

Research Center and Institute Progress Report Protocol September 1, 2019–August 31, 2020 (Annual Review per Fiscal Year)

Submission of the compiled report as a PDF are due no later than **5 p.m. Friday, January 31, 2021** and must be submitted electronically to cmneuhau@central.uh.edu.

I. CENTER/INSTITUTE INFORMATION

- a. Name of center/institute: **Texas Institute for Measurement, Evaluation, and Statistics**
- b. Year established: **1999**
- c. Website address for center/institute: **<https://www2.times.uh.edu>**

II. DIRECTOR INFORMATION

- a. Name: **David J. Francis**
- b. Title: **Hugh Roy and Lillie Cranz Cullen Distinguished University Chair, Psychology Director, Texas Institute for Measurement, Evaluation, and Statistics**
- c. Address: **Health and Biomedical Sciences Building (Health 1), Room 372**
- d. Phone number: **832-842-7036**
- e. Email address: **dfrancis@uh.edu**

III. STATED MISSION, GOALS, OBJECTIVES, & VALUE CREATION

- a. Does the unit have a formal multi-year (3-5 years) strategy and a strategy-implementation plan? If yes, please provide.

TIMES has a one-year budget, with no written commitment of continued support from the university beyond August 31, 2021. We have been operating on one-year commitments that are made in May for the following fiscal year since we began receiving direct support from the university. Although the University Centers and Institutes were transitioned to a two-year budget planning cycle, we continue to operate on a one year budget commitment. We continue to implement the 5-year plan that we put in place in 2007, the last time the university made a multi-year commitment to TIMES as part of a retention package for Dr. Francis, TIMES founding Director.

A major focus of that five year plan was the evolution of the TIMES' Research Financial Services team as a robust and efficient administrative infrastructure for research financial services and information technology. This evolution was existential for TIMES because of the need to support more and more investigators with more and larger grants with minimal impact on the size of the administrative team. We first began by developing a joint administrative team with the Texas Learning and Computation Center (TLC2), the predecessor to CACDS, and continued to evolve the infrastructure ever since by building tools to support research financial administration and research IT support. TIMES has arguably the most comprehensive and yet efficient administrative infrastructure for research financial services of any ULCI, which has been made possible through the creativity and hard work of our IT services group in collaboration with our administrative

team. Together these two groups have collaborated to create automated tools for reporting and financial account administration within PeopleSoft, as well as tools to automate and/or manage workflows. At the same time, our IT group provides unparalleled support to our investigators and their research labs, while developing and maintaining the IT infrastructure of TIMES facilities.

During the 2019-2020 fiscal year there was a major revision to the funding model for ULCI's that was the culmination of discussions that took place during FY 2019. This revision removed ULCIs from the distribution of IDC. On the one hand, this change effectively eliminated ULCI's ability to generate revenue that can be used to support administration and infrastructure. On the other hand, it created increased incentives for the ULCIs to work collaboratively in meeting the administrative needs of the centers, thereby allowing more of their university support to be allocated to programming. TIMES has played a major role in this transition to streamline the administration of the ULCIs, and our sense is that this transition is moving along in a collaborative and timely way. It has not been without challenges, but on balance no problems have arisen that have proven insurmountable to overcome, or led to significant failures in advancing the mission of TIMES or the other ULCIs who are participating in the joint administration. While we still have a ways to go in completing this transition and evolving the model so that it works well for all ULCIs, the first year of implementation has shown that the model can work on a broader scale than we had previously attempted with TIMES and TLC2, CACDS, and HPE-DSI, all of which had used TIMES administration prior to FY 2020.

During FY 2020 TIMES also continued to provide some automated reconciliation reports to the Department of Psychology, Health and Human Performance, and the College of Technology through its SAS reporting system, and we began to provide some services for the Graduate School of Social Work and the Department of Communication Sciences and Disorders. Other ULCIs whose general administrative services are being handled by TIMES include the new Drug Discovery Institute, Advanced Materials Institute, the Center for Carbon Management in Energy, the Health Research Institute. TIMES is also providing some services to the Texas Center for Superconductivity and to Animal Care. There has been discussion that the shared administration may begin managing financial services for some research Cores.

In FY 2020, TIMES again faced an existential crisis, and it was unclear if we would survive the year intact. We did with some assistance from DOR, who allowed us to delay repayment of an over distribution of IDC from 2019, and due to our receipt of some additional grant funding and TRIP matching funds to allowed us to cover some research staff who had fallen short of full time funding through soft money.

At its core, TIMES is a statistical support center. Our strategy for increasing grant funding has always been around fostering collaboration between quantitative experts and substantive experts. When substantive experts collaborate with specialists in research methods, design, and analysis, research plans are more precisely crafted to ask and answer the underlying scientific questions in more compelling and convincing ways. In addition to Ph.D. level statistical support, we provide our investigators with access to professional data management, data warehousing, programming, and project managers. Access to professionally trained research staff allow PIs to manage larger and more grants in their portfolio. If TIMES could obtain institutional support for its Ph.D. quantitative scientists to collaborate with PIs in their grant writing, we could substantially increase research funding on campus. Unfortunately, TIMES submission of a Core Proposal to create a statistical consulting service for faculty was not funded, and our budgetary request for these positions was not filled. Consequently, we are limited in our ability to offer services to faculty at the paper and proposal writing stage. At UH, the demand for biostatistical and traditional methods support is large and will only get larger as we add more faculty, especially in the health area. If we can find a way to address that demand, it could substantially increase research funding on campus.

- b. If there is no formal strategy, provide the mission statement, goals, and milestones for the unit.

The primary purposes of the Texas Institute for Measurement, Evaluation, and Statistics, established at its founding, are to advance knowledge about, and to improve the behavioral, psychological, educational and developmental outcomes of children and adults through the application and development of high quality, cutting-edge research methods, and the delivery of state-of-the art research and statistical support services. In addition, TIMES' broader mission is to promote, develop, and advance statistical knowledge and its application in research and decision making, and to establish a university-based resource in measurement, evaluation, and statistics for faculty and administrators. In light of this broader mission, in addition to conducting primary research, TIMES provides essential research support services in four major areas. These include the design of advanced quasi-experimental studies, such as those used for researching developmental and educational questions in natural settings (e.g., such as children in classrooms), as well as the design of more traditional "true" experimental studies. Secondly, TIMES specializes in the application of advanced statistical models for (a) measuring longitudinal outcomes (e.g., student growth), (b) predicting risk and failure (e.g., predicting poor student outcomes at the earliest possible point in development), (c) measuring key constructs and their impact on desired outcomes (e.g., assessing the importance of teacher behaviors in advancing student achievement), and (d) modeling institutional effectiveness (e.g., evaluating the efficacy of school wide reform efforts). Third, TIMES is a leader in the use of advanced psychometric models and technology tools to create research instruments. Finally, TIMES supports the primary data collection efforts of researchers and educators through (a) automated data entry, (b) electronic data storage, (c) computerized data management, and (d) essential reporting services.

Beginning in 2007, TIMES undertook to transform itself into a multidisciplinary research center focused on the solution of complex problems in society, including health and education, maintaining an emphasis on application of advanced statistical, computational, and measurement practices as part of its core, but expanding its substantive focus beyond education and health. Over the course of its history, TIMES has successfully competed for four National Centers, one of which, the Texas Center for Learning Disabilities, funded by NICHD, is in its second 5 year renewal. In FY 2020, TIMES was awarded its second National Research and Development Center from the Institute of Education Sciences to lead research on educational success for English Language Learners. TIMES had previously been awarded a National Center for English Language Learners in 2007.

- c. Are the stated goals being met in a manner consistent with the targeted milestones? Describe by giving specific metrics, including faculty research outcomes, student training, and support.

Goals with respect to sponsored research funding, as well as faculty, student, and staff productivity are being met. TIMES offers support to tenure track faculty and their students from a diverse array of colleges and departments and continues to expand the number of individuals and groups support without expansion of the number of staff in administration and support roles. We continue to rank in the top tier of ULCIs at the University of Houston in terms of the number of proposals submitted, awards made, sponsored research under management, IDC generation, and in IDC credited to the center.

We presently manage approximately 53 active cost centers for TIMES and TIMES' PIs (i.e., under the TIMES department code), 75 cost centers across TIMES, CACDS, and DSI, and 239 cost centers across all administrative units. Because the university does not report official metrics for research productivity other

than funding and IDC, it is impossible to comment on where our scholarly productivity ranks among university centers.

The exceptions to our goals are that we have not yet established a Core Facility with chargeback capabilities for Statistical Support Services (we have established the ABC as a chargeback center). We have made some progress on our goal to increase the number of interdisciplinary, multi-year, center and/or program project grants. Our IES National Center proposal was awarded last year (\$9.9M), and we received (Elena Grigorenko, PI) a major award from the Office of Naval Research (\$2.2M). This proposal involves investigators from TIMES, including members in CLASS, NSM, and Engineering. In addition, we continue to be the home of The Texas Center for Learning Disabilities, are collaborators in the Optometry P30, and are collaborating in the UH-Baylor CTSA Application. We also submitted a planning grant for another National Center this year (I. Kakadiaris, PI), and were instrumental in bringing the Borders, Trade, and Immigration Center to UH, although that grant is now housed within the College of Technology.

Important dimensions of TIMES strategic plan and mission are the provision of statistical support to the campus, and the facilitation of large-scale, interdisciplinary research grants. We believe these mechanisms are the key to increased research funding at UH. In FY 2018, we applied for funding to create a Core Facility for statistical support services with colleagues in the Math Department, but the RSC Committee that reviewed Core Facilities proposals did not fund that proposal, in part because the proposal was not focused on the acquisition of major equipment. While we view this interpretation of “Core” as being overly narrow from the standpoint of building out research infrastructure and shared resources that can increase funded research at UH, we have begun to examine other ways to create this infrastructure. In our FY 2020 and FY 2021 budgets we requested funds for this activity, but we again did not receive the funding. We have continued to provide support to faculty colleagues from across the UH System, but we have not established a Core Facility that can be advertised with specific charge backs. With the hiring of a Biostatistician in the College of Medicine and the funding of the RCMI under Dr. Obasi in the Health Research Institute, which includes a Research Infrastructure Core that is intended to offer Biostatistical Core Support to RCMI researchers, there is increased demand for a “biostatistics” core facility on campus. It is a natural point of collaboration for TIMES and the HRI, as well as for TIMES and the College of Medicine, not to mention methods researchers from within the College of Education and in the Department of Math. The creation of such a Core is seen as essential to TIMES continuity as a center, but is also just essential for the growth of UH. Our desire to establish such a Core was viewed favorably by our Internal Advisory Committee, as was the creation of the Animal Behavior Core (ABC), which is now officially approved as a Core Facility under TIMES. However, we do not presently have funding to establish a Statistical Core that can be broadly advertised to campus and the UH System campuses. We are partnering with the UH Medical School in research proposals and are working to establish collaborations with the UH College of Nursing and have recently had some success in establishing new collaborations between TIMES Psychology and Engineering faculty, and between TIMES Psychology and Computer Science Faculty. However, these have been R01 level grants from NIH and NSF. However, Dr. Grigorenko’s ONR proposal and my IES National Center grant show that our focus on major interdisciplinary grants is beginning to pay off.

Of the ULCI on campus, TIMES has had the greatest success in obtaining funding for program project and center grants. In addition to the recently awarded IES Center and the ONR project, the TCLD, BTI, and Optometry P30 grants, which TIMES faculty have either led or collaborated on, during its history TIMES has directed or collaborated on a prior National Center for Research and Development of English Language

Learners (\$9.9M), an NICHD funded Program Project on the development of English Language Learners (\$17M), and the prior awards of the Texas Center for Learning Disabilities from 2006-2017 (\$15M), and program project grants in Spina Bifida (\$6.6M) and Math (\$4.5M). TIMES investigators also led the evaluation of the Texas Reading First program from 2003-2007 with an annual budget of approximately \$4.5M. These past and current successes highlight what is possible from an interdisciplinary research center with a strong quantitative/computational focus.

Our contribution to the university hinges on sustaining these efforts and building on these successes and growing the total number of such awards at the university. We continue to work to develop systems that facilitate the writing and management of such awards, but it falls to faculty to develop the proposals, and to the Director to identify opportunities and the people who can respond to them.

- d. How is the unit contributing to the accomplishment of priorities and goals of the department, college, and/or University without duplicating functions of other entities?

As a ULCI, it is only appropriate to ask this question of TIMES as it relates to the university's goals and objectives and the goals and objectives of the Division of Research. Our record of accomplishment in terms of interdisciplinary, large (over \$2M in direct costs) federally funded projects is unmatched in the university. In 2017, the President reported on the top 10 faculty in terms of awards to the university during her first 10 years at UH (2007-2017). Four of the top six faculty in terms of awards are members of TIMES, including Drs. Jack Fletcher, Ioannis Kakadiaris, David Francis, and Coleen Carlson, and these awards do not include Dr. Francis' \$17.2M award from NICHD in 2000, \$4.1M award from IES in 2001, \$8.3M award from IES in 2003, and large scale evaluations of Reading First (\$4.5M annually from 2003-2007) from the state of Texas. These numbers also do not reflect several large grants that were awarded to other units at UH that involved TIMES as the data center, such as an award to Dr. Jerome Freiberg in the College of Education (\$3.4M), an award to Dr. Frishman in Optometry (P30 Core Grant where TIMES serves as the Biostatistics Core), and an award to Dr. Rebecca Lee in Health and Human Performance from the CDC (\$2M). No university wide center has been as consistent as TIMES in bringing in large awards to the university.

In addition to these past successes, this year TIMES added another major award in its second National Research and Development Center for English Language Learners (\$9.9M over five years), and Dr. Grigorenko's ONR proposal (\$2.2M).

According to figures provided to TIMES by the Division of Research (Mohammad Saklayen), during FY 2020, TIMES investigators submitted 89 proposals, involving 130 faculty, and requesting over \$ 100.3M, an increase in the number of proposals compared to FY19 (n=74), but a slight decrease in the amount requested (\$113M). In the official report on research expenditures, the DOR reports 90 proposals and \$36.7M for TIMES, which we believe either reflects the proposal amount multiplied by the credit split going to TIMES, as opposed to the total proposed amount. In FY2020, TIMES investigators received 11 Awards, with commitments of \$1.95M, and total projected award amount of \$4.6M. Again, the official DOR slide deck shows 11 awards and \$1.76M. Importantly, these amounts do not include the award of \$9.9M to Dr. Francis for the IES Center, which was made in FY 2020, but the project start date was set to 9/1/2020 by the PI, nor does it reflect Dr. Grigorenko's ONR award (\$2.2M) that was awarded in Fall of 2020.

In the past we have reported our own internal accounting of proposals and awards. This year we report only those proposals, awards, and expenditures reported back to us by the Division of Research. We continue to work with DOR to resolve discrepancies between our internal records and DOR reporting metrics. It is important that reporting metrics reflect both the total amounts of awards, and the award amount credited to the Center, but we lack reporting standards for these breakdowns.

In FY 2020 TIMES was one of six DOR centers, but one of only four that received awards. As further evidence of TIMES contribution to research funding, an analysis of awards and IDC generation from grants reported out by DOR in their FY20 Research Funding Report showed that all six centers posted proposal activity, with TIMES and HEALTH submitting proposals valued at \$36.73M and \$22.13M respectively, AMI at 6.63M, and TCSUH submitting proposals totaling \$5.3M. Only 4 of six centers received competitive awards in FY 2020 with TIMES credited with awards equaling \$1.76M, and the next most successful center, TCSUH, receiving awards totaling \$795K. With respect to credited research expenditures, TIMES had expenditures of \$3M compared to TCSUH, which had expenditures of \$873K, and HEALTH, which had expenditures of \$692K. Importantly, these are the proportions of proposals, awards, and expenditures that are credited to the center, not the totals associated with the grants that involve TIMES affiliated faculty, or faculty affiliated with the other centers (i.e., all centers are affected by the reporting approach). Thus, the total impact to the institutional bottom line for research proposals, awards, and expenditures which TIMES helps to make happen is substantially greater because most proposals involve multiple investigators, not all of whom are TIMES affiliated. Although TIMES is one of only six DOR centers, TIMES is disproportionately responsible for the IDC generated by the DOR centers.

- e. What are the specific outcomes of the unit that cannot be accomplished through direct faculty/department/college work without having the unit?

Whether or not multi-investigator, interdisciplinary, center and program project grants can be successfully competed and managed in academic units like Departments and Colleges, the fact of the matter is, TIMES has produced more such awards over the period of its existence than any other unit at UH. Certainly, some of our large, interdisciplinary grants could have been accomplished within academic units. For example, although TIMES managed the submission of Dr. Fletcher's Texas Center for Learning Disabilities P50 grant from NICHD, Dr. Fletcher elected to have the award managed by the Department of Psychology after the award was made, at which time he also changed the credit splits. However, even though that award is managed in Psychology, TIMES has still been the administrative unit that has coordinated the submission of the annual progress report for the grant.

Even though some of these large, multi-investigator awards can be and are managed in the home departments, that does not mean that TIMES is not contributing materially to the success of those awards. In fact, the robust administrative infrastructure of TIMES makes it possible to support research faculty, students, and staff full time on grants, and to create working groups of data managers, project managers, and statisticians whose time is allocated across multiple soft money awards run by different principal investigators, so that grants only need to pay for the services that they use. Having many individuals supported 100% on soft money across multiple soft money sources with varying start and end dates creates a complexity that most departments cannot manage efficiently, making it less likely that faculty will pursue large, interdisciplinary, multi-site awards. They are just too cumbersome to manage, and the academic departments have difficulty justifying the resource allocation, because portions of the awards invariably are going to other units, both inside and outside of the university. How many departments are willing to allocate space to faculty and students from another department or college because those individuals are working on a grant with an investigator in their department? Instead, faculty member A has a lab in their department and faculty member B has a lab in their department, and they have meetings together to "collaborate", but they find it difficult to truly "work" together because of the problem of distance. At TIMES, a psychologist using EEG to study infants' cognitive development and response to traumatic experiences has a lab next door to an Engineer who is using evoked responses to control robotic hands for individuals who have lost a limb in an accident, and an Engineer who is studying deep brain stimulation in Parkinson's disease. Nearby are computational researchers who are able

to share expertise on making sense of the large volumes of data created in these labs. This proximity creates opportunities to discuss diverse work and look for points of common interest that allows for novel combinations of substantive and disciplinary expertise to attack difficult problems from novel, interdisciplinary perspectives. It's possible the psychologist and the engineer could meet with labs in different buildings, and it's possible they could develop an idea for collaboration, but it is much less likely to happen. We are still settling in to our new space, but it is the promise of collaboration that comes from having researchers with varied interests from different disciplines in close proximity to one another, utilizing independent and shared resources that makes TIMES unique.

Nowhere else on campus are such diverse colleges and departments represented in close proximity to one another. If faculty remain in their disciplinary silos, then we will have failed in our mission, but we will still have succeeded in creating shared resources which allows the university to support faculty with lower total cost of investment. That is, it is less expensive to have psychology, engineering, biology, and pharmacy faculty working in the same wet lab area in close proximity to ACO and managed by a single entity whose singular interest is to make sure that all faculty are successful, regardless of their departmental or collegiate affiliation than it would be to build separate facilities for each group based on their department or college, or to have a shared facility with no group tasked with managing the facilities.

Nevertheless, it is not TIMES' goal simply to provide more cost-effective space management, but to utilize shared space and equipment to catalyze research synergies across disciplines and allow multi-disciplinary research to flourish at UH. This kind of research is not happening in departments to the degree that it is happening at TIMES, and we believe the recent Center Grant from the Institute of Education Sciences, and Dr. Grigorenko's multi-investigator ONR Award are the most recent examples of what is possible because of interdisciplinary research centers. While we continue to branch out and to create new partnerships, such as with the Colleges of Medicine, Nursing, and Pharmacy, and the Graduate School of Social Work, we feel the evidence indicates that we are contributing positively to the research environment at UH in ways that the Departments and Colleges are not able to on their own.

IV. MEASURES OF PARTICIPATION AND PERFORMANCE – FISCAL YEAR FY2020

a. Personnel and Scope

1. Number of tenure-track FTE faculty members: **27**

(Definition of a member: access to center resources and/or grants administered by center and/or space provided by the center but **must** credit split with center)

NOTE: TIMES only requires credit splits for faculty members whose labs are either housed in center space, or if TIMES is managing the grant, or when the grant makes use of TIMES resources. Some members housed outside of TIMES space have grants that are not using TIMES resources and are not managed by TIMES. We also list faculty members who may not have active grants, but consider themselves members of TIMES.

2. Number of non-tenure-track FTE faculty: **18**

(supported wholly or in part through grants and activities administered through the center)

3. Number of staff: **32** (Admin – 5; IT – 3; Data Management – 4, Project Management – 3)

Of these 32 positions, 5 are TIMES Admin staff, 1 is TIMES Pre-Award Specialist, and 3 are TIMES IT staff. These 9 positions are supported on TIMES centrally funded budget, and these positions

contribute to the ULCI shared administrative infrastructure.

TIMES also maintains 3 Project Managers, 3 Data Managers, and one Research Faculty member, who we count above under Data Management. This individual designed, built, and administers the TIMES Data Warehouse, which has brought in almost \$3M in research funding associated with secondary data analysis projects. The Project Managers and Data Managers are intended to be supported entirely on soft-money, and work on multiple grants. The Warehouse Administrator is also supported on grants to the extent possible, but much of the work of this position is not directly billable to specific grants. We also make these staff members available to departments outside of TIMES on an hourly basis to assist on projects that would benefit from their expertise, provided the staff member has time available over and above their funded effort. This model provides grants run through TIMES with access to professional staff for data and project management without the need to fund 100% of a position. To the extent that these individuals are not fully funded on grants, we have also allowed them to assist on projects outside of TIMES on an hourly basis, providing non-TIMES units access to professional staff as well, but at much lower cost than having to hire and train individuals when a full-time position might not be warranted for that project. To the extent that we cannot fully fund these positions on external grants, or internal UH projects in other units, then the TIMES Central budget covers the remaining support to maintain these positions. The TIMES budget covers only those portions of these individuals' salaries that are not covered by projects in any given year to maintain continuity of human capital for projects.

The remaining staff positions listed above are lab specific staff hired by specific PIs to work in their labs and are not available to projects outside of that investigator's lab.

4. Number of students who participated in center research activities where at least 50% of the student effort was center-related: (a) Postdoctoral fellows **9** (b) Doctoral students **105** (c) Masters students _____ and (d) Undergraduates **82**

Graduate students are not broken down within the center and most, if not all, are students in Ph.D. programs (e.g., Psychology only admits students for the Ph.D., but students earn an MA in Psychology as part of the program).

5. Provide a list of all personnel in items 1 to 4; give full name, title, University affiliation, and specific role in the unit.

Name	Description	Position	Department
Amanda Venta	Associate Professor	Tenure Track	Psychology
Andres Viana	Associate Professor, Faculty	Tenure Track	Psychology
Anny Castilla-Earls	Associate Professor, Faculty	Tenure Track	Communication Sciences
Beau Alward	Assistant Professor, Faculty	Tenure Track	Psychology
Candice Alfano	Professor, SACK Lab Director	Tenure Track	Psychology
Carla Sharp	Professor, Faculty	Tenure Track	Psychology
Cathy Horn	Professor, Faculty	Tenure Track	DELPS
Cirino, Paul	Professor, Faculty	Tenure Track	Psychology

Name	Description	Position	Department
Elena Grigorenko	Professor, Faculty	Tenure Track	Psychology
Francis, David	Professor, Faculty	Tenure Track	Psychology
J. Leigh Leasure	Professor Faculty	Tenure Track	Psychology
Jack M. Fletcher	Professor, Faculty	Tenure Track	Psychology
Johanna Bick	Assistant Professor	Tenure Track	Psychology
Jocubas Ziburkus	Professor, Faculty	Tenure Track	Biology / Biochemistry
Joseph T. Francis	Professor, Faculty	Tenure Track	Biomedical Engineering
Kakadiaris, Ioannis	Professor, Faculty	Tenure Track	Computer Science
Kristi Santi	Associate Professor, Faculty	Tenure Track	DELPS
Lennart Johnsson	Professor, Faculty	Tenure Track	Computer Science
Lindner, Peggy	Assistant Professor	Tenure Track	Computer Information Systems
Matthew Gallagher	Professor, Faculty	Tenure Track	Psychology
Mehta, Paras	Associate Professor, Faculty	Tenure Track	Psychology
Nuri Ince	Associate Professor, Faculty	Tenure Track	Biomedical Engineering
Pavlidis, Ioannis	Professor, Faculty	Tenure Track	Computer Science
Ricardo Vilalta	Professor, Faculty	Tenure Track	Computer Science
Sunbok Lee	Assistant Professor, Faculty	Tenure Track	Psychology
Therese Kosten	Professor, Faculty	Tenure Track	Psychology
Yingchun Zhang	Associate Professor, Faculty	Tenure Track	Biomedical Engineering
Carlson, Coleen	Research Assistant Professor	Research Faculty	Psychology
Colin Haile	Research Assistant Professor	Research Faculty	Psychology
Daniel Price	Research Assistant Professor	Research Faculty	Honors College
Davidson, Kevin	Research Assistant Professor	Research Faculty	Psychology
Donaji Stelzig	Visiting Assistant Professor	Research Faculty	Honors College
Ioanna Semendeferi	Research Faculty	Research Faculty	Physics
Ioannis Konstantinidis	Research Faculty	Research Faculty	Technology
Jerry Ebalunode	Senior Researcher (HPC)	Research Faculty	Biology
Julia Benoit	Research Assistant Professor	Research Faculty	Optometry
Kulesz,Paulina	Research Assistant Professor	Research Faculty	Psychology
Lorra Garey	Research Assistant Professor	Research Faculty	Psychology
Mcintyre, Teresa	Research Professor	Research Faculty	Nursing
Miciak, Jeremy	Research Assistant Professor	Research Faculty	Psychology
Oxana Naumova	Research Faculty	Research Faculty	Psychology
Shaefali Pillai Rodgers	Research Assistant Professor	Research Faculty	Psychology
Tammy Tolar	Research Asst Professor	Research Faculty	Psychology
Taylor, Pat	Research Assistant Professor	Research Faculty	Psychology
Yursa Ahmed	Research Assistant Professor	Research Faculty	Psychology

POST DOCTORAL FELLOWS

Name	Description
Autumn McIlraith	D Francis Postdoctoral Fellow

Name	Description
Ibdanelo Cortez	Leasure Postdoctoral Fellow
Lisa Chinn	Grigorenko Postdoctoral Fellow
Olga Burenkova	Grigorenko Postdoctoral Fellow
Nan Li	Grigorenko Postdoctoral Fellow
Junmo An	J. Francis Postdoctoral Fellow
Amanda Palo	Postdoctoral Fellow
Kelly Vaughn	Bick Postdoctoral Fellow
Shiva Khalaf	Grigorenko/Francis Postdoctoral Fellow

GRADUATE STUDENTS

Name	Description
Feng Fang	Zhang PhD Student
Michael Houston	Zhang Masters RA
Nicholas Dias	Zhang PhD Student
Pietro Cicalese	Zhang Masters
Rihui Li	Zhang PhD Student
Thomas Potter	Zhang PhD Student
Yang Liu	Zhang PhD Student
Abigail Hanna	Viana Research Assistant, PhD
Dania Amarneh	Viana RA
Elizabeth Raines	Viana Graduate Research Assistant
Emma Woodward	Viana Research Assistant, PhD
Erika Trent	Viana Grad Student
Haley Conroy	Viana Grad
Karina Silva	Viana Grad Student
Jesse Walker	Venta PhD
Eric Sumlin	Sharp RA Grad
Francesca Penner	Sharp PhD RA
Jacob Leavitt	Sharp Grad Student
Jessica Hernandez	Sharp Grad Student
John Bickel	Sharp Grad Student
Kiana Wall	Sharp Grad Student
Madeleine Allman	Sharp Grad Student
Salome Vanwoerden	Sharp Grad Student
Sophie Kerr	Sharp Grad Student
Veronica McLaren	Sharp Grad Student
James Rigby	Mehta - Grad RA

Name	Description
Lichao Sun	Mehta - Grad RA
Caitlin Kennedy	Leasure Grad
Diana Bravo	Leasure Grad
Emma C Perez	Leasure Grad
Kevin Gehm	Leasure Grad
Laian Najjar	Leasure Grad
Rebecca West	Leasure Grad
Keely McGrew	Kosten Grad
Shadab Forouzan	Kosten Grad
Amirhossein Azarabadi	Johnsson Grad Student
Mouad Rifai	Johnsson Grad Student
Nazaninalsadat Beheshti	Johnsson Grad Student
Suyash Bakshi	Johnsson Grad Student
Jaganth Nivas Asok Kumar	JFrancis Phd
Matthew Perry	JFrancis Phd
Md Moin Atique	JFrancis Phd
Mohammad Badri Ahmadi	JFrancis Phd
Oman Magana	JFrancis Phd
Taruna Yadav	JFrancis Phd
Behrang Fazli Besheli	Ince Grad Student
Musa Ozturk	Ince Grad Student
Priscella Asman	Ince Grad Student
Stephanie Velasco	Ince Grad Student
Christina Thomas	Grigorenko Grad Student
Connor Cheek	Grigorenko Grad Student
Hechmi Kilani	Grigorenko Grad Student
Irina Ovchinnikova	Grigorenko Grad Student
Jessica Garcia	Grigorenko Grad Student
Joslyn Cavitt	Grigorenko Grad Student
Julia Kovalenko	Grigorenko Grad Student
Marina Zhukova	Grigorenko Grad Student
Mei Tan	Grigorenko Grad Student
Taylor Alexander	Tolar Grad Student
Karrie Hilliard	Tolar Grad Student
Andrew Rogers	Gallagher PhD Student
Angela Richardson	Gallagher PhD Student
Johann D'Souza	Gallagher PhD Student

Name	Description
Laura Long	Gallagher PhD Student
Anna Kunev	Jack Fletcher's Grad Student
Anna Pawliczek	Jack Fletcher's Grad Student
Aurora Ramos	Jack Fletcher's Grad Student
Dana DeMaster	Jack Fletcher's Grad Student
Kailyn Bradley	Jack Fletcher's Grad Student
Pilar Archila	Jack Fletcher's Grad Student
Suzanne Weiss	Jack Fletcher's Grad Student
Amanveer Wesley	CPL Grad Student
Janaat Vijayakumar	CPL Grad Student
MD Tanim Hasan	CPL Grad Student
Mohammad Imtiaz Nur	CPL Grad Student
Salah Taamneh	CPL Grad Student
Shaila Zaman	CPL Grad Student
Shaila Zaman-Admin	CPL Grad Student
Vitalii Zhukov	CPL Grad Student
Abigail Farrell	Cirino Grad Student
Amanda Child	Cirino Grad Student
Anthony Gioia	Cirino Grad Student
Emily Huston-Warren	Cirino Grad Student
Kelly Halverson	Cirino Grad Student
Kelly Macdonald	Cirino Grad Student
Natalie Ridgely	Cirino Grad Student
William Lacey	Cirino Grad Student
Abraham Bautista	CBL PhD Student
Charles Livermore	CBL PhD Student
Christos Smailis	CBL PhD Student
Erick Platero	CBL PhD Student
Timothy Burt	CBL PhD Student
Brian Biekman	Bick Grad RA
Livia Merrill	Bick Grad RA
Rebecca Lipschutz	Bick Grad RA
Shutian Shen	Bick Grad RA
Xinge Li	Bick Grad RA
Lillian Jackson	Alward Grad Student
Mariana Lopez	Alward Grad Student
Anthony Cifre	Alfano Grad Student

Name	Description
Christine So	Alfano Grad Student
Jessica Meers	Alfano Grad Student
Jinu Kim	Alfano Grad Student
Rogelio Gonzalez	Alfano Grad Student
Simon Lau	Alfano Grad Student

UNDERGRADUATE STUDENTS¹

Name	Description
Mahnoor Ahmad	Viana Undergrad RA
Reagan Hylton	Viana Undergrad RA
Emily Crossman	Viana Undergrad RA
Erika De La Cerda	Viana Undergrad RA
Albert Abraham	Sharp Undergrad RA
Caroline Pearson	Sharp Undergrad RA
Charlie McGill	Sharp Undergrad RA
Dakota Broadway	Sharp Undergrad RA
Estefani Fernandez	Sharp Undergrad RA
Frances Saubon	Sharp Undergrad RA
Hui Song	Sharp Undergrad Student
James Wang	Sharp Undergrad Student
Joanna Yuen	Sharp Undergrad Student
Joanne Angosta	Sharp Undergrad Student
Madison Hutzler	Sharp Undergrad Student
Nabeeha Asim	Sharp Undergrad Student
Onyinyechi Obi-Obasi	Sharp Undergrad Student
Regina Rodriguez	Sharp Undergrad Student
Samantha Annab	Sharp Undergrad Student
Shreya Aggarwal	Sharp Undergrad Student
Aksa Prasad	Rodgers Undergrad RA
Daniel Phu	Rodgers Undergrad RA
Delia Gomez	Rodgers Undergrad RA
Emily Oldridge	Rodgers Undergrad RA
Justin Aickareth	Rodgers Undergrad RA
Raima Siddiqui	Rodgers Undergrad RA

¹ Departmental affiliations/majors of undergraduates are not known by TIMES, only the faculty member lab to which the student is assigned.

Name	Description
Reshma Jose	Rodgers Undergrad RA
Rhea Neycheril	Rodgers Undergrad RA
Tayyaba Masood	Rodgers Undergrad RA
Yumna Ali	Rodgers Undergrad RA
Alba Zepeda	Price RA
Brandon Warner	Price RA
Cameron Green	Price RA
Cara Shokler	Price RA
Cindy Paz	Price RA
Cristina Palacios-Makhoul	Price RA
Danea Williams	Price RA
Fahim Khan	Price RA
Gundeep Singh	Price RA
Helen Nguyen	Price RA
Rishi Chitturi	Price RA
Erisa Met-Hoxha	Leasure Undergrad RA
Meena Shirazi	Leasure Undergrad RA
Mohammad Khan	Leasure Undergrad RA
Pierce Popson	Leasure Undergrad RA
Valeria Gaume Lobo	Leasure Undergrad RA
Bryan Ubanwa	Kosten Undergrad RA
Cynthia Moka	Kosten Undergrad RA
Uzma Maknojia	Kosten Undergrad RA
Rohail Siddiqi	Kosten Undergrad RA
Salvi Kumar	Kosten Undergrad RA
Veronica Morgan	Kosten Undergrad RA
Tracy Desserre	Grigorenko Undergrad RA
Tram Nguyen	Grigorenko Undergrad RA
Jenny Flick	Grigorenko Undergrad RA
Nicole Murciano	Alfano/Gallagher Vol RA
Catherine Ramos	Bick Undergrad RA
Hana Mohamad	Bick Undergrad RA
Laura Delgado-Guzman	Bick Undergrad RA
Maiah Jackson	Bick Undergrad RA
Marie Douge	Bick Undergrad RA
Miranda Dominguez	Bick Undergrad RA
Natalie Hosseini	Bick Undergrad RA
Kamille Hernandez	Alward Undergrad RA
Megan Lean	Alward Undergrad RA
Richanda Berry	Alward Undergrad RA

Name	Description
Alan El Hakam	Alfano Vol RA
Bryce Clausen	Alfano Vol RA
Erika Sanchez	Alfano Vol RA
Gabrielle Pendleton	Alfano Vol RA
Hector Garcia	Alfano Vol RA
Iclal Yuksel	Alfano Vol RA
Jeanette Oviedo	Alfano Vol RA
Jocelyn Villalobos	Alfano Vol RA
Karolina Rusin	Alfano Vol RA
Laura De Leon	Alfano Vol RA
Norhan Hamza	Alfano Vol RA
Sabrina Thomas	Alfano Vol RA
Sarah Abobaker	Alfano Vol RA
Sirine Harmouch	Alfano Vol RA
Amber Nguyen	Alfano Vol RA

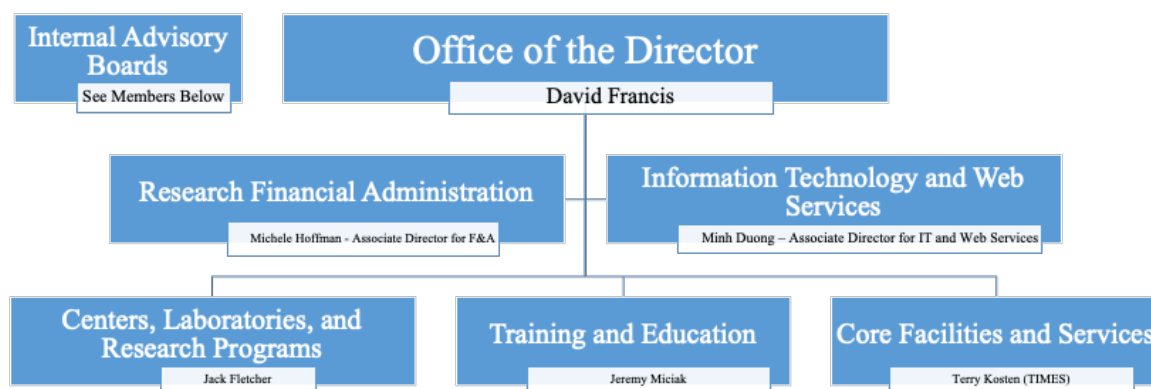
STAFF

Name	Job Title	TIMES Positinon
Alexander, Jeremy	Systems Adm 1	IT
Anderson, Martin	LAN Administrator	IT
Aziz Nisar, Fauzia	Research Liaison Officer	Pre-Award
Barcnas, Griselda	Researcher 2 Nat Phys Science	Project Manager
Carcamo, Gissele	Temporary Staff	
Choto, Vanessa	Temporary Staff	
DeBoest, Veronica	Temporary Staff	
De La Torre, Rosalia	Temporary Staff	
Duong, Minh	Technical Svcs Lead	IT
Farias, Melissa	Temporary Staff	
Flores, Jorge	Temporary Staff	
Garcia, Henry	Technical Svcs Spec 3	Data Manager
Gil, Bertha	Accountant III	Admin
Gonzalez-Milo, Angelica	Temporary Staff	
Hagan, Elsa	Temporary Staff	
Hernandez, Maria	Technical Assistant 2	Project Manager
Hernandez, Virginia	Department Business Admin.	Admin
Hoffman, Michele	Assoc Dir, Research Center	Admin
Horn, Kenneth	Temporary Staff	
Isola, Deborah	Temporary Staff	
Kapral, Andrew	Dir, Program 3	
Lozano, Helen	Financial Coord 2	Admin
McGee-Jackson, Thea	Temporary Staff	

Name	Job Title	TIMES Position
Minor, Lanissa	Temporary Staff	
Monroe, Constance	Researcher 3 Soc Behv Science	
Nguyen, Thanh	Technical Svcs Spec 4	Data Manager
Nieser, Kenneth	Research 2 Nat Phys Science	Project Manager
Perez, Marcelys	Temporary Staff	
Pickens, Patrick	Temporary Staff	
Sampogna, Marissa	Temporary Staff	
Vargas, Adilia	Financial Analyst 2	Admin
Vigilla, Laudemer	Technical Svcs Spec 3	Data Manager

6. Provide a current organizational chart (include advisory board/committee if applicable).

TIMES Organizational Chart



The organizational chart above reflects the administrative structure of TIMES, which was operational during FY 2020. In previous reports, we have presented a joint organizational chart for TIMES and HPE DSI, reflecting the shared administrative structure. This year I have elected to isolate the TIMES elements of the Organizational Chart to better focus on the organization of TIMES as a ULCI. The TIMES IAB consists of the following individuals.

TIMES INTERNAL ADVISORY BOARD 2020

Member Name	College	Department
Bond, Richard	Pharmacy	Pharm. And Pharmaceut. Sciences

Frishman, Laura	Optometry		
Harold, Michael	Engineering	Chemical Engineering	
		Ed. Leadership and Policy	
Horn, Cathy	Education	Studies	TIMES Member
Grigorenko, Elena	CLASS	Psychology	TIMES Member
Price, Dan	Honors	Dean of the Honors College	TIMES Member
Subhlok, Jaspal	NSM	Computer Science	

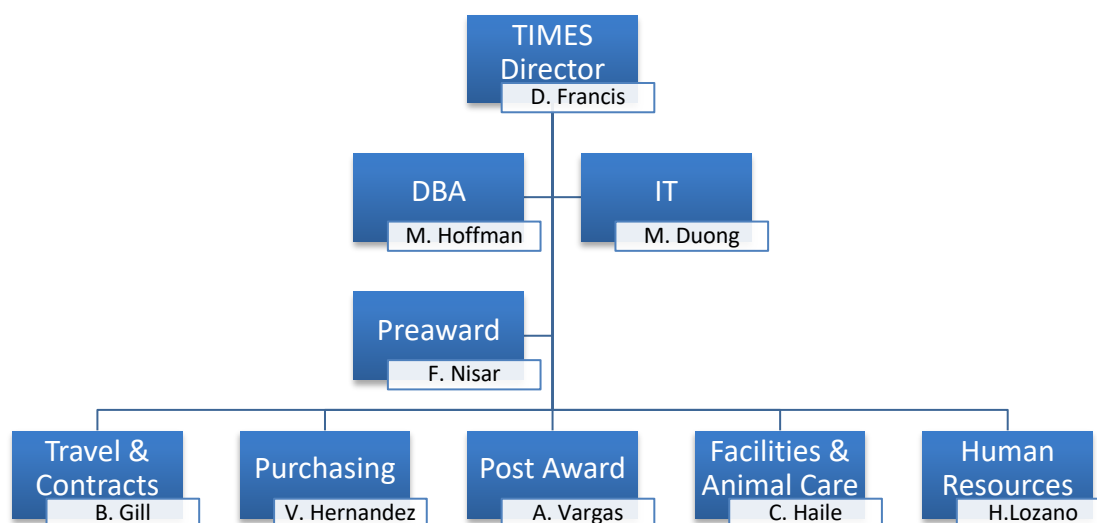
Ex Officio

Serving As

Neuhauser, Claudia	NSM	Math	Delegate VP/VC for Research
Fletcher, Jack	CLASS	Psychology	TIMES, Assoc. Dir., Research
Hoffman, Michele		TIMES	TIMES, Assoc. Dir. Fin. Svc.
Kosten, Terry	CLASS	Psychology	TIMES, Sci. Dir., ABC
Neuhauser, Claudia	NSM	Math	HPE DSI, Director

TIMES Administration Organizational Chart

(Serving TIMES/ HPE DSI in FY 2020)



During the reporting period, TIMES admin group worked to assist in the transition of the ULCIs to a shared centralized administration team, incorporating other ULCI into the shared administrative structure that has been used by TIMES and HPE DSI/CACDS for several years. TIMES Admin group

also continued to provide support to HPE DSI and CACDS, and AMI. AMI had been served by the Department of Mechanical Engineering for part of FY2020, but was returned to TIMES for administration in the fall of 2020.

Above we provide an organizational chart for the Research Financial Administrative Services component of the organizational chart. In FY 2020 this group provided services to TIMES and HPE DSI/CACDS along with other ULCIs in varying degrees. The group existed within TIMES and over time has come to serve additional ULCIs. In the Chart above, not pictured is Helaine Guillory, who serves exclusively under HPE DSI/CACDS as Dr. Neuhauser's Executive Administrative Assistant. Also not pictured in the chart are Jeremy Alexander and Martin Anderson, additional IT staff who report to Minh Duong, but who provide IT services to other ULCIs, when requested. Michele Hoffman, Adilia Vargas, Bertha Gill, Fauzia Nisar, and Minh Duong have been members of the TIMES administrative infrastructure since prior to the merger of TIMES and CACDS administrations in 2015. Helaine Guillory was a member of the CACDS administration as was Virginia Hernandez at the time of the merger. Helen Lozano replaced the individual who handled personnel at the time of the merger. Colin Haile is a Research Faculty member who took the lead in the creation of the Animal Behavior Core. He presently manages the ABC on a day to day basis, and is presently serving in the capacity of overseeing the wet lab facilities on the 4th floor of Health 1 because we lack funding for a staff position to carry out this management activity.

7. Provide a list of outside agencies or entities with which this center/institute interacted and specify the nature of the interaction.

We have continued to interact with Aid to Victims of Domestic Abuse (AVDA), WT Grant, the Duncan Family Foundation (in conjunction with UH Development), NICHD, NSF, and IES, as governmental/not-for-profit funders of research activities at TIMES. Also, Dr. Francis serves on the National Advisory Board for the Institute of Education Sciences, a Presidential Appointment.

We have not engaged in any lobbying activities. As faculty, we have interacted with numerous professional societies, and served on various grant and project advisory boards, advisory boards for not for profit (e.g., Neuhaus Center) and for profit companies (e.g., Amira Learning), and on grant review panels of not-for-profit and governmental agencies, such as IES and NICHD, as well as the National Research Council. We have also interacted with the Duncan Family Foundation, which has provided funding to TIMES through gifts to Drs. Fletcher and Francis in support of the Texas Consortium on High Risk Children and the Texas Center for Learning Disabilities. TIMES does not interact directly with outside agencies other than granting agencies for the purposes of submitting grant proposals.

b. Financial support (funds received during FY2020)

1. State appropriations through the DOR:	\$789,711
2. Total external support from grants and contracts:	\$3,477,698ⁱ
3. IDC returned: (effective in 2020, ULCI did not receive IDC)	\$0ⁱⁱ
4. All other support from the DOR and the UH Administration (e.g., cost sharing, patent & licensing revenue, University allocations, administrative commitments, salary):	
Director's 2/9ths salary stipend	\$60,432

DOR Funding to Support BME Faculty	\$60,000
Administrative Costs paid by HPE/DSI	\$152,019
Support for Project Manager paid by HPE/DSI	\$14,142

5. Total gifts to the unit: **\$0**

6. Total of all support: **\$4,554,002**

7. Is current funding of the unit sufficient to continue its operations (give specific details)?

This question is asked every year, and the answer remains the same. No, the funding is not sufficient. Each year, the Director faces a shortfall that places the unit in jeopardy. Only through partnering with other units on campus to pick up some funding shortfalls, bartering with investigators who have residual funds, and scrambling to bring in contracts and grants to cover short falls for staff funded on soft money do we manage to survive more or less in tact from one year to the next.

Immediately below is a table of expenditures on all TIMES Cost Centers for FY2020. This includes grant cost centers within TIMES as well as state and local accounts.

Category	Expenditures
Animals	\$38,018.05
Business Expense	\$219.09
Contracting Services	\$56,195.00
Domestic Travel	\$19,537.14
Fringe Benefits	\$350,822.14
Human Subject	\$17,655.00
IDC	\$802,961.57
M & O	\$243,631.89
Salary	\$2,294,722.33
Scholarships Fellowships	\$2,000.00
Sub-Contracts <25K	\$7,018.38
Sub-Contracts >25K	\$69,417.71
Travel	\$3,745.50
Total	\$3,905,943.80

Comparing the revenue total under 6 against the expenditures picture above would make it seem that TIMES is flush with money, but such an analysis ignores the fact that funds are not fungible – the source of the funding matters. Such a bottom line analysis also ignores one other relevant fact. Specifically, some personnel expenses are not reflected above. These hidden costs are of two types. First, there are fringe benefits costs associated with centrally funded staff who are placed on state appropriations where fringe benefits are paid from a central fringe benefit pool. The ratio of fringe to salary above is roughly 13.3%, but the actual ratio is closer to 25%. This hidden cost is important to keep in mind because it can affect the funding of the unit if the type of funds that are allocated changes from one year to the next. The costs of fringe benefits are real, and should not be overlooked when considering the overall financial health of the unit and its sustainability from one year to the next. Changing the sources of funding without changing the amount can significantly alter the funding landscape for the unit. The second hidden costs of the unit are those staff salaries and fringe benefits that are paid out of cost centers that are not managed by TIMES. For example, our project managers and data managers, and also some portions of centrally funded staff are paid from cost centers managed by other departments, either because those individuals are working on grants where TIMES is involved, but the grant is managed in another unit, e.g., Psychology, or BME. In the case of central staff paid out of cost centers in other units,

those sources of revenue appear in the revenue table, most notably the support from HPE DSI for the central financial administrative personnel, but the staff salaries for research staff paid out of cost centers in other administrative units are absent from the “expenses” table above.

We would argue that in considering the funds available to support TIMES operations, it is appropriate to ignore the funding under b.2, External Grant Awards. These funds are not fungible. They are awarded competitively to perform specific research projects. They do not directly support the cost of operations, but rather reflect the volume of our research expenditures. They do, of course, support the TIMES research staff in part. However, they cannot be used to pay the DBA, the purchasing personnel, the IT staff (except in rare instances), nor can they be used to purchase the general-purpose software, servers, etc. that support TIMES infrastructure. These funds only support direct research costs that are incurred by specific projects that pay for them.

TIMES has been able to maintain operations only through IDC generation, residual funds, and the brokering of deals to provide services to other centers in exchange for those centers paying for the administrative services that they use. For example, last year HPE DSI made use of a TIMES project manager to support conferences they were hosting. This worked out well for them, because they got an experienced project manager without having to hire a new person. It also worked out well for TIMES because we did not have projects to cover 100% of the project manager’s salary, and this project reduced the “unfunded” portion of his effort for the year. It is really quite simple arithmetic. The cost of TIMES administrative group (6 admin and 3 IT personnel) is \$813,091 (salary=\$619,988 and fringe=\$193,103). Although these salaries and fringe show up 100% in the TIMES budget, all 9 of the people supported through these funds contribute to the shared administration for all ULCIs. Their level of effort in the shared administration varies, but all are contributing to the shared administration.

The \$813K listed above does not include support for anyone to manage the Animal Behavior Core or look after the wet labs (Salary for Dr. Haile for 1.5 days per week = \$28,641; fringe = \$8,835.26; total = \$37,476.86). It also does not include funding for the TIMES warehouse administrator, which should be supported 50% time on the central budget (50% salary = \$77,710.56; 50% of fringe = \$16,143.12). These amounts also do not include funding for software (our SAS license runs \$37K per year, our largest annual contract for software, but not the only one), replacement computers, storage, or any kinds of operational support. It also does not include any support for soft money supported staff who might fall short of 100% funding in a given fiscal year, nor does it include any money for programming, i.e., initiatives to try to increase funding, professional development money for faculty, or staff.

Our operational costs are routinely on the order of \$200,000 per year for non-personnel related expenses.

Direct support to TIMES from DOR is insufficient to fund TIMES base operation without substantial additional funding from IDC generation, deal making with other centers, and residual accounts from past work and gifts to the center, and reliance on Dr. Francis’ and Dr. Fletcher’s Cullen Chair Accounts.

We would like to expand services so that we could provide more support to the university community at large who are not in a position to pay for services rendered, such as statistical support, data management or data warehousing, to offer free workshops on statistical techniques, or to provide new investigators with access to the Animal Behavior Core through TIMES funded seed grants. If we had additional funding to pick up the equivalent of 1.0 FTE of statistical support and/or data management support, and/or to create a seed grant program for junior faculty, we could open up more service lines to the greater university community, and these efforts would lead to an increase in sponsored research. There is no question that pairing substantive investigators with biostatistical support services will result in more competitive grant applications. We have used this model to great advantage and no other institutions who follow this same model, also with great success. However, it is not possible to provide these services under our current funding level.

TIMES annual cost of operations (non-grant expenditures to pay salaries of administrative staff, infrastructure supports, software, etc.) is approximately \$1.2M. These costs have been reasonably stable since moving to HBSB1. This past year, DOR provided a total of \$910,143 in direct support. This was comprised of base funding of \$358,428 (the same amount as in 2019), \$428,085 in Additional Operational Support, which was the hold harmless from the change in the IDC distribution rules, and \$60,000 to support faculty from BME, in lieu of providing to TIMES its share of the IDC generated from grants held by BME faculty and carried out under TIMES. We were able to make up the short fall through providing services out to other centers, academic departments, and non-TIMES projects, and billing for those services, and by placing unmet costs on Drs. Francis' and Fletchers' Cullen accounts, and discretionary funds in Psychology. We were also helped significantly by DOR who agreed to a fund swap, which allowed the funds allocated to us to cover approximately 24% more than the nominal value of the appropriation because of the covering of fringe for employees, which is TIMES largest cost.

I would again point out that the \$3.5M in grant expenditures is the proportion of research expenditures that are directly credited to TIMES investigators (i.e., TIMES share of the expenditures) via the credit split formula applied on transmittal forms, and as reported out to TIMES via DOR. Some of these expenditures appear on TIMES cost centers (i.e., cost centers with a TIMES Department Code), and some are on non-TIMES cost centers and thus do not show up in our "expenditure" reports for our cost centers.

We will continue to write more large grants to generate research expenditures and revenue for UH from recovered IDC. TIMES continues to strive toward the goal of self-sufficiency, although we believe this goal needs to be operationally defined especially in the context of the new funding model where ULCIs do not participate in the return of IDC to generating units.

8. What would be the minimum level of DOR support below which the unit cannot function and would be phased out?

In so far as we will no longer be receiving funds from IDC generation, TIMES operations are dependent on obtaining approximately \$1.2M in total support each year. This number reflects the costs of running the shared administration plus the specific costs of operations that are unique to TIMES, such as our SAS license, which runs approximately \$37K per year, but is the heart of our statistical research, and also our electronic reconciliation and financial reporting system that allows us to support other ULCIs and departments. Approximately, \$1M of our annual costs are personnel related, and 28% of that amount is fringe benefits. Consequently, it is not simply the level of funding, but also the type of funding that matters. That is, \$750K in state appropriated dollars for personnel costs along and \$200K in IDC or non-state dollars to cover operational costs would allow TIMES to continue operations in their current form. That is, our \$1.2M in costs can be met with \$950K of support, if it is provided in the right mix of state and non-state dollars. Of the \$750K in personnel in this funding model, \$620K of the personnel support covers those individuals participating in the central administration of the ULCI's, and \$130K would be exclusive for TIMES personnel who manage the Animal Behavior Core and the TIMES data warehouse, and would allow for a small amount of bridge support for faculty and staff supported on soft money. If TIMES were provided \$1M in state appropriations and \$200K in non-state dollars for operational support, the additional support would allow us to expand services to operate a biostatistical core as well as provide seed grants to junior investigators engaged in animal research to access the Animal Behavior Core. However, if TIMES were provided \$1.2M in non-state dollars, we could sustain operations, but not expand them, and if we were provided \$950K in non-state dollars, we would be short roughly 50% of our operational funds and have no funds to support the ABC or the Data Warehouse, or provide bridge funding to keep our professional data managers, project managers, and research statisticians whose funding drops below 100%.

I hope that it is clear that it is not simply the amount of support, but the type of support received. I also hope that it is clear that a large portion of the personnel support that shows up in TIMES budget (approx.. \$813K) does not exclusively serve TIMES, but also other ULCIs and other business units in the university.

- c. Contracts and grants to the unit (must involve credit split; include entire amount of award) for FY 2020 only

1. Number of proposals submitted (and total funds requested) **89**

SPONSOR_TYPE	Total FA Requested	Total Budget Requested
Federal	59 \$18,315,562	\$81,675,800
Private Not for Profit	7 \$998,305	\$4,498,202
Private for Profit	5 \$1,250,418	\$3,646,035
State Agency (TEA)	1 \$10,726	\$144,799
State Institution	3 \$273,642	\$887,590
University	14 \$3,254,120	\$9,519,746
Totals: FA = \$24,102,77 Budget = \$100,372,172		
TIMES Proposal Activity for FY 2020 as Reported by DOR		
Note: University Proposals reflect Federal Flow Through		

2. Number of external awards received; must be verifiable through PS

SPONSOR_TYPE	Committed Amount	Projected Award Amount
Federal	7 \$1,439,870	\$2,557,589
State Agency (TEA)	1 \$295,992	\$890,502
State Institution	2 \$218,547	\$777,607
University	1 \$409,578	\$409,578
Totals: Committed = \$1,954,408 Projected = \$4,635,276		
TIMES Award Activity for FY 2020 as Reported by DOR		
NOTE: University Awards are Federal Flow Through ⁱⁱⁱ		

3. Dollar amount of external awards received (including IDC recovered; indicate start date and duration); must be verifiable through PS

Please see table above which shows the committed amount and the total projected award for proposals awarded in 2020. However, this table does not reflect two major awards received in FY2020 with start dates in 2021, including a \$9.9M Center Award from the Institute of Education Sciences, and a \$2.2M Award from the Office of Naval Research.

4. Provide a table listing the title, PI, sponsor, start and end dates, amount of funding, and indirect cost (IDC) recovered for each award, new or ongoing, supported in FY2020. Identify specifically any multi-PI interdisciplinary awards.

The tables provided below are based on an analysis of grant expenditures provided to TIMES by M. Sakalayan in DOR. The first table lists a summary of expenditures by Award Type and includes the expensed amount as well as the share of the total expenditures that are attributed to TIMES via credit split. The second table provides the detailed table requested by individual project and lists the Project Number and the expenditures in FY 2020 for all grants credit splitting with TIMES. We have not been provided with IDC Recovery information from DOR and so cannot report on that amount at this time. We do not list the PI of the Grant or the Title in this Table as that information is not included in the Expenditures spreadsheet provided by DOR because that spreadsheet lists the credit going to each Co-Investigator on the project. If knowing the PI, title, and beginning and ending dates of the awards would truly be helpful to the RSC in evaluating TIMES, I can combine different reports from DOR to produce the desired table for the projects reported on in the second table.

SPONSOR_TYPE	Total Expenditures	Times Share
Federal	\$4,395,497	\$1,921,266
Private Not for Profit	\$174,588	\$84,948
Private for Profit	\$228,614	\$148,909
State Agency	\$40,919	\$12,311
State Institution	\$103,943	\$61,046
University	\$431,433	\$189,233
Totals: TE = \$5,374,994 FA= \$2,417,713 Total Expenditures by Award Type as Reported by DOR for FY2020		

PROJECT_ID	SPONSOR_NAME	SPONSOR_TYPE	Total Expenses	TIMES Share
G0501229	Institute of Education Sciences	Federal	110010.51	35753.42
G110537	Institute of Education Sciences	Federal	8618.35	4136.81
G112167	Institute of Education Sciences	Federal	249631.73	187223.80
G112168	Institute of Education Sciences	Federal	100312.24	75234.18
G112172	Institute of Education Sciences	Federal	64314.03	51451.22
G0504498	Michael E. DeBakey Veterans Affairs Medical Center	Federal	33664.86	16832.43
G108758	NASA Johnson Space Center	Federal	13685.83	5748.05
G107557	National Eye Institute	Federal	28795.96	1439.80
G0500806	National Institute of Child Health and Human Development	Federal	141620.34	106923.36

PROJECT_ID	SPONSOR_NAME	SPONSOR_TYPE	Total Expenses	TIMES Share
G0500836	National Institute of Child Health and Human Development	Federal	84219.02	27792.28
G0500837	National Institute of Child Health and Human Development	Federal	18572.01	6128.76
G0500838	National Institute of Child Health and Human Development	Federal	166862.93	55064.77
G0500839	National Institute of Child Health and Human Development	Federal	465964.82	153768.39
G0500840	National Institute of Child Health and Human Development	Federal	82271.57	27149.62
G0500841	National Institute of Child Health and Human Development	Federal	54754.95	18069.13
G0500842	National Institute of Child Health and Human Development	Federal	150154.94	49551.13
G0500843	National Institute of Child Health and Human Development	Federal	233029.17	76899.63
G0500844	National Institute of Child Health and Human Development	Federal	360686.15	119026.43
G0501227	National Institute of Child Health and Human Development	Federal	357809.78	178904.89
G111023^{iv}	National Institute of Child Health and Human Development	Federal	0.00	0.00
G0503254	National Institute of Neurological Disorders and Stroke	Federal	257361.26	2058.89
G0500064	National Institute on Aging	Federal	82388.35	65910.68
G0501222	National Institute on Alcohol Abuse and Alcoholism	Federal	95076.32	26621.37
G112817	National Institute on Alcohol Abuse and Alcoholism	Federal	310850.93	217595.65
G0503852	National Institute on Deafness and Other Communication Disorders	Federal	21540.66	861.63
G111469	National Institute on Deafness and Other Communication Disorders	Federal	126521.80	63260.90
G113435	National Institute on Drug Abuse	Federal	110658.29	19365.20
G0500680	National Science Foundation	Federal	352609.00	211565.40

PROJECT_ID	SPONSOR_NAME	SPONSOR_TYPE	Total Expenses	TIMES Share
G0501064	National Science Foundation	Federal	3237.60	2428.20
G0504174	National Science Foundation	Federal	22127.50	2212.75
G0504707	National Science Foundation	Federal	8000.00	800.00
G112607	National Science Foundation	Federal	58944.97	29472.49
G0504046	U.S. Department of Education	Federal	211747.67	77287.90
G0503955	VA Boston Healthcare System	Federal	9453.28	4726.64
G0502862	Boston Children's Hospital Children's Hospital	Private Not for Profit	73180.45	43542.37
G0501654	The American Institutes for Research	Private Not for Profit	2807.22	1965.05
G0503246	The American Institutes for Research	Private Not for Profit	98600.47	39440.19
C112686	Enterprise Products Company	Private for Profit	8103.15	8103.15
G0501735	Enterprise Products Company	Private for Profit	116425.48	58212.74
C106149	Repsol Services Company	Private for Profit	-32123.07	-16061.54
G0502478	Research Triangle Institute	Private for Profit	144457.10	102564.54
G111704	Research Triangle Institute	Private for Profit	857.02	642.77
G0501928	Secure Planet, Inc	Private for Profit	-9105.48	-4552.74
G0503717	Cancer Prevention and Research Institute of Texas	State Agency	32591.71	8147.93
G0502328	Texas Education Agency	State Agency	8327.05	4163.53
C107580	University of Houston - Residual Funds	State Institution	78.81	78.81
G0503070	University of Houston - Residual Funds	State Institution	7.69	7.69
G0503564	University of Houston - Residual Funds	State Institution	8437.93	8437.93
G0503594	University of Houston - Residual Funds	State Institution	115.13	115.13
G0503894	University of Houston - Residual Funds	State Institution	3421.39	3421.39
G0504292	University of Houston - Residual Funds	State Institution	6088.60	6088.60
G0504518	University of Texas at Austin	State Institution	85793.74	42896.87
G0501228	Baylor College of Medicine	University	199779.23	24972.40
G0503221	Harvard University	University	11309.97	9047.98
G0505228	Harvard University	University	10616.51	10616.51

PROJECT_ID	SPONSOR_NAME	SPONSOR_TYPE	Total Expenses	TIMES Share
G0502863	Tulane University	University	113100.78	67294.96
G0502231	University of South Florida	University	96626.45	77301.16

d. Publications and presentations (count contributions by members only unless affiliates credit split). Only count and include material that is either in press or published.

1. Peer-reviewed journal articles: **212**
2. Peer-reviewed journal articles that acknowledge center/institute affiliation or support: **Not Tracked**
3. Non-peer-reviewed (NPR) articles & book chapters: **20 Chapters in Edited Books**
4. NPR articles & book chapters that acknowledge center/institute affiliation or support: **Not Tracked**
5. Books: **3**
6. Books that acknowledge center/institute affiliation or support: **not tracked**
7. Research presentations and abstracts: **Not Tracked by All Center Investigators.**
8. Research presentations & abstracts that acknowledge center/institute affiliation or support: **Not Tracked**
9. Provide a list of all items counted in 1 to 8; give complete citations.

Please note that the counts above reflect the total article publication count across all TIMES investigators for articles and chapters, and thus involve some overcounting due to collaboration among TIMES investigators (same article appearing on CV's of different investigators). Books reflects the actual count. Also, not all faculty track research presentations or published conference proceedings except for our computer scientists and engineers, where these outlets are considered more important than in the social sciences. Consequently, these are not tallied in the table above, but are included for the computer scientists and engineers in the detailed scholarly output report below.

Intellectual Contributions
TIMES Investigators - University of
Houston Fiscal Year 2020

Ahmed, Yusra

Other Intellectual Contributions: Book Chapters

Ahmed, Y. & Wagner, R. (2020). A “simple” illustration of a joint model of reading and writing using meta-analytic structural equation modeling (MASEM) (pp. 55-57). In Alves, R., Limpo, T. & Joshi, M. (Eds.) *ReadingWriting Connections: Towards Integrative Literacy Science*. Dordrecht, Netherlands: Springer.

Other Intellectual Contributions: Conference Proceedings

Ahmed, Y. (2020). Progression of reading and writing (dis)abilities in grades 1-12. Invited address at the Literacy Studies Group, Texas A&M University, College Station, Texas.

Refereed Journal Articles

Ahmed, Y., Miciak, J., Taylor, W. P., and Francis, D., (in press). Structure altering effects of a multi-component reading intervention: An application of the Direct and Inferential Mediation (DIME) model of reading comprehension in upper elementary grades. *Journal of Learning Disabilities*.
Gioia, A. , Ahmed, Y., Woods, S., & Cirino, P. (2020). The Assessment of Writing, Self-Monitoring, and Reading (AWSM Reader) and Relations with Executive Functioning. *International Neuropsychological Society*.

Alfano, Candice

Other Intellectual Contributions: Conference Proceedings

Alfano, C.A., Bower, J.L., McLaughlin, M., Connaboy, C. & Simpson, R. (January, 2020). Somatic Complaints and Biomarkers of Stress as Predictors of Mental Health in the Antarctic. Paper presented at the NASA Human Research Program Investigators’ Workshop, Galveston, TX, USA.
Powell, S.L., Bower, J.L., Alfano, C.A. & Palmer, C.A. (March, 2020). Adolescent Antecedent-Focused Emotion Regulation Strategies: Associations with Depression and Anxiety. Poster presented at the Biennial Meeting of the Society for Research in Adolescence. San Diego, CA.

Refereed Journal Articles

Alfano, C.A. (2020). Foster Agency Workers’ Perceptions of Sleep among Children in Foster Care. *Children and Youth Services Review*. Online ahead of Print
Alfano, C.A., Bower, J., Harvey, A. Sharp, C.S., Beidel, D.C. & Palmer, C.A. (2020). Sleep Restriction Alters Children’s Positive Emotional Responses but Effects are Moderated by Anxiety. *Journal of Child Psychology and Psychiatry*. Online ahead of Print
Alfano, C.A. & McGlinchey, E. (2020). Editorial overview: Sleep, mental health and psychopathology. *Current Opinion in Psychology*. Online ahead of Print

Due: January 31,



- Clementi, M.A. & Alfano, C.A. (2020). Efficacy of an Integrated Sleep and Anxiety Intervention for Anxious Children: A Pilot Randomized Controlled Trial. *Clinical Child Psychology and Psychiatry*. Online ahead of Print Connaboy, C, LaGoy, AD, Johnson, C., Sinnott, A., Eagle, S., Bower, JL, Pepping, GJ, Simpson, & Alfano, CA. (2020). Sleep deprivation impairs affordance perception behavior during an action boundary accuracy assessment. *Acta Astronautica*, 166, 270-276.
- Connaboy, C., Sinnott, A. LaGoy, A., Krajewski, K.T., Johnson, C., Pepping, G., Simpson, R.J., Bower, J.L. & Alfano, C.A. (2020). Impact of Emotional Responses on Cognitive Function in Isolated, Confined, and Extreme Environments. *Acta Astronautica*, 177, 545-551.
- Fischer, J.T., Cirino, P.T., DeMaster, D., Alfano, C., Bick, J., Fan, W., & Ewing-Cobbs, L. (in press, 2020). Frontoatrial white matter integrity relations with ‘cool’ and ‘hot’ self-regulation following pediatric traumatic brain injury. *Journal of Neurotrauma*.
- LaGoy, AD, Sinnott, AM, Ambarian, M, Pepping, GJ, Simpson, RJ, Agah, NH, Bower, JL, Alfano, CA & Connaboy, C. (2020). Affordance-based Behaviors within an Isolated and Confined Environment are Related to Sleep, Emotional Health and Physiological Parameters. *Acta Astronautica*, 176, 238-246.
- Meers, J., Bower, J.L. & Alfano, C.A. (2020). Poor Sleep and Emotion Dysregulation Mediate the Association between Depressive and Premenstrual Symptoms in Young Adult Women. *Archives of Women's Mental Health*, 23, 351-390.
- Meers, J., Ferri, R., Bruni, O. & Alfano, C. (2020). Sleep Spindle Density is Associated with Worry in Children with Generalized Anxiety Disorder and Healthy Controls. *Journal of Affective Disorders*, 260, 418-425.
- Moreno, J.P., Crowley, S.J., Alfano, C.A., Thompson, D. (2020). Physiological Mechanisms Underlying Children's Circannual Growth Patterns and their Contributions to the Obesity Epidemic in Elementary School Age Children. *Obesity Reviews*, 21, e12973.
- Palmer, C.A., Alfano, C.A., & Bower, J.L. (2020). Adolescent sleep patterns are associated with the selection of positive and negative emotional situations. *Journal of Sleep Research*. Online ahead of Print
- Wall, K., Vanwoerden, S., Penner, F., Patriquin, M., Alfano, C. & Sharp, C. (2020). Adolescent sleep disturbance, emotion regulation and borderline features in an inpatient setting. *Journal of Clinical Child and Adolescent Psychology*. Online ahead of Print.
- Zvolensky, M. J., Garey, L., Rogers, A. H., Schmidt, N. B., Vujanovic, A. A., Storch, E. A., Buckner, J. D., Paulus, D. J., Alfano, C., Smits, J. A. J., & O’Cleirigh, C. (2020). Psychological, addictive, and health behavior implications of the COVID-19 pandemic. *Behaviour Research and Therapy*, 134, 103715.

Benoit, Julia

Refereed Journal Articles

- Benoit, JS, Chan W, Piller W, Doody R. Longitudinal Sensitivity of Alzheimer’s Disease severity staging. *American Journal of Alzheimer’s Disease and Other Dementias*. (2020) 35: 1533317520918719. doi:10.1177/1533317520918719 .
- Benoit JS, Ravikumar A, Marsack JD, Anderson HA. Understanding the impact of individual perceived image quality features on Visual Performance. *Translational Vision Science & Technology*. (2020); Apr 9;9(5):7.
- Logan AKM, Datta A, Skidmore K, Tomiyama ES, Hu C, Chandler MA, Procopio B, Bhadane M, Benoit JS, Ritchey ER, Wolffsohn JS, Richdale K. Randomized Clinical Trial of Near Visual Performance with Digital



Devices using Spherical and Toric Contact Lenses. *Optometry and Vision Science* (2020) Jul; 97(7): 518-525.

Bick, Johanna

Other Intellectual Contributions: Book Chapters

Lipschutz, R., Bick, J. Neurobiological outcomes for children with early psychosocial deprivation experience. (2020). In Wrobel., G, Helder, E., and Marr, (Eds). *The Routledge Handbook of Adoption*.

Refereed Journal Articles

- Barbot., B., Hein, S., Trentacosta, C., Beckmann, J.F., Bick, J., Crocetti, Y., Yangyang, L., Fernandez Rao, S., Liew, J., Overbeek, G., Ponguta, L., Scheithaurer, H., Super, C., Arnett, J., Bukowski, W., Cook, T.
Cote, J., Eccles, J., Eid, M.,...van IJzendoorn (2020). Manifesto for new directions in developmental science. *New Directions for Child and Adolescent Development*, 172, 135-149.
- Fischer, J., Cirino, P., Demaster, D., Alfano, C., Bick, J., Fan Weihua, Ewing-Cobbs, L. (2020). Frontostriatal white matter integrity relations with ‘cool’ and ‘hot’ self-regulation following pediatric traumatic brain injury. *Journal of Neurotrauma*.
- Hein, S., Bick, J., Issa, G., Aoude, L., Maalouf, C., Awar, A., Nourallah, S., Zonderman, A., Householder, S., Katsoyich, L., Khoshnood, K., Moore, C., Salah, R., Britto, P., Leckman, J., L., Ponguta, L. (2020). Maternal perceptions of father involvement among refugee and disadvantaged families in Beirut, Lebanon. *PLOS One*.
- Porto, J., Bick, J., Perdue, K., Richards, J., Nunes, M., Nelson, C.A. (2020). The influence of maternal anxiety and depression symptoms on fNIRS brain responses to emotional faces in 5 and 7-month-old infants. *Infant Behavior and Development*.
- Ponguta, L., Ghassan, I., Aoudeh, L., Maalouf, C., Hein, S., Zonderman, A., Katsoyich, L., Khoshnood, K., Bick, J., Awar, A. Nourallah, S., Householder S. Moore, C., Salah, R., Britto, P., & Leckman, J. (2020). Effects of the Mother-Child Education Program on Parenting Stress and Disciplinary Practices Among Refugee and Other Marginalized Communities in Lebanon: A Pilot Randomized Controlled Trial. *Journal of the American Academy of Child & Adolescent Psychiatry*.

Bunta, Ferenc

Refereed Journal Articles Other Intellectual Contributions: Book Chapters

- Bóna, J., Jordanidisz, Á., Auszmann, A., & Bunta, F. (2020). Phonetic characteristics of filled pauses in English- Hungarian bilingual and Hungarian monolingual speech. In Fangfang Li, Karen Pollock, and Robinn Gibb (Eds.), *Child Bilingualism and Second Language Learning: Multidisciplinary Perspectives*, Chapter 7 (pp. 113-136). John Benjamins.
- Francis, D., Santi, K., Khalaf, S., Bunta, F., Rojas, R., Gusewski, S., & Hiebert, L. (2020). Identification of Disabilities in Spanish-speaking children in English-speaking contexts. In E. Grigorenko, E., Y. Shtyrov, & P. McCardle (Eds.), *All about Language: Science, Theory, and Practice*, Chapter 12.



Brookes Publishing.

Burenkova, Olga

Other Intellectual Contributions: Conference Proceedings

Burenkova, O. V., Naumova, O. Y., Church, J.A., Juranek, J., Grigorenko, E. L. Association between DNA methylation of the HPA axis genes in peripheral cells and brain structure in middle-school-age children/Poster presentation at 2021 LDRC/LD Hub Annual Meeting

Refereed Journal Articles

Burenkova, O. V., Averkina, A. A., Aleksandrova, E. A., & Zarayskaya, I. Y. (2020). Brief but enough: 45-min maternal separation elicits behavioral and physiological responses in neonatal mice and changes in dam maternal behavior. *Physiology & behavior*, 222, 112877.

Burenkova, O. V., & Podturkin, A. A. (2020). Objective Assessment of Temperament in Temperamentally Vulnerable Children: Role in the Studies on Their Stress Levels. *New directions for child and adolescent development*, 2020(169), 97-115.

Carlson, Coleen D.

Other Intellectual Contributions: Book Chapters

Carlson, C. (2020). Reading Fluency Among English Learners. In E. Cardenas-Hagan (Ed.) *Literacy Foundations for English Language Learners Language Learners: A Comprehensive Guide to Evidence Based Instruction*. Baltimore, MD: Brookes Publishing Co.

Refereed Journal Articles

Mazurek, M.O., Carlson, C., Baker-Ericzén, M., Butter, E., Norris, M., & Kanne, S. (2020). Construct Validity of the Autism Impact Measure (AIM). *Journal of Autism and Developmental Disorders*, 50(7), 2307-2319.

<https://doi.org/10.1007/s10803-018-3462-8>.

Mazurek, M.O., Carlson, C., Baker-Ericzen, M., Butter, E., Norris, M., Barr, C., & Kanne, S. (2020). The Autism Impact Measure (AIM): Examination of Sensitivity to Change. *Autism Research*, 13(11), 1867-1879.

<https://doi.org/10.1002/aur.2397>.

Castilla-Earls, Anny

Refereed Journal Articles

Castilla-Earls, A., Auza, A., Perez-Leroux, A. T., Fulcher-Rood, K., & Barr, C. (2020). Morphological Errors in Monolingual Spanish-Speaking Children with and without Developmental Language Disorders. *Speech, Language and Hearing Services in the Schools*, 51(2):270-281.

Castilla-Earls, A., Bedore, L., Rojas, R. Fabiano-Smith, L., Pruit-Lord, S., Peña, L., & Restrepo, L. (2020). Beyond Scores: Using Converging Evidence to Determine Speech and Language Services Eligibility for Dual Language Learners. *American Journal of Speech Language Pathology*, 1116–1132.



Fulcher-Rood, K., Castilla-Earls, A.P, Higginbotham, J. (2020). What Does Evidence-Based Practice Mean to You? A Follow-Up Study Examining School-Based Speech-Language Pathologists' Perspectives on EvidenceBased Practice. *American Journal of Speech Language Pathology*, 1-17.

Cirino, Paul

Other Intellectual Contributions: Book Chapters

Cirino, P.T. (2020, in press). Math Disabilities. In M. Beauchamp, R. Peterson, D. Ris, G. Taylor, & K. Yeates (Eds.), *Pediatric Neuropsychology*, 3rd Edition (Chapter 11). Brookes.

Other Intellectual Contributions: Conference Proceedings

- Babicz, M.A., Podell, K., Woods, S.P., & Cirino, P.T. (2020, February). A new addition to the concussion toolkit?: Examining the incremental validity of the vestibular/ocular motor screening items. Poster presented at the 48th annual meeting of the International Neuropsychological Society, Denver, CO.
- Cirino, P.T., Barnes, M.A., Roberts, G., Miciak, J., & *Gioia, A. (2020, February). Visual attention and reading. Poster presented at the 48th annual meeting of the International Neuropsychological Society, Denver, CO.
- Halverson, K.K., Medina, L., Derrick, J., & Cirino, P.T. (2020, February). Executive function in struggling readers: The NIH Examiner. Poster presented at the 48th annual meeting of the International Neuropsychological Society, Denver, CO.
- Macdonald, K.T., Francis, D., Hernandez, A., & Cirino, P.T. (2020, February). Dimensionality of language among middle school ELs who are struggling readers. Poster presented at the 48th annual meeting of the International Neuropsychological Society, Denver, CO.
- Ochoa Lopez, A., Cirino, P.T., & *Halverson, K.K. (2020, February). Sluggish cognitive tempo and academic achievement in undergraduate students. Poster presented at the 48th annual meeting of the International Neuropsychological Society, Denver, CO.

Refereed Journal Articles

- Babicz, M.A., Woods, S.P., Cirino, P.T., Colton, Z., Presley, C., & Podell, K. (in press, 2020). A new addition to the concussion toolkit?: Examining the incremental validity of the Vestibular/Ocular Motor Screening items. *Clinical Journal of Sports Medicine*.
- Fischer, J.T., Cirino, P.T., DeMaster, D., Alfano, C., Bick, J., Fan, W., & Ewing-Cobbs, L. (in press, 2020). Frontostriatal white matter integrity relations with 'cool' and 'hot' self-regulation following pediatric traumatic brain injury. *Journal of Neurotrauma*.
- Fuchs, L.S., Powell, S.R., Fall, A.M., Roberts, G., Cirino, P.T., Fuchs, D., & Gilbert, J.K. (2020). Do the processes engaged during mathematical word-problem solving differ along the distribution of word-problem competence? *Contemporary Educational Psychology* (online).
- Gerst, E.H., Cirino, P.T., Miciak, J., *Macdonald, K., Yoshida, H., Gibbs, M.C., & Woods, S.P. (in press). The structure of processing speed in children and its impact on reading. *Journal of Cognition and Development*.
- Macdonald, K.T., Barnes, M.A., Miciak, J., Roberts, G., *Halverson, K.K., Vaughn, S., & Cirino, P.T. (in press, 2020). Sustained attention and behavioral ratings of attention in struggling readers. *Scientific Studies of Reading*.
- Macdonald, K.T., Cirino, P.T., Miciak, J., & Grills, A. (in press). The roles of reading anxiety and self-efficacy in reading outcomes among struggling 4th and 5th graders. *Reading and Writing Quarterly: Overcoming Learning Disabilities*.



- Medina, L.D., *Torres, S., *Gioia, A., *Lopez, A.O., Wang, J., & Cirino, P.T. (in press, 2020). Reporting of demographic variables in neuropsychological research: An update of O'Bryant et al.'s 2004 trends in the current literature. *Journal of the International Neuropsychological Society*.
- Vaughn, S., Capin, P., Scammacca, N., Roberts, G., Cirino, P.T., & Fletcher, J.M. (2020). The critical role of word reading as a predictor of response to intervention. *Journal of Learning Disabilities*, 53(6), 415-427.
- Yoshida, H., Cirino, P.T., Burling, J.M., & Lee, S. (2020). Parents' gesture adaptations to children with autism spectrum disorder. *Journal of Child Language*, 47(1), 205-224.

Fletcher, Jack M.

Other Intellectual Contributions: Book Chapters

- Church J.A., & Fletcher J.M. (2020). Neuroimaging. In M. A. Mallette & N. K. Duke (Eds.). *Literacy research methods* (3rd edition). New York: Guilford Press.
- Fletcher, J.M. (2020). Congenital and acquired hydrocephalus. In K. Stucky, M. Kirkwood, & J. Donders (Eds.) *Clinical neuropsychology study guide and board review* (2nd Ed., pp. 363-379). New York: Oxford Press.
- Williams, V.J., Treble-Barna, A., Ware, A., & Fletcher, J.M. (in press). Spina bifida and other neural tube defects. In P.T. King, G. G .Brown, B. Crosson. & K. Haaland (Eds.). *Handbook of neuropsychology* (Vol. 1). Washington DC: American Psychological Association.

Refereed Journal Articles

- Fletcher, J. M., Francis, D. J., Foorman, B. R., & Schatschneider, C. (in press). Early detection of dyslexia risk: Development of brief, teacher-administered screens. *Learning Disability Quarterly*, 0731948720931870.
- Fletcher, J.M., & Juranek, J.J. (2020). Spina bifida myelomeningocele: The brain and neuropsychological outcomes. *Journal of Clinical Psychology and Special Education*, 9, 1-14.
- Fletcher, J.M., & Kuletz, P. (in press). Brain malformations and spina bifida. *Developmental Medicine and Child Neurology*, 63, 242.
- Fletcher, J. M., Savage, R., & Vaughn, S. (2020). A Commentary on Bowers (2020) and the Role of Phonics Instruction in Reading. *Educational Psychology Review*, 1-26.
- Grigorenko, E.L., Compton, D., Fuchs, L., Wagner, R., Willcutt, E., & Fletcher, J.M. (2020). Understanding, educating, and supporting children with specific learning disabilities: 50 years of science and practice. *American Psychologist*, 75, 37-51.
- Houtrow, A.J., MacPherson, C., Jackson-Coty, J., Rivera, M., Flynn, L., Burrows, P.K., Adzick, N.S., Fletcher, J., Gupta, N., Howell, L.J. & Brock, J.W. (in press). Prenatal repair and physical functioning among children with myelomeningocele: A secondary analysis of a randomized clinical trial. *JAMA Pediatrics*, e205674-e205674.
- Houtrow, A. J., Thom, E. A., Fletcher, J. M., Burrows, P. K., Adzick, N., Thomas, N. H., Brock, J. W., Cooper, T., Lee, H., Bilaniuk, L., Glenn, O. A., Pruthi, S., MacPherson, C., Farmer, D. L., Johnson, M. P., Howell, L. J., Gupta, N., & Walker, W. O. (2020). Prenatal repair of myelomeningocele and school-age functional outcomes. *Pediatrics*, 145 (2). <http://dx.doi.org/10.1542/peds.2019-1544>
- Queally, J. T., Barnes, M. A., Castillo, H. A., Castillo, J., & Fletcher, J. M. (in press). Neuropsychological care guidelines for people with spina bifida. *Journal of Pediatric Rehabilitation Medicine*.
- Vaughn, S., Capin, P., Scammacca, N., Roberts, G., Cirino, P., & Fletcher, J. M. (2020). The critical role of word reading as a predictor of response to intervention. *Journal of Learning Disabilities*, 53, 415-427.



- Vaughn, S., & Fletcher, J.M. (in press). Explicit and systematic instruction for students with reading difficulties. *The Reading League Journal*.
- Vaughn, S., & Fletcher, J.M. (in press). Identifying and teaching students with significant reading problems. *American Educator*.
- Ware, A. L., Kulesz, P. A., Orkisz, J. S., Arrington, C. N., Bowman, R. M., & Fletcher, J. M. (2020). Long-term intellectual and fine motor outcomes in spina bifida are related to myelomeningocele repair and shunt intervention history. *Journal of the International Neuropsychological Society*, 26, 364-371.

Francis, David J.

Other Intellectual Contributions: Book Chapters

- Francis, D., Santi, K., Khalaf, S., Bunta, F., Rojas, R., Gusewski, S., & Hiebert, L. (2020). Identification of Disabilities in Spanish-speaking children in English-speaking contexts. In E. Grigorenko, E., Y. Shtyrov, & P. McCardle (Eds.), *All about Language: Science, Theory, and Practice*, Chapter 12. Brookes Publishing.

Refereed Journal Articles

- Ahmed, Y., Miciak, J., Taylor, W. P., and Francis, D., (in press). Structure altering effects of a multi-component reading intervention: An application of the Direct and Inferential Mediation (DIME) model of reading comprehension in upper elementary grades. *Journal of Learning Disabilities*.
- August, D., Uccelli, P., Artzi, L., Barr, C., Francis, DJ (2020). English Learners' Acquisition of Academic Vocabulary: Instruction Matters, but so Do Word Characteristics. *Reading Research Quarterly*, <https://doi.org/10.1002/rrq.323>
- Fletcher, J. M., Francis, D. J., Foorman, B. R., & Schatschneider, C. (in press). Early detection of dyslexia risk: Development of brief, teacher-administered screens. *Learning Disability Quarterly*, 0731948720931870.
- Ozturk M, Abosch A, Francis D, Wu J, Jimenez-Shahed J, Ince NF. Distinct subthalamic coupling in the ON state describes motor performance in Parkinson's disease. *Mov Disord*. 2020 Jan;35(1):91-100. doi: 10.1002/mds.27800. Epub 2019 Jul 26. PubMed PMID: 31348550.

Francis, Joseph

Refereed Journal Articles

- Atique, M.M.U., Francis, J.T. (2020). Mirror Neurons are Modulated by Reward Expectation and Grip Force in the Sensorimotor Cortices. *bioRxiv*, 2020.12.20.424850
- Cicalese, P.A., Li, R., Ahmadi, M.B., Wang, C., Francis, J.T., Selvaraj, S. Schulz, P.E. (2020). An EEG-fNIRS hybridization technique in the four-class classification of alzheimer's disease. *Journal of Neuroscience Methods*, 336, 108618.
- Moore, B., Khang, S., Francis, J.T. (2020). Noise-Correlation is Modulated by Reward Expectation in the Primary Motor Cortex Bilaterally During Manual and Observational Tasks in Primates. *Frontiers in Behavioral Neuroscience* 14.



Gallagher, Matthew

Other Intellectual Contributions: Book Chapters

- Gallagher, M. W., & Long, L. J. (2020). Assessing Well-being. In D. H. Barlow & M. Antony (Eds.). *Handbook of Assessment and Treatment Planning for Psychological Disorders*. Guilford.
- Gallagher, M. W. & Lopez, S. J. (in press). Strengthening positive psychology. In C. R. Snyder, S. J. Lopez, L. M. Edwards, & S. Marques (Eds.). *Handbook of Positive Psychology* (3rd ed). New York: Oxford University Press
- Gallagher, M. W. (in press). Reality negotiation. In C. R. Snyder, S. J. Lopez, L. M. Edwards, & S. Marques (Eds.). *Handbook of Positive Psychology* (3rd ed). New York: Oxford University Press

Refereed Journal Articles

- Gallagher, M. W., Smith, L. J., Richardson, A. L., & Long, L. J. (in press). Examining associations between COVID-19 experiences and Posttraumatic Stress. *Journal of Loss and Trauma*
- Gallagher, M. W., Smith, L. J., Richardson, A. L., D'Souza, J. M., & Long, L. J. (in press). Examining the longitudinal associations and potential mechanisms of hope on COVID-19 stress, anxiety, and well-being. *Cognitive Behaviour Therapy*
- Manning, K., Eades, N. D., Kauffman, B. Y., Long, L. J., Richardson, A. L., Garey, L., Zvolensky, M. J., & Gallagher, M. W. (in press). Anxiety Sensitivity Moderates the Impact of COVID-19 Perceived Stress on Anxiety and Functional Impairment. *Cognitive Therapy & Research*.
- Manning, K., Zvolensky, M. J., Garey, L., Long, L. J., & Gallagher, M. W. (in press). The Explanatory Role of Fatigue Severity in the Relation between COVID-19 Perceived Stress and Depression, Anxiety, and Panic Severity. *Cognitive Behaviour Therapy*.
- O'Donnell, M. L., Lau, W., Chisholm, K., Agathos, J., Little, J., Brand R., Putica A., Holmes A., Katona L., Felmingham, K., Murray, K., Hosseiny, F., & Gallagher, M. W. (in press). A pilot study of the efficacy of the Unified Protocol for Transdiagnostic Treatment of Emotional Disorders in treating posttraumatic psychopathology. A Randomized Controlled Trial. *Journal of Traumatic Stress*
- Paulus, D. J., Gallagher, M. W., Neighbors, C., & Zvolensky, M. J. (in press). Computer-Delivered Personalized Feedback Intervention for Hazardous Drinkers with Elevated
- Richardson, A. L., & Gallagher, M. W. (in press). Giving Thanks is Associated with Lower PTSD Severity: A Meta- Analytic Review. *Journal of Happiness Studies*
- Sharp, C. Vanwoerden, S., Gallagher, M. W., Williams, L., & Newlin, E. (in press). The course of borderline psychopathology in adolescents with complex mental health problems: An 18 month longitudinal follow-up study. *Research on Child and Adolescent Psychopathology* (formerly *Journal of Abnormal Child Psychology*).
- Taft, C. T., Gallagher, M. W., Hoffman, A., Cole, H. E., Creech, S. K. (in press). Does Strength at Home for Couples Prevent Sexual Aggression in Returning Veterans? Examining Randomized Controlled Findings. *Psychological Trauma: Theory, Research, Practice, and Policy*.



- Zemestani, M., Ommati, P., Rezaei, F., & Gallagher, M. W. (in press). Changes in facets of neuroticism over the Unified Protocol for Transdiagnostic Treatment of Emotional Disorders in patients on an optimal dose of SSRI. *Personality Disorders: Theory, Research and Treatment*.
- Zvolensky, M., D'Souza, J., Garey, L., Alfano, C.A., Mayorga, N., Peraza, N., & Gallagher, M. (2020). Subjective Sleep Quality and Electronic Cigarette Dependence, Perceived Risks of Use, and Perceptions About Quitting. *Addictive Behavior*, 102.

Grigorenko, Elena

Awards

- Grigorenko - Mary Ainsworth Award for Excellence in Developmental Science, American Psychological Association (Division 7), 2020
- Grigorenko - International Mind, Brain and Education Society (IMBES) Translation Award, 2020

Other Intellectual Contributions: Conference Proceedings

- Burenkova, O. V., Naumova, O. Y., Church, J.A., Juranek, J., Grigorenko, E. L. Association between DNA methylation of the HPA axis genes in peripheral cells and brain structure in middle-school-age children/Poster presentation at 2021 LDRC/LD Hub Annual Meeting

Refereed Journal Articles

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Haile, Colin

Patents and/or other Intellectual Property Filings

Provisional Patent: “Adjuvanted Conjugate Opioid Vaccine” Haile CN, Cuny GD, Norton EB, Kosten TA. University of Houston System & Tulane University, App # 63030609, 5/27/2020

Startup Companies via UH:

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Horn, Catherine

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Ince, Nuri F.



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Title: Systems and methods for locating an implantation site in the brain.- UHID 2020-062

Application No. 63/068,155 , filed on August 14, 2020.

Title: Systems and methods for determining deep brain stimulation parameters- UHID 2020-061

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Johnsson, Lennart

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Kakadiaris, Ioannis

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Kulesz, Paulina A.

Other Intellectual Contributions: Conference Proceedings

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Leasure, J. Leigh

Other Intellectual Contributions: Book Chapters

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Prabhu and Nuri F. Ince, Chapter Title: "Power Modulations of Gamma Band in Sensorimotor Cortex Correlate with Time-derivative of Grasp Force in Human Subjects", Book Title: Brain-Computer Interface Research - A State-of-the-Art Summary edited by: Dr. Christoph Guger, Dr. Brendan Allison, Dr. Michael Tangermann

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Price, Dan

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Santi, Kristi L.

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Sharp, Carla

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Sharp, C., & *Hernandez, J. (in press). Mindreading and Psychopathology in Middle Childhood and Adolescence. In S. Lecce & R.T. Devine. *Theory of Mind in Middle Childhood and Adolescence: Integrating Multiple Perspectives*. London: Taylor and Francis.

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McLaren, V., & Sharp, C. (2020, April). The relative strength of the relationship between hypermentalizing and borderline personality disorder in the context of other disorders: A meta-analytic



- review. Speed talk to be presented at the 2020 meeting of the North American Society for the Study of Personality Disorders (NASSPD), Pittsburgh, PA.
- Penner, F., & Sharp, C. Direct and indirect effects of change in mentalizing and emotion regulation on borderline symptom change during inpatient treatment. Speed talk to be presented at the 2020 meeting of the North American Society for the Study of Personality Disorders (NASSPD), Pittsburgh, PA, April 2-4, 2020.
- Saint Amand, C., Pardo, S., Sharp, C., Olson-Kennedy, J., & Rider, G.N. (October 2020). Developmental milestones for a national sample of transgender children and adolescents. Paper presented at the 21st Annual Mayo Clinic Family Medicine Research Forum, Virtual Conference.
- Wall, K. & Sharp, C. (2020, April). Screening for borderline personality pathology on college campuses. Speed talk to be presented at the 2020 meeting of the North American Society for the Study of Personality Disorders (NASSPD), Pittsburgh, PA. April 2-4, 2020.

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- Akça, Ö. F., *Wall, K., & Sharp, C. (in press) Borderline Personality Disorder and Attention Deficit/Hyperactivity Disorder: Overlap and Differences in a Clinical Setting. *Borderline Personality Disorder and Emotion Dysregulation*. [IF: 2.067]
- Ballespí, S., Vives, J., Sharp, C., Chanes, L., & Barrantes-Vidal, N. (in press). Self and other mentalizing and dimensions of mental health: Association to types of symptoms, functioning and well-being. *Frontiers in Psychology*. [IF: 2.067]
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- Hutsebaut, J., Debanne, M., & Sharp, C. (in press). Designing a range of mentalizing interventions for young people using a clinical staging approach to borderline pathology. *Borderline Personality Disorder/Emotion Dysregulation*. [IF: 2.067]
- Jørgensen, M., Bo, S., Vestergaard, M., Storebø, O., Sharp, C., & Simonsen, E. (in press). Predictors of dropout among adolescents with borderline personality disorder attending Mentalization-based group treatment. *Psychotherapy Research*. [IF: 3.367]
- Kerr, S., Hudenko, W., *Godfrey, D., Lundgren, S., O'Malley, J., & Sharp, C. (in press). Validation of the Emotional Tone Index for Families (ETIF): A multi-informant measure of emotional closeness. *Family Process*. [IF: 2.175].
- Kerr, S., *Penner, F., Sharp, C. (in press). Interpersonal problems in parents and adolescent borderline personality disorder features. *Journal of Personality Disorders*. [IF: 3.796]
- Miles, S. R., Kent, T. A., Stanley, M., Thompson, K. E., Sharp, C., Niles, B. L., Young-McCaughan, S., Mintz, J., Roache, J. D., Litz, B. T., Hale, W. J., Stanford, M. S, Keane, T. M., & Peterson, A. L., for the Consortium to Alleviate PTSD. (2020). Manage Emotions to Reduce Aggression: A pilot study of a brief treatment to help veterans reduce impulsive aggression. *Journal of Nervous and Mental Disease*. Advance online publication. <https://doi.org/10.1097/nmd.0000000000001229>.
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- Sekowski, M., Gambin, M., & Sharp, C. (in press). The relations between identity disturbances, borderline features, internalizing disorders and suicidal ideation in inpatient adolescents. *Journal of Personality Disorders*. [IF: 3.796]
- Sekowski, M., Cudo, A., Qozniak-Prus, M., *Penner, F., Fonagy, P., & Sharp, C. (in press). The relations between childhood maltreatment, shame, guilt, depression and suicidal ideation in inpatient adolescents. *Journal of Affective Disorders*.
- Sharp, C., Chanen, A., & Cavelti, M. (in press). Personality challenges in young people: From description to action. *Current Opinion in Psychology*. [4.162]



- Sharp, C., Kulesz, P., Marais, L., Shohet, C., Rani, K., Lenka, M., Cloete, J., *Vanwoerden, S., Givon, D., & Boivin, M. (in press). Mediation Intervention for Sensitizing Caregivers to improve mental health outcomes in orphaned and vulnerable children. *Journal of Clinical Child and Adolescent Psychology*. [IF: 3.656].
- Sharp, C., Shohet, C., Givon, D., *Penner, F., Marais, L., & Fonagy, P. (2020). Learning to mentalize: A mediational approach for caregivers and therapists. *Clinical Psychology: Science and Practice*. [IF: 6.028].
- Sharp, C. Vanwoerden, S., Gallagher, M. W., Williams, L., & Newlin, E. (in press). The course of borderline psychopathology in adolescents with complex mental health problems: An 18 month longitudinal follow-up study. *Research on Child and Adolescent Psychopathology* (formerly *Journal of Abnormal Child Psychology*).
- Sharp, C., *Vanwoerden, S., Jouriles, E.N., *Godfrey, A., Babcock, J., *McLaren, V., McFarlane, J., Brashear, B., Walton, Q., & Temple, J. (in press). Exposure to interparental intimate partner violence and the development of borderline features in adolescents. *Child Abuse and Neglect*.
- Sharp, C. & *Wall, K. (in press). DSM-5 Level of Personality Functioning: Refocusing personality disorder on what it means to be human. *Annual Review of Clinical Psychology*. [IF: 13.692].
- Sumlin, E., *Wall, K., & Sharp, C. (in press). The moderating role of dissociation in the relation between borderline features and factors of self-injury in adolescents. *Personality and Mental Health*. [IF: 1.832]
- Vanwoerden, S., *Penner, F., *Pearson, C., Bick, J., Yoshida, H., & Sharp, C. (in press). Testing the link between mothers' general reflective function capacity and adolescent borderline personality features: Perceived parenting behaviors as a potential mechanism. *Journal of Personality Disorders*. [IF: 3.796]
- Wall, K., *Kerr, S., *Nguyen, M., & Sharp, C. (in press). The relation between measures of explicit shame and borderline personality features in adolescent inpatients. *Journal of Affective Disorders*. [IF: 3.796]

Steinberg, Lynne

Refereed Journal Articles

- Steinberg, L., & *Rogers, A. (2020, online) Changing the scale: The effect of modifying response scale labels on the measurement of personality and affect. *Multivariate Behavioral Research*. DOI: 10.1080/00273171.2020.1807305
- Thissen, D., & Steinberg, L. (2020). An intellectual history of parametric item response theory models in the twentieth century. *Chinese/English Journal of Educational Measurement and Evaluation*, 1:1, 23 – 39. Available at: <https://www.ce-jeme.org/journal/vol1/iss1/5>

Venta, Amanda



Books

- Feu, M. & Venta, A. (In press). Serving refugee children: Activists and researchers listen to stories of detention in the USA. New York, NY: Peter Lang.
- Venta, A., Sharp, C., Fonagy, P., Fletcher, J.M. (Eds) (in press). Developmental psychopathology. Hoboken, NJ: Wiley-Blackwell.

Other Intellectual Contributions: Book Chapters

- Fein, R., Venta, A., Meinert, A., Mire, S., & Bergez, K. (In press). Autism spectrum disorder. In. A Venta, C. Sharp, P. Fonagy, & J. Fletchers (Eds.), Developmental Psychopathology. Hoboken, NJ: Wiley-Blackwell.
- Mercado, A., Venta, A., Irizarry, R. (2020). Best Practice and Research Perspectives with Immigrant Groups. In M. Zangeneh (Eds.), Culture, Diversity, and Mental Health-Enhancing Clinical Practice. New York, NY US: Springer.
- Michel, D., & Venta, A. (In press). Eating disorders. In. A Venta, C. Sharp, P. Fonagy, & J. Fletchers (Eds.), Developmental Psychopathology. Hoboken, NJ: Wiley-Blackwell.
- Venta, A. & Abate, A. (In press). Insecure attachment and related difficulties. In. A Venta, C. Sharp, P. Fonagy, & J. Fletchers (Eds.), Developmental Psychopathology. Hoboken, NJ: Wiley-Blackwell.
- Venta, A. & Hart, J. (In press). Schizophrenia and psychosis. In. A Venta, C. Sharp, P. Fonagy, & J. Fletchers (Eds.), Developmental Psychopathology. Hoboken, NJ: Wiley-Blackwell.
- Venta, A. & Marshall, K. (In press). Developmental-contextual considerations as the bases for risk and resiliency in child/adolescent development. In G. Asmundson (Ed.), Comprehensive Clinical Psychology (2nd ed., Vol. 5). New York, NY US: Elsevier.
- Venta, A., Sharp, C., & Fonagy, P. (in press). Quo vadis? In Venta, Sharp, Fonagy & Fletcher (Eds). Developmental Psychopathology. Hoboken, NJ: Wiley-Blackwell.
- Venta, A. & Walker, J. (In press). Divorce, separation, and loss. In. A Venta, C. Sharp, P. Fonagy, & J. Fletchers (Eds.), Developmental Psychopathology. Hoboken, NJ: Wiley-Blackwell.

Other Intellectual Contributions: Conference Proceedings

- Abate, A., *Harmon, J., *Marshall, K., & Venta, A. (2020). Experiences of discrimination and offending: Examining the moderating role of self-efficacy. Paper presented to the annual conference of the American Psychology-Law Society, New Orleans, Louisiana.
- Bailey, C. A., *Long, T., & Venta, A. C. (2020). The effect of immigration status on emotional symptoms in college students. Paper presented at the Annual American Psychology-Law Society Conference, New Orleans, LA.
- Bailey, C.A., Mercado, A., Antuña, C., Hass, G., Garcini, L., Koslofsky, S., Morales, F., Venta, A., & Henderson, C. (2020). Creating Guidelines for Immigration Court Evaluations. In Patel, S. (Chair) Frontline Partnerships Promote Empirically-based Services for Immigrant Families. Symposium proposal presented at APA Division 37 at APA's Annual Scientific Meeting in Washington, D.C., delivered virtually.
- Bailey, C. A., Mercado, A., Hass, G., Antuña, C., Garcini, L., Koslofsky, S., Morales, F., Venta, A., & Henderson, C. (2020). Establishing guidelines for immigration evaluations: NLPA task force preliminary finding. Roundtable accepted for presentation at the annual convention of the National Latinx Psychological Association, delivered virtually.



- DeBrabander, M.J., & Venta, A. (2020). Migration experiences of Central American youth: A new measure and pilot data. Poster presented at the annual convention of the National Latino Psychological Association, Denver, CO, subsequently moved to virtual format.
- Henderson, C., *Long, T., *Ryan, L., Salami, T., Venta, A., & *Yenne, E. (2020). Growth in recovery among emerging adults from ethnic minority backgrounds: Impact of social support and Life Events. Poster presented at the Addiction Health Services Research 2020 Conference, presented virtually.
- Marshall, K., *Abate, A., Venta, A. (2020). Linguistic analysis of officers' court summary notes and juvenile outcomes: Examining the moderating role of race/ethnicity. Paper presented at the Annual American Psychology-Law Society Conference, New Orleans, LA.
- Morales, F. R., *Torres, A., Mercado, A., *Bailey, C., Venta, A., Colunga-Rodriguez, C., & Ángel-González, M. (2020). Emotion regulation as moderator of the relationship between caregiver separation and mental well-being in Latinx young adults. Data blitz presented at the Texas Psychological Association 2020 Annual Convention, virtual.
- Morales, F., Torres, A., Mercado, A., *Bailey, C., Venta, A., Colunga-Rodriguez, C., & Gonzalez, M. (2020). The moderating effect of parental migration on the relationship between alcohol involvement and emotional dysregulation in Latinx young adults. Poster presented at the National Latinx Psychological Association's Conference, Denver, CO, subsequently moved to virtual format.
- Rivera, J., *Long, T., *Galicía, B., *Abate, A., *Walker, J., & Venta, A. (2020). Measurement invariance of the Inventory of Peer and Parent Attachment among Latinx and non-Latinx college students. Poster presented at the annual convention of the National Latinx Psychological Association, Denver, CO, subsequently moved to virtual format.
- Robertson, S., Venta, A., Hakim, E., Keilin, G., Mouton-Odum, S., Stoeber-May, D., Lambert, K., Pietrantonio, K. (2020). Incorporating Practicum and Internship Students into Practice. Workshop presented at the Texas Psychological Association 2020 Annual Convention, virtual.
- Robertson, S., Venta, A., Hakim, E., Mercado, A., & Pietrantonio, K. (2020). Making the most of your TPA membership. Workshop presented at the Texas Psychological Association 2020 Annual Convention, virtual.
- Tejerina, R., Torres, A., Morales, F., Sevilla-Matos, M., Mercado, A., Bailey, C., Colunga-Rodriguez, C., Angel-Gonzalez, M., & Venta, A. (2020). Higher levels of anxious romantic attachment style among alcohol high-risk adults. Poster presented at the annual convention of Texas Psychological Association, presented virtually.
- Torres, A., Morales, F., Bailey, C., Colunga-Rodriguez, C., Angel-Gonzalez, M., Mercado, A., & Venta, A. (2020). Diagnostic performance and psychometric properties of the Ataque de Nervios Scale among SpanishSpeaking young adults. Poster presented at the annual convention of Texas Psychological Association, presented virtually.
- Torres, A., Morales, F., Navarro, S., Cerroblanco, J., Valdez, M., Mercado, A., Venta, A., *Bailey, C., Colunga-Rodriguez, C., & Gonzalez, M. (2020). Beyond PTSD: The relationship between trauma and emotional regulation among a Mexican youth sample left behind by parental migration. Poster presented at the 2020 National Latinx Psychological Association's Conference, Denver, CO, subsequently moved to virtual format.
- Venta, A., Mercado, A., & Garcini, L. (2020). Impact of the 'Remain In Mexico' Policy on Mental Health Practice and Research in Texas and Mexico. Workshop presented at the annual convention of the Texas Psychological Association, delivered virtually.

Refereed Journal Articles

- Abate, A., Marek, R., Venta, A., Taylor, L., & Velez, L. (2020). The Effectiveness of a Home-Based Delivery of Triple P in High-Risk Families in Rural Areas. *Journal of Child and Family Studies*,



- 29(4), 997-1007.
- Arreola, A. & Venta, A. (2020). Preliminary Data on the Relation between Acculturation, Weight, and Sleep in Recently Immigrated Adolescents from Central America. *Journal of Adolescent and Family Health*, 11(1), 1.
- Bailey, C.A., *Galicía, B.E., *Salinas, K.Z., *Briones, M., Hugo, S., Hunter, K., & Venta, A.C. (2020). Racial/ethnic and gender disparities in anger management therapy as a probation condition. *Law and Human Behavior*, 44(1), 88.
- Bailey, C. A, Langley, H. & Venta, A. C. (2020). The bilingual [dis] advantage. *Language and Cognition*, 12(2), 225- 281.
- Botero, M., Langley, H., & Venta, A. (2020). The untenable omission of touch in maternal sensitivity and attachment research. *Infant and Child Development*, 29(2), e2159.
- Colin, Y., *Muñoz, C., & Venta, A. (2020). Childhood abuse and externalizing behavior among immigrant high school students. *Bulletin of the Menninger Clinic*, 84(2), 180-196.
- Galicía, B.E., *Bailey, C.A., *Salinas, K.Z., *Briones, M., & Venta, A. (Accepted). Finding your own voice: Supervisees' experiences of clinical work with unauthorized Latinx immigrant minors. *Journal of Clinical Psychology & Special Education*.
- Harmon, J., *Boland, J., & Venta, A. (Accepted). An exploratory factor analysis of the motivations for electronic interaction scale. *Current Psychology*.
- Harmon, J., & Venta, A. (2020). Adolescent Posttraumatic Growth: A Review. *Child Psychiatry & Human Development*, 1-13.
- Marshall, K., *Abate, A., Venta, A. (2020). Houston Strong: linguistic markers of resilience after Hurricane Harvey. *Journal of Traumatic Stress Disorders and Treatment*, 9(2), e199-e199.
- Marshall, K., & Venta, A. (2020). Prospective analysis of linguistic analysis as a method for assessing trauma symptoms after Hurricane Harvey among Houstonian adults. *Traumatology*.
- Mercado, A., Garcini, L., Venta, A., & Paris, M. (Accepted). The psychological effects of anti-immigration policies on the U.S. Mexico Border: Treatment and policy implications. *Health Affairs*.
- Schramm, A., Venta, A., Fairchild, A., & Sharp, C. (in press). Decreases in experiential avoidance predict PTSD symptom improvement and remission in inpatient adolescents. *Journal of Contextual Behavioral Science*.
- Schramm, A., Pandya, K., Fairchild, A., Venta, A., deRoos-Cassini, T., & Sharp, C. (2020). Decreases in psychological inflexibility predict PTSD symptom improvement in inpatient adolescents. *Journal of Contextual Behavioral Science*, 17, 102-108.
- Venta, A. (2020). Attachment Facilitates Acculturative Learning and Adversity Moderates: Validating the Theory of Epistemic Trust in a Natural Experiment. *Child Psychiatry & Human Development*, 1-7.
- Venta, A., *Galicía, B., *Bailey, C., *Abate, A., *Marshall, K., & *Long, T. (2020). Attachment and loss in the context of US immigration: caregiver separation and characteristics of internal working models of attachment in high school students. *Attachment & Human Development*, 22(4), 474-489.
- Venta, A., *Long, T., *Bailey, C., *Galicía, B., *Abate, A., *Walker, J., & *Salinas, K. (Accepted). Measurement invariance of the Inventory of Peer and Parent Attachment among Latinx and Non-Latinx College Students. *Journal of Latinx Psychology*.
- Walker, J. H., Venta, A. C., & *Galicía, B. E. (2020). Who is Taking Care of Central American Immigrant Youth? Preliminary Data on Caregiving Arrangements and Emotional-Behavioral Symptoms Post-Migration. *Child Psychiatry and Human Development*. doi:10.1007/s10578-020-01002-8.
- Zetino, Y., *Galicía, B., & Venta, A. (2020). The Role of Resilience in the Relation of Childhood Adversities and Emotional Problems in Latinx Immigrant Youth. *Psychiatry Research*, 113450.



Viana, Andres G.

Other Intellectual Contributions: Book Chapters

Bergez, K. C., Ramirez, A. C., Grebe, S. C., Perez, M. I., Viana, A. G., Storch, E. A., & Schneider, S. C. (2020).

Efficacy of exposure-based cognitive behavioral therapy for youth anxiety and obsessive-compulsive disorder. In T. S. Peris, E. A. Storch, & J. F. McGuire (Eds.), *Exposure Therapy for Children with Anxiety and OCD: Clinicians' Guide to Integrated Treatment* (pp. 21-37). London: Elsevier.

Glostou, G., Sustaíta, M. A., Ramirez, A. C., Weinzimmer, S., Viana, A. G., Storch, E. A., & Schneider, S. C. (in press). Cognitive Behavioral Therapy in Children with Anxiety Disorders. In C. Martin, V. R. Preedy, & R.

Rajendram (Eds.), *Diagnosis and Management of Neurodevelopmental Disorders*: Elsevier.

Viana, A. G., Trent, E. S., Conroy, H. E., & Raines, E. M. (in press). Fear and Anxiety. In A.

Venta, C. Sharp, & J. Fletcher (Eds.), *Developmental Psychopathology*. Hoboken, NJ: Wiley

Viana, A. G., Trent, E. S., Conroy, H. E., & Raines, E. M. (in press). Outcome Findings and Issues in Psychotherapy with Children and Adolescents: Internalizing Disorders. In E. A. Storch (Ed.), *Comprehensive Clinical Psychology* (2nd ed). New York: Elsevier.

Other Intellectual Contributions: Conference Proceedings

Trent, E. S., Viana, A. G., Raines, E. M., Woodward, E. C., Candelari, A. E., Storch, E. A., & Zvolensky, M. J. (2019, April). The interactive effects of childhood exposure to parental threatening behaviors and emotional clarity in relation to depression symptoms among trauma-exposed adolescents. Oral presentation delivered at the 4th Annual Clinical Psychology Graduate Research Showcase, Houston, TX.

Trent, E. S., Raines, E. M., Woodward, E. C., Conroy, H. E., Viana, A. G. (2020, May). Interpretation Biases and

Depressive Symptoms among Anxiety-Disordered Children: The Role of Individual Differences in Respiratory Sinus Arrhythmia. Oral presentation accepted at the 5th Annual Clinical Psychology Graduate Research Showcase, Houston, TX. (Conference canceled)

Refereed Journal Articles

Raines, E. M., Viana, A. G.,* Trent, E. S., Conroy, H. E., Woodward, E. C., Zvolensky, M. J., & Storch, E. A. (In press). The explanatory role of anxiety sensitivity in the association between effortful control and child anxiety and depressive symptoms. *Cognitive Behaviour Therapy*.

Shepherd, J. M., Bahkshaie, J., Nizio, P., Garey, L., Viana, A. G., & Zvolensky M. J. (in press).

Anxiety symptoms and smoking outcome expectancies among Spanish-speaking Latinx adult smokers:

Exploring the role of anxiety sensitivity. *Journal of Ethnicity in Substance Abuse*.

Storch, E.A., Schneider, S.C., DeNadai, A.S., Selles, R.R., McBride, N.M., Grebe, S.C., Bergez, K.C., Ramirez, A., Viana, A.G., & Lewin, A.B. (in press). A pilot study of family-based exposure-focused treatment for youth with autism spectrum disorder and anxiety. *Child Psychiatry & Human Development*.

Trent, E. S., Viana, A. G.*, Raines, E. M., Conroy, H. E., Storch, E. A., & Zvolensky, M. J. (2020). Interpretation

biases and depressive symptoms among anxiety-disordered children: The role of individual differences in respiratory sinus arrhythmia. *Developmental Psychobiology*, Early View.



- <https://doi.org/10.1002/dev.22002> Trent, E. S., Viana, A. G.,* Raines, E. M., Woodward, E.C., Candelari, A. E., Storch, E. A., & Zvolensky, M. J. (2020). Interpretation biases and childhood anxiety: The moderating role of parasympathetic nervous system reactivity. *Journal of Abnormal Child Psychology*, 48, 419-433.
- Viana, A. G., Bakhshaie, J., Raines, E. M., Lopez, A., Garza, M., Ochoa-Perez, M., Lemaire, C., Mayorga, N. A., Walker, R., & Zvolensky, M. J. (2020). Anxiety sensitivity and acculturative stress facets among Latinx in primary care. *Stigma and Health*, 5, 22-28.
- Viana, A. G., Trent, E. S., Raines, E. M., Woodward, E. C., Storch, E. A., & Zvolensky, M. J. (in press). Childhood anxiety sensitivity, fear downregulation, and anxious behaviors: Vagal suppression as a moderator of risk. *Emotion*.
- Woodward, E. C., Viana, A. G.,* Trent, E. S., Raines, E. M., Zvolensky, M. J., & Storch, E. A. (in press). Emotional nonacceptance, distraction coping and PTSD symptoms in a trauma-Exposed adolescent inpatient sample. *Cognitive Therapy and Research*.
- Woodward, E. C., Viana, A. G.,* Raines, E. M., Trent, E. S., Candelari, A. E., Storch, E. A., & Zvolensky, M. J. (in press). Parental emotion-focused behaviors moderate the relationship between anxious children's perceptual sensitivity and fear reactivity. *Child Psychiatry and Human Development*.
- Zvolensky, M. J., Kauffman, B. Y., Shepherd, J. M., Viana, A. G., Bogiaizian, D., Rogers, A.H., Bakhshaie, J., Peraza, N. (in press). Pain-related anxiety among Latinx college students: Relations to body vigilance, worry, anxious arousal, and general depression. *Journal of Racial and Ethnic Health Disparities*.
- Zvolensky, M. J., Kauffman, B., Bogiaizian, D., Viana, A. G., Bakhshaie, J., & Peraza, N. (in press). Worry among Latinx college students: Relations to anxious arousal, social anxiety, general depression, and insomnia. *Journal of American College Health*.
- Zvolensky, M. J., Bakhshaie, J., Shepherd, J. M., Peraza, N., Viana, A. G., Walker, R. L., Garza, M., Ochoa-Perez, M., & Lemaire, C. (in press). Anxiety sensitivity and acculturative stress: Concurrent relations to mental health among Spanish-speaking Latinx in primary care. *Transcultural Psychiatry*.
- Zvolensky, M. J., Bakhshaie, J., Shepherd, J. M., Garey, L., Peraza, N., Viana, A. G., Brown, J. T., & Brown, R. A. (2019). Anxiety sensitivity and smoking outcome expectancies among Spanish-speaking Latinx adult smokers. *Experimental and Clinical Psychopharmacology*, 27, 569-577.
- Zvolensky, M. J., Bakhshaie, J., Shepherd, J. M., Garey, L., Viana, A. G., & Peraza, N. (2020). Anxiety symptoms and smoking among Latinx adult smokers: The importance of sensitivity to internal cues in terms of dependence, barriers for quitting, and quit problems. *Journal of Behavioral Medicine*, 43, 88-98.

Zhang, Yingchun

Other Intellectual Contributions: Conference Proceedings

- Cao, Y., Zhang, C., Du, R., Gao, F., and Zhang, Y.* Effect of different combinations of muscle contraction level on MUNIX repeatability. 2020 Congress of the International Society of Electrophysiology and Kinesiology. Nagoya, Japan. 2020.
- Houston, M., Li, R., Roh, J., and Zhang, Y.* Muscle Network Alterations in Post-Stroke. Proc. of Annual Int. Conf. of IEEE-EMBS, Montreal, QC, Canada, 2020.



Huang, W., Li, R., Du, R., Gao, Y., Roh, J., and Zhang, Y.* Alterations in intermuscular coherence of muscle pairs during the force development after stroke. 2020 Congress of the International Society of Electrophysiology and Kinesiology. Nagoya, Japan. 2020.

Patents and/or other Intellectual Property Filings

Title: Systems and Methods for Personalized Botulinum Neurotoxin Injection Guided Using Vaginal High-Density Electromyography in Chronic Pelvic Pain Management.

U.S. Provisional Patent Application No. 63/017,921

Filing Date: April 30, 2020

Title: System and Method for Determining and Performing Personalized Treatments for Chronic Pelvic Pain. U.S. Provisional Patent Application No. 63/104,614 Filing Date: Oct 23, 2020

Title: System and Method for Determining, Performing, System and Method for Determining, Performing, and Monitoring At-Home Personalized Treatments for Chronic Pelvic Pain.

U.S. Provisional Patent Application No. 63/124,664

Filing Date: Dec 11, 2020

Refereed Journal Articles

Chen, Y.T., Zhang, C., Liu, Y., Magat, E., Verduzco-Gutierrez, M., Francisco, G.E., Zhou, P., Zhang, Y., Li, S. (2020) The Effects of Botulinum Toxin Injections on Spasticity and Motor Performance in Chronic Stroke with Spastic Hemiplegia. *Toxins*, 12(8), 492.

Cicalese, P.A., †, Li, R.,† Ahmadi, M.B., Francis, J., Selvaraj, S., Schulz, P.E., and Zhang, Y*. (2020) An EEG-fNIRS Hybridization Technique for Four-Class Classification of Alzheimer's Disease. *Journal of Neuroscience Methods*.

Dias, N., Zhang, C., Smith, C.P., Lai, H., and Zhang, Y*. (2020) High-Density Surface Electromyographic Assessment of Pelvic Floor Hypertonicity in IC/BPS Patients: A Pilot Study. *International Urogynecology Journal*, 1-8.

Dias, N., Zhang, C., Spitznagle, T., Lai, H. H., & Zhang, Y*. (2020). High-Density Surface Electromyography Assessment of Pelvic Floor Dysfunction in Women with Interstitial Cystitis/Bladder Pain Syndrome. *The Journal of Urology*, 10-1097.

Fang, F., Potter, T., Nguyen, T., and Zhang, Y*. (2020) Dynamic Reorganization of the Cortical Functional Brain Network in Affective Processing and Cognitive Reappraisal. *International Journal of Neural Systems*. 2050051.

Gao, F., Cao, Y., Zhang, C., & Zhang, Y*. (2020). A Preliminary Study of Effects of Channel Number and Location on the Repeatability of Motor Unit Number Index (MUNIX). *Frontiers in Neurology*, 11.

Gao, Y., Gao, B., Chen, Q., Liu, J., & Zhang, Y*. (2020). Deep Convolutional Neural Network-Based Epileptic Electroencephalogram (EEG) Signal Classification. *Frontiers in Neurology*, 11.

Gao, Y., Wang, X., Potter, T., Zhang, J., and Zhang, Y*. Single-trial EEG Emotion Recognition Using Granger Causality/Transfer Entropy Analysis. *Journal of Neuroscience Methods*. In Press.



- Li, R., Li, S., Roh, J., Wang, C., and Zhang, Y*. (2020) Multimodal Neuroimaging using Concurrent EEG/fNIRS for Post-stroke Recovery Assessment. *Neurorehabilitation and Neural Repair*. 1545968320969937.
- Li, R., Zhao, C., Wang, C., Wang, J., and Zhang, Y*. (2020) Enhancing fNIRS Analysis Using EEG Rhythmic Signatures: an EEG-informed fNIRS Analysis Study. *IEEE Transactions on Biomedical Engineering*.
- Liu, Y., Zhang, C., Dias, N., Chen, Y., Li, S., Zhou, P., and Zhang, Y*. (2020) Transcutaneous Innervation Zone Imaging From High-Density Surface Electromyography Recordings. *Journal of Neural Engineering*.
- Ma, Y., Li, X., Duan, X., Peng, Y., and Zhang, Y*. (2020) Retinal Vessel Segmentation by Deep Residual Learning with Wide Activation. *Computers in Biology and Medicine*.
- Ma, Y., Zhang, S., Qi, D., Luo, Z., Li, R., Potter, T., & Zhang, Y*. (2020). Driving Drowsiness Detection with EEG
Using a Modified Hierarchical Extreme Learning Machine Algorithm with Particle Swarm Optimization: A Pilot Study. *Electronics*, 9(5), 775.
- Ren, Z., Li, R., Chen, B., Zhang, H., Ma, Y., Wang, C., Ying, L., and Zhang Y*. EEG-based driving fatigue detection using a two-level learning hierarchy radial basis function. *Frontiers in Neurorobotics*. In Press.
- She, Q., Chen, K., Luo, Z., Nguyen, T., Potter, T., and Zhang Y*. (2020) Double criteria-based active learning for multiclass BCI. *Computational Intelligence and Neuroscience*.
- She, Q., Zou, J., Luo, Z., Nguyen, T., Li, R., and Zhang, Y*. (2020) Multi-class motor imagery EEG classification using collaborative representation-based semi-supervised extreme learning machine. *Medical & Biological Engineering & Computing*.
- Wu, Z., Peng, Y., Hong, M., and Zhang Y.* Gray matter deterioration pattern during Alzheimer's disease progression:
A ROI-based surface morphometry study. *Frontiers in Aging Neuroscience*. In Press.
- Wu, Z., Peng, Y., Selvaraj, S., Schulz, P.E., and Zhang Y*. (2020) Development of brain structural network over age 8: A diffusion weighted imaging study using ensemble average propagator. *Frontiers in Aging Neuroscience*.
- Zhang, C., Chen, Y., Liu, Y., Magat, E., Gutierrez-Verduzco, M., Francisco, G.E., Zhou, P., Li, S., and Zhang, Y*
(2020) Improving Botulinum Toxin Efficiency in Treating Post-stroke Spasticity Using 3D Innervation Zone Imaging. *International Journal of Neural Systems*.
- Zhang, Q., Hu, Y., Potter, T., Li, R., Quach, M., and Zhang Y*. (2020) Establishing Functional Brain Networks using a Nonlinear Partial Directed Coherence Method to Predict Epileptic Seizures. *Journal of Neuroscience Methods*.
- Zhang, C., Li, X., Boone, T.B., Cruz, Y., Zhang, Y., and Munoz, A. Voiding dysfunction in old male rats associated with enlarged prostate and irregular afferent-triggered reflex responses. *International Neurourology Journal*. In Press. Zhou, Y., She, Q., Ma, Y., Kong, W., and Zhang, Y*. Transfer Semi-supervised Broad Learning System in EEG signal Classification. *Expert Systems with Applications or Computer Methods and Programs in Biomedicine. Neural Computing and Applications*. In Press.





e. Technology Transfer Activity

1. Invention disclosures: _____
2. Patent applications (filed & pending): **6**
3. Patents received: _____
4. Licenses (current & pending): _____
5. Spin-off companies: **(Kadvax Technologies) 1**
6. Are there industry members and partnerships with external organizations (please provide details)?

f. Describe the community outreach and service of the center/institute.

V. PLANNED CHANGES FOR PROGRAM IMPROVEMENT

- a. Size (personnel, space) – Does the unit require additional space and/or resources for continued operation?

No changes are planned in space or personnel at this time.

- b. Administrative structure and governance (provide projected new organizational chart).

No changes are planned. We await the decision of DOR on the centralization of research administration and TIMES continued role in the collaborative.

- c. Any changes to the mission, goals, or objectives? ***No changes are planned at this time.***

- d. New/updated metrics? ***No changes are planned at this time.***

VI. CENTERS OR INSTITUTES PROPOSING DISCONTINUATION

- a. Reason for discontinuation.
- b. Proposed activities for phase-out period.
- c. Effective date for discontinuation.

i This number reflects funds expended on grants in FY2020 as reported to TIMES by DOR (M. Sakalayan). The number reflects the portion of expenditures credited to TIMES. Total grant support exceeds this number, but is meaningless as a measure of annual support because grant funds must be expended on grant activities and must be expended over the grant year, not the fiscal year.

ii Effective this year, ULCIs were removed from the IDC distribution formula. It is stated in internal communications from DOR that a portion of our central support is the share of IDC that we generated from the prior year, but the support is labeled as such in our budget memo from DOR. Based on internal communications from Dr. Neuhauser to the Chairman of Psychology, the amount of central support that was based on IDC generation is \$428,085, so approximately 54.2% of TIMES discretionary appropriation was funding based on IDC returned to generating units. This line appears in the TIMES budget memo as “Additional Operating Funds”.

ⁱⁱⁱ One funded award is listed as STIN (State Institution), but it is, in fact, federal flow through to UH from the National Institute of Child Health and Human Development via subcontract from the University of Texas-Houston. Why this award is not coded as UNIV, rather than STIN is unclear and needs to be reconciled with DOR. It is clearly a university and reflects federal flow through.

^{iv} This award had two transactions posted of the same magnitude, but of opposite sign leading to a net expenditure of \$0. However, the project was reported in the expenditure table by DOR as having a credit split with TIMES, so we include the award.