VAPHS RESEARCH

FISCAL YEAR 2018 ANNUAL REPORT

Delivering Excellence in Veteran Focused Medical Research
Remarks from the Associate Chief of Staff, Steven Graham, MD, PhD

It is my pleasure to present to you, on behalf of the staff of VA Pittsburgh Healthcare System (VAPHS) Research and Development Service, our Annual Report. FY 18 has been a year of great achievement for our research program. VAPHS is one of a handful of VAMCs with four research centers of excellence. We have two VA Office of Research and Development (ORD) funded Research Centers: The Human Engineering Research Laboratories (HERL) part of the Center for Wheelchairs and Associated Rehabilitation Engineering, which helps to advance the care of Veterans with disabilities and the Center for Health Equity Research and Promotion (CHERP), which addresses disparities in health care delivery in the VA. Our clinical centers, the Geriatric Research Education and Clinical Center (GRECC) and the Mental Illness Research Education and Clinical Center (MIRECC) continue to advance clinical care and conduct cutting edge research that will improve the care of Veterans. Our Clinical Trials Center (CTC) has continued to grow and provides an outstanding research resource for VAPHS physician researchers and our Veterans. Eighteen new ORD funded merit reviews and other projects were funded or received intent-to-fund decisions in FY18. We received funding or intent-to-fund notifications for three new career development awards. It has indeed been an outstanding year for VAPHS Research. I thank and congratulate all the VAPHS scientists who have contributed to these successes.

Our staff continues to work hard to ensure that VA research is conducted in compliance with VA and Federal regulations. Their efforts are essential in order to continue to protect our Veteran subjects, animal subjects and our staff from harm. We are developing new educational programs to aid investigators and staff in their efforts to comply with these regulations and protect Veterans, staff and animal subjects. Thank you to the many investigators and staff who work on the R&D Committee, Institutional Review Board (IRB), Institutional Animal Care and Use Committee (IACUC), Institutional Biosafety Committee (IBC), and Research Scientific Evaluation Committee (RSEC) to ensure the excellence of our program. And thanks to the staff of the research office who work hard to help investigators and research staff conduct their research in a safe and compliant manner.
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VAPHS Research Portfolio

357
Active Research Projects

116
Principal Investigators

650+
Personnel

RESEARCH EXPENDITURES AT A GLANCE

$18,243,778
Total Research Expenditures for FY 2018

$11,538,594
VA Office Research & Development Research Expenditures

$556,695
VA funds reimbursed from another federal agency or direct grant

$4,270,295
National Institutes of Health & Other Federal Agencies

$1,502,005
Veterans Research Foundation of Pittsburgh

$376,189
Other

Research Expenditures FY 2018 (Millions)

- Biomedical Laboratory Research and Development
- Clinical Science Research and Development
- Health Services Research and Development
- Rehabilitation Research and Development
- Cooperative Studies Program
- Career Development
- Other (RCS Salaries)
Awards and Honors
The Human Engineering Research Laboratories are a part of the U.S. Department of Veterans Affairs as the Center for Wheelchairs and Associated Rehabilitation Engineering. In January 2019, HERL will celebrate 25-years, and in July we will celebrate 20-years as a VA Center of Excellence. Rehabilitation Research and Development Service (RR&D) Grants notified of award:

1. Center for Wheelchairs and Assistive Robotics Engineering, 1 I50 RX002998-01, has been selected for probable funding.
2. Powered Person Transfer System, 1 I01 RX002755-01A2, has been selected for probable funding.
3. Development of TransKinect: A Clinically Robust System for Transfer Assessment, 1 I01 RX002794-01A2, has been recommended for funding.
4. Clinical Evaluation of Pneumatic Technology, for Powered Mobility Devices, 1 I01 RX002753-01A2, has been recommended for funding.

Michael Boninger, MD Honors:
Rusk Leadership and Innovation Award, New York University (NYU) Langone Health Lammertse Lectureship, University of Colorado

Rory Cooper, PhD Honors:
Advocacy Award, American Institute of Medical and Biological Engineering; Health Heroes, Oprah Winfrey's "O" Magazine; Glen E. Gresham Visiting Professorship Lecture, University of Buffalo; Fellow of the American Association for the Advancement of Science, 2018: For seminal efforts on behalf of the advancement of science or its applications that are scientifically or socially distinguished. Overseas Fellow of the Royal Society of Medicine, 2018: For outstanding contributions to medicine of global impact.


In July 2018, the Borden Institute of the US Army published Promoting Successful Integration, a handbook edited by Rory Cooper PhD, Paul Pasquina MD, and COL Douglas Etter. Providing both practical advice and useful biographies of Military and Veteran resilience, this book offers critical information for all Service Members and Veterans reintegrating into military or civilian life, their loved ones, their commanders, their employers, or all other interested parties.

The Toyota Mobility Foundation, in partnership with Nesta's Challenge Prize Centre, launched a $4 million dollar global challenge in November 2017 to change the lives of people with lower-limb paralysis. The Mobility Unlimited Challenge Prize is supported by a number of ambassadors from around the world, all of whom have experience of living with lower-limb paralysis, including Rory A Cooper, Director of the Human Engineering Research Laboratories at the University of Pittsburgh.
The PneuChair was named a 2017 innovation that's changing the world. Created and designed by researchers at the Human Engineering Research Laboratories, the waterproof wheelchair recharges in less than 10 minutes and allows people who use power wheelchairs to enjoy a day at the water park. New York Times posted a video and accompanying article featuring Morgan's Inspiration Island waterpark in San Antonio, Texas, and the story of how HERL provided the park with air-powered PneuChair wheelchairs.

HERL Researchers and HERL MEBot (Mobility Enhancement Robotic Wheelchair) were featured at the first annual ACCelerate; ACC Smithsonian Creativity and Innovation Festival on October 13-15, 2017.

WARE Graduate Students Deepan Kamaraj, MD, MS, and Kalai Tsang, PhD participated in the University of Pittsburgh Innovation Institute and Randall Family Big Idea Competition, and won 2nd Place for creating Fitbit-type devices for those manually using wheelchairs. WARE graduate student Deepan Kamaraj won the University of Pittsburgh Innovation Institute and Randall Family Big Idea Competition took 3rd Place, for the MeBot, Mobility Enhanced Robotic Wheelchair (Deepan Kamaraj).

WARE medical student researcher, Christian Roehmer, participated in the UPMC Rehabilitation Institute Research Day 2018 and won the Best Rehabilitation Research in the Medical Student category.

The PneuChair developed at the Human Engineering Research Laboratories at the University of Pittsburgh won first place at the Kuzneski Innovation Cup in 2017.

An article in People magazine highlighted Army Veteran Matt Landis, HERL Engineer, who has dedicated himself to helping those with physical disabilities after he experienced serious injuries while serving in Iraq.

HERL researchers appeared in the University of Pittsburgh’s national TV ad that was broadcast during a sporting event.

Thanks to the generosity of 176 donors, HERL came out on top of the University of Pittsburgh Programs & Experiences Leaderboard at the conclusion of the University of Pittsburgh’s Day of Giving on February 28, 2018. HERL earned a gift of $30,000 from the University.

HERL conducted research at The National Disabled Winter Sports Clinic in Snowmass, CO April 1-6, 2018. 100 Veterans and providers participated in surveys.

HERL conducted research at the National Veterans Wheelchair Games in Orlando, FL from July 30-August 4, 2018. Five research protocols recruited 60 participants. Sponsored in part by the Paralyzed Veterans of America (PVA) Buckeye Chapter, the 7th annual Buckeye Wheelchair Games, Geneva Ohio, featured two days of competitions in several different events. Team HERL/Keystone Paralyzed Veterans of America won first place in the 4x300 Roll and Run Relay. HERL provides equipment for the events.

Key Publications

**Impacts of CHERP Research**

<table>
<thead>
<tr>
<th>Improving Medication Safety for Veterans with Dementia</th>
</tr>
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<tbody>
<tr>
<td>Dr. J. Thorpe linked national data from VA and Medicare for 75,829 Veterans with dementia who were continually enrolled in both health care systems (IIR 12-379). As reported in a high-impact publication, dual VA and Medicare users had more than twice the odds of exposure to potentially unsafe prescribing than VA only users.</td>
</tr>
<tr>
<td><strong>Priorities addressed:</strong> Aging, coordination of care, health care system change</td>
</tr>
<tr>
<td><strong>Media/honors:</strong> Covered by Reuters, Fox News, Medscape, EurekAlert, Medical Xpress, and Monthly Prescribing Reference; Dr. Thorpe received the 2017 HSR&amp;D Best Research Paper of the Year Award</td>
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<th>Pre-habilitating Frail Veterans Referred for Elective Surgery</th>
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<tr>
<td>Dr. Hall developed and validated a 14-item online risk analysis index to quantify pre-operative surgical frailty and demonstrated its association with improved perioperative outcomes. The index is being used by 5 VAMCs to identify high-risk surgical patients who are then referred for pre-operative strength, inspiratory muscle, and balance training, and nutritional supplementation.</td>
</tr>
<tr>
<td><strong>Priorities addressed:</strong> Patient-centered care, coordination of care, healthcare informatics</td>
</tr>
<tr>
<td><strong>Media/honors:</strong> Covered by Reuters, Pittsburgh Post-Gazette; disseminated by HSR&amp;D (Improving Healthcare for Aging Veterans); recognized as a key paper by the journal, <em>Anesthesiology</em></td>
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<tr>
<th>Improving Mental Health with Peer Support (PS)</th>
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<tr>
<td>Dr. Chinman’s deployment of PS to improve mental health care outcomes has been broadly disseminated in VA by ORD, Mental Health Services, and the PS Program. He led randomized and quasi-experimental trials to assess outcomes associated with PS and identify implementation factors affecting deployment.</td>
</tr>
<tr>
<td><strong>Priorities addressed:</strong> High-performing network of community providers, mental and behavioral health</td>
</tr>
<tr>
<td><strong>Media/honors:</strong> Bipolar Magazine, ORD Research Currents; Dr. Chinman received an Outstanding Contribution to Science Award from the Federal Executive Board Excellence in Government Program</td>
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<tr>
<th>Improving Reproductive Health Care for Women Veterans</th>
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<tr>
<td>Dr. Borrero provided critical first evidence on the state of contraceptive care for women Veterans (IIR 12-124). She found that 37% of pregnancies among VA-users are unintended and nearly 30% of women at risk of unintended pregnancy are not using prescription contraception. Women Veterans with medical comorbidities, mental illness, and those who perceive race-based discrimination were at high risk for unintended pregnancy; women Veterans of color had less knowledge and different attitudes regarding contraception. Related to these findings, Dr. Borrero and her mentee developed a teratogenic medication clinical reminder for women Veterans at risk of unintended pregnancy to improve prescribing safety at VAPHS. This local QI initiative will inform a planned national rollout of this clinical reminder.</td>
</tr>
<tr>
<td><strong>Priorities addressed:</strong> Women’s health, healthcare access, health equity</td>
</tr>
<tr>
<td><strong>Media/honors:</strong> Dr. Borrero was asked to serve on the Pennsylvania Governor’s Advisory Council on Veterans Services and as liaison to the Women Veterans Subcommittee</td>
</tr>
</tbody>
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**Investigator Honors and Awards**
- Joshua Thorpe, PhD, MPH received the VA Health Services Research and Development Best Research Papers of the Year for...
his article “Dual Health Care System Use and High-Risk Prescribing in Patients with Dementia,” published in the Annals of Internal Medicine. This high impact research authoritatively demonstrated that receipt of prescription medications across unconnected systems of care increased the risk for unsafe prescribing. Dr. Thorpe also received a Federal Executive Board Excellence in Government Award in the Outstanding Contribution to Science (Medical) category for this work. In addition, the Rho Chi Society, the University of Pittsburgh School of Pharmacy’s chapter of their national honor society, selected this paper for the faculty “Outstanding Scholarly Contribution Award.”

- CHERP fellow, Joshua Niznik, PharmD, received the 2018 American Geriatrics Society Scientist-in-Training Research Award presented to a pre-doctoral candidate who submitted the most outstanding abstract for the 2018 American Geriatrics Society Annual Meeting [Niznik J, Zhang S, Mor M, Zhao X; Ersek M; Aspinall S; Thorpe J, Gellad W; Hanlon J; Schleiden L; Springer S; Thorpe C. Validating the MDS Mortality Risk Index in Older Adult Veterans using MDS v3.0]. This work also received the Best Paper Award in the Health Services & Policy Research Division at the meeting.

- John Blosnich, PhD, MPH received an I CARE Award for outstanding LGBT Veteran Service from the Lesbian, Gay, Bisexual and Transgender (LGBT) Health Program in the Office of Patient Care Services, in recognition of his extraordinary efforts to improve health and health care for Veterans who identify as lesbian, gay, bisexual, transgender, and related identities at the VA.

- Walid Gellad, MD, MPH received the 2018 Leadership Award from the Association of Chiefs and Leaders of General Internal Medicine. In addition, a scientific paper co-authored by Dr. Gellad was selected by the American Association of Colleges of Pharmacy Social and Administrative Sciences Section for the 2018 Best Research Publication Award [Suda KJ, Smith BM, Bailey L, Gellad WF, Huo Z, Burk M, Cunningham F, Stroupe KT. Opioid dispensing and overlap in veterans with non-cancer pain eligible for Medicare Part D. J Am Pharm Assoc. 2017 May/June;57(3):333-340.e3]

- Kelly Burkitt, PhD received the VAPHS 2018 Research Staff Achievement Award

- Sonya Borrero, MD, MS received the 2018 Distinguished Research Mentor Award from the University of Pittsburgh Institute for Clinical Research Education.

- Galen Switzer, PhD received the 2018 Excellence

- Sonya Borrero, MD, MS was invited to serve on the Pennsylvania Maternal Mortality Review Committee signed into law in May by Governor Wolf.

CHERP Research Briefed to the VHA National Leadership Council


CHERP Investigators in the News


Walid Gellad, MD, MPH: Interviewed on WPXI on the topic of doctors getting payments from drug and medical device companies, and was a featured guest on a C-SPAN Washington Journal segment to discuss the potential impacts of the CVS Aetna merger on consumers and the larger health care industry.

These findings suggest that higher NF-κB activity in schizophrenia may contribute to elevated levels of immune markers in the prefrontal cortex in schizophrenia.


These results suggest that the neural activity associated with anhedonia in schizophrenia may be distinguished from anhedonia and depression and could be related to decreased trait positive affect.


Results of this meta-analysis suggest that patients with low rACC (rostro-ventral anterior cingulate cortex) activation may be at higher risk for relapse and could benefit from treatments that target this area of the brain (e.g., Cognitive Behavioral Therapy).


This hybrid trial tests the clinical non-inferiority of Brief Behavioral Treatment for Insomnia (BBTI) versus the current “gold standard” treatment, Cognitive Behavioral Therapy for Insomnia (CBTI).


In contrast to previous RCTs of rTMS, this trial is specifically oriented to recruiting patients whose comorbidities (e.g., SUD, PTSD, etc) are more typical of US Veterans and to allow the continuation of antidepressant medication therapy throughout the trial.


Cognitive Behavioral Therapy for Insomnia (CBT-I) continues to be empirically supported and the recommended first-line intervention for insomnia in older adulthood.


Results suggest that peer specialists can benefit those with mental illnesses and substance use disorders who engage in more frequent interactions.
Awards and Honors

- Robert Sweet, MD, received a NARSAD Distinguished Investigator Award. These awards fund particularly innovative project ideas by talented, established scientists with a record of outstanding research accomplishments. Dr. Sweet will pursue a line of investigation on cellular proteins (MAP2 and Tau) that are expressed in the central nervous system. He will be asking the question of whether MAP2 may play a role in the neuropathology of schizophrenia that is in some respects analogous to the role of Tau in neurodegenerative diseases such as Alzheimer’s dementia and frontotemporal dementia.

- Fred Nardei, Certified Peer Specialist, was appointed to a three-year term on the Office of Mental Health and Substance Abuse Services (OMHSAS) State Mental Health Planning Council, Older Adult Advisory Committee. The mental health planning council advises on all matters concerning mental health and the treatment provided to all who suffer from mental illness.

- Armando Rotondi, PhD, was invited to be a VHA national workgroup member for Advancing mHealth Research in the VA. The group was convened to help identify resource needs and key issues for the Center for Mobile Apps Research Resources and Services (CMARRS).

Caitlan Tighe, PhD, received a MIRECC Pilot Project Award for her project, Examining the Prevalence, Predictors, and Impact of Disordered Sleep in Veterans Eligible for Cardiac Rehabilitation.

Rachel Bachrach, PhD, received a MIRECC Pilot Project Award for her project, Risky Alcohol Use Screening and Brief Intervention among Complex Veterans Seeking Primary Care Services.

Educational Highlights

- The MIRECC Educational Program, Peer Specialists: Successful Strategies for Integration and Collaboration, was presented at VAPHS by Matthew Chinman, PhD, Sharon McCarthy, PhD, and VHAPTH Peer Specialists Fred Nardei, James Whicker, and Robert Anderson, October 2017.

- As part of the PRecision medicine In MEntal health Care (PRIME Care) project, Sara Chapman, MS, OTR/L and colleagues created an educational whiteboard video, Introduction to Pharmacogenetics: PRIME Care Study. Although produced as a resource for research participants, the video has application to a wider audience of providers and Veterans. It is accessible via the VA YouTube channel and can be found on the study website, www.bit.ly/VAPRIMECare.

- Several MIRECC-affiliated trainees were invited to present at the 32nd annual meeting of the Society for Research in Psychopathology held in September:
  - Sarah Forster, PhD, Spontaneous blink rate as a prognostic marker of Contingency Management treatment response: A pilot study (poster presentation)
  - Kelsey Bonfils, PhD, Affective prosody and facial emotion recognition in first-episode schizophrenia: Associations with functioning (poster presentation)
  - Rachel Bachrach, PhD, Balancing rigor and practicality: Common sense guidelines for registration in clinical science (oral presentation)
  - Adam Bramoweth, PhD, was the featured discussant on a virtual journal club sponsored by the Society of Behavioral Sleep Medicine, 10/25/17. The topic was based on the recent published article, Identifying the Demographic and Mental Health Factors That Influence Insomnia Treatment Recommendations Within a Veteran Population. Article co-authors also included Barbara Hanusa, PhD, and Jon Walker, PhD.

Highlights of the MIRECC’s VA Advanced Fellows

Luis Flores, PhD, recent graduate of the MIRECC Advanced Fellowship Program, accepted an appointment for a tenured-track position as an Assistant Professor in the Department of Psychology at Queen’s University in Kingston, Ontario, Canada.

Sarah Forster, PhD, was awarded a CSR&D Career Development Award (CDA-2) for her project, Electrophysiological Predictors and Indicators of Contingency Management Treatment Response, Kelsey Bonfils, PhD, joined the fellowship program. Her research will focus on social cognition in schizophrenia-spectrum disorders.

Swathi Gujral, PhD, joined the fellowship program. Her research will focus on the impact of exercise on cognitive functioning and mental health in geriatric patients.
Key Publications/ Key Findings

- **Tissue plasminogen activator promotes white matter integrity and functional recovery in a murine model of traumatic brain injury.** Xia Y, Pu H, Leak RK, Shi Y, Mu H, Hu X, Lu Z, Foley LM, Hitchens TK, Dixon CE, Bennett MVL, Chen J. Proc Natl Acad Sci U S A. 2018 Sep 25;115(39):E9230-E9238. doi: 10.1073/pnas.1810693115. Tissue plasminogen activator (tPA) is used in stroke patients to break up blood clots, but there are conflicting reports about its potential therapeutic benefit and safety for victims of traumatic brain injury (TBI). In this study, electrophysiological, anatomical, and behavioral measures of recovery were performed on mice after TBI. The findings suggested that natural or synthetic tPA can safely protect or repair white matter by promoting communication across nerve fiber tracts, leading to improved long-term adaptive behavior. These results suggest that tPA could be useful in promoting recovery after TBI in patients.

- **Promoting Neurovascular Recovery in Aged Mice after Ischemic Stroke - Prophylactic Effect of Omega-3 Polyunsaturated Fatty Acids.** Cai M, Zhang W, Weng Z, Stetler RA, Jiang X, Shi Y, Gao Y, Chen J. Aging Dis. 2017 Oct 1;8(5):531-545. doi: 10.14336/AD.2017.0520. eCollection 2017 Oct. PMID:28966799. Omega-3 polyunsaturated fatty acids (o-3PUFAs) are the active ingredients of fish oils and have been shown to improve recovery from stroke in young adult rodents. This study investigated whether o-3PUFA-enriched fish oil is effective in aged mice. Mice treated with o-3PUFA-enriched fish oil improved long-term stroke histological and behavioral outcomes and evidence of enhanced post-stroke brain repair processes. Since stroke is a disease of the elderly, these results suggest that o-3PUFA-enriched fish oil treatment may improve recovery in patients with stroke.

- **Biopsychosocial Profiles and Functional Correlates in Older Adults with Chronic Low Back Pain: A Preliminary Study.** Weiner DK, Gentili A, Coffey-Vega K, Morone N, Rossi M, Perera S. Pain Med. 2018 Apr 16. doi: 10.1093/pm/pny065. [Epub ahead of print] PMID:29672748. Current treatments for chronic low back pain (CLBP) tend to be nonspecific and costly, and lead to unsatisfactory outcomes. This study demonstrated the association of individual pain-causing conditions in the periphery (e.g., osteoarthritis) and in the central nervous system (e.g., insomnia, fibromyalgia) to key treatment outcomes – pain severity and self-reported and performance-based physical function. Treating these specific conditions may impact outcomes and health care utilization.

- **What Matters in Semantic Feature Analysis: Practice-Related Predictors of Treatment Response in Aphasia.** Gravier ML, Dickey MW, Hula WD, Evans WS, Owens RL, Winans-Mitrik RL, Doyle PJ. Am J Speech Lang Pathol. 2018 Mar 1;27(1S):438-453. doi: 10.1044/2017_AJSLP-16-0196. PMID:29497754. Semantic feature analysis (SFA) is a common treatment for aphasia, a language impairment, following stroke. This study investigated how practice-related variables affected word-finding outcomes in 17 patients undergoing intensive SFA treatment. Findings indicated that the number of semantic features patients generated during naming trials was more strongly related to treatment response than other factors such as number of trials, total treatment time, and number of trials per hour. These results suggest how refinements in rehabilitations protocols may reduce word finding problems in patients after stroke.
**Trend Setting Innovations**

In FY18 the VA Pittsburgh GRECC established the Pittsburgh Aphasia Rehabilitation Training Network and Residency (PARTNeR) program. This program leveraged the GRECC’s expertise in aphasia rehabilitation and research to develop and execute a novel targeted workforce development program. Residency scholarships were awarded to 6 practicing VHA Speech Language Pathologists from the Nashville, Portland, Cincinnati, Richmond, Martinez, and Minneapolis VAMC respectively. These providers received specialized training in theoretically motivated and patient-centered aphasia rehabilitation services within the context of the VAPHS Program for Intensive Residential Aphasia Treatment and Education (PIRATE). Program components included both experiential and didactic components with clinical precepting and mentoring from GRECC faculty.

This GRECC national VHA training initiative was highlighted in VA’s Vantage Point [https://www.blogs.va.gov/VAntage/50891/vas-pittsburgh-healthcare-system-training-pathologists-rehabilitate-veterans-aphasia/](https://www.blogs.va.gov/VAntage/50891/vas-pittsburgh-healthcare-system-training-pathologists-rehabilitate-veterans-aphasia/)

The Program for Intensive Residential Aphasia Treatment and Education (PIRATE) (a) delivers intensive, residentially-based, speech and language rehabilitation services to community-dwelling brain-injured Veterans and active duty military personnel living with chronic aphasia, (b) conducts VHA and NIH-sponsored clinical trials examining novel interventions for aphasia and mechanism of language recovery following stroke, and (c) serves as a specialty training site for OAA-Funded advanced Geriatric Fellows. The goals of the program are to
(a) increase access to aphasia rehabilitation services,
(b) improve patient outcomes and satisfaction with care,
(c) foster innovation in service delivery,
(d) lead the nation in research on aphasia treatment and
(e) training the next generation of aphasia clinicians.

PIRATE has served as a nationwide referral center for the treatment of aphasia and provided specialty training to VHA SLPs from 6 VAMC’s nationwide. Since PIRATE’s inception, we have evaluated the clinical outcomes of the program by administering standardized and psychometrically robust norm-referenced assessments of communicative functioning at baseline, program entry, program exit and 4-6 week follow-up. We have reported these data on our website as the (a) percentage of participants showing improvement (Figure 1), and (b) magnitude of improvement expressed in norm-referenced percentile scores for each measure (Figure 2) [https://www.pittsburgh.va.gov/PIRATE/index.asp](https://www.pittsburgh.va.gov/PIRATE/index.asp). We have also analyzed our clinical outcomes using a Bayesian latent growth curve model with 2 factors representing (a) the initial level of performance and (b) change over time, respectively, for each of the outcome measure obtained and found that in each case, the model parameter estimates showed reliable improvement between the initial and final assessments. These findings were published in the peer-reviewed literature [Winans-Mitrik, R.L., Hula, W.D., Dickey, M.W., Schumacher, J.G., Swoyer, B., & Doyle P.J. (2014). *Description of an intensive residential aphasia treatment program: Rationale, clinical processes, and outcomes.* American Journal of Speech Language Pathology; 13, 1-13.).

![Figure 1](image1.png)

![Figure 2](image2.png)
Publications


Abstract Eposter- Tan,J, Carrick J, Shields J; Anti Platelet therapies in combination with Sorafenib and/or transarterial chemoembolization improve hepatocellular carcinoma treatment outcomes. AVAHO September 2018 Chicago IL.


Presentations and Speaking Engagements

Jocelyn Tan

1. Session Speaker-Tan J. Multidisciplinary Gastrointestinal symposium - Anti platelet therapies - a new role in advanced hepatocellular carcinoma AVAHO 2018, Chicago IL.


Obaid Shaikh


Andrew Liman, MD


Investigator Honors and Awards

- Dr. Gavin Hickey: Staff Clinical Excellence Award in June 2018
- Dr. Andrew Liman named #2 top VA enroller in the Trumpet study.
- Dr. Joel Bigley named highest enroller in July and August for the P-Prove study.
- Dr. Edith Tzeng named top enroller for the MOBILE CA study.
Research Committees

Institutional Biosafety Committee

1. In December the Office of Research Oversight (ORO) conducted a site visit to evaluate our Research Safety and Security Program (RSSP). There were no major issues recorded.

2. The IBC’s amendment review process was revised by the committee. The amendment request form was modified to state that any change in biological, chemical, physical, or radiation hazards must be reviewed and approved by the fully convened IBC prior to initiation.

3. A Research Safety Incident Report template and flow chart were developed and implemented. The form and process provide a mechanism to report a possible non-compliance issue to the committee, such as research related safety incidents that may occur in the labs.

4. The VAPHs Research Compliance Officer (RCO) conducted thirty-three research safety regulatory audits throughout the year. The reports were reviewed by the full committee for non-compliance or IBC related issues. Of the 33 audits, only 1 revealed noncompliance with outdated equipment and scope of practice documents.

5. No security issues were reported this year.

Institutional Animal Care & Use Committee

1. In December the Office of Research Oversight (ORO, Research Safety and Animal Welfare) conducted a site visit to evaluate our Animal Care and Use Program (ACUP). There were four findings identified by the ORO site visitors during their site visit, all of which were resolved. ORO closed the case in September 2018.

2. The committee revised the Identification Cards for Animal Cages guidelines to require the PI to document the anesthetic when listing the surgery or invasive procedure information.

3. An Incident Report template and flow chart process were developed: The form and process provide a mechanism to report a possible non-compliance and/or reportable events involving animal research to the committee.

4. The Research Compliance Officer (RCO) conducted 14 animal welfare regulatory audits throughout the year. The reports were reviewed by the full committee for non-compliance or IACUC related issues. There were no non-compliance issues noted.

5. A new Animal Facility commissioning work group was formed during this fiscal year.
1. On September 19, 2016 the VAPHS Human Research Protection Program (HRPP) received full accreditation by the Association for the Accreditation of Human Subjects Protections Programs (AAHRPP). AAHRPP accreditation expires in September 2021. An annual report was submitted and accepted by AAHRPP in 2018.

2. The 2018 audit of IRB review timelines reveals continued improvement. The median review times have decreased for both studies reviewed by the fully convened IRB as well as studies reviewed by expedited review.

3. The VAPHS HRPP developed a policy (VAPHS R&D Policy #H-020, Non-VAPHS Research Advertisements) outlining a process for the Research Office to review and approve or deny requests to display University of Pittsburgh research advertisements that are relevant to Veterans and the VA mission and do not compete with studies ongoing at VAPHS to be displayed at VAPH. This allows Veterans additional research opportunities, including participation in research studies that are not offered through the VA.

4. The VAPHS HRPP created a guidance document and templates (RDUA and RWA) for collaborative research to help VAPHS Investigators determine when a written agreement must be used during collaborations with a non-VA institution or investigator which involves transferring data and/or specimens for research purposes, in accordance with VHA Handbook 1200.05.

5. IRB2 analyzed data included in reports of non-compliance that were submitted in 2018 and compared it to the data from 2017 and found that Informed Consent deficiencies decreased 62%.

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**Institutional Review Board**

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**Research Scientific Evaluation Committee**

1. The major activity of RSEC during this period has been the coordination of pre-application review of projects prior to submission for funding to VA Merit Review programs including Biomedical and Laboratory Research & Development, Clinical Science Research & Development, Health Services Research & Development, and Rehabilitation Research & Development. In addition, applications to other government agencies (NIH, DoD) and non-government foundations also received reviews. Per SOP, reviews provided by the Centers of Excellence (GRECC, MIRECC, CHERP-COIN, and HERL-WARE) were also reviewed.

2. VISN 4 CPPF Reviews: The RSEC members assisted in reviews for CPPF applications from the Eastern region of VISN 4 (e.g., Philadelphia, Coatesville) that were forwarded to the Research Advisory Group.

3. More intensive monitoring of CDA applications provided ongoing feedback to applicants during period of preparation of projects for VACO submission. RSEC provided individualized feedback during preparation of the training and research plans to three CDA applicants for the Spring round. One of these CDAs has been awarded, and one has been resubmitted in the Fall, 2018 round.

4. Both careful review of non-committee comments to investigators and additional guidance for Merit Review and CDA applications based on committee discussions were provided for applicants. Guidelines developed by the Research Office administration include timelines for meeting with ACOS, RSEC, and submission of LOI and applications for pre-review have been disseminated to new investigators.

5. We continued to review comments received from the Centers of Excellence (CHERP, GRECC, MIRECC, WARE/HERL), who provided primary initial reviews for submissions from their investigators.

6. Further identification of potential mentors for new investigators has proceeded.

7. The review process for initial and continuing reviews has been streamlined. All RSEC members participate in in Continuing Reviews and Initial Reviews as needed and appropriate to their expertise.
The VAPHS Research Office StatCore provides statistical and data support to VA clinical and administrative staff and to research investigators with projects that are extramurally funded (VA, DoD, NIH, VISN, rural health funds). The StatCore has a diversified portfolio of research, QA/QI, administrative and development projects. Additionally, they provided support for preparatory research and preliminary data for a CDA that was funded and 2 LOI and 3 VA grant submissions currently under review.

StatCore contributes to VA/VAPHS missions by providing support to projects that are critical for clinical and administrative operations of the VA. In 2018, these projects included finalization of a user-driven “quality” database for ongoing monitoring of surgical patient care and outcomes, ongoing maintenance and updating to a user-driven Surgical Office “productivity” database they created in FY17, and expanding an IMPACT clinic patient tracking and pre-surgical assessment database. They supported the VA Hospital water safety subcommittee with data extraction from all available data sources regarding water maintenance, laboratory testing, facilities management, and patient outcomes. In addition, StatCore began working to support Critical Care patient care reports to ensure increased continuity of care and improved communication across local ICUs.
Research Week
May 14-18, 2018

Research Week is designed to celebrate and call attention to the achievements of VA researchers and the role they play in providing high quality care for veterans and advancing medical science. This year’s Research Week celebrated InnoVAtion to Implementation. The week began with a kickoff event that is part of a national event that took place at VA facilities across the country. This year’s guest presenter was Theresa Gleason, PhD, Director of Clinical Science Research and Development Service, Office of Research and Development.

During Research Week investigators, staff, Veterans and the public are invited to celebrate the achievements of VA Researchers. The event begins with a ‘Kick Off’ that includes a guest speaker, investigators sharing their stories, and an awards ceremony. Three awards are given each year; the recipients and information for awards are listed below.

VAPHS 2017 Excellence in Research Award Recipient: Linda Fried, MD, MPH
Award accepted by Paul Palevsky, MD

VAPHS Research Staff Achievement Award - Indirect Interactions, Recipient: Kelly Burkitt, PhD

VAPHS Research Staff Achievement Awards - Direct Interactions, Recipient: Mary Sullivan
VAPHS Research Administration
Steven. H. Graham, MD, PhD, Associate Chief of Staff for Research and Development
Franca Cambi, MD, Deputy Associate Chief of Staff for Research and Development

Veterans Research Foundation
Administrative Staff
Alanna Caffas, Executive Director
Laura Thompson, CPA, Director of Finance

Committee Chairpersons
Gretchen Haas, PhD, Chairperson, VAPHS Research and Development Committee
Linda Fried MD, MPH, Chairperson, VAPHS Institutional Review Board
George Dougherty, MD, Chairperson, VAPHS Institutional Review Board 2
Paula Clemens, MD, Chairperson, VAPHS Institutional Biosafety Committee
Edward Dixon, PhD, Chairperson, VAPHS Institutional Animal Care and Use Committee
Stuart Steinhauer, PhD, Chairperson, VAPHS Research Scientific Evaluation Committee

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