

Pharmacy Research Certificate Overview

Residents have the option to complete a formal Pharmacy Research Certificate over the course of their residency training. The certificate is optional for most residents. However, individual residency programs have the opportunity to require additional components as part of certificate completion; they may also require the certificate as part of residency completion requirements. Discuss with your Residency Program Director what his or her expectations are for the Pharmacy Research Certificate.

The purpose of the Pharmacy Research Certificate program is to enhance the research development curriculum at Froedtert & the Medical College of Wisconsin (MCW) and provide rigorous training for those interested in pursuing a career with continued scholarly pursuits.

Goals and Objectives:

1. Increase pharmacist understanding of and ability to interpret biostatistics in medical literature.
2. Increase comfort and awareness of the various research processes and resources available at Froedtert & MCW.
 - a. Improve understanding of how to develop a research question.
 - b. Improve understanding of departmental research processes.
 - c. Decrease barriers to research.
 - d. Familiarize staff and increase the number of research mentors.
 - e. Increase engagement of staff in research.
3. Improve quality of research project submissions.
4. Improve quality of research posters and presentations.
5. Increase resident and staff publication rates and attitudes towards publishing.

Program Leadership:

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Components for Completion of the Certificate:

- Attendance at 100% of live Research Development Series sessions, including selected Academic Afternoon sessions (*described below*)
- Active participation in Research Development Series sessions, whether joining live or virtual
- Preparation of a manuscript suitable for publication in a peer-reviewed journal
- Poster or oral presentation at a national-, regional-, or state-level meeting
- Program evaluation and feedback

Residency Program Director approval is required prior to granting the certificate. The certificate is optional for most residents. However, individual residency programs have the opportunity to require additional

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Research Development Series (RDS):

Most sessions of the RDS are 1 hour long and will occur during a typical Academic Afternoon schedule; to achieve 100% attendance, participants will have to make up any missed sessions. It is strongly recommended that residents avoid missing live sessions; if unavoidable, a make-up plan must be developed by discussing with program leadership prior to the anticipated absence (eg, staffing, PTO). Unexpected or emergent absences will be accommodated on a case-by-case basis. Sessions will be recorded and provided via Webex Teams; additional activities or assignments may be required as part of a make-up plan.

Each session has associated objectives and recommended project activities. The participant is expected to complete the recommended project activities prior to the corresponding discussion session and then use the information from each session to modify and optimize that component of their residency project.

Timing	Topic
July through September (approximately once weekly)	Introduction to Projects at Froedtert & the Medical College of Wisconsin
	Developing a Research Question and Specific Aims
	Institutional Review Board (IRB) and Institutional Research Resources
	Resident Report Requests
	Research Best Practices from a Librarian’s Perspective
	Evidence-Based Medicine
	Basic Study Designs
	Advanced Study Designs
	Types of Data and Descriptive Statistics
	Inferential Statistics
	Preparing and Delivering a Research Abstract
October	Data Management
January	Presenting and Interpreting Results from a Statistician’s Perspective
February	Manuscript Preparation
March	Open Access Publishing

Residents are encouraged to reach out to program leadership for the certificate with questions or for further discussion. An overview presentation will be provided during New Resident Orientation. If planning to participate, a commitment to the program will be required by early July.