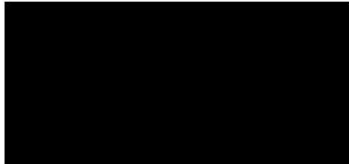




March 1, 2021

SENT VIA EMAIL



This letter is in response to your February 21, 2021, email regarding our response dated February 21, 2021, to your Centers for Disease Control and Prevention and Agency for Toxic Substances and Disease Registry (CDC/ATSDR) Freedom of Information Act (FOIA) request of January 6, 2021, assigned #21-00464-FOIA, for the following information:

All records in the possession, custody or control of CDC/ATSDR describing the isolation of a SARS-COV-2 virus, directly from a sample taken from a diseased patient, where the patient sample was not first combined with any other source of genetic material (i.e. monkey kidney cells aka vero cells; lung cells from a lung cancer patient).

Please note that I am using 'isolation' in the every-day sense of the word: the act of separating a thing(s) from everything else. I am not requesting records where 'isolation of SARS-COV-2' refers instead to:

- the culturing of something, or
- the performance of an amplification test (i.e. a PCR test), or
- the sequencing of something.

Please also note that my request is not limited to records that were authored by CDC/ATSDR or that pertain to work done by CDC/ATSDR. My request includes any sort of record, for example (but not limited to) any published peer-reviewed study that CDC/ATSDR has downloaded or printed.

If any records match the above description of requested records and are currently available to the public elsewhere, please provide enough information about each record so that I may identify and access each record with certainty (i.e. title, author(s), date, journal, where the public may access it).

We received your clarification scope dated January 11, 2021, which provided the following information:

This is not a complex question. I have already received a response from the CDC on this topic in November. The ONLY reason I have resubmitted is because I inquired with LaShanda (LSchofield@cdc.gov) who was my previous case manager. She advised that I resubmit my question due to the following claim by the CDC:

<https://www.cdc.gov/coronavirus/2019-ncov/lab/grows-virus-cell-culture.html>

Since the above article is dated December and I received a response in Nov, then there should only be the analysis of the content on that page.

Therefore, I am rejecting the 'complicated' claim and expect a response within 30 business days. If not, I will submit with the Ombudsman right away.

You provided us the following written summary dated February 2, 2021:

I will respond fully to the FOIA response in this email. I don't remember exactly what I said in my voicemail so I will articulate the entire issue here.

Summary

In this section I will summarize my points. Sections after this summary are just my detailed analysis of the references in the 21-00464-FOIA response.

- My FOIA requests the real isolation (separation of SARS-COV-2 from everything else also known as purification) and has not been answered by 21-00464-FOIA
- 21-00464-FOIA has requested all records that demonstrate the isolation (separation / purification) of SARS-COV-2 since Nov 2020
- The response to 21-00464-FOIA did not produce any records for the isolation (separation / purification) of SARS-COV-2
- I am seeking a new response to my initial inquiry of the isolation (separation / purification) of SARS-COV-2 between Nov 2020 and present.
- I do not want any records that do not match my initial request (See attached.).

On February 21, 2021, the subject matter expert (SME) stated the following:

The requester specifies that the requester would like documents related to isolation, defined by the requester as “separation of SARS-COV-2 from everything else also known as purification”; viruses need cells to replicate, and cells require liquid food, so this specific component of the request is outside of what is possible in virology. However, the SARS-CoV-2 virus may be isolated from a human clinical specimen by culturing in cell culture, as indicated in the previous round of response and produced below.

Evidence of SARS-CoV-2 infection can be found in a study entitled, [Pathology and Pathogenesis of SARS-CoV-2 Associated with Fatal Coronavirus Disease](#), which includes electron microscopy images of SARS-CoV-2 in infected lung and upper airway tissues as well as staining of lung and upper airway tissues using an antibody against SARS-CoV-2. The specimens analyzed in this study were from patients with common signs and symptoms associated with COVID-19, including fever, cough, and shortness of breath. All patients had abnormal findings on chest radiographs. There are other similar studies publicly available online. To aid in locating other related studies, please see the articles suggested in the "Similar Articles" and "Cited by" section on the manuscript's [PubMed entry \(https://pubmed.ncbi.nlm.nih.gov/32437316/\)](#).

The SARS-CoV-2 virus may be isolated from human clinical specimens by culturing in cells. In January 2020, CDC [isolated the SARS-CoV-2 virus \(https://wwwnc.cdc.gov/eid/article/26/6/20-0516_article\)](#) from a clinical specimen from the first confirmed case of COVID-19 in the United States. There are other similar studies published describing the isolation and characterization of SARS-CoV-2 from human clinical specimens. To aid in locating other related studies, please see the articles suggested in the "Similar Articles" and "Cited by" section on the manuscript's [PubMed entry \(https://pubmed.ncbi.nlm.nih.gov/32160149/\)](#). There are also [several publications](#) documenting SARS-CoV-2 infection and transmission among pre-symptomatic and asymptomatic individuals ([https://pubmed.ncbi.nlm.nih.gov/32364890/](#)).

For information about the SARS-CoV-2 genome sequence, see the NIH GenBank website (<https://www.ncbi.nlm.nih.gov/genbank/sars-cov-2-seqs/>), which includes over 44,000 sequences as of December 7, 2020.

On February 21, 2021, you requested the following information:

Can you please clarify if you have any records of the separation of SARS-COV-2 from everything else (known as isolation and purification)? A simple yes or no will do regarding the answer. Please use the Merriam-Webster dictionary's common definition of [isolation](#). I will provide the definitions below:

isolation

isolation noun

 Save Word

iso-la-tion | \,ī-sə-'lā-shən  also ,i- \

Definition of *isolation*

: the action of [isolating](#) : the condition of being [isolated](#)

Isolated

isolated adjective

 Save Word

iso-lat-ed | \ 'ī-sə-,lā-təd  also 'i- \

Definition of *isolated*

- 1 : occurring alone or once : [UNIQUE](#)
- 2 : [SPORADIC](#)

Isolate

isolate verb

 Save Word

iso-late | \ 'ī-sə-,lāt  also 'i- \

isolated; isolating

Definition of *isolate* (Entry 1 of 3)

transitive verb

- 1 : to set apart from others
also : [QUARANTINE](#)
- 2 : to select from among others
especially : to separate from another substance so as to obtain pure or in a free state
- 3 : [INSULATE](#)

The SME states the following:

The definition of “isolation” provided in the request is outside of what is possible in virology, as viruses need cells to replicate, and cells require liquid food. However, the SARS-CoV-2 virus may be isolated from a human clinical specimen by culturing in cell culture, which is the definition of “isolation” as used in microbiology, and as indicated in the previous round of response in the resources provided.



If you need any further assistance or would like to discuss any additional aspect of the records provided please contact either our FOIA Requester Service Center at 770-488-6399 or our FOIA Public Liaison at 770-488-6277.

Sincerely,

A handwritten signature in black ink, appearing to read 'Roger Andoh'.

Roger Andoh
CDC/ATSDR FOIA Officer
Office of the Chief Operating Officer
Phone: (770) 488-6399
Fax: (404) 235-1852

21-00464-FOIA

Below is text from pages 2/3 of the CDC's March 1, 2021 response (#21-00464-FOIA), with live links (the links in the previous page are "dead" because in order to redact the submitter's identity we used an image of the original pdf and added text boxes to cover the name/email).

SARS-CoV-2 is the virus that causes coronavirus disease 2019 (COVID-19). Active infection with SARSCoV-2 is detected by [diagnostic tests](#). Currently there are two types of diagnostic tests – molecular tests that detect the virus's genetic material and antigen tests that detect specific proteins on the surface of the virus. For current data showing the total number of SARS-CoV-2-positive cases and deaths, visit the [CDC COVID-19 Data Tracker](#), which shows cases and deaths in the United States broken down by state and county, daily trends in the number of cases by state, and other parameters.

Evidence of SARS-CoV-2 infection can be found in a study entitled, [Pathology and Pathogenesis of SARSCoV-2 Associated with Fatal Coronavirus Disease](#), which includes electron microscopy images of SARSCoV-2 in infected lung and upper airway tissues as well as staining of lung and upper airway tissues using an antibody against SARS-CoV-2. The specimens analyzed in this study were from patients with common signs and symptoms associated with COVID-19, including fever, cough, and shortness of breath. All patients had abnormal findings on chest radiographs. There are other similar studies publicly available online. To aid in locating other related studies, please see the articles suggested in the "Similar Articles" and "Cited by" section on the manuscript's [PubMed entry](#).

The SARS-CoV-2 virus may be isolated from human clinical specimens by culturing in cells. In January 2020, CDC [isolated the SARS-CoV-2 virus](#) from a clinical specimen from the first confirmed case of COVID-19 in the United States. There are other similar studies published describing the isolation and characterization of SARS-CoV-2 from human clinical specimens. To aid in locating other related studies, please see the articles suggested in the "Similar Articles" and "Cited by" section on the manuscript's [PubMed entry](#). There are also [several publications](#) documenting SARS-CoV-2 infection and transmission among presymptomatic and asymptomatic individuals.

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