USask’s InCites on Reporting for Strategic International Relationship Building

For the Voice of the Customer Webinar Series hosted by the Web of Science Group

The Voice: Megan Fulmes, International Information Specialist, USask
October 8, 2019 @ 13:00 EST via Webex
Quick Facts about USask

• The main campus of the University of Saskatchewan (USask) is located on the Canadian Prairies in Saskatoon, Saskatchewan on Treaty 6 territory, the homeland of the Metis

• 20,088 undergraduate students, 4,337 graduate students, and 3,403 international students

• 6 Signature Areas of Research
  • Agriculture
  • Energy & Mineral Resources
  • Indigenous Peoples
  • Synchrotron Sciences
  • One Health
  • Water Security
Internationalization at USask

• 219 partnership agreements and 290 mobility opportunities for students, faculty, and staff
• Partners in 114 countries
• International Blueprint for Action initiative

• **Goal:** Partnership quality over quantity
  • Inform International Partnership Team
    • Partnership agreements
    • Delegation support
  • Inform academic units and senior administrators

• **Goal:** Support international research relationships
  • Inform International Research Team
Inform International Partnership Team

**Partnership Initiation & Renewal Assessment**

- Are USask researchers collaborating with peers at the prospective partner institution?
- Has co-publication activity between USask researchers and peers at the existing partner institution changed over the course of the partnership?

**Incoming & Outgoing Delegation Support**

- What are their research strengths?
- Which countries are their strongest international research partners?
- Which international institutions are their strongest partners?
- What do we have in common?
Institution Briefing Notes for Incoming and Outgoing Delegations

UiT Summary Bibliometric Statistics (2009-19)

14,960 Web of Science Documents
1.37 Category Normalized Citation Impact
2.2% Industry Collaborations
56.8% International Collaborations

<table>
<thead>
<tr>
<th>Top Collaborating Countries re: Publication Volume &amp; Impact</th>
<th>Most Productive International Co-Publication Relationships</th>
<th>Top Research Disciplines</th>
<th>Top Research Disciplines of Co-Publications (n=40) with USask</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. USA</td>
<td>1. Karolinska Institutet, Sweden</td>
<td>1. Oncology</td>
<td>1. Medicine, General &amp; Internal</td>
</tr>
<tr>
<td>5. Germany</td>
<td>5. Utrecht University, Netherlands</td>
<td>5. Cell Biology</td>
<td>5. Environmental Studies</td>
</tr>
</tbody>
</table>

InCites Module(s) Used:
## Country Briefing

### Notes for Incoming and Outgoing Delegations

**InCites Module(s) Used:**

<table>
<thead>
<tr>
<th>Period</th>
<th>Web of Science Publications</th>
<th>Average Category Normalized Citation Impact</th>
<th>Top Ranked Research Areas</th>
<th>Top Ranked International Collaborators</th>
</tr>
</thead>
</table>
## Country Briefing Notes for Incoming and Outgoing Delegations

### USask and Chinese Collaboration Research Overview (2000-Present)

<table>
<thead>
<tr>
<th>Period</th>
<th>Web of Science Publications</th>
<th>Average Category Normalized Citation Impact</th>
<th>Top Ranked Research Areas</th>
<th>Top Ranked Institutional Collaborators</th>
</tr>
</thead>
</table>
| 2010 – 2015  | 1,181                       | 1.28                                        | 1. Environmental Sciences  
2. Engineering, Environmental  
3. Biochemistry & Molecular Biology  
4. Toxicology  
5. Biotechnology & Applied Microbiology | 1. City University of Hong Kong  
2. Chinese Academy of Sciences  
3. Nanjing University  
4. University of Hong Kong  
5. Research Center for Eco-Environmental Sciences (RCEES) |
| 2015 – Present | 1,208                     | 1.66                                        | 1. Environmental Sciences  
2. Physics, Multidisciplinary  
3. Materials Science, Multidisciplinary  
4. Chemistry, Multidisciplinary  
5. Engineering, Environmental | 1. Chinese Academy of Sciences  
2. Nanjing University  
3. University of Hong Kong  
4. Peking University  
5. Central South University |

**InCites Module(s) Used:**
Inform International Research Team

- Which USask researchers have been actively co-publishing with peers in Country A? With which institutions?

- What research strengths do we have in common with Country A?

- With which countries and institutions are researchers at our Canadian peer institutions (e.g. members of the U15) actively co-publishing?
Inform Academic Units & Senior Administrators

- What formalized international relationships is the academic unit engaging with the most?
- What informal international relationships are flying under the radar and may be enhanced by a formal agreement?
  - Do any of these informal relationships align with mobility opportunities that may be desirable and valuable to students, staff, or faculty?
- How do the strengths of the unit align with international funding trends and emerging international research trends?
**EXECUTIVE SUMMARY**

This report represents a pilot project of the International Blueprint and is intended to act as a tool for strategic development across organizational levels; recommendations on future action have been provided by international office specialists to guide this development. The report also provides a longitudinal assessment of the college’s international engagement as a baseline against which to measure future success, particularly in light of the objectives of the International Blueprint.

The College of Arts & Science was chosen as the subject of this report due to its complexity relative to its campus peers.

The underlying methodology of this report relies on the aggregation of individual-level data from internal and external datasets that have been vetted for quality and completeness. There are limitations to the scope of this data.

**PARTNERSHIPS**

- The College has 19 active agreements with international partners and a further 50 non-College-specific agreements indirectly implicate the College, representing low-hanging fruit for expanding the College’s international engagement.
- Internationally-based funding envelopes and existing USask network memberships represent opportunities to enhance student, faculty, and staff mobility at little-to-no-cost, particularly to Asia, Central and Eastern Europe, and South America.
- The College’s informal research relationships represent low-risk opportunities to formalize international partnerships with agreements; Departments within the College exhibit strong co-publication relationships with specific institutions, often with an identifiable individual or team that might best act as the relationship-development champion.

**STUDENT ENROLLMENT & MOBILITY**

- All of the College’s regional aggregate exchange mobility balances (i.e. outgoing exchange students minus incoming) are negative, indicating the need to increase outgoing student exchange to all regions and particularly to partner institutions.
- Term Abroad opportunities offered by the College are primarily driven by the social and philosophical sciences.

**RESEARCH**

- College engagement in international research is primarily driven by the formal, physical, and life sciences.
- The number of international research awards attributed to the College has risen over time, however, the funding envelope per award has declined and was at its lowest in 2017/18.

**2018 U15 COMPARATIVE**

- The College’s percentage of international co-publications has increased year-over-year, in step with the university and its U15 peers, but is notably lower overall than the university and U15 averages. Direct comparisons between the College and its U15 peer colleges are unavailable.
- The College’s percentage of international students is comparatively low with respect to both the university and U15, however, direct comparisons between the College and U15 peer colleges are unavailable.

**College-Level International Benchmark Snapshot Reports**

Completed annually for a selected college to inform **college-level and department-level international strategic decision-making** and to encourage engagement with the International Research and Partnerships Office.

Leverages InCites bibliometric data to find synergies between:

- **Partnerships**
- **Enrollment & Mobility**
- **Research**

Provides **benchmarking against USask’s primary comparator group, the U15 Group of Canadian Research Universities**
What are the high-level bibliometric insights for the college?
With which countries is the college producing the highest volume of internationally co-authored publications?

[Diagram showing international co-publications by department for the years 2012-17. The largest contributing department is Physics & Eng Phys with 509 co-publications. Other significant departments include Biology with 233, Geological Sci with 292, and Other with 284 co-publications.]

Which departments are producing the highest volume of internationally co-authored publications?
Geological Sciences

Top International Co-Authoring Institutions:

1. Xiamen University, China
2. DOE, USA
3. University of Chicago, USA
4. UC Riverside, USA
   - Russian Academy of Sciences, Russia
   - Sobolev Institute of Geology & Mineralogy, Russia
5. China University of Geosciences, China
6. CNRS, France
   - CONICET, Argentina
7. Texas Tech University, USA
   - Tongji University, China
   - Chinese Academy of Sciences, China

History

Top International Co-Authoring Institutions:

1. University of Edinburgh, UK
   - Universidad Pablo de Olavide, Spain
2. Purdue University, USA
   - Iowa State University, USA
   - Wichita State University, USA
   - University of Barcelona, Spain
   - Polytechnic University of Catalonia, Spain
   - University of St Andrews, UK
   - Universidad de Jaen, Spain
   - Basque Centre for Climate Change, Spain
   - University of Vigo, Spain
## Engagement & Opportunities with Select Innovation Achievers & Rapid Actors

<table>
<thead>
<tr>
<th>Engagement</th>
<th>Korea</th>
<th>Malawi</th>
<th>Tanzania</th>
<th>Uganda</th>
<th>Ukraine</th>
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</thead>
<tbody>
<tr>
<td>Agreements</td>
<td>0 College, 2 USask</td>
<td>1 College, 1 USask</td>
<td>2 College, 3 USask</td>
<td>3 College, 5 USask</td>
<td>0 College, 6 USask</td>
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<tr>
<td>Co-Authorship Instances</td>
<td>53</td>
<td>N/A</td>
<td>2</td>
<td>N/A</td>
<td>6</td>
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<tr>
<td>Leading Departments</td>
<td>Physics (43, 81%) Math (5, 9%) Biology (4, 8%)</td>
<td>N/A</td>
<td>Geography (2, 100%)</td>
<td>N/A</td>
<td>Physics (6, 100%)</td>
</tr>
<tr>
<td>Opportunities</td>
<td>Leverage the university-wide mobility agreement with Chung-Ang University (2022) into engagement in the basic sciences</td>
<td>Engage under the university-wide agreement with University of Malawi (2023) for cooperation in the areas of human, animal, &amp; environmental science</td>
<td>Engage under the university-wide agreements with the Nelson Mandela African Institute of Science and Technology (2023) for cooperation in life sciences, bio-engineering and materials, energy, water, &amp; environmental sciences &amp; the Green Hope Organization (2022) for cooperation in the Mama Kwanza socioeconomic &amp; health initiative</td>
<td>Leverage or engage with the university-wide internships, graduate research, &amp; exchange agreements with Mbarara University of Science &amp; Technology (2023) for cooperation in the QEI11 Project Community Partnerships for Food Security and Health</td>
<td>Engage under the university-wide agreement with University of Chernivtsi (2022), as this institution’s colleges closely mirror the Departments within the College of Arts &amp; Science</td>
</tr>
</tbody>
</table>
2018 U15 COMPARATIVE

U15 % International Co-Publications

University of Alberta
University of British Columbia
University of Calgary
Dalhousie University
Laval University
University of Manitoba
McGill University
McMaster University
University of Montreal
University of Ottawa
Queens University
University of Saskatchewan
College of Arts & Science*
University of Toronto
University of Waterloo
Western University

*Departmental disaggregation is available.
What does my InCites look like?

How did I get that in-between data on academic departments and colleges?

From the bibliometric data for individual researchers!
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<tr>
<td>Pan, Yuanming</td>
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<td>Mangano, M. Gabriela</td>
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<td>Pickering, Ingrid J.</td>
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<td>Pratt, Brian R.</td>
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<td>Patterson, William P.</td>
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<td>Basinger, James F.</td>
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<td>Partin, Camille A.</td>
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<tr>
<td>Holmden, C.</td>
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<td>University of Saskatchewan</td>
</tr>
<tr>
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<td>Rank</td>
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<tr>
<td>Xiamen University</td>
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<tr>
<td>United States Department of Energy (DOE)</td>
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<td>Government</td>
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<td>University of Chicago</td>
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<tr>
<td>University of California Riverside</td>
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<td>Academic</td>
</tr>
<tr>
<td>Russian Academy of Sciences</td>
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<td>National Academy</td>
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<tr>
<td>Sobolev Institute of Geology &amp; Mineralogy of the Russian Academy of Sciences</td>
<td>4</td>
<td>Research Institute</td>
</tr>
<tr>
<td>China University of Geosciences</td>
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<td>Academic</td>
</tr>
<tr>
<td>Centre National de la Recherche Scientifique (CNRS)</td>
<td>8</td>
<td>Research Institute</td>
</tr>
<tr>
<td>Consejo Nacional de Investigaciones Científicas y Tecnicas (CONICET)</td>
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<td>Academic</td>
</tr>
<tr>
<td>Texas Tech University</td>
<td>10</td>
<td>Academic</td>
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</table>
Thank you!
Q & A

Please unmute your microphone or use the chat function to ask a question