MICHAEL ROACH

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ACADEMIC POSITIONS

University of Illinois at Urbana-Champaign	
Associate Professor of Strategy & Entrepreneurship, Gies College of Business	2022-Present
Research Scholar, Illinois Strategic Organizations Initiative	

Duke University

Visiting Assistant Professor of Strategy, Fuqua School of Business 2012-2014, 2021-2022

Cornell University

Assistant Professor of Entrepreneurship, Dyson School of Applied Economics 2014-2021 and Management, SC Johnson College of Business

University of Pennsylvania

Visiting Assistant Professor of Management, Wharton School 2019-2020

University of North Carolina at Chapel Hill

Assistant Professor of Strategy & Entrepreneurship, Kenan-Flagler Business School 2007-2012

EDUCATION

111.12.	Doctor of Philosophy in Business Administration (Strategy)	2007
B.B.A.	Georgia State University, J. Mack Robinson College of Business	2000

2007

Bachelor of Business Administration in Decision Sciences
Summa Cum Laude with Research Honors

Duke University Fugua School of Business

PEER-REVIEWED PUBLICATIONS (Google Scholar Citations 2,620 as of January 2023)

- "Can Early-Stage Startups Hire Talented Scientist and Engineers? Ability, Preferences and Employee Job Choice." forthcoming at <u>Management Science</u> (w/H. Sauermann)
 - Best conference paper AOM Start-up to Scale-up Special Conference, Dec. 2018
- "Rethinking Immigration Policies for STEM Doctorates." <u>Science</u>, 371(6527), Jan. 22, 2021 (w/J. Skrentny)
- "Are Foreign STEM PhDs More Entrepreneurial? Entrepreneurial Characteristics, Preferences and Outcomes of Native and Foreign Science & Engineering PhD Students," *The Roles of Immigrants and Foreign Students in US Science, Innovation, and Entrepreneurship*. (eds.) Ganguli, Kahn & MacGarvie (2020). (w/H. Sauermann & J. Skrentny).
 - NBER Working Paper No. 26225
- "Why Foreign STEM PhDs are Unlikely to Work for U.S. Technology Startups." *Proceedings of the National Academy of Sciences*, 116(34), Aug. 20, 2019. (w/J. Skrentny)
 - "Big Tech's Unfair Immigration Advantage." Op-ed in Wall Street Journal, Dec. 11, 2019

- "The Declining Interest in an Academic Career." <u>PLOS ONE</u>, 12(9), Sept. 18, 2017 (w/H. Sauermann)
- "Encouraging Entrepreneurship in University Labs: Research Activities, Research Outputs, and Early Doctorate Careers." <u>PLOS ONE</u>, 12(2), Feb. 8, 2017.
- "Why Pursue the Postdoc Path?" *Science*, 352(6286), May 6, 2016. (w/H. Sauermann)
- "Founder or Joiner? The Role of Preferences and Context in Shaping Different Entrepreneurial Interests." *Management Science*, 61(9), 2160-2184 (2015). (w/H. Sauermann)
 - "Founders and Joiners." Solicited research summary in *Science*, June 12, 2015.
- "Not All Scientists Pay to Be Scientists: PhDs' Preferences for Publishing in Industrial Employment." *Research Policy*, 43(1), 32-47 (2014). (w/H. Sauermann)
 - Best Young Scholar Paper Award, DRUID Summer Conference 2011
- "Lens or Prism? Patent Citations as a Measure of Knowledge Flows from Public Research." *Management Science*, 59(2), 504-525 (2013). (w/W. Cohen)
 - NBER Working Paper No. 18292
- "Increasing Web Survey Response Rates in Innovation Research: An Experimental Study of Static and Dynamic Contact Design Features." *Research Policy*, 42(1), 273-286 (2013). (w/H. Sauermann)
- "Science PhD Career Preferences: Levels, Changes, and Advisor Encouragement." <u>PLOS ONE</u> 7(5), May 2, 2012. (w/H. Sauermann)
- "A Taste for Science? PhD Scientists' Academic Orientation and Self-Selection into Research Careers in Industry." *Research Policy*, 39(3), 422-434 (2010). (w/H. Sauermann)
- "Learning in Online Forums." *European Management Journal* 21(5), 565-577 (2003). (w/G. DeSanctis, A. Fayard and J. Lu)

OTHER WRITINGS

- "We must retain foreign Ph.D.s to keep America's innovation advantage" *The Hill*, Aug. 19, 2020. (w/J. Skrentny)
- "Big Tech's Unfair Immigration Advantage" Wall Street Journal, Dec. 11, 2019. (w/J. Skrentny)
- "Foreign-born entrepreneurial human capital in the US: The preference-outcome gap." <u>Vox EU</u>, <u>Center for Economic and Policy Research</u> (2019). (w/H. Sauermann & J. Skrentny)
- "Founders and Joiners." <u>Science</u>, June 12, 2015. (w/H. Sauermann) *Editor-invited research vignette highlighting the policy implications of my research on joiners for STEM doctorate careers in entrepreneurship.*

WORKING PAPERS

"Are Startups Losing Out to Established Firms in Hiring High-Skilled Foreign Workers?" $\mbox{\it w/J}.$ Skrentny

"Do Women Prefer Different Jobs from Men? Gender and the Preference for Academic Science Careers" w/H. Sauermann

"How Entrepreneurial are Faculty Founders?"

"Taste for Science, Taste for Commercialization, and Hybrid Scientists" w/H. Sauermann

"Firm R&D Orientation and the Use of External Knowledge"

"Re-Examining Patents as Measures of Firm Invention"

UNDER DEVELOPMENT

"The Founding Teams of University Spinouts" with Diane Burton

"When Do University Startups Bring on External Executive Management?" with David Hsu

"Experiments in Entrepreneurial Identity"

"The Early Careers of STEM Doctorates" with Henry Sauermann

AWARDS, FELLOWSHIPS & GRANTS

Best Conference Paper, Academy of Management Special Conference: Start-up to Scale-up, 2018

Kauffman Foundation Junior Faculty Fellowship in Entrepreneurship Research, 2012-2014, \$40,000

National Science Foundation (SciSIP), "The Initial Career Transitions of Science & Engineering PhDs," with Henry Sauermann, 2013-2015, \$285,238 (NSF-1262270)

National Science Foundation (SciSIP), "The Evolving University Research Enterprise," with Maryann Feldman and Janet Bercovitz, 2012-2014, \$389,698 (NSF-1158755)

Best Young Scholar Paper Award, DRUID Summer Conference 2011

Georgia Research Alliance/Kauffman Foundation, with Henry Sauermann, 2009-2010, \$16,000

UNC Kenan-Flagler MBA Faculty "All Star" Teaching Award 2009, 2010, 2011

John W. Hartman Foundation for Small and Medium Enterprises, Duke University, with Wes Cohen, 2005-2006, \$11,000

Dennis E. Grawoig Memorial Award for Outstanding Student in the Decision Sciences, J. Mack Robinson College of Business, Georgia State University, 2000

Research Honors, Georgia State University, 2000

INVITED PRESENTATIONS & DISCUSSIONS

Faculty Research Seminars

2021 - Boston University, National University of Lausanne, Syracuse University, University of Illinois at Urbana-Champaign, University of Toronto

2020 - National Science Foundation: Industrial Innovation and Partnerships

2019 - University of Maryland, University of Minnesota

2018 - NYU Tandon, Syracuse University

2017 - NYU Stern, Stanford University

2016 - Copenhagen Business School, University of Utah

- 2014 UC San Diego
- 2013 Cornell University, Johns Hopkins University, National University of Singapore, Singapore Management University, University of Wisconsin
- 2012 London Business School, Stanford University, UC Berkeley, University of Maryland
- 2011 Boston University, Copenhagen Business School, Duke University
- 2010 Georgia Institute of Technology
- 2007 University of North Carolina, University of Wisconsin, NC State University
- UC San Diego Pathways to STEM Careers: Strategies for Employment from High School Degree to PhD, May 2019
- National Bureau of Economic Research Workshop on "The Role of Immigrants and Foreign Students in Science, Innovation, and Entrepreneurship", January 2018
- National Institutes of Health/National Science Foundation Workshop on "The Value of Data Sharing," invited panelist, Bethesda, MD, October 2017
- National Bureau of Economic Research Productivity Workshop, February 2017
- National Academies of Science, Engineering and Medicine workshop on "Measuring the Science and Engineering Workforce: Data Needs," invited panelist, Washington D.C., October 2016
- UCSD Center for Comparative Immigration Studies Workshop on Research Universities, International STEM Students, and the Innovation Economy, invited speaker, May 2016
- INFORMS Strategy Science Mini-Conference, invited presenter, Philadelphia, November 2015
- Alfred P. Sloan Foundation/Burroughs Wellcome Fund Panel on the Scientific Workforce, invited panelist, October 2015
- NBER Summer Institute Meeting on the STEM Workforce, invited presenter, Boston, July 2015
- Consortium on Competitiveness and Cooperation, invited discussant, NYU Stern, April 2015
- Council of Graduate Schools Workshop on "Understanding PhD Career Pathways," invited speaker, Warrenton, VA, September 2014
- BYU-Utah Winter Strategy Conference, invited presenter, March 2013
- Academy of Management Professional Development Workshop "Measuring Knowledge Flows: Patent and Non-Patent Data," invited presenter, Boston, August 2012
- 3rd Annual Darden Entrepreneurship and Innovation Research Conference, invited discussant, University of Virginia, April 2010
- 2nd Annual Darden Entrepreneurship and Innovation Research Conference, invited panelist, University of Virginia, May 2011
- 7th Annual Smith Entrepreneurship Research Conference, University of Maryland, April 2011
- National Academies of Science, Engineering and Medicine workshop on "Measuring the Impacts of Federal Investments in Research," invited speaker, Washington D.C., April 2011
- 1st Annual Darden Entrepreneurship and Innovation Research Conference, invited discussant, University of Virginia, April 2010

Kauffman Foundation & Federal Reserve Bank of Cleveland Workshop on Entrepreneurial Finance, invited discussant, Case-Western Reserve University, March 2009

CONFERENCE PRESENTATIONS

- "Can Early-Stage Startup Hire Talented Scientists & Engineers? Ability, Preferences and Employee Job Choice."
 - NBER Entrepreneurship Working Group Meeting, Cambridge, December 2022
 - Wharton Technology & Innovation Conference, Philadelphia, April 2018
 - Kauffman Entrepreneurship Scholars Conference, Kansas City, October 2017
 - Academy of Management Annual Meeting, Atlanta GA, August 2017
 - Madrid Strategy, Entrepreneurship and Innovation Workshop, Madrid ES, May 2017
 - Workshop on The Organization, Economics and Policy of Scientific Research, Turin IT, May 2017
 - Strategic Management Society, Milan IT, April 2017
 - NBER Productivity Workshop, Cambridge MA, February 2017
 - Academy of Management Annual Meeting, Anaheim, August 2016
 - INFORMS Strategy Science Mini-Conference, Philadelphia, November 2015

"Are Startups Losing Out to Established Firms in Hiring High-Skilled Foreign Workers?"

- Wharton Conference on Migration, Organizations, and Management, May 2019
- UNC Kenan Institute Frontiers of Entrepreneurship Conference, January 2019
- Wharton People & Organizations Conference, September 2018
- Strategic Management Society Annual Conference, Paris, September 2018

"Divergent Roles of Faculty & PhDs in Academic Entrepreneurship"

- Academy of Management Annual Meeting, Chicago, August 2018

"U.S. Immigration Policies and the STEM Entrepreneurial Workforce"

- NBER Workshop on "The Role of Immigrants and Foreign Students in Science, Innovation, and Entrepreneurship", January 2018

"Founder or Joiner? The Role of Preferences and Context in Shaping Different Entrepreneurial Interests"

- West Coast Research Symposium, University of Washington, September 2013
- Darden Entrepreneurship and Innovation Research Conference, May 2013
- Wharton Technology and Innovation Conference, April 2013
- NBER Entrepreneurship Working Group, Cambridge MA, December 2012
- Strategic Management Society 32nd Annual Conference, Prague, 2012
- 72nd Annual Meeting of the Academy of Management, Boston, 2012
- DRUID Society Conference 2012, Copenhagen Business School
- Making Quantum Leaps in Technology Transfer, Johns Hopkins University, 2012
- 11th Annual Roundtable for Engineering Entrepreneurship Research (REER), Georgia Tech, 2011
- The Fox School of Business/Kauffman Foundation Workshop on Empirical Entrepreneurship, 2011
- The 7th Annual Smith Entrepreneurship Research Conference, University of Maryland, 2011

"The Price of Silence: Science & Engineering PhDs' Preferences for Publishing in Industrial R&D"

- 5th Annual Mid-Atlantic Strategy Colloquium, University of Maryland, 2010

"Lens or Prism? Patent Citations as a Measure of Knowledge Flows from Public Research"

- NBER Summer Institute, Intellectual Property Policy and Innovation, Cambridge, MA 2011
- Schumpeter Society Conference, Aalborg, Denmark 2010

- Strategic Management Society 28th Annual International Conference, Cologne, Germany, 2008
- National Bureau for Economic Research Productivity Seminar, Cambridge, MA, 2008
- 6th Roundtable on Engineering Entrepreneurship Research (REER), Georgia Tech, 2006
- "Why Do Firms Patent? Understanding Firm Strategic Patenting Activity and its Impact on Innovative Performance"
 - Strategic Management Society 30th Annual International Conference, Rome, 2010
- "When Do Firms Use Public Research? Knowledge Flows from Universities and Government Labs to Industrial R&D"
 - Strategic Management Society 29th Annual International Conference, Washington D.C., 2009
 - DRUID Society Conference 2009, Copenhagen Business School
 - 9th Annual Wharton Technology Conference, University of Pennsylvania, 2009
- "What Can (and Can't) Patents Tell Us about Knowledge Flows from Public Research", 2004 *Consortium for Cooperation and Competition*, Emory University.
- "Knowledge Familiarity in Technological Change" 2003 INFORMS Annual Meeting, Atlanta.
- "Age, Size, and Contribution Dynamics of Online Learning Forums", 2002 Academy of Management Meeting, Denver

MEDIA MENTIONS

- "The need to streamline immigration for STEM students" *Forbes*, May 6, 2021
- "Pay gap widens between female and male scientists in North America" *Nature*, Feb. 11, 2021
- "Let's Not Blow This Chance to Fix Immigration" Foreign Policy, Jan. 29, 2021
- "Biden's Plan to Help International Students Stay After Graduation Could Help Recruit Them in the First Place" *The Chronicle of Higher Education*, Jan. 29, 2021
- "Keeping STEM PhDs" Inside Higher Ed, Jan. 27,2021
- "The Importance of Immigrants for the Future of Tech" *Forbes*, Nov. 27, 2020
- "Why Immigration is so Important for the Global Race for Talent" *Forbes*, Dec. 17, 2019
- "The Broken Talent Pipeline for Foreign-Born Scientists" Forbes, Sept. 9, 2019
- "US visas make it harder for startups to hire foreign born PhDs" Economic Times, Aug. 7, 2019
- "Study Finds Foreign Ph.D.s Less Likely to Work for Start-Ups" Inside Higher Ed, Aug. 6, 2019
- "H-1B visa policies favor large companies, study says" Los Angeles Times, San Diego Union-Tribune, Star Tribune, Aug. 5, 2019
- "Cities offer great postdoc opportunities but make sure you factor in the cost of living" *Science*, Aug. 30, 2018
- "2017 Life Sciences Salary Survey" The Scientist, Nov. 1, 2017
- "Rejecting Academe" Inside Higher Ed, Sept. 29, 2017
- "Adios to academia" *Nature*, Sept. 26, 2017
- "2016 Life Sciences Salary Survey" The Scientist, Nov. 1, 2016
- "Where can a Ph.D. take you? Back to school, usually" *New York Times*, May 5, 2016
- "Postdoc now, think later" *Inside Higher Ed*, May 6, 2106

TEACHING

Principles of Strategy (Core) Duke University, Fuqua School of Business (Course 6.4/7.0, Instructor 6.6/7.0)	2021
Entrepreneurial Strategy for Technology Ventures Cornell University, MBA & Undergraduate (Course 4.8/5.0, Instructor 4.9/5.0)	2015-2021
<i>Technology Strategy</i> Cornell University, MBA & Undergraduate (Course 4.8/5.0, Instructor 4.9/5.0) Wharton School, MBA & Undergraduate	2015-2021 2019
Program for Entrepreneurs - New Ventures 2: Strategy Development Duke University, Fuqua School of Business, MBA	2014
Strategy Implementation Duke University, Fuqua School of Business, EMBA	2013
Strategic Management (Core) Duke University, Fuqua School of Business (Course 6.5/7.0, Instructor 6.7/7.0) UNC, Kenan-Flagler Business School (Course 4.5/5.0, Instructor 4.7/5.0)	2012 2011
Commercializing Emerging Science & Technology MBA, UNC Kenan-Flagler Business School (Course 4.6/5.0, Instructor 4.6/5.0) *UNC Kenan-Flagler MBA Faculty "All Star" Teaching Award	2009-2011
Intellectual Property & Technology Strategy MBA, UNC Kenan-Flagler Business School (Course 4.4/5.0, Instructor 4.7/5.0) *UNC Kenan-Flagler MBA Faculty "All Star" Teaching Award	2008-2011
The Economics of Innovation PhD Seminar, UNC Kenan-Flagler Business School	2009
Entrepreneurial Strategy for High-Tech Ventures MBA, UNC Kenan-Flagler Business School	2008

[&]quot;How Startup 'Joiners' Are (and Aren't) Like Founders" Harvard Business Review, July 2015

[&]quot;Entrepreneurial new grads embrace startup culture" Business News Daily, June 16, 2015

[&]quot;Start-ups need 'joiners' as well as founders" Epoch Times, June 16, 2015

[&]quot;Start-up founders get all the glory, but 'joiners' are just as important" <u>Los Angeles Times</u>, June 15, 2015

[&]quot;Hey Silicon Valley, joiners are just as important as founders" Washington Post, June 11, 2015

[&]quot;Three interesting ideas from the latest startup research" Boston Globe, June 11, 2015

[&]quot;Postgraduate options: Academia misses the mark" Nature, May 23, 2012

[&]quot;Real Data on Career Preferences" Science, May 11, 2012

[&]quot;New Study: The longer you're in a Ph.D. program, the more you look outside academia for work" *Science*, May 2, 2012

[&]quot;Science Students' Interest in Academic Careers Drops as They Go Through Ph.D. Programs, Survey Finds" *The Chronicle of Higher Education*, May 2, 2012

PROFESSIONAL DEVELOPMENT & SERVICE

- Senior Editor: Organization Science (2023-present)
- Editorial Review Board: Strategic Entrepreneurship Journal (2015-present)
- Ad hoc reviewer: Management Science, Research Policy, Strategic Management Journal,
 Organization Science, Administrative Science Quarterly, Journal of Economics &
 Management Strategy, ILR Review, Proceedings of the National Academy of Sciences, PLoS
 ONE, National Science Foundation, Kauffman Foundation, Sloan Foundation
- Committee Member: National Academies of Sciences, Engineering, and Medicine Pathways to Doctoral Degrees in Computing (2023-present)
- Symposium Co-Organizer: "The Battle for STEM Workers: Implications for Firm Strategy," Academy of Management Annual Meeting 2017
- Professional Development Workshop Co-Organizer: Beyond the Case Method: Innovative Approaches to Teaching Strategy, Academy of Management Annual Meeting 2016
- Symposium Co-Organizer: "Entrepreneurial Employees: Careers, Hiring and Diversity," Academy of Management Annual Meeting 2016
- NSF Proposal Review Panelist: STEM workforce, 2015
- Symposium Co-Organizer: "The Development and Organization of Startup Human Capital," Academy of Management Annual Meeting 2015
- Professional Development Workshop Co-Organizer: Patent-Based Research Professional Development Workshop, Academy of Management Annual Meeting 2013, 2014
- Symposium Co-Organizer: "Entrepreneurial Entry and New Venture Creation: Determinants and Constraints," Academy of Management Annual Meeting 2014
- Organizing Committee: Kauffman Foundation Emerging Scholars Conference on Entrepreneurship Research, 2014
- UNC Kenan-Flagler Strategy & Entrepreneurship Area Chair of S&E Visibility and Reputation Working Group (2008)
- *UNC Entrepreneurship Week 2008:* Co-organizer with Maryann Feldman of Scientific Entrepreneurship Panel.

ENTREPRENEURIAL EXPERIENCE

- Medical Diagnostic Systems, Atlanta, GA. *Founder*, 1998-2000. Software startup that developed mobile applications to aid community health care workers diagnosis and treat communicable diseases in developing countries.
- ACC L.P., Atlanta, GA. *Co-Founder & Managing Partner*, 1989-1997. Digital media startup that developed interactive applications for corporate education and health care training.