Departmental Research Update 2017

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Dept. of Psychiatry and Behavioral Sciences
Tulane University, New Orleans, LA
March 3, 2017
## Disclosures of Potential Conflicts

<table>
<thead>
<tr>
<th>Source</th>
<th>Research Funding</th>
<th>Advisor/Consultant</th>
<th>Speakers Bureau</th>
<th>Books, Intellectual Property</th>
<th>In-kind Services</th>
<th>Stock or Equity</th>
<th>Honoraria or Expenses for this presentation or meeting</th>
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<td>ACYF</td>
<td></td>
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<td>Guilford Press. Central Recovery Press.</td>
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3 missions of a medical school department

1. Teaching
2. Service
   a) Clinical
   b) Citizenship (committees, societies, review panels, leadership, community)
3. Research
Research

Scholarly production recognized regionally, nationally, or internationally.

- **Publications**
  - Peer-reviewed
  - Book chapters
  - Reports

- **Presentations**
  - Local
  - Regional
  - National

- **Funded research**
  - Federal
  - State
  - Foundations
How do we grow more research productivity?

Help faculty on clinical track produce more pub.’s and funding.

Develop more faculty on the tenure track.
The Different Producers of Research

- Clinical Track Faculty
- Tenure Track Faculty
- Resident Research Path
- Research Postdoc Fellows
Resident Research Path

Launched Nov. 2016

- For residents who intend to join academic medical centers after graduation where scholarly production will be expected in terms of papers and research.
- Two meetings per month
- Learning by writing
- Can enter path PGY 2, 3, or 4.
Resident Research Path

PGY 2 & 4:
• Learn study design.
• Write a case report paper:
  – Ryan Alvarez – a novel approach to suicidal ideas
  – Liz Peng – toxicity from synthetic cannabinoids
  – Nithya Ravindran – how to recognize depression in children with brain tumors.
• Write an IRB application.

PGY 3:
• Create a new measure.
  – Karina Fotova – self-report of borderline personality in youths
• Write a grant application and create a new intervention.
• How foundation and NIH reviews work.
Suite of New NIMH Training Initiatives

1. Short courses for mental health-related research education (PAR-17-082) for grad students, residents, postdocs, and early career faculty

2. Research education programs supporting psychiatry residents (R25) (PAR-17-081)

3. Mentoring networks for mental health-related research education (PAR-17-080)

Research Postdoc Fellowship

• Launched November 2015
• Mentor with a tenure-track researcher.
• Paired with a clinical track faculty to help them write papers and grants.
  ❖ Likely that some will stay as tenure-track faculty.
Research Postdoc Fellow:
Amy Mikolajewski, PhD.

- Interest: Externalizing problems in youths.
- Mentor: Mike Scheeringa
- Secondary mentor: Paul Frick, PhD at LSU
- Paired with faculty Gina Manguno-Mire, PhD
  - Chart review paper of Forensic Aftercare Clinic data
  - Chart review paper of Drug Court data.
- 3 first-author manuscripts accepted in the last two months.
New Studies of New Data Collection with Postdoc as Principal Investigator

• Oppositional Defiant Disorder (ODD): Validating Subgroups and Predicting Severity. Amy Mikolajewski, PhD, Research Postdoc Fellow.
Develop More Faculty on Tenure Track.

- Since ~1996, the department has had 3 faculty achieve tenure.
- Goal: grow 1 faculty on the tenure track every 3-5 years.
Tenure vs. Non-Tenure Clinical Track Faculty in Tulane Psychiatry Department

Number of Faculty on Tenure vs Clinical Tracks

- Tenure track
- Non-tenure clinical track
Which tracks produced the 71 publications from 2011 through 2015?

Number of papers by tenure/non-tenure track

- Tenure track: 50 papers
- Non-tenure clinical track: 20 papers
Tenure track is a different species: Need to attract them early

Postdoc Research Fellows

Tenure track faculty
Increase Productivity of Clinical-Track Faculty:
35 MD/DO; 19 PhD/PsyD; 2 LCSW

Number of faculty at each level

- Professor, adult (4)
- Professor, child (3)
- Associate Prof., adult (7)
- Associate Prof., child (6)
- Assistant Prof., adult (22)
- Assistant Prof., child (14)
How to Do Research on Clinical Track

• PROTECT YOUR TIME. Go-in-a-room-and-lock-the-door 5-10 hours/week.
• Do not open the door for anyone.
How to Do Research on Clinical Track

• You CANNOT do it alone. Work with a mentor.
How to Do Research on Clinical Track

Set deadlines with deliverables for each month:
Examples:
- Literature search.
- IRB application.
- Draft of a paper.
- Draft of a grant.
How to Do Research on Clinical Track

• BE FLEXIBLE. It is 100% certain that you will need to give up one or more of your original beliefs.
• Equipoise: conduct a study that is designed to disprove a cherished idea as much as it is to prove a cherished idea.
How to Do Research on Clinical Track

START SMALL. Feasible, fundable, and publishable research is about the next incremental step of knowledge.

<table>
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<tr>
<th>No</th>
<th>Yes</th>
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<tbody>
<tr>
<td><img src="image1.jpg" alt="Weightlifting Kid" /></td>
<td><img src="image2.jpg" alt="Lifting Dumbbells Kid" /></td>
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New Studies of Data Collection With a Tulane Psychiatry Faculty as Principal Investigator

• Autism FORCE (Families, Organizations, Resources Completely Engaged), funded by the Patient-Centered Outcomes Research Institute (PCORI). Lisa Settles, Psy.D.

• Exploring concerns of patients regarding previous interactions with mental health clinicians and identifying a tool that may improve mental health clinician patient relationships. Vinnie Khunkhun, M.D.

• Exploring parent's reasons for not enrolling children in psychiatric treatment. Veronique Haymon, M.D.
New IRB Projects of Chart Review or Existing Data

- EPIC-NOLA: Establishing the Early Psychosis Intervention Clinic. Ashley Weiss, D.O.
- (Pending) Ashley Ellison, M.D. (PGY-4). Knowledge about eating disorders from a new didactic for residents.
Ongoing Studies of New Data Collection With a Tulane Psychiatry Faculty as Principal Investigator

• Bucharest Early Intervention Project. Follow-up of trial that started in 2000. Charles Zeanah, M.D. plus Stacy Drury, MD, PhD, and Mary Margaret Gleason, MD.

• Infant Development Study. Effects of stress and parental relationship on infants. Stacy Drury, M.D., Ph.D. NIH R01 award.

• Neurobiology of CBT Treatment Response. Neurobiology measured pre-, during, and post- CBT of youths. Mike Scheeringa, M.D.

• Test-Retest Reliability of the Diagnostic Infant and Preschool Assessment. Mike Scheeringa, M.D.
Ongoing IRB Projects of Chart Review or Existing Data

- Orleans Parish Drug Court. Gina Manguno-Mire, PhD, John Thompson, MD, and Amy Mikolajewski, PhD.
- Forensic Aftercare Clinic. Gina Manguno-Mire, PhD, John Thompson, MD, and Amy Mikolajewski, PhD.
- Demographics, Presenting Problems, and Diagnosis of Infants Evaluated in a Community-Based Infant Mental Health Clinic. Mary Margaret Gleason, MD and Shalea Dardar, MSW, MD
- Louisiana Child Welfare Trauma Project. Michael Scheeringa, MD, Devi Miron, PhD., and the LCTP team.
RESEARCH

The Tulane University Department of Psychiatry and Behavioral Sciences is a leader in clinical research that covers the developmental lifespan with investigators from multiple disciplines and a history of groundbreaking clinical research. We offer a wide range of sites, mentors, and unique training opportunities for young researchers. Training and support are provided at all levels of training including students, residents, postdoctoral fellows, and faculty. We are committed to research that understands the underpinnings of complex mental issues and develops new treatments.

Michael Scheeringa, MD
Vice Chair of Research
mscheer@tulane.edu
Policies and Tips for Research Proposals and Projects
Department of Psychiatry and Behavioral Sciences
Tulane University School of Medicine

Individual faculty perform the day-to-day functions of research studies, however the department and university are ultimately liable for the conduct of research studies and expenditure of funds. There are many issues relevant to the submission and conduct of research proposals in the Department of Psychiatry and Behavioral Sciences. This document was created to summarize in one place the minimum basic requirements and links to resources to address the common issues that arise, and is not meant to be comprehensive.

Help
For departmental policies and a starting place for direction on all issues when needed:
Policies and Tips for Research Proposals and Projects

• When submitting a grant application or you have a question about what you can do with grant funds, consult this document well ahead of time.

• It lists requirements you must know about ahead of time, e.g., budget planning, routing forms, and deadlines.

• It has the answers to just about any question that comes up.
Moderating Effect of Sex on Autonomic Reactivity
The sexes are different, and in a collaboration of Tulane researchers across psychology, public health, and psychiatry departments, a new study that uniquely combined neurobiology and stress in children has added insights into how they exhibit problem behaviors. Sarah Gray, Ph.D. (pictured), from the Department of Psychology, Stacy Drury, M.D., Ph.D., and colleagues showed that for girls, different levels of cardiac parasympathetic tone were associated with internalizing problems contingent on whether they suffered high versus low levels of traumatic events. These relationships were not found in boys. Published in the Journal of Psychopathology and Behavioral Assessment.

Placental Telomere Length and Race
Christopher Jones (pictured), a Tulane neuroscience student working in the lab of Stacy Drury, MD, PhD, was the first author on a new publication in the American Journal of Obstetrics and Gynecology (doi: 10.1016/j.ajog.2016.11.1027). Jones and colleagues examined telomere length in tissue samples from placenta samples collected immediately after births. They found telomere length measured in placenta samples from Black mothers were significantly shorter than those from White mothers, providing the first known evidence of racial differences in placental telomere length, which may have implications for future health disparities.

Autism Clinic Launches PCORI Award: The Autism FORCE Project
Lisa Settles, PhD, founder of the Tulane Center for Autism and Related Disorders (TCARD) was awarded a prestigious Tier I Pipeline to Proposal Award from the Patient-Centered Outcomes Research Institute (PCORI). Her project titled “Autism FORCE (Families, Organizations, Resources Completely Engaged) for Achieving Positive Patient Outcomes” will proactively work with families and stakeholders of children with autism spectrum disorder to improve identification of children and engagement with providers. A list of all PCORI-funded projects can be found here.
Clinical Research Requires Participants

– No subjects = no studies.
– Recruitment is the most difficult part of almost every study.
– Tulane University Behavioral Health Clinic – Metairie (TUBHC-M) launched August 2015.
Tulane Metairie Clinic Update

• Launched August 2015
• 164 adult patients assessed
• 95% collections
• Staff:
  – Sara Gershen, LCSW, full-time.
  – Vinnie Khunkhun M.D., half-day per week
  – Recruiting for half-time or full-time M.D.
  – Maisha Robinson, Patient Registration Assistant
  – Rebecca Lipschutz, MS, psychometrician
  – Amy Mikolajewski, PhD, psychometrician
Tulane Metairie Clinic: Enhanced Diagnostics

- Aim: Understand treatment responders versus non-responders in order to personalize interventions
- Standardized battery of clinically-relevant constructs:
  - Woodcock Johnson-III Test of Working Memory
  - Frustration Discomfort Scale (FDS)
  - Modified Somatic Perception Questionnaire (MSPQ)
  - Brief Resilience Scale (BRS)
  - Rumination Scale (RS)
  - Difficulties in Emotion Regulation Scale (DERS)
  - Eysenck Personality Questionnaire
  - Intra-Extra Dimensional Set Shift (IED)
Enhanced Diagnostics: Examples of 4 Patients

Responders Differ from Non-Responders.
Responders Differ From Other Responders.
Non-Responders Differ From Other Non-Responders.
How Does This Individualize Treatment?
“Card Sort CBT”

1. Narrow the focus: Pick the scale that was most problematic for the patient. e.g. Emotional dysregulation scale

2. Card Sort: Place each item from the scale on index cards. Patient sorts the cards from most problematic to least problematic. e.g., of 28 items, most problematic is “When I’m upset, I believe there is nothing I can do to make myself feel better.”

3. Enhanced CBT: Going forward, focus therapy on the most problematic item with CBT techniques (identify situations, evaluate automatic negative thought patterns, and practice coping skills).
Child Counseling Associates Clinic Update

• Launched July 2012
• 574 child & adolescent patients assessed
• CCA Staff:
  – Allison Staiger, LCSW
  – Ruth Arnberger, LCSW
  – Amy Mikolajewski, PhD
  – Mike Scheeringa, MD
• 3 ongoing research studies:
  – Neurobiology of CBT (Scheeringa)
  – Diagnostic Infant Preschool Assessment Test-Retest Reliability (Scheeringa)
  – Oppositional Defiant Disorder (ODD): Validating Subgroups and Predicting Severity (Mikolajewski)
Only Clinic to Publicly Report Outcomes

Screen shot of CCA website, ccanola.com
University Research Resources

• Individualized auto alerts from the library on your topic area
• Periodic grant-writing workshops
• Research email listserv (contact Denise Lovrovich in Laura Levy’s office)
• Corporate, Foundation, and Research Relations office (uptown) can help find private foundations for funding
• Tulane searchable database of faculty
Tulane searchable faculty data base
http://tfrd.tulane.edu/
Emerging Networks and Registries

• REACHNET is a local partnership, led by the Louisiana Public Health Institute, and funded by PCORI. Database for mining. Tablet-based app suite to facilitate research. Connect with stakeholders.

• APA Mental Health Registry. Mainly designed to help psychiatrists meet Medicare quality reporting, federal Merit-Based Incentive Payment System, and maintenance of certification. It could also be mined for research someday. APA is enlisting psychiatrists who are in private or group practices to be early participants in the registry.
Psychiatry departments are the 2nd highest funded of all medical school departments.

<table>
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<tr>
<th>Rank</th>
<th>School</th>
<th>2016 NIH funds</th>
<th>2016 number of NIH awards</th>
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<td>1</td>
<td>U. Pitt.</td>
<td>$60,497,511</td>
<td>136</td>
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<tr>
<td>19</td>
<td>Emory</td>
<td>$14,722,697</td>
<td>23</td>
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<tr>
<td>63</td>
<td>Vanderbilt</td>
<td>$877,929</td>
<td>3</td>
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<tr>
<td>69</td>
<td>Tulane</td>
<td>$534,446</td>
<td>1</td>
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<tr>
<td>n/a</td>
<td>LSU</td>
<td>$0</td>
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<td>Total</td>
<td>$788,996,004</td>
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(Blue Ridge Institute for Medical Research website.)
Where does Tulane School of Medicine rank?

<table>
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<tr>
<th>Rank</th>
<th>Medical Schools</th>
<th>2016 NIH Funds</th>
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<tr>
<td>1</td>
<td>U.C. – San Francisco</td>
<td>$518,037,400</td>
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<tr>
<td>17</td>
<td>Emory</td>
<td>$239,495,277</td>
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<tr>
<td>49</td>
<td>Vanderbilt</td>
<td>$79,259,719</td>
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<tr>
<td>78</td>
<td>Tulane</td>
<td>$38,554,137</td>
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<tr>
<td>93</td>
<td>LSU HSC</td>
<td>$17,541,431</td>
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(Blue Ridge Institute for Medical Research website)

- There are 128 medical and 25 osteopathic schools.
- Tulane not ranked by U. S. News & World Report Medical Schools: Research; fell outside the top 92 schools.
- New Orleans metropolitan region, ~1,241,000, ranks 45th in size.
  - Nashville (Vanderbilt) metropolitan region, ~1,589,000, ranks 36th in size.
11-Year Funding Summary 2006-2016

Dept. Psychiatry Research Awards

- Federal
- State
- Private
- Total

[Graph showing funding trends from 2006 to 2016]
11-Year Funding Summary 2006-2016

Number of New Research Awards/Year

- Private
- State
- Federal
11-Year Funding Summary 2006-2016

Dept. Psychiatry Service & Training Awards

- Federal
- State
- Private
- Total
Number of New Service & Training Awards

- **Private**
- **State**
- **Federal**
Number of Publications by Psychiatry Dept. Faculty

![Graph showing the number of publications by Psychiatry Dept. Faculty from 1994 to 2016. The graph indicates a general increase in publications, with a significant peak in 2009.](image-url)
2016 Publications

• Look for a list of all publications to be posted on our department research page:
  http://www2.tulane.edu/som/departments/psychiatry/psyc-research.cfm
Diagram of Growth Plan

Clinical Track Faculty

Resident Research Path

Research Postdoc Fellows
TUBHC-M and CCA sites

Tenure Track Faculty
Conclusion

• Questions & Comments

"We have to continually be jumping off cliffs and developing our own wings on the way down."

— Kurt Vonnegut