

## **Biostatistics**

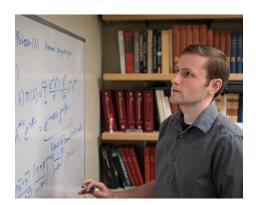
he Department of Biostatistics at the University of Michigan School of Public Health turns data into knowledge and in particular, actionable knowledge. Rated the top biostatistics program in the country by the National Academies, our faculty, students, and staff work in important and diverse areas of current biostatistical research and bring design and analysis expertise to a wide spectrum of health-related issues.

Degrees offered: Master of Science, Master of Public Health, Doctor of Philosophy, Clinical Research Design and Statistical Analysis

#### **Transforming the Field**

Biostatistics faculty and students are conducting cutting-edge research in:

- Bayesian methods
- causal inference
- clinical trials
- electronic health records
- high dimensional inference
- image analysis
- longitudinal data analysis
- machine learning
- methods for missing data
- mobile health
- personalized prevention and treatment
- statistical computing



- statistical genetics, genomics and bioinformatics
- survival and event history analysis
- survey research

## **Making an Impact**

# \$50 MILLION in sponsored research

Including the largest known type 2 diabetes sequencing study (Exome sequencing of 20,791 cases of type 2 diabetes and 24,440 controls published in *Nature*, May 2019)



Most large population studies focus on individuals of European ancestry, and that can make it hard to generalize the results globally. The more diverse the cohort makes for better, more informative science."

Senior study author Michael Boehnke, Richard G. Cornell
 Distinguished University Professor of Biostatistics,
 Director of the Center for Statistical Genetics and the
 Genome Science Training Program

We've been able to do a few things that are hard to do with data collected in the traditional way."

—Gonçalo Abecasis, 'Genetics research gets help from social media' in Reuters

**Faculty featured in:** 



**Science**Daily

REUTERS

▼ FiveThirtyEight

III SPECTRUM

Daily Mail

EDUCATION TIMES



## **Educating the leaders and best**



Teaching always creates a spark for me, a kind of magic. Every time I walk into a classroom there is an uplifting in my soul. This is why I pursued a job at an academic institution rather than a job outside the academy. 

—Bhramar Mukherjee

-Bhramar Mukherjee Chair and John D. Kalbfleisch Collegiate Professor of Biostatistics

95%

of 2018 graduates are employed or pursuing an advanced degree































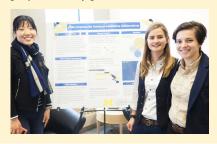


#### **Big Data Summer Institute**

Each year the Big Data Summer Institute, a six-week interdisciplinary training and research program in biostatistics, introduces undergraduate students from institutions across the country to the intersection of big data and human health.

#### **STATCOM**

In the 12 years since its founding, the student group STATCOM has assisted with over 40 projects for nonprofits and now involves more than 100 students in multiple departments and schools within the university working on up to a dozen active projects at any point in time.





Michigan Public Health faculty continue to receive top national research grants, and in 2018 alone we had a research investment of over \$85M—that's the most per faculty of any college or school at the University of Michigan.



**85 faculty**working in **74 countries**on 170 global
research projects



Faculty featured in the news more than

6,300 times an average of 23 media mentions per day



17 research awards of over \$1M-2 of those awards in top 20 at the university (by amount of award)



### 160 faculty researchers

collaborated on 1,144 published, peer-reviewed works of research— 8.25 average works per researcher



