

Enriching VIVO profiles with a variety of research outputs

VIVO Conference
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Ann Beynon
Miguel Garcia

Clarivate Analytics



What do
researchers
do?



Goal: Augment our demo VIVO site with

- Datasets
- Clinical Trials
- Patents

Demo VIVO site: Previous state

<http://162.243.109.65/>

- 1,060 researcher profiles including data from National Institutes of Health intramural scientists
- Publications from NIH website, PubMed, and Web of Science Core Collection
- Citation metrics from Web of Science Core Collection and InCites

The screenshot displays the Garfield University VIVO interface. At the top, there is a navigation bar with the university logo and name, a search bar, and a 'Search' button. Below this is a horizontal menu with links for Home, People, Organizations, Research, Clinical Trials, and Capability Map. The main content area features a research profile for the paper 'Common genetic variants influence human subcortical brain structures'. The profile includes the full text URL (DOI: 10.1038/nature14101), PMID (25607358), and Web of Science ID (000352454600040). A highlighted box contains citation metrics: 'Hot Paper', 'ESI Most Cited Paper', 'Industry Collaboration', 'International Collaboration', and '138 Times Cited via the Web of Science™'. At the bottom, there are tabs for 'Overview', 'Identity', 'Additional Document Info', 'Other', and 'View All'.

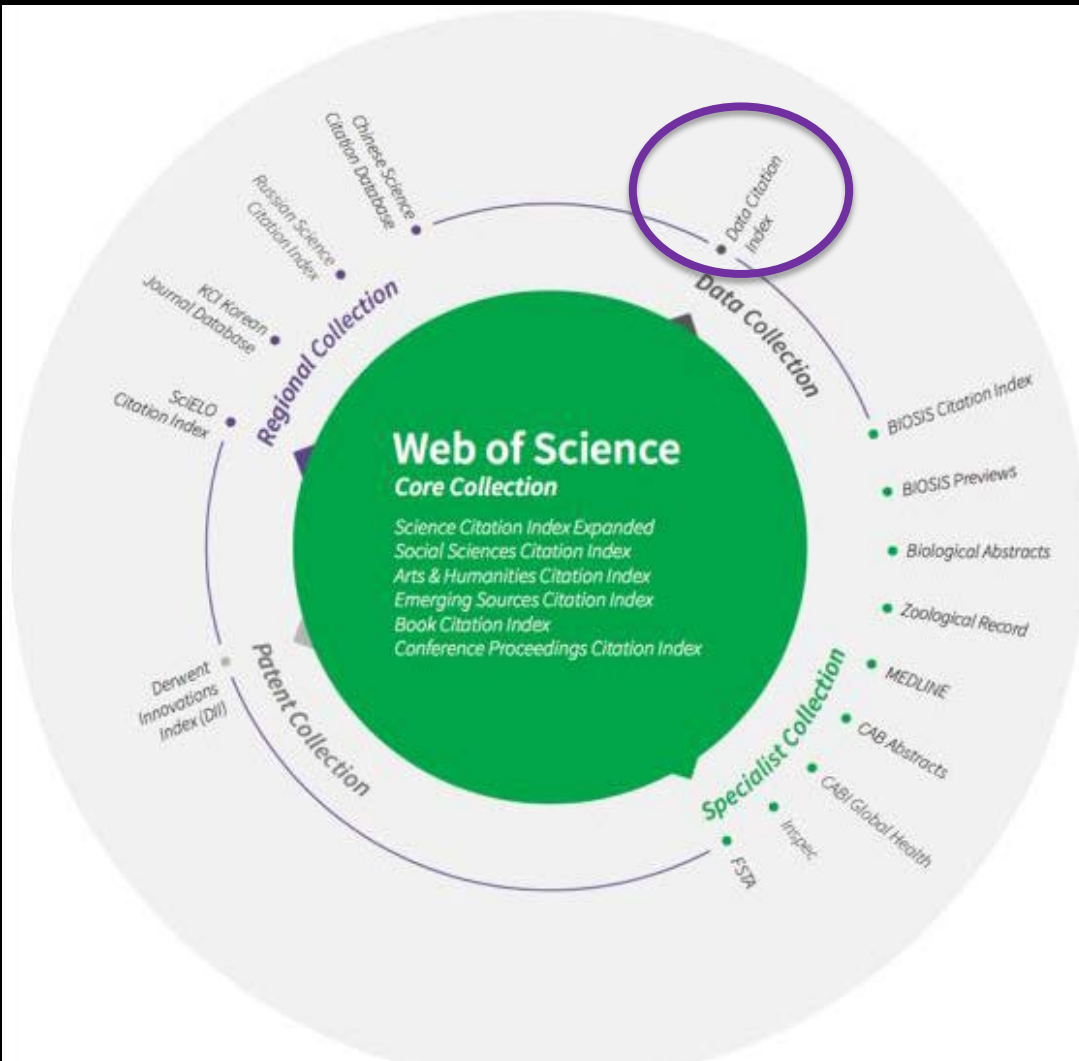
Process

- Identify data sources
 - Datasets- Data Citation Index, Clarivate Analytics
 - Patents- US Patent and Trademark Office <https://www.uspto.gov/>
 - Clinical trials- ClinicalTrials.gov <https://clinicaltrials.gov/>

Datasets

About the source: Data Citation Index

Collection of over 300 data repositories with nearly 7 million records



Researchers

- Save time spent looking for data by searching across content from over 300 repositories in one place.
- Track citations to the data and software you have deposited.



Librarians

- Promote the value and importance of sharing data & following the best data management practices.
- Provide a trusted reference for faculty unsure of where to deposit their data.



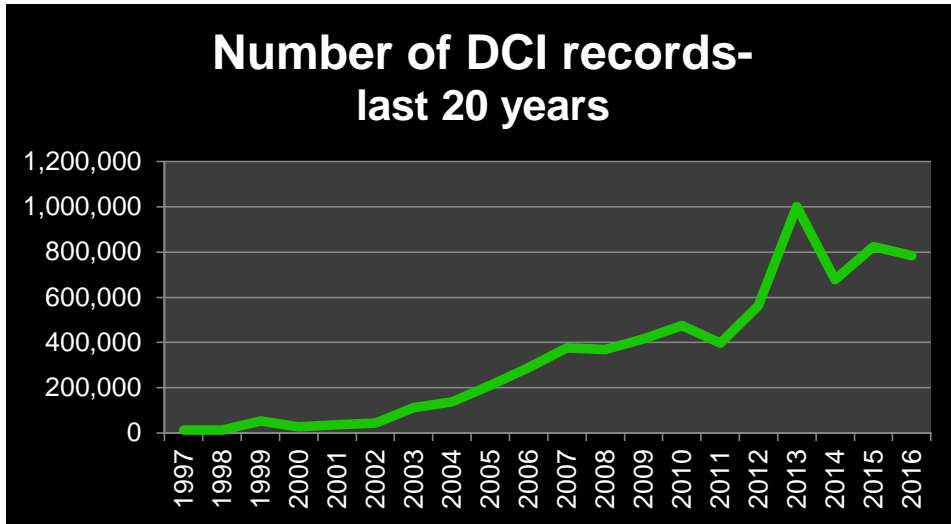
Funders

- Assess compliance with grant requirements.
- Understand the landscape of repositories available in your subject area.

Data Citation Index

Depth of years

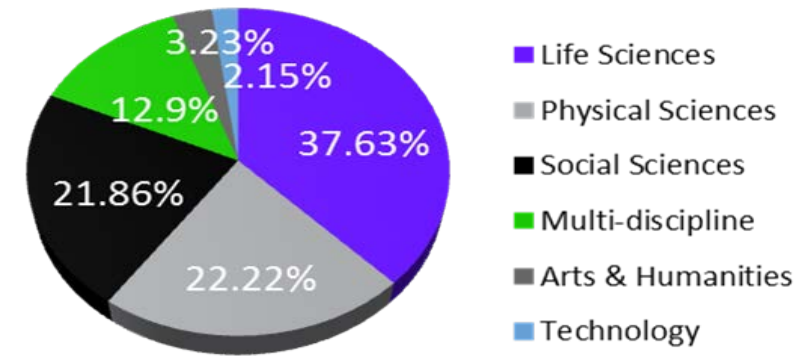
1900 to present



Deep, multidisciplinary archive

Data Citation Index covers data collected since 1900, in 252 subject categories.

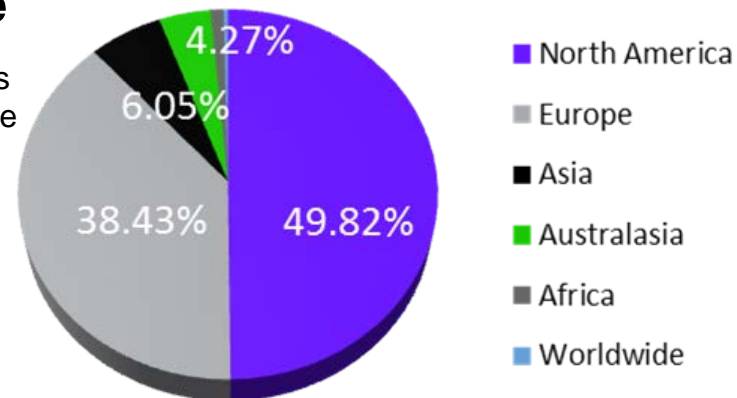
Repositories by Subject



International scope

Data Citation Index sources repositories from around the globe.

Repositories by Region



Process

1. Conducted a study to analyze what existed in VIVO and what was needed to integrate Data Citation Index data
2. Added the data properties and object properties defined in the preliminary study to the existing Dataset entity in the VIVO Core ontology
3. Added some datasets to our demo portal which were published by our existing NIH researchers
4. Next step: Tag the Datasets as something distinct from publications

Data mapping


	A	B	C	D
2	Field	Exists in Vivo	Exists in DCI	Include in VIVO
3	Abstract	Y	Y	Y
4	Authors	Y	Y	Y
5	Editors	Y	N	N
6	Translator	Y	N	N
7	Status	Y	N	N
8	Publication date	Y	Y	Y
9	Has subject area	Y	Y	Y
10	Has restriction	Y	N	N
11	Has document part	Y	N	N
12	Features	Y	N	N
13	Geographic focus	Y	N	Y
14	Documentation for project or source	Y	N	N
15	Output for process or event	Y	N	N
16	Presented at event	Y	N	N
17	Keywords	Y	Y	Y
18	Cited by	Y	Y	Y
19	Cites	Y	N	N
20	Cites as a data source	Y	N	N
21	Has translation	Y	N	N
22	Translation of	Y	N	N
23	Same as	Y	N	N
24	DOI	Y	Y	Y
25	OCLC	Y	N	N

	A	B	C	D
26	PMID	Y	N	N
27	Has global citation frequency	Y	N	N
28	number of pages	Y	N	N
29	volume	Y	N	N
30	reproduced in	Y	N	N
31	reproduces	Y	N	N
32	is about	Y	N	N
33	is specified output of	Y	N	?
34	is template	Y	N	N
35	mentions	Y	N	N
36	output of	Y	N	?
37	participates in	Y	N	?
38	related by	Y	N	N
39	supported by	Y	N	?
40	date/time value	Y	N	Y
41	Language	N	Y	Y
42	Viewed date	N	Y	Y
43	Repository	N	Y	Y
44	Source URL	N	Y	Y
45	Accession Number	N	Y	Y
46				
47				
48				
49				

Demo VIVO: End state

Datasets

Index

 Garfield University

Home | People | Organizations | Research | Clinical Trials | Capability Map

clinical trials

- Active, not recruiting (3)
- Clinical Trials (21)
- Completed (8)
- Enrolling by invitation (1)
- Not yet recruiting (2)
- Recruiting (3)
- Suspended (1)
- Terminated (1)
- Withdrawn (2)


people

- Person (1,066)
- Researcher (1,060)

organizations

- Academic Department (1)
- Department (1)
- Organization (29)

research

- Academic Article (14,856)
- Article (14,858)
- Author Keyword (25,882)
- Concept (26,312)
-  Dataset (10)
- Journal (2,389)
- Scientific Focus Area (21)
- Web of Science Category (252)
- Web of Science Research Area (154)
- WoS Publication (23,167)

locations

- Continent (7)
- Country (210)
- Geographic Location (323)
- Geographic Region (323)
- State or Province (57)
- Transnational Region (27)

Demo VIVO: End state

Datasets

GSM2401323: 27557 YORK DNA | Dataset

Overview Research Identity View All

Overview

abstract

YORK DNA Image data was analyzed using GenomeStudio with GT module (Illumina).

authors

researcher

Ostrander, Elaine A., Ph.D.

publication date

2016

webpage

<http://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSM2401323>

Research

category

Biochemistry & Molecular Biology Web of Science Category

Genetics & Heredity Web of Science Category

Identity

Accession Number

DRCI:DATA2017012010645862

Repository

Gene Expression Omnibus

Demo VIVO: End state

Datasets



Elaine A. Ostrander, Ph.D. | NIH Distinguished Investigator

Positions

- › NIH Distinguished Investigator, Cancer Genetics Branch, National Human Genome Research Institute (NHGRI)

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Co-author Network

Publications

Research

Contact

View All

publications

Biallelic BRCA2 Mutations Shape the Somatic Mutational Landscape of Aggressive Prostate Tumors. 2016

AMERICAN JOURNAL OF HUMAN GENETICS. 98, 5p. 818-829.

Full Text via DOI: [10.1016/j.ajhg.2016.03.003](https://doi.org/10.1016/j.ajhg.2016.03.003) PMID: 27087322 Web of Science: 000375869300002

Demographically-Based Evaluation of Genomic Regions under Selection in Domestic Dogs 2016

Full Text via DOI: [10.1371/journal.pgen.1005851](https://doi.org/10.1371/journal.pgen.1005851) PMID: 26943675 Web of Science: 000373268900006

→ [GSM2401323: 27557 YORK DNA](#) 2016

Clinical Trials

About the source: ClinicalTrials.gov

<https://clinicaltrials.gov/>

- Covers publicly and privately supported clinical studies on a wide range of diseases and conditions
- Produced by National Library of Medicine (NIH)
- Contains the clinical trials required by law to be registered

About the source: ClinicalTrials.gov

<https://clinicaltrials.gov/>

What Information Can I Find on ClinicalTrials.gov?

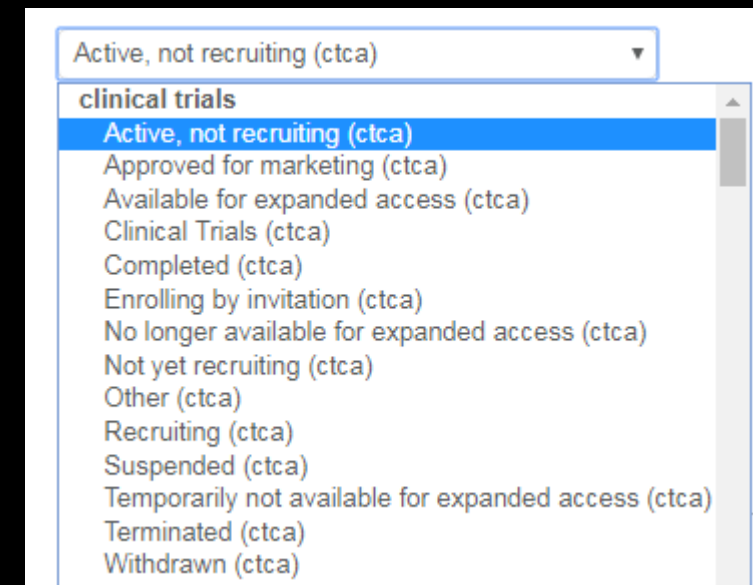
- Disease or condition
- Intervention (for example, the medical product, behavior, or procedure being studied)
- Title, description, and design of the study
- Requirements for participation (eligibility criteria)
- Locations where the study is being conducted
- Contact information for the study locations
- Links to relevant information on other health Web sites, such as NLM's [MedlinePlus®](#) for patient health information and [PubMed®](#) for citations and abstracts of scholarly articles in the field of medicine

Some records also include information on the results of the study, such as:

- Description of study participants (the number of participants starting and completing the study and their demographic data)
- Outcomes of the study
- Summary of adverse events experienced by study participants

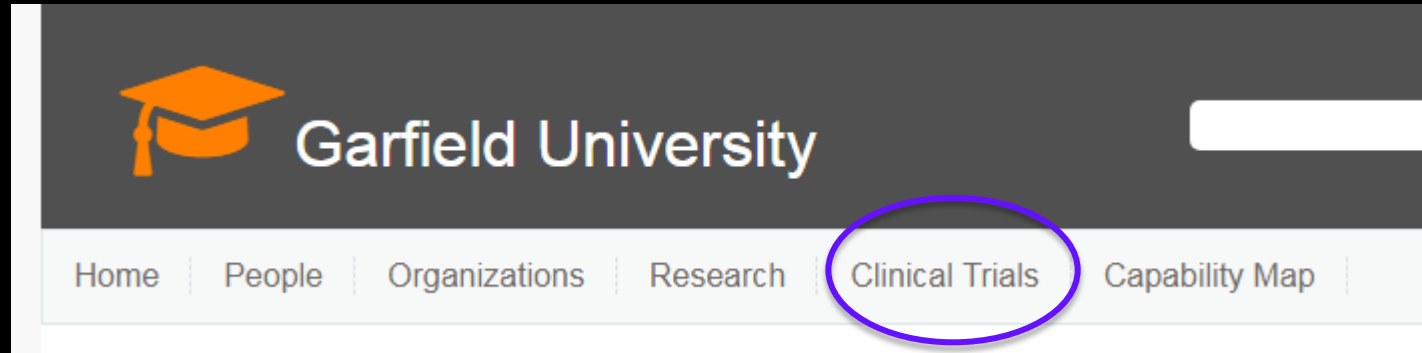
Process

1. Built on prior work we did for Fred Hutchinson Cancer Research Center VIVO, for which we analysed what they needed and what was already in VIVO
2. Created a class called clinical trials in a new ontology called ctca (clinicalTrialsClarivateAnalytics), an expansion of our internal VIVO ontology
3. Created a sub class for each type of clinical trials



Process

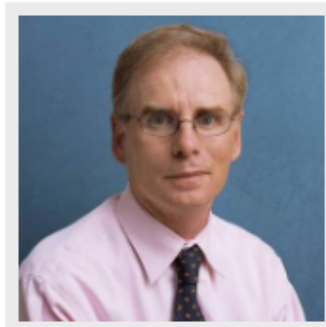
4. Add Clinical Trials to the main menu on the VIVO portal (through page management)



5. Add Data Properties and Object Properties to the main class

Process

6. Made sure there was a property group to clearly show clinical trials on a specific person page



William L. Dahut, M.D. | Senior Investigator

Positions

› Senior Investigator, Genitourinary Malignancies Branch, National Cancer Institute (NCI)

Dr. Dahut received his M.D. from Georgetown University in Washington, DC. He completed clinical training in internal medicine at the National Naval Medical Center in Bethesda, MD, followed by training in hematology and medical oncology at the Bethesda Naval Hospital and the Medicine Branch of the NCI. Dr. Dahut worked as an attending physician in the NCI-Navy Medical Oncology Branch until 1995. He then joined the faculty of the Lombardi Cancer Center at Georgetown University before return (... more)

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Co-author Network

Clinical Trial

Publications

Research

Contact

View All

investigator

A Phase II Study of BAY 43-9006 (Sorafenib) in Metastatic, Androgen-Independent Prostate Cancer Completed

Fred Hutchinson Cancer Research Center VIVO

<https://profiles.fredhutch.org/>

FRED HUTCH
CURES START HERE™

Home | People | Organizations | Publications | Expertise | **Clinical Trials & Volunteer Health Studies**

Clinical Trials & Volunteer Health Studies

Visit [people profiles](#) to see trials and studies associated with specific researchers. To search for studies and trials by keyword or topic use the search function and select the Clinical Trials filter in the drop-down list.

- Active, not recruiting** [49]
- Completed [120]
- Enrolling by invitation [1]
- Not yet recruiting [4]
- Recruiting [33]
- Suspended [3]
- Terminated [4]
- Withdrawn [6]

Active, not recruiting

[all](#) A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

page [1](#) [2](#)

[A Trial Using Novel Markers to Predict Malignancy in Elevated-Risk Women](#)


[Alemtuzumab, Fludarabine Phosphate, and Low-Dose Total Body Irradiation Before Donor Stem Cell Transplantation in Treating Patients With Hematological Malignancies](#)

[Alemtuzumab, Fludarabine Phosphate, and Total-Body Irradiation Followed by a Donor Stem Cell Transplant in Treating Patients With Immunodeficiency or Other Nonmalignant Inherited Disorders](#)

[Associations Between Pre-transplant Comorbidities and Post-transplant Toxicities and](#)

Fred Hutchinson Cancer Research Center VIVO

<https://profiles.fredhutch.org/>

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A Trial Using Novel Markers to Predict Malignancy in Elevated-Risk Women | Active, not recruiting

► For eligibility information and additional details, visit <https://clinicaltrials.gov/show/NCT01121640>

The Novel Markers Trial will compare the safety, feasibility and effectiveness of two different epithelial ovarian cancer screening strategies that use CA125 and add HE4 as either a first or second line screen. This study is the next step in a larger research effort to develop a blood test that can be used as a screening method for the early detection of epithelial ovarian cancer.

► [Patient Protection Information](#)

View All Research Overview Identity Other

Research

focus of study
Epithelial Ovarian Cancer

Overview

accepts healthy volunteers
No

investigator
[Urban, Nicole D](#) ScD

official title
A Randomized Controlled Trial Using Novel Markers to Predict Malignancy in Elevated-Risk Women

recruitment status
Active, not recruiting

sponsor
[Fred Hutchinson Cancer Research Center](#) Internal Organization

data/time interval
2009-11-01 - 2015-06-01

Identity


NCT number
NCT01121640

Other

url
<https://clinicaltrials.gov/show/NCT01121640>

Demo VIVO: End state

Clinical Trials

Garfield UniversityIndexSearch

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clinical trials

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Demo VIVO: End state

Clinical Trials

Clinical Trials

Active, not recruiting (3)

Completed (8)

Enrolling by invitation (1)

Not yet recruiting (2)

Recruiting (3)

Suspended (1)

Terminated (1)

Withdrawn (2)

Active, not recruiting

▶ all A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Clinical Trial of Ebola Vaccines cAd3-EBO, cAd3-EBOZ and MVA-EbolaZ in Healthy Adults in Uganda

Gulf Long-Term Follow-Up Study

rial for Safety and Immunogenicity of a Chikungunya Vaccine, VRC-CHKVLP059-00-VP, in Healthy Adults

Demo VIVO: End state

Clinical Trials

Aerobic Exercise in Women With Systemic Lupus Erythematosus | Not yet recruiting

Overview Research Identity View All

Overview

Official Title

Pilot Study Characterizing Aerobic Exercise in Women With Systemic Lupus Erythematosus (Exercise SLE Pilot)

accepts healthy volunteers

No

investigator

Chan, Leighton, M.D. Senior Investigator

phase

I

publication

Evidence for aerobic insufficiency in women with systemic Lupus erythematosus Article

sponsor

NIH Clinical Center (CC) Organization

Research

Focus of study

Systemic Lupus Erythematosus
Lupus
Autoimmune Disease
Rheumatic Disease

Identity

NCT Number


NCT03186794

Study ID number


17-CC-0111

Demo VIVO: End state

Clinical Trials

Garfield UniversityIndexSearch

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Leighton Chan, M.D. | Senior Investigator

Positions

- Senior Investigator, Rehabilitation Medicine Department, NIH Clinical Center (CC)

Dr. Chan received his B.A. degree from Dartmouth College, with a major in political science, and graduated from the UCLA School of Medicine in 1990. He completed postgraduate training in Physical Medicine and Rehabilitation at the University of Washington, during which he obtained a Master of Science degree in Rehabilitation Science. Subsequently, he completed a Robert Wood Johnson Clinical Scholar Fellowship, earned a Master of Public Health degree at the University of Washington School (... [more](#))

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Co-author Network

[Clinical Trial](#) | [Publications](#) | [Research](#) | [Contact](#) | [View All](#)

investigator

[Aerobic Exercise in Women With Systemic Lupus Erythematosus](#) Not yet recruiting

[Neurocognitive Driving Rehabilitation in Virtual Environments \(NeuroDRIVE\) as an Adjunctive Intervention for Traumatic Brain Injury](#) Completed

Patents

About the source: USPTO

<https://www.uspto.gov/>

- Work in progress
- Next step is to map fields

Lessons learned

Lessons learned

- There is no single ontology that fits all needs. Everyone will have specific IDs, etc. E.g. Fred Hutch had specific clinical trial fields that weren't necessary for us for our demo system.
- External data sources are incomplete. E.g. not all clinical trials on ClinicalTrials.gov have phases. Government sources may lack curation and currency.
- External data sources also lack flexible and robust APIs. They lack certain search fields that would enable more accurate searching and filtering.

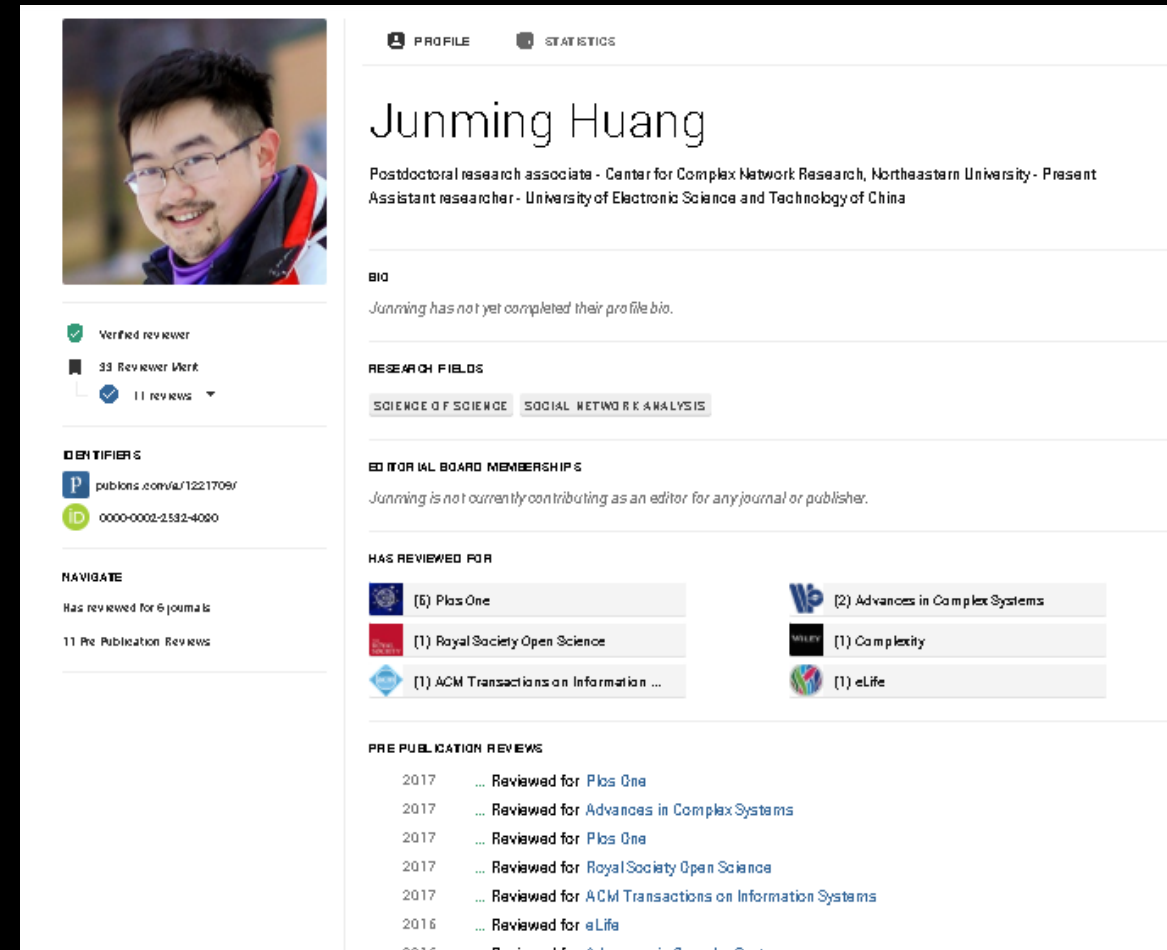
Future directions

Future directions

➤ Continue to integrate patent data into our demo VIVO

➤ Integration Publons peer review data in our demo VIVO

<https://publons.com/home/>



The image shows a screenshot of a Publons profile for Junming Huang. The profile includes a profile picture, a bio, research fields, editorial board memberships, journals reviewed for, and a list of pre-publication reviews.

PROFILE **STATISTICS**

Junming Huang







Postdoctoral research associate - Center for Complex Network Research, Northeastern University - Present
Assistant researcher - University of Electronic Science and Technology of China

BIO
Junming has not yet completed their profile bio.

RESEARCH FIELDS
SCIENCE OF SCIENCE SOCIAL NETWORK ANALYSIS

EDITORIAL BOARD MEMBERSHIPS
Junming is not currently contributing as an editor for any journal or publisher.

HAS REVIEWED FOR

 (5) Plos One	 (2) Advances in Complex Systems
 (1) Royal Society Open Science	 (1) Complexity
 (1) ACM Transactions on Information ...	 (1) eLife

PRE-PUBLICATION REVIEWS

2017	... Reviewed for Plos One
2017	... Reviewed for Advances in Complex Systems
2017	... Reviewed for Plos One
2017	... Reviewed for Royal Society Open Science
2017	... Reviewed for ACM Transactions on Information Systems
2016	... Reviewed for eLife
2016	... Reviewed for Advances in Complex Systems

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NAVIGATE
Has reviewed for 6 journals
11 Pre-Publication Reviews



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-Contact: Ann Beynon ann.beynon@clarivate.com

