UPDATES ON BAYLOR TRAINING PROGRAM

By Andrea Harbison

The Houston and greater Texas genetic counseling communities are excited about a new training program at Baylor College of Medicine (BCM). We interviewed Dan Riconda, Baylor’s program director, to learn more about the latest developments for the program.

Where are you in the process of developing the program? DR: We obtained institutional approval from BCM of the program on June 5, 2017. We are sending a letter of intent (LOI) to the Accreditation Council for Genetic Counseling (ACGC) and hope to send the ACGC application in July.

What do you find most exciting? DR: After approximately one year, we have engaged more than 40 stakeholders in the planning, visioning, and design of a Master’s genetic counseling training program that will leverage the world renowned faculty of the BCM and the School of Allied Health Sciences. Implementing a genetic counseling training program at BCM is long overdue and playing a role in bringing that to reality has been an exhilarating and humbling experience.

What about the Baylor program will make it unique? DR: By combining the resources of the Department of Molecular and Human Genetics (DMHG) which has over 140 faculty that includes 35+ genetic counselors, the expertise of the Baylor Genetics Laboratory (which performed over 70,000 tests last year), a department that is the number one NIH grant funded genetics institution in the US, the committed leadership of the College, the clinical sites at Baylor and the affiliated hospitals, the program has the potential to be a leader in education and research in the discipline of genetic counseling.

How do you anticipate the UT and Baylor programs complement one another? DR: We have been engaged in discussions with Claire Singletary at the UT Program to identify areas of collaboration. UT has a great reputation of producing well-trained graduates and we hope to learn from their successes. In addition to graduating clinical genetic counselors, BCM hopes to utilize our expertise in research and laboratory services at the Baylor Genetics laboratory to prepare counselors for a wide array of career paths. Examples of collaborative opportunities with the UT Program now and in the future include a leadership training event, supervisor training opportunities, shared coursework (a laboratory class), and exploring availability of summer clinical training experiences. Through ongoing quarterly meetings, we anticipate exploring other opportunities in the future as well.

How many students do you anticipate admitting for your first year class? DR: 8 students in years one and two with an increase to 9 in year three.

What year is the first class anticipated to graduate? DR: Assuming we are able to enroll students for the fall of 2018, the first graduating class would be in the spring of 2020.

What is your favorite thing about Houston? DR: I have always felt a desire to give back to the profession I so dearly love. Since I began my career, I have been an advocate for the profession of genetic counseling. Fifteen years ago I was elected to the ABGC Board of Directors. During my 5 year tenure on the Accreditation Committee (three as the chair of the committee), I began to believe that I could play a significant role in the development and implementation of an MSGC training program. While working to bring a program to Florida (where I resided up until one year ago), the opportunity to come to Baylor presented itself. I was intrigued and excited by the challenge and feel fortunate that I have been given this opportunity.

What interested you about being a program director? DR: I have always felt a desire to give back to the profession I so dearly love. Since I began my career, I have been an advocate for the profession of genetic counseling. Fifteen years ago I was elected to the ABGC Board of Directors. During my 5 year tenure on the Accreditation Committee (three as the chair of the committee), I began to believe that I could play a significant role in the development and implementation of an MSGC training program. While working to bring a program to Florida (where I resided up until one year ago), the opportunity to come to Baylor presented itself. I was intrigued and excited by the challenge and feel fortunate that I have been given this opportunity.
SPOTLIGHT ON A GROWING TEXAS CLINIC

By Michelle Jackson

Over the past couple years, the genetics division at the University of Texas Medical Brand (UTMB) has dramatically grown and flourished under the direction of geneticist, Dr. Joseph Ray. Christina Falugi joined the team approximately 1 year ago as UTMB’s first cancer genetic counselor. Since then they have established three cancer genetics clinics in League City and Galveston. Christina sees both adult and pediatric patients with either a personal or family history of cancer including breast, colorectal, gynecologic, urologic, neuroendocrine, etc. Anything and everything relating to cancer comes their way, allowing them the opportunity to see a variety of patients with rare indications. Additional teams within the division include the Medical Genetics team that sees pediatric and adult patients for genetic evaluation, and the prenatal team, which includes another geneticist and genetic counselor. Christina tells us more about these unique clinics below.

CF: This year, I started performing inpatient consults to see prisoners with a personal history of cancer at the Texas Department of Criminal Justice Hospital (UTMB-TDCJ). Many of these cancer patients are diagnosed with young aggressive tumors and their medical history is usually complicated by limited to no access to healthcare prior to the start of their prison sentence, addiction to illicit drugs and alcohol, and untreated mental illness. Furthermore, obtaining a family history from these patients can often be difficult if they are not in contact with their family members. The logistics of performing these inpatient consults require a lot of coordination with other healthcare providers to ensure they receive appropriate treatment before returning to the Huntsville prison. I have really enjoyed tailoring my counseling skills to assist this population and tackling the challenges that have emerged as I build this service. We are slowly working towards establishing a way to see these patients in an outpatient setting, either in a clinic at the UTMB-TDCJ or using tele-counseling, but have not started this expansion. I am proud to be part of an institution that strives to meet standard of care for all patients no matter their social history.

The Medical Genetics team at UTMB includes Dr. Ray, Allison Britt, our genetic counselor, and Danielle Vice, our metabolic dietician. They see both pediatric and adult patients in League City and Galveston. The medical genetics team is involved in some interesting specialty clinics such as a Beckwith-Wiedemann Day offering a chance for families to meet each other and all patients to get their management and monitoring on one day. We also participate in community events like 22q at the Zoo and phenylketonuria (PKU) cooking classes. The division co-hosts the annual event Camp Phever, which began in 1996, every summer. This is a camp for children with PKU, an inborn error of metabolism that is treated with a severely restricted diet in order to prevent permanent brain damage. The camp accepts patients from all over the country from ages 6 to 18 years of age and provides a camp experience full of activities like high ropes, arts and crafts, horse riding, archery, etc. The camp also provides them an opportunity to build relationships with others that have PKU, learn more about their condition, and get exposure to foods, formulas, and medication designed for PKU that are new to the market or they have never tried before. In addition, Danielle is currently organizing the second annual metabolic summit for health care providers to learn about inborn errors of metabolism. This one-day educational conference will be held at the Hyatt Regency Lost Pines Resort on Friday, September 29th. While the event is geared towards metabolic dietitians, other healthcare providers including geneticists, genetic counselors, nurses, and social workers that are heavily involved in the care of patients with inborn errors of metabolism can come learn from experts within the field.

Our prenatal team includes Dr. Lillian Lockhart and Katherine Bridgeman, our genetic counselor who currently see patients in Galveston. We will also have another prenatal counselor joining us at the end of the month, Swetha Narayanan. Swetha will see patients in Galveston but will also counsel patients in outpatient clinics in Pasadena, Pearland, Sugarland, and Angleton.

One unique aspect about our institution is that the entire team is housed under the division of genetics. While we are a small group, this affords us the luxury of keeping up to date in areas outside of our specialties. We are also able to easily review cases of shared patients and ensure continuity of care. There have been several cases where we incidentally learned of a hereditary cancer predisposition syndrome from a patient’s medical genetics workup. Sharing a team room three days a week helps facilitate seeing the cases that overlap between the genetics specialties. We also educate other physicians at UTMB by giving grand rounds, other lectures, and providing resources to assist in identifying patients where there are concerns for a genetic condition.

Since we are a small team, we are hoping to continue to add more genetics providers to meet the demand of the high volume of referrals. We are currently searching for another geneticist and hope to continue to build a team of genetic counselors to be able to see more patients in a shorter amount of time.

It is amazing that this program has been developed and expanded so quickly, demonstrating the need for genetics services in a variety of settings. We hope to continue to share exciting updates about what is happening at UTMB as our team continues to grow.

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Texas genetic counselors, along with thousands of others, showed their support and shared photos from the March for Science-Houston. The march took place on April 22nd, 2017 at Sam Houston Park and Houston City Hall. Thank you for your representation and advocacy for the scientific community!

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STAYING INFORMED ON MTHFR

By Allison Britt

If there was a competition for which question is most frequently asked to genetic counselors, a close runner up to the winner “what is a genetic counselor?” would be “what are your thoughts on MTHFR?” Friends, family, providers, and patients ask us this question. Since MTHFR is getting a lot of publicity, it is important we, as genetic counselors understand this gene, its polymorphisms, and how it influences medical care. MTHFR is the gene that codes for the enzyme methyltetrahydrofolate reductase. It functions in the breakdown of amino acids. It processes the vitamin folate to a form that can serve as a co-factor for converting the amino acid homocysteine into the amino acid methionine. When a patient or friend Googles MTHFR they will likely see the high profile websites showing the correlation of MTHFR to many health problems including autism, clotting disorders, miscarriages, cancer, and more. Luckily, we have the support of NSGC and ACMG to help us answer this question. NSGC’s Dear Genie Series has a patient friendly segment on MTHFR. Also, ACMG has a practice guideline published in 2013 about MTHFR. The title itself is enough to calm patients’ or providers’ nerves about this mutation: “ACMG Practice Guideline: lack of evidence for MTHFR polymorphism testing.” The confusion surrounding this gene is not surprising; there are many conflicting studies that show effects from these variants. The two variants that you need to know are A1298C and C677T. These variants may modestly decrease the enzyme activity, but not enough to impact the regulation of homocysteine levels. Thirty-three percent of the U.S. population is heterozygous for one of these variants and 11% are homozygous. These benign variants in MTHFR should not be confused with the severe disorder of remethylation, MTHFR deficiency, which is an autosomal recessive disorder causing severe neurological, visual, and hematological symptoms.

The ACMG practice guideline tells us that a fasting plasma total homocysteine can clarify the effect of the homozygous C677T genotype. Patients and providers should be reassured that there is NO evidence to suggest increased risk for thrombophilia, miscarriage, or mortality due to their MTHFR genotype. Providers should be encouraged to remove MTHFR from the standard work up. Genetic counseling about the multifactorial nature of these associations is critical to provider education and patient care.

Key points:
- MTHFR genetic testing should not be included in a workup for thrombophilia or recurrent pregnancy loss
- MTHFR genetic testing should not be ordered on “at risk” familial members
- Testing a fasting total plasma homocysteine can clarify the effect of the MTHFR variants and guide appropriate counseling
- MTHFR variants do not change the recommendation that women of childbearing age should take the standard dose of folic acid supplementation

ACMG Practice Guideline:

Dear Genie series: http://www.nsgc.org/p/bl/et/blogaid=613

TSGC REPRESENTING!

The Texas Medical Association’s annual conference was held on May 5-6, 2017 at the Marriott Marquis and George R. Brown Convention Center in downtown Houston. This year, the Texas Society of Genetic Counselors represented the profession and highlighted the services around our great state by participating in the exhibitor hall. A big THANK YOU to our wonderful TSGC members Sarah Huguenard, Sandra Darilek, Theresa Wirtman, Laura Ellis, Melissa Strassberg, and Salma Nassef who volunteered at TxMed 2017 Annual Conference. We hope to participate in more events all around Texas this year to bring awareness to our profession. If you are involved in the planning of an event in your city or if you are aware of an opportunity please contact us at info@TSGC.org with details.

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Look for the next Texas Transcript in October 2017!