



# Human Postmortem Tissue Core Public Search

Manual of Operations  
v. 1.0

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# Human Postmortem Tissue Core Public Search Manual of Operations Version 1.0

This publically available search interface enables researchers around the world to query the Target ALS Multicenter Human Postmortem Tissue Core for available fixed and frozen tissue samples of specific anatomical regions from subjects meeting selectable clinical and demographic criteria.

A main reason for this search is to help researchers use our [Tissue Request Form](#) to make requests for samples that are reasonable given what is available for use.

**Please note that frozen tissue availability generally implies availability of ~75-200 mg individual samples (varies depending on anatomical region) and fixed tissues are generally provided as unstained “Plus-coated” glass slides. See the Tissue Request Form for further details**

[Click here to access the Public Search](#)

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## HOW TO SEARCH POSTMORTEM TISSUES

### What results will my selections produce?

The search will not return a list of specific cases, or case-specific details. Rather, it will generate a count of the number of cases with samples meeting the criteria specified that are currently available across all sites in our multicenter Core.

The following are generic “rules of engagement” for performing searches:

#### - Subject Characteristics:

- The user **MUST** select at least one **Subject type** (ALS or Non-Neurologic Controls) to produce search results. If both **ALS** and **Non-Neurologic Controls** are selected, the search will return two separate results – one for each subject type.
- “Ghosted” subject characteristics become selectable when the parent category is selected. For example, **ALS** must be selected to be able to select **fALS**, and **fALS** must be selected to be able to select **SOD-1**.
- Any checkbox selected on the same horizontal row produces results for all subjects combined in those categories (so-called “union” or “OR”). For example, if both **SOD1** and **C9orf72** are selected, the results will contain any subjects who possess either of these mutations. If checkboxes on different horizontal rows are selected, for example, **Male and Bulbar**, the results will contain only patients that are both male AND had bulbar onset.
  - Note that **Both** under “Site of Symptom Onset” implies that there was simultaneous onset in both the extremities and bulbar regions.
- If a specific class of subject characteristic is not specified, the results will contain cases for which that data does not exist in the database. For example, selecting both **Bulbar** and **Extremities** will include subjects who had symptom onset in either the bulbar region OR their extremities, while leaving the Site of Symptom Onset fields blank will also include cases for which site of onset is not known (or not specified).
- *For the following characteristics the user MUST specify **From AND To** values:*
  - **Age at Symptom**
  - **Disease Duration**
  - **Age at Death**

#### - Tissue Regions:

- If no tissue regions are selected, the results will include all cases meeting the specified

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subject characteristics, regardless of tissue inventory.

- If both **Paraffin Sections** and **Fresh Frozen Tissue** are selected, the results will only include cases for which both frozen and paraffin tissue is available for the selected regions.
- If specific tissue regions are selected, the results will include all cases for which *all* of the selected regions are available which meet the selected subject characteristics.
- Note that the tissue regions are hierarchical – for example, selecting **Cortical regions** will return cases with *any* cortical region available, or alternatively specific cortical regions can be selected. If more than one specific region is selected, the results will only include cases for which both regions are available.

***Note that other tissue regions and subject characteristics (including neuropathological features) can be requested – see the “Tissue Request Form” for details.***

### **Start searching for samples:**

1. Select at least one subject type
2. Select other necessary subject characteristics (Optional)
3. Select at least one sample state (Optional)
4. Select one or more tissue regions (Optional)
5. Click Search button
6. Click “Clear Search Form” button to reset/clear the form.

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## SEARCH EXAMPLES

### Example 1:

#### Subjects Characteristics

**Subject Types:**

ALS  Non-Neurologic Controls

Sporadic ALS

fALS

**Known Genetic Mutations:**

SOD1  C9ORF72  TDP43  FUS  Other

**Subject's Sex:**

Male  Female

**Phenotype:**

UMN Only  UMN>LMN  UMN=LMN  UMN<LMN  LMN Only

**Site of Symptom Onset:**

Bulbar  Extremities  Both

Upper  Lower

**Age at Symptom Onset (years):**

From:  To:

**Disease Duration (months):**

From:  To:

**Age at Death (years):**

From:  To:

#### Tissue Regions

**Sample States:**

Paraffin Sections  Fresh frozen tissue

**Regions of interest:**

**Cortical regions:**

primary motor  primary sensory

frontal pole  temporal  occipital

**Cerebellum**

**Brainstem:**

midbrain  pons  medulla

**Spinal Cord:**

cervical  thoracic  lumbosacral

  

Subject Types	Number of Cases	Gender		ALS		Site of Onset		
		Male	Female	fALS	Sporadic	Bulbar	Extremities	Both
ALS	8	5	3	8	0	2	5	0
Non-Neurologic Controls	8	1	7					

OR

AND

In the above example, the search returns two rows of results:

- The number of **ALS** cases with **familial type ALS (fALS)** with **SOD1** OR **C9ORF72** mutations that have **Paraffin sections** of **Primary motor** cortex available.
- The number of **Non-Neurologic Controls** cases that have **Paraffin sections** of **Primary motor** cortex available.

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## Example 2:

### Subjects Characteristics

#### Subject Types:

- ALS    Non-Neurologic Controls  
 Sporadic ALS  
 fALS

#### Known Genetic Mutations:

- SOD1    C9ORF72    TDP43    FUS    Other

#### Subject's Sex:

- Male    Female

#### Phenotype:

- UMN Only    UMN>LMN    UMN=LMN    UMN<LMN    LMN Only

#### Site of Symptom Onset:

- Bulbar    Extremities    Both  
                      Upper    Lower

#### Age at Symptom Onset (years):

From:  To:

#### Disease Duration (months):

From:  To:

#### Age at Death (years):

From:  To:

### Tissue Regions

#### Sample States:

- Paraffin Sections    Fresh frozen tissue

#### Regions of interest:

##### Cortical regions:

- primary motor  
 primary sensory  
 frontal pole  
 temporal  
 occipital

##### Muscle

##### Liver

##### Skin

##### Cerebellum

##### Brainstem:

- midbrain  
 pons  
 medulla

##### Spinal Cord:

- cervical  
 thoracic  
 lumbosacral

Subject Types	Number of Cases	Gender		ALS		Site of Onset		
		Male	Female	fALS	Sporadic	Bulbar	Extremities	Both
ALS	6	4	2	3	3	2	4	0

OR

AND

In the above example, the search results include:

- **ALS** cases that are either **Male** **OR** **Female**
  - **AND** **Age at Symptom Onset** ranges between 50 and 60
  - **AND** have both **Paraffin sections** **AND** **Fresh-frozen tissue** samples of both **midbrain** and **ANY Spinal Cord** region(s).

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### SEARCH FIELDS

#	Fields	Description
<b>Subjects Characteristics</b>		
1	ALS	Amyotrophic Lateral Sclerosis (ALS) patients
2	Non-Neurologic Controls	Cases that had no known neurologic diseases
3	Sporadic ALS	Cases with no known ALS disease-causing gene mutations <u>AND</u> less than 2 known relatives with ALS.
4	fALS (familial ALS)	Cases with 2 or more relatives with ALS <u>OR</u> cases with a known ALS disease-causing mutation.
5	Known Genetic Mutations	Can specify cases with a known mutation in SOD1, C9ORF72, TDP43, or FUS. Other = Cases with another known ALS disease-causing mutation that is not listed.
6	Subject's Sex	Male or Female. If neither is selected, it will also include cases for which sex is not specific in the database.
7	Phenotype	<ul style="list-style-type: none"> <li>- UMN Only: Primary Lateral sclerosis (PLS)</li> <li>- UMN &gt; LMN: Upper motor neuron predominant (UMND)</li> <li>- UMN=LMN</li> <li>- UMN&lt;LMN: Lower motor neuron predominant (LMND)</li> <li>- LMN Only: Progressive muscular atrophy (PMA)</li> </ul>
8	Site of Symptom Onset	<ul style="list-style-type: none"> <li>- Bulbar</li> <li>- Extremities – can further specify Upper or Lower</li> <li>- Both : Simultaneous onset in bulbar region <u>AND</u> extremities</li> </ul>
9	Age at Symptom Onset (years)	<b>Age at Symptom Onset</b> is the difference between <b>Date of Symptom Onset</b> and <b>Date of Birth</b>
10	Disease Duration (months)	<p>Disease duration is the difference between <b>Date of Symptom Onset</b> and <b>Date of Death</b></p> <p>Only full (completed) months returned from calculations of <b>Disease Duration</b>. For example:            1.3 will be calculated as 1 full month            1.9 will also be calculated as 1 full month</p> <p>Cases for which Age at Symptom Onset is not known will not be included in the results.</p>
11	Age at Death (years)	<b>Age at Death</b> is the difference between <b>Date of Death</b> and <b>Date of Birth</b>
<b>Tissue Regions</b>		
12	Sample States	<ul style="list-style-type: none"> <li>- Paraffin Sections</li> <li>- Fresh-frozen tissue</li> </ul>
13	Regions of interest	List of sample types (nomenclature)

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Buttons		
14	Search	Clicking <b>Search</b> will return the results in a tabular format
15	Clear Search Form	Clicking <b>Clear Search Form</b> will reset the search form

Error Messages		
#	Error	Meaning
1	Please, select at least one parameter from Subject Characteristics!	The user must select at least <b>Subject Type</b> , otherwise the system will not produce results
2	Your search did not produce any results!	The system did not find any cases for the selected or entered criteria