TABLE OF CONTENTS

FEATURE STORIES
“DiaBesties Held 5K Fun Run/Walk to Celebrate 100 Years of Insulin” 3
“Study Seeks to Identify and Mitigate Inequities Resulting from COVID-19” 5
“Faculty Use Co-Production Model to Create a Novel Curriculum for Innovations in Pediatric Health Care” 8

TRANSITIONS: PEDIATRIC TO ADULT CARE
“Transitioning Patients from Pediatric to Adult Neuromuscular Care Clinics: Lessons Learned and Improvements Made” 11

DEPARTMENT NEWS: SECTIONS & CENTERS 15
“Pediatric Research Symposium Held Virtually” 15
Academic General
“Pediatrician Helps Parents Understand Child with Autism” 16
Adolescent Medicine & Sports Medicine
“Section Chief Presents Overview and Update” 17
Cardiology
“Reading Program Launched for Patients with CHD” 19
Critical Care
“Section Members Recognized for Outstanding Achievements” 20
Global Health / BIPAI
“First Virtual CUGH Conference Held in March” 21
“Global Health Scholarship Community of Practice Fosters Collaboration” 22
“New Educational Opportunities Announced” 23
Hematology & Oncology
“Team Wins Prestigious Award” 24
Psychology
“Psychologists Suggest Ways to Accept Children with Autism” 25
Renal
“Genetic Renal Disorders Discussed on ‘Evening with Genetics’” 27
“Collaboration Targets Pediatric Renal Disease in Uganda” 28
Rheumatology
“Section Handles One of Largest Disease Burdens in United States” 29
Tropical Medicine
“New Section Head Announced” 30
“Task Force Publishes Commentary on COVID-19 Therapeutics” 30

Front Cover: Bluebonnets blooming in Texas, courtesy of Michael Knapp

Dr. Gordon Schutze, Interim Editor-in-Chief
Dr. B. Lee Ligon, Managing Editor/Graphics Design
DiaBesties Held 5k Fun Run/Walk to Celebrate 100 Years of Insulin

By Dr. Yuezhen “Lynda” Lin

About DiaBesties

DiaBesties (not = Diabetes) is the running club of the section of Diabetes and Endocrinology. We are a group of recreational runners including the dietitians, certified diabetes educators (CDE), nurse practitioners, pediatric endocrinology fellows, and faculty physicians who are directly involved in the care of children with diabetes and endocrine conditions. We try to practice what we preach!

As COVID-19 uninvitedly came into our lives since March 2020, we unavoidably faced more stresses and challenges than ever before. Running was becoming a powerful stress antidote for me. Over time, more and more of my colleagues joined my running journey, starting with one fellow, then two…. We met periodically on the weekends on the running trails. We cheered for each other and celebrated every new PR. DiaBesties proudly crossed the finish line together for the first time in 2021 Aramco Houston Half Marathon. As proud endocrinologists, we can’t deny that running is indeed the best endorphins stimulant!
Inspired by a blog written by Dr. Daniel Desalvo (https://www.texaschildrens.org/blog/celebrating-100-years-insulin), we decided to hold a 5k fun run/walk to celebrate the centennial anniversary of this landmark event, to spread awareness, and to provide support for youth and families with diabetes. The idea of fundraising derived from my personal experience with another charity’s campaign “one mile one dollar.” Our planning committee included Drs. Daniel Desalvo (faculty), Anna Cymbaluk (fellow), Reem Shawar (fellow), and myself, as well as our section’s social worker Becky Butler, who knows our patients’ needs best. Flyers and a T-shirt design were made in a heart beat. We adopted blue, the color of World Diabetes Day, for our event T-shirt and used blue/white, BCM colors, on our logo.

The 5k fun run/walk was held on May 22, 2021, at Hermann park. Despite the weather forecast of 70% rain, the event was very well attended. The participants, both in-person and virtual, included dietitians, certified diabetes educators, pediatric residents, endocrinology fellows, faculty, and their families, as well as lovely pets.

This was the Diabetes/Endocrine Section’s first outdoor group activity since the pandemic and was regarded as both a FUN-raiser and FUND-raiser. We reached our initial goal of fundraising in less than 2 hours after the flyer was posted and doubled our goal by the end of the event. If you would like to support our patients with type I diabetes, you can still do so (Venmo: @diabetesrun100). All proceeds will go directly to our patients who receive diabetes care at the TCH Diabetes Center.
Study Seeks to Identify and Mitigate Inequities Resulting from COVID-19

By Drs. Corrie E. Chumpitazi, Teresia Margareta O’Connor, and Lara Shekerdemian

In 2018, Dr. Lara Shekerdemian, Professor and Section Chief of Critical Care, established the Department of Pediatrics (DoP) Equity and Advocacy Committee (PEACE). Since that time, the committee has grown to 57 members representing 18 Sections in the DoP and other departments at Baylor College of Medicine. The mission is to foster and promote equity across faculty in the DoP, including but not limited to gender, sexual orientation, and under-represented minority groups.

As the COVID-19 pandemic continued to change people’s lives around the world, the concerns of PEACE were expanded to include the toll the pandemic was taking on pediatric faculty, both professionally and personally.

To grasp the specifics of that toll and how individuals were handling it, PEACE formed a subcommittee with specified goals: to describe the impacts of COVID-19 on faculty work productivity and caregiving responsibilities; to identify groups of faculty members at risk for widening inequities from the pandemic; and to better understand and prioritize potential strategies to mitigate the adverse effects on faculty’s academic productivity.

Studies published in 2020 were indicating that the pandemic was amplifying pre-existing inequalities in academia (salaries, service loads and teaching responsibilities, fewer published articles, less extramural funding, and increased caregiving responsibilities); profound shifts in household labor and child and eldercare responsibilities; and increased submissions for NIH grant funding and manuscripts.

### Pandemic Amplifies Pre-existing Inequalities

<table>
<thead>
<tr>
<th>Baseline</th>
<th>Pandemic</th>
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<tr>
<td>Salary inequities (women and people of color)</td>
<td>Salary cuts and reductions in employer contributions to retirement funds</td>
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<td>Greater impact for those with lower baseline salary</td>
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<td></td>
<td>Households headed by women or single woman households</td>
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<tr>
<td>Greater service and teaching loads by women</td>
<td>Increased loads with online teaching, pandemic responses, and responding to increased stress by trainees</td>
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<td>Less recognized for promotion</td>
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<td>Greater caregiver responsibilities for women</td>
<td>Increased with schools and childcare closed, working from home, and fewer options for outside help</td>
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<td>Decreased productivity (grants, papers, abstracts)</td>
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<td>Decreased conference/panel invites and decreased reviewers</td>
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<td>Longer time to promotion (or not promoted)</td>
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<td>Faculty cuts, contract re-negotiations, department cuts</td>
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<td>Likely to impact those whose productivity has dropped</td>
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Information in table taken from Malisch JL et al, PNAS, 2020
After reviewing the literature, the working group, composed of nine faculty members and two DoP staff members engaged in clinical, educational, and research efforts, representing both junior (instructor, assistant professor) and senior (associate professor, professor) faculty, designed a self-report survey for a cross-sectional study.

Based on published recommendations that informed its development, the survey was designed to help identify widening inequities due to the pandemic and to assess descriptors of the faculty, changes in caregiving needs, changes in job productivity, and perceived changes regarding the faculty member’s ability to move forward with promotion as planned. Its goal was to identify groups that are at high risk for widening inequities and to understand preferred strategies to mitigate those inequities. It was reviewed by seven other faculty members, men and women who are clinicians, researchers, educators, and leaders.

To accommodate different needs of the large and diverse faculty, the survey branched such that only those with caregiving needs received the questions regarding changes in that area and only those with ≥10% effort in clinical, teaching, or research were queried about those areas. It was sent to 1226 faculty members of the DoP during December 2020, and 482 (39%) responded.

Most faculty reported being responsible for ≥50% of the necessary caregiving and household needs, with women and junior faculty carrying the greatest burdens. More women compared to men (p<0.001), and more junior faculty compared to full professors (p=0.01) reported that their caregiving responsibilities increased substantially.

Compared to men, women were 2.8 more likely to report increased teaching quality. Whereas more than 80% of faculty reported a decrease or no change in clinical productivity, women had 2.4 greater odds of reporting an increased clinical productivity when compared to men. Faculty with ≥10% effort in clinical, research, or teaching responsibilities reported different one-year outlooks in each of their work contexts, with a fair-to-poor outlook reported by 20.5% for clinical, 41.3% for research, and 22.0% for teaching. Faculty members' outlooks for research were worse than the outlook for clinical or teaching contexts (p ≤0.001).
More than a third of the faculty reported being concerned that their plans for promotion would be delayed due to the impact of the pandemic on caregiving, research, or teaching efforts and/or that moderate or significant impact on the ability to fulfill job responsibilities to the best of their ability. This was a greater concern for junior faculty and those with increased caregiving responsibilities.

In addition to the questionnaire portion, the survey included a list of potential mitigations of the pandemic's impact on faculty productivity and well being, derived from the published literature and adapted for the sample. Faculty were asked to identify which mitigation(s) they considered most or least helpful, using a Likert scale of 1-4, and were invited to offer write-in responses for other mitigations they considered to be beneficial.

The mitigations identified by women as being most helpful, taken from the predefined list, were flexible work hours, acknowledged adjustment in expectations from the section chief, clear communication of expectations by departmental and section leadership, and an off-line day.

Least helpful mitigations were broader dissemination of career-development virtual opportunities; identification and highlighting of role models; webinars and other wellness opportunities; offers of extension to the tenure track; adjustment of promotion requirements only for faculty greatly impacted by the pandemic; peer support groups; expanded elder care support; and webinars or podcasts for time management.

In addition, write-in responses described several challenges and frustrations that faculty faced during 2020. The themes centered primarily on six main domains, indicating a need for: communication and system-wide messaging; adjusted expectations for promotion; flexibility and ability to work from home; childcare, eldercare, and domestic support; increased availability of support services (including IT support); and acknowledgement of the multiple effects of the pandemic.
Faculty Use Co-Production Model to Create a Novel Curriculum for Innovations in Pediatric Health Care

By Drs. Parag Jain and Javier Lasa

Healthcare systems currently face unprecedented demands to improve access and quality, reduce harm, increase efficiency while eliminating waste, and ultimately lower costs. These challenges have brought a renewed focus on innovation and multidisciplinary collaboration as an alternative strategy to traditional solutions of specialty silos. The introduction of non-traditional elements into the solutions model has extended beyond the medical campus and now includes undergraduate students who, along with their faculty, play a vital role in conceptualizing and developing innovative technologies for healthcare use. Yet, due to insufficient exposure to clinical context, these innovators face challenges to prioritizing needs, creating practical solutions, or addressing the “true” problems through healthcare providers’ perspectives.

Baylor College of Medicine critical care pediatricians Dr. Parag N. Jain, Asst. Professor (pictured, top), and Dr. Javier Lasa, Asst. Professor and Co-Director of the Cardiac Informatics & Data Science Team at Texas Children’s Hospital (TCH) (pictured, bottom), have devised a novel curriculum for healthcare innovation to address these pressing needs. The curriculum leverages a co-production model to facilitate collaboration between clinicians at BCM/TCH and innovation sciences experts at Rice University (Biomedical Engineering/Medical Humanity/Data Science). Using design-thinking principles in the clinical environment, the curriculum was co-produced between Rice University students and Critical Care faculty at BCM/TCH, as well as, Dr. Kirsten Ostherr (Humanities) and Dr. Sabia Abidi (Biomedical Engineering) at Rice University.

For the inaugural class, four students (two from biomedical engineering and two from medical humanities) were selected through a rigorous application process. These four students demonstrated great interest for innovation and were eager to co-create the curriculum along with the faculty. Given that the immersive experience of shadowing with clinicians as they made in-hospital rounds to gain first-hand clinical experience was not possible due to the COVID-19 pandemic restrictions, students engaged with the program through a virtual experience in January of 2021.

Each day, students participated in interactive lectures from clinical faculty, acquainting them with clinical environments and common scenarios. Subsequently, the students gained clinical experience during an intense 3-week period of observed actual bedside rounds within the critical care units, virtually. At the completion of each clinical round, students had a 1-hour debrief session with mentoring faculty. Through this bi-directional dialogue, students integrated their individual reflections on their observations of medical rounds with feedback and clarification from the faculty, and they identified potential areas for innovation to enhance medical care.

Students also had the opportunity to engage with other stakeholders (e.g., RN, pharmacist, respiratory therapist, parents) and local/national clinical experts to gain additional insights. Students then identified three domains that could benefit from potential innovative change: preventing and managing delirium in the critical care setting, increasing family engagement, and overcoming obstacles to clinical recovery in the ICU.

The inaugural curriculum experience was novel, exciting, and engaging for the students and faculty at both Rice University and BCM/TCH. The unique perspectives brought by the non-clinical partners uncovered many aspects of medical care that can remain hidden to clinical teams.
A comprehensive program evaluation was conducted to assess the progress and outcome of the curriculum. Some of the student reflections about the program included:

- “Being introduced to the ICU workflow and communication patterns and simultaneously being asked to be critical of that workflow/those communication patterns led to a lot of insight I think and helped me understand why things are the way that they are while also getting to contribute my own perspective.”
- “Observing the PICU in addition to the CICU was also extremely helpful for broadening the scope surrounding the issues we were trying to identify.”
- “The multidisciplinary nature of faculty and students was one of the most important aspects of the program for me. Having wider perspectives and experiences to draw on and be exposed to while thinking about needs in the ICU expanded my view greatly.”
- “The openness in structure and topic in the beginning of the program was slightly uncomfortable, in that we weren’t used to the co-production model of education (not something I had experienced before in my education). However, I think this discomfort and instability was actually very crucial in the learning process. What we will experience in the outside world, especially after medical school, will not be structured and require us to set our own timelines. Having experienced this openness and freedom in a way will be very helpful in the future since we experienced it at least once before through this program.”
- “Overall, I learned that it’s always good to ask questions regarding how things operate especially when entering a new environment because there’s always potential for improvement. Additionally, I realized that it’s essential to incorporate human factors when making decisions regarding innovation within healthcare.”
- “Lastly, another extremely valuable aspect of this program were all of the new connections we were able to make with medical professionals both internal and external to TCH.”
The figure is an example of a student’s reflection from clinical immersion, highlighting that student’s perspective.
Transitions: Pediatric to Adult Care

Transitioning Patients from Pediatric to Adult Neuromuscular Care Clinics: Lessons Learned and Improvements Made

By Diane V. Murrell, LCSW

Therapeutic advancements have led to increased survival among individuals with childhood neuromuscular disease, placing a burden on pediatric facilities to care for adults with childhood diseases. For instance, 85 percent of children with Duchenne Muscular Dystrophy are surviving into adulthood and, along with patients having other neuromuscular diagnoses, must be transitioned to adult care to ensure that they are seen in developmentally appropriate settings. Effective transfer from pediatric to adult care is a crucial step to ensure successful first visits with the adult provider, thus establishing on-going care.

TCH has more than 500 patients in the neuromuscular care clinic. Standards of care require two or more visits per year for each patient in this clinic, and with the increased numbers of new diagnoses, the clinic maintains capacity. Transfer of adult patients allows for increased focus by both the pediatric and adult centers on delivering age-appropriate quality care. Dr. Timothy Lotze, Professor, is the Director of the multidisciplinary clinic for neuromuscular care at TCH, and Drs. Colin Anderson and Lydia Sharp co-lead the adult neuromuscular clinic at BCM. Diane Murrell, LCSW, is both the clinical social worker for the pediatric clinic and a member of the annual Baylor Transition Conference advisory council.

Initial efforts to transition patients were unsuccessful for several reasons but provided key lessons for moving forward: Dr. Lotze initiated the development of a new adult neuromuscular care clinic. The pediatric clinical social worker was charged with establishing a relationship with an adult team at BCM neurology department, as the neurologist serves as the key player on the multidisciplinary team.

KEY LESSONS LEARNED

- Patients were referred to an outside organization that then referred them to an adult center. Hence, the transition was hindered by too many moving parts and lack of communication.
- The outside non-profit organization’s support staff were not trained in transition readiness and transfer of care.
- The adult clinic operated as the scheduler and failed to report to the pediatric clinic regarding barriers to care or missed appointments, so they were not addressed.
- The pediatric team was not involved in scheduling first adult appointments, and many patients became lost to follow-up. Frustrated patients asked to return to the pediatric clinic or be admitted to the hospital for care.
The social worker met several times with Drs. Anderson and Sharp to identify barriers to successful transfer and to create a clear plan to overcome them. They used a recent survey and literature review to identify some of the perceived and real barriers that families felt about transfer. Transition readiness, such as education and review of insurance and preparation for autonomy, was given to the pediatric social worker for completion. When the medical team as a unit determined a patient was ready for transfer, the social worker would schedule the patient. The goal is to transfer most patients between age 18–20 years. Exceptions are rare and usually are for either medical reasons or psychosocial barriers.

The adult team and social worker now employ a PDSA (Plan-Do-Study-Act) cycle to allow continuous revision. For example, Dr. Anderson created an Excel document in which Dr. Sharp set aside dates for new appointments. The pediatric social worker scheduled those selected dates while meeting with a patient. This process was revised to create a system-protected Drop Box that allows for real-time communication and ability for both sides to schedule according to availability. Should the adult clinic see that a month is not being filled with new appointments, it can retrieve those dates and times to use for existing patients.

Communication is HIPAA-compliant because both clinics use the same email accounts from BCM.
The program has been running for 3 years and more than 98% of targeted patients (n=82) have successfully transferred to BCM (with a few transferring to other geographic sites). A successful transfer is identified by the patient 1) not being lost to follow-up, 2) receiving or has scheduled a second adult visit, and 3) does not ask to return to the pediatric clinic. Only two patients have returned, one due to loss of insurance and one by provider request for a clinical trial. A second survey was recently used to gather patient feedback from those patients who had transferred to BCM. It provided positive results that the system is working. (Figure designed by Dr. Sharp)

**PROTOCOL OF ACTUAL TRANSFER**

The pediatric social worker meets with the patient in clinic and schedules an adult appointment based on availability of patient and adult schedule.

- The TCH providers will endorse this plan of care and be available for questions.
- The new appointment is shared in the Drop Box with the adult team.
- The patient is given the following reminders:
  - Verbal discussion and agreement in clinic
  - Endorsement by TCH provider team
  - Letter with all information in their MyChart, or by mail
  - Contact list for all needed adult service line providers (according to the diagnosis) and how to schedule.
  - The adult clinic reaches out with a text or phone call reminder.

If a patient does not show, the social worker is notified the same day by the adult provider and contacts the family to screen for barriers to care. The patient will be re-scheduled.

(Algorithm, right, designed by Dr. Anderson)
GOING FORWARD

The teams are working with adult pulmonary care at BCM to direct patients to those preferred providers with the greatest experience in neuromuscular disease such as Dr. Alapat and Dr. Shaib.

Likewise, the team recently invited collaboration with a new adult cardiology clinic. With Dr. Xie’s support, both teams will direct patients to a consistent provider who desires to build a clinic specializing in neuromuscular diagnoses who has access to the same EMR as the rest of the adult and pediatric teams through care everywhere.

It is important to build upon our relationship with adult providers and to increases communication between the clinics as a culture of continuity clinics builds an expectation in the pediatric patients that they are not being dismissed or walking into the unknown. Moving forward, the clinic director has invited the adult teams to meet patients quarterly in the pediatric clinic as a further effort at continuity of care and removing patient/family apprehensions. The first shared clinic session will be September 17, 2021.

CONCLUSIONS

In the situation of a multidisciplinary clinic with patients who have chronic illnesses, it is a natural role for a clinic social worker to focus on transition readiness and transfer of care as this provider is trained in adolescent development, family systems theory, anticipatory grief, and assessing for and removing barriers to care.

In addition to coordination of care, the social worker is skilled in supporting other life transitions such as college, work, or increased need to receive additional nursing care. The actual scheduling may be completed by any invested staff person.

Transfer is easier to manage when fewer people are involved in the scheduling. One person from the pediatric team and one from the adult provider team are sufficient.

Transfers are most often completed when scheduled from the pediatric side with the family present at the time of scheduling so all questions and concerns can be addressed.

Developing a culture of continuous care by presenting a strong relationship between adult and pediatric providers as one of connection and ongoing communication is critical to reduce patients’ apprehension about transfer.

A thoughtful and comprehensive transition plan is needed because many patients are medically fragile and have limited functional ability despite most having normal cognition. A multidisciplinary plan of care requires coordination of care that involves all pediatric and adult members of the present and future care teams.
Pediatric Research Symposium Held Virtually

The BCM/TCH annual Pediatric Research Symposium was held virtually on April 20, 2021. After opening remarks by Dr. Fong Lam, Associate Professor and Symposium Chair, the top abstract oral presentations were presented: “Aberrant fibrin clot structure in critically ill patients with SARS-CoV-2” (Dr. Lisa Brubaker); “Abnormal left ventricular strain correlates with left ventricular dysfunction but not aortic pathology in Marfan syndrome in children” (Dr. Patrick Connell); “Role of the microbiome in a novel model of gastroparesis” (Dr. Price Edwards); “Gut bile acid-FGF19 signaling is lower in preterm versus term neonatal pigs” (Dr. Caitlin Vonderohe); and “Role of the Na+/HCO3- co-transporter in glioma tumorigenesis and metabolic reprogramming” (Dr. Qi Ye).

Dr. Sujatha Kannan, Professor of Anesthesiology and Critical Care Medicine and Pediatrics, Vice Chair for Research at ACCM, and Richard J. Traysman Endowed Chair at Johns Hopkins University SOM, gave the Keynote Research Presentation, “Nanotherapies for Brain Injury: A Pediatrician’s Path from the Bench to the Bedside.” After the poster session and lunch break, Dr. Michele Mariscalco, Assistant Vice Chancellor of Health Sciences for Academic Affairs at University of Illinois Hospital and Health Sciences System and Professor of Pediatrics and Associate Dean for Systems-Based Practice at University of Illinois College of Medicine, gave the Keynote Scholarship Presentation, “Developing a Career Arc…Scholarship…Coaches and Mentors.”

The symposium concluded with with the Fellow’s Workshop presentation “Better, Smarter, Faster – Improving Your Scholarship Through Shared Experiences,” by Dr. Fong Lam.
Pediatrician Helps Parents Understand Child with Autism

Dr. Margarita Jimenez, Asst. Professor, recently shared insights for parents who have children diagnosed with autism. Noting that although these children reach motor milestones at the same times as do other babies, they experience delays in the areas of speech and social development, including limited eye contact, unresponsiveness to parents’ social interactions or reactions, and difficulty forming words. Often, a diagnosis is not conclusive, but these symptoms may lead to a referral to a developmental pediatrician, who can perform more detailed diagnostic testing and provide appropriate treatment or options for interventions.

Emphasizing the importance of early intervention, Dr. Jimenez lists some relevant resources available to help parents (see figure to right). She also addresses four “myths” that parents frequently have. **First,** she explains that no test exists that provides an unequivocal diagnosis, as autism is a complex genetic disorder with no clear indication for how environmental factors affect its development. In some cases, a pediatrician may refer the child to a geneticist for further investigation, but tests for such concerns as vitamin or mineral levels are not helpful. **Second,** for the concern about whether vaccines cause or worsen the condition, she states a firm “no,” explaining that vaccines allow all children, including those with autism, to have a healthy upbringing. **A third** question that parents often pose to Dr. Jimenez concerns whether the child should have a special diet, to which she responds that, whereas children with autism may be quite picky, they do not need a special diet and, instead, should be offered a healthy, varied diet. Supplements can be discussed with the pediatrician. **Last,** for parents who question if being reared in a bilingual or multilingual household caused speech delays, Dr. Jimenez assures them that such is not the case.

She encourages parents to remember, “you are not alone!” As a parent herself and a pediatrician, she supports parents’ rights to ask questions, share concerns, speak up if worried…and tells them, remember, “you are your child’s advocate and their voice.”

- **Early Childhood Intervention (ECI)** and other therapy groups are an important part of helping a child’s developmental progress. One’s pediatrician can refer the child to these programs while continuing to supervise your child’s care.

- **ABA (Applied Behavioral Analysis)** is a key intervention unique to children with autism. One’s physician can provide a supporting letter/referral for this service.

- **School-based enrollment** at age 3, through local public schools, will be able to further assess a child’s developmental needs and offer services in an appropriate classroom setting.

- **Autism Speaks** and other organizations provide excellent online resources to parents. Many have local chapters to help parents navigate their child’s diagnosis and growth. Also, siblings of a child with autism may need additional emotional support, as well.

- **Community resources** are important places that accommodate children with autism. Many area museums and art programs offer specific times and appropriate activities to help a child with autism have fun without becoming overwhelmed. It’s helpful to involve the whole family in these activities.
Dr. Albert Hergenroeder, Professor and Section Head, gave an overview of the Section of Adolescent Medicine & Sports Medicine during the faculty meeting held virtually on June 2, 2021. The information presented here is extracted from that presentation.

The Section is very active in Research and Teaching, as well as Clinic. Research includes transitioning patients from pediatric to adult-based care, with funding of $2.7 million from 2017 – 2021. Quality improvement includes intervention for patients/parents/providers to help improve the transition-planning process. In addition, during the past 5 years, faculty members have published 32 articles, 16 book chapters, and one book, and the Section has received the BCM Department of Pediatrics Research Mentorship Award. Teaching also is prioritized, and since 1997, the Section has taught more than 140 medical fellows and pre- and post-doctoral trainees, as well as approximately 1,900 residents or medical students as part of a 1-month required AM rotation or the sports medicine elective. Nine of the 10 eligible faculty have received at least one teaching or patient care award.
The medical care provided covers a wide range of conditions and diseases. The Section takes an interdisciplinary approach that encompasses medicine, nursing, nutrition, and psychology. One of the conditions that has accounted for the most urgent referrals is for weight loss, which increased more than 200 percent during the past 6 months. Patients are seen at several clinical sites: TCH main, West, and The Woodlands; Covenant House; Texas Crisis Shelter; Baylor Teen Health Clinics – School-Based Clinics (5 sites); and the Inpatient Adolescent Unit, Texas Medical Center. Faculty provide training in the application of primary, secondary, and tertiary treatment strategies to addressed clinical problems of adolescents and young adults. Research focuses on areas of women’s health, weight management, eating disorders, nutrition, and medical transition into adulthood.

The interdisciplinary team in Sports Medicine provides comprehensive care for acute and chronic overuse injuries and, in addition to providing medical care, offers coordinated care for athletes that includes physical therapy and sports nutrition counseling services, as well as evaluation and treatment planning for complicated complaints and more common ailments. Patients are seen at TCH Main, West, The Woodlands, Sugarland, Cyfair, and Kingwood; Texas Southern University; Baylor Teen School Based Health Clinics (3 sites); and 13 high schools for game cover and preseason exams. The program provides training in primary care sports medicine that includes clinical teaching, primary research and scholarly work, continuing medical education, and an instructional focus that promotes exercise and sports participation for individuals of all ages, including those with special healthcare needs. Research addresses innovative, effective treatments of sports injuries, including concussion, and promotion of health strategies for physical activities for children, adolescents, and young adults.
Realizing the need to bring language development and early childhood reading to pediatric heart patients, **Drs. Kriti Puri**, Asst. Professor, and **Amanda Ruth**, Asst. Professor, collaborated with partners in cardiology, critical care, and the Heart Center’s developmental care team led by **Dr. Justin Elhoff**, Asst. Professor, to create an early childhood literacy and reading program for infants with congenital heart disease (CHD).

On February 1, 2021, the team launched Books@Heart. Through this program, all infants in the Heart Center receive books, reading guidance, and language development sessions led by the team of speech and language pathologists. Parents and providers receive a reading calendar and “star” stickers to track reading sessions. Stickers and trophies are awarded to children to encourage good reading habits.

The Books@Heart program has been an instant hit among patients, parents, and providers alike. Not only is it beneficial to our patients in the long-run, but parents enjoy reading time with their babies, too, creating a special bond and sense of intimacy that is important for children who are hospitalized long-term, as is sometimes the case for patients with CHD.
Section Members Recognized for Outstanding Achievements

The Section is pleased to congratulate Dr. Fernando Stein, Professor and Assoc. Section Chief, on being the recipient of the Americanism Award presented by the National Society Daughters of the American Revolution (DAR). The DAR was founded in 1890 “to promote historic preservation, education and patriotism” and is one of the world’s largest active service organizations. The award is presented at a national level to a naturalized American citizen for extraordinary work and service in promoting the values of the Constitution of the United States of America, which are also the values of the organization.

A native of Guatemala, Dr. Stein completed his specialty and subspecialty training at Baylor College of Medicine. He is the founding member of the Section of Critical Care, the Council of Sections Management Committee, and the Committee on Membership of the American Academy of Pediatrics. He is a member of the technical advisors of the Pan American Health Organization for the Integrated Management of Childhood Illnesses, where he has been an advocate for children in impoverished environments at the global level.

The award from the DAR is the latest in his many accomplishments, including being an Honorary member of 12 international medical societies and receiving more than 30 honors and awards for his educational contributions, including the Clifford Grulee Award presented by the AAP “for extraordinary service and commitment to the cause of children.”

2021 TEXAS CHILDRENS’ HOSPITAL NURSING

National Nurses Week this year as in previous years heightens awareness of the value of nursing and emphasizes the key role nurses play in meeting health care needs. The development and advances of Critical Care as a specific field of science and practice of medicine has been possible because of the inextricable cooperation between nurses and the rest of providers with different types of licensure. The section of Critical Care is honored to be recognized in 2021 by Texas Children’s Nursing Awards:

Nurse Resident of the Year – Megan Bush, PICU
Nurse Leader of the Year – Alex Sardual, PICU
Advanced Degree Nurse of the Year – Anne Lam, PICU
Friend of Nursing – Dr. Amy Arrington, Special Isolation Unit
First Virtual CUGH Conference Held in March

The first virtual Consortium of Universities for Global Health (CUGH) Conference was held from March 12 – 14, 2021, and had a record-breaking attendance with 1,950 people registered from more than 100 countries. In addition, more than 5,000 people registered for the 30 3-hour Satellite Sessions on a broad range of contemporary global health challenges, hosted by CUGH and held between March 1 -11, 2021. Attendees shared knowledge, identified new collaborators, and heard information on cutting-edge ways to address some of the big challenges being faced today.

Global Health hosted one satellite session and two plenary sessions during the Conference:

- “Advocating for Children & Families Globally in the COVID Era and Beyond” (Satellite Session). Panelists discussed strategies to protect and expand the public health gains for child health and family health globally when health systems are challenged by COVID-19.

- “Strengthening Public Health and Surgical Care in LMICS” (Plenary). Panelists discussed their experiences in implementing healthcare systems, and strengthening initiatives in low- and middle-income countries (LMICS) regarding pediatric, obstetric, and gynecologic surgery; communicable diseases; and HIV.

- “Women Leaders in the COVID-19 Pandemic Response” (Plenary). Panelists discussed the important role women have played in the global response to the COVID-19 pandemic in the areas of vaccine research, engineering, disease modeling, and public health response.

Videos of the satellite session and plenary sessions can be viewed at https://www.texaschildrensglobalhealth.org/cugh 2021
The first BIPAI RAISE Symposium, held June 28 – July 2, 2021, aimed to catalyze the exchange of ideas through a showcase of innovative abstracts and interactive sessions, enhance education and research skills through workshops, foster a culture of scholarship, and promote a holistic approach to global health through arts and wellness. The theme for this year was, “Forging Ahead: Maintaining Excellence through Teamwork and Innovation.”

Global Health Scholarship Community of Practice Fosters Collaboration

The Global Health Scholarship Community of Practice (CoP) Program seeks to foster excitement and collaboration around scholarship among local staff across the nine countries in the BIPAI Network and faculty at BCM/TCH. The program consists of a monthly Core Series that focuses on enhancing fundamental scholarly skills and a monthly CoP session that brings together smaller interest groups to share and explore collaborations.

Ninety-two unique members worldwide have participated in eight sessions (pictured above are members participating in the Core Series #3: Coffee & Conversations – Journey as Scholars). Members have been interacting on the Virtual Home, an online platform supporting community engagement and knowledge sharing that serves as the main communication channel for the CoP Program, which also hosted the first BIPAI RAISE Symposium.

As part of the capacity enhancing efforts of the CoP Program, the Program has facilitated 20 peer coaches to support authors of 37 unique abstracts to prepare their best submissions. Peer coaches are now also supporting accepted authors to prepare e-posters and oral presentations.

To learn more about this program, please contact Drs. Diane Nguyen, Anna Mandalakas, and Satid Thammasitboon.
New Educational Opportunities Announced

Global Health Scholarship Community of Practice (CoP) Program

Global Health/BIPAI announced that they have officially launched the Global Health Scholarship Community of Practice (CoP) Program. This new initiative fosters a scholarship-rich environment among staff across the BIPAI Network. The group meets regularly to:

- create connections
- enhance their skills and knowledge in a collective learning process, and
- practice through scholarly collaboration and projects

By fostering excitement and curiosity around scholarship, participants are encouraged to transform their daily work into scholarly activities that advance Foundation work and their careers. For more information or to register, please email Dr. Diane Nguyen (diane.nguyen@bcm.edu).

Clinical Lead Forum

The BIPAI Clinical Lead Forum is an interdisciplinary Community of Practice that meets to strengthen knowledge and capacity among BIPAI clinical staff by promoting the exchange of effective clinical strategies, best practices, lessons learned, and case studies.

All materials and recording are available on the CLF Box folder. You can access through this link, even without a Box account: https://bcm.box.com/s/meaq9nnzyi5zheoxgbm3ezohm4uw6lq9

The BIPAI Newsletter, A Healthier You, is available online. It can be access here: https://bcm.app.box.com/s/wm0tilecsbgzhvt1jrkc3qyuafmalhk
The St. Baldrick’s Foundation-Stand Up To Cancer Pediatric Cancer Dream Team was recognized by the American Association for Cancer Research (AACR) with the 2021 AACR Team Science Award. BCM members Dr. Nabil Ahmed, Assoc. Professor, Dr. Meenakshi Hegde, Asst. Professor, Dr. Sujith Joseph, Asst. Professor, Dr. Will Parsons, Assoc. Professor, Bambi Grilley, Asst. Professor, and Melanie Frost were among those recognized for their contributions to and advocacy for childhood cancer research. The AACR Team Science Award recognizes an outstanding interdisciplinary team of researchers for their innovative and meritorious science that has advanced or may advance our fundamental knowledge of cancer, or a team that has applied existing knowledge to advancing the detection, diagnosis, prevention or treatment of cancer.

The Pediatric Cancer Dream Team (PCDT) was formed in early 2013 by a collaboration between the St. Baldrick’s Foundation and Stand Up To Cancer (SU2C), with the goal of helping to develop new immunotherapy approaches for high-risk childhood cancers. Since that time, the collaboration has had 319 peer-reviewed manuscripts published, submitted 44 patent applications, generated more than $118 million in additional grant funding, created a new pediatric clinical trials network, and treated more than 1,113 children through early-phase clinical trials.

The BCM team, as part of the PCDT, has discovered intra- and inter-tumoral heterogeneity in glioblastoma that leads to a critical mechanism of antigen escape; has described first-in-class bivalent CAR molecules that can recognize targets in tandem, as well as bivalent and trivalent CAR T cells to target glioblastoma and leukemia, treating and preventing antigen escape; and has a trivalent CAR T cell product being prepared for a clinical trial in patients with leukemia. In addition, the BCM team, together with the Hospital for Sick Children, discovered how locoregional delivery of CAR T cells is more efficacious and likely less toxic than is intravenous delivery. They are now recruiting patients for a clinical trial.
According to the CDC, one in 54 children in the United States has been diagnosed as having an autism spectrum disorder (ASD). Recently, members of the Autism Center at TCH posted information for parents to help them promote acceptance and inclusion of their children in everyday life. The information published herein is extracted from that post, with permission.

ASD – what is it? A neurodevelopmental disorder, ASD is characterized by deficits in social communication and interaction. April has been designate Autism Awareness Month, and numerous organizations joined in advocating for better media attention and a more informed general public. With more people becoming “aware” of autism, some agencies and individuals are hoping to change it from awareness to acceptance: Autism Acceptance Month. To that end, the Autism Center at TCH and the BCM faculty involved in it have joined efforts to identify actionable steps that can be taken to encourage greater acceptance and inclusion of individuals with ASD within our communities.

How can parents and others help?

• A good place to start is to add books that focus on varying abilities to the child’s library. Many parents already have inclusive children’s books with characters of different races, ethnicities, religions, and genders, and this is a good way to introduce the value of each child. These books can open opportunities to discuss acceptance and inclusion of children with ASD and other conditions. Two books recommend by the Center and specifically focused on ASD are A Friend for Henry and All My Stripes.

• Parents can use opportunities that arise in different settings by engaging their children in conversations when they witness another child exhibiting stereotypical behavior such as spinning while humming repetitively. Instead of ignoring the behavior or admonishing a child for staring, the parent can educate by saying something like, “Sometime people do different things when they’re feeling different emotions. It looks like she’s feeling happy. What do you do when you feel happy?”

• Everyone has the opportunity and privilege to advocate for children with ASD. Although certain services are available through the schools, often supports are not guaranteed in the community in extracurricular activities such as baseball games or birthday parties or in places of worship such as churches, synagogues, and mosques. If a parent is advocating for more inclusive accommodations, any of us can help support by listening to them, learning from them, and personally reaching out to the person in authority.
Editor’s note:

I recently watched a video posted on FB of a little boy with autism (pictured on the right) who struck out twice when he came to bat. He was pulled from the game but enjoyed watching his team mates play…and lose….the game.

At the end of the game, the other coach (of the winning team) sent his players back to the bases, called the little fellow with autism to home plate, and let him swing at the ball, which he finally hit. And all the players let him run the bases for his first “home run,” with parents on both teams cheering him on. It was a happy day for everyone, especially me, the little boy’s grandmother. There’s so much we can do to include them! (picture used with permission)

• Identify the language most appropriate for the individual: whereas professionals and parents usually use person-first language (“person with ASD”), some advocates prefer identity-first language (“autistic person”) to indicate that ASD is part of their identity. The individual’s preference should be honored.

• Rather than focusing on the deficits or challenges these children have, we can identify and celebrate their strengths. Many individuals with ASD have highly focused interests, such as technology or animals, so instead of allowing the focus to dominate their interests to the point that it interferes with their relationships, they can be encouraged to participate with other people who have similar interests, thereby opening opportunities to develop friendships. By focusing on the individual’s strengths, we help them develop a strong sense of self and achievement.

• Many children with ASD are excluded from group activities because their behaviors are considered to be outside the “norm” and cause parents and/or their children to be uncomfortable. By including them in their own children’s activities, parents open opportunities for growth for all the children and an appreciation for people from other backgrounds and experiences, as well as help to teach open-mindedness to others’ ideas, abilities, beliefs, and values.

• As these children age, they need opportunities to find meaningful places of employment and social interactions. The Department of Labor’s recent apprenticeship initiative focuses on ways to develop career paths in information technology, healthcare, and other fields.

This article was excerpted, with permission, from the blog by Drs. Rachel H. Fein, Leandra N. Berry, Robin P. Kochel, Elizabeth Klinepeter, and My-Linh Luu. More about the Autism Center can be found here: https://www.texaschildrens.org/taxonomy/term/266

The Autism Center at Texas Children’s focuses on providing care for children who have or who are suspected of having ASD.
Genetic Renal Disorders Discussed on “Evening with Genetics”

**KIDNEY ANATOMY**


On May 11, 2021, Dr. Mir Reza Bekheirnia, Asst. Professor, joined Drs. Ali Gharavi (Professor and Chief of the Division of Nephrology at New York-Presbyterian/Columbia University Medical Center) and Andre Weinstock (patient advocate and member of the Board of Directors of the Alport Syndrome Foundation) to discuss genetic renal disorders on “Evenings with Genetics.” The evening speaker series is hosted by BCM and TCH and offers the most current information on care and research advances for genetic conditions. These seminars also offer opportunities for families with members having genetic-related conditions to interact with one another as they face similar situations.

Although most cases of renal disorders result from diabetes or high blood pressure, some kidney disorders are caused by rare genetic variants. During the webinar, the panelists addressed common genetic kidney diseases including Alport syndrome and polycystic kidney disease. Dr. Bekheirnia and his colleagues discussed how genetic evaluation improves patient care in pediatric and adult nephrology.

He noted that “genetic defects play key roles in pediatric and adult kidney disorders, and a growing number of studies have evaluated the utility of clinical genetics evaluation.”

Dr. Bekheirnia is a clinical and molecular geneticist who sees both pediatric and adult patients with genetic kidney diseases. His specific clinical interest is the diagnosis and management of diseases and anomalies of the kidney and genitourinary tract (CAKUT). CAKUT is a leading cause of end-stage renal disease in children. He also performs genetic studies involving novel genes associated with nephrotic syndrome and Alport syndrome.

BCM pediatric nephrologists evaluate and treat children with congenital or acquired kidney diseases, providing outpatient diagnostic care and therapeutic intervention, education, and multidisciplinary support. The Section provides intensive care unit nephrology services, including continuous renal replacement therapy and extracorporeal liver support. In addition to providing clinical care and research programs for patients requiring chronic and acute dialysis, apheresis, and renal transplant, available at the TCH Kidney Transplant Program, the Section offers an ACGME-accredited 3-year program for fellowship training.
Collaboration Targets Pediatric Renal Disease in Uganda

Dr. Peace Amani, Asst. Professor, is collaborating with colleagues in Uganda to raise awareness of and improve care for patients with childhood kidney disease. After receiving a grant from the International Society of Nephrology’s Sister Renal Centers Program last year, they began a program that builds bridges between supporting centers, such as the Baylor Foundation Uganda, and emerging centers, such as the Renal Clinic at the Mulago National Referral Hospital in Kampala Uganda. Mulago Hospital, founded in 1913, is the main National Regional Hospital for the entire country and is a teaching hospital for the Makerere College of Health Sciences.

In an interview about the collaboration, Dr. Amani explained that early identification and management is critical to reversing or delaying the progression of the disease. Most of the children with chronic (irreversible) kidney disease in Uganda are reportedly in advanced stages of the disease, requiring dialysis and/or transplantation, neither of which is readily accessible to most of these families.

To address some of the issues, Dr. Amani and two pediatric nephrologists in Uganda have used some of the grant funds to develop an online lecture series. The interdisciplinary professional education curriculum on pediatric nephrology in resource-limited settings is being delivered as a bi-weekly virtual synchronous lectures series, using Zoom.

They also plan to use the forum to present and discuss relevant clinical cases.

The target audiences for the series are nurses, medical students, pediatric post-graduate students, physicians, and others involved in allied health professions that involve pediatric care. In addition to providing for the series, the funds are being used to facilitate both participants’ access to internet services that are need to attend the lectures and local radio talk shows to raise awareness of childhood renal disease so referrals can be made to the renal clinic when needed.

The focus for the first 2 years is the development of multidisciplinary educational exchanges between the emerging and supporting centers, which began as bi-weekly conversations. They plan to expand those communications to include invited guest speakers from the partnering institutions. Long-term goals include the development of a pediatric kidney center of excellence at the Mulago National Referral Hospital. The hope is to have a center that provides comprehensive kidney care, education for healthcare providers, and translation and scientific research. Eventually, they hope that the center will be able to provide acute and chronic dialysis and kidney transplantation.

“It’s incredibly rewarding to share knowledge and experiences that can make a difference. I am grateful to partner with a dedicated and enthusiastic pediatric nephrology team in Uganda. I am familiar with the challenges faced by my colleagues, and being able to support them – even amidst the COVID-19 pandemic and travel restrictions – has been remarkable.”

--Dr. Peace Amani
At the April 2 Department of Pediatrics faculty meeting, Dr. Eyal Muscal, Assoc. Professor and Section Head of Rheumatology, provided an overview of the Section’s mission (see box) and exciting accomplishments.

The Rheumatology Service specializes in the diagnosis and treatment of pediatric patients with diseases such as juvenile arthritis, JDMS, SLE, Sjogren’s syndrome, scleroderma, Kawasaki disease, systemic vasculitides, acute rheumatic fever, pain amplification syndromes, skeletal abnormalities, and auto-inflammatory disorders such as autoimmune encephalitis and imune-mediated epilepsy syndromes (FIRES). It provides an ACGME-accredited fellowship program and maintains clinical and basic science research.

As one of the busiest rheumatology centers in North America, it has the second highest pediatric rheumatology disease burden in the United States and one of the largest SLE clinics in North America. Patients receive multidisciplinary care.

In the area of education, the Service has maintained an active fellowship training program since 1977-78 and currently has four fellows. Interns rotate weekly. Virtual rheumatology education is provided to Texas Tech in Lubbock and El Paso. It also offers educational resources for pediatric rheumatology for providers in Latin America and Southeast Asia, as well as mentorship and ongoing guidance in sustaining a new pediatric rheumatology fellowship in the Philippines.

The Service also is one of the few centers with a translational research mission, which includes immunogenetics and biomarkers of auto-inflammatory and SLE-spectrum disorders and novel catastrophic immuno-dysregulatory conditions.

Faculty are involved in clinical research for Kawasaki disease, SLE, systemic vasculitides, and JIA, as well as national and international collaborations on macrophage activation syndrome, SLE, JIA, FIRES, and autoimmune encephalitis.

Quality improvement and care initiatives include projects funded by grants from the LIGUM Foundation, major participation in TCH and department-wide projects and research studies with Adolescent Medicine, and the initiation of collaborative work with BCM adult rheumatology to proactively transition pediatric patients.

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**Pediatrics Rheumatology Mission**

- **Clinical Care** — To provide the highest quality care for children with traditional and novel immuno-dysregulatory conditions.
- **Education** — To provide stellar pediatric rheumatology education to a wide breadth of learners in the southwest, nationally, and internationally.
- **Research** — To conduct translational and clinical research that enhances the care of children with immuno-dysregulatory conditions.
- **Community** — To partner with families and disease-specific foundations to raise awareness of immuno-dysregulatory conditions.

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Section Handles One of Largest Disease Burdens in United States
New Section Head Announced

On June 3, 2021, Drs. Gordon Schutze and Peter Hotez announced that Dr. Maria Elena Bottazzi, Professor, will assume the position of Section Head of Pediatric Tropical Medicine, effective July 1,

Task Force Publishes Commentary on COVID-19 Therapeutics

"It is a great honor to be of service and participate in this interdisciplinary initiative encompassing the health sciences, business, finance, and public policy through global cooperation, solidarity and the rapid dissemination of accurate information and best practices."

--Dr. Peter Hotez.

"Our task force is well aligned with the Commission’s goal to ensure future sustainable and efficient development, testing, financing and deployment of vaccines and therapeutics for emerging diseases"

-- Dr. Bottazzi.

The Vaccines and Therapeutics Task Force of the Lancet COVID-19 Commission, co-chaired by Tropical Medicine’s Dr. Peter Hotez and Dr. Maria Elena Bottazzi, in May published a commentary, “Urgent needs to accelerate the race for COVID-19 therapeutics,” in Lancet EClinical Medicine. Additional publications by the task force can be found at https://covid19commission.org/vaccines-therapeutics.

The Lancet COVID-19 commission, chaired by Dr. Jeffrey Sachs, has 12 task forces in total, including regional task forces as well the Task Force on Public Health Measures to Suppress the Pandemic; Task Force on Origins, Early Spread of the Pandemic, and One Health Solutions to Future Pandemic Threats; and the Task Force on Mental Health and Well-being.

An upcoming review by the Vaccines and Therapeutics Task Force is titled “Global Public Health Security and Justice for Vaccines and Therapeutics in the COVID-19 Pandemic” and is currently under consideration for publication in EClinical Medicine.
Faculty, Fellows, Residents & Staff

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Research Features

Are in

Part II