



COVID-19 GPH

Up to Date Genomics and Precision Health Information on COVID-19

(/PHGKB/coVInfoStartPage.action)

Last data update: Aug 08, 2020. (Total: 5808 (/PHGKB/coVInfoFinder.action?Mysubmit=init&dbTypeChoice=All&query=all&__checkbox_covOption=true)
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Spotlight

Rare Diseases and COVID-19 (/PHGKB/phgHome.action?action=forward&dbsource=cov&id=30116)

CDC COVID-19 Genomics and Precision Health Portal,
August 2020

This section of the portal lists all rare diseases, many of which are genetic diseases, that have been connected to COVID-19 in the literature. As of today, there are 84 diseases/conditions from the list of nearly 7,000 rare diseases extracted from the NIH website that are related to COVID-19 literature or news and reports.

Modelling the impact of testing, contact tracing and household quarantine on second waves of COVID-19

(/PHGKB/phgHome.action?action=forward&dbsource=cov&id=30084)

A Aleta et al, Nature Human Behavior, August 5, 2020

We integrate anonymized, geolocalized mobility data with census and demographic data to build a detailed model of transmission in Boston. We find that strict social distancing followed by testing, contact-tracing and quarantine could keep the disease within capacity of healthcare system while enabling the reopening of economic activities.

Using a real-world network to model localized COVID-19 control strategies (/PHGKB/phgHome.action?action=forward&dbsource=cov&id=30082)

JA Firth et al, Nature Medicine, August 7, 2020

It remains unclear how real-world social networks could influence the effectiveness and efficiency of such approaches. To address this issue, we simulated control strategies for SARS-CoV-2 transmission in a real-world social network generated from high-resolution GPS data.

Genetic variability in the expression of the SARS-CoV-2 host cell entry factors across populations

(/PHGKB/phgHome.action?action=forward&dbsource=cov&id=30076)

LO Fernandez et al, Genes and Immunity, August 6, 2020

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Health Topics and Genes

- Rare Diseases
(/PHGKB/coVInfoFinder.action?Mysubmit=rare)

Content Statistics

- Total (5808)
(/PHGKB/coVInfoFinder.action?Mysubmit=init&dbTypeChoice=All)
- Genomics Precision Health (3877)
(/PHGKB/coVInfoFinder.action?Mysubmit=init&dbTypeChoice=Genomics)
- Non-Genomics Precision Health (1631)
(/PHGKB/coVInfoFinder.action?Mysubmit=init&dbTypeChoice=Non-Genomics&query=all&__checkbox_covOption=true)

In PHGKB Databases

- CDC Information (24)
(/PHGKB/cDCInfoFinder.action?Mysubmit=init&query=coronaviruses)
- NIH Information (24)
(/PHGKB/cDCInfoFinder.action?Mysubmit=init&query=coronaviruses)
- CDC Publications (1)
(/PHGKB/cdcPubFinder.action?Mysubmit=init&action=search&query=coronaviruses)
- Pathogen Advanced Molecular Detection (270)
(/PHGKB/amdFinder.action?Mysubmit=init&query=coronaviruses)
- Hot Topics (733)
(/PHGKB/phgHome.action?query=coronaviruses)

We devised a quantitative measure to estimate genetic determinants of ACE2 and TMPRSS2 expression and applied this measure to >2500 individuals. Our data show significant variability in genetic determinants of expression among individuals and between populations, and indicate a predisposition for lower expression levels in African populations.



Latest News and Publications

Rapid and extraction-free detection of SARS-CoV-2 from saliva with colorimetric LAMP

(/PHGKB/phgHome.action?action=forward&dbsource=cov&id=30123)
MA Lalli et al, MEDRXIV, August 6, 2020

New

Repeat COVID-19 Molecular Testing: Correlation with Recovery of Infectious Virus, Molecular Assay Cycle Thresholds, and Analytical Sensitivity

(/PHGKB/phgHome.action?action=forward&dbsource=cov&id=30122)
V Gniazdowski et al, MEDRXIV, August 6, 2020

New

Rapid, reliable, and cheap point-of-care bulk testing for SARS-CoV-2 by combining hybridization capture with improved colorimetric LAMP (Cap-iLAMP)

(/PHGKB/phgHome.action?action=forward&dbsource=cov&id=30121)
L Bokelmann et al, MEDRXIV, August 6, 2020

New

Development of mass spectrometry-based targeted assay for direct detection of novel SARS-CoV-2 coronavirus from clinical specimens

(/PHGKB/phgHome.action?action=forward&dbsource=cov&id=30120)
S Renuse et al, MEDRXIV, August 6, 2020

New

Unwavering Regulatory Safeguards for COVID-19 Vaccines.

(/PHGKB/phgHome.action?action=forward&dbsource=cov&id=30119)
Shah Anand et al. JAMA 2020 Aug

New

Allocation of COVID-19 Relief Funding to Disproportionately Black Counties.

(/PHGKB/phgHome.action?action=forward&dbsource=cov&id=30118)
Kakani Pragya et al. JAMA 2020 Aug

New

COVID-19 Genomics and Precision Public Health Weekly Update

(/PHGKB/phgHome.action?action=forward&dbsource=cov&id=30117)
CDC, August 2020

New

Imaging of COVID-19 pneumonia: Patterns, pathogenesis, and advances.

(/PHGKB/phgHome.action?action=forward&dbsource=cov&id=30113)
Nagpal Prashant, et al. The British journal of radiology 2020 8 0. 20200538

New

Understanding Public Perception of COVID-19 Social Distancing on Twitter.

(/PHGKB/phgHome.action?action=forward&dbsource=cov&id=30112)

- query=coronavirus&action=search
- Human Genome Epidemiologic Studies (10) (/PHGKB/searchSummary.action?firstQuery=coronavirus&MySubm
- GWAS Studies (1) (/PHGKB/searchSummary.action?firstQuery=coronavirus&MySubm

Quick Links

- arXiv (https://arxiv.org/search/advanced/advanced=&terms-0-operator=AND&terms-0-term=COVID-19&terms-0-field=title&terms-1-operator=OR&terms-1-term=SARS-CoV-2&terms-1-field=abstract&terms-3-operator=OR&terms-3-term=COVID-19&terms-3-field=abstract&terms-4-operator=OR&terms-4-term=SARS-CoV-2&terms-4-field=title&terms-5-operator=OR&terms-5-term=coronavirus&terms-5-field=title&terms-6-operator=OR&terms-6-term=coronavirus&terms-6-field=abstract&classification_physics_archives=all&classification_include_cross_list=include&date_filter_by=all_dates&date_year=&date-from_date=&date-to_date=&date-date_type=submitted_date&abstract_announced_date_first&source=hor-covid-19)
- BIORXIV (https://www.biorxiv.org/search/date%20direction%3Adescending)
- CDC Novel Coronavirus Reports (https://www.cdc.gov/mmwr/Nov)
- CDC COVID-19 (na)
- CDC Library COVID19 (https://www.cdc.gov/library/rese)
- COVID-END Evidence Sources (https://www.mcmasterforum.org/collaborate/our-guide-to-covid-19-evidence-sources)
- CDC SPHERES (https://www.cdc.gov/coronavirus/nCoV/cases-updates/spheres.html)
- LitCovid

Saleh Sameh N, et al. Infection control and hospital epidemiology 2020 8 o. 1-36

New

The evidence of indirect transmission of SARS-CoV-2 reported in Guangzhou, China.

(/PHGKB/phgHome.action?

action=forward&dbsource=cov&id=30111)

Xie Chaojun, et al. BMC public health 2020 8 o. (1) 1202

New

All Latest (/PHGKB/coVInfoFinder.action?

Mysubmit=init&dbTypeChoice=All&query=recent&__checkboxcovOption=true)

Genomics Precision Health: The use of pathogen and human genomics and advanced molecular detection (/PHGKB/amdClip.action?action=home) methods in discovery, clinical and public health investigations involving COVID-19.

Non Genomics Precision Health: The use of big data, data science and machine learning methods (not involving genomics) in discovery, clinical and public health investigations involving COVID-19

(<https://www.ncbi.nlm.nih.gov/res>

- MEDRXIV
(<https://www.medrxiv.org/search/date%20direction%3Adescending>)
- NextStrain
(<https://nextstrain.org/>)
- NCBI SARS-CoV-2 Sequences
(<https://www.ncbi.nlm.nih.gov/gen-cov-2-seqs/>)
- NCBI SARS-CoV-2 Resources
(<https://www.ncbi.nlm.nih.gov/sars-cov-2/>)
- NIH iSearch COVID-19 portfolio
(<https://icite.od.nih.gov/covid19/se>
- NIH COVID-19 Treatment Guidelines
(<https://covid19treatmentguidelin>
- NIH Open Access Resources
(<https://datascience.nih.gov/covid-19-open-access-resources>)
- Rapid Peer Preprint Reviews
(<https://outbreaksci.prereview.org>)
- WHO COVID-19
(<https://www.who.int/health-topics/coronavirus>)

About COVID-19 GPH

COVID-19 GPH is an online, continuously updated, searchable database of published scientific literature, CDC and NIH resources, and other materials that captures emerging discoveries and applications of genomics, molecular and other precision medicine and precision public health tools in the investigation and control of COVID-19. Contents include PubMed records via an automated pubmed search algorithm, preprint records from NIH iCite, the relevant information from many media sources picked by experts, and linkages to contents from our curated PHGKB databases.

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