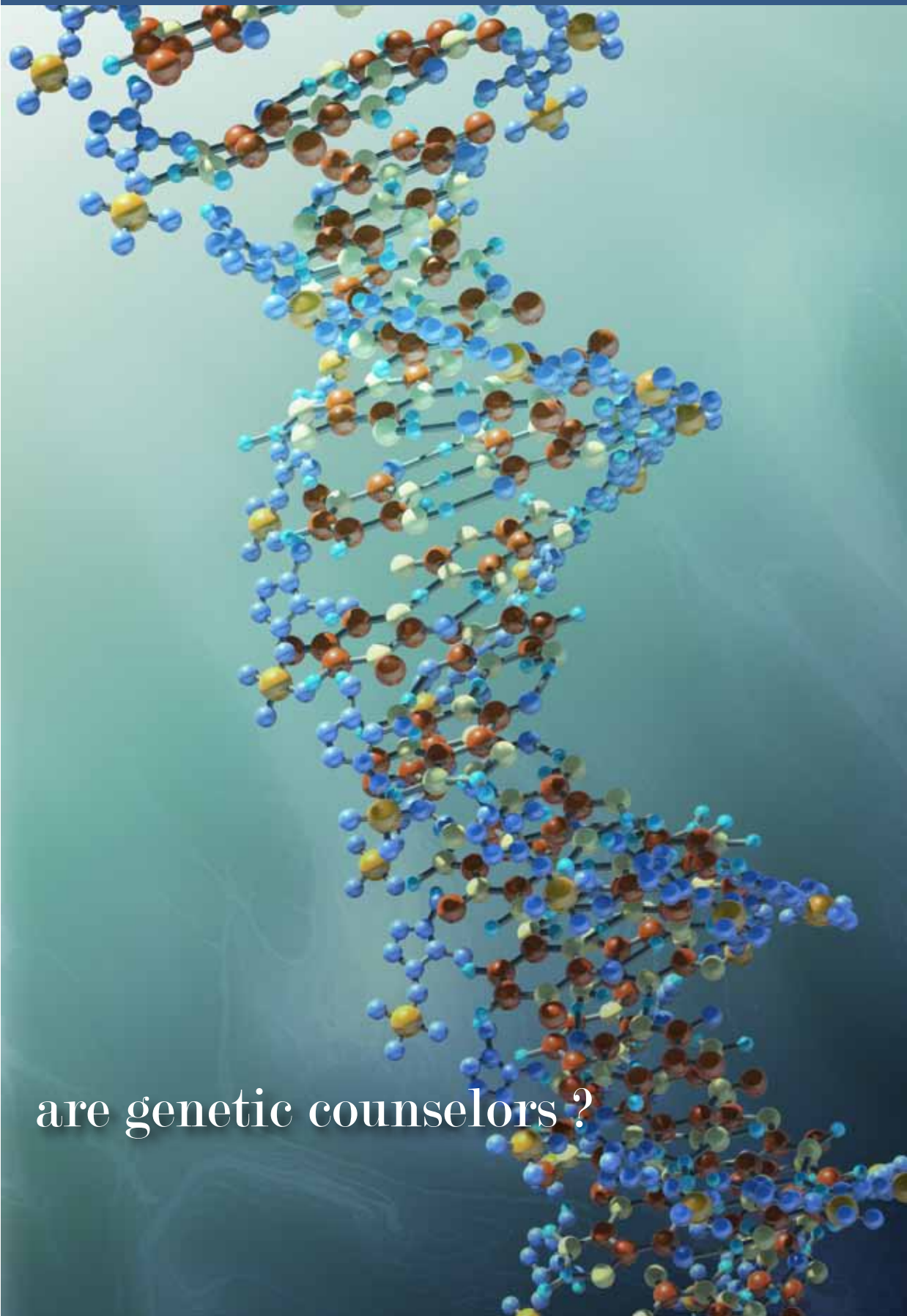


who . . .



are genetic counselors ?



Genetic counselors are Master's-trained health care professionals who combine their knowledge of basic science, medical genetics, epidemiological principles, and counseling theory with their skills in genetic risk assessment, education, interpersonal communication and counseling to provide services to clients and their families for a diverse set of genetic or genomic indications.

Genetic counselors help people "...understand and adapt to the medical, psychological and familial implications of genetic contributions to disease." The process of genetic counseling "... 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, 2006.*)

Genetic counselors are employed in many settings such as medical centers, physician offices, health maintenance organizations, advocacy organizations, governmental agencies, public health departments and biotechnology companies. Those in clinical practice provide education and counseling in areas including reproductive genetics, infertility and preimplantation genetic diagnosis, pediatric genetics, newborn screening follow-up, cancer genetics, neurogenetics, and cardiovascular genetics. Many genetic counselors are actively involved in teaching and research. The profession is growing rapidly with the number of certified genetic counselors increasing over 400 % since 1992.

Why genetic counseling?

Genetic counselors possess the expertise and skills necessary to be key players in the integration of genomics into health care and in personalized medicine. As a result, opportunities for genetic counselors will continue to grow. In addition, job satisfaction is high in genetic counseling.

Eighty-nine percent of clinical genetic counselors and 87% of non-clinical genetic counselors reported that they were satisfied or very satisfied with their job in a 2010 survey. Respondents were most satisfied with the following aspects of the profession: counseling patients, learning opportunities, scientific content, and the opportunity for personal growth (*National Society of Genetic Counselors 2010 Professional Status Survey*).

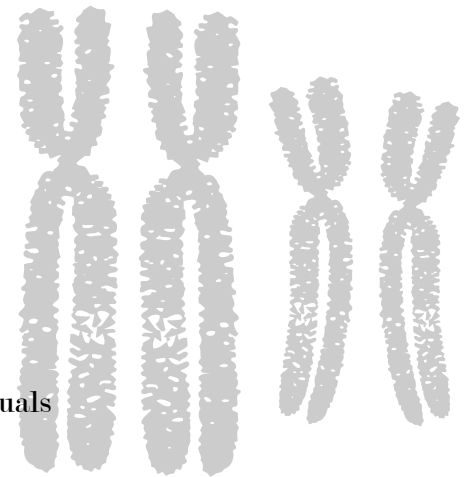
Genetic Counselor Education

Currently, there are over 30 accredited genetic counseling programs in the United States and Canada. They are located at both private and public universities. Programs differ with regard to coursework requirements and the types of clinical experiences available; however, all have to meet the same accreditation standards set by the American Board of Genetic Counseling. Only students who have graduated from an accredited program are eligible to take the national genetic counselor certification examination. To find the list of accredited programs with links to each program's website go to www.abgc.net.

What are the admissions requirements?

Generally, applicants must have a 4-year baccalaureate degree and undergraduate coursework in biology, chemistry, organic chemistry, biochemistry, genetics, statistics and psychology. Individual programs have specific requirements. However, typical requirements include the following:

- The Graduate Record Examination (GRE) General Examination
- The TOEFL Examination (International students)
- Transcripts from all undergraduate and graduate institutions
- Letters of recommendation (usually 3)
- A personal statement
- Advocacy work such as volunteer counseling and/or experience with individuals who have genetic conditions or disability
- Evidence that the applicant has taken steps to explore the field of genetic counseling through experiences such as job shadowing/speaking with a genetic counselor.
- Research and/or laboratory experience can also strengthen an application



For questions about program-specific admissions requirements, contact the program directly.

Applicants should review each program's admissions criteria before applying.

Who gets accepted to genetic counseling programs?

The table below describes the average (mean) attributes of those who applied and those who were admitted to genetic counseling programs in 2010 (provided by the Association of Genetic Counseling Program Directors). Keep in mind that these are averages. Some matriculants have higher and some have lower GPA's and scores than those listed.

	All Applicants	Matriculants (Admitted)
GPA (Mean)	3.4	3.5
GRE Verbal (Mean)	63%	72%
GRE Quantitative (Mean)	61%	65%
GRE Analytical (Mean)	51%	60%

The most common undergraduate majors among those admitted were biology, genetics and psychology. However, the applicant pool includes individuals with a broad variety of majors and degrees. Diversity in educational background is welcomed by programs.

In 2010, the 32 programs received 2712 applications representing 731 unique applicants. Two hundred and thirty applicants were accepted (31.5%).

What can I do to improve my chances of acceptance?

- Apply to more than one program. In general, those who apply to 4 or more programs are more likely to be admitted than those who apply to 1-2. A 2004 study of genetic counseling students showed that those who were first time applicants had applied to an average of 4-5 programs and were accepted on average by 1-2. Those who were repeat applicants had applied to an average of 6 programs and were accepted by an average of 2-3 (Lega et al, 2005). Although not assessed in the Lega study, anecdotally, successful re-applicants have also improved their qualifications based upon program director feedback.

- Contact the programs to make sure you are familiar with and are fulfilling their specific requirements.

- Familiarize yourself with the profession. Review the National Society of Genetic Counselors' (NSGC) code of ethics, position statements, and policy statements. Read the genetic counseling literature. Job shadow, volunteer with or speak to a genetic counselor. Many genetic counselors are very willing to talk to potential applicants. To find links to information about genetic counseling or to contact a genetic counselor in your area go to the National Society of Genetic Counselors' website at www.NSGC.org.

Other Considerations

- Costs associated with tuition and living expenses and the availability of financial support/scholarships/assistantships vary between programs. Take these factors into consideration before you apply.

- You do not need to apply immediately after college to be a successful applicant. Although a majority of students enter programs right after completing their undergraduate degree, many enter a year or two after graduating or several years later after having significant work or professional experience. Such applicants are viewed favorably.

For more information, please contact a genetic counseling graduate program directly.

References:

National Society of Genetic Counselors' Definition Task Force: Resta, R., Bisecker, B. B., Bennett, R. L., Blum, S., Hahn, S.E., Strecker M. N., and Williams, J.L. (2006). A new definition of genetic counseling: National Society of Genetic Counselors' task force report. *Journal of Genetic Counseling* 15(2), 77-83.

Lega, M., McCarthy Veach, P., Ward, E., LeRoy, B. (2005). Who are the next generation of genetic counselors? A survey of students. *Journal of Genetic Counseling*, 14(5), 395-407.

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