Department of Genetics and Genome Sciences

Program Handbook

MS in Computational Genomic Medicine

Case Western Reserve University School of Medicine

2025-2026

Department of Genetics and Genome Sciences

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CASE WESTERN RESERVE UNIVERSITY
School of Medicine

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Access Services (IDs & Parking)
Tinkham Veale University Center
216.368.6192
case.edu/access-services/

Career Center
Sears Building, Room 229
216.368.4446
case.edu/studentlife/careercenter/

Financial Aid
Sears Library Building, Room 240
216.368.4530
case.edu/financialaid/

Free Computer Support & Service
Kevin Smith Library, Lower Level
216.368.4357
help.case.edu
Registrar
Sears Library Building, Room 220 216.368.4310
case.edu/registrar

Center for International Affairs
Tomlinson Hall, 1st Floor, Room 143
216.368.2517
case.edu/international/

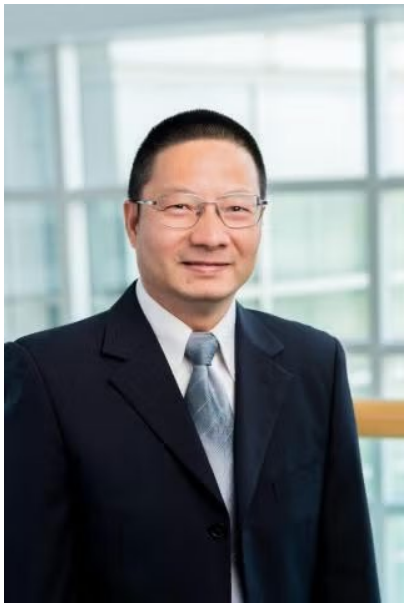
Student Affairs
Adelbert Hall, Room 110
216.368.2020
studentaffairs.case.edu

University Health and Counseling Services (Student Medical Center)
2124 Cornell Rd
216.368.2450
case.edu/studentlife/healthcounseling/

Police & Security Services Emergency: 911
Urgent Matters; Safe Ride; Escort Service: 216.368.3333
Safe Ride Program (6pm-3am): 216.368.3000
Walking Escorts (24 Hours): 216.368.3300
case.edu/publicsafety/divisions/police

University Circle Police
12100 Euclid Avenue
216.791.1234

Welcome from the Department Chair



Welcome to the Department of Genetics and Genome Sciences at Case Western Reserve University! Our department encompasses a diverse spectrum of fields, including human genetics, genomics, epigenetics, disease modeling, developmental genetics, and chemical genetics. Our department bridges basic science and clinical genetics through our affiliation with the **Center for Human Genetics** at University Hospitals.

Within our department, our distinguished faculty, dedicated students, and skilled staff are at the forefront of cutting-edge research. We are actively engaged in pioneering research endeavors, developing state-of-the-art technologies, and translating basic genetic discoveries into groundbreaking clinical trials. The outcomes of our research have been prominently featured in prestigious, high-impact journals, including Nature, Science, Cell, Cell Press Journals, and Nature Journals.

At the core of our mission is a commitment to nurturing the next generation of scientists and physicians. Our comprehensive educational programs include Master's degree programs in Genetic Counseling and Computational Genomic Medicine, PhD degrees, MD/PhD degrees, and postdoctoral training opportunities. Furthermore, the Center for Human Genetics offers a distinguished medical genetics residency training program.

The clinical faculty at the Center for Human Genetics is dedicated to delivering advanced medical services to patients with genetic disorders. Notably, our faculty members are actively involved in pioneering gene therapy clinical trials and developing innovative treatments for a variety of genetic diseases.

As a faculty, we are deeply committed to fostering a culture of innovation and excellence across the realms of research, education, and patient care. We invite you to explore our website to gain a deeper understanding of our dynamic research initiatives, comprehensive educational offerings, and the full spectrum of clinical services we provide.

Sincerely,

Zhenghe John Wang, PhD
Chair, Department of Genetics and Genome Sciences

Welcome from the Program Director

On behalf of our faculty, staff, and current students, it is my great pleasure to welcome you to the Master of Science Program in Computational Genomic Medicine in the Department of Genetics and Genome Sciences at Case Western Reserve University School of Medicine!

You are entering an exciting and rapidly evolving field at the intersection of advanced genomics, computational science, and personalized medicine. By choosing Case Western Reserve University, you have placed yourself at the center of a vibrant biomedical research ecosystem here in Cleveland, Ohio.

Over the next two years, you will engage in a rigorous curriculum designed to provide both the theoretical foundation and practical skills needed to thrive in this dynamic discipline. You will learn to analyze large-scale genomic datasets, develop innovative computational tools, and translate complex biological data into actionable medical insights. Our program emphasizes hands-on experience, ensuring that you graduate with the expertise to make meaningful contributions to research and clinical applications.

Beyond the classroom, I encourage you to take advantage of the many opportunities available at Case Western Reserve University and throughout Cleveland - from a thriving healthcare innovation hub to a rich cultural and professional environment.

We are excited to support you on this journey as you prepare to become a leader in computational genomic medicine. Congratulations on taking this important step, and welcome to the program!

Sincerely,

David Buchner, PhD
Director, MS Program in Computational Genomic Medicine
Associate Professor, Department of Genetics and Genome Sciences

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Preface

This Handbook provides an overview of the Master's Program in Computational Genomic Medicine from the Department of Genetics and Genome Sciences (GGS) at the Case Western Reserve University School of Medicine. The information provided can benefit graduate students, faculty, and anyone else interested in the Genetics and Genome Sciences MS program. This document describes the special features, requirements, and expectations of the Program.

Students should be familiar with requirements and guidelines of the University, the School of Graduate Studies, and the Department of Genetics and Genome Sciences. Many, but not all, of these requirements are described in this document. There are several other useful documents and websites that describe the opportunities and requirements associated with graduate study at CWRU.

Policies and procedures of The School of Graduate Studies can be found at:
https://case.edu/gradstudies/current-students/policies-procedures

School of Medicine resources and information can be found on the Graduate Education Office web site:
https://case.edu/medicine/grad-education/

The Graduate Student Council (GSC) provides additional resources and information on student life:
https://community.case.edu/gsc/home/

An excellent handbook, "The Guidebook for Mentors and Mentees," a publication of the GSC is available at:
https://case.edu/ucite/sites/default/files/2020-12/Guidebook_for_Mentors_and_Mentees.pdf

The Writing Resource Center (WRC) provides supplemental, discipline-specific writing instruction to students of all levels:
https://case.edu/writing/resources/writing-resource-center

Mission Statement

The Department of Genetics and Genome Sciences is proud to offer a Master's degree in Computational Genomic Medicine for motivated students who wish to prepare for conducting genomics research and/or clinical genomic analyses in academic, hospital, or industry settings. This program will address the growing gap between the rapid accumulation of genomics data and researchers' and clinicians' ability to exploit these data effectively to improve human health. This non-thesis MS program will provide fundamental background knowledge in genetics and genomics and equally importantly, hands-on learning experience in genomics data management and analysis. Upon completion of the program, the graduates, well equipped with skills in bioinformatics and genomic data analytics, will enter the workforce in one of many fields in biomedical research, clinical care, and the public health arena.

Program Overview

The goal of the GGS Graduate Program is to train the next generation in the use of computational genomics to study important biomedical and clinical problems. We offer our students a highly interactive training

environment, characterized by extensive collaboration among laboratories using a wide range experimental approaches. Students pursuing their MS will be trained by an interdisciplinary community of researchers with primary appointments in 14 CWRU academic departments, and at the Cleveland Clinic (CC). Even the faculty located at CC are only a 5 min drive or 15 min walk away, enabling faculty and students to easily travel back and forth for seminars, meetings, and research collaborations. The interdisciplinary and collaborative features of the program are especially important, as the students have easy access to other research groups with common interests and wide-ranging expertise in modern computational genomic approaches.

Our mission is to provide a sophisticated and engaging curriculum which affords trainees the opportunity to achieve excellence while preparing for a productive science-focused career. During the training period, our students can expect to:

--acquire core scientific knowledge in medical genetics and biostatistics
--gain expertise in advanced computational genetics and genomics techniques
--develop critical thinking and analysis skills
--participate in activities to improve oral and written communication skills
--participate in a hands-on clinically focused computational research project
--participate in various professional development activities

These six training objectives are integrated throughout the training program, which includes rigorous graduate courses, journal clubs, a seminar program featuring student-invited outside speakers, a seminar program featuring student research presentations, and hands-on research in laboratories with active, well-funded programs.

We offer our trainees research opportunities in many areas of computational genomics with a strong clinical focus. Just a few of the research areas with a strong emphasis in the Department of GGS are listed below, although this list is by no means exhaustive:

--Cancer genetics
--Neurogenetics
--Epigenetics
--Cystic Fibrosis
--Diabetes
--Chemical Genetics
--Gene therapy

The diversity of approaches employed by the faculty provides trainees with both a wide range of exciting research projects to choose from, as well as exposure to ideas and approaches beyond their own research area. It is our conviction that the next generation of outstanding computational geneticists will require knowledge in many areas, so that whatever their specific area of interest, they can effectively and easily draw on strategies, perspectives and precedents from a wide range of research approaches.

Admission to the MS Program in computational genomic medicine

The Department of Genetics and Genome Sciences accepts students into its MS program via direct application. All applications meeting the minimum requirements will be reviewed by the Admissions Committee. Applicants should have an undergraduate degree related to either the biological sciences (i.e. Biology, Genetics, Cell Biology, etc.) or the computer sciences (i.e. Computer Engineering, Information Systems, Data Science, etc.) along with a minimum GPA of 3.0. There are no required prerequisite courses. The application is available on our website and consists of a transcript (can be unofficial),

resume/CV, 3 letters of recommendation, and a statement of purpose. The GRE is OPTIONAL. The TOEFL exam (or equivalent) is required for international applicants from a college or university that was not taught in English.

General Information

The Computational Genetics Graduate Education Committee: This Committee oversees graduate training. All members of the committee are available to discuss progress and provide advice on course selection, although the primary contact should be the program director (Dr. David Buchner). Members will also serve as the student's advocate should difficulties arise.

The current committee is comprised of Dr. David Buchner (Program Director), Dr. John Wang (Department Chair), Dr. Fulai Jin, Dr. Tom LaFramboise, Dr. Berkely Gryder, and Dr. Yan Li. Support Staff: Suzy Brannon.

The Genetics Graduate Student Council (GGSC): The GGSC coordinates various aspects of the graduate student experience, and functions as a voice for graduate student concerns. For example, representatives of the GGSC attend faculty meetings, where they are free to voice graduate student concerns and to suggest curricular and programmatic changes, The GGSC also assumes responsibility for choosing, inviting, and hosting a number of invited speakers for the Genetics Seminar Series and for coordinating student run activities such as the annual Genetics Department Retreat and various social activities. The GGSC consists of four elected representatives from the GGS graduate student body.

Course Registration: The Student Information System (SIS) is the system of record for student information and the university course catalog. Students use the SIS to register for classes, view grades, view their progress towards graduation, and for other important business.

Information about accessing and using SIS is accessible at:

https://case.edu/registrar/general/student-information-system

The MS degree in Computational Genomics requires 30 credit hours of work and can be completed in 2 years of full-time study. All students must have the program director approve their choices of courses and course registration each semester. To help facilitate this process, students are asked to list the Graduate Program Director (David Buchner) as an advisor so that course registration can be reviewed and the "Advising Hold" lifted in SIS.

Summary of MS requirements

--Complete 30 credit hours. This will include at least 21 graded credits with a minimum GPA of 3.0 and 7 research credits. The required courses and other requirements include the following:

Required graded coursework:

GENE 524 (2 credits)	Advanced Medical Genetics: Molecular & Cytogenetics
GENE 500 (6 credits)	Fundamentals and current topics in genetics and genomics research
GENE 520 (4 credits)	Computational Human Genomics and Epigenomics
GENE 526 (2 credits)	Quantitative genetics and genomics
GENE 503 (1 credit)	Readings and Discussions in Genetics

Required pass/fail coursework:

GENE 505 (1 credit) Genetics Journal Club
IBMS 500 (1 credit) Being a Professional Scientist

--Complete 2 semesters of hand-on computational genomics research

GENE 601 (7 total credits) Research in Genetics and Genome Science

--Satisfy the School of Graduate Studies Requirements for Graduation

Program Description

***The First Year**:* Course work and attendance at seminars and journal clubs are the major activities of first year students.

Fall: During the fall, all first-year students are required to take GENE 520 *"Fundamentals and current topics in genetics and genomics research"* and GENE 524 "*Advanced Medical Genetics: Molecular & Cytogenetics*". An additional 3-credit elective course will be taken in the fall semester.

GENE 520. Computational Human Genomics and Epigenomics, 4 credits.
This course will teach students the cutting-edge computational technologies of data management and analytics for genomics studies. The most important feature of this course is to provide the students hands-on learning experience, so they learn how to use the computational pipelines to conduct genomics and epigenomic research in the GGS labs.

Current topics: Array- and sequencing-based technologies; standard next-generation sequencing processing pipelines; single-cell and spatial transcriptomic technologies and pipelines; epigenetics and transcriptional regulation; ATAC-seq; chromatin architecture, pipelines for HiChIP, Hi-C, 4C as well as sample bias and down-sampling; data structures and file formats; single cell- and ChIPseq-related programming; cancer genomics analyses: mutation, copy number, purity, ploidy; data mining, statistical analysis; machine learning; analysis of CRISPR knockout screens; DepMap; debugging and testing code; Docker; ChatGPT in programming; generative language learning; Amazon Web Services (AWS); coding collaboratively as a team, paired programming; GitHub and cloud computing.

GENE 524. Advanced Medical Genetics: Molecular & Cytogenetics, 2 Credits.
An in-depth forum for discussion of fundamental principles regarding clinical cytogenetics and molecular genetics and their relevance to medical genetics, genomics and genetic counseling. Following a historical overview, topics include a discussion of numerical and structural aberrations, sex chromosome abnormalities, issues regarding population cytogenetics, clinical relevance of such findings as marker chromosomes, mosaicism, contiguous gene deletions and uniparental disomy. The course will cover principles of molecular genetics including structure, function and regulations of genes (DNA, RNA, proteins), genetic variation, inheritance patterns and both cytogenetic and molecular laboratory techniques (fluorescence in situ hybridization, micro-array, SNP analyses, sequencing) in the clinical laboratory.

Spring: During the Spring semester, students take GENE 500 "*Fundamentals and current topics in genetics and genomics research*", GENE 505 "*Genetics Journal Club*", GENE 503, "*Readings and Discussions in Genetics*", and IBMS 500 "*Being a Professional Scientist*".

GENE 500. Fundamentals and current topics in genetics and genomics research, 6 credits.

This course is aimed towards first year Ph.D. and MS students in the Department of GGS. At the end of this course students should be able to (1) read and critically evaluate studies in the primary literature and communicate the significance and impact of that study and (2) identify the important open questions and be able to design a research strategy to begin to address those questions.

GENE 503. Readings and Discussions in Genetics, 1 credit.
In-depth consideration of special selected topics through critical evaluation of classic and current literature.

GENE 505. Genetics Journal Club, 1 credit.
Students are required to present at Genetics Journal Club while enrolled in this course. Attending presentations is important to expose students to recent research advances and promotes the development of critical thinking skills. Preparing and delivering talks on important findings from the literature is also important for learning how to organize and present data in a format that is both engaging and informative.

IBMS 500. Being a Professional Scientist, 1 credit.
The course is organized by faculty in the Department of Bioethics and provides information on each of the NIH nine-points, (research misconduct, animal research, authorship, mentoring, data management, human subjects, conflict of interest, peer review, collaborative science).

The Second Year*:* Hands-on computational genomics research is the major activity of second year students.

Fall: During the fall semester, all second-year students are required to take GENE 526 "*Quantitative genetics and genomics*", GENE 601 *"Research in Genetics and Genome Sciences"*. One additional 3-credit elective courses will be taken in the fall semester.

Quantitative genetics and genomics (GENE526). 2 credits. This course provides a foundation in quantitative genetics as well as genomic approaches and technologies which have greatly expanded our understanding of not only rare genetic disorders but common ones as well. Concepts related to risk assessment and calculation and its application to medical genetics including principles and application of Hardy Weinberg equilibrium and applying Bayes' Theorem as a mechanism to refine risk assessment based on patient specific data are covered. The clinical implications of interpreting next generation sequencing results, identifying limitations of genomic technologies, and practicing annotation and interpretation of genomic testing results are also covered. In addition, resources and bioinformatics tools including national databases and clinical labs to aid in the interpretation of genomic test results including variants of uncertain significance are discussed.

Spring: During the spring semester, all second-year students are again required to take GENE 601 *"Research in Genetics and Genome Sciences"*.

GENE 601. Research in Genetics and Genome Sciences, 3 credits.
Students are required to conduct research in GGS labs for a total of 7 credits. They register under the GGS PI mentor whose lab they will carry out research in.

Selection of a research laboratory

Culminating experience. Research in a faculty member's lab or learning clinical genomic data analyses in a hospital setting will serve as the culminating experience for the MS degree. This experience will provide the student with the opportunity to use what was learned in the classroom to conduct research in the real world. The expected workload/time commitment is completion of ~150 hours of laboratory research for 3 credits in both fall and spring semester of the second year.

Matching students to research labs or clinical genomic projects. During the spring semester of Year 1, students will receive a list of faculty members whose lab can take a student conducting computational genomics research or clinical genomic data analysis projects. We anticipate at least a dozen labs (including the labs whose PI will be involved in teaching GENE 520) will have computational genomics-related projects that can take these students. Students are also encouraged to find labs in other departments with the guidance of the MS program director. These opportunities will include The Center for Human Genetics at University Hospitals and the Genomic Medicine Institute at the Cleveland Clinic Lerner Research Institute. Students are encouraged to take on clinical genomic data analysis projects in either of these settings, as well as at CWRU in the Department of GGS, or in other related departments at CWRU. Students will arrange three interviews with the PIs and clinicians whose research or clinical genomic projects align with their interests. After a match is found, it will be approved by David Buchner, the MS program director, who will provide guidance and supervision to ensure an appropriate and productive training experience.

Expectations. Students will be responsible for background reading and selecting their faculty members. They will be responsible for completing 150 hours of work, keeping research records, and reporting on their progress. They will participate in research and in all laboratory activities. They will meet with their supervisor regularly, preferable at least weekly, and provide an interim progress update (3-5 pages) to the MS program director at the end of the fall semester in Year 2.

Evaluation. The faculty mentor will submit a written evaluation of the student to the program director at the end of both the fall and spring semesters in year 2.

Upon completion of the research experience, at the end of the spring semester in Year 2, the student will submit a written report and make an oral presentation to MS students with a committee of faculty of the MS program present.

Elective Coursework

MS Computational Genomic Medicine students need to complete their graded credit requirements by taking the following number of elective credits:

<u>Year 1</u>

Fall: 3 credits
Spring: None required

<u>Year 2</u>

Fall: 3 credits
Spring: None required

Course selection is kept flexible to allow for the individualization of training determined by research interests and expertise desired. The following are courses that can satisfy the elective requirements. Additional

courses offered at CWRU but not listed below may also satisfy the elective requirement, but this should be discussed with the program director prior to enrolling in these courses.

Statistical Methods I (PQHS431). 3 credits. This course is the first half of a two-semester sequence focused on modern data analysis, advanced statistical modeling, and programming in R and R Markdown. The course emphasizes placing biological, medical and health research questions into a statistical context, and thinking effectively about practical questions of design and analysis, while minimizing theory. In the first semester, we use tools from the tidyverse and literate programming to produce replicable research on public data. Course projects focus on using modern tools to ingest, tidy, manage, explore (transform, visualize and model) and communicate about data. Foundations of the first semester include exploratory data analysis, estimation strategies for means and proportions, and linear models for prediction and exploration of quantitative outcomes. The course attracts people with varied backgrounds in statistics/data science or coding/programming or biomedical science, and a common interest in using data effectively in scientific research. Instructor permission is required for enrollment. Offered as CRSP 431, MPHP 431, and PQHS 431.

Introduction to Data Structures and Algorithms in Python (PQHS413). 3 credits. This course is an introduction to data types and algorithm design in computational analysis, specifically using Python. It has two main parts: The first part focuses on data structures and includes topics such as files, expressions, strings, lists, arrays, control flow, functions, object-oriented programming, and computation complexity and efficiency. This part aims to provide students with a solid understanding of general data structures in computer science and introduce key concepts for computational purposes. The second part covers algorithm design in Python and includes topics like searching trees, sorting, graph algorithms, random walks, Monte Carlo simulation, sampling, confidence intervals, and machine learning. This part emphasizes algorithm design, particularly in statistical programming. While the class prioritizes computation implementation over statistical theories and research projects, students will gain computational skills and practical experience in simulations and statistical modeling using Python programming.

Statistical Methods II (PQHS432). 3 credits. Methods of analysis of variance, regression and analysis of quantitative data. Emphasis on computer solution of problems drawn from the biomedical sciences. Design of experiments, power of tests, and adequacy of models. Offered as BIOL 432, PQHS 432, CRSP 432 and MPHP 432.

Principles of Genetic Epidemiology (GENE451, PQHS451, MPHP451). 3 Credits. This course introduces the foundational concepts of genomics and genetic epidemiology through four key principles: 1) Teaching students how to query relational databases using Structure Query Language (SQL); 2) Exposing students to the most current data used in genomics and bioinformatics research, providing a quantitative understanding of biological concepts; 3) Integrating newly learned concepts with prior ones to discover new relationships among biological concepts; and 4) providing historical context to how and why data were generated and stored in the way they were, and how this gave rise to modern concepts in genomics.

Statistical Methods in Genetic Epidemiology (PQHS452). 3 Credits. Analytic methods for evaluating the role of genetic factors in human disease, and their interactions with environmental factors. Statistical methods for the estimation of genetic parameters and testing of genetic hypotheses, emphasizing maximum likelihood methods. Models to be considered will include such components as genetic loci of major effect, polygenic inheritance, and environmental, cultural and developmental effects. Topics will include familial aggregation, segregation and linkage analysis, ascertainment, linkage disequilibrium, and disease marker association studies. Recommended preparation: PQHS431 and PQHS451.

Advanced Medical Genetics: Clinical Genetics (GENE525). 2 Credits. Fundamental principles regarding congenital malformations, dysmorphology and syndromes. Discussion of a number of genetic disorders from a systems approach: CNS malformations, neurodegenerative disorders, craniofacial disorders, skeletal

dysplasias, connective tissue disorders, hereditary cancer syndromes, etc. Discussions also include diagnosis, etiology, genetics, prognosis and management.

Clinical Cancer Genetics (GENE 531). 2 credits. This required seminar during spring semester discusses basic concepts in cancer epidemiology, principles of cancer genetics, inherited cancer syndromes, cytogenetics of cancers, pedigree analysis for familial cancer risk, approaches to differential diagnosis, risk assessment, genetic testing, screening and management of patients with familial or inherited cancer disorders and psychosocial issues.

Summary of coursework

Year 1	
Fall	**Spring**
GENE 520 (4)	**GENE 500 (6)**
GENE 524 (2)	**GENE 505 (1)**
Elective (3)	**GENE 503 (1)**
	IBMS 500 (1)
Year 2	
Fall	**Spring**
GENE 526 (2)	**GENE 601 (3)**
GENE 601 (4)	
Elective (3)	

Notes:
1) required courses are in bold
2) total credits are 30
3) letter graded credits are at least 21
4) GENE505, IBMS500 and GENE601 are Pass(P)/Fail(F).

Career Development Activities

MS students are expected to initiate and participate in a variety of activities having to do with professional growth. Activities that add to the overall training environment include structured programs to facilitate meeting and networking with established investigators from other institutions, professional skills and career opportunity workshops, and opportunities to teach at CWRU and at other institutions.

Journal Clubs and Seminars: Journal Clubs and Seminars offer an opportunity to learn about broad areas of computational genomics and form an important part of graduate training. At a minimum, all students are expected to attend the Genetics Seminar Series and the Genetics Journal Club. Students are strongly encouraged to actively participate by asking questions at all seminars.

Meeting Outside Speakers for Lunch: Students are encouraged to meet with visiting speakers at lunch following seminar. This is a good opportunity to practice talking about science in a concise, interesting way. Further, it offers a means to get to know the speaker, his/her institution and to discuss scientific strategies or collaborations. To meet with a speaker for lunch, contact Sanjana Pandit. A student should expect to meet with at least 4 speakers a year.

GGSC-sponsored Outside Speakers: The Genetics Graduate students can sponsor up to four speakers a year. The invitation and hosting of these outside speakers is arranged by consensus through the GGSC. Students create the schedule for the speaker, arrange lunch and dinner with students and postdocs and introduce the speaker at the seminar.

Teaching Opportunities: Although there is no teaching requirement associated with any of the training programs in the School of Medicine, Journal Club/research seminar presentations do allow the student to acquire the communication skills relevant to teaching. Students desiring additional teaching experience are encouraged to participate in the Rise Up: Northeast Ohio program that seeks to bring equity to public school education by providing immersive scientific experiences to students in Cleveland, OH. This is a non-profit organization that matches the cutting-edge science happening in professional laboratories to public school students and teaches them how to be a scientist from start to finish. More information about the program can be found at their website:
https://www.riseupnortheastohio.org

Continuing RCR Education: Students are encouraged to participate in monthly workshops, presented by the Office of Research Compliance, on critical issues in the practice of science, including authorship, compliance with IRB/IACUC, conflict of interest and technology transfer. https://case.edu/research/training/responsible-conduct-research

Career and Professional Development Support: The pursuit of a graduate degree at CWRU sets you up for success in the career of your choice, elevating your professional value through the increase of knowledge, experience and professional impact. The Office of Graduate Education can make sure you have access to the knowledge, tools and resources to take what you learn here and apply that to the next stage of your career. The Director of Career & Professional Development in this office is dedicated to supporting the development needs of all graduate students in the CWRU SOM.
https://case.edu/medicine/education/graduate-education/career-professional-development/career-professional-development-support

Academic Advisor

Upon acceptance into the MS program, each student will be assigned an initial academic advisor (usually the Program Director) who will guide the student through department and graduate school regulations and assist with designing their first semester course registration. The academic advisor will track the student's progress toward degree completion, help with selecting electives, assist with placement in a research laboratory, and provide career advice.

Every semester, each student will automatically get an advising hold placed on their account, preventing them from registering. This hold can be removed in the Student Information System (SIS) by their academic advisor or the program director, once they have been satisfied that the student has received proper advising about what courses to take.

Student Responsibility

Students should consult with their academic advisor to plan their program of study to carry out their work in accordance with applicable laws, regulations, and procedures. Nevertheless, it is solely the student's responsibility to become acquainted with and adhere to Departmental and University rules, regulations, and administrative procedures governing graduate study, including the University's Standards of Conduct detailed in the Case General Bulletin, Graduate Student

Handbook, School of Graduate Studies Statement of Ethics, University Guidelines on Authorship and Policy on Copyright, and the University Policy on Academic Integrity.

International students have additional requirements in terms of maintaining visa status. International Student Services (ISS) in the Center for International Affairs is a critical resource for our international students. ISS can be contacted either by email at international@case.edu or visited in person at 143 Tomlinson Hall. It is the international student's responsibility to ensure that they are currently adhering to all requirements set forth by ISS.