

# shade tree

C L I N I C

Annual Report 2021-2022



**“For more than a decade, the Shade Tree Clinic has afforded our students a unique learning environment where their clinical skills flourish as they provide valuable assistance to our community’s medically underserved. Participating in the Shade Tree experience offers students the unique opportunity to be responsible for a continuum of patients’ needs while they learn fundamentals of health care delivery. The experience is incredibly rewarding for everyone involved and represents the very best of Vanderbilt University School of Medicine’s mission to train future leaders in health care.”**

*Jeff Balsler, M.D., Ph.D., President and CEO of Vanderbilt University Medical Center, Dean of Vanderbilt University School of Medicine*

# Table of Contents

Mission Statement .....	5
From the Student Directors .....	6
From the Medical Directors .....	8
TeleHealth Future .....	10
Leadership .....	11
Patient Experiences .....	14
Shade Tree Departments .....	16
Shade Tree Specialty Clinics .....	23
Other Services .....	27
By the Numbers .....	30
Grant Support .....	32
Publications and Presentations .....	33
Volunteers .....	38



## Who We Are

**The Shade Tree Clinic (STC) is a free health clinic run by students at Vanderbilt University School of Medicine.**

## Our Mission

We strive to be the primary care home for underserved individuals in Davidson County by providing comprehensive care for chronic illnesses, social services, and health education. To meet this mission, STC forms interdisciplinary teams of medical, nursing, pharmacy, and law students. These students are supervised by professionals in their fields to provide healthcare and social services free-of-charge to this community. The clinic welcomes all patients, regardless of their race, residency, gender, socioeconomic status, or religious affiliation.

## Impact

Since opening, Shade Tree has provided cost-free medical, social, and pharmaceutical support to over 4,000 patients. This past year, STC was the primary medical home to approximately 280 uninsured, underserved, and homeless patients. We provided nearly 2500 medical visits last year.

# From the Student Directors

The transition out of a strictly-controlled COVID-19 pandemic into a more fluid world came with wonderful reopenings and tentative increases in staffing. The return of our first year medical and pre-specialty nursing students set an optimistic tone for a new year, even with a short pause again in the face of the Omicron variant. Yet, patients still returned in-person en masse—a wonderful reunion, even with 6-foot social distancing in place.

Despite the daily ups and downs of COVID, Shade Tree was the Little Engine That Could; chugging ahead was what we knew best. Not only did we survive the COVID waves, we thrived, leaving this memorable era with two new specialty clinics, new community partners, and more patient care options than ever. Students coming together sparked a flurry of exciting ideas, novel solutions, and passionate care. We never expected this powerful impact from our volunteers, once again collaborating in a shared, empathetic, and supportive space. Yet, from this, the Diagnostic Ultrasound Clinic and Pediatric Clinic were born, as two major examples of the steps we've taken forward.

Throughout all the progress, we were continually impressed and indebted to our many partners who made these and many other projects possible. Our partnership with the Vanderbilt Midwifery Program, through the Shade Tree Early Pregnancy Program (STEPP), continued to create opportunities for a unique set of patients to receive quality care from interprofessional students and providers. The partnership with A Step Ahead of Middle Tennessee created an ongoing long-acting reversible contraception (LARC) pipeline that continuously supplies the Gynecology specialty clinic with a significant portion of their LARCs. Dismas House, a non-profit serving formerly incarcerated men during their reintroduction to the community, became a primary referral organization for Shade Tree as we looked to expand our reach to the most marginalized in Middle Tennessee. We are honored that their participants choose to trust Shade Tree with their complex healthcare needs.

This year felt like spring; a tentative blooming after a long COVID winter. A chance to step back into a shared presence and be together again. We were once again reminded of our strength in fighting for health equity when united. We thank Drs. Robert Miller, Eleanor Weaver, and Cooper Lloyd for their guidance and expertise all year long, and are excited to announce and welcome Dr. Bobby Carew to the outstanding group of medical directors. We hold deep gratitude for all our institutional partners, including VUSM, VUSN, VUMC, Melrose Midwives, UT College of Pharmacy, and Vanderbilt Law School, among many additional community partners. And to our patients; you are our why. We could not have made it through this year without each of your patience. We can only hope that we, now together again, have served you well.

James Jordano & Shauna McLaughlin  
2021-2022 Shade Tree Co-Executive Directors



*James Jordano and Shauna McLaughlin  
Shade Tree Clinic 2021-22 Executive  
Directors*



## From the Medical Directors

As clinicians in the changing healthcare environment, we are increasingly faced with obligations that take us away from the exam room and our patients. Shade Tree Clinic, for many of us, has come to represent an outpost of what clinical medicine ought to be. Students acting in interprofessional teams, physicians, and patients come together in a unique synergy that allows the provision of care to those who need it while providing a pure way for students to build patient relationships and learn the art of medicine.

This past year has been an exciting year for us. We continue to provide comprehensive primary care to more than 280 uninsured Nashville residents. Furthermore, we are able to offer regularly scheduled specialty care in gynecology, psychiatry, neurology, physical therapy, orthopedics,



ophthalmology, dermatology, weight loss, prenatal care, and other fields.

We have witnessed students integrate new technologies into clinic including point-of-care testing technologies, telemedicine diabetic eye screenings, and automating laboratory ordering in the electronic health record. Through these improvements we are providing care that is more convenient for our patients and cost-effective.

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*Robert Miller, M.D., Eleanor Weaver, M.D., Michael Fowler, M.D., and Cooper Lloyd, M.D., MPH Medical Directors, Shade Tree Clinic*



# Leadership

## Clinic Leadership

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*Executive Directors: James Jordano and Shauna McLaughlin*

*Director of Finance: Jack McCarthy*

*Director of Operations: Sricharan Kadimi*

*Director of Patient Health Education: Annmarie Mede*

*Director of Patient Assistance Program: Julie Lee*

*Directors of Dispensary: Sarah Reed and Bushra Rahman*

*Director of Social Work: Kelsey Barter*

*Director of Community Outreach: Maddy Ball*

*Directors of Laboratory Services and Referrals: Alistair Hilton and Kelly von Beck*

*Director of Nursing: Mary Evelyn Carroll*

*Medical Directors: Cooper Lloyd, M.D., MPH, Robert Miller, M.D., Michael Fowler, M.D. and Eleanor Weaver, M.D.*

*Social Worker: Shannon Jordan, L.M.S.W.*

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## Past Executive Directors

**2021-2022: James Jordano and Shauna McLaughlin**

2020-2021: Simone Herzberg and Sarah Brown

2019-2020: Tita Gonzalez Pena and Thomas Day

2018-2019: Lauren Barr and Rohini Chakravarthy

2017-2018: Joshua Latner and Gregory Fricker

2016-2017: Joey Starnes and Tom Klink

2015-2016: Emily Buttigieg, Whitney Muhlestein

2014-2015: Mary DeAgostino-Kelly, Justiss Kallos, Mary Van Meter, Cristin Quinn, Rafael Tamargo

2013-2014: Nick Harris, Taylor Triana

2012-2013: Bharat Kilaru, Matthew Stier

2011-2012: Allison Ferreira, Paula Marincola

2010-2011: Ben Deschner, Ravi Patel

2009-2010: Jonathan Steer, Adam Wegner

2008-2009: Meredith Albin, Alon Peltz

2007-2008: Eve Henry, Caitlin Toomey

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## Board of Directors

Eleanor Weaver, M.D.

Robert Miller, M.D.

Cooper Lloyd, M.D., MPH

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## **Board of Directors (cont.)**

Donald Brady, M.D.  
Bonnie Miller, M.D.  
Andre Churchwell, M.D.  
Amy Fleming, M.D., M.H.P.E.  
William Cutrer, M.D., M.Ed.  
Cecelia Theobald, M.D.  
Catherine Fuchs, M.D.  
Consuelo Wilkins, M.D., M.S.C.I.  
Allen Naftilan, M.D., Ph.D.  
Reid Finlayson, M.D.  
Al Powers, M.D.  
Beth Ann Yakes, M.D.  
Jeffrey Stoval, M.D.  
Jule West, M.D.  
Shannon Jordan, L.M.S.W.  
Robertson Nash, Ph.D., R.N.  
Pam Jones  
Mavis Schorn, Ph.D., C.N.M., F.A.C.N.M.  
Tracy Hagemann, Ph.D.  
Alistair Finlayson, M.D.  
Neerav Desai, M.D.  
Beverly Conner  
Jennifer Streams

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## **Board of Advisors**

Sarah Brown  
Simone Herzberg  
Daniel E Sack  
Ayesha Muhammad  
Graham Treasure  
Eden Lyons  
Praveen Vimalathas  
Sachin K Aggarwal  
Samuel Ufuah  
Ellen Jennings



# Clinic Departments

## Finance

The Shade Tree finance department serves to secure funding for all of our essential programs, meticulously crafting budgets, and overseeing spending. Most of Shade Tree's programs hinges on our ability to secure funding, which primarily comes from a combination of grants, generous donations, and successful fundraisers.

Our finance department maintains vital partnerships with esteemed organizations, including the Community Fund of Middle Tennessee, Boulevard Bolt Foundation, Howard Fuchs Swim Program, and numerous other community collaborators. These partnerships provide invaluable financial support on an annual basis. An integral aspect of our role in grant management involves the meticulous tracking of data related to patient health outcomes. Through the collection and analysis of this data, we gain a unique opportunity to gauge the profound impact that Shade Tree has on our patients' well-being. This process enables us to identify our strengths and areas where improvements are needed, ensuring that we continue to deliver equitable, evidence-based care to our patients.

In the current fiscal year, the finance department achieved an extraordinary milestone by raising a record-breaking amount of funds. A highly successful benefit dinner and a dynamic 5K fundraising event, with a special focus on vaccinating the most vulnerable individuals in Davidson County, contributed significantly to this success. The department also received generous donations from dedicated Vanderbilt alumni and faculty, allowing us to make substantial upgrades and contribute funds toward the acquisition of an ultrasound machine. Additionally, in honor of the late Dr. Fowler, many individuals made contributions in his name. Through the dedication of our diverse and skilled volunteers, the finance department remains committed to pursuing innovative initiatives that enhance the Shade Tree patient experience and foster enduring relationships within our community.

*Director of Finance: Jack McCarthy*

## Dispensary

The Shade Tree Clinic dispensary serves as a comprehensive and invaluable resource, offering a wide array of over 300 medications to our patients, all at no cost. The efficient operation of this dispensary is made possible by the dedication of over 50 exceptional volunteers, comprising medical, nursing, and pharmacy students. They ensure the seamless fulfillment of medication orders for the entire Shade Tree patient panel.

Moreover, the dispensary plays a pivotal role in coordinating vaccine orders for the clinic and collaborates closely with the outreach team to ensure they have an adequate supply of vaccines for their events. Our partnership with the Patient Assistance Program (PAP) department is also vital, as it assists our patients in obtaining expensive, cutting-edge medications that may not be part of our formulary.

Furthermore, we take pride in our commitment to maintaining the highest standards of care, consistently achieving positive scores on Environment of Care surveys and excelling in our monthly MEDS survey, which is focused on the dispensary.

In our EnterpriseRx system, each medication order undergoes a fully electronic processing by our volunteers, incorporating multiple layers of safety checks. We continuously import data from the patient's Epic chart into EnterpriseRx, enabling us to proactively detect potentially harmful interactions and allergies before they pose any risk. Additionally, we have revamped our verification process, introducing a crucial step where a licensed pharmacist, in addition to an attending physician, meticulously reviews every primary care medication order before it reaches the patient. This enhanced protocol ensures that we provide our patients with timely and safe care, reinforcing our commitment to their well-being.

*Directors of Dispensary: Bushra Rahman and Sarah Reed*

## Operations

The Operations Department plays a pivotal role in supporting the seamless functioning of all other clinic departments, ensuring that our patients' needs are met effectively. Our team comprises eighteen first-year medical and nursing students who serve as clinic coordinators, responsible for welcoming and screening patients upon their arrival at the clinic. They initiate the patient visit process, liaising with various teams within the clinic, such as directing patients to the social work office or facilitating lab tests. Our clinic coordinators are the initial point of contact for patients, addressing their inquiries and concerns. Beyond regular clinic hours, we collaborate closely with acute care coordinators and patient health educators to coordinate patient scheduling. We work diligently to ensure that each Tuesday and Saturday is adequately staffed with both students and attending professionals. Additionally, we serve as the primary point of contact for volunteers.

Our department also focuses on data collection, tracking various aspects of clinic performance, and generating monthly reports detailing metrics such as health outcomes, orders, referrals, and appointments. As a department primarily focused on the behind-the-scenes aspects of Shade Tree, we have spearheaded numerous improvements in clinic flow and our ability to respond to our patients' needs. Over the past year, we have developed systems for tracking patients who haven't had recent visits, optimized appointment reminders using text messages, and provided clinical students with checklists and guides to enhance continuity of care.

The routine work of our department proved instrumental in shaping Shade Tree's response to the COVID-19 pandemic. Initially, we devised strategies to continue providing necessary in-clinic care while minimizing risks to both patients and volunteers. Subsequently, we successfully transitioned our clinic to a fully telehealth model and then the necessary transitions needed to return to in-person this year in a safe manner. This accomplishment was made possible through collaboration with our exceptional departments, allowing us to consistently identify and address our patients' needs during a year marked by significant change.

*Director of Operations: Sricharan Kadimi*

## **Patient Health Education**

Established in 2012, the Patient Health Education Program was conceived to enhance the continuity of care for Shade Tree Clinic's patients grappling with chronic illnesses, including diabetes, cardiovascular diseases, and respiratory conditions. Under the guidance of the Program Director, a dedicated team of first-year medical student patient health educators (PHEs) assumes the role of case managers for approximately 100 patients previously enrolled in the program by the clinic's Medical Directors. These patients, constituting 30% of the overall clinic population, typify a subgroup confronted with multiple chronic medical conditions, often compounded by challenging socioeconomic factors external to the clinical realm, such as immigration status, accessibility to the clinic, and employment status.

Within the clinical domain, PHEs primarily serve an educational function. Both of Shade Tree's bi-weekly clinics are consistently staffed by PHEs, often accompanied by one of Vanderbilt's dietetic interns. These PHEs meet with each in-clinic patient currently enrolled in the program, focusing on patient-centered discussions regarding diet and exercise goals, medication adherence, health maintenance, and fostering patient autonomy in medical decision-making. Additionally, PHEs extend



their expertise to other Shade Tree patients, especially those recently diagnosed with medical conditions or prescribed new medications that necessitate additional education, such as insulin administration.

The paramount significance of the PHE's role as a case manager becomes most evident outside the clinic's confines. Throughout the entire calendar year, PHEs establish and maintain a direct line of communication between their assigned 5-7 patients and Shade Tree Clinic. In this capacity, PHEs develop personal relationships with their patients, regularly sharing laboratory results, assisting in appointment scheduling, and promoting ongoing health progress. They facilitate discussions concerning diet and exercise objectives, medication education, compliance, and triage acute complaints between scheduled clinic appointments. This proactive approach serves to minimize emergency department utilization and any lapses in patient care, ultimately bolstering the overall health and well-being of our patients.

*Director of Patient Health Education: Annmarie Mede*

## **Social Work**

The inception of the social work department at STC was driven by our commitment to addressing the social determinants that profoundly impact our patients' health. Our dedicated team of trained students collaborates closely with a licensed social worker, collectively focused on identifying and alleviating the influence of social factors on our patients' well-being. We accomplish this by facilitating connections to both in-clinic and community resources.

Our comprehensive approach encompasses a wide spectrum of resources, encompassing critical areas such as food insecurity, housing, utilities assistance, employment, mental health, transportation, substance use, and vision and dental care. Furthermore, patients benefit from the support of a health insurance navigator and a licensed attorney, enhancing our ability to provide holistic assistance. Each member of our social work department serves as an expert liaison in a specific area of need. This approach enhances patient follow-up and facilitates closed-loop communication, ensuring that patients receive the most effective support and resources tailored to their unique circumstances. Our volunteers undergo training sessions to bolster their expertise in various domains, including food resources, insurance, immigration, domestic violence, and mental health.

The social work department has made significant strides in addressing a multitude of social needs on behalf of our patients. Our efforts have included securing eyeglasses

for patients, providing bus passes and Kroger cards to assist with transportation to appointments, referring patients to community dental clinics, and distributing emergency food boxes and produce bags to combat food insecurity. Additionally, we organized our Annual Holiday Drive, contributing over 20 turkeys to support our community during the holiday season. Our commitment to addressing social determinants of health remains unwavering, ensuring that our patients receive comprehensive and compassionate care.

*Director of Social Work: Kelsey Barter*

## **Laboratory Services**

The Laboratory Services department at STC is comprised of eight dedicated medical and nursing students who assume the critical role of collecting patient labs during clinic hours. These highly-trained laboratory technicians proficiently draw blood, gather urine samples, and administer vaccines. They hold certifications for conducting “point-of-care” testing, including essential tests like urine pregnancy tests and hemoglobin A1c assessments for diabetes, enabling our patients to receive immediate, actionable results during their clinic visit. The laboratory team is mentored by 2 senior medical students who train them and also take charge of coordinating imaging studies and specialty care referrals, monitoring trends in lab test utilization, and promptly addressing any potentially hazardous lab results.

In a concerted effort to enhance cancer screening compliance, we collaborated closely with the Operations Department to establish a monitoring system for patients overdue for mammograms and colonoscopies. This system enables us to proactively reach out to these patients and facilitate the completion of these crucial health maintenance exams. Additionally, the department has taken proactive steps to educate our clinical student volunteers on the advantages and disadvantages of various in-clinic, point-of-care tests, as mentioned earlier.

To further promote positive, systems-level changes, the department has prioritized the use of FIT (fecal immunochemical test) kits for patients eligible for this form of colon cancer screening, thereby increasing colon cancer screening rates. Our lab directors diligently review all orders and referral requests to ensure responsible utilization of Vanderbilt University Medical Center resources. This comprehensive approach reflects our commitment to providing efficient, high-quality care to our patients while responsibly managing healthcare resources.

*Director of Labs: Alistair Hilton and Kelly von Beck*

## Patient Assistance Program

The STC Patient Assistance Program (PAP) team plays a crucial role in facilitating access to costly medications, often available at no cost to patients. Our primary focus encompasses medications such as insulins and inhalers, which carry significant financial burdens, typically ranging from \$200 to \$300 for a one-month supply. Additionally, our assistance extends to the procurement of prohibitively expensive medications, including but not limited to Harvoni, Truvada, Botox, Stelara, Repatha, Ozempic, and more.

Within the clinic, our dedicated PAP student volunteers actively engage eligible patients in the application process for medication assistance programs. Behind the scenes, the Vanderbilt Pharmacy PAP team provides invaluable support by diligently monitoring application statuses and managing prescription refills. Our collaborative efforts also extend to close coordination with other STC teams, ensuring the effective storage and dispensing of medications to our patients.

The overall impact of the PAP team is substantial, significantly reducing STC dispensary costs. Our estimations suggest annual savings exceeding \$500,000. This remarkable achievement is instrumental in guaranteeing access to high-quality healthcare for our socioeconomically disadvantaged patient population in Nashville.

*Director of Patient Assistance Program: Julie Lee*

A portrait of Amy Fleming, a woman with long, light brown hair, smiling warmly. She is wearing a white, textured cardigan over a dark top. The background is a soft, out-of-focus indoor setting.

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**I am always impressed with the impact Shade Tree Clinic has on our students. From students that volunteer, teach, or help raise money to support the clinic, to those who take on major leadership roles, nearly every student that graduates from Vanderbilt**”

*-Amy Fleming, M.D., M.P.H.E., Associate Dean for Medical Student Affairs,  
Associate Professor of Pediatrics*

# Shade Tree Specialty Clinics

## Dermatology

Dermatology clinic offers medical and surgical care to underserved patients while also allowing medical students to learn under the direct supervision of Vanderbilt dermatologists. Patients are seen for both acute and chronic dermatologic conditions, including skin cancer, annual skin evaluations, cutaneous infections, exanthems, and more. We maintain an inventory of dermatologic supplies and can safely perform skin biopsies, skin excisions, cryotherapy, and other minor procedures on-site at the Shade Tree Clinic. Additional dermatologic care, including Mohs surgery and nail biopsies, is arranged through Vanderbilt Dermatology.

In the 2020-2021 year, we hosted 5 dermatology clinics, with around 40 patient encounters. With the help of Vanderbilt Dermatology & Plastic Surgery, we performed several procedures at Shade Tree Clinic, including skin biopsies, skin cancer excisions, and cryotherapy, as well as had our first patient receive treatment with Mohs Micrographic Surgery thanks to Vanderbilt Dermatology's generosity. We also incorporated a project investigating disparities in dermatologic and specifically skin cancer-related care at our clinic and, working with the Melanoma Research Foundation, created clinic handouts geared towards increasing awareness for skin cancer in our patients.

*Directors: Eden Lyons & Seungyeon Jung*

## Gynecology

The gynecology clinic is held on the first Tuesday of each month for uninsured and underinsured women who have gynecologic complaints, such as abnormal uterine bleeding, pelvic pain, sexually transmitted infections, vaginal infections, infertility, and incontinence. Women are seen and examined by a team of volunteer medical students, residents, and an attending physician from the Department of Obstetrics & Gynecology at Vanderbilt. The clinic additionally provides birth control counseling, with options offered by our clinic free-of-charge, including oral hormonal agents, hormonal injections, and long-acting reversible contraception (implantable devices). The clinic also supports the primary care clinic in keeping patients up-to-date on

their cervical cancer screenings and mammograms. Further specialty care, such as gynecologic surgery, pelvic ultrasounds, colposcopies, annual mammograms, and specialty clinic visits, are scheduled at the Vanderbilt University Medical Center as needed.

*Directors: Rosie Mahoney & Shelby Crants*

## Neurology

The Neurology Clinic provides high quality care for our Shade Tree patients with neurological needs who would otherwise be unable to afford these services. We see a variety of neurological conditions, including seizures, headaches, strokes, neuropathy, and movement disorders. Once every three months, we hold a Botox Clinic for our headache and cervical dystonia patients. The botulinum toxin provides our patients with symptom relief for months while also affording students the opportunity to learn a valuable clinic procedure. In addition to medical consultation by board-certified physicians from the Vanderbilt Departments of Neurology and Neurological Surgery, patients are able to receive timely diagnostic studies, such as MRI, EMG, and vestibular tests, through free-of-charge referrals at Vanderbilt University Medical Center.

*Directors: Jackson Allen & Sara Lin*

## Ophthalmology

The Shade Tree Ophthalmology Clinic offers comprehensive eye care to all Shade Tree patients, from patients who need a new glasses prescription to patients with advanced eye disease. In partnership with the social work office, we provide free eyeglasses for our patients through the New Eyes for the Needy program. We screen patients for diabetic retinopathy during primary care visits using telemedicine where we image the retina using a fundus camera, upload the images to the patient chart and an ophthalmologist will then examine the images. We also provide eye exams to screen for glaucoma and visually significant cataracts, with patients receiving surgery and post-operative care from Vanderbilt ophthalmologists when needed. This past year, we worked with Vanderbilt optometrists to provide one patient with a year supply of scleral lenses for her keratoconus, giving her back her vision and independence. Shade Tree Ophthalmology Clinic maintains a strong relationship with Vanderbilt Eye Institute physicians, who donate their time and resources to see our patients that need more specialized ophthalmic care on a referral basis.

*Directors: George Lin & Tyler Pfister*

## Orthopaedics and Physical Therapy

At the orthopaedics and physical therapy clinic, we see patients with a variety of musculoskeletal complaints. Many of our Shade Tree patients struggle with joint pain that can affect their ability to exercise, which in turn affects their overall health. Even the ability to perform simple activities like walking up the stairs or cooking meals can be difficult with injuries. Our student teams are able to evaluate both acute and chronic injuries during a clinic visit. X-rays, CT scans, and MRIs can be obtained if appropriate. We manage our patients' problems with the help of licensed physical therapists, medication, counseling, joint injections, and even joint-replacement surgery on case-by-case bases—all free-of-charge to the patient. The orthopaedics and physical therapy clinic organizes an annual hand and sports surgery day during which Vanderbilt Orthopedic Surgeons perform cost-free surgeries for patients.

*Directors: Phil Davis, Sam Johnson, & Simone Herzberg*

## Psychiatry

“Shade Tree Psychiatry Clinic is a specialty clinic offered every month. Staffed by Vanderbilt psychiatrists and medical students, the psychiatry clinic helps provide chronic follow up for individuals with behavioral health care needs and first-time evaluation for patients with newly identified or referred mental health concerns. The monthly clinic provides a dedicated time and space towards expert consultation on the diagnosis of mental illness, optimization of psychoactive medication management, and identification of therapeutic needs requiring referral to other community resources.

During the 2020-2021 year, as we returned to in-person clinic, we continued to offer virtual appointments to increase access to psychiatric care for patients with barriers to joining the clinic in person. To better meet patients' counseling needs, we restructured our liaison with the Social Work Mental Health department to improve follow-up to therapeutic services. We continue to monitor our patients for acute mental health needs resulting from challenges caused by the COVID-19 pandemic.

*Directors: Anita Louie, Xavier Bledsoe, & Chesley Ekelem*

## Rheumatology

The Shade Tree Rheumatology Clinic recently progressed from an informal clinic to a formal clinic with official sub-specialty directorship, and has now been integrated to run symbiotically during primary care clinic. Rheumatology clinic serves the rheumatological needs of Shade Tree's patient panel, caring for patients with diseases such as rheumatoid arthritis and systemic lupus erythematosus. The sub-specialty clinic also assists in the diagnostic workup of referral patients with joint pain or concerns for possible rheumatological diseases, and assists in the follow-up and workup of patients who have a positive ANA, ESR, and/or CRP laboratory testing. In the past year, the clinic has managed approximately 20 patients, many of whom require recurrent visits, and has evaluated more than 15 referrals. Approximately 7 patients require long-term drug monitoring while on immunomodulating agents, such as methotrexate, azathioprine, and adalimumab.

*Directors: Meredith Balbach & Anna Whitney*

## Plastic Surgery and Wound Clinic

Established in 2020, the Shade Tree Plastic Surgery and Wound Clinic cares for patients with hand pathology, chronic wounds, excisional skin diseases, and other presentations within the scope of plastic surgery. With support from the Vanderbilt Plastic Surgery Department, we offer outpatient procedures under local anesthesia at Shade Tree Clinic, including carpal tunnel release, keloid excision, skin cancer excision, among others. To date, we have had the opportunity to care for 30 patients and provide 14 procedures. Co-directors of the clinic are responsible for ensuring longitudinal care, such as following pathology results and removing sutures. All clinics are led by medical students and allow both pre-clinical and clinical students to take patient histories, perform physical exams, and assist a plastic surgeon with procedures. Many students have enjoyed learning from our patients and faculty volunteers, including Dr. Brian Drolet and Dr. Galen Perdikis, about the many features of plastic surgery care.

*Directors: Ben Park & Clara Si*

## Sleep Clinic

Newly established in 2020, the Sleep Clinic at Shade Tree serves patients with a variety of sleep disorders. The clinic was created to address a growing need for sleep apnea treatment among our primary care patients. We know that uninsured populations experience sleep health disparities, including delayed recognition, diagnosis, and treatment. Prior to the inception of the clinic, only a small portion of our patients had formal sleep studies and access to CPAP therapy. Thus far, we have received 37



referrals and have coordinated sleep evaluations for half of these patients. We have been able to provide CPAP therapy to nearly all of our newly diagnosed patients in addition to providing sophisticated remote monitoring to ensure that they are getting the maximum benefit from this treatment. All of our clinic visits have been conducted via telehealth, keeping our patients safe during the COVID-19 pandemic. These visits have been led by medical students who are able to gain invaluable knowledge from our patients and from our sleep neurologist, Dr. Upender, about sleep disorders

*Directors: Jackson Allen & Sara Lin*

## Other Services

### Acute Care Coordinators

- Managed a panel of 100 English-speaking low-income patients
- Presented weekly on labs/specialty clinic visits, scheduled appointments, and placed orders for medications/labs
- Provided counseling on medications, lifestyle changes, and mental health concerns
- Triaged patient concerns to determine need for clinic versus emergent care
- Addressed social barriers to health through medication assistance programs, transportation services, grants, and other resources

*Coordinators: Carolina Gomez Grimaldi, Lauren Lambert Hatcher, Andres Frias, AJ Sermarini, John Shelley, & Carlos Ortega*

### Retinal Screening

The retina screening program at Shade Tree Clinic serves to monitor for the development of retinopathy in our patients with diabetes. Because diabetic retinopathy is often asymptomatic until the development of irreversible vision problems, screening helps us to intervene early by connecting at-risk patients with our ophthalmology clinic. Patients with diabetes are offered screening annually during their regular clinic appointments, including visual acuity assessment and retinal photos for evaluation by an ophthalmologist.

*Director: Chen Bo Fang*

## Research Department

The research directors help set research priorities for STC and support students completing quality improvement and research projects. We are in the process of building a data repository for the clinic to act as a resource for future projects. Research at Shade Tree is presented both regionally and nationally by medical students.

*Coordinators: Victor Borza*

## Spanish Services

Spanish Services is responsible for recruiting, training, and scheduling Spanish interpreters to work at clinic for Tuesday, Saturday morning, and Saturday afternoon shifts. Our responsibilities during clinic consist of interpreting during clinic visits and during other required tasks such as social work and dispensary interactions. Outside of clinic, staffed VMS interpreters (first year medical students and nurse practitioner students) are responsible for calling patients a day before clinic to remind them of their appointment or reschedule as necessary. Other responsibilities include interpreting documents on an as needed basis and triaging patients. The body of interpreters consists of medical students, nurse practitioner students, other graduate students, undergraduates, and alumnae. Before interpreters volunteer for the first time, they are screened to ensure Spanish proficiency with a written and oral exam and then provided a full-day training and orientation. During the 2019-2020 academic year, we developed a novel training and orientation system designed to further improve the quality of our service. In the past two years, we have begun implementing formal certification process to ensure that our interpreters are trained to a standard that parallels that seen at the hospital. During the pandemic, we adapted our service to meet the needs of STC patients and volunteers, providing phone and teleconferencing interpreter services. Students who had returned to homes out of state, and some who returned home abroad, continued to provide this essential service from afar

*Coordinator: Carlos Ortega*



# Grant Support

## The Boulevard Bolt

This past year, our clinic was awarded \$10,000 by the Boulevard Bolt to continue our vaccine outreach program. Through this support, our clinic was able to organize ten vaccination events in the community, during which we provided more than 160 influenza immunizations to people experiencing homelessness in Nashville. To date, Shade Tree has administered nearly 10,000 flu vaccines with the support of the Boulevard Bolt.

Grant Coordinator: Praveen Vimalathas

## Shade Tree Trot

Over the past decade, the Shade Tree Trot has been a vital event aimed at raising awareness of and support for the Shade Tree Clinic throughout the Nashville community. Alongside the Shade Tree Benefit Dinner, the Trot serves as one of the clinic's two largest fundraisers to support Shade Tree's annual operating expenses. The Shade Tree Trot also partnered with Mercury Courts to further support the healthcare needs of Nashville's underserved communities.

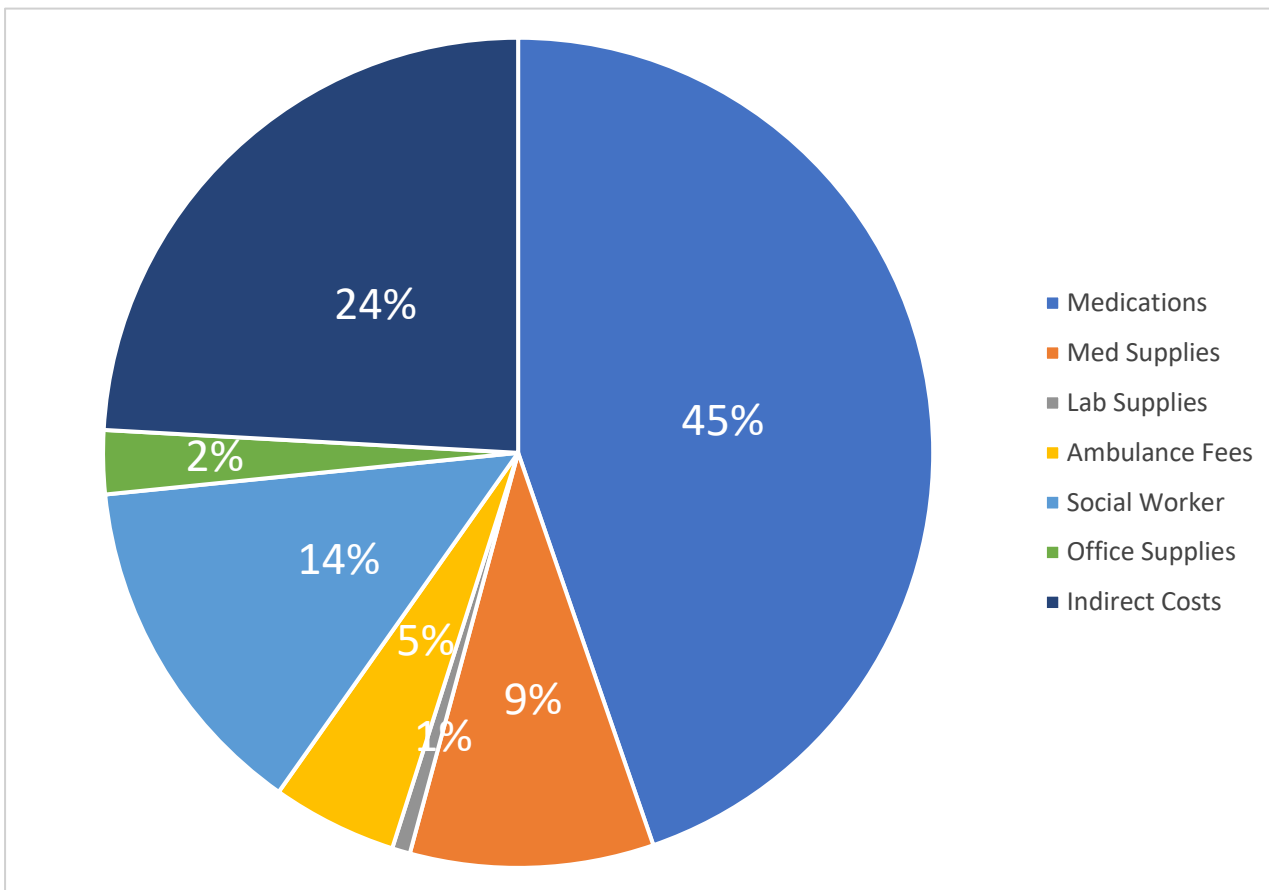
The 14th annual Shade Tree Trot was held on April 9th with a major emphasis of this event was community engagement, where participants could take part in various race festivities and challenges, connect with other race participants on social media platforms, and launch their own fundraising pages. Each participant also received the trademark Shade Tree Trot T-shirt!

We are very grateful for the enthusiastic community engagement and generous donations that allowed our race to be a success. Hundreds of racers participated and, in conjunction with peer-to-peer fundraising, the Trot raised nearly \$50,000 for Shade Tree Clinic and Mercury Courts. The success of the race allowed our community to continue the race's longstanding tradition of supporting Nashville's underserved communities with their healthcare needs, even amidst this challenging time. The Shade Tree community looks forward to Shade Tree Trot 2022!

*Directors: Harrison Thomas and Steven Bishay*

# Major Expenses by Category

2021-2022 Total Expenses: \$180,966



## Publications

**Henry O, Brito A, Lloyd MC, Miller R, Weaver E, Upender R. A Model for Sleep Apnea Management in Underserved Patient Populations. J Prim Care Community Health. 2022 Jan**

**Fisher EL, Sack DE, González Peña T, Cooper Lloyd M, Weaver EO, Hagemann TM, Miller RF. COVID-19 vaccination program at a student-run free clinic: A descriptive study. Prev Med Rep. 2022 Dec**

## Presentations

Our students presented projects at several national conferences this year. Here are some of the select poster presentations are included below.

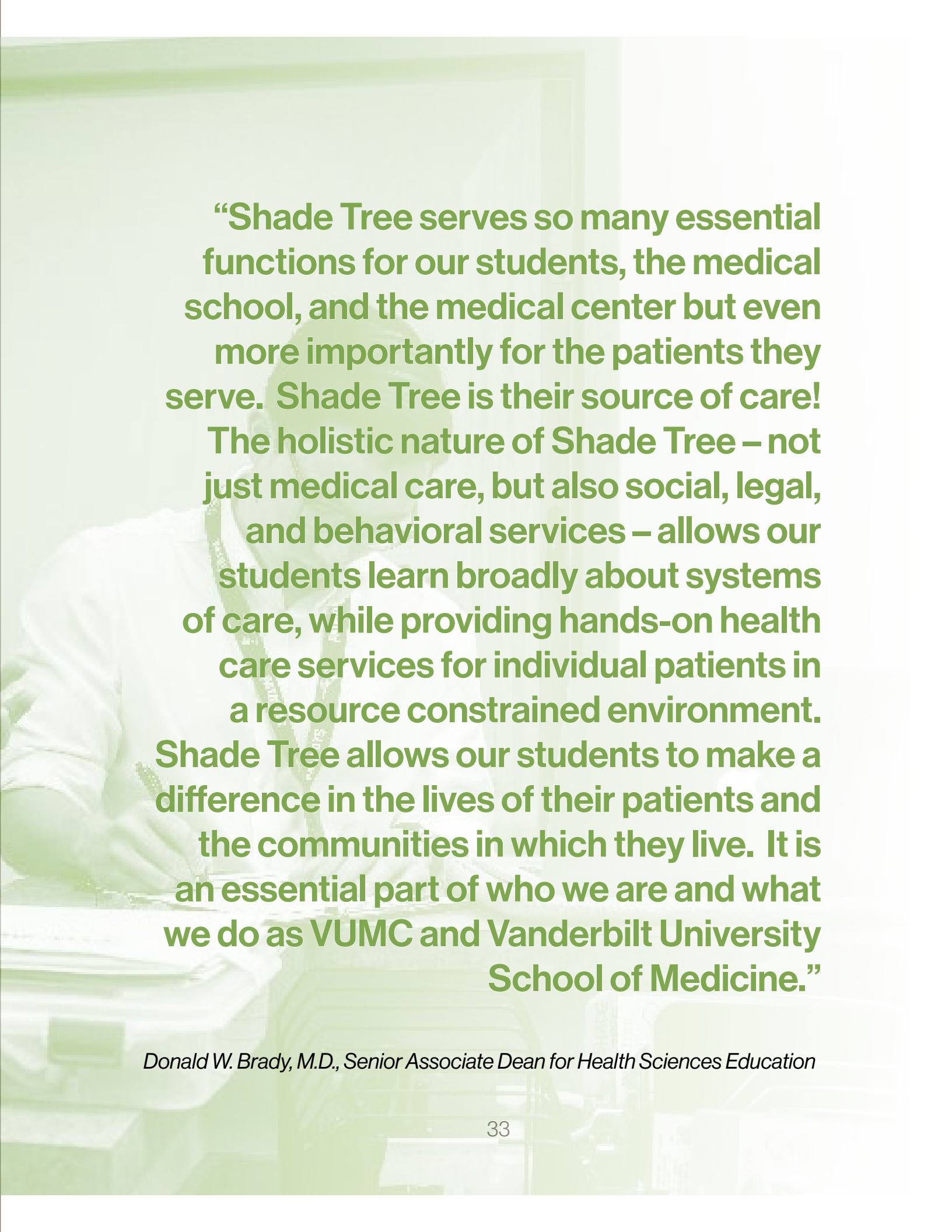
**Niklinska EB, Mahoney MR, & McLaughlin S. (2020, March). Shade Tree's Patient Health Education Program: A Model for Early Engagement in Clinical Learning. Poster presented at the Society of Student Run Free Clinics annual meeting, Orlando, FL.**

**Hamdan SA, Morales NG, Fossum K, Zheng Y, Miller RF. Addressing the Burden of Uncorrected Refractive Error Through a Student Run Free Clinic. Poster presentation at 3rd Annual Conference at Society of Student Run Free Clinics. 2020 Mar 7-8; Orlando, FL.**

**Treasure, G, Ferguson, S, Li, T, Zakria, D, Day, R, Triana, AJ, Shah, KP "Applying spend analysis principles from management consulting to the operation of a student-run free clinic". Society of Student Run Free Clinics Conference, March 7, 2020**







**“Shade Tree serves so many essential functions for our students, the medical school, and the medical center but even more importantly for the patients they serve. Shade Tree is their source of care! The holistic nature of Shade Tree – not just medical care, but also social, legal, and behavioral services – allows our students learn broadly about systems of care, while providing hands-on health care services for individual patients in a resource constrained environment. Shade Tree allows our students to make a difference in the lives of their patients and the communities in which they live. It is an essential part of who we are and what we do as VUMC and Vanderbilt University School of Medicine.”**

*Donald W. Brady, M.D., Senior Associate Dean for Health Sciences Education*

# Clinic Volunteers

## Physicians

Toaa Abuelanaan

Emily Brown

Babatunde Carew

Gisella Carranza Leon

Angela Chen

Daniel Cottrell

Kaylin Craig

Gio Davogustto

Neerav Desai

Xuan Ding

Wes Ely

Jennifer Green

Kevin Hageman

Tiffany Hines

Wade Iams

Vikranth Induru

Eiman Jahangir

Ashley Karpinos

Sophia Kostelanetz

Russell Ledford

David Li

Kevin Liu

Peter Liu

Bhavish Manwani

Saumya Maru

Mona Mashayekhi

John McPherson

Jennifer Miao

Matt Miller

Robert Miller

Allen Naftilan

John Newman

Adesola Oje

Derek Pae

Nick Pietrini

Kathleen Pollard

James Powers

Kelly Pugh

Angela Qian

Tyler Reese

Bradley Richmond

Chelse Rick

Tony Ross

Jeffrey Schmeckpeper

Alexandra Shingina

Billy Sullivan

Krista Suojanen

Sahar Takkouche

Kristin Tatosyan-Jones

Timothy Thayer

Cecelia Theobald

Pierce Trumbo

Eleanor Weaver

Rachel Wolf

Kathleene Wooldridge

Beth Ann Yakes

Zach Yoneda

Sally York

Roy Zent

## Finance Managers

Alex Bruno

Michelle Medvedoff

Lance Johnson

Chloe Cho

## Social Work Staff

Mary Evelyn Carroll

Jean Wu

Milani Kyaw

Meghan Frimming

Daniel Ragheb

Samuel Ufuah

Anna Hendricks

## Clinic Coordinators

Samuel WiseCarver

Tori Biondo

Teresa Lucas

Madeleine Shetler

Lena Khanolkar

Sydney Nelson

Marco Cuellar

Kirsten Nguyen

Shreya Bhatia

Alyssa Bednarek

Lauren Sullivan

Max Van Belkum

Grace Ruff

Jessica Sims

Alyssa Bednarek

Anastasia Woods

Puja Jagasia

Jack Trapani

Kiara Norman

## Dispensary Staff

Sierra Marie  
Lily Hamm  
Lauren Steele  
Jihoon Jang  
Anana Upton  
Emily Wooder  
Shady Faltaous  
fei yang  
Amelia Beckstead  
Oliver Zhao  
Chirag Ram  
Rachel Mersfelder  
Jessica McDonald  
Gunther Wong  
Stephen Chenard  
Mary Recio  
Olivia Prosak  
Jessica Quintos  
Anne Clinton

Natalie Jones  
Jooeun Kang  
Ali Alving-Trinh  
Kathy Lee  
Riley Bergman  
Sharon Kam  
Mary Peyton Boyd  
Leon Cai  
John Shelley  
Tita Gonzalez Pena  
Megan Tigie  
Emilie Fisher  
Ayesha Muhammad  
Rachel Windmueller  
Matt Gayoso  
AJ Sermarini  
Caroline Culpepper  
Krishna Patel  
Srushti Patel

Angkear Khorn  
Rima Patel  
Ryan Melton  
Andrea Martin  
Cameron Holifield  
Shivani Patel  
Raylee Pack  
Andrew Beard  
Matthew T. Davis  
Laith Alkhatib  
Emma Rushton  
Farah Ismail  
Morteza Kaveh  
Margaret Stubblefield  
Alexis Reed  
Iman Abdel khalek  
Ethan Lobo  
Bella Corbin  
Allison Kruegar  
Taylor A. Kissel  
David Lam  
Jada/Alice Amjad

## Patient Health Educators

Natasha Hughes  
Atlee Witt  
Duby Okonkwo  
Chinonso Ani  
Niketna Vivek  
Sharon Fernandez  
Hannah Chew  
Jean Mok  
Kevin Zhang  
Marissa Khalil  
Jullian Valadez  
Adam Abdulrahman  
James Bathon  
Janice Im  
Danielle Liu

## Patient Assistance Program Volunteers

James Yang  
Camella Carlson  
Michael Libre  
Tian Zhang  
Amelia Sawyers  
Anagha Ashokan  
Connie Xiao  
Monica Nable  
Harriet Schroer  
Tina Chai

## **Spanish Services**

### **Volunteers**

Nisha Mailapur

Selina Petschek

Annalisa Schallerer

Adrian Alepuz

Marcell Puguaga

Jaime Perez

Fatima Roque

Woong Jae Choi

Bailey Jenkins

Hannah Jazdzewski

Andria Li

Netra Rastogi

Irene Cofie

Sofia Ray

Carlos Ortega

Ximena Rocha

Hannah Jazdzewski

Adrian Othon

Tatiana Baxter

Carlos Ortega

Annalisa Schallerer

Nisha Mailapur

Selina Petschek

Jaime Perez

Bailey Jenkins

Sofia Ray

Luisa Lestz

Mae Wimbiscus

Samantha Josephson

Juliana Valenzuela

Fatima Roque

Andria Li

Anna Young

Maximilian Garcia

### **Shade**

### **Tree Trot**

### **Committee**

Steven Bishay

Harrison Thomas

### **Attorney Supervisor**

Kent Halkett

## **Medical Student Clinical Volunteers**

Santiago Angaramo  
Graham Attipoe  
Maddy Ball  
Sarah Brown  
Shane Carr  
Shirley Chen  
Jenny Connell  
Rachel Fortner  
Carolina Gomez  
Bradley Guidry  
Olivia Henry  
Nicole Kloosterman  
Sara Lin  
George Lin  
Claire Lo  
Alexander Lupi  
Katlyn McKay  
Annmarie Meade  
Evan Mercer  
Kaleel Wainwright  
Kayvon Sharif  
Ananya Sharma  
Aisha Suara  
Alexander Wells  
Rachel Windmueller  
Ryan Zinone  
Helen Gambrah  
Lihua Shu  
Eki Olumese  
Whitney George  
Rahul Ramawamy

## **Shade Tree Benefit Dinner and Auction Committee**

Jessica Giles  
Gabrielle Davis  
James Bathon  
Steven Bishay

## **Law Student Volunteers**

Natalie Graves  
Liza Orucevic  
Divya Bhat  
Robert Havas  
Maryam Saad  
Tiffany Thomas

## **Nursing Student Pre-Clinical**

Mary Carroll  
Nicole Skroch





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**One of a medical school's primary jobs is to foster expertise development and lifelong learning in students during their training. At the Shade Tree Clinic, Vanderbilt medical students have the opportunity to provide high-quality, mentored care with progressive responsibility, a linchpin in their development as physicians, all while learning foundational lessons that will stick with them for a lifetime. I am consistently amazed by our student's relentless dedication and service to the patients of**

*Bill Cutrer, M.D., Associate Dean for Undergraduate Medical Education*







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615.422.5262  
[Shadetreeclinic@gmail.com](mailto:Shadetreeclinic@gmail.com)

Photography: Maria Lee Beninati

42

**shade tree**

CLINIC

**Shade Tree Clinic Hours:  
Tuesday 6pm-9pm  
Saturday 12pm-4pm**