

M2G VENTURES

ADVANCING MENTAL HEALTH IN TARRANT COUNTY

M2G VENTURES ANNUAL REPORT

DECEMBER 2020

to our partners

It is hard to believe it has almost been a year since we opened the doors to the Tarrant County Center for Depression Research and Clinical Care at Moncrief Cancer Institute in Fort Worth. With all of your generous support, we have and will continue to make a lasting impact on Tarrant County residents and generations to come all over the world. The work Dr. Trivedi and his team of researchers are doing are changing the ways we diagnose and treat mental illness, now and in the future. As evidenced by the findings from our first year and enclosed report, you can see the impact the CDRC is making in our community.

This has been a much more challenging year for everyone, more than anyone ever could have anticipated. The isolation and challenges that COVID-19 has brought on all of us and certainly those who were already dealing with depression and mental illness further solidifies the need for the work that the CDRC is doing. We are steadfastly dedicated to supporting the CDRC and Dr. Trivedi's ground-breaking research in Tarrant County and beyond.

We decided to forego an in-person event in 2020 due to the pandemic, but in 2021, we will be hosting another roundtable event like we did in our inaugural year. We will also be hiring a new Director for our mental health initiative to further devote our company's resources to addressing the way our world treats mental illness through our awareness and advocacy efforts. We have raised a little over \$70,000 this year to support the Center for Depression Research and Clinical Care in Tarrant County in addition to the \$250,000 we raised last year. We are 32% of the way there to our \$1M 3-year fundraising goal. Please support in whatever way you can, without you and this support, none of this will be possible.

Happy Holidays and thank you from the bottom of our hearts,

Jessica Miller Essl, Susan Miller Gruppi, and the M2G Ventures Team

PLEASE READ THE ENCLOSED
REPORT ON THE FIRST YEAR OF
THE TARRANT COUNTY CDRC.

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recent findings

By measuring a depressed person's levels of C-reactive protein – a blood-based biomarker produced by the liver in response to inflammation in the body – doctors can prescribe an antidepressant that is more likely to work, taking the guesswork out of depression treatment (COMED study).

We published a paper this year (Jha et al., 2020) that examined chemokines and cytokines from plasma samples and found that adolescents and young adults with suicidal behavior (SPARC study) had significantly lower IL-4 levels compared to those at-risk and healthy controls (RAD study).

*Background: **SPARC Genetics**; Collaboration with Children's Health. This study examines biological markers of suicidal behaviors in youth enrolled in an intensive outpatient program for teens who have had recent suicidal behaviors. The Suicide Prevention and Resilience at Children's (SPARC) program is an evidence-based, Intensive Outpatient Program (IOP) at Children's Health, focusing on reducing risk for self-harm and suicidal thoughts and behaviors. **Genetics**: We are obtaining genetic samples and clinical and treatment information from 50 adolescents with suicidal behaviors enrolled in an intensive outpatient program at Children's.*

Researchers are able to use fMRIs and brain-based markers to tailor specific treatments to individual patients with depression, improving recovery (EMBARC study).

Using CO-MED and EMBARC data, we uncovered a link between irritability and suicidality in adults with Major Depressive Disorder. This finding reinforces the importance of carefully assessing the irritability of patients when assessing suicide risk.

We have developed a machine learning algorithm that helps identify the best depression treatment for an individual patient. The algorithm analyzes results from an EEG, a test that measures brain waves, and predicts how a patient will respond to an antidepressant. Doctors can then prescribe a treatment with the best possibility of success.





shaping the future of medicine

ANNUAL REPORT: JANUARY 1, 2019 TO AUGUST 31, 2020

Depression is the most common mental illness in the U.S. with up to 25 percent of Americans affected. The World Health Organization (WHO) estimates that depression is the leading cause of disability throughout the world. Mental health disorders often begin early in life with approximately one in 11 children experiencing some form of depression before the age of 14, and many report their first episode occurred between the ages of 12 and 13. The risk of a major depressive disorder doubles from late childhood to early adolescence. This timeframe is also a critical phase in adolescent brain development that can have far-reaching consequences on their physical, emotional, and social well-being as adults.

The prevalence of mental illness among youth in the Fort Worth region warrants concern and action. In Tarrant County, 23 percent (340,000) of adults have mental health needs. Among young people, the statistics are even more staggering as 38 percent (140,000) of children and youth (ages 6-17) have behavioral health needs; within adolescents (ages 12-17), 14 percent (19,000) suffer from depression or bipolar disorder (MMHPI 2016). According to the High School Youth Risk Behavior Survey (2017), 10.6 percent of high school youth in Fort Worth attempted suicide one or more times during the past 12 months, which is significantly higher compared to the 7.4 percent of youth who attempted suicide nationally.

At UT Southwestern's Center for Depression Research and Clinical Care (CDRC), we believe that a future free from the burden of depression is possible. Our mission is exemplified in the Texas Resilience in Adolescent Development (T-RAD) study. T-RAD aims to identify biosignatures that can 1) help prevent depression by observing the development of resilience in youth and young adults who may be at risk; and 2) help predict depression outcomes by examining the natural course of disease and treatment outcomes in individuals. Through the establishment of a Fort Worth-based CDRC site to expand the implementation of the T-RAD study, we hope to develop practical tests that will transform clinical care for the diagnosis, treatment, and prevention of mood disorders, which will have long-lasting and potentially transformative benefits to our beneficiaries in Tarrant County and across the globe.

progress

During the first year of funding, we made tremendous strides in launching T-RAD in Fort Worth. The amount of work that goes into starting a satellite clinical site often goes unrecognized. From establishing the lease agreement to purchasing equipment, training new staff, and developing protocols takes a remarkable amount of time, and only through great collaborations with the Moncrief Cancer Institute team were we able to quickly launch recruitment efforts. The following progress was made during the first year:

Space at Moncrief Cancer Institute for the study and personnel was secured.

Lab supplies and an EEG machine were purchased, installed, and calibrated.

Study protocols were revised as needed to meet the clinic requirements.

Staff were hired and trained.

A new intake protocol was implemented to triage Tarrant County callers to the Fort Worth team.

A digitized clinical check-in process with licensed clinicians was designed to ensure study operations continued seamlessly between the two study sites: Dallas and Ft. Worth.

A Fort Worth directory of contacts was generated for networking, outreach, and recruitment.

Flyers and recruitment materials were modified to include the Fort Worth location.

The first T-RAD participant in Fort Worth was recruited in October 2019, and we enrolled 55 participants in Fort Worth from October to March 2020. Unfortunately, in March 2020, the COVID-19 pandemic led to many challenges for all healthcare providers, and we were forced to make many adjustments to our research protocols and to stop enrollment of new participants. However, we were able to continue seeing participants through telephone and virtual visits, so all evaluations have been able to continue.





progress

The pandemic led to another interesting dilemma – how to help our participants handle the stress and potential mental health challenges that increased as a result not only of the pandemic itself, but from the isolation and lack of social support that resulted from shelter in place orders. Under the direction of Dr. Madhukar Trivedi, the CDRC faculty and staff have worked tirelessly to meet the needs of our community during this unprecedented time. The following programs have been initiated since the pandemic crisis began earlier this year.

We developed a CDRC COVID-19 Website (www.utsouthwestern.edu/cdrc) with reputable evidence-based national and local resources.

We developed and launched the CDRC COVID-19 Support Line (214-648-7355), which went live on 04/14/2020.

Most research visits were conducted remotely.

In addition to our regular quarterly assessments, we implemented biweekly virtual mental health assessments in order to check in with our participants more frequently. 100% of Fort Worth participants are actively engaged in these biweekly surveys.

We added a new COVID-19 impact measure to help us understand and address any pandemic-related stressors.

We had the opportunity to reengage participants who had become less involved through virtual appointments, including those who had moved out of state.

We developed remote consenting procedures.

Many safety protocols were developed and implemented to reduce the spread of COVID-19 among staff and participants.

Many of our research psychologists and therapists worked with the Department of Psychiatry to provide clinical care to UT Southwestern employees experiencing increased depression, anxiety, and stress-related conditions.

CDRC Office 365 expert users conducted a training for several departments on Office 365.

Several research projects specific to the COVID-19 pandemic were launched, including a survey to determine the impact of COVID-19 on parents and teachers.

Our faculty provided several interviews and presentations to local media and community organizations.

impact

Without the gift from M2G Ventures, we would not have been able to start a satellite site to bring an innovative research approach to Fort Worth, which would mean that many people from Tarrant County would be unable to become research partners with UT Southwestern to understand better ways to reduce depression and increase resilience among youth and young adults. Establishing a CDRC research clinic in Fort Worth has not only allowed us to enroll individuals from Tarrant County that would otherwise not have participated, but has also provided a new, more convenient location to allow them to participate fully in this important research.





what's next?

Moving forward, our greatest challenge is conducting research during the COVID-19 pandemic. As noted above, we revised the research study to allow most visits to be conducted virtually or via telephone. We continue to have participants come in for an in-person visit at least once annually to obtain a blood sample and EEG recording. Currently, we are able to enroll new participants virtually, and enrollment is expected to increase to normal pre-COVID-19 levels in the near future. Most recently, we held a Town Hall for our participants to share some of the initial findings. We are excited to begin analyzing the data from our T-RAD study, and we will begin publishing results over the next year. We are grateful to M2G Ventures for helping UT Southwestern's CDRC to establish a presence in Fort Worth and partner in research to reduce depression. Through our combined efforts, this research has the potential to unlock key insights into the prevalence of depression in Fort Worth youth. You make it possible, and we are truly grateful.

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T-RAD participant testimonials

“

I find research important. Therefore, participating in T-RAD has not only allowed me to provide data for research, but I have benefited from the study as well. During this hard time of isolation, the questionnaires and speaking with Dr. Anderson has helped me understand how my mental health has changed since we last spoke—they have provided me with resources to assist my mental health in such hard times.

- Ashley Perez (age 25)

“

I think if anything, this study has shown me that I am not alone in my struggles with depression and anxiety. Also it is comforting to know that there are studies like this out there working to combat the symptoms of depression and related conditions for future generations.

- Jay Singleton

“

Participating in the T-RAD studying during COVID is important to me because this has radically changed our world and is obviously going to affect how all of us are feeling. By continuing to participate in the study, I am able to help give the doctors and researchers an idea on how it affects me personally, which will hopefully help provide insights on how to help address depression during this crazy time.

- A.C. (age 20)

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thank you

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