Colleagues,

This VTPP Success captures our efforts for June 2020. I hope everyone will enjoy the information contained in the monthly VTPP success. I appreciate all of our efforts to strive for more successes that ensure VTPP continues to lead in the CVM. Stay safe everyone and wear your masks. I cannot wait to have VTPP back together. I encourage all to utilize the many Zoom options for communication and interaction.

The best way to reveal and stop the ugliness of racism and hate speech is not ignore it, but to shine a light on it, and address it head on. To everyone in VTPP, I encourage all to attend Green Dot and Ally training as a way to help all of us support and protect all members of our Texas A&M University community. I urge all to be kind to each other, be welcoming to everyone and stand up for what is right. You will find some resources below that will deepen our anti-racism efforts:

- Anti-Racism Resource List
- Reading for Racial Justice: An Open Access Collection – Free through August 31, 2020
- TAMU Office for Diversity Resource List
- Uncomfortable Conversations With a Black Man

As we consider the long, troubling, and perpetuated history of events that have targeted minority communities, VTPP and the CVM remains steadfast in our commitment to creating a climate of inclusion and equity, embracing the diversity that makes each of us unique and valued, celebrating our differences, and supporting one another. We must be committed to upholding the dignity of all people.

What can individuals do?

1) Embrace anti-racism
2) Engage and speak up when events exclude and discriminate against others
3) Be an ally
4) Have conversations and acknowledge the impact of current events on ourselves and many of our colleagues
5) Be curious and learn more about social justice issues
6) Be brave. Keep people safe when they feel threatened by hate speech. Do not be a silent bystander
7) When conflict arises, engage in civil, critical dialogues. In person, on-line, and on social media platforms
8) Be self-reflective about the impact of our words and actions on others
9) Know that what each of us models, creates the CVM climate and culture
10) Overall, please be kind

With the recent changes in Governor Abbot's plan for re-opening Texas, the revised Texas A&M University return to work plan can be found at: https://employees.tamu.edu/covid-19/vp-memo/

For more updates and guidance from Texas A&M University in the current COVID-19 scenario go to: https://www.tamu.edu/coronavirus/index.html

“Nothing in life is to be feared; it is only to be understood”

Marie Curie
The June 2020 “VTPP Science in action” article comes from elegant studies from the laboratory of Dr. Jayanth Ramadoss, published in *Alcoholism: Clinical and Experimental Research*. The studies address the impact of gestational alcohol exposure on an array of cognitive, behavioral, and physical developmental impairments, collectively known as fetal alcohol spectrum disorders (FASD). The current studies from the Ramadoss laboratory developed from earlier published work that identified mammalian target of rapamycin (mTOR), known as an important modulator synaptic plasticity and long-term memory formation in the brain, as a potential contributor to the progression of neural disruption in FASD. The article (attached to this email) can be found at: [https://onlinelibrary.wiley.com/doi/pdf/10.1111/acer.14348](https://onlinelibrary.wiley.com/doi/pdf/10.1111/acer.14348)

**Don’t forget to utilize the VTPP website.** Please keep your personal information and webpage current as this is our first line of access for perspective students and others. For any revisions/additions that you would like or suggestions for other items to be added to the VTPP website, please let Ms. Julie Austin and I know. There is a lot there already and we are always looking to update and improve it. [https://physiology.tamu.edu/](https://physiology.tamu.edu/)

Thank you everyone in VTPP for leading the way in our College. Your efforts make us better every day

*Larry*

**VTPP PUBLICATIONS (June 1, 2020-June 30, 2020)**


Faculty are denoted in **bold** text, trainees in *italics*

*Please keep these important and impactful VTPP publications coming! The VTPP Success will continue to highlight our most recent achievements and is intended to serve as a concise but informative catalog of individual and departmental successes.*

**VTPP FACULTY**

**Welcome Dr. Marissa Cisneros**, a new Lecturer in VTPP. Marissa received her PhD in Sociology from Texas A&M University. Marissa’s PhD dissertation work focused on food justice, specifically critical approaches to food and nutrition and intersection with culture, race, class, and gender. Dr. Cisneros is actively engaged in the BRC program leading research efforts focused on understanding how societal pressures affect the nutritional health of underrepresented groups. Please join me in welcoming Marissa to VTPP!

**Congratulations to Dr. Michael Golding, PI on a recently awarded NIH R01 (1R01AA028219-01) entitled “Heritable, epigenetic effects of paternal alcohol use on FASD phenotypes”** This is another successful outcome from the VTPP grant biopsy process and is great news for VTPP.
Congratulations to Dr. Jayanth Ramadoss, PI on a recently awarded NIH R01 (2R01AA023520) entitled “A novel mechanistic framework for FASD etiology” to continue research on fetal alcohol spectrum disorders and will identify novel etiological molecular pathway(s) for FASD cardinal outcomes using integrative physiologic approaches.

Congratulations and thank you to all VTPP faculty who have submitted grants this month. Please keep up these efforts. VTPP needs all grant submissions to continue to increase! Also, ALL faculty are encouraged to utilize the VTPP grant biopsy strategy where sections (or major chunks) of grants in preparation and/or revision are read and critiques by our experienced VTPP research-intensive faculty. This is a proven successful strategy that I encourage everyone to utilize.

25) Congratulations to Dr. Annie Newell-Fugate (PI) and Dr. Cris Heaps (Co-I) on a new DoD Discovery Award grant submission entitled “The effects of masculinizing hormone therapy on peripheral insulin sensitivity and adipose tissue fatty acid metabolism in females”
26) Congratulations to Dr. Ken Muneoka (PI) and Drs Lindsay Dawson and Ling Yu (Co-Is) on a new NIH R01 submission entitled “Induced joint regeneration in mice”
27) Congratulations to Drs. Larry Suva and Charles Long (Co-Is) on a new NIH R01 submission entitled “Muscle Weakness in Hypophosphatasia using HPP sheep”
28) Congratulations to Dr. Stephen Safe (PI) on a new NIH R01 submission entitled “A Novel Approach for Enhancing Rhabdomyosarcoma Therapy”
29) Congratulations to Dr. Regina Brunauer (PI) on a new NIH R21 entitled “Cell-specific effects of aging on bone repair”
30) Congratulations to Dr. Mahsa Zarei (PI) on a new NIH R01 submission entitled “Targeting nuclear receptor Nurr1-mediated tumor cell metabolism in pancreatic cancer”
31) Congratulations to Dr. Charles Long (PI) and Dr. Mike Golding (Co-I) on a new NIH R21 submission entitled “Mitochondrial dysfunction alters epigenetic programming in early mammalian embryos through reactive oxygen species (ROS)”
32) Congratulations to Dr. Stephen Safe (PI) on a new NIH R01 submission entitled “NR4A1 regulates the paraseckles gene PSCP1”
33) Congratulations to Dr. Stephen Safe (Co-PI) on a new NIH R21 entitled “Hypoxia reduction in glioblastoma to improve adoptive NK cell therapy”
34) Congratulations to Dr. Un Ho Jin (PI) and Dr. Stephen Safe (Co-I) on a new NIH R21 submission entitled “Regulation of PKM2 by AhR Ligands”
35) Congratulations to Dr. Larry Suva (PI) and Dr. Lindsay Dawson (Co-I) on a NIH R01 resubmission entitled “Understanding the skeleton in Down Syndrome”

VTPP STUDENTS & TRAINEES

- Congratulations to Colleen Lambo DVM (Dr. Washburn mentor) who received a 2020 Eagle’s Readers’ Choice Award – Veterinarian. Colleen practices veterinary medicine at Lap of Love Veterinary Hospice
- Congratulations to Josh Bertels (Phys Dev Biology student) (Dr. Gaddy, mentor) who was the recipient of a highly competitive American Society for Bone and Mineral Research (ASBMR) Young Investigator Awards for Virtual Ph.D. Training!
If I have missed any VTPP trainee successes, please let me know and I will add those to the next VTPP Success

VTPP EDUCATION CHRONICLES

VTPP Education Chronicles is an opportunity to share specific ideas and information regarding higher education. VTPP continued excellence in education is a major departmental strength and the information is provided to support all educational pursuits.

The recent communication from President Young regarding Texas A&M University responses to some horrendous behaviors on campus is something I think worth re-emphasizing for all of our attention.

1. Invite discussion for action with a diverse group of leaders and voices to meet regularly with senior leadership will review current diversity and inclusion student, faculty and staff working groups and make recommendations for working with my senior leadership team and myself to meet with them. Texas A&M University will establish new strategies to combat hate and exclusion while fostering more inclusive values for our campuses.

2. Honor Senator Matthew Gaines on our campus. Senator Matthew Gaines, the first African-American state senator from Washington County, was an important part of the establishment of the 12th Texas Legislature’s passage of Senate Bill 276, which created our university.

3. Increase our efforts, with faculty input, on key programs such as the Accountability, Climate, Equity and Scholarship (ACES) Fellows Program. The ACES Fellows program promotes the research, teaching and scholarship of early career scholars, PhDs, bringing them to Texas A&M with the goal of maintaining a campus that affirms equity and fosters inclusion and belonging. Faculty and staff will help design additional programs that can help in recruitment and, importantly, retention of faculty through enhanced climate.

4. Expand the footprint of the Department of Multicultural Services in support of underrepresented students. Supporting black and other underrepresented students with additional meeting space and support services is one of the largest needs in our growing campus community to ensure we help advocate for meaningful change. The department has rapidly outgrown its space.

5. Advance President’s Council on Climate and Diversity (PCCD) reports to open for input, timed accountability. The PCCD cross-university reports are part of a robust, data-driven, peer-informed exercise annually during my tenure. These detailed summary reports will be made available during the fall in one place on a link from the home page. Working for a better climate and against racism is a total-university responsibility and this action will help us measure progress in a united way, and continue to reward creative impactful solutions with grants and support while holding us all accountable to progressing toward our goals.

6. Recruit more underrepresented students. Texas A&M University has allocated an additional $5 million in scholarships for this purpose and we are continuing to develop additional resources to recruit the brightest and most diverse class of students to Texas A&M. We want to match our state demographics.

7. Launch anti-discrimination bystander intervention training for the fall to educate and train the campus community to step in to stand up against racism and to foster a positive climate. This evidence-based module has been in development by the Office of Diversity and is being updated to launch in time for the return to classes in the fall. All sections of the first-year experience class, Hullabaloo U, will require the module's completion. Additionally, current student staff and student leaders will be asked to complete the module as a requirement of employment or leadership position.
8. Increase funding and visibility of the Race and Ethnic Studies Institute to connect research and scholarship to community action.

9. Pilot assessments of TAMU required courses. Texas A&M introduced a Cultural Discourse (CD) requirement for first year students beginning in Fall 2019 in addition to International and Cultural Diversity (ICD) courses in place.

10. Support student groups on voter registration on campus and in our communities.

Please let me know of any successes, updates and/or issues with the on-line delivery of any of your classes.

VTPP RESEARCH FORECAST

Identifying upcoming seminars, workshops, funding announcements, events, and conferences of interest to VTPP. I hope it serves as an accessible archive and reference for upcoming research events and deadlines, and sources of information to support our next discoveries.

VTPP Science Friday conversations have been informative and continue to be stimulating and helping develop more interactions. All faculty are encouraged to attend these important VTPP research- and mission-focused discussions. The next Science Friday discussions are scheduled via Zoom for Thursday 8:30AM, July 9 and July 23. The most recent discussions have resulted in the ongoing development of a growing list VTPP Resources. Science Friday discussions have also developed connections between faculty around areas of VTPP research strengths. The self-assembling teams are:

- Exposure Biology
- Bone/regeneration
- CV Biology and metabolism
- Mechanobiology
- Endocrinology and Reproduction
- Oncology

If you are interested in joining a group and/or facilitating a discussion, let Dr Suva know. These research groups will develop their own path as Science Friday discussions continue. Goal for these working groups is better understanding of VTPP expertise and hopefully the development of collaborative efforts/grants/papers. In addition, if you have specific interests in leading a Science Friday discussion/topic or have specific aims to outline or develop, just let Dr. Suva know and come present and stimulate the conversation.

VTPP Seminar Series

The Fall seminar series will be here before we know it. Dr. Clement is hard at work re-engaging with faculty who could not present as the pandemic descended upon us. The series will re-commence in the Fall, most likely remote but hopefully with some opportunities for face-to-face seminars. VTPP is looking forward to re-invigorating the seminars with a mix of VTPP faculty, Texas A&M colleagues as well as outside speakers. We are actively working to re-engage the external speakers who were also unable to visit. Please let Dr. Clement know of other speakers you would like to hear. As always, please push, encourage and direct your graduate students to attend seminar.
Research in the pandemic at Texas A&M University

Much is still happening regarding research opening. As research activities ramp up, protective measures remain essential. Please continue to monitor the VPR website regarding the latest information available regarding changes to research related to COVID-19 conditions. [https://vpr.tamu.edu/covid-19](https://vpr.tamu.edu/covid-19)

In particular, please remember to wear masks in all TAMU locations and minimize occupancy of elevators in all buildings, including all research buildings.

Upcoming NIH Grant Deadlines and Opportunities

**July 5:** Renewal R01 Applications

**August 8:** New, renewal, resubmission F Series Fellowships (including F31 Diversity – NOT-OD-17-029)

For more details and upcoming submission dates go to: [https://grants.nih.gov/grants/how-to-apply-application-guide/due-dates-and-submission-policies/due-dates.htm](https://grants.nih.gov/grants/how-to-apply-application-guide/due-dates-and-submission-policies/due-dates.htm)

Upcoming NSF Grant Deadlines and Opportunities


VTPP Research Infrastructure

VTPP is still collecting the details of the major equipment and technical capabilities that exist in VTPP research laboratories. This effort will develop a framework to support VTPP investigators identify skills and equipment resources in VTPP. Our hope is that by identifying what resources we have, these can be leveraged multi-investigator grant applications, but also help identify where we may lack important equipment. Current resources information is available on our VTPP website. Please send DH your most recent grant resources page so we can continue to compile the information. [https://physiology.tamu.edu/vtpp-research-resources/](https://physiology.tamu.edu/vtpp-research-resources/)

VTPP SCIENCE IN ACTION

Identifying and highlighting the impactful VTPP publications of each month. The goal is to capture these articles for annual VTPP research highlights I hope it serves as an accessible archive and reference for upcoming research events and deadlines, and sources of information to support our next discoveries. If you have suggestions for impactful VTPP publications that can be highlighted, please share these ideas with me.

The June 2020 highlighted “VTPP Science in Action” article (link included above and below) comes from the laboratory of Dr. Jayanth Ramadoss. The manuscript outlines a series of elegant experiments designed to investigate the role of mTOR signaling and downstream pathways in the fetal hippocampus following gestational alcohol exposure. Indeed, detailed analysis revealed that alcohol exposure resulted in dysregulation of mTORC1 signaling specifically in the fetal hippocampus. Figure 5 (below) schematically presents the current understanding of mTOR signaling in the context of gestational alcohol exposure as presented in the Ramadoss paper.
Chronic binge alcohol exposure during pregnancy alters mTOR system in rat fetal hippocampus. The phosphorylation level of mTOR (P-mTOR) in the fetal hippocampus is decreased in the alcohol treated group compared with pair-fed (PF) controls. Alcohol exposure resulted in the altered regulation of fetal hippocampal mTORC1 signaling, demonstrated by an increase in total 4E-BP1 expression. The phosphorylation of second messengers 4E-BP1 and p70 S6K were also increased following gestational alcohol exposure. DEPTOR (an endogenous inhibitor of mTOR) expression levels in the fetal hippocampus were increased; however, RAPTOR was not altered by chronic binge alcohol exposure. The exciting findings presented in this manuscript implicate hippocampal mTOR signaling in fetal hippocampal neurodevelopment which is disrupted in the context of FASD. The discoveries may provide novel insight into the development of targeted pharmacological therapeutic strategies for FASD. Congratulations again to all the members of the Ramadoss laboratory on highly impactful work. [https://onlinelibrary.wiley.com/doi/pdf/10.1111/acer.14348]

VTPP STAFF

- **VTPP always celebrates departmental birthdays**, June birthday congratulations to Nicole Mehta, Vishal Naik, Shannon Huggins, and Drs. Lindsay Dawson, Amanda Davis, Greg Martin, Carly Patterson and David Chimene. We are obviously missing yet another VTPP cake celebration. I really hope we will be able to celebrate soon!

- Congratulations to Nate Floyd on his recent HS graduation! Angie Taylor provided the awesome image of Nate crossing the stage!

Thank you to all our fabulous VTPP staff. We are appreciative of everything you do to ensure VTPP remains a great department. A special thanks to the business team for their continued efforts and rotating schedule in the office helping keep VTPP running through the pandemic! You make us better every day!
VTPP WELLNESS

Please enjoy how VTPP is staying well during the lockdown and social isolation. I share them with you as part of VTPP’s continued success. No names are provided, to protect the innocent. Please keep sending me images of VTPP Wellness to share!

“EVERYTHING YOU CAN IMAGINE IS REAL”

PABLO PICASSO