WHAT IS CLINICAL INVESTIGATION?
Clinical Investigation is a field in which teams of health care professionals, biostatisticians, and others imagine, design, and conduct clinical research, and then take discoveries to human or animal patient populations in the healthcare system or in communities. Another way to say it: Clinical investigators pursue bench to bedside research.

WHAT IS CLINICAL RESEARCH?
Clinical research is scientific — evidence-based — research in patient-centered clinics. It could include the study of patient populations or data, specific methods of treating patients, or the clinical tools used to provide that treatment. It could include analyzing outcomes, behavior, diagnoses, managed care, or clinical trials. What the studies have in common is interaction with patients.

Clinical research can be designed in a variety of ways to address questions in community-based and managed care-based research.

AM I QUALIFIED TO STUDY CLINICAL INVESTIGATION?
The PhD and the MS in Clinical Investigation are applied research degrees.

Clinical Investigation students are unusual among UW-Madison graduate students because they enter the program with a terminal degree (with exceptions), and they are seeking training to directly apply their work with patients. Most applicants have a health professional degree (MD, DVM, PharmD, PhD, BSN, BSE, MPT, DPT).

HOW DOES THE GRADUATE PROGRAM WORK?
Through team-research experience and coursework, health professionals and other trainees are exposed to faculty from a variety of scientific disciplines. Some of these: Biostatistics and medical informatics, biomedical engineering, oncology, nursing, pharmacy, and veterinary sciences. Related career development opportunities further prepare students to direct or contribute to patient-oriented clinical research teams.

Students must obtain a faculty primary adviser before applying, through whom they also secure funding, though having these things does not guarantee admission. The graduate program does not offer rotations or funding to students, except for a limited career development and training award open to domestic full time PhD students.

The program website contains a list of potential faculty advisers and suggested questions to begin the conversation about working together in a mentor-mentee relationship.

Full time and part-time enrollment is available to accommodate students who are working full time as, for example, clinical fellows or faculty.

WHAT IS THE DIFFERENCE BETWEEN THE PHD AND THE MS?
MS graduates can expect to contribute to multidisciplinary research teams engaged in bringing solutions to patients or health care practitioners, while PhD graduates are positioned to lead the teams.

The MS degree requires students to formulate a research question, investigate a problem or issue, report the results, and discuss the findings and implications of a study. Courses are complemented by research culminating in defense of a master’s thesis. The PhD is granted on evidence of distinctive attainment in a specific field and on ability for independent investigation. This is demonstrated by a dissertation presenting original research or creative scholarship with a high degree of literary skill.
WHAT COURSES ARE REQUIRED?
In addition to completing the thesis or dissertation, students take the following coursework:

<table>
<thead>
<tr>
<th>MS</th>
<th>PhD</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 Credits</td>
<td>51 Credits</td>
</tr>
<tr>
<td>8 Research</td>
<td>18 Research</td>
</tr>
<tr>
<td>6 Biostatistics and intermediate statistics courses</td>
<td>15 Biostatistics, statistics and clinical research informatics courses</td>
</tr>
<tr>
<td>6 Introduction to clinical and translational research, and to epidemiology</td>
<td>6 Introduction to clinical and translational research, and to epidemiology</td>
</tr>
<tr>
<td>6 Clinical trial development courses</td>
<td>6 Clinical trial development courses</td>
</tr>
<tr>
<td>2 Clinical research evidence</td>
<td>3 Grant writing and managing</td>
</tr>
<tr>
<td>1-2 Responsible conduct of clinical research</td>
<td>2 Clinical research evidence</td>
</tr>
<tr>
<td>1 Research presentation seminar</td>
<td>1-2 Responsible conduct of clinical research</td>
</tr>
<tr>
<td></td>
<td>0 Non-credit research regulatory experience</td>
</tr>
</tbody>
</table>

HOW LONG DOES IT TAKE TO EARN THE DEGREES?
The average PhD student in Clinical Investigation graduates in 2.8 years. The average time to complete the MS is 2.35 years. Many Clinical Investigation students start as Capstone Certificate (Special) students. Some PhD graduates start as MS students.

It is reasonable to take at least 2 years to earn a master’s degree, and 5 years to earn a doctoral degree.

ADMISSIONS
The deadline for applying is February 1. Information about how to apply is on the website at https://ictr.wisc.edu/graduate program/admissions

The graduate student tuition rate is determined by Wisconsin residency and number of credits, and can be viewed at the Office of the Registrar website: https://registrar.wisc.edu/tuition_information.htm

CAREER PATHS
The knowledge and skills acquired while earning a degree in Clinical Investigation can be applied to jobs in private industry, including pharmaceutical companies, insurers and managed care organizations; government agencies; non-profit organizations; academic institutions; and a range of local to international organizations.

WHO ADMINISTERS THE GRADUATE PROGRAM?
The Graduate Program in Clinical Investigation is part of the Research Education & Career Development core of the UW Institute for Clinical and Translational Research (ICTR). ICTR is part of a national consortium of research institutes funded by the National Institutes of Health with the goal of “translating” research discoveries to patients and various health care settings.

“My recent graduate coursework and research training in the Clinical Investigation program provided knowledge to effectively link my background in bench science and clinical care, enabling me to fully engage in clinical research. I now work with several pediatric oncologists at the University of Wisconsin, assisting in the development of clinical trials and doing translational research. This job is exactly the role I hoped to serve by completing this master’s degree.”

Kimberly A. McDowell, MD, MS
UW Assistant Scientist
Completed MS in 2013