Chuqiao Nan
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Feb 2, 2025

Selection Committee
NBER Innovation Research Boot Camp
National Bureau of Economic Research

Subject: Application for NBER Innovation Research Boot Camp 2025

Dear Selection Committee,

I am pleased to apply for the 2025 NBER Innovation Research Boot Camp. As a Ph.D. student in the Managerial Economics and Strategy (MECS) program at Northwestern University, I study the economics of innovation, focusing on the science of science, firm innovation, and gender dynamics. My research examines how institutional factors, public policies, and social norms shape innovation outcomes, as well as the production and accumulation of knowledge.

One strand of my work explores how academic retractions disproportionately impact female researchers, both directly and through negative spillovers. Another investigates how public policies - especially those not explicitly targeting innovation - affect firms' innovative directions and outcomes.

Attending the boot camp would strengthen my theoretical and empirical foundation, advance my research agenda, and provide a valuable opportunity to engage with leading scholars and peers. I look forward to learning from and contributing to this vibrant intellectual community.

I have enclosed my CV, a list of Ph.D. coursework, and a one-page essay for your review. A letter of recommendation will be provided by Professor Ryan Hill (ryan.hill@kellogg.northwestern.edu). Thank you for your time and consideration. I look forward to the opportunity to participate in this program.

Sincerely,
Chuqiao Nan

Chuqiao Nan

Education

Kellogg School of Management — Evanston, USA
Ph.D. in Managerial Economics and Strategy — 2021.8–

Einaudi Institute for Economics and Finance & LUISS Guido Carli — Rome, Italy
Rome Masters in Economics (RoME), 110/110 cum laude — 2019.8–2021.7

University of Hong Kong — Hong Kong
Bachelor of Economics and Finance, First Class Honours — 2015.9–2019.6

University of California, Los Angeles — Los Angeles, USA
Exchange Student — 2018.1–2018.6

Research Interests

- Innovation, Science of Science, Intellectual Property, Gender

Work in Progress

- Gender and Retractions
- When One Door Closes, Another Opens? A Study of Pharmaceutical Firms

Research Assistance

- Professor Shengmao Cao, Kellogg — 2022 –2024
- Professor Daniel Spulber, Kellogg — 2024
- Professor Matteo Paradisi, EIEF — 2020
- Professor Hugo Hopenhayn, UCLA — 2018

Awards, Scholarships & Honors

- Northwestern Kellogg Fellowship — 2021–
- RoME Tuition Waiver — 2019–2021
- HKU Foundation Entrance Scholarship (for Outstanding Mainland Students) — 2015–2019
- Dean's Honors List at HKU — 2015–2016, 2017–2019
- Dean's Honors List at UCLA — 2018
- Centenary Scholarships Fund Award — 2017–2018
- Reaching Out Award under the HKSAR Government Scholarship Fund — 2015–2016

Skills and Languages

- **Skills:** Python, R, Stata, SQL
- **Languages:** Chinese Mandarin (Native), English (Fluent), Cantonese (Basic), Italian (Basic)

Ph.D. Coursework

- Microeconomics I, II, III (Dekel, Siniscalchi, Olszewski)
- Econometrics I, II, III (Manski, Horowitz, Canay)
- Optimization I, II (Chaves, Molavi)
- Technology and Innovation I, II (Spulber, Jones, Hill)
- Economics of Organizations I, II (Powell, Barron)
- Industrial Organization I, III (Illanes, Hendel)
- Corporate Finance I, II (Vig, Benmelech)
- Health Economics I, II (Dranove, Schnell)
- Labor Economics (Jacome)

As a Ph.D. student in the Managerial Economics and Strategy (MECS) program at the Kellogg School of Management, I am deeply interested in innovation research, particularly in the science of science, firm innovation, and gender dynamics. My research examines how institutional factors, public policies, and social norms shape innovation outcomes, as well as the production and accumulation of knowledge.

One strand of my work explores the consequences of academic retractions. Retractions are often seen as a self-correction device in research, yet their effects vary across different groups. I investigate how retractions impact the citation trajectories of prior work by female versus male researchers, finding that female researchers suffer greater penalties in the form of larger citation losses. Moreover, female scholars who are uninvolved in the retraction events but linked through collaboration also experience negative spillover effects by association, while their male counterparts do not. This study contributes to the broader understanding of gender inequality in the labor markets and the consequences of scientific misconduct on innocent collaborators.

Another aspect of my research investigates how firms strategically respond to shocks from public policies, particularly those not explicitly aimed at innovation. Given their existing technological capacities and commercialization capital at the time of a shock, firms need to navigate trade-offs when selecting new product spaces. Their heterogeneous responses lead to varying degrees of technological and market pivots, then influence innovation outcomes. My current focus is on the pharmaceutical industry, where well-defined categories for both technology and market spaces, along with diverse measures of innovation outcomes, provide a structured setting for analysis. My future plan includes identifying potential inefficiencies in these responses and ultimately exploring broader implications for social welfare.

Attending the NBER Innovation Research Boot Camp would be invaluable for both my research and professional development. The program offers a unique opportunity to engage with cutting-edge work and leading scholars in the field. The coursework and discussions will help refine my theoretical and empirical approaches and provide insights that will strengthen my research agenda.

In addition to the academic training, the boot camp provides an invaluable opportunity to interact with fellow researchers who share similar research interests. I am eager to exchange ideas, learn from diverse perspectives, and contribute to a collaborative intellectual environment. These interactions may even foster future collaborations and long-lasting professional relationships. I look forward to the opportunity to participate in the NBER Innovation Research Boot Camp.

Northwestern Kellogg

Ryan Hill
Assistant Professor
Strategy Department

Kellogg Global Hub
2211 Campus Dr, Evanston, IL 60208
ryan.hill@kellogg.northwestern.edu
www.ryanreedhill.com

December 1, 2024

To Whom It May Concern:

I am excited to recommend Chuqiao Nan for the NBER Innovation Bootcamp. Chuqiao is a 4th year PhD student in our Managerial Economics and Strategy PhD program. I first met her when she took the Economics of Innovation class that I co-teach with Ben Jones. I have been advising her dissertation research since then. Chuqiao has been intently focused on innovation and science topics throughout her PhD and would greatly benefit from attending the workshop. I'll briefly describe some of the projects and ideas that she is working on.

Her first project investigates how community norms of attribution and credit allocation in teams affect careers of researchers in under-represented groups. She does this by studying how scientific retraction events differentially affect female vs. male colleagues of the retracted author. She has been very diligent collecting data for this project and executing the analysis and will produce a draft soon. We have also discussed a handful of ideas that I think are very promising. My favorite is about how firms might be constrained by their technological expertise when they attempt to respond to new market opportunities. This idea brings an economics perspective to the dynamic capabilities literature in strategy, and I think there is a lot of potential in that direction.

Overall, I think Chuqiao would greatly benefit from the bootcamp. She has a lot of good ideas in the economics of innovation space. I think the bootcamp will help solidify some of the ideas and set her up to execute an exciting set of dissertation research.

Sincerely,



Ryan Hill