PROGRAM DESCRIPTION

The application of personalized medicine in healthcare is dependent on the ability of healthcare to interpret and apply new and rapidly developing genetic and genomic information to patients’ treatments. As the healthcare experts in pharmacology and pharmacokinetics, pharmacists are well-positioned to be the healthcare experts in pharmacogenomics. The Graduate Certificate in Pharmacogenomics provides recent Bernard J. Dunn School of Pharmacy (BJDSOP) Doctor of Pharmacy (Pharm.D.) graduates the opportunity to explore the relationship between an individual’s genetic make-up and both their health and their response to medications. Through its curriculum, the Graduate Certificate in Pharmacogenomics introduces students to the most widely used genomic laboratory techniques and interpretation of pharmacogenomics data used in personalizing drug therapy. Introductory concepts of genomic data science are also introduced in a hands-on format.

The Graduate Certificate in Pharmacogenomics Program is a fully online, part-time program that is amenable to completion while preparing for the pharmacy licensure and law exams and/or working full or part time as a licensed pharmacist. The Graduate Certificate in Pharmacogenomics Program can be utilized as a progressive step towards the Masters of Science (M.S.) in Pharmacogenomics and Personalized Medicine.

ADMISSION AND APPLICATION REQUIREMENTS

To be considered for admission to the Graduate Certificate in Pharmacogenomics the student will meet the following qualifications:

All applicants:
- BJDSOP Pharm.D. (nontraditional pathway)
- Pharm.D. cumulative GPA ≥ 3.00
- Pharm.D. cumulative sub-area GPA ≥ 3.00 (PHAR 534, 600, 632, 733, 734) and B. Pharm. Pharmacology
- Current unrestricted license as a Pharmacist

Current year (anticipated) Pharm.D. graduates:
- BJDSOP Pharm.D. anticipated by start of Summer term
- Good academic and professional standing in the BJDSOP Pharm.D. Program at the time of graduation.

Past year graduates:
- BJDSOP Pharm.D. (2016 or later)

Submission of program application consisting of:
- Graduate Application through the Graduate Admissions Office
- Official transcripts from ALL current and previous schools
- Current Curriculum Vitae
- One letter of reference from either a BJDSOP faculty member, APPE preceptor, or a current pharmacy supervisor
- Documentation of current unrestricted license as a Pharmacist from practicing state(s) Department of Health Professions or Board of Pharmacy
- Personal Statement (750 words maximum)
  Note: Your personal statement will be processed using plagiarism detection software.

APPLICATION DEADLINE

January 15
Students with complete applications by the application due date will be offered interviews.

START SEMESTER

Summer (May start – 12 weeks)

PREREQUISITES

BJDSOP PharmD (2016 or later)

LOCATION

Online

DURATION

5 sequential terms beyond Pharm.D.

CREDITS

17 credits beyond Pharm.D.
3-6 credits per term

CONTACT US

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Office of Graduate Admissions
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Winchester, VA 22601
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PROGRAM OF STUDY

Students in the Graduate Certificate in Pharmacogenomics Program have online coursework in the following areas:

- Genetic Foundations of Personalized Medicine
- Genomic Technology and Data Science
- Analytical Techniques – Pharmacogenomics
- Pharmacogenomics Literature Evaluation
- Therapeutic Antibodies
- Clinical Applications of Pharmacogenomics
- Ethics in Genomic Science
- Epigenetics

FACULTY RESEARCH

The research interests of our program faculty include:

- Oncogenes and tumor suppressor genes
- Chemoprevention of cancer by natural and synthetic agents
- Pharmacokinetics/pharmacodynamics (PK/PD) modeling and simulation
- Cardiovascular health in African-Americans
- The impact of female mentorship on women in STEM disciplines
- The state of Pharmacogenomics education in US professional schools
- Genomic Data Science
- Clinical implementation of Pharmacogenomics
- Systematic review and meta-analysis of gene-drug interactions
- Variability and regulation of genes involved in hypoxic adaptation in renal disease

FREQUENTLY ASKED QUESTIONS

Is the Graduate Certificate in Pharmacogenomics Program an online or in-person program?

This is an entirely online program and most work can be completed asynchronously.

Is the Graduate Certificate in Pharmacogenomics Program a full-time or part-time program?

This is a part-time program. Students will typically be enrolled in 3-6 credits a term over the course of five sequential terms.

Do I have to have a Pharm.D. to apply to the Graduate Certificate in Pharmacogenomics Program?

The coursework in the program is targeted towards students with a Pharm.D. level of education. Applicants must either have a Pharm.D. or anticipate completing their Pharm.D. before the Summer term start of the program.

What can I do with a Graduate Certificate in Pharmacogenomics?

The knowledge gained will enhance your ability to practice pharmacy, drawing upon up-and-coming advances in Pharmacogenomics. This may assist in securing a residency or fellowship or employment in a field that requires more specialized knowledge of Pharmacogenomics. The certificate is also a steppingstone to our M.S. in Pharmacogenomics and Personalized Medicine Program.

What if I want a M.S. in Pharmacogenomics and Personalized Medicine?

In your last semester of the program, you can apply for admissions to the M.S. program. You will be required to complete a research project that, along with your Pharm.D. and Graduate Certificate coursework, will add up to a M.S.