

## What can Harvard Catalyst do for you?

### Noelle Huntington, PhD

Faculty co-lead Connector and CT Research Academy Programs

noelle huntington@hms.harvard.edu

October 29, 2024

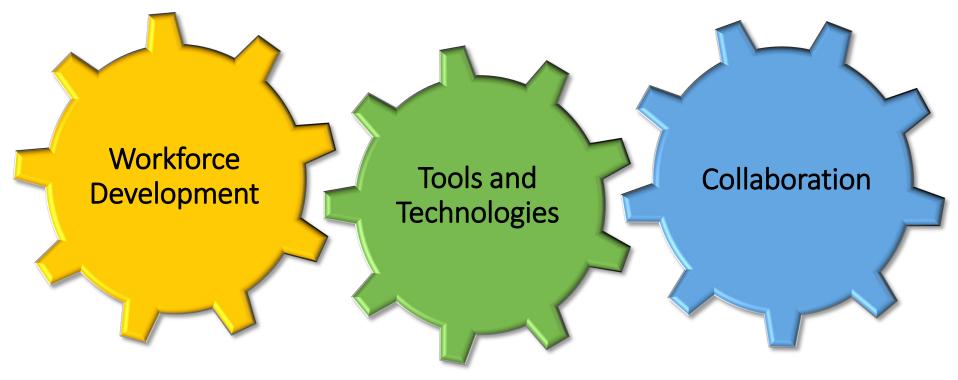
THE HARVARD CLINICAL & TRANSLATIONAL SCIENCE CENTER





# Mission

Harvard Catalyst brings together the intellectual force, technologies, and clinical expertise of Harvard University and its affiliates and partners to improve human health.





# Funding

- NIH National Center for Advancing Translational Sciences (NCATS) CTSA
- Harvard University
- Harvard Medical School
- Harvard T.H. Chan School of Public Health
- Beth Israel Lahey
- Boston Children's Hospital
- Brigham and Women's Hospital
- Dana-Farber Cancer Institute
- Massachusetts General Hospital



National Center for Advancing Translational Sciences







**Courses and Educational Programs** 

Train



Tools and Services to Support Collaboration

Connect



Support

Guidance for Trainees and Investigators



Community Engagement and Diversity Inclusion



HARVARD

**CATALYST** 

## catalyst.harvard.edu







Train

### **Courses and Educational Programs**

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Tools and Services to Support Collaboration



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**Community Engagement and Diversity Inclusion** 



# Research Methods Courses

Fundamentals of Comparative Effectiveness Research

Introduction to Designing & Conducting Mixed-Methods Research

Introduction to Implementation Research

How to Design a Clinical Study

Community-Engaged Research

# Boundary-Crossing Skills For Research Careers

Team science Build, engage in, and sustain diverse teams

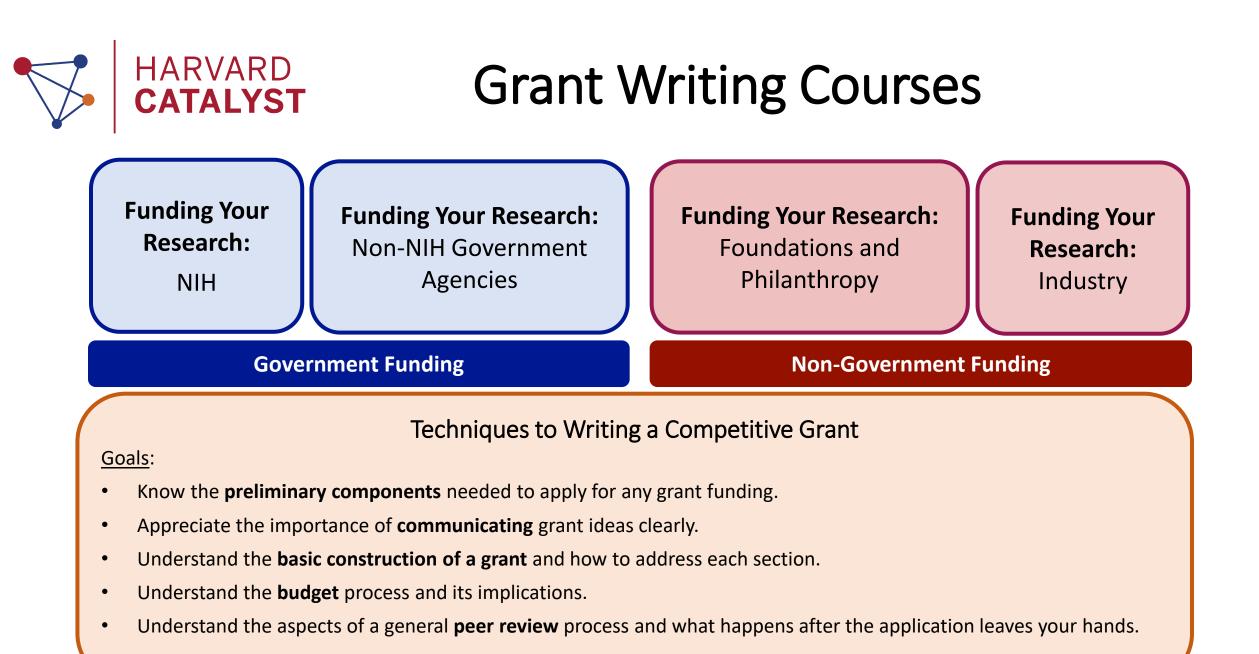
Mentorship Establish effective mentoring relationships

Project management Create, manage, and deliver projects

## Communication

Advocate for yourself, your team, and your science

Leadership Manage yourself and others





## **Course Listings**

### Train

Education is at the core of Harvard Catalyst's mission. We strongly believe that supporting the educational development of clinical and translational researchers across Harvard University and beyond is integral to advancing medicine and human health.

Access Harvard Catalyst On-Demand

### **Browse Our Courses** (>)

Project Management Strategies for Research Team Members	Webinar series on the principles of project management	4 days	Ongoing
Introduction to Designing & Conducting Mixed Methods Research	Online course introducing participants to mixed methods research in the health sciences	8 weeks	10/9/2024 (Closed) Notify me when available.



# Catalyst on Demand

- A self-learning, fully asynchronous format, available anytime
- Work through the course from start to finish or jump to relevant sections; use quizzes and cases test your knowledge
- New courses added periodically



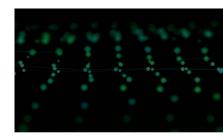
**Biostatistics Essentials:** Video Subscription



Genomic Medicine in Clinical Practice



Techniques to Writing a Competitive Grant



Essential Skills for Conducting Clinical & Translational Research



# Longitudinal Programs

Harvard Catalyst 2024 | Confidential—do not copy or distribute



# **Certificate in Applied Biostatistics**

### **Paid version:**

Includes course interactions, study cases, and exercises and provides a certificate of completion. Track 1: \$1750 Track 2: \$2800

### Free version:

Access to the lecture videos only; requires a Harvard key login

- Comprehensive year-long overview of biostatistics in C/T research
- Audience: MD, PhD, or equivalent
- Track 1: September-April: core curriculum
  - Track 2: September-July: core curriculum plus advanced topics

Introduction to biostatistics	Study design and statistical communication	Regression techniques	Correlated outcomes	Time to event outcomes and additional topics
•What is Biostatistic •Probability •Confidence Interva for Estimates and Hypothesis Testing •ANOVA •Nonparametrics •Analysis of Proport •Linear Regression ture sin	Design Sample Size and Power •Writing the statistical sections for a research proposal or report •Observational Study	<ul> <li>Multiple Linear Regression</li> <li>Regression Diagnostics</li> <li>Multiple Linear Regression and Partial F-Tests</li> <li>Interpretation of Interaction Terms</li> <li>Stepwise Selection/Alternative Model Selection Approaches</li> <li>Logistic Regression</li> <li>Model Diagnostics for Logistic Regression</li> </ul>	<ul> <li>Introduction to Longitudinal Data</li> <li>Analysis of Response Profiles</li> <li>Fitting Curves to Longitudinal Data</li> <li>Mixed Effects Models</li> <li>Multilevel Models</li> <li>Handling Missing Data</li> <li>Repeated measures analysis with dichotomous outcomes</li> </ul>	<ul> <li>Survival Analysis</li> <li>Comparison of Survival Curves</li> <li>Cox Proportional Hazards Regression</li> <li>Power Analysis/Study Design with Survival Outcomes</li> <li>Multiple Comparisons</li> <li>Meta-Analysis</li> <li>Factor Analysis/Path Analysis</li> </ul>



Matches early-career investigators with senior faculty developmental mentors who offer guidance on overall career development.



Program runs September through June.

- 3:1 mentee to mentor ratio
- Twice-monthly meetings



# K12 Training Program/Fellowship

### K12

### A mentored research and education program for early-career investigators

	Audience	Details	Program Requirements
ations due aring	Research or health-professional doctoral degree	Program Length: Two years	Must be able to commit 75% of professional effort to the program (surgeons may be eligible to commit
Applications due in the early spring	Faculty within the first three years of appointment or senior fellowship appointment at a Harvard Catalyst- affiliated institution	Salary Support: 50-75% of salary	50% time)



## Grant Writing: GRASP



## **Grant Review And Support Program**

**Program Goal:** Position K awardees and K12 trainees to obtain NIH R01 grants (or equivalent) by providing grantsmanship guidance, training, and ongoing writing review and support.

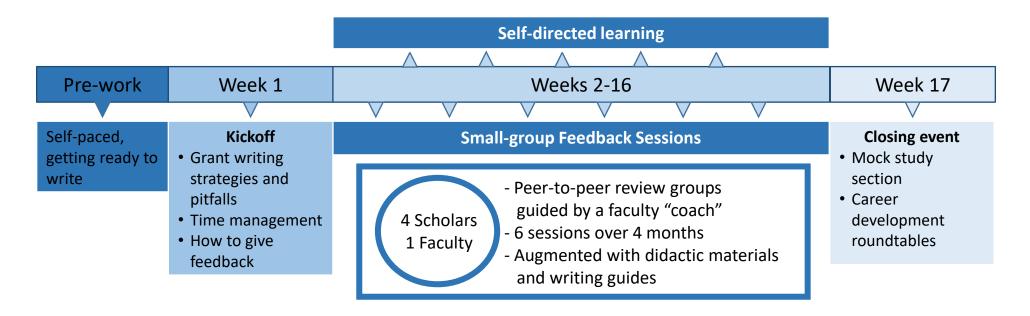


\*this program is by invitation only through competitive application



## CT Research Academy First-Grant Bootcamp

Experiential grant writing program for new investigators ready to write their first grant application (e.g., F32, foundation, or professional society grant)



### **Applications for next session due December 11**





**Courses and Educational Programs** 

Tools and Services to Support Collaboration



Support

**Guidance for Trainees and Investigators** 



**Community Engagement and Diversity Inclusion** 



## Profiles



### **Harvard Catalyst Profiles**

Contact, publication, and social network information about Harvard faculty and fellows.

Profiles Stats	Find People Find Eve	erything Else	
24111 People 717503 Publications 15527 Grants	Find People by R	esearch Topic or Name	Most viewed (today) Receptor Fibroblast Growth Factor Type
Recent Updates Amitoj Singh January 2, 2019	Research Topics	Q Search	2 pleural effusion Molecular Pathological cardiovascular
made "photo"public		and / or	department
Franziska Plessow January 2, 2019	Last Name First Name		JOSEPH virology Robert Andrew
added a publication from: The International journal of eating disorders	Institution None select	Cted All except the one selected	Most viewed (month Holoenzymes
	Department None select	All except the one selected	Yoga
Ruben Hoogeveen January 2, 2019	Faculty Type None select	sted -	Acupuncture biotechnology geriatrics
added a publication from: Gut	Other Options None select	cted 🗸	Receptor Fibroblast Growth Factor Typ



## Profiles (Individual Profiles)

Home About Help History (1)

Search Profiles (people, publications, concepts, etc.) Q

Login to edit your profile (add a photo, awards, links to other websites, etc.)

### Lee Marshall Nadler, M.D.

Title	Dean for Clinical and Translational Research
Institution	Harvard Medical School
Department	Clinical and Translational Science Center
Address	Dana Farber Cancer Institute
	Adult Oncology
	44 Binney St
	Boston MA 02115
Phone	617/632-3331
Fax	617/632-3541
Email	lee_nadler@dfci.harvard.edu
vCard	Download vCard (login for email)
Other Positiv	one

#### Other Positions

Title Virginia and D.K. Ludwig Professor of Medicine Institution Dana-Farber Cancer Institute Department Medicine

groups | research activities and funding | selected publications

#### Affiliation

groups

HARVARD

CATALYST

Harvard Catalyst (Member)

#### Research

#### research activities and funding

The research activities and funding listed below are automatically derived from NIH ExPORTER and other sources, which might result in incorrect or missing items. Faculty can login to make corrections and additions.

#### Most Recent | List All

1. UL1TR002541 (NADLER, LEE MARSHALL) NIH/NCATS The Harvard Clinical and Translational Science Center Role: Principal Investigator Nadler's Networks Click the Explore buttons for more information and interactive visualizations! Concepts (852) ⑦ Clonal Anergy B-Lymphocytes Bone Marrow Transplantation Antigens, Neoplasm T-Lymphocytes Explore Co-Authors (112) ⑦ Freeman, Gordon

Freedman, Arnold Boussiotis, Vassiliki Guinan, Eva Weisskopf, Marc

#### Explore

Similar People (60) @ Freeman, Gordon Tsokos, George Sayegh, Mohamed Ferrone, Soldano Sharpe, Arlene



Same Department ③ Holm, Ingrid Huntington, Noelle Merchant, Roland Mukamal, Kenneth Polumbo, Genoa

May 1, 2018 - Apr 30, 2023



## **Research Tools**

The **ENACT Network** is a web-based query tool that allows investigators to determine the aggregate number of patients seen at participating hospitals who meet clinical criteria of interest.



The ENACT Network Powered by NCATS



Harvard Catalyst supports **SMART IRB**, a national platform to enable IRB reliance and advance collaborative research across the nation.

### \*In Development\*

**Catalyst Connect** is a searchable compendium of resources from across Harvard, the hospitals, and Harvard Catalyst for conducting research, research education, and building your research career. (launching in 2025)







**Courses and Educational Programs** 

Tools and Services to Support Collaboration

Guidance for Trainees and Investigators



**Community Engagement and Diversity Inclusion** 



## **Regulatory Resources**

### **Regulatory Foundations, Ethics, and Law Program**

### **Provides Guidance and Materials**

Templates, trainings and tools

### **Advocates for Research Subjects**

Educates researchers and patients on research subject rights and protections

### **Promotes Collaboration and Interoperability**

Coordinates agreements and institutional harmonization to support multisite research

### **Reduces Barriers**

Facilitates data-sharing and compliance

https://catalyst.harvard.edu/programs/regulatory



A comprehensive collection of tools, trainings, and resources that empower C/T investigators to better articulate their science

## Writing and Communication Center



#### GET FUNDED $\rightarrow$

Discover ways to employ tools of the trade to maximize your chances of success. Learn to navigate the proposal and writing process across a variety of funding mechanisms.

#### SPEAK ELOQUENTLY $\rightarrow$

Articluate the narrative of your science by speaking eloquently to a diversity of audiences —from colleagues, to journalists, to funders, to the general public.

#### VISUALIZE SCIENCE $\rightarrow$

Maximize your audience's understanding by effectively visualizing science on posters, slides, grant applications, and manuscripts.

#### WRITE EFFECTIVELY $\rightarrow$

Create effective written communication for a variety of mediums and audiences, using manuscripts, chapters, and regulatory documents.

GROW PROFESSIONALLY → Communicate effectively about yourself and your research in interviews, CVs, and networking opportunities to grow professionally.

## HARVARD CATALYST Writing and Communication Center

### NIH K Grant Specific Aims Consultation Service

- → Available to anyone in the Harvard Catalyst community
- → Participants commit to reviewing content highlighted in the Writing and Communication Center to prepare their aims pages for review

https://writingcenter.catalyst.harvard.edu/consultations



#### NIH K GRANT APPLICANTS: APPLY TO HAVE YOUR SPECIFIC AIMS PAGE REVIEWED

APPLY HERE

Apply to be a part of our pilot Specific Aims Page Consultation Service! The pilot will run from August 2022 through January 2023. This consultation service provides individualized feedback on draft Specific Aims pages to applicants who are applying for NIH K grants. Harvard faculty who have demonstrated recent success in NIH grant funding will serve as consultants, offering edits and feedback on submitted draft aims. The consultations will occur remotely.

Eligibility To be considered for the service, applicants must

be from a Harvard-affiliated school or institution.
be planning to submit a NIH K grant application.
be at least 2 months out from their grant submission deadline (applicants with fewer than two months until their deadline will not be considered).
bave a full-written draft of their Specific Aims page ready to submit.

#### Preparation

Applicants should be prepared to attach a fully-written draft of your Specific Alms page to the application. Before applicants submit their draft Specific Aims they must review the recommendations laid out on the **Grant Writing Tips** resource on the website. In particular, their draft Specific Aims page should follow the guidance on the following pages:

Write Your Specific Aims Page
 Use Style Tips
 Common Grant Writing Mistakes



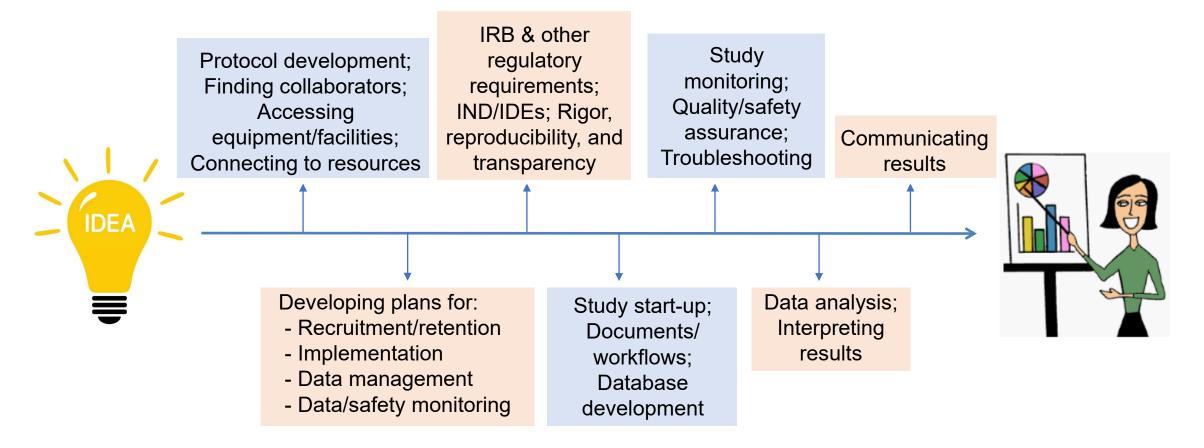
## **Consulting Services**



- Biostatistics
- Bioinformatics
- Investigational New Drug (IND) and Investigational Device Exemption (IDE)
- Quality Assurance/Quality Improvement (QA/QI)

Free for clinical and translational researchers in the Harvard community









Beth Israel Lahey Health Beth Israel Deaconess Medical Center





### **Clinical Research Teams**

- Medical research officers
- Project coordinators
- Recruitment specialists
- Research resource specialists

### Services

- Navigation
- Consultations (free)
- Instrumental support (free or fee for service)



MASSACHUSETTS GENERAL HOSPITAL



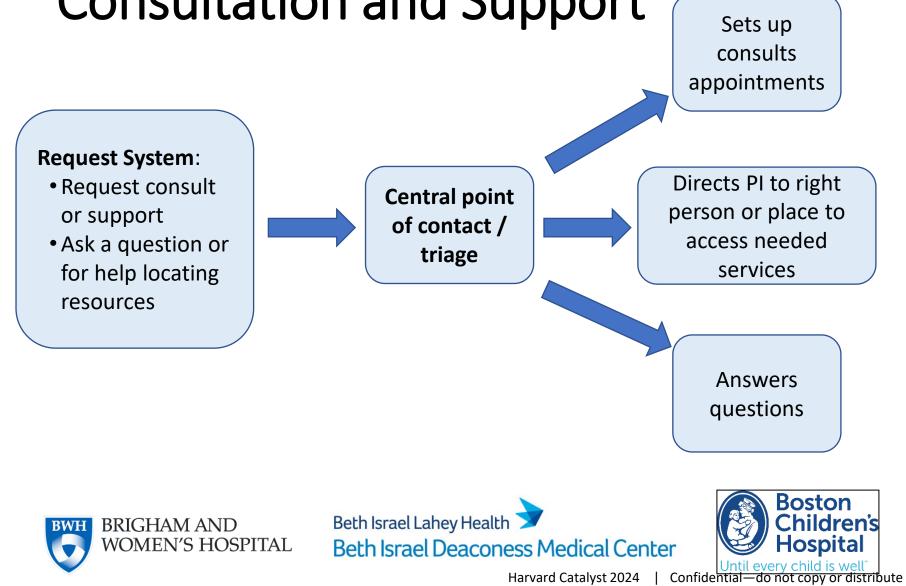






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### **Services**

Navigation

MGH

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MASSACHUSETTS GENERAL HOSPITAL





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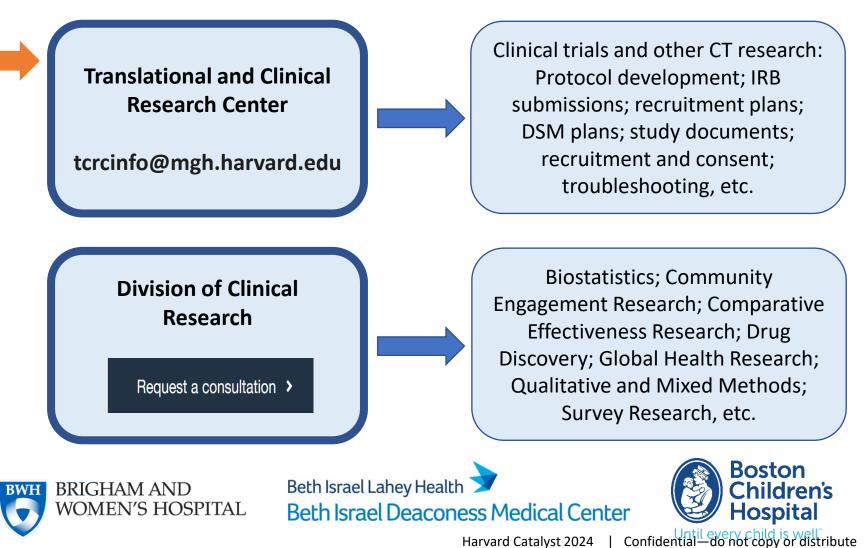


Navigation

MGH

- Consultations (free)
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MASSACHUSETTS GENERAL HOSPITAL





## Connector Laboratory Services

### Joint Contract with Quest

- Discounted/bulk pricing on 1000s of lab tests
- Local projects
- Multi-site national projects

### **Options**

- Pickup samples from site
- Blood-draw centers
- Batch testing of stored samples

Beth Israel Lahey Health

etes

**Beth Israel Deaconess Medical Center** 

### catalyst.harvard.edu/connector/lab-services/

tcrcinfo@mgh.harvard.edu

**BRIGHAM AND** 

WOMEN'S HOSPITAL









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Boston

**Hospital** 

Until every child is well

Children's





**Courses and Educational Programs** 

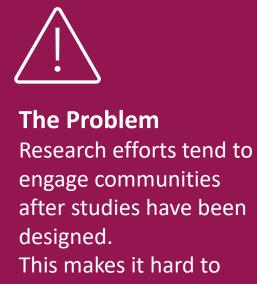
Tools and Services to Support Collaboration

Guidance for Trainees and Investigators



**Community Engagement and Diversity Inclusion** 

### HARVARD CATALYST Community Coalition for Equity in Research



change the studies to address community needs or concerns.



Our Solution A standing, trained community coalition that provides feedback on research during development.

Co-led with community and clinical partners.

Email <u>community@catalyst.harvard.edu</u> if you are interested in having your study reviewed by our coalition



# Stay in Touch

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 News & Highlights
 Calendar
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#### **Harvard Catalyst**

The Harvard Clinical and Translational Science Center 1635 Tremont Street Boston, MA 02120

Newsletter Sign-up

### Questions? Ask Us.

Do you have a question about Harvard Catalyst or this website? Send an email to contact@catalyst.harvard.edu.

#### **Subscribe**

Subscribe to the Harvard Catalyst biweekly newsletter.

**Connect:** 

### 

### **Harvard Catalyst Profiles**

For questions about Harvard Catalyst Profiles, please visit the Harvard Catalyst Profiles FAQ page or email us at contact@catalyst.harvard.edu.



**Events** Calendar



#### Symposium: Harvard University Generative AI – October 30

October 30, 2024

Symposium: Harvard University Generative AI. A university-wide symposium exploring the potential and implications of Generative AI technologies in teaching, learning, and research.

See more

#### BIOSTATISTICS

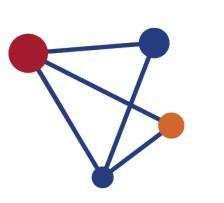
#### **Biostatistics Journal Club: Smartphone Based Digital Phenotyping – November 6**

November 6, 2024

Biostatistics Journal Club: Smartphone Based Digital Phenotyping. Jukka-Pekka Onnela, PhD, Harvard T.H. Chan School of Public Health, will lead discussion.









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