COVID Integrated Data Repository (IDR)
Navigation Guide

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Log In
Any Duke faculty or staff member may submit a request via email to CovidIDRandSpecimensRequest@duke.edu to obtain access to the COVID-19 IDR dashboard. Once the request is processed, follow the steps below.

1. Navigate to https://covididr.duhs.duke.edu
2. Click the Login button
3. Click Sign in with Azure Active Directory
4. Select or type in your Duke NetID email address
5. Log in using your Duke NetID credentials (including MFA if needed)
Homepage
Navigate to desired areas via (1) left sidebar or (2) tabs in center of screen

Navigate with left sidebar or tabs in center of screen

View Options for Data Searches

1. Users may select 1 of 3 views to search for data

2. Select “Biospecimens – All Studies” to identify patients or specimens across all studies included in the COVID-19 IDR.

   The graph displays specimen types.
Select "Biospecimens-Residuals (Pro00105316)" to limit your search to the SOM COVID-19 Residual Sample Biorepository.

Note: The "Biospecimens-Residuals (Pro00105316)" is identical to the other two views, except it does not include the "Research Protocol" filter.

Select "Participants Per Study" to identify patients or specimens across all studies included in the COVID-19 IDR.

The graph displays counts of specimens per protocols.
Identify a Cohort

1. Select “Biospecimens – All Studies” to identify patients or specimens across all studies included in the COVID-19 IDR.

   Select “Biospecimens-Residuals (Pro00105316)” to limit your search to the SOM COVID-19 Residual Sample Biorepository.

2. Users will see this view to begin their search in “Biospecimens – All Studies”.

   Note: The “Biospecimens-Residuals (Pro00105316)” is identical, except it does not include the “Research Protocol” filter.
### Use the filters to narrow your search to patients and/or specimens of interest.

#### COVID Test Result

COVID test results are pulled from the electronic health record (EHR). Individuals may have multiple test results over a period of time. Users may filter for:

- Any positive test result
- Any negative test result
- No positive test result (i.e. only results in Duke data are negative)
- No negative test result (i.e. only results in Duke data are positive)

There is **no direct connection between a specimen and a positive/negative test result.**

#### Tissue Type

Users may specify tissue type for specimens of interest. “None” reflects that the field was blank (data issue).

#### Condition and Condition Group

Users may type conditions of interest and potential matches will populate for selection.

#### Research Protocols

Users may select a protocol to search for specimens only associated with protocols of interest.

### Data Preview

As filters are applied, the graph updates automatically. Depending on your level of access, some minimal de-identified data may be available for preview.

### Save Search

You may save a search to execute again in the future.
### Get the Data – For Users with Approved IRB Protocol

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Download Data – You may download deidentified data from your search in .csv format</td>
</tr>
</tbody>
</table>
| 2 | Patient Data | The following fields are available:  
   • "id","birth_date","gender","zip","ethnicity","race"  
   • “Birth date” is not the exact date, it has been “jittered” |
| 3 | Specimen Data | The following fields are available:  
   • "id","subject","type","protocol","collected_date"  
   • “id” is de-identified specimen ID. Each one will be unique.  
   • “subject” is de-identified version of medical record number (MRN). You may see multiple results with this ID if the patient has more than one specimen |
| 4 | Condition Data | The following fields are available:  
   • "id","subject","icd10","icd9","condition"  
   • “id” is condition ID. Each one will be unique.  
   • “subject” is de-identified version of medical record number (MRN). You may see multiple results with this ID if the patient has more than one condition  
   • Examples of conditions are |
| 5 | Observation Data | The following fields are available:  
   • "id","subject","type","value"  
   • “id” is observation ID. Each one will be unique.  
   • “subject” is de-identified version of medical record number (MRN). You may see multiple results with this ID if the patient has more than one condition  
   • Examples of observation types are BMI, smoking status, etc. Lab values should also be included here. |
| 6 | All Data | Users with IRB approval may send an email to mailto:CovidIDRandSpecimensRequest@dm.duke.edu to request more de-identified data and/or in a different format (e.g. FHIR) or identified data via an Honest Broker and delivered to PACE. |
Protocol Information and Data Dictionary

Provides a list of protocols included in the IDR with a brief description of each. Users may download a PDF version of the information.

<table>
<thead>
<tr>
<th>Step</th>
<th>Instruction</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Select “Protocols &amp; Dictionary”.</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>This view provides a list of protocols included in the IDR with a brief description of each.</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Scroll down the page to view the data dictionary. Users may download a PDF version of the full data dictionary. Users may also search for specific terms in the data dictionary.</td>
<td></td>
</tr>
</tbody>
</table>
Table 1

1. Select “Table 1” from left navigation menu

2. This view provides a “Table 1” to summarize all data across all protocols.

<table>
<thead>
<tr>
<th>Specimen Types</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specimens</td>
<td>94,104</td>
</tr>
<tr>
<td>Patients</td>
<td>5,231</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Specimen Types</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>RNA Total</td>
<td>74</td>
</tr>
<tr>
<td>Plasma</td>
<td>26,012</td>
</tr>
<tr>
<td>Tissue, OCT</td>
<td>63</td>
</tr>
<tr>
<td>Saliva</td>
<td>437</td>
</tr>
</tbody>
</table>
Permissions

Researchers may send an email to mailto:CovidIDRandSpecimensRequest@dm.duke.edu to request access to the IDR.

Researchers will only be granted access to view aggregated data unless they provide an RPR or protocol information. The staff will review the RPR or the protocol information in iRIS to confirm the appropriate authorization prior to adding to the IDR. Users will see the following based on their authorization level.

<table>
<thead>
<tr>
<th>Role</th>
<th>Authorizations</th>
</tr>
</thead>
</table>
| Any faculty or staff having a valid Duke Net ID (excludes affiliate accounts) | • View aggregated data with counts of participants and specimens by protocol  
|                                                                      | • Define a cohort based on specific de-identified clinical parameters such as labs, diagnoses, and demographics; save cohort; view aggregated counts |
| Research Preparatory to Research (RPR)                               | All authorizations listed above plus                                           |
|                                                                      | • View columns of de-identified data (no download capabilities)               |
| Researcher with IRB Protocol Determined Exempt or Approved           | All authorization listed above plus                                           |
|                                                                      | • View and download de-identified data for individual participants           |
| Researcher with Approved IRB Protocol                                | All authorization listed above plus                                           |
|                                                                      | • View fully identified data                                                 |
|                                                                      | • Receive download of fully identified data with Honest Broker assistance     |
| Application Administrator                                           | Full access to data for support to the user community and the application    |
| Honest Broker                                                       | Full access to support the needs of the data management                      |
| Governance Committee                                                | Elevated access to allow access to datasets subject to review by the committee |