Wayne State University Master's Program in Genetic Counseling Overview & Information for Potential Applicants





Center for Molecular Medicine and Genetics

Division of Clinical Genetics

School of Medicine

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Wayne State Genetic Counseling Program Overview Program Overview and Requirements

"Genetic counseling is the process of helping people understand and adapt to the medical, psychological, and familial implications of genetic contributions to disease. The process integrates the following:

- Interpretation of family and medical histories to assess the chance of disease occurrence or recurrence.
- Education about inheritance, testing, management, prevention, resources, and research.
- Counseling to promote informed choices and adaptation to the risk or condition.*"

*National Society of Genetic Counselors Definition Task Force. Journal of Genetic Counseling (2006); 15(2):77-83.

Mission

The Wayne State Genetic Counseling Graduate Program mission is, "to train a highly qualified, competent and culturally diverse genetic counseling workforce to increase access to services for the citizens of Detroit, the State of Michigan and beyond."

The program provides students with rich clinical experiences working with diverse patient populations to prepare them for competent practice in a wide-variety of settings. In addition, the program provides students a strong foundation in genomics that prepares them to integrate current and future genomic technologies into evidence-based practice.

The University

The program is housed in the Center for Molecular Medicine and Genetics at the Wayne State School of Medicine. The School of Medicine is the largest single campus medical school in the United States. In addition to undergraduate medical education, the School offers Master's, PhD, and MD-PhD program in 14 different subject areas. This affords genetic counseling students an opportunity to interact and take courses with a variety of learners and to be instructed by faculty with diverse areas of expertise.

The Detroit Medical Center, Wayne States' partner in education, and surrounding metropolitan hospitals offer a variety of clinical sites for hands on experience through which students can apply the knowledge gained from didactic course work to real people and situations. The culturally diverse population found within the Detroit metropolitan community provides a unique opportunity to explore the influence of ethnic and cultural differences on the provision of effective clinical genetic services and the genetic counseling process.

The genetic counseling program has over 70 individuals involved in the education and clinical training of students. The program faculty is a close-knit group representing a

wealth of knowledge and experience. As a result, WSU graduates leave the program well positioned to function as entry level genetic counseling professionals and well- prepared to sit for their genetic counseling board certification examination. Evidence of the quality of the program includes the overall graduation rate (96.5%), certification examination pass rate (92% first attempt pass rate over the last three years in comparison to the national rate of ~82%), and an excellent record of job placement. Graduates also leave the program with a strong network of mentors.

Requirements

Forty-five credits are required to earn a master's degree in genetic counseling. These credits consist of the following:

- 35 credits from core courses
- 6 credits from the clinical internships
- 4 credits from research project-related coursework and independent study. The genetic counseling program requirements include a clinical research project which is a modified version of the Graduate School's Plan B requirements for a master's degree.

Clinical Internships

Students take part in three different types of clinical internships: observation, introductory, and formal internships. The formal internships include experiences in reproductive, pediatric, adult, metabolic, and cancer genetics clinics, the clinical genetics laboratories (biochemical, cytogenetics, and molecular), and in specialty clinics/settings (e.g., telegenetics, neurogenetics, hemophilia, pediatric neurology). Internships start in the first semester of training and extend into the last semester.

Other Activities

Students are expected to participate in a variety of supplemental activities as part of their training.

Program Attributes

- Accessible faculty with a wealth of clinical and research experience
- A learning environment that values teamwork and collaboration over competition
- Clinical training with a culturally, ethnically, and socio-economically diverse patient population
- Opportunity to take courses with a variety of learners
- Dedicated program leadership (program directors and medical director), each with 20+ years of experience in medical genetics
- Record of high achievement in program completion, graduate certification and job placement

The information contained in this booklet highlights the curriculum, experiences, and expectations for the successful completion of a Master's of Science degree in genetic counseling from Wayne State University. The booklet also contains information about the admission process.

Wayne State University School of Medicine Graduate Program in Genetic Counseling Curriculum Overview					
	Year 1 Year 2				
	Fall	Winter	Spring/Summer	Fall*	Winter
Course Work	Principles of Genetic Counseling MGG 7640, 4 crs.	Theory & Practice of Genetic Counseling MGG 7740, 3 crs.		Advanced Theory & Practice of Genetic Counseling MGG 7741, 3 crs.	Optional Elective
	Introductory Molecular Biology MGG 7010, 4 crs.	Advanced Human Genetics MGG 7600, 3 crs.		Advanced Medical Genetics MGG 7800, 3crs.	
	Human Development and Teratology MGG 7830, 1 cr.	Genetic Counseling Seminar MGG 7880, 1 cr.			Genetic Counseling Seminar MGG 7880, 1 cr.
	Epidemiology FPH 7240, 3 crs.	Practical Applications of Genetic Counseling, MGG 7660, 3 crs.			Senior Seminar in Genetic Counseling MGG 7881, 2 cr.
	Introduction to Promoting Health Equity in Genetic Counseling MGG 7730, 1 cr. (pending)	Evaluating the Health Care Literature MGG 7860, 1 cr.			
		Introduction to Medical Genetics MGG 7710, 2 crs.			
Research Project	Research Project Seminar, MGG 7999, Section 003, 2 cr.			Research Project MGG 7999, Section 002, 1 cr.	Research Project MGG 7999, Section 002, 1 cr.
Clinical Activities	Observational Experiences Observe in various clinical settings	Clinical Internship (Introductory) Participation genetics clinics 14 wks. MGG 8998, 1 cr.	Clinical Internship Participation genetics Clinics 2 rotations (14 wks.) MGG 8998, 1 cr.	Clinical Internship Participation genetics clinics/laboratories 2 rotations (14 wks.) MGG 8998, 2 crs.	Clinical Internship Participation genetics clinics/specialty internships 2 rotations (14 wks.) MGG 8998, 2 crs.
Other Activities	Attend relevant seminars, conferences, grand rounds, process group, journal clubs, and supplemental activities. * Second year students attend NSGC Annual Education Conference				

Graduate Program in Genetic Counseling Course List Required/Core Courses

MGG 70104Introductory Molecular Biology4Basic aspects of molecular biology and genetics.4MGG 76404Principles of Genetic Counseling4History and evolution of profession as it relates to the provision of clinical services within the healthcare delivery system: introduction to basic genetic
Introductory Molecular BiologyBasic aspects of molecular biology and genetics.MGG 7640Principles of Genetic CounselingHistory and evolution of profession as it relates to the provision of clinicalservices within the healthcare delivery system: introduction to basic genetic
Basic aspects of molecular biology and genetics.4MGG 76404Principles of Genetic Counseling4History and evolution of profession as it relates to the provision of clinical services within the healthcare delivery system: introduction to basic genetic
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counseling skills including case preparation, the interview, family history,
risk assessment, and adult education. Introduction to ethical decision
making.
MGG 7730 (pending) 1
Introduction to Promoting Health Equity in Genetic Counseling
This course aims to help learners begin to recognize how diversity influences
access to, the experience with, and utilization of health care, leading to health
disparities in under-represented people and what they can do as future
genetic counselors to provide inclusive practice and promote health equity.
MGG 7740 3
Theory and Practice of Genetic Counseling
Overview of the counseling models currently utilized in genetic counseling.
Introduction to and preliminary development of the communication,
interpersonal, and psychosocial assessment skills needed to conduct a
comprehensive genetic consultation. Ethical, legal and social issues.
MGG 7660
Practical Applications of Genetic Counseling
Through a variety of instructional methods, students gain a foundation for
understanding and applying the practical aspects of genetic counseling to
clinical settings in reproductive, pediatric, dault, and cancer genetics.
MGG 7600 3
Auvanceu numan Generics
concepts, problems and methods of numan genetics including population
MGG 7030 Human Davalanment and Taratalogy
Through lecture self-study evan and oral presentation students learn key
aspects of fetal development, the embruological basis of birth defects and
aenetic dusmorphology sundromes clinical teratology and the associated
medical terminology
MGG 7860
Evaluating the Health Research Literature
Reading and analysis of health care literature with focus on research articles
Principles of health research design and analysis: skills for critical
assessment of medical literature.

MGG 7710 Introduction to Medical Genetics	2
Introduction to key principles of genetics and genomics as they relate to	
medical genetics.	
MGG 7741	3
Advanced Genetic Counseling Theory and Practice	0
Further examination of the major theories of human behavior and how they	
can be applied to evaluate psychosocial responses to genetic information and	
how they guide short-term client centered counseling in clinical practice.	
Ethical, legal, and social issues of practice.	
MGG 7800	3
Advanced Medical Genetics	-
A comprehensive review of advanced topics in medical genetics geared	
towards those who will be specialists in the field.	
MGG 7880	2
Genetic Counseling Seminar	
A lecture/discussion format seminar for first and second year students	
combined focusing on issues relevant to medical genetics and the genetic	
counseling profession. Includes emerging issues, personal genomics and	
public health genomics. Presentations by students, faculty, and invited	
speakers. (1 credit per semester, 2 semesters)	
MGG 7881	2
Senior Seminar in Genetic Counseling	
Through lecture, small group discussion, self-study, and oral presentation,	
students hone the skills needed to successfully make the transition to	
practicing professional.	
FPH 7240	3
Epidemiology	
Epidemiologist's task list; research of problems without known etiology;	
infectious and noninfectious disease models; examination of current	
problems. Previously an elective but now strongly recommended/required for	
genetic counseling students.	
MGG 7999	4
Research Project	
Student Plan B research project. Includes one semester of research project	
seminar with biostatistics. Students who do not complete their research	
project by the end of the Winter 2 semester may have to register for a 4 th	
credit in Spring/Summer 2.	
MGG 8998	6
Genetic Counseling Internship	
Students work under the supervision of a genetic counselor/geneticist in a	
variety of genetic and subspecialty clinics and laboratories.	
Clinical Internship 1 - Winter Semester, First Year (1 credit)	
Introductory Rotations – attend various clinics (genetics, non-genetics)	
Clinical Internship 2 – Beginning Spring/Summer Semester Y2	
(5 creaits) (4 -seven week traditional internships, 1-seven week specialty	
$c_{1111}c_{1111}c_{1111}c_{1111}c_{1111}c_{1111}c_{1111}c_{1111}c_{1111}c_{11$	
sites	

Metropolitan Detroit Internship Sites

- Cancer Genetic Counseling Service-Karmanos Cancer Institute
- Division of Genetic, Genomic and Metabolic Disorders-Children's Hospital of Michigan (Pediatric Genetics, Adult Genetics, Huntington Disease Pre-symptomatic Testing and Metabolic Clinic)
- Women's Health-Henry Ford Hospital (Reproductive and Cancer)
- Department of Cytogenetics, Beaumont Hospital-Dearborn (Reproductive, Cancer, and some Adult Genetics)
- Cancer Genetics Service at Beaumont Hospital-Royal Oak
- Pediatric and Adult Genetics, Beaumont Hospital-Royal Oak
- St. Joseph Hospital-Oakland-Reproductive and Cancer
- Clinical Genetics Laboratories- Cytogenetics, Molecular Diagnostic, Biochemical Genetics service laboratories at the Detroit Medical Center

Additional Internship Sites Available*

- Spectrum Health Medical Genetics-Grand Rapids, Michigan
- University of W. Ontario/London Health Sciences Genetics
- St. Joseph Ypsilanti Cancer Genetic Counseling Service
- Mount Sinai Hospital, Toronto
- Other sites as available

*With the consent of the program directors and based availability at the sites, students may arrange to do a rotation at another site during the first and/or second half of the summer semester

Specialty Clinic Sites (Not all inclusive, subject to availability)

- Adult Neurogenetics Clinic (WSU Department of Neurology)
- Cystic Fibrosis Clinic (Adult at Harper University Hospital; Pediatric at Children's Hospital of Michigan)
- Cystic Fibrosis Newborn Screening Follow Up Clinic (Children's Hospital of Michigan)
- Huntington Disease Clinic (Henry Ford Health System)
- Karmanos Cancer Telegenetics
- Multidisciplinary Colon Cancer Clinic (Beaumont Hospital-Royal Oak)
- Muscular Dystrophy Clinic (Children's Hospital of Michigan; Beaumont Hospital)
- Pediatric Cancer Genetics Clinic (Children's Hospital of Michigan)
- Pediatric Cardiology and Neurology (Children's Hospital of Michigan)
- Pediatric Neurology (Beaumont Hospital-Royal Oak)
- St. Mary's Livonia Cancer Genetics Clinic
- NexGen MDx (genetic testing laboratory)

First Year Clinical Experiences

First Year Observational Experiences- Fall

Beginning in October of the first semester, students are scheduled to attend a variety of clinics, many of them which are multidisciplinary clinics, to begin to observe how genetics is integrated into healthcare. Some of these clinics do not have genetics professionals staffing them but are an excellent opportunity to observe a team approach to the care of an individual with a chronic condition and to learn about the psychosocial aspects of the various conditions.

Observational Experiences for Fall 2021:

Craniofacial Clinic, Cystic Fibrosis Clinic, Myelomeningocele Clinic, Sickle Cell Anemia Clinic, Genetics Hospital Rounds, Genetics Primary Care Clinic

First Year Introductory Internship-Winter

The purpose of the internship during the first year is for students to begin to apply what they have learned during their course work to the clinical setting. Students will be required to spend approximately 8 hours each week at a variety of clinical sites. Students will spend approximately 5-6 weeks at one genetics clinic (reproductive, pediatric or cancer site). During this experience, students will typically be assigned certain case preparation duties as well as begin practicing some aspects of face to face genetic counseling. Students will also observe other clinical experiences such as telephone genetic counseling and multidisciplinary clinics in pediatrics and cancer. Students will also share and discuss the medical, genetics and genetic counseling issues surrounding the cases they have observed in clinic through case presentations in MGG 7880, Genetic Counseling Seminar and in discussions in MGG 7740, Theory and Practice of Genetic Counseling.

During the Introductory Internship, each student will also gain experience in a research rotation. The objectives of this rotation are to describe the role of genetic counselors in research, to recognize how to use and develop a database, to define informed consent in a research setting, and to recognize the importance of responsible conduct in research. Finally, each student will gain experience in a laboratory genetic counseling workshop where they will meet and work with genetic counselors working in variant classification and interpretation.

Introductory Internships for Winter 2022:

- Beaumont Center for Exceptional Families
- Beaumont-Dearborn Clinical Cytogenetics
- Beaumont-Royal Oak Multidisciplinary Breast Cancer Clinic
- Beaumont-Royal Oak Cancer Genetics
- Cooper Genomics (Preimplantation Genetic Diagnosis/Telephonic Clinic)
- Henry Ford Hospital
- St. Joseph Mercy Oakland
- Windsor Regional Hospital
- Pediatric Cardiology, Children's Hospital of Michigan

Second Year Clinical Internships

The purpose of the internship during the second year is for students to function, with supervision, as the primary genetic counselor in a variety of clinical settings. During this second-year internship, students acquire cases for their logbooks for program accreditation purposes.

For all students regardless of which clinical internship track they follow:

- Students are required to complete 6 seven-week rotations (2 during the spring/summer semester, 2 during the fall and 2 during the winter semester). All students must complete one reproductive genetics, cancer genetics and pediatric genetics rotation. Students also must see some adult genetics cases.
- One of 6 rotations is the laboratory rotation (in the fall). Students will rotate through three clinical genetics service laboratories (cytogenetics, molecular genetics, and biochemical genetics) to learn test indications, methodology & limitations. The goals and objectives of the laboratory rotations are described below.
- One of the 6 rotations is a specialty internship (in the winter). Students will have the opportunity to attend a variety of clinical settings to expand their knowledge of genetic conditions and non-traditional service delivery models. See below for more information.
- With the permission of the program directors, students may elect to do one or two rotations as an elected away rotation during the summer between their first and second years.
- Students will spend at least 24 hours/week at the clinical site during the fall and winter semesters and 40 hours/week at the clinical site during the spring/summer semester.

Genetics Service Laboratory Internship

Genetic counseling students will spend approximately 3 weeks each in a cytogenetics laboratory and a molecular genetics laboratory and 1 week in a biochemical genetics laboratory. During each rotation, the student is expected to perform relevant background reading, work through a case book containing typical examples of normal and abnormal test results, participate in ongoing laboratory testing, participate in laboratory meetings, and assist in interpreting laboratory results under the supervision of the laboratory director. Students also gain valuable exposure to the following:

- The role of the laboratory genetic counselor including utilization management of genetic testing.
- Clinical next generation sequencing technologies and results interpretation during the molecular laboratory experience.

Specialty Internship

Genetic counseling students will attend a variety of specialty clinics for 6 weeks and one week doing additional clinic-related activities. Students will attend two 3-week mini clinical rotations focused on a particular specialty area of genetics with a variety of clinical opportunities depending on the specialty. Student will have some patient-related genetic counseling responsibilities as well as some observational experiences. In addition, students will be expected to present a synthesis of medical literature to make evidence-based recommendations for practice on a topic relevant to one of their specialty internship experiences.

	SAMPLE WAYNE STATE CLINICAL INTERNSHIP SCHEDULE					
	Summer I May-mid June	Summer II July-mid August	Fall I Late August- mid October	Fall II Mid-October- early December	Winter I January-third week of February	Winter II Fourth week of February- April
Student A	St. Joseph- Oakland (Cancer)	Away (Repro)	Laboratory Internship	CHM-Peds and Metabolic (Peds/Adult)	Specialty Rotation (Neuro & Women's Health)	Beaumont Cancer (Cancer)
Student B	Spectrum Health (Repro)	Spectrum Health (Peds/Adult)	Laboratory Internship	Karmanos (Cancer)	Specialty Rotation (Neuro & Peds)	Henry Ford Hospital (Repro and Cancer)
Student C	Karmanos (Cancer)	CHM-Peds and Metabolic (Peds/Adult)	St. Joseph- Oakland (Repro)	Laboratory Internship	Beaumont- Dearborn (Repro and Cancer)	Specialty Rotation (Neuro & Peds)
Student D	Henry Ford Hospital (Repro)	Away (Cancer)	CHM-Peds and Metabolic (Peds/Adult)	Laboratory Internship	St. Joseph- Oakland (Repro and Cancer)	Specialty Rotation (Neuro & Peds)
Student E	Beaumont Peds (Peds/Adult)	Beaumont Cancer (Cancer)	Laboratory Internship	Beaumont- Dearborn (Repro)	Specialty Rotation (Neuro & Peds)	CHM- Metabolic (Peds/Adult)
Student F	CHM-Peds and Metabolic (Peds/Adult)	Away (Cancer)	Laboratory Internship	Henry Ford Hospital (Repro and Cancer)	Specialty Rotation (Neuro & Peds)	St. Joseph- Oakland (Repro)
Student G	St. Joseph Mercy- Ypsilanti (Cancer)	Away (Repro)	Henry Ford Hospital (Repro and Cancer)	Laboratory Internship	CHM-Peds and Metabolic (Peds/Adult)	Specialty Rotation (Neuro & Women's Health)

RESEARCH PROJECT

The purpose of the research requirement is for students to gain experience in study design, research methods, professional writing, and self-directed education in order to promote their personal professional growth. This requirement is meant to be an introduction to the area of research in genetic counseling and is not a formal Master's thesis requirement. Students are required to complete a research project, develop a manuscript, and present their project results at Medical Genetics Grand Rounds. It is also expected that students will submit an abstract of their research project to a national meeting (e.g., NSGC, ASHG, ACMG, other) and submit the manuscript for publication when appropriate.

The research project falls under the University's Plan B for Master's students. The genetic counseling program stipulates that the project should involve formulating and testing a research question or hypothesis (modified Plan B). Examples of student projects might include the following: a report on a small series of cases which illustrates a novel concept or answers a specific question; the evaluation of an innovative educational tool, screening tool, or counseling strategy; analysis and interpretation of data from an existing research project or database to answer a new question; or generation of new data followed by analysis and interpretation to answer an original question. A comprehensive literature review might also be appropriate if it is hypothesis driven (such as a meta-analysis of existing research on a topic).

Students get instruction on how to conduct research, including biostatistics, in MGG 7999 (Genetic Counseling Research Project Seminar) in the Fall Y1 semester. Students select their topic and identify project mentors (with guidance from the program directors) in the fall of Y1, begin to develop their specific aims and methods in Winter Y1, and work on various aspects of implementation from Spring Summer Y1 through Winter Y2. Students who are unable to complete their research project by the end of W2 can stay for the Spring Summer semester of Y2. Below is a sample list of completed projects.

Select Plan B Project Titles	Outcomes
The supportive care needs of parents following	Platform Presentation NSGC
diagnosis of late-onset Pompe	Meeting 2021.
disease through newborn screening	
Identifying Potential Genetic Counseling	Platform Presentation NSGC
Program Applicant Admissions Competencies	Meeting 2021.
Use of alternative service delivery models for	Poster Presentation NSGC Meeting
cancer genetic counseling in Michigan	2021.
Characterization of Variant Reclassification and	Published Journal of Genetic
Patient Re-contact in a Cancer Genetics Clinic	Counseling, June 2022.
Health behavior theories behind genetic results	Poster Presentation NSGC Meeting
disclosure from probands to relatives: A	2021.
systematic review	
Investigating factors that influence genetic	Published in Journal of Genetic
counselors' decisions to refer patients to mental	Counseling, 2022.

health providers	
Clinical outcomes of preimplantation genetic testing for hereditary cancer predisposition syndromes: A systematic review	Published in Prenatal Diagnosis, 2022.
Characterization of hypodontia, hypohidrosis and hypotrichosis associated with X-linked hypohidrotic ectodermal dysplasia: A systematic review	Published in American Journal of Medical Genetics, Part A, 2020.
Teaching medical students how to deliver diagnoses of Down syndrome: Utility of an educational tool	Published in Patient Education and Counseling, 2019.
Comparing the quality of Spanish and English genetics resources on the internet	Published Journal of Genetic Counseling, 2020. Poster Presentation NSGC Meeting 2017.
Genetic counselor workflow study: The times are they a-changin'?	Published Journal of Genetic Counseling, 2018. Poster Presentation NSGC Meeting 2016
Referrals to Mental Health Services: Exploring the Referral Process in Genetic Counseling	Published Journal of Genetic Counseling, 2017. Poster Presentation NSGC Meeting 2016.
Utilizing state registry data to increase cancer genetic access & evaluation of an interactive educational tool: HBOC: Is your patient at high risk?	Published in Healthcare, 2016.
Assessment of current practices in post-visit patient communication amongst genetic counselors	Published Journal of Genetic Counseling, 2017. Poster Presentation NSGC Meeting 2015.
Genetic counseling clients' views on religious and spiritual assessment in genetic counseling	Published Journal of Genetic Counseling, 2016. Poster Presentation NSGC Meeting 2014.
What are the differences between telephone and in person genetic counseling from the genetic counselors' perspective?	Published, Journal of Genetic Counseling 2016. Platform Presentation, NSGC Meeting 2014.
Information preferences regarding informed consent models for genetic carrier screening	Published Journal of Genetic Counseling, 2015. Platform Presentation, NSGC Meeting 2012.

Reaching the next generation of scientists and	Published in American Biology
consumers: What do high school textbooks say	Teacher 2014. Platform
about genomics and genetic counseling?	Presentation, NSGC, 2011.
Investigation of how parents help their child	Published, American Journal of
with PKU cope with feeling different	Medical Genetics, 2015.

Examples of Supplemental Activities

Genetic Counseling Journal Club – As scheduled

The Genetic Counseling Journal Club is designed to introduce students to new topics in the literature related to clinical genetic services and genetic counseling. Students also gain experience in critical thinking, organizing and presenting a presentation, and facilitating discussion. They also gain exposure to new applications of genomic medicine. All genetic counseling students are required to attend and present at journal club. May include a book club as well in select years.

Genetic Counseling Process Group – As scheduled, every 3-4 weeks Throughout both years of training, first and second year students will participate in a peer process group. This group is meant to be a forum for discussion of issues related to being a graduate student in a professional training program and to developing professionalism. Group discussions are confidential. Information discussed in the process group is not shared with the program directors or program faculty without the consent of the group members. The process group meets for 30-45 minutes. We set the ground rules for the group the first time a new group of 1st and 2nd year students meets. A facilitator is available for consultation if concerns or questions arise. Special topic presentations are scheduled on occasion and as requested.

Cancer Genetic Counseling Seminar Series – 4th Monday

The Cancer Genetic Counseling Seminar Series is a monthly seminar series that covers topics related to cancer genetic counseling and risk assessment, cancer biology, and the treatment and management of patients with inherited cancer syndromes. Invited speakers typically include WSU/DMC/KCI faculty, faculty from neighboring institutions such as the University of Michigan, and nationally recognized experts. This is a requirement for genetic counseling students unless there is a conflict with a course or other clinical responsibility.

Medical Genetics Grand Rounds – 2nd, 3rd and 4th (and 5th) Fridays Medical Genetics Grand Rounds is held three times a month and is a forum for presentations on a variety of topics in Medical Genetics many based on clinical cases from the Division of Genetic and Metabolic Disorders. Presenters include attending physicians, genetic counselors, fellows, residents, students and invited outside speakers. Genetic counseling students rotating through the Genetic and Metabolic clinics do a presentation typically based on an interesting clinical case. Attendance is required unless there is a conflict with a course or other clinical responsibility.

CMMG Departmental Seminar Series

This seminar series, which is generally held bimonthly, covers topics related to molecular biology and genetics. The focus of the series is more research based than clinical. Students are expected to attend select seminars as instructed by program directors.

Community Outreach Opportunities - As scheduled

The genetic counseling program recognizes the tremendous value of having students interact with members of genetics advocacy organizations. These interactions promote awareness of the impact of genetic conditions on individuals and families and enhance cultural competency. Interactions can occur by attending support group meetings or advocacy organization conferences, and meeting with families who have genetic conditions. Students are expected to select an advocacy organization with which to volunteer and then participate in organization activities a minimum of 2-3 times over the course of each year. The student will work with the organization to decide how to best use their volunteer time. The genetic counseling program can provide recommendations of organizations willing to accept genetic counseling student volunteers if desired.

Educational Outreach Opportunities – As scheduled

The genetic counseling program provides opportunities for students to educate lay and professional audiences about genetics in order to help students develop teaching and presentation skills. Students typically take part in the School of Medicine's Future Docs program (for 6-12 year old children) and one or more other opportunities (e.g., secondary school presentations, career days, English language institute presentations). Students are also given opportunities to do formal presentations in class and at Medical Genetics Grand Rounds. Students are expected to do a minimum of 2-3 presentations a year, at least one of which must be to a lay community.

CMMG Departmental Scientific Retreat – Periodic

Periodically CMMG hosts scientific retreats, which included departmental faculty and students (PhD and MS genetic counseling). Local and/or nationally recognized experts in the area of molecular biology and genetics are often invited to attend. All attendees have an opportunity to present either orally or as a poster their research and/or clinical activities. The genetic counseling students are included in this retreat.

Michigan Association of Genetic Counselors (MAGC) – Annual

This is an annual meeting of all the genetic counselors in the State of Michigan. The format of the meeting typically includes a morning educational session and afternoon networking session. Student members of MAGC can also attend professional development activities as scheduled throughout the year.

NSGC Annual Education Conference

This national NSGC meeting is usually attended by second year students. The program covers up to~\$600 of expenses related to registration, travel, lodging and food expenses (subject to budget approval). It is expected that students will attend this meeting.

Other Grand Rounds/Seminars

Grand round presentations or seminars in other departments often provide excellent educational opportunities. When relevant topics are to be presented in such venues, student attendance may be required or recommended. Students will be given as much notice as possible.

Genetic Counseling Program Admissions

Getting started

The first step is to look at the list of genetic counseling programs available, review their websites, and if you have questions, contact the program directors/staff. Programs should be accredited by the Accreditation Council for Genetic Counseling. For a listing of accredited programs, go to <u>http://www.gceducation.org/Pages/Accredited-Programs.aspx</u>

Because many qualified applicants apply to each program and each program has a limited number of training slots, it is important to apply to several programs. If you are a qualified applicant, this will improve your chances of admission the first time you apply.

Only apply to those programs that you would consider attending. Keep an open mind when choosing a program. Look at the websites to see what each has to offer. You may want to consider tuition costs.

Preparing a competitive application

On each program's websites, you will probably find a section that details the program's admission requirements. These generally include the following:

• Prerequisite courses

- Since genetic counseling students will be taking graduate level coursework in molecular biology and human and medical genetics, it is important that applicants have a strong foundation in the biological sciences. Visit each program's site for information about their prerequisites.
- Students also need coursework in psychology (at least one class).
- The prerequisites for the WSU program are:
 - 2 semesters of biology
 - 2 semesters of inorganic/general chemistry
 - 1 semester of organic chemistry
 - 1 semester of genetics
 - 1 semester of biochemistry
 - 1 semester of statistics/biostatistics
 - 1 semester of psychology
- Experience shadowing or talking to a genetic counselor (not required but very helpful in strengthening a person's application).
- Advocacy/volunteer work ideally where you have training in counseling skills and then volunteering in a setting where you can use these skills to help people cope with an issue or problem (like a social service agency or a crisis intervention organization)

- GRE scores
 - Programs may require the general exam; some may also require a subject test scores in addition to the general exam. Wayne State will not require the GRE for the upcoming admissions cycle.
- Applicants whose native language is other than English may be required to take an English proficiency test such as the TOEFL, Duolingo English Test, MET, IELTS, or PTE. See https://gradschool.wayne.edu/admissions/international/english-proficiency for additional information about the WSU requirements.
- Academic transcripts from all institutions attended.
- An essay describing why you want to be a genetic counselor
 - This is your opportunity to demonstrate your familiarity with the profession and what is driving you to become a part of it.
 - \circ At WSU, the essay should be limited to 750 words describing
 - Your reasons for pursuing a career in genetic counseling
 - The skills, personal qualities, and professional and personal experiences you have that demonstrate your motivation to become a genetic counselor and your preparedness to be a genetic counseling graduate student.
- Three letters of recommendation
 - Make sure that you get these from people who know you well and who you think will write a good letter of recommendation.
 - Seek recommendations from those familiar with your academic abilities, work ethic, and/or interpersonal skills such as a professor, research mentor, advisor, volunteer coordinator, or employer. At least one should speak to your academic ability.
 - Personal references (from a friend or neighbor) are less helpful in evaluating your application.
- Graduate school application
 - At Wayne State, all graduate applications and most application materials must be submitted electronically.
 - Go to <u>http://www.gradadmissions.wayne.edu/apply.php</u> to apply the WSU Graduate School.

<u>Applying</u>

First, the Wayne State Program, like all accredited programs in the U.S. and Canada, participates in the Genetic Counseling Admissions Match. You must register to be part of the match to be considered by a program. For more information about the match and to register, go to <u>https://natmatch.com/gcadmissions/</u> There is also more detailed information provided below. Registration for the match usually opens in late August or September and closes after match day which is in late April of each admission year.

Next, develop your Wayne State application. The web-based application usually opens in late August or early September. Make sure all materials are uploaded and submitted by the deadline! For the WSU program, the deadline is January 15th.

- Give those writing your letters of recommendation ample time to get their letters submitted.
- During peak times, it can take graduate school admissions offices more time to process applications, so try to get your application in before the deadline date to ensure that the program has access to this information by their deadline date.
- Make sure when you order your original transcripts you know how long it will take for them to be sent in to the admissions office and plan accordingly. You can submit an unofficial transcript while you are waiting for the official one to be posted.
- If it is required at a particular institution, make sure the university is listed as a recipient on your GRE scores/ that the scores are sent to that specific institution.
- Review your application for errors and typos.
- Have someone read your essay to check for typos and to make sure it says what you intended it to say.
 Be truthful! If the admissions committee detects inaccuracies in your application, that reduces your chance of admission.

There is generally no advantage to applying early (e.g., in the fall) because programs do not do rolling admissions. We do not start looking at applications until the day after the admissions deadline. But it is really important that all your admissions materials are submitted by the deadline. If we are missing materials we cannot fully evaluate your application.

Interviewing

- An interview (by invitation only) is a mandatory part of most programs' admission process. Depending on the institution, these interviews may be in person or virtual. Most interviews occur in mid-February through early April.
- Dress appropriately (look professional). Do not wear jeans, tennis shoes, or other casual attire. Remember, you are applying for a professional program. Dress the part.
- If interviewing virtually:
 - Make sure your computer is charged and you have a reliable internet connection.
 - Limit distractions by finding a quiet interview spot, considering a neutral background and having good lighting
- Prepare for the interview. The career offices of many universities have interview tips on their websites. Some may even offer classes on interviewing. You can also find tips online like those provided at the following URL. <u>http://www.petersons.com/graduate-schools/graduate-admission-tipsinterview.aspx</u>
- Don't be late!

<u>Tips</u>

- Be courteous to everyone you come in contact with that day. You never know who may be evaluating you or who may provide feedback to the admissions committee
- Come prepared to talk. Admissions committees want to get to know you to determine if you are a good fit for the program.
- Come prepared with questions. The admissions committee wants to know that you are really evaluating whether this is a good program for you.
- Come prepared to talk about your strengths. This is your opportunity to show the admissions committee why you should be offered a position in the program.
- If there are parts of your application that are weaker than others, be prepared to discuss these in a non-defensive way.
- If the program does not give you information about what the interview process will entail, ask, so that you can be adequately prepared.
- Write thank you notes to those who interviewed you, especially if you are interested in attending the program. These can be on note cards or by email.
- Be prepared that no matter how much you like a program on paper, sometimes you may change your mind after the interview. The reverse is true as well. You may actually like some programs that on paper were not as appealing to you.

Genetic Counseling Match Program

- Genetic counseling programs participate in a Match program through an organization called NMS. When you apply for programs, please visit the NMS website at (<u>https://natmatch.com/gcadmissions</u>) to register for the match, review detailed information about the matching process, and to view a demonstration of how the matching algorithm works. You must apply to the Match program in order to be eligible for admission. You only have to sign up for the Match program one time regardless of how many programs you apply to.
- If you interview with at least one program, after all interviews are complete you will rank each program in order preference through the Match service. If there are programs that you would not consider attending, you will not list (rank) them at all. This information is private. Programs will not know how you ranked them or if you ranked them.
- Just as you will rank (or not rank) each program with whom you interviewed, each program will also rank (or not rank) in order of preference each applicant they interview.
- On the designated Match Day (in mid/late April), NMS's computerized algorithm will match each applicant with their preferred program (and program with their top ranked applicants).
 - For example, say you rank Program A as your top choice and Program B as your second choice. The computer will match you with Program A if that program puts you on their accept list and they haven't filled all of their spots before they get to your name on their list. If Program A fills all of their spots before they get to your name, then the computer will try to place you in Program B, as your second choice. If Program B has put you on their accept list and they have a spot open, you would get a position in Program B, and that's where you would go.

- You will receive an email notifying you if you matched to a program and, if so, which one. By participating in the match, you are agreeing to attend the program you matched with. For this reason, it is important that you only rank schools you would be willing and able to attend and make your ranking decisions carefully.
- There is a possibility that an applicant will not match with any programs. If this happens, the applicant would be notified that s/he did not match. If after the Match you were not placed in a program, there is typically an Unmatched Applicant process where unmatched applicants can connect with any programs that did not fill all of their spots. In any given year, there are usually just a few unmatched spots.

Good luck with the application and admissions process!



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CENTER FOR **MOLECULAR MEDICINE** AND GENETICS Fall 2019/Winter 2020

Researcher brings new tool to stroke, heart attack recovery

Prototype to be in human testing within two years

Within two years, Dr. Maik Hüttemann of the Center for Molecular Medicine and Genetics expects to have a device in human testing that could dramatically improve survival rates for people who have strokes and heart attacks.

Dr. Hüttemann's research is focused on the mitochondria, the cell's main energy producing compartment. He and his team have devised a method of regulating the function of the mito-



chondria using specific wavelengths of light. For stroke patients, this will mean a helmet that uses lasers to send infrared light through the skull to the affected area of the brain.

HÜTTEMANN The light will slow down energy production after the blockage of the stroke has been removed.

Dr. Hüttemann explained that, after a stroke or heart attack, more cell damage occurs after the event has been mitigated.

Light, continued on Page 3

New faculty spotlight

Shengyi (Iris) Sun brings fresh perspective to protein studies

Research focuses on endoplasmic reticulum and protein misfolding

Dr. Shengyi (Iris) Sun says that when she was growing up in Shandong Province, China, she was always fascinated by the mechanisms that make things work. That fascination led her into biochemistry and molecular medicine.

Dr. Sun joined the faculty of the Wayne State University Center for Molecular Medicine and Genetics as Assistant Professor of Molecular Medicine and Genetics and of Biochemistry, Microbiology and Immunology during the sum-



mer of 2019. She says she has enjoyed her time here in Detroit.

"So far, everyone has been very friendly and helpful," she said. "And it was very pretty here this fall."

SUN

The only drawback is the distance from her family. Her parents still live in China and can only visit once a year.

Spotlight:

'A factory for proteins'

From Page 1

Dr. Sun is studying the endoplasmic reticulum (ER) and degradation of proteins. She said the degradation is a quality control process.

"It's (the ER) like a factory for proteins," she explained.

The ER examines newly-synthesized proteins and only passes on those that are correctly folded. Folding is the process by which a protein chain acquires its native three-dimensional structure, which is generally biologically functional.

Dr. Sun's study is looking into the mechanism of misfolding. The process by which misfolded proteins are prevented from entering the system is referred to as endoplasmic reticulum associated degradation (ERAD). This process is central to health and, when aberrant, to some diseases. Some viruses take over



Dr. Sun in her laboratory.

the ERAD process and use that to establish infection. Dr. Sun said her work is particularly related to diabetes.

"We're at a starting point," she said, "basic science." Dr. Sun is using mouse cell proteins for her study.

Dr. Sun earned her PhD at Cornell University in 2015. After Cornell, she spent four years at the University of Texas Southwestern Medical Center for post-doctoral study.

Faculty honors

Awards

Angela Trepanier, Center for Molecular Medicine and Genetics, was promoted to Professor (CE).

Maik Hüttemann, Center for Molecular Medicine and Genetics and Biochemistry, Microbiology and Immunology, received the Dean's Office Award for Outstanding Research Achievement.

Yan Yuan (Jeffrey) Tseng, Center for Molecular Medicine and Genetics and Biochemistry, Microbiology and Immunology, was promoted to Associate Professor (RE) with tenure.



TREPANIER

Leonard Lipovich, Center for Molecular Medicine and Genetics and Neurology, was promoted to Professor (RE).

HÜTTEMANN

Roger Pique-Regi, Center for Molecular Medicine and Genetics and Obstetrics and Gynecology, received the College Teaching Award.



TSENG

LIPOVICH

Tiffany Cook, Center for Molecular Medicine and Genetics and Ophthalmology, Visual and Anatomical Sciences, received a Research Excellence Award — Basic Science

Gerald Feldman, Center for Molecular Medicine and Genetics, Pathology, and

Honors, continued on Page 3

Light Preserving healthy tissue

From Page 1

When an area of tissue is starved for oxygen, cells are damaged; however, worse damage occurs when oxygenated blood returns to the area and cells "burn out" with suddenly increased energy production. This is called ischemia reperfusion injury or insult.

With the new technology, light therapy can moderate the reperfusion and preserve healthy tissue. Dr. Hüttemann's studies, using pigs and piglets, have shown dramatic results.

Dr. Hüttemann's focus on infrared light began in 2006 when he met with Dr. Margaret Wong-Riley of the Medical College of Wisconsin at a Wilson Foundation conference.

"I looked up her research so we would have something to talk about," Dr. Hüttemann said.

Dr. Wong-Riley had done work on Parkinson's disease with infrared light that hadn't panned out. However, she had only been working with a few specific wavelengths. Dr. Hüttemann asked her why she was using only those wavelengths. It turned out that those wavelengths were easily produced because there were commercial lasers on the market with those outputs.

Dr. Hüttemann wondered if the results could be improved by trying more wavelengths. He designed an experiment that scanned through the

spectrum and measured the results for each wavelength.

His results pointed to wavelengths that inhibited mitochondrial function and led to the device he is currently using to produce a prototype that could be used in human testing soon.

Dr. Hüttemann grew up in Battenburg, Germany. He received his PhD from the University of Marburg.



Dr. Maik Hüttemann shows off his light therapy machine.

"I initially was going to become a polymer chemist," he said. "But that turned out to be totally boring." He switched to biochemistry and found his calling.

He came to the United States in 2000 as a postdoctoral researcher in Center director Lawrence Grossman's lab. He soon started making a name for himself, being promoted to full professor in 2017. He recently was awarded the Dean's Office Award for Outstanding Research Achievement.

Honors

From Page 2

Pediatrics, received a Teaching Award and Research Excellence Award — Physician-Scientist.

Publications and Presentations by Students and Postdocs

Congratulations to **Justyna Resztak**, **MS** (Luca/Pique-Regi lab) for presenting at the American Society of Human Genetics



COOK



PIQUE-REGI

Annual Meeting in Houston, TX October 15-19, 2019 on "Transcriptional signatures of psychosocial experiences reveal GxE effects in leukocyte gene expression of children with asthma."

FELDMAN

Congratulations to **Hasini Kalpage** (Hüttemann lab) for presenting at the Frontiers in Metabolism conference in Madison, WI, at the Morgridge Institute for Research on *"Role of cytochrome c phosphorylation in brain ischemia/reperfusion injury."*

Congratulations to **Anthony Findley** (Luca/Pique-Regi lab) for presenting at the American Society of Human Genetics Annual Meeting in Houston, TX October 15-19, 2019, on "Geneenvironment interactions in iPSC-derived cardiomyocytes."

DISCOVERY. FOR LIFE.



Wayne State University **School of Medicine** 3127 Scott Hall 540 East Canfield Ave. Detroit, Michigan 48201 http://genetics.wayne.edu

Phone: 313.577.5323 Fax: 313.577.5218

Graduate Programs: PhD in Molecular Genetics and Genomics

MS in Molecular Genetics and Genomics

MD/PhD in Molecular Genetics and Genomics

Residencies and Fellowships in Medical Genetics & Genomics

MS in Genetic Counseling

WAYNE STATE WAYNE STATE UNIVERSITY **UNIVERSITY** DIVISION OF RESEARCH SCHOOL OF MEDICINE

CENTER FOR **MOLECULAR MEDICINE** AND GENETICS

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WAYNE STATE UNIVERSITY

Tuition and Fee Calculator The following amount does not include all fees, (i.e., late registration, course fees, lab fees, or optional fees).				
Total Estimated Cost: \$42,399.41				
Tuition calculation based on taking 45.0 credit	hour(s)			
Itemized Tuition and Fees				
Resident School of Medicine - Graduate per Student Service per Credit Hour Fee: Registration Fee:	CREDIT HOUR RATE:	\$8 \$! \$32	78.23 56.69 28.01	
Tuition: Student Service per Credit Hour Fee: Registration Fee:	\$878.23 x 45.0 credits = \$56.69 x 45.0 credits =	\$39,520.35 \$2,551.05 \$328.01		
	Total Estimated Cost:	\$42,399.41		
PLEASE NOTE: Tuition and fees are subject to change without notice, by action of the Board of Governors. Every effort is made to give as much advance notice as possible.				
Calc	culate Again?			

Wayne State University © 2010

WAYNE STATE UNIVERSITY

Tuition an The following amount does not include all fees, (i.e., late	d Fee Calculator registration, course fees, lab fees, or op	otional fees).		
Total Estimated Cost: \$77,486.36				
Tuition calculation based on taking 45.0 credit hour(s)				
Itemized Tuition and Fees				
Non-Resident School of Medicine - Gradua Student Service per Credit Hour Fee: Registration Fee:	te per CREDIT HOUR RATE:	\$1,65 \$5 \$32	57.94 56.69 28.01	
Tuition: Student Service per Credit Hour Fee: Registration Fee:	\$1,657.94 x 45.0 credits = \$56.69 x 45.0 credits = Total Estimated Cost:	\$74,607.30 \$2,551.05 \$328.01 \$77,486.36		
PLEASE NOTE: Tuition and fees are subject to change w made to give as much advance notice as possible.	vithout notice, by action of the Board of culate Again?	Governors. Every	/ effort is	

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Tuition and The following amount does not include all fees, (i.e., late reg	d Fee Calculator egistration, course fees, lab fees, or optional fees).		
Total Estimated Cost: \$42,399.41			
Tuition calculation based on taking 45.0 credit h	nour(s)		
Itemized Tuition and Fees			
Non-Resident Ohio/Ontario Good Neighbor S CREDIT HOUR RATE: Student Service per Credit Hour Fee: Registration Fee:	School of Medicine - Graduate per \$878.23 \$56.69 \$328.01		
Tuition: Student Service per Credit Hour Fee: Registration Fee:	\$878.23 x 45.0 credits = \$39,520.35 \$56.69 x 45.0 credits = \$2,551.05 \$328.01 Total Estimated Cost: \$42,399.41		
PLEASE NOTE: Tuition and fees are subject to change without notice, by action of the Board of Governors. Every effort is made to give as much advance notice as possible.			
Calcu	ulate Again?		

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Wayne State University and Detroit Information:

Wayne State University-learn about our great campus and community

https://wayne.edu/campus

Photo Tour of Wayne State Campus

https://www.flickr.com/photos/waynestateuniversity/albums/72157652749458771/page10

Virtual Tour of WSU School of Medicine Campus

https://www.youvisit.com/tour/63872/141312?utm_source=go.wayne.edu&utm_medium=direct&utm _campaign=quick-access&utm_content=

Visit Detroit-discover great things to see and do in Detroit

https://visitdetroit.com/

Pure Michigan-learn more about our beautiful Great Lakes state.

https://www.michigan.org/

Advocacy Opportunities

Advocacy experience is a requirement for admission into the Wayne State University Genetic Counseling Program and most other genetic counseling programs. The Wayne State program recommends advocacy experiences that include training in interpersonal communication/counseling skills and the opportunity to use these skills with clients. We do not have a specific requirement in terms of length of time spent in advocacy activities. However, it should be enough time to fully apply the skills you learned in your training (generally at least 6 months, although that can vary depending on the experience). Below is a list of some opportunities most of which are in Southeast/Mid-Michigan but in other areas as well. This is not an all-inclusive list. If you have questions about whether your advocacy experience fits the WSU program's requirement, please contact us at 313-577-6298 or <u>GeneticCounseling@med.wayne.edu</u>

Ozone House, Ann Arbor Michigan. Crisis Line Volunteer

Crisis Line counselors listen and provide critical information, referrals, and crisis intervention to youth and families struggling with such issues as family conflict, runaway episodes, homelessness, suicide, abuse and neglect, domestic violence, sexual orientation and gender identity, and other crises. Crisis Line Volunteers counselors complete a 40-hour training on two Wednesday evenings and one day on two consecutive weekends, including 16 hours of home study. Once completed, volunteers commit to one 4-hour shift per week for 8+ months. To apply, go to https://ozonehouse.org/support-us/volunteer/.

Common Ground Crisis & Resource Hotline, Crisis Chat and Text Program (Bloomfield Hills and Royal Oak)

Common Ground is a 24-hour crisis services agency dedicated to helping youths, adults, and families in crisis. Through our crisis line and in person, we provide professional and compassionate service to more than 80,000 people each year. Every member of our team is dedicated to our core purpose and guided by our core values. Our Core Values are:

- Empowerment maximizing the potential of all
- Collaboration always working toward shared goals
- Innovation exploring new ways to positively impact our community
- Diversity and Inclusivity welcoming and respectful of people and ideas

We provide extensive training to qualified volunteers interested in staffing our Resource & Crisis Helpline or Youth Residential Programs. However, currently, COVID-19 is impacting our ability to take on new volunteers. We have had to pause our onboarding of new volunteers to ensure both staff and volunteer safety. Our goal is to begin bringing in new volunteers as soon as possible. Please contact us for up-to-date information about volunteer opportunities at 248.456.8150 or <u>askcommonground@commongroundhelps.org</u>. Or check our website at <u>https://commongroundhelps.org/get-involved/volunteer-3/</u>

The Listening Ear Crisis Hotline, Lansing Michigan

Do you have a heart for helping people who are in crisis, lonely, hurting or in distress? Our crisis hotline and walk-in center include opportunities for providing emotional and lifestyle support services through empathetic listening and referrals. One of the most important ways you can support the Listening Ear is by joining our team as a volunteer. If you can volunteer some of your time, from as little

as 4 hours a week, you can help make a difference. Our volunteers are trained to deal with crises that include depression, suicide, loneliness, sexual assault, grief, and many others. We also provide referrals for services throughout the Lansing area. Volunteers receive more than 60 hours of training before ever picking up the phone. We are an all-volunteer run organization, many staff members choose to assume leadership roles in the organization and/or to become staff trainers.

We offer volunteer orientation/training sessions several times per year. Sign up for our mailing list to receive orientation and training date announcements at http://theear.org/contact-usAdditional information is available at http://theear.org/volunteering/ or by email at ContactUs@TheEar.org

SandCastles Grief and Support for Children and Families (Henry Ford Hospice, Detroit MI)

SandCastles Grief Support Program, established in 1997 by Henry Ford Hospice, believes that every child and teen deserve the opportunity to grieve in a supportive, nurturing environment. Grieving youth ages 3 to 18 are offered a safe place where they can interact with peers who have experienced similar losses, learn lifelong coping skills, and begin a healthy healing process. Participants learn how to identify and express their feelings and, in doing so, empower one another.

Have a caring heart for children? Looking for a way to give back to your community? There are many important ways to support grieving children and families with SandCastles. We recognize the individual gifts and talents of our volunteers bring strength to our program. Please share your ideas and skills with us! You can get involved in one of these roles: Group Facilitator, Program Aide, SandCastles Camp Volunteer, Administrative/Event Volunteer. All volunteers must attend an Orientation session prior to being assigned a role. All volunteers interested in becoming a facilitator at program or camp must complete our Volunteer Training. For information go to https://aboutsandcastles.org/get_involved/volunteer/.

Ele's Place, Bereavement Peer Support Groups - Ann Arbor, Grand Rapids, and Lansing

In 1991, a group of committed community volunteers in Lansing, MI, came together to support children in the area who had experienced the death of a parent, sibling, or someone else close to them. Named for Helen Louise Snow Stover, nicknamed Ele, who had died at just 11 months old, initial programming at Ele's Place served many children in the Lansing area, including Ele's three oldest siblings. Today, with 30 years of history, and more than 30,000 individuals served, four branch locations across the state of Michigan, Ele's Place provides onsite and school-based bereavement programming for children ages 3-18 who have experienced a death in their lives. These programs are provided at no cost to our families, and provide children and teens an opportunity to safely grieve. Ele's Place is a non-profit, community-based organization dedicated to creating awareness of and support for grieving children and their families.

Ele's Place offers a variety of volunteer opportunities for men and women who want to make a positive difference in children's lives. Whether they are serving as a support group facilitator with one of our bereavement groups, representing Ele's Place as an outreach ambassador at community events, or helping with fundraising events or clerical support in the office, our volunteers all play a critical role in helping grieving children cope with the challenges they are facing. If you would like to get involved with an organization where you can make a real difference in children's lives, please consider volunteering with Ele's Place. Please be aware that available opportunities may vary between branch locations and time of year. Each branch will communicate with local volunteer applicants as needs arise. Ele's Place will consider each applicant on a case-by-case basis, and reserve the right to select individuals based on

the best fit for the organization. To work directly with the children, we ask that our volunteers make a minimum commitment of 9-12 months and undergo an extensive training and interview process. For more information go to https://www.elesplace.org/about/get-involved/volunteer-opportunities

Turning Point, Mt. Clemens, MI

Turning Point empowers survivors of domestic and sexual violence through comprehensive services and resources while advocating for community action to end oppression and violence. Our vision is a just and equitable society free of domestic and sexual violence. We cannot do this work alone, and rely heavily on volunteers to help us support survivor and program needs. With a variety of programs supporting survivors there are many different ways to get involved with our mission. Indirect Service volunteers donate their time completing administrative tasks such as shredding, organizing, or making copies. They also represent Turning Point at community events at information tables passing out information about our agency to assure that all survivors are aware of our free services. Indirect service volunteers attend a half day training to learn more about the agency mission, programs, and ways to help. Direct Service volunteers work directly with survivors seeking services throughout the agency. They may answer the 24-hour hotline, provide Personal Protection Order assistance, help with childcare. etc. Direct service volunteers attend a comprehensive training to be equipped to provide support to survivors. Volunteers are also an essential part of the operations of our Second Hand Rose resale shop. The store is always looking for dedicated volunteers to help accept donations, greet customers, along with a variety of other tasks.

If you are interested in joining our volunteer team, go here <u>https://turningpointmacomb.org/volunteer-application-2/</u> to fill out an application. Information about scheduled training sessions is available at <u>https://turningpointmacomb.org/volunteer/</u>

Crisis Text Line

Crisis Text Line is the free, 24/7 text line for people in crisis in the United States. The service is powered by volunteer Crisis Counselors who work remotely anywhere with a computer and secure internet connection. Crisis Counselors answer texts from people in crisis, bringing them from a hot moment to a cool calm through active listening, collaborative problem solving, and safety planning. Volunteers commit to 200 total hours, serving a recommended 4 hours/wk. to meet this requirement. Crisis Counselors must be 18 or older and have a US Social Security Number. This training is free for you, but it costs Crisis Text Line \$1,008 to train each Crisis Counselor. We therefore need volunteers to see training through to the end and serve out their 200-hour commitment. Volunteers do 30 hours of webbased training before being eligible to take crisis text calls. For more information, go to https://www.crisistextline.org/become-a-volunteer/

Michigan State University Center for Survivors

The Center for Survivors is honored to work with sexual assault survivors and all others who are impacted by sexual violence. We provide free and confidential individual counseling, advocacy, and support groups to MSU students and community. Our 24-hour hotline, crisis chat, and advocacy services are offered to anyone in the greater Lansing community.

The MSU Center for Survivors has volunteer positions that will help you develop practical, workrelated skills while providing essential services to people in need and reducing violence in the campus community. Service areas include: 24-hour crisis hotline; Crisis Chat – available 10am-10pm, 7 days per week; Peer education and outreach; Medical Advocacy at the MSU Sexual Assault Healthcare Program. MSU students, alumni, faculty/staff, and community members are eligible to volunteer with the SACI team. SACI advocates must complete the comprehensive 40-hour training before providing crisis intervention services. They must attend weekly SACI volunteer meetings, sign up for two shifts a month, and give a 1-year commitment. For more information go to https://centerforsurvivors.msu.edu/volunteer/index.html

Opportunities in Other Parts of Michigan

There are many other advocacy opportunities in other parts of Michigan and in other states. Below are some other Michigan opportunities. If you decide to look into one of these, once you have the details about what training/volunteering will entail, we would be happy to discuss whether this meets our advocacy requirement.

- Dial Help: Includes victim service unit volunteer, helpline volunteer, sexual assault response team volunteer, and others. In Houghton, MI. For more information go to <u>https://dialhelp.org/volunteer</u>
- Central Michigan University Sexual Aggression Peer Advocates. Must be a CMU student. For more information go to: <u>https://www.cmich.edu/offices-departments/sexual-aggression-peer-advocates/get-involved</u>
- RAINN is a national sexual assault hotline that partners with organizations across the country that provide sexual assault crisis counseling services. Information about volunteering is available at https://go.rainn.org/l/699033/2021-01-13/5ql5p
- Volunteer Center of Greater Battle Creek and Kalamazoo: Website includes a wide variety of volunteer opportunities, including crisis counseling opportunities (with training). For more details, go to <u>https://go.gryphon.org/</u> and <u>https://go.gryphon.org/need/</u>
- For a listing of coalitions and crisis lines in Michigan by county go to <u>https://www.michigan.gov/mdhhs/safety-injury-prev/injuryprevention/programs/suicide-prevention-a/suicide-prevention/coalitions-and-crisis-lines</u>

Opportunity in Windsor

 Distress Centre of Windsor. Offers a crisis line, text line, and online chat service. For information about volunteer opportunities go to <u>https://www.downtownmission.com/getinvolved/volunteer/</u>

National Opportunities

- Hospice Foundation of America. Website that provides background information on how to find volunteer opportunities with hospice organizations and general requirements <u>https://hospicefoundation.org/Volunteer</u>
- Crisis Text Hotline (see details listed under Michigan opportunities) <u>https://www.crisistextline.org/volunteer/</u>
- Suicide Prevention Lifeline. Network of crisis centers across the U.S. A crisis center is a resource for individuals going through mental health crises. They provide mental health services and emotional support for their state or local communities. Most crisis centers are non-profit and many utilize trained volunteers as well as mental health professionals. Search by zip code to see if there is a center in your area and then look for volunteer opportunities. <u>https://suicidepreventionlifeline.org/our-crisis-centers/</u>
- The Trevor Project: The mission of the Trevor Project is to end suicide among lesbian, gay, bisexual, transgender, queer and transitioning young people with a vision of a world where all LGBTQ young people see a bright future for themselves. The goal is to serve 1.8 million crisis contacts annually by the end of their 25th year. Volunteers serve on the front lines working one on one with LGBTQ young people to help them navigate tough times and to prevent suicide. Over the past years, volunteers helped answer over 200,000 calls and text. To learn more about volunteering go to https://www.thetrevorproject.org/volunteer/

Genetic Counseling Resource List

Information for Applicants

Accreditation Council of Genetic Counseling's List of Accredited Programs <u>http://gceducation.org/Pages/Accredited-Programs.aspx</u>

National Society of Genetic Counselors Become a Genetic Counselor Resources <u>https://www.aboutgeneticcounselors.org/Resources-to-Help-You/Post/who-are-genetic-counselors</u>

Association of Genetic Counseling Program Directors Information on Applying to Programs <u>https://agcpd.org/prospective-students/</u>

Information about the Career

Article and Newscast: Genetic Counseling Field to Rapidly Expand: <u>https://www.cnbc.com/2017/08/02/genetic-counseling-field-to-rapidly-expand.html</u>

Article: Genetic Counseling Growing Area of Opportunity <u>http://www.sciencemag.org/careers/2016/06/genetic-counseling-growing-area-opportunity</u>

Article: Genetic Counselor Interview (with Nancie Petrucelli, a WSU Genetic Counseling Program faculty member) <u>https://www.jyi.org/2017-april/2017/5/2/a-marriage-of-psychology-and-genetics-the-field-of-genetic-counseling?rq=nancie%20petrucelli</u>

Article: Genetic Counseling 2.0. <u>https://www.clinicalomics.com/magazine-</u> editions/volume-6-issue-number-6-november-december-2019/genetic-counseling-2-0/

Web Resource: Bureau of Labor Statistics Occupational Outlook Handbook, Genetic Counselors <u>https://www.bls.gov/ooh/healthcare/genetic-counselors.htm</u>

Web Resource: About Genetic Counselors (from the National Society of Genetic Counselors) <u>http://www.aboutgeneticcounselors.com/</u>

Video: All about Genetic Counseling. What it is, how to get into a program, average salary. <u>https://www.youtube.com/watch?v=oQND1JjT55U</u>

Video: What is a Genetic Counselor? (from the National Society of Genetic Counselors) https://www.youtube.com/watch?v=GDjLazXGVos

Video: What is Genetic Counseling? Jaclyn Haven, TEDxHelena (TED talk) <u>https://www.youtube.com/watch?v=7yIWoL9dLCQ</u>

Video: Should you Be a Genetic Counselor? https://www.youtube.com/watch?v=4pmSTspFtFQ

Video: Career Story- Genetic Counselor. https://www.youtube.com/watch?v=LQRXB2ZcmXc

Video: Genetic Counselors Share the Hardest Part of the Job. <u>https://www.youtube.com/watch?v=jbV2EgE40fc</u>

Article/Video: Lab Genetic Counselors Play a Critical Behind-the-Scenes Role. <u>https://news.sanfordhealth.org/health/genetics/lab-genetic-counselors/</u>

American Board of Genetic Counselors Spotlights (series of short, personal stories about being a certified genetic counselor) <u>https://www.abgc.net/for-diplomates/diplomate-spotlight/</u>

Patient /Genetic Testing Stories in the News and Personal Stories

Video: Navigating Genetic Disease Testing: A Personal Story. https://www.youtube.com/watch?v=5_O5TfMVqD8

Article: What Your Doctor Isn't Telling You about 23andMe and Other Genetic Tests. <u>http://www.rd.com/health/conditions/genetic-tests-worth-it/</u>

Article: Can Genetic Counselors Keep Up with 23andMe? <u>https://www.theatlantic.com/health/archive/2018/05/can-genetic-counselors-keep-up-with-23andme/560837/</u>

Article and Newscast: Two Women, Two Results: The Agonizing Wait for Cancer Gene Tests <u>http://www.nbcnews.com/nightly-news/two-women-two-results-agonizing-wait-cancer-gene-tests-n361451</u>

Article: Are Genetic Testing Sites the New Social Networks? https://www.nytimes.com/2018/06/16/style/23-and-me-ancestry-dna.html

Series of Articles: Special Report: Genetic Testing Goes Mainstream. Series of articles on different aspects of genetic testing. <u>https://www.sciencenews.org/article/consumer-genetic-testing-ancestry-dna</u>

Newscast: Forward Focus: Genetic testing inspires local mother's voluntary double mastectomy <u>https://wwmt.com/news/forward-focus/genetic-testing-inspires-local-mothers-voluntary-double-mastectomy</u> Article: Meet Your New Genetic Counselor

https://www.forbes.com/sites/insights-intelai/2019/02/11/meet-your-new-geneticcounselor/#6e94b4d6667c

Articles/Personal Stories, Centers for Disease Control and Prevention: Real Stories: The Power of Personal Stories for Communicating Genomic Information <u>https://www.cdc.gov/genomics/stories/real_stories.htm</u>

Articles/Personal Stories Children's Hospital of Philadelphia <u>https://www.chop.edu/centers-programs/division-human-genetics/patient-stories</u>

National Society of Genetic Counselors Educational Webinars for Consumers

Genetic Testing and Pregnancy: A Genetic Counselor Guides you through your Testing Options <u>https://www.youtube.com/watch?v=sLuloVWuoZQ</u>

Taking Heredity to Heart: The Role of Genetics in Cardiovascular Disease <u>https://www.youtube.com/watch?v=QH_OUdqJKoY</u>

Ancestry and Other Direct-to-Consumer Genetic Testing https://www.youtube.com/watch?v=hVnkChjgBEk&t=49s

Genetic Counseling Training and Practice Resources

Accreditation Council of Genetic Counseling Practice-Based Competencies (Knowledge, skills and attitudes students must have upon completion of a genetic counseling program) <u>https://www.gceducation.org/wp-content/uploads/2019/06/ACGC-Core-Competencies-Brochure 15 Web REV-6-2019.pdf</u>

National Society of Genetic Counselors' Code of Ethics (Document that clarifies and guides the conduct of genetic counselors so that the goals of the profession might be best served) and Conflict of Interest <u>https://www.nsgc.org/Policy-Research-and-Publications/Code-of-Ethics-Conflict-of-Interest</u>