

IMPORTING, EXPORTING, AND UPDATING VIVO DATA



GOALS

- Complement existing data ingest tools
- Make it easier for both new and existing VIVO sites to manipulate their data



SOME DATA SOURCES AT DARTMOUTH

- HR database feed (Official data from HR)
- Grants (Local source, database view)
- Organizations, Departments (Local sources)
- Publications, Journals (PubMed API)
- Finding Publications (Profiles Disambiguation Engine API)



Our data sources all provide us with spreadsheet style data. Generally it is all two dimensional rows and columns and comes as a CSV file or a spreadsheet which can easily be saved in CSV format.



The challenge is to get from here:

```
"uid", "NetId", "PersonalId", "DNDUID", "Name_First", "Name_Middle", "Name_
```



```
"d3891w9", "d3891w9", "68785", "77283", "Tracy", "L", "Onega", "PhD", "Tracy"
```



to the triples...




```
<${namespace}/${col01}-vcard> <http://purl.obolibrary.org/obo/ARG_2000029> <http://vivo.dartmouth.edu/individual/${col01}> .
<${namespace}/${col01}-vcard> <http://www.w3.org/1999/02/22-rdf-syntax-ns#type> <http://www.w3.org/2006/vcard/ns#Individual> .
<${namespace}/${col01}-vcard> <http://www.w3.org/1999/02/22-rdf-syntax-ns#type> <http://www.w3.org/2006/vcard/ns#Kind> .
<${namespace}/${col01}-vcard> <http://www.w3.org/2006/vcard/ns#hasEmail> <${namespace}/${col01}-email> .
<${namespace}/${col01}-vcard> <http://www.w3.org/2006/vcard/ns#hasName> <${namespace}/${col01}-name> .
<${namespace}/${col01}-vcard> <http://www.w3.org/2006/vcard/ns#hasTitle> <${namespace}/${col01}-title> .
<${namespace}/${col01}-email> <http://www.w3.org/1999/02/22-rdf-syntax-ns#type> <http://www.w3.org/2006/vcard/ns#Email> .
<${namespace}/${col01}-email> <http://www.w3.org/1999/02/22-rdf-syntax-ns#type> <http://www.w3.org/2006/vcard/ns#Work> .
<${namespace}/${col01}-email> <http://www.w3.org/2006/vcard/ns#email> "${col09}"^^<http://www.w3.org/2001/XMLSchema#string> .
<${namespace}/${col01}-title> <http://www.w3.org/2006/vcard/ns#title> "${col11}"^^<http://www.w3.org/2001/XMLSchema#string> .
<${namespace}/${col01}-name> <http://vivoweb.org/ontology/core#middleName> "${col06}"^^<http://www.w3.org/2001/XMLSchema#string> .
<${namespace}/${col01}-name> <http://www.w3.org/1999/02/22-rdf-syntax-ns#type> <http://www.w3.org/2006/vcard/ns#Name> .
<${namespace}/${col01}-name> <http://www.w3.org/2006/vcard/ns#familyName> "${col07}"^^<http://www.w3.org/2001/XMLSchema#string> .
<${namespace}/${col01}-name> <http://www.w3.org/2006/vcard/ns#givenName> "${col05}"^^<http://www.w3.org/2001/XMLSchema#string> .
<${namespace}/${col01}> <http://purl.obolibrary.org/obo/ARG_2000028> <${namespace}/${col01}-vcard> .
<${namespace}/${col01}> <http://vivo.dartmouth.edu/ontology/degrees> "${col08}" .
<${namespace}/${col01}> <http://vivo.dartmouth.edu/ontology/dndUid> "${col04}"^^<http://www.w3.org/2001/XMLSchema#int> .
<${namespace}/${col01}> <http://vivo.dartmouth.edu/ontology/netId> "${col02}" .
<${namespace}/${col01}> <http://vivo.dartmouth.edu/ontology/personalId> "${col03}"^^<http://www.w3.org/2001/XMLSchema#int> .
<${namespace}/${col01}> <http://www.w3.org/1999/02/22-rdf-syntax-ns#type> <http://vivoweb.org/ontology/core#FacultyMember> .
<${namespace}/${col01}> <http://www.w3.org/2000/01/rdf-schema#label> "${col10}"^^<http://www.w3.org/2001/XMLSchema#string> .
```


PAST

- At Dartmouth we first created many of these tools in Python and Django.
- We have used these as command line tools and as a Django App made to appear to be inside our VIVO.



[Home](#) | [People](#) | [Organizations](#) | [Research](#) | [Events](#) |

Verify Publications for Tracy Onega

7 pending articles have been found.

Characteristics associated with requests by pathologists for second opinions on breast biopsies.

Published: 2017

Journal: Journal of clinical pathology

Authors: Geller BM, Nelson HD, Weaver DL, Frederick PD, Allison KH, Onega T, Carney PA, Tosteson ANA, Elmore JG

Pubmed ID: 28465449

[Claim as mine](#)[Reject \(Not mine\)](#)[Skip \(Not sure\)](#)

Manually add PubMed article

PubMed ID:

[Verify](#)

[Return to Profile Page](#)



PRESENT

- We have moved and extended most of the tools from Python into Java and integrated into VIVO 1.9.2.
- If you are interested in testing these tools, please contact: rodney.jacobson@dartmouth.edu



FUTURE

- We plan to release these tools on GitHub by the end of the month.



VIVO CSV TOOLS

- Train new file formats
- Export data from VIVO
- Import data into VIVO
- Publication Finder



Site Administration

Data Input

Faculty Member (vivo) ▼

Add individual of this class

Site Configuration

[Institutional internal class](#)

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Ontology Editor

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Class Management

[Class hierarchy](#)

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Property Management

[Object property hierarchy](#)

[Data property hierarchy](#)

[Faux Property Listing](#)

[Property groups](#)

Advanced Data Tools

[Add/Remove RDF data](#)

[Ingest tools](#)

[RDF export](#)

[SPARQL query](#)

CSV Data Tools

[Import CSV Data](#)

[Export CSV Data](#)

[Training](#)



TRAINING FOR NEW FILE FORMATS



The tool can be trained for a new file type by manually entering a sample row of data.

- No knowledge of the ontology is needed
- Sparql queries are created automatically





CSV Data Tools - Training

Record





Site Administration

Data Input

Academic Department (vivo) ▼

Add individual of this class

Site Configuration

[Institutional internal class](#)

[Manage profile editing](#)

[Page management](#)

[Menu ordering](#)

[Site information](#)

[User accounts](#)

Ontology Editor

[Ontology list](#)

Advanced Data Tools

[Add/Remove RDF data](#)





Create a new Academic Department

Name *

test22

Create Academic Department

or [Cancel](#)

** required fields*



CSV Data Tools - Training

Recorded Triples:

col01
col02 test22
col03 555-1212
col04 deptemail@example.com

http://vivoloc/vivo/individual/n10389

http://www.w3.org/1999/02/22-rdf-syntax-ns#type

http://www.w3.org/2006/vcard/ns#email

http://www.w3.org/2006/vcard/ns#Email

deptemail@example.com^^http://www.w3.org/2001/XMLSchema#string

http://vivoloc/vivo/individual/n21678

http://www.w3.org/1999/02/22-rdf-syntax-ns#type

http://www.w3.org/2000/01/rdf-schema#label

http://purl.obolibrary.org/obo/ARG_2000028

http://purl.obolibrary.org/obo/ARG_2000028

http://vivoweb.org/ontology/core#AcademicDepartment

test22^^http://www.w3.org/2001/XMLSchema#string

http://vivoloc/vivo/individual/n665

http://vivoloc/vivo/individual/n665

http://vivoloc/vivo/individual/n5464

http://www.w3.org/1999/02/22-rdf-syntax-ns#type

http://www.w3.org/2006/vcard/ns#telephone

http://www.w3.org/2006/vcard/ns#Telephone

555-1212^^http://www.w3.org/2001/XMLSchema#string

http://vivoloc/vivo/individual/n665

http://www.w3.org/2006/vcard/ns#hasTelephone

http://purl.obolibrary.org/obo/ARG_2000029

http://www.w3.org/1999/02/22-rdf-syntax-ns#type

http://www.w3.org/2006/vcard/ns#hasEmail

http://purl.obolibrary.org/obo/ARG_2000029

http://www.w3.org/1999/02/22-rdf-syntax-ns#type

http://vivoloc/vivo/individual/n5464

http://vivoloc/vivo/individual/n21678

http://www.w3.org/2006/vcard/ns#Individual

http://vivoloc/vivo/individual/n10389

http://vivoloc/vivo/individual/n21678

http://www.w3.org/2006/vcard/ns#Individual

Clear

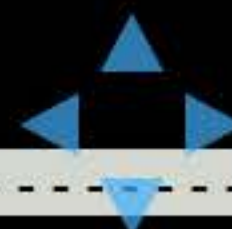
Save



The system examines the triples that were created by manually entering the row of data, and creates sparql templates for selecting and inserting rows of this data.




```
<${namespace}/${col01}-vcard> <http://purl.obolibrary.org/obo/ARG_2000029> <http://vivo.dartmouth.edu/individual/${col01}> .
<${namespace}/${col01}-vcard> <http://www.w3.org/1999/02/22-rdf-syntax-ns#type> <http://www.w3.org/2006/vcard/ns#Individual> .
<${namespace}/${col01}-vcard> <http://www.w3.org/1999/02/22-rdf-syntax-ns#type> <http://www.w3.org/2006/vcard/ns#Kind> .
<${namespace}/${col01}-vcard> <http://www.w3.org/2006/vcard/ns#hasEmail> <${namespace}/${col01}-email> .
<${namespace}/${col01}-vcard> <http://www.w3.org/2006/vcard/ns#hasName> <${namespace}/${col01}-name> .
<${namespace}/${col01}-vcard> <http://www.w3.org/2006/vcard/ns#hasTitle> <${namespace}/${col01}-title> .
<${namespace}/${col01}-email> <http://www.w3.org/1999/02/22-rdf-syntax-ns#type> <http://www.w3.org/2006/vcard/ns#Email> .
<${namespace}/${col01}-email> <http://www.w3.org/1999/02/22-rdf-syntax-ns#type> <http://www.w3.org/2006/vcard/ns#Work> .
<${namespace}/${col01}-email> <http://www.w3.org/2006/vcard/ns#email> "${col09}"^^<http://www.w3.org/2001/XMLSchema#string> .
<${namespace}/${col01}-title> <http://www.w3.org/2006/vcard/ns#title> "${col11}"^^<http://www.w3.org/2001/XMLSchema#string> .
<${namespace}/${col01}-name> <http://vivoweb.org/ontology/core#middleName> "${col06}"^^<http://www.w3.org/2001/XMLSchema#string> .
<${namespace}/${col01}-name> <http://www.w3.org/1999/02/22-rdf-syntax-ns#type> <http://www.w3.org/2006/vcard/ns#Name> .
<${namespace}/${col01}-name> <http://www.w3.org/2006/vcard/ns#familyName> "${col07}"^^<http://www.w3.org/2001/XMLSchema#string> .
<${namespace}/${col01}-name> <http://www.w3.org/2006/vcard/ns#givenName> "${col05}"^^<http://www.w3.org/2001/XMLSchema#string> .
<${namespace}/${col01}> <http://purl.obolibrary.org/obo/ARG_2000028> <${namespace}/${col01}-vcard> .
<${namespace}/${col01}> <http://vivo.dartmouth.edu/ontology/degrees> "${col08}" .
<${namespace}/${col01}> <http://vivo.dartmouth.edu/ontology/dndUid> "${col04}"^^<http://www.w3.org/2001/XMLSchema#int> .
<${namespace}/${col01}> <http://vivo.dartmouth.edu/ontology/netId> "${col02}" .
<${namespace}/${col01}> <http://vivo.dartmouth.edu/ontology/personalId> "${col03}"^^<http://www.w3.org/2001/XMLSchema#int> .
<${namespace}/${col01}> <http://www.w3.org/1999/02/22-rdf-syntax-ns#type> <http://vivoweb.org/ontology/core#FacultyMember> .
<${namespace}/${col01}> <http://www.w3.org/2000/01/rdf-schema#label> "${col10}"^^<http://www.w3.org/2001/XMLSchema#string> .
```



FILE CONFIGURATIONS CAN BE SHARED

Configurations supplied with the tools include:

- Faculty HR data
- Organizations
- Publications (and authorships)
- Grants (and roles)



EXPORT DATA FROM VIVO

- For each file format that has been configured, there are urls to download both CSV and JSON data.



CSV Data Tools - Export

authors [CSV](#) [JSON](#)

departments [CSV](#) [JSON](#)

faculty [CSV](#) [JSON](#)

articles [CSV](#) [JSON](#)




```
{"departments": [  
  {  
    "DeptID": "1001",  
    "Name": "Medicine"  
  },  
  {  
    "DeptID": "1011",  
    "Name": "Psychiatry"  
  },  
  {  
    "DeptID": "2222",  
    "Name": "Data Science"  
  },  
  {  
    "DeptID": "1044",  
    "Name": "Community and Family Medicine"  
  },  
  {  
    "DeptID": "1002",  
    "Name": "Pharmacology and Toxicology"  
  }  
]}
```



```
{"faculty": [  
  {  
    "PersonalId": "20124",  
    "Name_First": "Paula",  
    "uid": "1111111",  
    "Name_Middle": "",  
    "Name_Last": "Sandstrom",  
    "NetId": "1111111",  
    "DNDUID": "1111111",  
    "Email": "Paula.Sandstrom@univ.edu",  
    "Degree": "PhD",  
    "FullName": "Sandstrom, Paula A. PhD",  
    "PrefTitle": "Professor of Microbiology and Immunology"  
  },  
  {  
    "PersonalId": "20125",  
    "Name_First": "Bruce",  
    "uid": "1111111",  
    "Name_Middle": "L",  
    "Name_Last": "Baker",  
    "NetId": "1111111",  
    "DNDUID": "1111111",  
    "Email": "Bruce.L.Baker@univ.edu",  
    "Degree": "PhD",  
    "FullName": "Baker, Bruce L. PhD",  
    "PrefTitle": "Professor of Epidemiology"  
  },  
  {  
    "PersonalId": "20126",  
    "Name_First": "Loren",  
    "uid": "1111111",  
    "Name_Middle": "",  
    "Name_Last": "Henderson",  
    "NetId": "1111111",  
    "DNDUID": "1111111",  
    "Email": "Loren.Henderson@univ.edu",  
    "Degree": "PhD",  
    "FullName": "Henderson, Loren M. PhD",  
    "PrefTitle": "Professor of Microbiology and Immunology"  
  }  
]
```



VIVO | connect
share
discover

[Tutorials](#)[Support](#)[Site Admin](#)[root](#) Search

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CSV Data Tools - Export

authors [CSV](#) [JSON](#)

departments [CSV](#) [JSON](#)

faculty [CSV](#) [JSON](#)

articles [CSV](#) [JSON](#)


```
"DeptID", "Name"  
"1001", "Medicine", "http://vivoloc/vivo/individual/org1001"  
"1011", "Psychiatry", "http://vivoloc/vivo/individual/org1011"  
"2222", "Data Science", "http://vivoloc/vivo/individual/org2222"  
"1044", "Community and Family Medicine", "http://vivoloc/vivo/individual/org1044"  
"1002", "Pharmacology and Toxicology", "http://vivoloc/vivo/individual/org1002"
```

-UU- : - - - - F1 **departments.csv** All (7,0) (CSV) - - - - -

IMPORT CSV DATA INTO VIVO



VIVO

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SYNERGY
Clinical and Translational Science Institute[Tutorials](#)[Support](#)[Site Admin](#)[root](#) Search[Home](#)[People](#)[Organizations](#)[Research](#)[Events](#)[Capability Map](#)

CSV Data Tools - Import

Select file to import:

departments.csv



Imported data is compared to the data currently in VIVO to see what has been added, deleted, or updated.

The administrator can choose which actions to perform.



VIVO

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CSV Data Tools - Update

Unchanged rows: 4

☐ Rows to be added: 2

1234 Genetics

1235 Robotics

Rows to be deleted: 0

☐ Rows to be updated: 1

2222 Biomedical Data Science <http://vivoloc/vivo/individual/org2222>

Perform Selected Actions



CSV Data Tools - Update

Unchanged rows: 4

☐ Rows to be added: 2

1234 Genetics

1235 Robotics

Rows to be deleted: 0

☐ Rows to be updated: 1

2222 Biomedical Data Science <http://vivoloc/vivo/individual/org2222>

old: <<http://vivoloc/vivo/individual/org2222>> <<http://www.w3.org/2000/01/rdf-schema#label>> "Data
Science"^^<<http://www.w3.org/2001/XMLSchema#string>> .

new: <<http://vivoloc/vivo/individual/org2222>> <<http://www.w3.org/2000/01/rdf-schema#label>> "Biomedical Data
Science"^^<<http://www.w3.org/2001/XMLSchema#string>> .

PUBLICATION FINDER



The Profiles RNS Author Disambiguation Engine

<http://profiles.catalyst.harvard.edu/>



The Profiles RNS Author Disambiguation Engine

We send information about the author including:

- Name
- Email
- Institution

...



and importantly:

- Known publications
- Excluded publications

Providing PubMed IDs for known publications, and excluded publications is extremely valuable to get accurate results.



PUBMED API

Given the IDs of a set of suggested publication, we can query the PubMed API to get information about the publications.

The information we get back for a publication can be treated as a row of CSV data.



BRINGING THIS DATA INTO VIVO

Two provided configurations can import this data into VIVO.

One for the articles:



```
{"articles": [  
  {  
    "ENDPAGE": "78",  
    "ISSUE": "6",  
    "YEAR": "",  
    "PMC": "PMC4198523",  
    "VOLUME": "24",  
    "MID": "NIHMS595146",  
    "TITLE": "",  
    "STARTPAGE": "365",  
    "PMID": "24733560",  
    "DOI": "10.1002/rmv.1791"  
  },  
  {  
    "ENDPAGE": "33",  
    "ISSUE": "8",  
    "YEAR": "",  
    "PMC": "PMC4551341",  
    "VOLUME": "7",  
    "MID": "",  
    "TITLE": "Haemophilus influenzae responds to glucocorticoids used in asthma therapy by modulation of biofilm  
formation and antibiotic resistance.",  
    "STARTPAGE": "1018",  
    "PMID": "25995336",  
    "DOI": "10.15252/emmm.201505088"  
  },  
  {  
    "ENDPAGE": "8",  
    "ISSUE": "11",  
    "YEAR": "",  
    "PMC": "",  
    "VOLUME": "36",
```


And one for the authorships:





We display the publications for the author to confirm or reject:



Verify Publications

122 pending articles have been found:

☐ Claim as mine ☐ Reject (Not mine) ☐ Skip (Not sure)

Oral Anticoagulation for Stroke Prevention in Canadian Practice: Stroke Prevention and Rhythm Interventions in Atrial Fibrillation (SPRINT-AF) Registry(.).

Published in: The Canadian journal of cardiology

PMID: [26195228](#) Date: 2016 Feb Authors: Ha AC, Singh N, Cox JL, Mancini GB, Dorian P, Fournier C, Gladstone DJ, Lockwood E, Shuaib A, Kajil M, Tsigoulis M, Gupta MK

☐ Claim as mine ☐ Reject (Not mine) ☐ Skip (Not sure)

Cardiac monitoring for detection of atrial fibrillation after TIA: A systematic review and meta-analysis.

Published in: International journal of stroke : official journal of the International Stroke Society

PMID: [27681890](#) Date: 2017 Jan Authors: Korompoki E, Del Giudice A, Hillmann S, Malzahn U, Gladstone DJ, Heuschmann P, Veltkamp R

☐ Claim as mine ☐ Reject (Not mine) ☐ Skip (Not sure)

Unattended Hospital and Home Sleep Apnea Testing Following Cerebrovascular Events.

Published in: Journal of stroke and cerebrovascular diseases : the official journal of National Stroke Association

PMID: [27717683](#) Date: 2017 Jan Authors: Boulos MI, Elias S, Wan A, Im J, Frankul F, Atalla M, Black SE, Basile VS, Sundaram A, Hopyan JJ, Boyle K, Gladstone DJ, Swartz RH, Murray BJ

☐ Claim as mine ☐ Reject (Not mine) ☐ Skip (Not sure)

Quantitative analysis of brass compensators for commissioning of the Pinnacle planning system for IMRT.

Published in: Journal of applied clinical medical physics

PMID: [28297548](#) Date: 2015 Nov Authors: Gates LL, Gladstone DJ

☐ Claim as mine ☐ Reject (Not mine) ☐ Skip (Not sure)

Screening for Atrial Fibrillation: A Report of the AF-SCREEN International Collaboration.

Published in: Circulation



Published in: IEEE transactions on medical imaging
PMID: [28644800](#) Date: 2017 Jun 20 Authors: Bruza P, Andreozzi JM, Gladstone DJ, Jarvis LA, Rottmann J, Pogue BW

☐ Claim as mine ☐ Reject (Not mine) ☐ Skip (Not sure)

Use of Evidence-Based Therapy for Cardiovascular Risk Factors in Canadian Outpatients With Atrial Fibrillation: From the Facilitating Review and Education to Optimize Stroke Prevention in Atrial Fibrillation (FREEDOM AF) and Co-ordinated National Network to Engage Physicians in the Care and Treatment of Patients With Atrial Fibrillation (CONNECT AF).

Published in: The American journal of cardiology
PMID: [28666577](#) Date: 2017 Aug 15 Authors: Silberberg A, Tan MK, Yan AT, Angaran P, Dorian P, Bucci C, Gregoire JC, Bell AD, Gladstone DJ, Green MS, Gross PL, Skanes A, Demchuk AM, Kerr CR, Mitchell LB, Cox JL, Talajic M, Essebag V, Heilbron B, Ramanathan K, Fournier C, Wheeler BH, Lin PJ, Berall M, Langer A, Goldin L, Goodman SG, FREEDOM AF and CONNECT AF Investigators.

☐ Claim as mine ☐ Reject (Not mine) ☐ Skip (Not sure)

Atrial premature beats predict atrial fibrillation in cryptogenic stroke: results from the EMBRACE trial.

Published in: Stroke
PMID: [25700289](#) Date: 2015 Apr Authors: Gladstone DJ, Dorian P, Spring M, Panzov V, Mamdani M, Healey JS, Thorpe KE, EMBRACE Steering Committee and Investigators.

☐ Claim as mine ☐ Reject (Not mine) ☐ Skip (Not sure)

Cherenkov-excited luminescence scanned imaging.

Published in: Optics letters
PMID: [25723443](#) Date: 2015 Mar 1 Authors: Zhang R, D'souza AV, Gunn JR, Esipova TV, Vinogradov SA, Glaser AK, Jarvis LA, Gladstone DJ, Pogue BW

☐ Claim as mine ☐ Reject (Not mine) ☐ Skip (Not sure)

How to Monitor Patients Receiving Direct Oral Anticoagulants for Stroke Prevention in Atrial Fibrillation: A Practice Tool Endorsed by Thrombosis Canada, the Canadian Stroke Consortium, the Canadian Cardiovascular Pharmacists Network, and the Canadian Cardiovascular Society.

Published in: Annals of internal medicine
PMID: [26121536](#) Date: 2015 Sep 1 Authors: Gladstone DJ, Geerts WH, Douketis J, Ivers N, Healey JS, Leblanc K

[Verify](#) [Claim All](#)



We run a new query of the Profiles Disambiguation Engine
when the author:

- Confirms all of the suggested publications
- or rejects one or more publications



EXPORT DATA WITH FILTERS



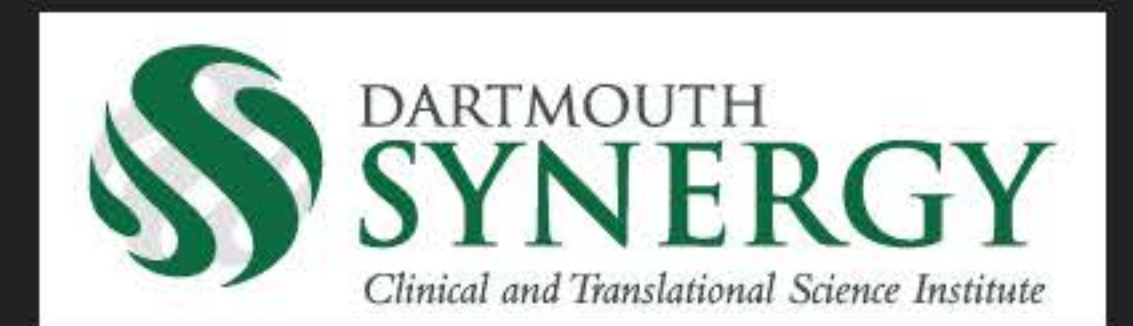
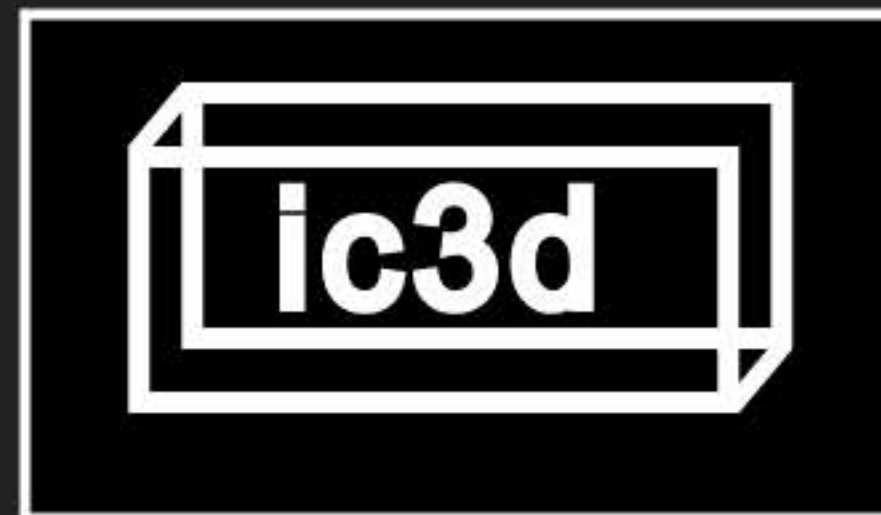
```
{"faculty": [  
  {  
    "PersonalId": "10000000000000000000",  
    "Name_First": "Lynch",  
    "uid": "10000000000000000000",  
    "Name_Middle": "P.",  
    "Name_Last": "Lynch",  
    "NetId": "10000000000000000000",  
    "DNDUID": "10000000000000000000",  
    "Email": "",  
    "Degree": "MD",  
    "FullName": "Lynch, Lynn P., MD",  
    "PrefTitle": "Associate Professor of Medicine"  
  },  
  {  
    "PersonalId": "10000000000000000000",  
    "Name_First": "Lawrence",  
    "uid": "10000000000000000000",  
    "Name_Middle": "J.",  
    "Name_Last": "Lawrence",  
    "NetId": "10000000000000000000",  
    "DNDUID": "10000000000000000000",  
    "Email": "",  
    "Degree": "MD",  
    "FullName": "Lawrence, Lawrence J., MD",  
    "PrefTitle": "Professor of Surgery"  
  },  
  {  
    "PersonalId": "10000000000000000000",  
    "Name_First": "Lawrence",  
    "uid": "10000000000000000000",  
    "Name_Middle": "J.",  
    "Name_Last": "Lawrence",  
    "NetId": "10000000000000000000",  
    "DNDUID": "10000000000000000000",  
    "Email": "",  
    "Degree": "MD",  
    "FullName": "Lawrence, Lawrence J., MD",  
    "PrefTitle": "Professor of Surgery"  
  }  
]
```




```
{"faculty": [  
  {  
    "PersonalId": "11111",  
    "Name_First": "Tracy",  
    "uid": "11111",  
    "Name_Middle": "",  
    "Name_Last": "Tracy",  
    "NetId": "11111",  
    "DNDUID": "11111",  
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