February 5, 2025
Via Ludovico Necchi, 5
20123 Milano, MI
Italy

National Bureau of Economic Research
1050 Massachusetts Avenue
Cambridge, MA 02138
USA

Dear members of the review panel,

I am writing to apply for the NBER Innovation Research Boot Camp 2025. I have attached the following documents to this letter:

1. CV
2. List of PhD courses taken
3. Essay

I am currently a postdoctoral fellow at The Catholic University of Milan. My PhD advisor, Dr. Martijn van Hasselt (MNVANHAS@uncg.edu) will email a recommendation letter to Brett Maranjian separately.

I thank you for your time.

Sincerely,
Satyaki Chakravarty

Satyaki Chakravarty

CONTACT INFORMATION

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20123 Milano, Italy

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AREA

Innovation, Applied micro

EDUCATION

University of North Carolina Greensboro, North Carolina

Ph.D. Student in Economics, 2019 - 2024
Dissertation title: The America Invents Act and innovation by small entities

Gokhale Institute of Politics and Economics, Pune

M.Sc. in Economics, 2014 - 2016

Ramakrishna Mission Vidyamandira, Howrah

B.Sc. in Economics, 2011 - 2014

EMPLOYMENT

Università Cattolica del Sacro Cuore, Milano
Postdoc, 2024 - Present

Elon University, NC
Visiting Assistant Professor of Economics, 2023 - 2024

India Development Foundation, Gurugram
Research Assistant, 2016 - 2019

WORKING PAPERS

Incentives for drug development: evidence from Supplementary Protection Certificates, (2024). with Pellegrino, G. & Montobbio, F.

The America Invents Act and innovation by small entities, (2024)

A new database of Indian patents, (2024). with Chadha, N. & Majumdar, P.

Is there a home bias in the time taken to grant patents in India?, (2025, R&R). with Gangopadhyay, S., & Mavruk, T.

OTHER PUBLICATIONS

Should FRAND royalties be based on SSPPU or downstream prices - An analytical framework, (2018). Policy Brief IPR/2018/01, India Development Foundation, with Banerjee, I., Gangopadhyay, S., & Gouri, G.

An exploration into royalty stacking and price posting, (2018). Policy Brief IPR/2018/02, India Development Foundation, with Gangopadhyay, S., & Gouri, G.

CONFERENCE AND WORKSHOPS

Incentives for drug development: evidence from Supplementary Protection Certificates
WICK#12 PhD Workshop in Innovation, Complexity and Knowledge (Dec 2024)

A new database of Indian patents
NBER I^3 TWG (Dec 2024)

America Invents Act and innovation by small entities
WICK#11 PhD Workshop in Innovation, Complexity and Knowledge (Dec 2023)
REGIS — REading Group in Innovation Studies Summer School (Jun 2023)
Chief Economist Speaker Series, U.S. Patent and Trademark Office (Feb 2023)
SEA — Southern Economic Association (Nov 2022)
CREED — Carolina Regional Empirical Economics Day (Oct 2022)
TIM Doctoral Consortium, Academy of Management (Aug 2021)
EPIP — European Policy for Intellectual Property Ph.D. Workshop (Sep 2021)
Summer School on Data and Algorithms for ST&I studies, KU Leuven (Sep 2021)

Illiteracy and exclusion: Evidence from Womens' Adult Literacy Programme in India
Annual Conference at Indian Statistical Institute (Dec 2018)

Is there a home bias in the time taken to grant patents in India?
APIC — Asia Pacific Innovation Conference 2018 (Dec 2018)

What triggers increase in housing prices in India: A study of 15 cities
Annual Conference of The Indian Econometric Society, IIM Kozhikode (Jan 2016)

Teaching

ECO 1000: Principles of Economics, Elon
Instructor, face-to-face, Fall 2023 - Spring 2024

ECO 250: Economic and Business Statistics, UNCG
Teaching Assistant, online: synchronous, Fall 2020 - Spring 2021
Teaching Assistant, online: asynchronous, Fall 2021 - Spring 2023
Instructor, online: asynchronous, Summer 2021

ECO 201: Principles of Microeconomics, UNCG
Teaching Assistant, face-to-face, Spring 2020

ECO 100/MAS 620: Economics of Global Sustainable Society, UNCG
Teaching Assistant, online: asynchronous, Fall 2019

Honors and Awards

Minerva Scholar, University of North Carolina Greensboro (2019 - 2024)
Wells Fargo Fellow, University of North Carolina Greensboro (2021 - 2022)

Professional Services

Reviewer, Journal of Technology Transfer; Econ of Innovation and New Tech

References

Martijn van Hasselt
Associate Professor
Department of Economics
UNC Greensboro
mnvanhas@uncg.edu

Gabriele Pellegrino
Associate Professor
Department of Economic Policy
Catholic University of Milan
gabriele.pellegrino@unicatt.it

Fabio Montobbio
Professor of Applied Economics
Department of Economic Policy
Catholic University of Milan
fabio.montobbio@unicatt.it

Albert Link
Virginia Batte Phillips
Distinguished Professor
Department of Economics
UNC Greensboro
anlink@uncg.edu

(Please email for teaching references)

List of courses taken during PhD, between Fall 2019 and Spring 2024:

1. Advanced mathematical economics
2. Advanced microeconomic theory
3. Advanced econometric theory
4. Applied policy methods
5. Public economics
6. Advanced econometric theory II
7. Public economics II
8. Independent Field course in health economics
9. Seminar in empirical economics
10. Seminar in economic research

Essay for NBER Innovation Boot Camp 2025

I have been studying innovation using my training in applied economics, and using my interest in handling large unstructured data sources for a while. Studies on innovation incentives and its diffusion to a larger market has come to the forefront recently, but much remains to be explored. Answering all these complicates as access to clean datasets is limited. These are my motivations to be in this field.

I started as a postdoctoral fellow at The Catholic University of Milan this Fall 2024. Here, along with my colleagues, I am exploring the role of institutional coherence in incentivizing innovation. To study this, we look at patent term extensions (also known as Supplementary Protection Certificates, SPCs) for pharmaceutical products in the European Union. In the United States, one authority, the FDA is responsible for granting marketing exclusivity to novel drug developers. In the EU, while the patents are granted at the EU level through EPO, their extensions, are granted (or not) through respective EU member states. This disaggregated interpretation of laws relating to extension has been contentious. States and courts have interpreted such laws differently, leading to a body of case laws around the extension of patents. While institutions' job is to diffuse the invention as widely as possible, disharmony among institutions' interpretation of laws can lead to a dampening of competition as companies may engage in strategies to excessively protect their novel products. We do not know the costs of institutional disharmony, and this project aims to quantify it in the context of the development of novel drugs.

Another project, that I have been working on since I was a PhD student is the development of an Indian patents database. This project's aim is to create a clean database of Indian patents that is ready for statistical analyses. Indian patents are unfortunately either paywalled (through patent data aggregator companies) or unavailable for bulk downloads through the official repositories, unlike the options that the USPTO provides for US patents. Also, all the paywalled datasets (such as Clarivate) cover India inadequately, and the information per patent is limited. Fortunately, the Indian patents website provides greater coverage and a range of additional information per patent. The only challenge is to copy the information and parse it for analysis. This project's first aim is to bridge such gaps, by making the statistical files available to the public, by parsing and cleaning them. And second, is to study the spatial and temporal patterns in innovation in India, among other questions. I presented a version of this dataset at the NBER Innovation Information Initiative Technical Working Group meeting in Dec 2024.

Even though I have been working on questions relating to innovation, I have never received formal training to look at innovation through the lens of economics. Most institutions, understandably, cannot provide courses specific to innovation. This, I feel at times stifles the range of tools that I could have tapped into had I listened to and learned from the researchers who have expanded the frontiers of this field previously. This Boot Camp provides exactly this. Since scholars in this field are scattered all over the world, this meeting is an excellent opportunity for early career innovation researchers to learn, meet, seek mentorship, and discuss working projects intensively under one banner. Therefore, I have been waiting to attend this meeting for a long time.

UNC GREENSBORO
Department *of* Economics

To Whom It May Concern:

I am writing this letter in support of **Satyaki Chakravarty**, who is applying to participate in the NBER Innovation Research Boot Camp 2025. Satyaki received his Ph.D. from UNCG in May 2024 and I was his dissertation advisor.

Attending the Boot Camp would provide a significant benefit to Satyaki for two main reasons. First, it will help him develop and push forward his own research pipeline. Satyaki is currently a post-doc at Università Cattolica del Sacro Cuore in Milan, where he is working on a project about incentives for drug development in the EU. In addition, his dissertation research resulted in a policy-focused paper on the impact of the America Invents Act on small businesses, and his work on patenting has led to two papers using new data from India. Attending the boot camp and engaging with the innovation research community will help him advance his current projects, publish his existing papers as well as develop new ones.

The second reason is that, given the small size of UNCG's Department of Economics and its PhD program, we provide limited coursework in the topics of technology and innovation. Relatedly, only one member (out of three) of Satyaki's dissertation committee had significant expertise in innovation policy research. As such, Satyaki has not been exposed as much to cutting-edge innovation research during his graduate training. Attending the boot camp will help fill this gap and will enrich him well beyond the training he received at UNCG.

If invited to attend, Satyaki will undoubtedly be eager to contribute to the discussion himself. In department seminars and presentations, I observed him participate actively by asking questions and offering suggestions. Satyaki would bring this level of engagement to the Boot Camp, thereby adding value for other participants as well. I hope that you will seriously consider his application.

If you have any questions, please do not hesitate to contact me.

Sincerely,

Martijn van Hasselt
Associate Professor & Director of Graduate Studies
Department of Economics
The University of North Carolina Greensboro
Tel. 336-334-5463
Email: mnvanhas@uncg.edu