

CEIRS RESEARCH

CEIRS knowledge spreads from the Network to the scientific community. The broad expertise of investigators enables multidisciplinary & collaborative research spanning surveillance to flu vaccine development. Analysis of Medical Subject Headings (MeSH) term co-occurrence across CEIRS influenza, SARS coronavirus, & MERS coronavirus publications reveals ten research themes scaled by theme strength & prevalence across CEIRS papers.



HUMAN INFLUENZA
Humans | Influenza, human, virology | Influenza, human, immunology



AVIAN INFLUENZA
Influenza in birds, virology | Influenza in Birds, epidemiology | Animals

KEY

Top ten MeSH terms in theme



→ MeSH term

→ Weighted research theme strength

Weighted Research Theme Strength:

The frequency of MeSH term in CEIRS papers x the strength of the research theme identified with CorEx topic modeling



SWINE INFLUENZA
Orthomyxoviridae infections, veterinary | Swine diseases, virology | Swine



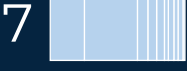
HOST DETERMINANTS & INFLUENZA
Adult | Middle aged | Young adult



IMMUNOLOGY & VACCINES
Influenza vaccines, immunology | Antibodies, viral, immunology | HA glycoproteins, influenza virus, immunology



INFLUENZA MODEL SYSTEMS
Mice | Dogs | MDCK cells



VIRAL EVOLUTION & SEQUENCING
Molecular sequence data | Phylogeny | Sequence analysis, DNA



GLYCOPROTEINS & MOLECULAR GENETICS
Viral proteins, genetics | NA genetics | Amino acid substitution



ANTIVIRALS & THERAPEUTICS
Antiviral agents, pharmacology | Influenza A virus, H1N1 subtype, drug effects | Oseltamivir, pharmacology

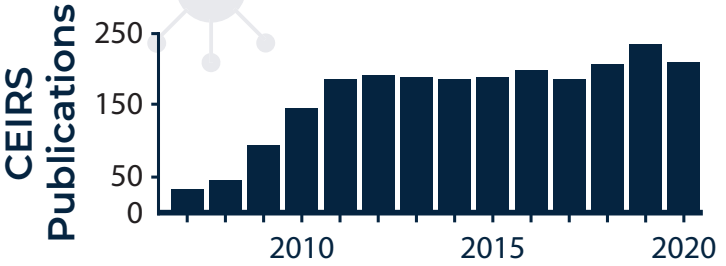


MERS CORONAVIRUS & VIRAL RECEPTORS
Models, molecular | Coronavirus infections, virology | Receptor, virus, metabolism

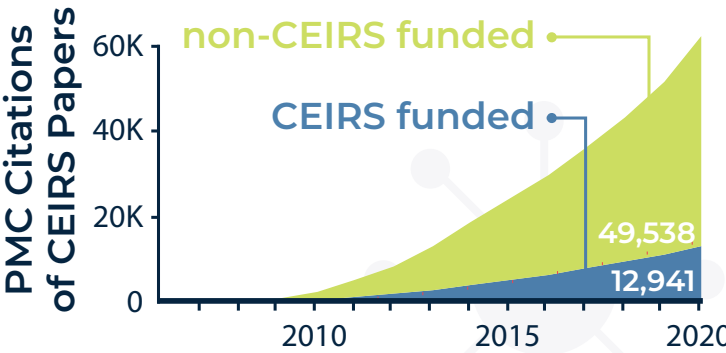


No. of Publications

2,383+ peer-reviewed publications



CEIRS publications influence global research & are highly cited within & outside the Network.



The NIH iCite tool generates metrics on the influence of publications compare to other NIH-funded work to showcase the impact & importance of CEIRS research.

Annual Citation Rate
5.88 CEIRS exceeds predicted citation rates (avg. 2.81), maxing at 133x a year.

Average RCR Score
2.22 A Relative Citation Ratio (RCR) shows research impact. 1.0 is greater than 50% of NIH-funded papers.

High Impact Papers
29% 693 CEIRS papers are above the 75th percentile of NIH-funded research.

INVESTIGATOR NETWORKS

The CEIRS investigator network visualizes authors linked by publication history across CEIRS-funded publications. The interlinked network structure & prominent cross-Center publications (in green) emphasize a robust publication history & collaborative program.



No. of Authors

4,986+ scientists



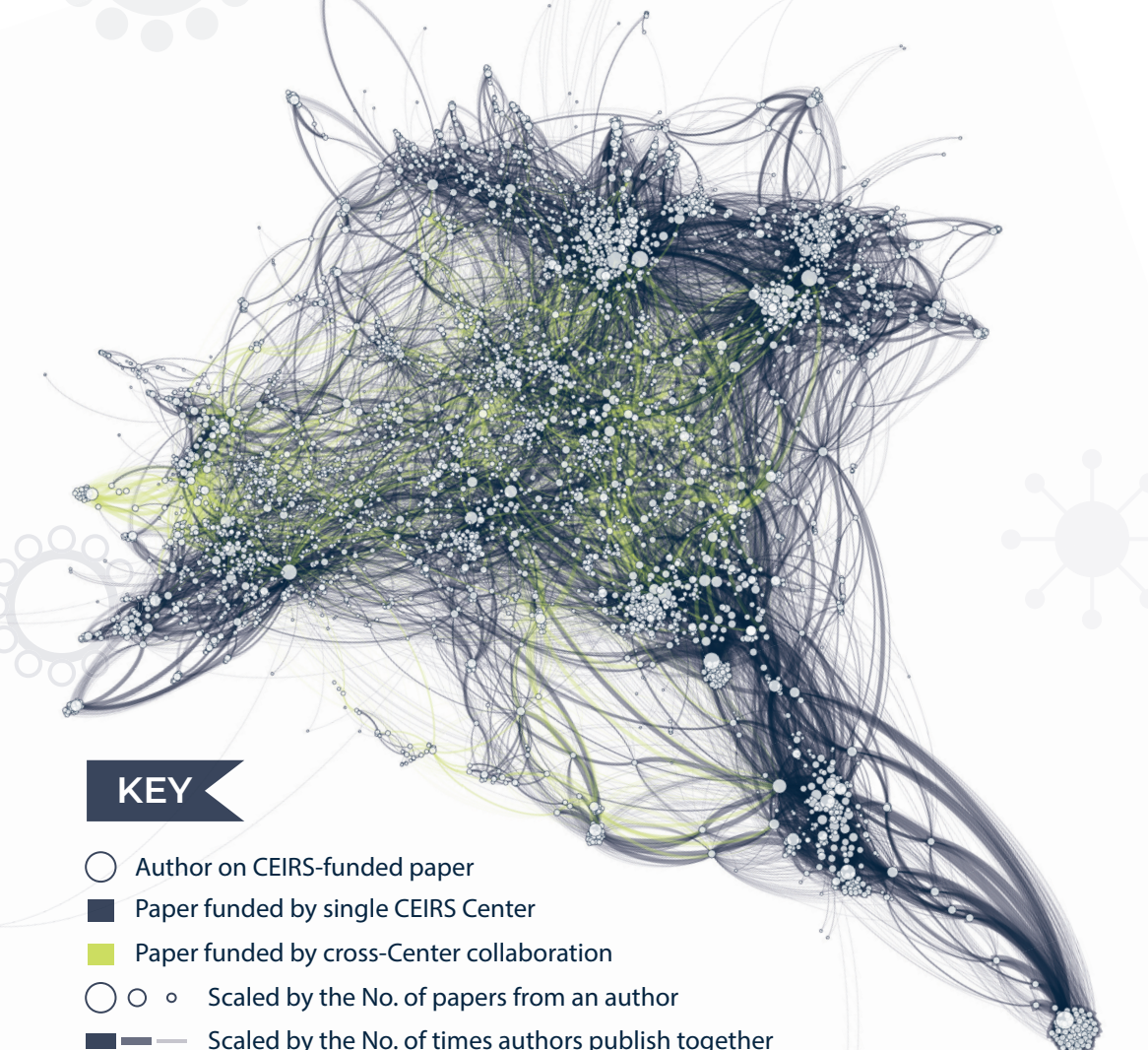
No. of Countries

184+ countries collaborating

Authors who collaborate on a publication are linked. The network is distributed based on how often authors co-publish.

A group of authors that frequently publish together

An author that bridges research groups



KEY

- Author on CEIRS-funded paper
- Paper funded by single CEIRS Center
- Paper funded by cross-Center collaboration
- ○ ○ Scaled by the No. of papers from an author
- — — Scaled by the No. of times authors publish together