



How ResearcherID will contribute to resolving name ambiguity in the scholarly ecosystem

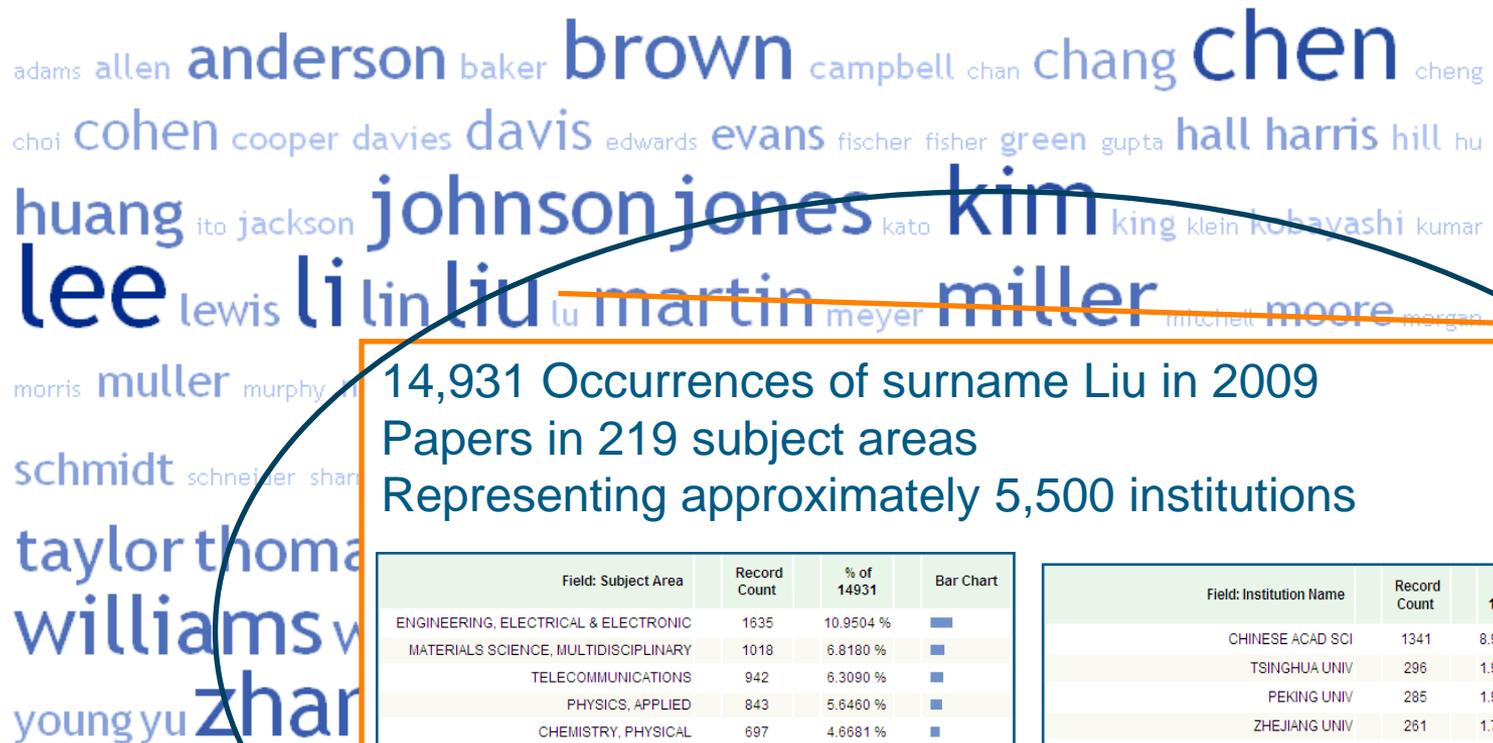
David Kochalko
Vice President, Strategy and Business Development
Healthcare and Science
dave.kochalko@thomsonreuters.com

December 4, 2009



THOMSON REUTERS

The Name Game



14,931 Occurrences of surname Liu in 2009
 Papers in 219 subject areas
 Representing approximately 5,500 institutions

Field: Subject Area	Record Count	% of 14931	Bar Chart
ENGINEERING, ELECTRICAL & ELECTRONIC	1635	10.9504 %	■
MATERIALS SCIENCE, MULTIDISCIPLINARY	1018	6.8180 %	■
TELECOMMUNICATIONS	942	6.3090 %	■
PHYSICS, APPLIED	843	5.6460 %	■
CHEMISTRY, PHYSICAL	697	4.6681 %	■
BIOCHEMISTRY & MOLECULAR BIOLOGY	622	4.1658 %	■
COMPUTER SCIENCE, ARTIFICIAL INTELLIGENCE	604	4.0453 %	■
CHEMISTRY, MULTIDISCIPLINARY	601	4.0252 %	■
AUTOMATION & CONTROL SYSTEMS	572	3.8310 %	■
COMPUTER SCIENCE, INFORMATION SYSTEMS	540	3.6166 %	■
COMPUTER SCIENCE, INTERDISCIPLINARY APPLICATIONS	525	3.5162 %	■
COMPUTER SCIENCE, THEORY & METHODS	431	2.8866 %	■
PHYSICS, MULTIDISCIPLINARY	382	2.5584 %	■

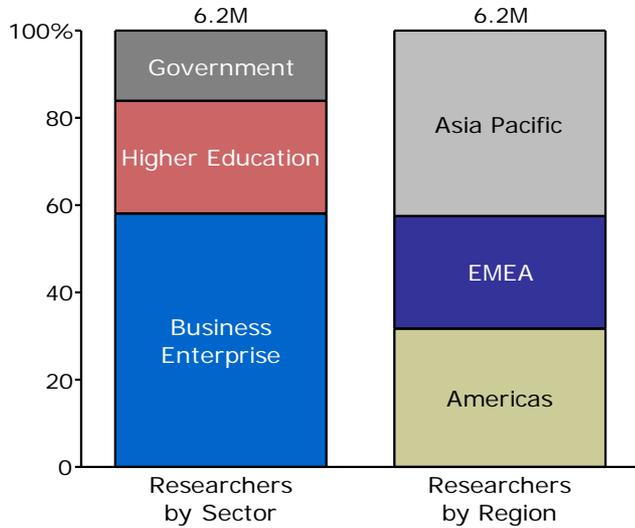
Field: Institution Name	Record Count	% of 14931	Bar Chart
CHINESE ACAD SCI	1341	8.9813 %	■
TSINGHUA UNIV	296	1.9825 %	■
PEKING UNIV	285	1.9088 %	■
ZHEJIANG UNIV	261	1.7480 %	■
HUAZHONG UNIV SCI & TECHNOL	251	1.6811 %	■
SHANGHAI JIAO TONG UNIV	246	1.6476 %	■
JILIN UNIV	221	1.4801 %	■
SHANDONG UNIV	219	1.4667 %	■
HARBIN INST TECHNOL	214	1.4333 %	■
SICHUAN UNIV	187	1.2524 %	■
WUHAN UNIV	175	1.1721 %	■
NATL TAIWAN UNIV	174	1.1654 %	■
UNIV SCI & TECHNOL CHINA	162	1.0850 %	■

Name ambiguity is a persistent problem

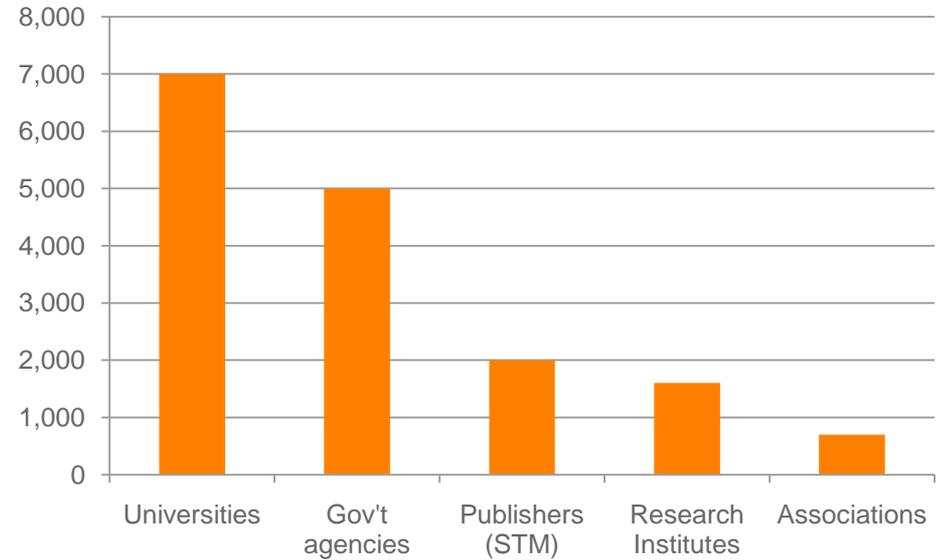
- Primary reasons:
 - Common names
 - Name changes
 - Publisher style variations
 - Transliteration
 - Spelling errors
- Cannot link author / contributor identities in the many systems that hold author information
- Opportunity costs affect all stakeholders

Disambiguation algorithms are necessary but not sufficient

Many Researchers who are Widely Distributed (6.2M researchers from 16K organizations)



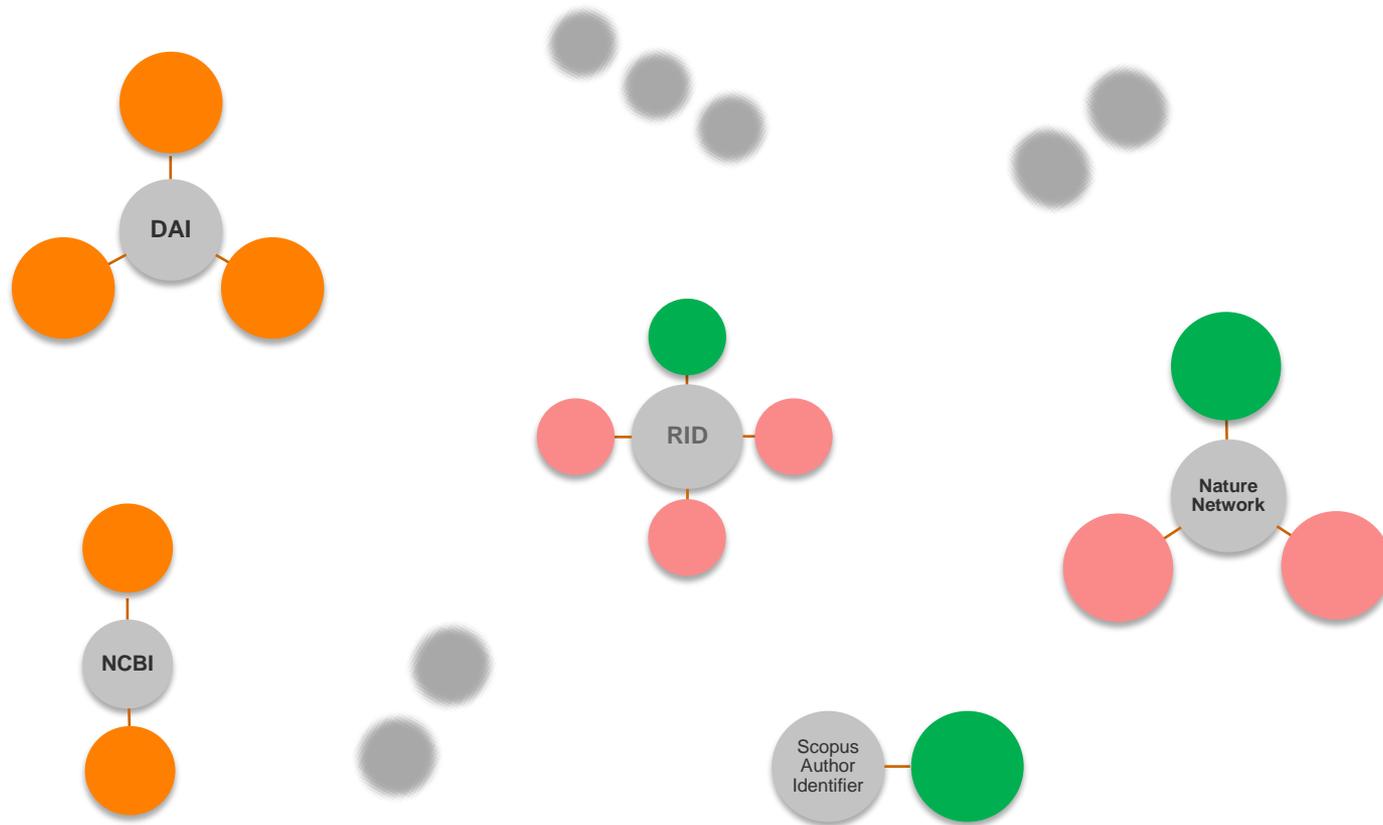
Source: TR estimates based on OECD, S&T Indicators and UNESCO Institute of Statistics



Source: TR estimates based on OECD, UNESCO Institute of Statistics

- Plus an estimated 6.7 million graduate students (some of whom conduct significant research)

Many initiatives, weak connective links and no critical mass



-  – Publishers
-  – Academic Institutions
-  – Research Orgs
-  – Scholarly Associations
-  – Gov't Funding Agencies

Organizational independence and a persistent resource are required

“Because a numbering system would be for the ages, some say it shouldn’t be in private hands or held by a single company.

*I would be very worried if an individual publisher controlled this,’ says CNI’s [Cliff] Lynch, adding that he would be ‘much more comfortable’ if it were operated by...a broad group...whose membership includes...open-access publishers and scientific societies...” **

Social networking experience suggests there should be a tipping point, if there is a catalyst



Collaboration to Resolve Name Ambiguity

RESEARCH STAKEHOLDERS ANNOUNCE COLLABORATION AMONG BROAD CROSS-SECTION OF COMMUNITY TO RESOLVE NAME AMBIGUITY IN SCHOLARLY RESEARCH

December 1, 2009 - Leading members from the research community today announced their intent to collaborate to resolve the author name ambiguity problem in scholarly communication. Together, the group hopes to develop an open, independent identification system for scholarly authors.

Accurate identification of researchers and their work is one of the pillars for the transition from science to e-Science, wherein scholarly publications can be mined to spot links and ideas hidden in the ever-growing volume of scholarly literature. A disambiguated set of authors will allow new services and benefits to be built for the research community by all stakeholders in scholarly communication: from commercial actors to non-profit organizations, from governments to universities.

"Unique and open author identification in cyberspace is the first step in creating the appropriate recognition system such that all ones scholarly output can be uniquely identified and credited whether it be through journal articles, database depositions, wiki postings etc. Optimistically it could catalyze the next phase of development in eScience." said Prof Philip Bourne a UCSD Professor and Editor in Chief of PLoS Computational Biology.

Thomson Reuters and Nature Publishing Group convened the first *Name Identifier Summit* in Cambridge, MA on Monday, November 9, where a cross-section of the research community explored approaches to address name ambiguity. The initiative is moving ahead with broad stakeholder participation. A follow-on meeting of this group will take place in London, UK on December 2 to discuss next steps.

Collaboration ...

"At the dawn of a new age of discoveries in physics, where experiments that probe the structure of the universe are carried out by international teams of scientists that number in the thousands, correct attribution of research contribution is of crucial importance. I welcome this joint initiative of stakeholders in scholarly communication to work together on these issues." said Prof. Rolf Heuer, Director General of CERN.

Collectively, these organizations agreed on the importance of working together to overcome the contributor identification issue facing the global research community:

American Institute of Physics	Nature Publishing Group
American Psychological Association	Public Library of Science
Association for Computing Machinery	ProQuest
British Library	SAGE Publications
CrossRef	Springer
Elsevier	Thomson Reuters
European Molecular Biology Organization	University College London
Hindawi	University of Manchester (JISC Names Proj.)
INSPIRE (project of CERN, DESY, Fermilab, SLAC)	University of Vienna
Massachusetts Institute of Technology Libraries	Wellcome Trust
	Wiley-Blackwell

Registry Generates a Unique Identifier...

ResearcherID

A Global Community Where Researchers Connect

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Chen, Robert J

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ResearcherID: B-3592-2008

Other Names: Robert Jeen-chen Chen ; Robert Jean-chen Chen ; Jeen-chen Chen

E-mail: rjcc@ntu.edu.tw

URL: <http://www.researcherid.com/rid/B-3592-2008>

Subject: Cardiovascular System & Cardiology ; Mathematical & Computational Biology ; Research & Experimental Medicine ; Robotics ; Surgery ; Transplantation

Role: Graduate Student

Keywords: cardiac surgery ; bioinformatics (applied to proteomics) ; epidemiological information systems ; epidemiology ; stem cells, regenerative medicine, tissue engineering

Description: Cardiovascular Surgeon in Taiwan, with clinical expertise in robotic heart surgery and aortic stent grafting, also with research interest in cardiac regenerative stem-cell therapeutic bioinformatics; also Master of Public Health from Harvard University (1999) and EC FMG (USMLE Step 1-3 valid).

My Institutions [\(more details\)](#)

Primary Institution: National Taiwan University

Role: Graduate Student

Joint Affiliation: Cheng-Hsin Hospital Heart Center

Sub-org/Dept: Dept. Cardiovascular Surgery ; Cardiac Intensive Care Unit

Role: Faculty

Past Institutions: JCRT, Harvard Medical School ; National Taiwan University Hospital

...and the Registry Holds Biographical Data

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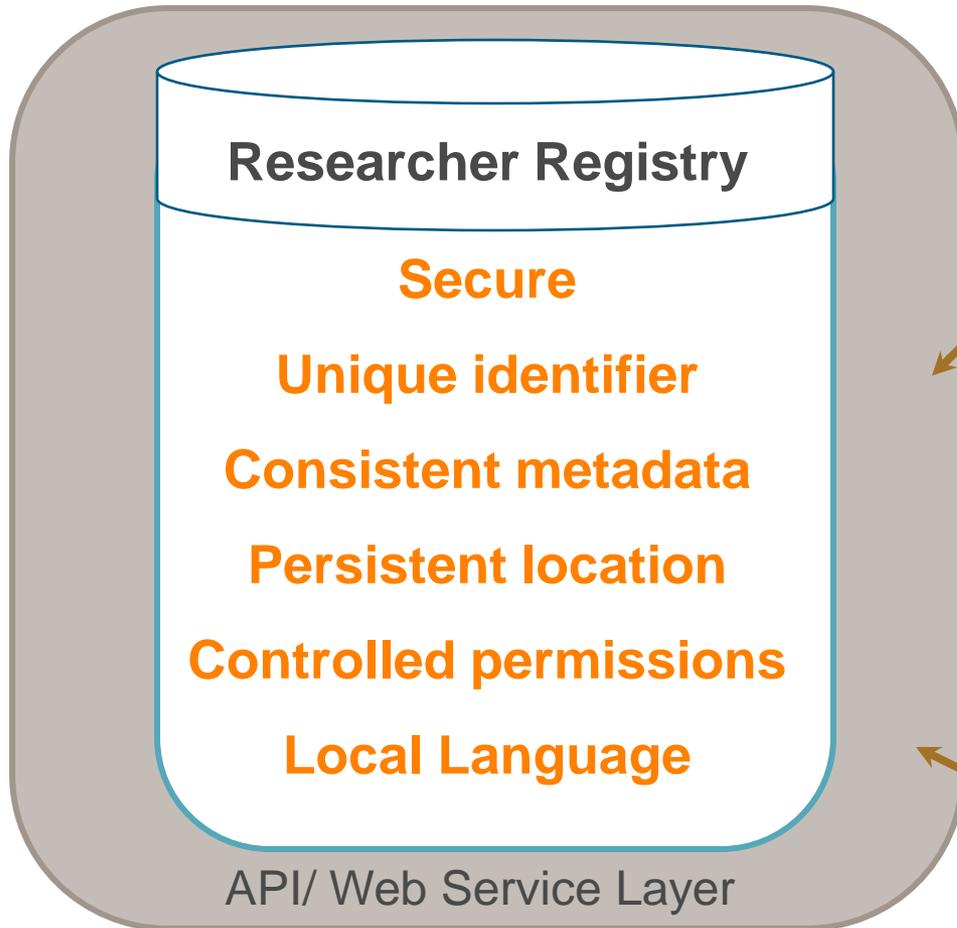
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- ResearcherID Number
- Name (first, last, middle)
- Other names (includes Unicode)
- Email address
- Persistent URL
- Role
- Subjects
- Keywords
- Description
- User defined URLs
- Privacy settings
- Institution name
- Sub organization
- Sub organization Address
- Sub organization role
- Joint affiliation name
- Joint affiliation sub organization
- Joint affiliation start date
- Joint affiliation role
- Past affiliation information (name, city, country, start date, end date, role)
- Personalization settings
- Opt in/out

RESEARCHERID REGISTRY



Researcher Registry

Secure

Unique identifier

Consistent metadata

Persistent location

Controlled permissions

Local Language

API/ Web Service Layer

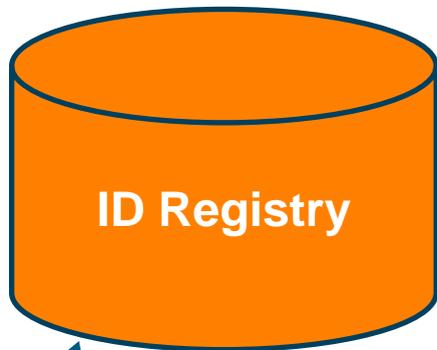
ResearcherID.com

- UI for registry registration
- Create, modify, delete profile information
- Search of the registry – find colleagues by institution, keyword.

Sponsor

- Integration with applications, resources, services and standards (e.g., ISNI)

University and Publisher Use Cases



- Pre-register faculty
- Build profiles
- Display expertise
- Find collaborators

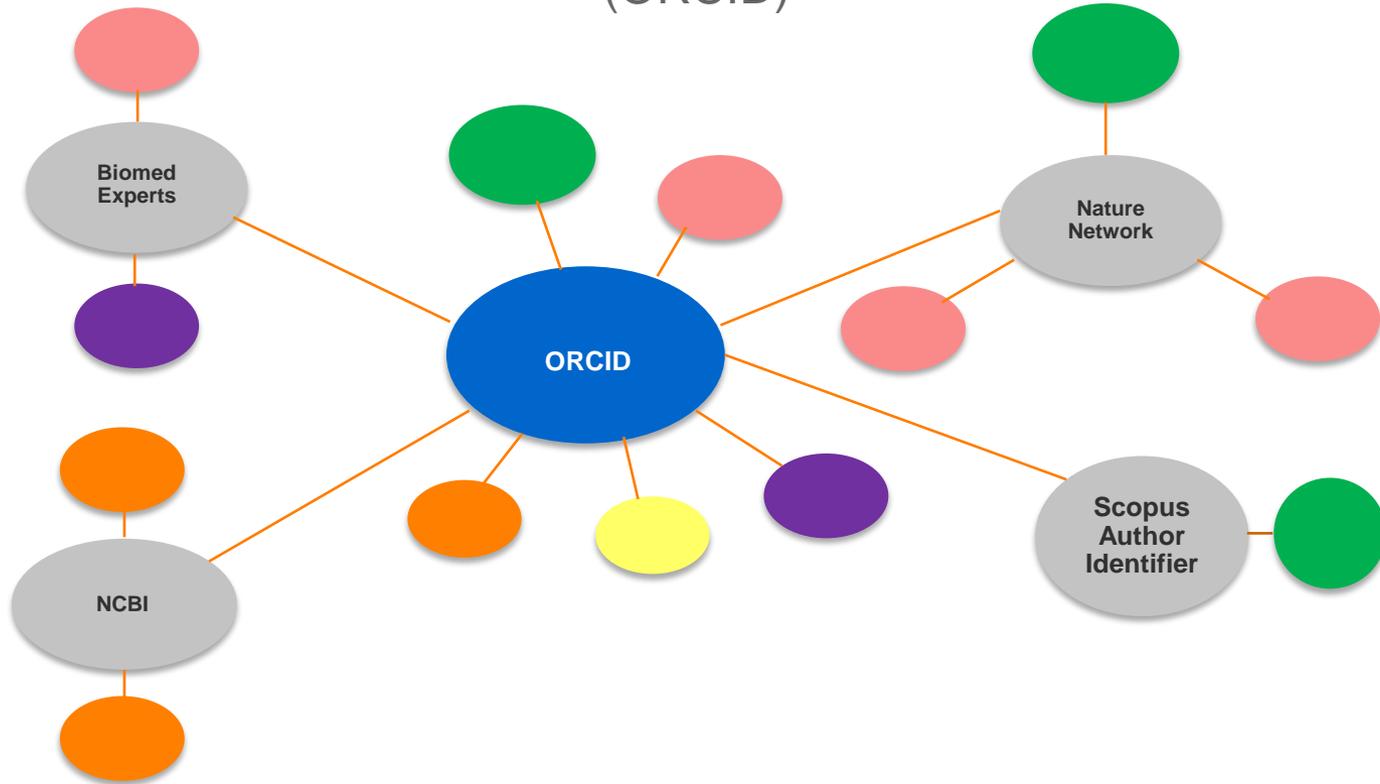
Nature Concepts

- Display biographic profile of author
- Register new authors
- List publication history

The screenshot shows the Nature Communications website interface. At the top, there is a navigation bar with "nature COMMUNICATIONS" and "SUBMIT NOW" buttons. Below this is a search bar and a "Login" button. The main content area features an author profile for Lynette Cegelski, which is circled in orange. The profile includes her name, affiliation (Department of Molecular Microbiology, Washington University School of Medicine, St. Louis, Missouri, USA), and a link to "More about this author". Below the profile, there is a list of publications, including one in Nature Chemical Biology (2009) with a DOI of 10.1038/nchembio.242. The article title is "Curli are functional extracellular amyloid fibers produced by uropathogenic Escherichia coli (UPEC) and other Enterobacteriaceae. Ring-fused 2-pyridones, such as FN075 and BibC6, inhibited curli biogenesis in UPEC and prevented the in vitro polymerization of the major curli subunit protein CsgA. The curlicides FN075 and BibC6 share a common chemical lineage with other ring-fused...". To the right of the article, there are buttons for "print", "email", "download pdf", and "download citation".

A common registry will provide the catalyst

Open Researcher and Contributor Identifier (ORCID)



- Publishers
- Academic Institutions
- Research Orgs
- Scholarly Associations
- Gov't Funding Agencies

A fundamental driver of digital scholarship

Lupien, C., 2007. An Intrinsic Bond-Centered Electronic Glass with Unidirectional Domains in Underdoped Cuprates. *Science*, 315, 1380-1385. [C-2148-2008](#)

[10.1126/science.1138584](https://doi.org/10.1126/science.1138584)

DOI links to published work

ORCID links to author(s)

DOI + ORCID power the “reference of the future”

An ORCID in our Future

Thank You