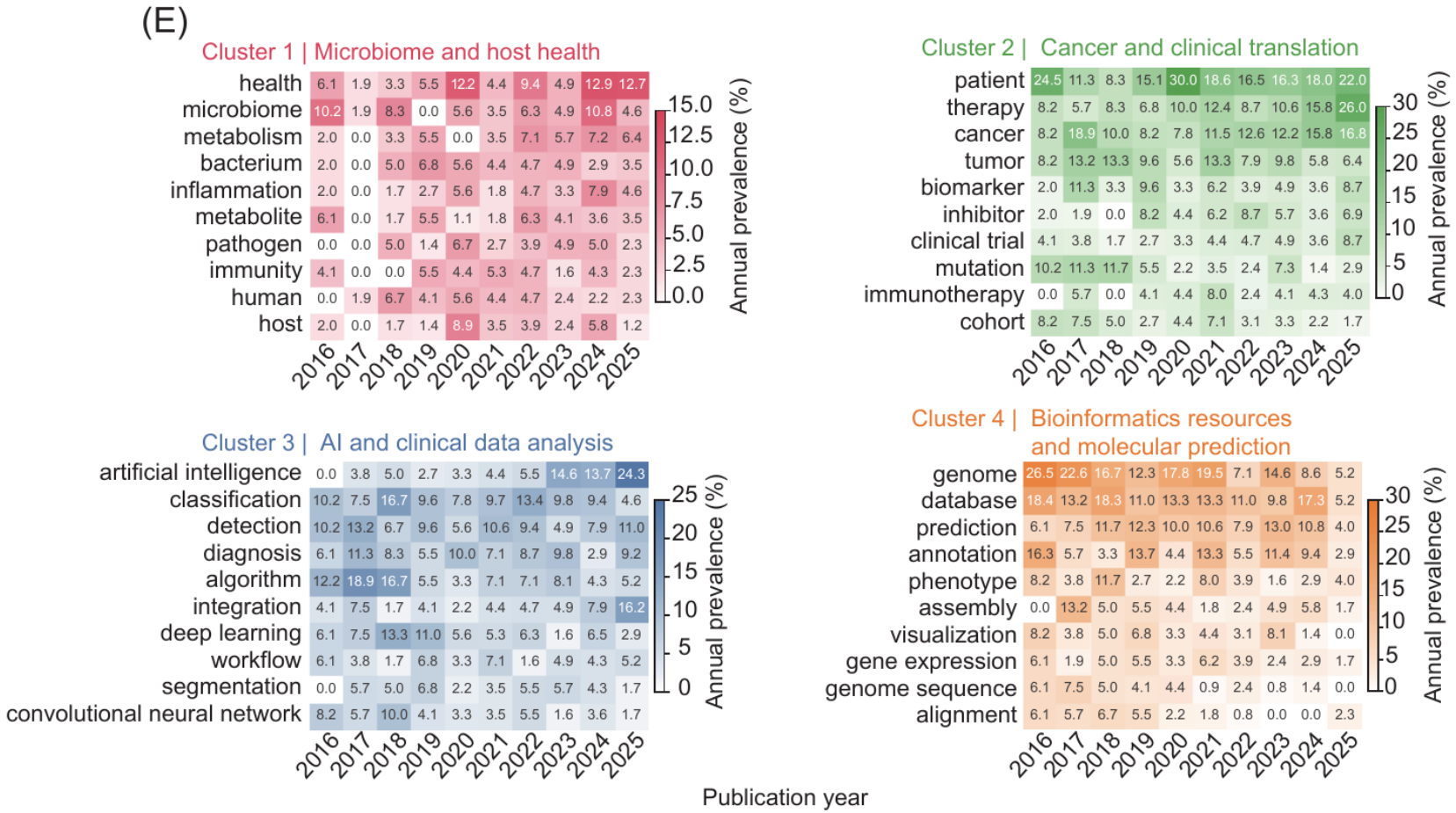
2025 theme coverage
Cancer 61.3%, AI 57.2%

COVID-19 theme
Peak coverage in 2020

Bioinformatics theme
65.3% in 2016
28.3% in 2025

Figure 2D. Theme coverage uses each year's selected sample. Themes can overlap.

Changes in terms within themes



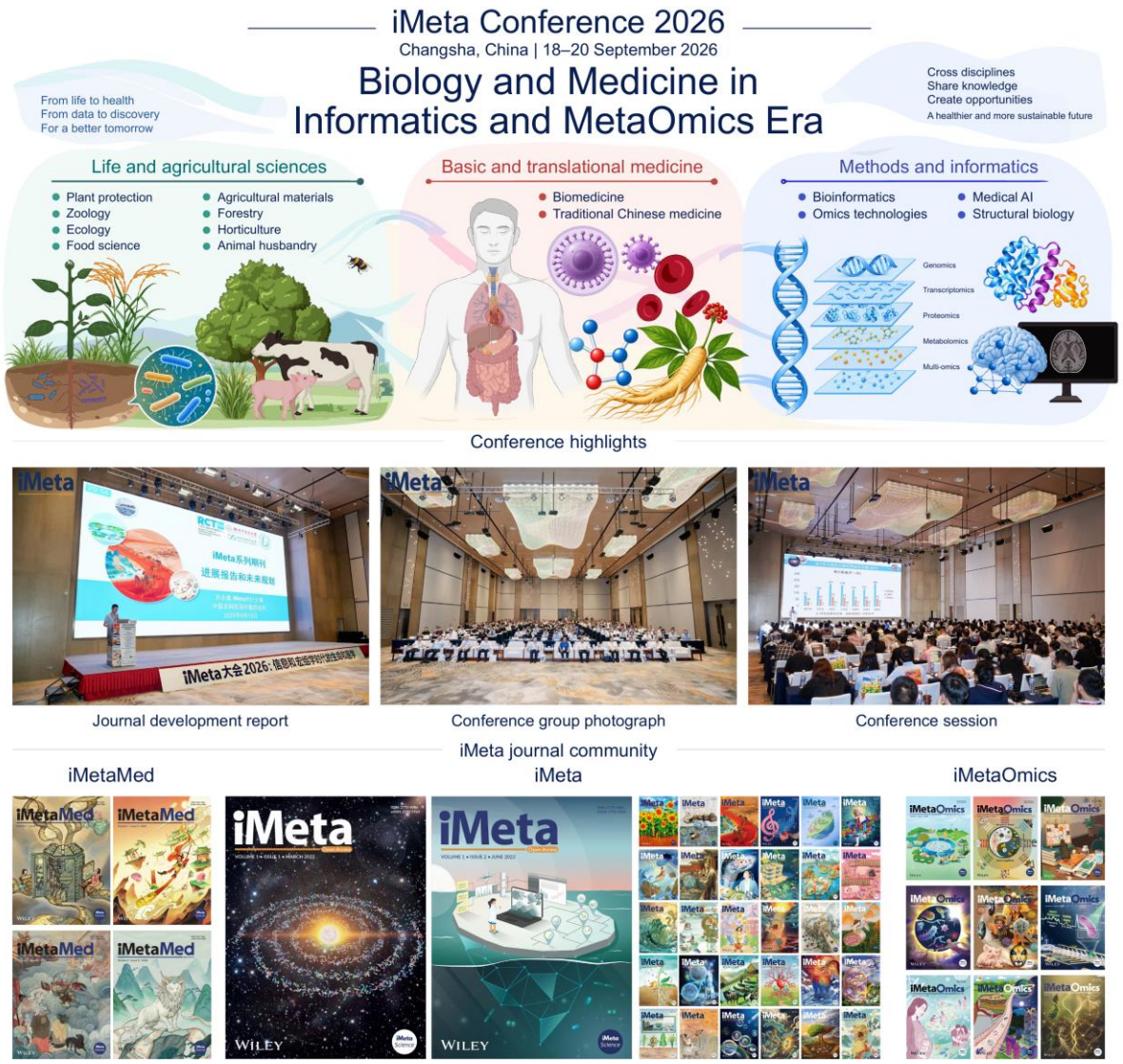
Therapy, clinical trials and data integration

Artificial intelligence 24.3% of the 2025 sample

Top ten terms in each of the first four themes

Figure 2E. Annual term prevalence among selected papers, based on titles and abstracts.

iMeta Conference 2026



Changsha
18–20 September 2026

18 symposia
Over 600 participants

Life and agricultural sciences
Basic and translational medicine
Methods and informatics

Figure 3. Academic exchange and the iMeta journal community.

Summary

- Informatics and omics account for a growing share of the biomedical corpus.
- The selected papers show broad intersections among AI, data integration and clinical research.
- Translating data resources into testable biological insights can support precision medicine, sustainable agriculture and One Health.
- Data and code: https://github.com/yuqiao617/iMeta-Omics-Hotspot

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iMeta: Biology and Medicine in Info and Meta Era

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"***iMeta***" launched in 2022, impact factor (IF) **44.4**, ranking top 47/22643 in the world. It aims to publish innovative and high-quality papers with broad and diverse audiences. Its scope is similar to *Cell*, *Nature* and *Science*. Its unique features include video abstract, bilingual publication, and social media with 800,000 followers. Indexed by **SCIE/ESI**, **PubMed**, **Google Scholar** etc.

"***iMetaOmics***" launched in 2024, indexed by **ESCI**, **PubMed**, with a **target IF>15, and its scope is similar to** *Nature Communications*, *Science Advances*, *Advanced Science*, *Nucleic Acids Research*, etc.

"***iMetaMed***" launched in 2025, with a target IF>15, similar to *Med, Cell Reports Medicine, eBioMedicine, eClinicalMedicine* etc.

"***iMetaBio***" launched in 2026, with a target IF>15, similar to *Cell Reports, Cell Reports Medicine, eBioMedicine, eClinicalMedicine* etc.

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Promotion Video

Update
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