GP2 Underrepresented Populations Master's Program 2024

UMBC MPS Data Science Program Description

We are inviting doctors and scientists who identify as belonging to an underrepresented group in Parkinson's disease (PD) research to pursue a Master's of Professional Studies (MPS) by distance learning in Data Science at the University of Maryland, Baltimore County (UMBC). The prospective student must enroll in the program as part of the Fall 2024 intake. This is a virtual program taught over two years.

UMBC's Master's of Professional Studies (MPS) in Data Science program prepares students for careers in data science, therefore a strong passion for Data Science is required. In the core courses, students will get a fundamental understanding of data science through classes that highlight bioinformatics, statistical analyses, and data analysis/management. The core courses will also introduce students to ethical and legal implications surrounding data science. Beyond the core courses, students will take three courses in domain-specific pathways developed in collaboration with academic departments across the university. Through these pathways, students will be able to utilize the skills and techniques they learned in the core courses within their own field or area of expertise.

More information about the MPS in Data Science (by distance learning) program can be found here.

About GP2

The Global Parkinson's Genetics Program (GP2) is an ambitious project supported by the Aligning Science Across Parkinson's (ASAP) initiative and executed in partnership with The Michael J. Fox Foundation for Parkinson's Disease Research. GP2 aims to:

- Expand understanding of the genetic architecture of PD through large genotyping and sequencing efforts in more than 200,000 individuals around the world.
- Create infrastructure to accelerate the discovery of novel disease-causing mutations.
- Democratize efforts, with a significant focus on training, to create a global generation of scientists and provide opportunities for groups that are traditionally under-represented in research.

This collaborative effort will dramatically accelerate the identification of genetic contributors to disease and establish a network of researchers who can best leverage this understanding to research, diagnose, and treat PD worldwide. To find out more, visit gp2.org.

Entry Requirements

Applicants must meet the following specifications:

- A bachelor's degree in any subject*
- Minimum undergraduate GPA of 3.0 on a 4.0 scale, or equivalent. Applicants with grades on a scale other than 4.0 will be evaluated based on standards for the country of their degree.
    - If the original transcript from the University is in a language other than English, a notarized version in English must be provided.
- Prospective students must have also completed the following courses at the undergraduate or graduate level:
    - One semester of statistics
    - Calculus I
    - Candidates must have academic or professional experience equivalent to basic programming courses (the Data Science program does not accept online courses (e.g., Coursera, MOOCs, edX) in fulfillment of the prerequisite requirements).
- Have a clear interest in conducting the capstone research project aligning with GP2 goals
- Have a clear interest in developing an understanding of neurodegenerative disease genetics
- Be computer literate and understand the principles of data management and analysis
- Be committed to collaborative work, locally and globally
- Have good written and oral communication in English (sufficient to present work and write a thesis)

*If you have a three-year degree versus a four-year degree, your transcript will be reviewed to determine whether you have met the necessary prerequisites for the program. Eligibility for admission can only be determined upon receipt of a complete application.

English Language Requirements

All international students are required to submit English language scores unless they hold an undergraduate degree from a U.S. institution or hold a degree from an English-speaking country on the list of exceptions, which can be found here:

An adequate level of English language proficiency can be demonstrated by taking one of the below examinations and achieving the required score.

- Test of English as a Foreign Language (TOEFL) score: 90 iBT
  (No section may have a score less than 22)
- International English Language Testing System (IELTS) score: minimum sum of section scores - 27.5
  No section may have a score less than 6.5
- Pearson Test of English (PTE) Academic score: 61
- Duolingo English test score: 120

The examination must have been taken within 2 years prior to applying for this program.

Funding notes

We will support the costs of the overseas tuition fees for the virtual MPS in Data Science program starting in Fall 2024. The award will cover:

- University fees that are directly related to the master's program (i.e. tuition and application processing fees).

Selected candidates will conduct a capstone project that aligns with GP2 goals while completing the master's program. **As a result, selected candidates must generate a manuscript submitted to a preprint server (such as medRxiv, bioRxiv) by the end of the funded program.**

The final funding decision and offer will be made by a panel of GP2 Steering Committee members and UMBC academic staff in July 2024. The offer will be contingent on the applicant enrolling in the 2024 fall semester.

FAQs

- **How many master's opportunities are available?**

  Overall, approximately 20 master's students will be funded throughout the duration of the GP2 program. We support equitable training opportunities and therefore we hope that more than 50% of these will go to candidates from regions of the world that are underrepresented in PD genetics research.

- **What should the master's capstone project focus on?**

  The master's capstone project should be directly related to the GP2 mission, which centers on expanding our genetic understanding of PD and making this knowledge globally relevant. The master's capstone project will lead to a peer-reviewed research publication.

- **Who can apply?**

  Doctors and scientists (including doctors in training) who identify as belonging to an underrepresented group in Parkinson's disease (PD) research preparing for a career in health data science.

- **What is meant by overseas training and cross-institutional collaboration?**

  These training opportunities are designed to 1) increase research capacity and opportunities within a region currently underrepresented in PD research, and 2) contribute to the overarching goals of GP2. We believe that visits and collaboration with sites that are well-established PD research sites and existing GP2 members will maximize the impact to all.

- **Who will review the application?**

Applications will be screened for eligibility by the GP2 Training and Networking Working Group. Eligible applications will then be reviewed by GP2 Steering Committee members, members of other relevant working groups, and academic representatives from UMBC. The highest scoring applications will be reviewed by a decision panel and the funding decision notified by July 2024. Selected applicants will then be required to submit an application to UMBC for final acceptance.

- **What if I want to ask further questions about the program?**

  You are welcome to contact the GP2 Training and Networking Working Group at training@gp2.org with any queries. We can help you decide how closely your background aligns with the entry requirements for the program.