Item S1

1) **Search strategy for bibliometric analysis:**

Database use: ISI Web of Science

Search engine: All databases

Types of databases indexed in ISI Web of Science database:

- Web of Science Core Collection
- BIOSIS Citation Index
- BIOSIS Previews
- CABI: CAB Abstracts®
- Current Contents Connect
- Data Citation Index
- Derwent Innovations Index
- KCI-Korean Journal Database
- MEDLINE®
- Russian Science Citation Index
- SciELO Citation Index
- Zoological Record

Search method: Advance search terms.

MeSH Terms:

Research focus areas terms: Neurosciences & Neurology, Cardiovascular system& Cardiology, Urology& Nephrology, Gastroenterology& Hepatology and Respiratory system.

Organ terms: Brain, Heart, Kidney, Liver and Lung

Methodology terms: Cox-proportional hazard model, CRISPR/Cas9, ELISA, Machine learning, Polymerase chain reaction, Western blot

Commands for advance search: SU= Research area focus, AB= Abstract and AK= Author Keywords.

The search command was focused on including manuscript with the key MeSH terms in either abstract or author keywords and the whole search was restricted to particular research focus area.

Boolean Command example:

SU= (Neurosciences& Neurology) AND (AB = Methodology term AND Brain OR AK= Methodology term AND Brain)

SU= (Cardiovascular system& Cardiology) AND (AB = Methodology term AND Heart OR AK= Methodology term AND Heart)

SU= (Urology& Nephrology) AND (AB =Methodology term AND Kidney OR AK= Methodology term AND Kidney*)

Asterisk is used to include publications with terminology "Renal"

SU= (Gastroenterology& Hepatology) AND (AB = Methodology term AND Liver OR AK= Methodology term AND Liver)

SU= (Respiratory system) AND (AB = Methodology term AND Lung OR AK= Methodology term AND Lung)

2) **Search strategy for Individual Journals:**

MeSH terms: ISSN number, Methodology term

Boolean Command example:

JASN journal: (IS=1046-6673) AND (AB= Machine learning and AK= Machine learning)

Item S2

Funding data is extracted from NIH RePORTER search tool.

Years: 1985 to 2020

Search Term: "Machine Learning"

Search refined by award type: New and excluding competing renewal, non-competing, revision or supplement

Search further refined by: Agency/Institute and Center

Search was further refined by type of grants:

- K series grant for career development category

- T and F series grants for Fellowship and training category

We limited our search strategy to following NIH institutions:

NIDDK: NATIONAL INSTITURE OF DIABETES AND DIGESTIVE AND KIDNEY DISEASE.
NCI: NIH NATIONAL CANCER INSTITUTE.
NHLBI: NATIONAL HEART LUNG BLOOD INSTITUTE.
NINDS: NATIONAL INSTITUTE OF NEUROLOGICAL DISORDERS STROKE.
NCATS: NATIONAL CENTER FOR ADVANCING TRANSLATIONAL SCIENCES.
NHGRI: NATIONAL HUMAN GENOME RESEARCH INSTITUTE.
NLM: NATIONAL LIBRARY OF MEDICINE.
NIBIB: NATIONAL INSTITUTE OF BIOMEDICAL IMAGING BIOENGINEERING.