How can we increase faculty opportunities for collaboration?

The Persistent Camels
“The camel is one of the most powerful symbols of endurance, strength and persistence. It is also considered a symbol of sacrifices we all need to make at certain points of our life, in order to advance.”

mydreamsymbolism.com
**Problem:** Challenges in finding and establishing research collaborations

**Possible causes:**
- Unawareness of other research groups
- Disinterest in collaboration (short- vs. long-term benefits)
- Uncertainty as to how to approach collaboration
- Multiple distinct entities and geographic separation
- Traditional informal networks not available to all
  - i.e. mentor/mentee introductions at meetings, the country club, meetings at the pub

**Idea:** *Can social media be used to increase research collaboration?*
- Increases the pool of collaborators
- You can establish your own network
- Replaces/supplements traditional exclusionary networks

**Project goals:**
- Characterize the current state of the Colorado research community’s use/attitudes concerning social media
- Identify barriers to more widespread and effective use
CCTSI Affiliates:
University of Colorado Denver | Anschutz Medical Campus
University of Colorado Boulder
University of Colorado Colorado Springs
Colorado State University
University of Colorado Hospital
Children's Hospital Colorado
Denver Veterans Affairs Medical Center
National Jewish Health
Denver Health
Kaiser Permanente of Colorado
social media

NOUN

websites and applications that enable users to create and share content or to participate in social networking.
Increasing number of social media
Collaborative Use of Social Media

- Disseminate meeting presentations/science to larger audience
  - with collaborators identified and tagged
Collaborative Use of Social Media

- Introduce new investigators, amplify researchers
- Sponsorship opportunities
Collaborative Use of Social Media

• Crosses specialties/research areas
• Eliminates geographic barriers
• Transcends traditional informal networks, which increases diversity and depth of collaboration
Objective: Identify cross-campus social media use practices for identifying and maintaining collaborations.

Is there room for improvement and/or should additional training be offered for enhancing our ability to utilize this resource?
Methods: A campus-wide survey of social media use for professional purposes

- 4 categories of platforms considered:
  - Professional networking sites: Colorado PROFILES, Doximity, ResearchGate, LinkedIn
  - Microblog/Network sites: Facebook, Twitter, Instagram
  - Sharing Sites: YouTube, blogs
  - Communication tools: WhatsApp, Snapchat

- Stakeholders:
  - Faculty researchers: source of research material and collaborations
  - Trainees and junior faculty: prospective lab members
Survey Background

• Eligible Respondents:
  Students, Fellows, Residents, and Faculty who have performed research (any type) in the past 12 months

• Websurvey programmed in REDCap (CCTSI UL1 TR002535)

• Email invitation (+ 1 reminder) sent over faculty listserves to CSU and CU departments, with response rates (AAPOR Response Rates RR4):
  - CSU (22.0%)
  - Graduate School (6.0%)
  - Medicine (9.5%)
  - Ob/Gyn (10.9%)
  - Otolaryngology (36.4%)
  - Pediatrics (16.2%)
  - Surgery (25.8%)
Demographic Characteristics

Department Association (n=523)  Academic Rank (n=492)

[Pie chart showing distribution of departments]

[Bar chart showing distribution of academic ranks]
Demographic Characteristics

Gender (n=492)
- 60.2% female

Non-Hispanic Ethnicity (n=493)
- 91.1% non-Hispanic

Race – multiple selections possible (n=493)
- 87.8% White
- 6.5% Asian
- 4.7% prefer not to answer
- ≤1% each Black/American Indian/Pacific Islander

Age (n=487)

<table>
<thead>
<tr>
<th>Age Range</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 30 years</td>
<td>8.0</td>
</tr>
<tr>
<td>30-39 years</td>
<td>32.7</td>
</tr>
<tr>
<td>40-49 years</td>
<td>30.2</td>
</tr>
<tr>
<td>50-59 years</td>
<td>17.7</td>
</tr>
<tr>
<td>60 years or older</td>
<td>11.5</td>
</tr>
</tbody>
</table>
% Respondents Knowing Different Types of Social Media

- Microblog Sites: Twitter (99.2%), Instagram (99.8%), LinkedIn (99.6%), ResearchGate (99.2%), Doximity (95.3%), Colorado Profiles (83.3%), Youtube (79.9%)
- Professional Networking Sites: Facebook (100%), LinkedIn (99.6%), ResearchGate (99.6%), Doximity (95.3%), Colorado Profiles (83.3%), Youtube (79.9%)
- Sharing Sites: Blogs (97.9%), Snapchat (98.3%), WhatsApp (94.8%)
- Communication: Facebook (100%), LinkedIn (99.6%), ResearchGate (99.6%), Doximity (95.3%), Colorado Profiles (83.3%), Youtube (79.9%), Blogs (97.9%), Snapchat (98.3%), WhatsApp (94.8%)
% Respondents Having Ever Used Different Types of Social Media Professionally

- **Microblog Sites**: Facebook (27.5%), Instagram (34.2%), LinkedIn (4.2%), Researchgate (57.4%), Doximity (62.9%)
- **Professional Networking Sites**: Colorado Profiles (41%), Youtube (22.9%), Blogs (25.6%)
- **Sharing Sites**: Snapchat (16.3%), WhatsApp (13.4%)
- **Communication**: Blogs (471), Snapchat (470), WhatsApp (455)
# Frequency of Professional Social Media Site Use in Past 12 Months

The table below provides data on the frequency of use of different professional social media sites over the past 12 months, categorized by percentage of users. The sites categorized include Professional Networking Sites, Sharing Sites, and Micro Blog Sites.

<table>
<thead>
<tr>
<th>Site</th>
<th>Percentage of Users</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facebook (n=136)</td>
<td></td>
</tr>
<tr>
<td>LinkedIn (n=285)</td>
<td></td>
</tr>
<tr>
<td>ResearchGate (n=301)</td>
<td></td>
</tr>
<tr>
<td>Doximity (n=166)</td>
<td></td>
</tr>
<tr>
<td>Colorado Profiles (n=87)</td>
<td></td>
</tr>
<tr>
<td>Youtube (n=123)</td>
<td></td>
</tr>
<tr>
<td>Blogs (n=77)</td>
<td></td>
</tr>
<tr>
<td>Snapchat (n=2)</td>
<td></td>
</tr>
<tr>
<td>WhatsApp (n=60)</td>
<td></td>
</tr>
</tbody>
</table>

- **Never**
- **Once to a few times in past 12 months**
- **Once to a few times in past month**
- **Once a week to daily**

### Graphical Representation

A bar chart is provided showing the percentage distribution of users for each site, categorized by frequency of use.
Interim Conclusions

- Awareness high
- Utilization low, even for types targeted to professional networking
% Respondents Stating Different Types of Social Media Helped With Increasing Visibility of Research, Academic Collaboration, or Advocacy
% Respondents Indicating Different Groups of Social Media Types Helped with the Following **Self-Initiated** Tasks

- **Finding information about potential collaborators INSIDE institution**
  - Micro Blog Sites (n=242): 20.7%
  - Professional Networking Sites (n=408): 26%
  - Sharing Sites (n=150): 7.3%

- **Finding information about potential collaborators OUTSIDE institution**
  - Micro Blog Sites (n=242): 45%
  - Professional Networking Sites (n=408): 34.1%
  - Sharing Sites (n=150): 19.2%

- **Contacted potential collaborator through this type of social media**
  - Micro Blog Sites (n=242): 17.4%
  - Professional Networking Sites (n=408): 12.2%
  - Sharing Sites (n=150): 6%
% Respondents Indicating Different Groups of Social Media Types Helped with the Following **Outside-Initiated** Events

<table>
<thead>
<tr>
<th>Event</th>
<th>Micro Blog Sites (n=242)</th>
<th>Professional Networking Sites (n=408)</th>
<th>Sharing Sites (n=150)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Was contacted by potential collaborator through this type of social media</td>
<td>24.2</td>
<td>19.1</td>
<td>8.7</td>
</tr>
<tr>
<td>Was invited to present my research in academic setting</td>
<td>10.9</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Was asked by media/non-academic agencies to speak about research/advocacy</td>
<td>19.9</td>
<td>8.7</td>
<td>8.7</td>
</tr>
</tbody>
</table>
% Respondents Indicating How Different Groups of Social Media Types Influenced the Following Outcomes

- **Increased visibility of my research/more citations of my publications**
  - Micro Blog Sites (n=242): 57.9%
  - Professional Networking Sites (n=408): 52.3%
  - Sharing Sites (n=150): 24.7%

- **Contact through this type of social media led to work on grant submission**
  - Micro Blog Sites (n=242): 3.8%
  - Professional Networking Sites (n=408): 3.2%
  - Sharing Sites (n=150): 0.7%

- **Contact through this type of social media led to work on publication**
  - Micro Blog Sites (n=242): 11%
  - Professional Networking Sites (n=408): 3.7%
  - Sharing Sites (n=150): 4%
Interim Conclusions

• Social media can be used effectively for collaboration

• Different roles for different social media
  – Professional networking sites for inside collaboration
  – Microblogs for outside collaborations, and for invitations to speak/present
Concerned About Negative Consequences of Using Social Media in Professional Settings (n=498)

8.3% reported negative consequences (negative interactions, privacy issues etc.) from using Social Media in professional settings.
Respondents’ Perception of Being Adept At Using Social Media to...

- 63.6% would like to learn more about how to properly use social media for professional purposes
Overall Conclusions:
Faculty, students/residents, post docs:
• Know about & use social media to establish collaborations
• Find it advantageous to increase visibility & collaborations
• Lack skills for proficient use
• Have concerns about privacy/legal implications
• Fear or uncertainty around appropriate use and potential consequences
Barriers:

- Multiple resources across campuses
  - Tend to educate on technical aspects of use
  - Difficult to find, even when searching specifically
  - Variable as to scope and reach
  - No standardization
Opportunities for Improvement
A show of hands at LiTES revealed that approximately half of the cohort was aware of Colorado PROFILES.
A show of hands at LITeS revealed that approximately half of the cohort was aware of Colorado PROFILES. Nearly 80% of our survey respondents were aware of its existence; ~20-45% of these had ever used it, or used it successfully for collaboration.
Association Between Postpartum Breast Cancer Diagnosis and Metastasis and the Clinical Features Underlying Risk

Overview of attention for article published in JAMA Network Open, January 2019

**SUMMARY**

- **Title**: Association Between Postpartum Breast Cancer Diagnosis and Metastasis and the Clinical Features Underlying Risk
- **Published in**: JAMA Network Open, January 2019
- **DOI**: 10.1001/jamanetworkopen.2018.6997
- **PubMed ID**: 30646210
- **Authors**: Erica T. Goddard, Solange Bassale, Troy Schedin, Sonali Jindal, Jeremy Johnston, Ethan Cabral...

**Twitter Demographics**

The data shown below were collected from the profiles of 34 tweeters who shared this research output. [Click here to find out more about how the information was compiled.]
Potential collaborators by search term(s)

Connection

Search Results to Csaba Galambos
This is a "connection" page, showing the details of why an item matched the keywords from your search.

<table>
<thead>
<tr>
<th>Item Type</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Article</td>
<td>Mucocoele: a human model for lymphangiogenesis.</td>
</tr>
<tr>
<td>Academic Article</td>
<td>Prox-1: a specific and sensitive marker for lymphatic endothelium in normal and diseased human tissues.</td>
</tr>
<tr>
<td>Concept</td>
<td>Lymphangiogenesis</td>
</tr>
</tbody>
</table>

One or more keywords matched the following items that are connected to Galambos, Csaba

Search Criteria
lymphangiogenesis
• Outside institutions
• DIRECT pilot
6 degrees of Kevin Bacon
Opportunity for improvement

Colorado PROFILES – CCTSI, multiple institution

• Platform for education regarding use of social media

• Technical best practices (ie #Tweets/day, formatting), Visual Abstracts for Scientific Presentations, Legal implications, etc.

• Links to Social Media

• Suggested link/handles to follow
Recommendation:

**Leverage Colorado PROFILES to link to social media:**

- It’s already *in place*
- Finding potential collaborators/networks… *it works!*
  - Can search without an account
- **Enhance** … *it is relatively static social media … no interaction*
  - Are there lessons to be learned from Research Gate
  - Add other social media links to Colorado PROFILES
  - Inter-institution connections… i.e. CCTSI campuses
- **Raise awareness**… i.e. orientation, Research Day
- Offer additional *training*
  - Make people more comfortable using this platform professionally
- Administrative *support to initiate faculty updates* campus wide
Action Items

How will this help the faculty:
• Increase not just knowledge of Colorado PROFILES, but education on capabilities
  • Colorado PROFILES presenting at Department of Medicine research day April 22
• Centralized education platform for social media use
• Linkage to social media

How will this help the University:
• Capability to add social media handles/links for each person will aid in national presence of CU research on social media
• Do we need a #CSMO? (Chief Social Media Officer)

Increase Statewide Collaborations (CCTSI)
Thank you!

NIH/NCRR Colorado CTSI Grant Number UL1
TR002535
References


• Lewis JD, Fane KE, Ingraham AM, et al. Expanding opportunities for professional development: Utilization of Twitter by early career women in academic medicine and science. JMR Med Educ 2018;4:e11140. doi: 10.2196/11140