USF HEALTH

USF HEALTH
BYRD ALZHEIMER'S INSTITUTE

ANNUAL REPORT

2015

BYRD INSTITUTE

Contents

About the USF Health Byrd Alzheimer's Institute

The USF Health Byrd Alzheimer's Institute was founded in 2002 on the vision of former Florida Speaker of the House, Johnnie Byrd, Jr. whose father suffered from Alzheimer's disease and for a number of years was known as the Johnnie B. Byrd, Sr. Alzheimer's Center and Research Institute.

Today the institute is a multi-disciplinary center of excellence at the University of South Florida that provides compassionate family-centered patient care, performs cutting edge research and delivers quality public and professional education. With a state-of-the-art building and a highly qualified team of researchers, doctors, clinicians and educators, the institute is at the forefront of Alzheimer's research and care.

Mission Statement

The USF Health Byrd Alzheimer's Institute is dedicated to the prevention, treatment and cure of Alzheimer's disease and related disorders.

The key activities of the institute include:

- Conducting laboratory research to understand the changes in the brain that cause dementia and to develop approaches for the prevention and treatment of Alzheimer's disease.
- Conducting clinical trials to test treatments for individuals with all stages of memory loss.
- Providing state-of-the-art diagnostic evaluations and the highest level of patient care to individuals with Alzheimer's disease and other memory problems.
- Supporting family caregivers by providing educational programs, support groups, counseling and information.
- Providing education and training for healthcare professionals, service providers and students.

Letter from the Chief Executive Officer

Greetings from the USF Health Byrd Alzheimer's Institute. The 2014-15 Annual Report details a number of activities that show continued growth of the Institute and its programs. While our staff numbers remain relatively steady, our revenue from multiple sources continues to increase due to enhanced efficiencies and economies of scale.

Foremost amongst the increases this year was Clinical Trial activity. The number of participant visits increased by more than 50%. This resulted in a 130% increase in clinical trial revenue which for the first time exceeded the $1 million mark. Our clinical trial expenses increased by only 50% resulting in an excess of revenue over expenses totaling $400,000! While some of this results from expenses incurred last fiscal year leading to revenue booked this fiscal year, we are achieving 15-20% excess of revenue over our expenses in this activity. This is precisely the goal we sought by restricting our efforts to only the most cost effective studies and maximizing efficiencies in the clinical trial staff. Jill Smith has done a marvelous job assembling a stellar clinical trial research team.

In terms of Basic and Translational Research we have again shown considerable gains over last year. Total competitive grant funding in 2014-15 increased by 45% over the 2013-14 year. Over $1 million per year in new federal funding was obtained by Institute researchers. Unique publications reached 42 for the year, averaging 3 per Principle Investigator. This was 40% more than the preceding year, even though no new Discovery Research Laboratory faculty were added.

Clinical services also continued to improve its patient balance to move towards fiscal sustainability. Revenue increased by 25%, largely due to increasing utilization of the PET Center and an increase in occupational therapy services. Although coupled with fewer clinical service visits, this was associated with increased numbers of clinical research visits. We also had expansion of the Internal Medicine practice on the 2nd floor (these numbers are not included in our revenue figures).

The educations program also continued to expand. We added a new staff member to focus on expansion of the Community Based Memory Screening program, and establishment of a Memory Care registry of individuals participating in this program. This will permit us to share clinical trials opportunities with those in the registry as they become available.

We have almost completed the build out of new laboratories on the 5th floor. This will allow Chad Dickey more room for his burgeoning research program and open new space for another faculty hire.

Future plans include developing the clinical trial mobiles unit (taking clinical trials to the retirees rather than requiring them to drive to us). We hope to increase hiring of clinical faculty to overcome the wait time we have in seeing first time patients. Internal medicine has applied to designate the 2nd floor as a patient centered medical home. Onward and Upward.

Dave Morgan, PhD
CEO and Executive Director

...until Alzheimer's is a memory®

Faculty Appointed to the USF Health Byrd Alzheimer's Institute

Jessica L. Banko, Ph.D., M.S.
Associate Professor of Molecular Medicine
College of Medicine

Deborah Burke, M.D.
Assistant Professor of Neurology
College of Medicine

Chuanhai Cao, Ph.D.
Assistant Professor of Pharmaceutical Sciences
College of Pharmacy

Hemant Chheda, M.D.
Assistant Professor of Radiology
College of Medicine

Jasmine Cutler, Pharm.D., CPH
Clinical Pharmacist
College of Pharmacy

Marilin Espino-Maya, M.D.
Affiliate Assistant Professor of Radiology
College of Medicine

Chad Dickey, Ph.D.
Associate Professor of Molecular Medicine
College of Medicine

Max Feldman, M.D.
Assistant Professor
Division of General Internal Medicine

Joshua Gamsby, Ph.D.
Research Assistant Professor of Molecular Medicine
College of Medicine

Marcia Gordon, Ph.D.
Professor of Molecular Pharmacology & Physiology
College of Medicine

Lucy Guerra, M.D.
Associate Professor
Division of General Internal Medicine

Danielle Gulick, Ph.D.
Assistant Professor of Molecular Medicine
College of Medicine

Robert Hauser, M.D., M.B.A.
Professor of Neurology
College of Medicine

Angela Hill, Pharm.D., B.C.P.P.
Professor and Chair, Pharmacy Practice
College of Pharmacy

Crystal Jacovino, D.O.
Associate Professor
Division of General Internal Medicine

David Kang, Ph.D.
Associate Professor of Molecular Medicine
College of Medicine

Umesh Jinwal, Ph.D.
Assistant Professor of Pharmaceutical Sciences
College of Pharmacy

Daniel Lee, Ph.D.
Assistant Professor of Pharmaceutical Sciences
College of Pharmacy

David G. Morgan, Ph.D.
Distinguished Professor of Molecular Pharmacology & Physiology
College of Medicine

Peter Mouton, Ph.D.
Professor of Pathology & Cell Biology
College of Medicine

Hugo Narvarte, M.D.
Assistant Professor
Division of General Internal Medicine

Kevin Nash, Ph.D.
Assistant Professor of Molecular Pharmacology & Physiology
College of Medicine

Jaya Padmanabhan, Ph.D.
Assistant Professor of Molecular Medicine
College of Medicine

Eileen Poiley, M.S.
Instructor of Suncoast Gerontology
College of Medicine

Balaibail Ashok Raj, M.D.
Professor of Neurology
College of Medicine

Kristin Robinson, Pharm.D.
Clinical Pharmacist
College of Pharmacy

Michael R. Schoenberg, Ph.D., A.B.P.P.-C.N.
Associate Professor of Psychiatry & Behavioral Neurosciences
College of Medicine

Maj-Linda Selenica, Ph.D.
Assistant Professor of Pharmaceutical Sciences
College of Pharmacy

Sharon Aroda Shah, M.D.
Assistant Professor
Division of General Internal Medicine

Amanda G. Smith, M.D.
Associate Professor of Psychiatry & Behavioral Neurosciences
College of Medicine

Jill Smith, M.A., C.C.R.C.
Instructor
School of Aging Studies

Nancy Teten, L.C.S.W.
Instructor of Neurology
College of Medicine

Robert Walker, M.D.
Associate Professor
Division of General Internal Medicine

Edwin J. Weeber, Ph.D.
Professor of Molecular Pharmacology & Physiology
College of Medicine

Associate Members

Norma Alcantar, Ph.D.
Professor
Chemical and Biomedical Engineering

Ross Andel, Ph.D.
Associate Professor of School of Aging Studies
College of Behavioral & Community Sciences

Paula Bickford, Ph.D.
Professor, Center of Excellence for Aging & Brain Repair
College of Medicine

Cesar Borlongan, MA, Ph.D.
Professor and Director, Center of Excellence for Aging & Brain Repair
College of Medicine

Aryn Harrison Bush, Ph.D.
Research Assistant Professor of School of Aging Studies
College of Behavioral & Community Sciences

Gabriel De Erausquin, M.D., Ph.D., M.Sc.
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Jennifer Lister, Ph.D., CCC-A, FAAA
Professor and Chair, Communication Sciences and Disorders
College of Behavioral & Community Sciences

James Mortimer, Ph.D.
Professor, Epidemiology
College of Medicine

Meredeth Rowe, RN, Ph.D., FGSA, FAAN
Endowed Chair and Professor
College of Nursing

Brent Small, Ph.D.
Professor and Chair, School of Aging Studies
College of Behavioral & Community Sciences

Naoki Tajiri, P.T., Pd.D
Assistant Professor, Center of Excellence for Aging and Brain Repair
College of Medicine

Jun Tan, Ph.D., M.D.
Endowed Chair and Professor
College of Medicine

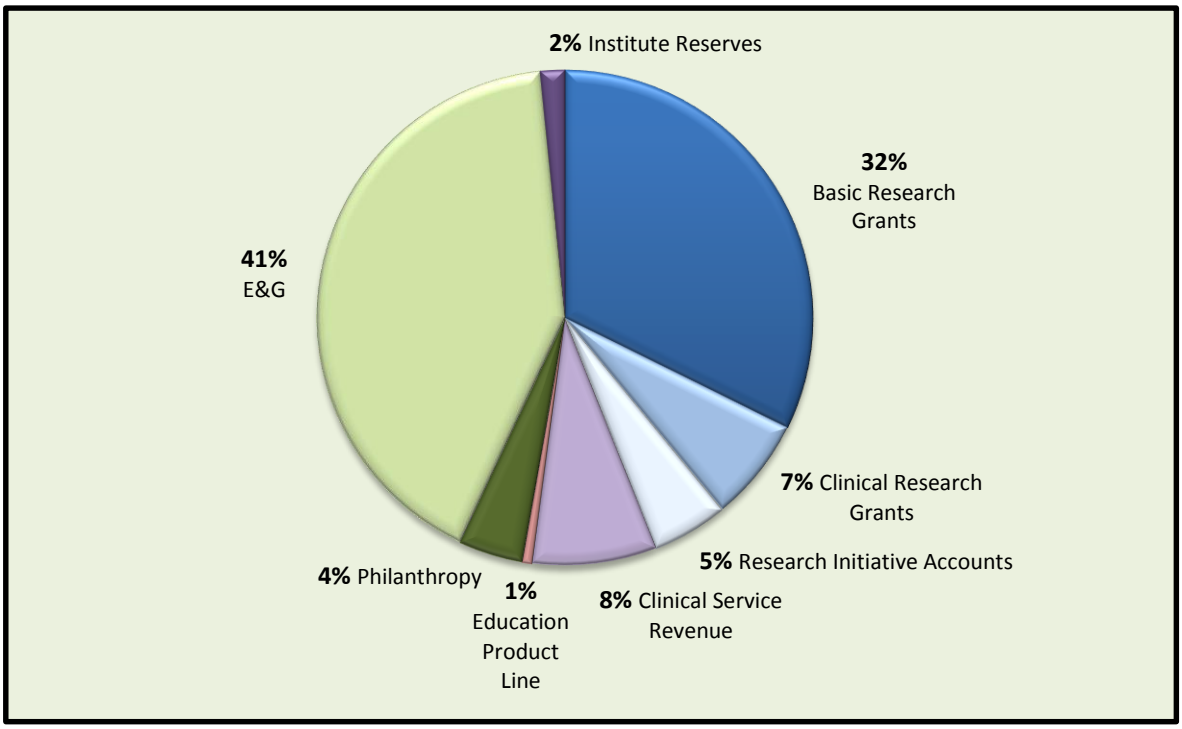
Vladimir Uversky, Ph.D., DSc
Associate Professor of Molecular Medicine
College of Medicine

USF Health Byrd Alzheimer's Institute Statistics

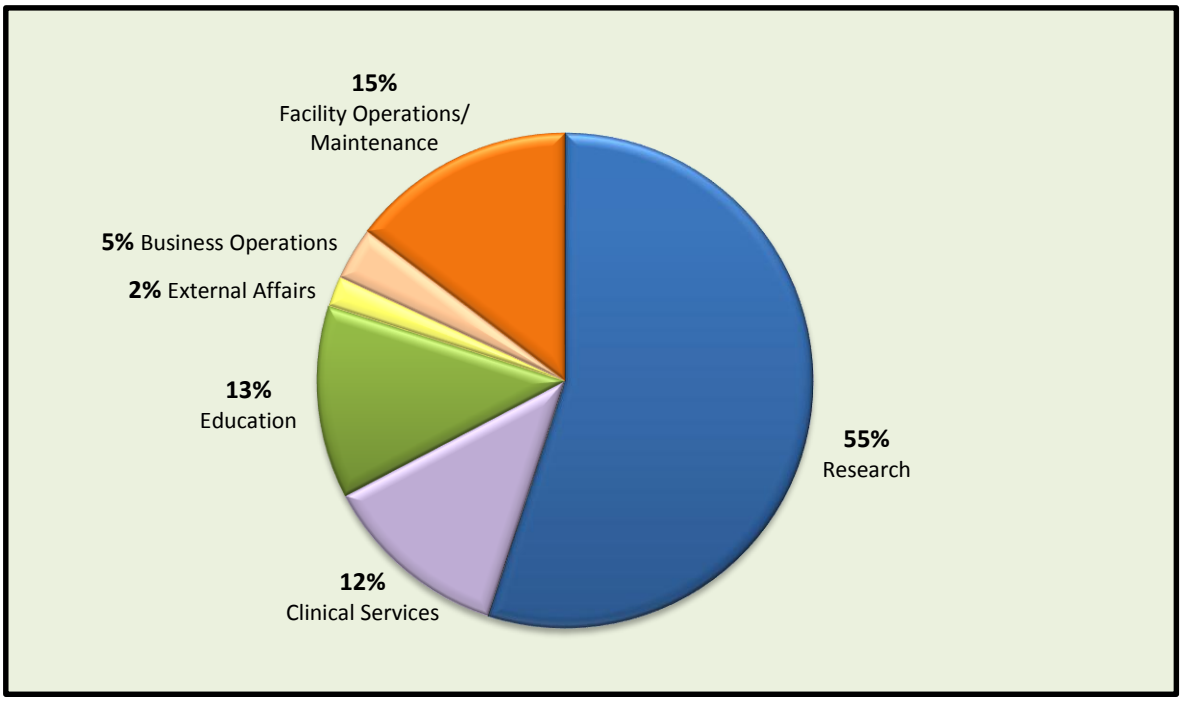
	2012/2013	*2013/2014*	*2014/2015*
CLINIC			
Suncoast Alzheimer's Center new patient visits	329	529	283
Suncoast Alzheimer's Center Follow-up visits	1,679	1,489	1,242
C.A.R.E. visits	187	262	204
Imaging visits	251	289	380
Occupational Therapy visits (opened Sept 2013)	-	203	377
Driver Safety Evaluations (opened Sept 2013)	-	44	74
Clinical Trial visits	200	349	526
Memory Disorders Clinic visits (closed Oct 2013)	941	73	-
Movement Disorders Clinic visits	2,158	2,450	2,100
Geriatric Medicine visits	380	518	647
Total patient visits	**6,125**	**6,206**	**5,833**
STUDENTS			
Medical degree-seeking	-	3	5
Graduate degree-seeking	33	35	25
Post-doctoral	20	15	14
Undergraduate	63	97	114
High School	15	13	11
Total Trainees	**132**	**163**	**169**
FACULTY AND STAFF			
Clinical Faculty	14	12	16
Clinical Staff	20	17	15
Laboratory Research Faculty	15	14	14
Laboratory Research Staff	24	14	16
Education Staff	1	1	2
Administrative Staff	7	6	6
Plant Operations/Maintenance Staff	5	6	5
Part-time/temporary Staff	1	2	3
Total Employees	**87**	**71**	**77**
RESEARCH			
Active Research Grants	35	26	24
Active Clinical Trials	10	15	14
Clinical Trial Subject Visits	200	349	526
ENDOWMENT			
Principal Value	$ 5,386,509	$ 5,478,384	$ 5,841,657
Market Value	$ 6,697229	$ 7,643,015	$ 7,886,448

2015 Financial Overview

Funding by Source



Expenditures by Activity



Funding by Source (in thousands)	*2012/2013*	*2013/2014*	*2014/2015*
	$	$	$
Basic Research Grants & Contracts	3,650	2,365	3,468
Clinical Research Grants & Contracts	587	533	727
Research Initiative Accounts	591	374	534
USF Foundation	356	478	450
State E&G	2,845	3,690	4,454
Patient Services Revenue	641	671	867
Educational Business Activity	28	43	71
Institute Reserves	1,040	404	170
TOTAL INSTITUTE FUNDING	**9,738**	**8,558**	**10,741**

Expenditures by Activity (in thousands)	*2012/2013 Total*	*2013/2014 Total*	*2014/2015 Total*
	$	**$**	**$**
RESEARCH EXPENDITURES	**5,117**	**4,016**	**5,904**
Federal Basic Research	2,711	1,297	2,044
Non-Federal Basic Research	939	1,068	1,424
Clinical Research	525	553	832
Institute Research & Development	942	1,098	1,604
CLINICAL SERVICES EXPENDITURES	**1,209**	**1,131**	**1,320**
EDUCATIONAL EXPENDITURES	**1,024**	**1,265**	**1,347**
Faculty E&G	911	1,137	1,182
Caregiving and Professional Education	114	128	165
DEVELOPMENT EXPENDITURES	**133**	**101**	**10**
EXTERNAL AFFAIRS EXPENDITURES	**253**	**164**	**213**
BUSINESS OPERATIONS EXPENDITURES	**431**	**421**	**373**
Finance and Accounting	121	76	77
USF Health Governance	38	59	0
Executive Administration	272	286	296
FACILITY OPERATION & MAINTENANCE	**1,571**	**1,460**	**1,574**
TOTAL INSTITUTE EXPENDITURES	**9,738**	**8,558**	**10,741**
ONE-TIME CAPITAL IMPROVEMENT			**779**

Research

Clinical Research

We recognize the critical need to research new treatment options as well as better diagnostic tools. Current medications cannot stop Alzheimer's disease. These medications may help prevent some symptoms from getting worse. Current research is aiming to halt or slow the progression of Alzheimer's disease itself and also identify better ways to diagnosis and treat memory problems earlier.

Our center is involved in a number of research studies for various stages of Alzheimer's disease and mild cognitive impairment. Several of these studies investigate potential treatments that target the plaques and tangles in the brain. Some studies involve pills, while others use intravenous infusions or injections. Other trials study the effect of noninvasive treatments and nutritional supplements on Alzheimer's disease. Some of our studies involve more advanced brain imaging techniques such as PET scans. Many of these trials are part of the Alzheimer's Disease Collaborative Study (ADCS), or the Alzheimer's Disease Neuroimaging Initiative, both NIH funded, nationwide clinical research consortia of leading Alzheimer's research centers.

The 2015 fiscal year was productive and we have continued to see growth in our clinical research practice. We continued participation in trials to target beta amyloid in mild to moderate Alzheimer's disease and mild cognitive impairment and also investigating a treatment for the tau protein that causes tangles. We actively participated in a clinical trial investigating PET scan imaging agents that are in development for an imaging agent to detect and measure this tau protein. And lastly, we continue to be an active site among the US, Canada, and Australia to participate in the A4 prevention trial funded by Eli Lilly and the NIH for people who are over the age of 65 and may be at risk for developing Alzheimer's disease. The study has had much higher than anticipated negative PET scan results across screening participants, but we continue to actively enroll.

This year we also brought on a fourth study coordinator to our team to keep up with the ever increasing demands of the expanding clinical trials enterprise, as well as a PhD neuropsychometrician, dedicated to cognitive evaluations with in the CARE center as well as the clinical research team.

Clinical Research Statistics

	2012/2013	*2013/2014*	*2014/2015*
New studies awarded	2	6	3
Active studies	10	15	14
Enrolling studies	4	10	10
Total subjects enrolled	21	108	162
Subject visits	200	349	526
Average enrollment per trial	9	9	10
Average enrollment fulfillment (# screened/# contracted)	100%	69%	76%
Average randomized success (# randomized/#screened)	82%	82%	72%
*Research study income (direct costs)	$ 587,453	$ 533,152	$ 1,255,773
*Research study expenses (direct costs)	$ 524,853	$ 513,304	$ 726,687
Total Clinical Research expenses	$ 524,853	$ 553,613	$ 832,096

*Research study income and research study expenses includes both industry-sponsored clinical trial contracts and federal and non-federal clinical research awards.

Studies active during fiscal year 2014/2015 listed by study sponsor

1. **ADCS**: Alzheimer's Disease Neuroimaging Initiative (ADNI-2) A nationwide study to collect information about individuals using MRI, PET scan, spinal fluid, cognitive status, blood biomarkers over multiple years to form a database of information on the course of aging and Alzheimer's disease [PI: Smith]
2. **ADCS:** Anti Amyloid Treatment in Asymptomatic Alzheimer's Disease (A4 Study). (H8A-MC-LZAZ/A4) [PI: Smith]
3. **ADCS**: Therapeutic effects of intranasally-administered insulin (INI) in adults with amnestic mild cognitive impairment (aMCI) or mild Alzheimer's disease (AD). (ADC-046-INI) [PI: Smith]
4. **Avid:** An open label, multicenter study, evaluating the safety and imaging characteristics of ^{18}F-AV-1451 in cognitively healthy volunteers, subjects with Mild Cognitive Impairment, and subjects with Alzheimer's disease (^{18}F-AV-1451-A05) [PI: Smith]
5. **Dana Foundation**: Safety, Efficacy of GM-CSF (Leukine) for Treatment of Alzheimer's Disease [PI: Raj]
6. **Eisai**: A Placebo-controlled, Double-blind, Parallel-group, Bayesian Adaptive Randomized Design and Dose Regimen-finding Study to Evaluate Safety, Tolerability and Efficacy of BAN2401 in Subjects with Early Alzheimer's Disease (BAN2401-G000-201) [PI: SMITH}
7. **Eli Lilly:** Continued Efficacy and Safety Monitoring of Solanezumab, an Anti-Amyloid Beta Antibody in Patients with Alzheimer's Disease (H8A-MC-LZAO) [PI: Raj]
8. **Eli Lilly:** Effect of Passive Immunization on the Progression of Mild Alzheimer's Disease: Solanezumab (LY2062430) Versus Placebo. (H8A-MC-LZAX) [PI: Raj]
9. **Florida Department of Health**: Identification of novel AD genes and disease associated pathways through FPADS: a Florida Presenile Alzheimer's Disease Subjects registry [PI: RAJ]
10. **Florida Department of Health**: Florida Consortium for African American Alzheimer's Disease Studies (FCA3DS) [PI: RAJ]
11. **Merck**: A Randomized, Placebo Controlled, Parallel-Group, Double Blind Efficacy and Safety Trial of MK-8931 in Subjects with Mild to Moderate Alzheimer's Disease. (Protocol No. MK-8931-017) [PI: SMITH]
12. **Merck:** A Phase III, Randomized, Placebo-Controlled, Parallel-Group, Double-Blind Clinical Trial to Study the Efficacy and Safety of MK-8931 (SCH 900931) in Subjects with Amnestic Mild Cognitive Impairment Due to Alzheimer's Disease (Prodromal AD). (MK-8931-019) [PI: Smith]
13. **TauRx:** Randomized, Double-Blind, Placebo-Controlled, Parallel-Group, 18-Month Safety and Efficacy Study of Leuco-methylthioninium bis(hydromethanesulfonate) in Subjects with Mild Alzheimer's Disease (TRx-237-005) [PI: Raj]
14. **USF and Leo and Anne Albert Charitable Trust**: A Randomized, Double-Blind, Placebo-Controlled, 6 Month Cross-Over Study to Evaluate the Efficacy of Coconut Oil (Fuel for Thought™) Treatment for Subjects with Mild to Moderate Alzheimer's Disease [PI: Smith]

Basic and Translational Research

The Discovery Research Laboratories within the USF Health Byrd Alzheimer's Institute are engaged in basic and translational research aimed at understanding the patho-physiology of Alzheimer's disease with a focus on developing new therapeutics to prevent, treat and cure the disease. Complimentary programs in other neurodegenerative diseases, neurodevelopmental disorders and bioengineering have also emerged within several laboratories in recent years. These programs diversify the institute's sponsored research funding portfolio, and more importantly, expand the breadth and impact of the institute's scholarly activities and contributions.

In 2015, Institute Discovery Research Laboratory faculty were awarded nine new grants. Notably, two of these grants were NIH-funded RO1 awards to Dr. Chad Dickey and two were Veterans Health Administration merit awards to Drs. Chad Dickey and David Kang. Dr. Dickey's expanded research portfolio necessitated build out of the Institute's remaining 5th floor shell space into functional translational research space in order to fulfill those grant commitments.

During 2015, Institute researchers have shared their research findings with the academic community during 50 scientific conferences and through 56 peer-reviewed journal articles.

Basic and Translational Sponsored Research Statistics

	2012/2013	*2013/2014*	*2014/2015*
New federal grants	3	1	4
Continuing federal grants	12	7	6
New non-federal grants	9	4	5
Continuing non-federal grants	9	8	9
Total active grants	**33**	**20**	**24**
Research faculty/Principal Investigators	15	14	14
Average sponsored activity per research faculty	2.2	1.4	1.7
New federal grant awards value (annualized)	$ 306,548	$ 74,750	$ 1,196,681
New non-federal grant awards value (annualized)	$ 1,391,595	$ 356,539	$ 558,588
Total new grant award value	**$ 1,718,143**	**$ 431,289**	**$ 1,755,269**
Federal grant expenditures	$ 2,710,953	$ 1,296,822	$ 2,044,314
Non-federal grant expenditures	$ 939,336	$ 1,068,257	$ 1,423,828
Total sponsored research expenditures	**$ 3,650,289**	**$ 2,365,079**	**$ 3,468,142**

Grants active during fiscal year 2015 listed by sponsor

Federal Sponsors

1. **National Institute of Aging** "ApoE receptor biology and neurodegeneration" [PI: Weeber]
2. **National Institute of Aging** "ApoE effects on neuron signaling and function via ApoER2" [PI: Weeber]
3. **National Institute of Aging** "Chemical Probes and Chaperone-Accelerated Turnover of Tau" [PI: Dickey]
4. **National Institute of Mental Health** "Modeling stress-related psychopathology through FKBP5 manipulation" [PI: Dickey]
5. **National Institute of Neurological Disease and Stroke** "The Hsp90 cochaperone FKBP51 regulates tau structure and function" [PI: Dickey]
6. **National Institute of Neurological Disease and Stroke** "Immunotherapy against tauopathy in a transgenic mouse model" [PI: Morgan]
7. **National Eye Institute "**Grp-94 selective inhibitors to treat hereditary glaucoma" [PI: Dickey]
8. **Veterans Administration Medical Center - James A. Haley** "HSP70/DNAJ interface as a drug target for Alzheimer's disease and TBI" [PI: Dickey]
9. **Veterans Administration Medical Center - James A. Haley** "UPR as a neuronal death mediator in Alzheimer's disease" [PI: Dickey]
10. **Veterans Administration Medical Center - James A. Haley** "HSP70/DNAJ interface as a drug target for Alzheimer's disease and TBI" [PI: Kang]

Non-Federal Sponsors

1. **Agilis Biotherepeutics** "Frataxin expression in the wild type mouse brain" [PI: Weeber]
2. **ALS Biopharma** "A Diarylheptanoid scaffold to treat tauopathies" [PI: Dickey]
3. **Alzheimer's Association** "Impact of Arginase-1 Deficiency on Tau and Amyloid Pathogenesis" [PI: Lee]
4. **Alzheimer's Association** "Molecular therapeutics to mitigate inflammation, tauopathy and degeneration" [PI: Gordon]
5. **American Health Assistance Foundation** "Chemical Approaches to Reducing Tau Levels" [PI: Dickey]
6. **American Federation for Aging Research** "Exploring the Links Between Aging, Proline Cis/Trans Isomerization, Proteotoxicity, and Neurodegeneration" [PI: Dickey]
7. **Coins for Alzheimer's Research Trust** "Oligomeric AB nanoparticle sensitized dendritic cells as a therapeutic vaccine against AD [PI: Cao]
8. **CurePSP** "Impact of Arginase1 overexpression " [PI: Lee]
9. **Florida Department of Health** "Targeting the slingshot-cofilin pathway in AD" [PI: Kang]
10. **Florida Department of Health** "Modulation of arginine metabolism and polyamines to mitigate Alzheimer's disease pathology" [PI: Lee]
11. **Foundation for Angelman Syndrome Therapeutics** "Identification and Characterization of Novel Therapeutics for Angelman Syndrome" [PI: Weeber]
12. **Lundbeck, Inc.** "Monocyte Recruitment Inhibition Using C5aR Antibody in Transgenic Mouse Models with Alzheimer-Like Pathology" [PI: Gordon]
13. **Michael J Fox Foundation for Parkinson's** "Validation of SAT1 and polyamine in modifying alpha synuclein pathology" [PI: Lee]
14. **Thome Memorial Foundation** "Histone deacetylase-6 inhibition as a treatment for tauopathy" [PI: Morgan]

Alzheimer's Clinical Center

The Alzheimer's Clinical Center consists of the first and second floor outpatient clinics of the Byrd Alzheimer's Institute, including the Suncoast Alzheimer's Center and the Center for Memory C.A.R.E. It is directed by Amanda G. Smith, MD.

In 2014-15, the clinics continued with a steady stream of both new and follow up patient visits. In addition to the many local patients we serve, we have continued to have second opinion requests from patients throughout Florida and across the United States. In August 2014, we added a nurse practitioner to our clinical care team and plan to expand even further.

Center for Memory C.A.R.E. (Clinical Assessment, Research and Education)

Within the Center for Memory C.A.R.E., we have continued to serve those in our multidisciplinary diagnostic clinic on Monday and Tuesday mornings. Each patient typically sees a psychiatrist, geriatrician, psychometrist for cognitive testing, social worker, and pharmacist. Thus, 79 patients translated to 204 billable encounters in FY 2014-15.

Over the last year we have seen the biggest increase in Occupational Therapy services, nearly doubling the number of patient visits as compared to FY 2013-14. OT services offered at the Byrd include assessment and treatment for self-care skills, cognitive skills development, fall prevention, driving evaluation and training, and therapeutic exercise programs.

Additionally, we have expanded the presence of Internal Medicine services available within the Center for Memory C.A.R.E. for our geriatric patients and their caregivers. Though we do not see direct revenue for this, we feel that offering "one-stop shopping" to our patients helps ease the burden on patients and caregivers, and the communication among providers helps optimize their care. Our patients continue to share uniformly positive feedback of all aspects of our facility and the specialized, individual attention by our staff.

Eric Pfeiffer PET Imaging Center

The Pfeifer PET Imaging department continues to increase in both Oncology and Neurology services. We have experienced a significant increase with physician referrals, not only within USF Physician's Group, but with our local community, as well. Recently, due to the increased number of PET scans being performed, we have expanded our service line, by creating more patient appointment availability.

In addition, we have continued to see significant growth within our clinical research PET services and subject enrollment. Within this last year, we have added four new PET research protocols and anticipate several more, in near future. With our commitment in providing the best patient care possible and specialized individual attention, we continue to receive such positive feedback and support, from both our patients and referring physicians alike. We continue to provide Amyloid brain PET imaging services to those who can afford to pay out-of-pocket, and we are scheduled to serve as a site for a Federal study that will provide the much-needed evidence to support Medicare reimbursement for this procedure. We are also one of several exclusive sites in the country doing Brain Tau PET imaging.

In May 2015, our second PET technologist resigned due to relocating out of state. In June, we successfully hired a replacement for the position to manage the additional volume of PET scans.

Alzheimer's Clinical Center Statistics

	2012/2013	*2013/2014*	*2014/2015*
New patient visits to Suncoast Alzheimer's Center	329	529	283
Follow-up visits Suncoast Alzheimer's Center	1,679	1,489	1242
C.A.R.E. visits	251	262	204
Imaging visits	267	289	380
Occupational Therapy visits (opened Sept 2013)	-	203	377
Driver Skill Evaluation visits (opened Sept 2013)	-	44	74
Clinical trial visits	200	274	526
Memory Disorders Clinic visits (closed Oct 2013)	941	73	-
Total patient visits	**3,667**	**3,163**	**3,086**
*Services billed	$ 1,569,902	$ 1,662,624	$ 1,891,437
Contractual adjustments	$ 924,717	$ 972,057	$ 1,027,995
Bad debt	$ 4,665	$ 18,280	$ 11,988
Payments received	**$ 640,520**	**$ 671,899**	**$ 866,731**

*Services billed represents only those charges associated with Suncoast Alzheimer's Center clinical activity as this patient services revenue is credited to the USF Health Byrd Alzheimer's Institute. The USF Memory Disorders Clinic patient services revenue is credited to the Department of Psychiatry and Behavioral Medicine within the College of Medicine.

Education

Education and training is a vital part of the institute and reaches healthcare professionals, Alzheimer's disease caregivers, students and the community. The educational activities support the mission of the institute- to disseminate information about Alzheimer's and memory loss; to increase the skill level and aptitude needed to effectively care for individuals with Alzheimer's; to support family caregivers and to educate the next generation of clinicians, researchers and educators.

Graduate Education and Research Training

Medical Students

Most faculty in the Institute also have faculty appointments in traditional departments. Within those departments they have teaching responsibilities for medical students, graduate students, residents and in some cases undergraduate students. Major roles are played within the medical curriculum instructing students in Neuroscience, Biochemistry, Molecular Biology, Pharmacology and Physiology.

The third year curriculum for medical students at University of South Florida College of Medicine includes a twelve week primary care and special populations rotation and an eight week neuropsychiatry rotation for which students may select the Institute as their mentoring clinic. The Byrd C.A.R.E. Center physicians acted as preceptors for 35 third year medical students in academic year 2015.

Biomedical Sciences Graduate Students

Although not an academic program home, the institute participates in the training of post-baccalaureate biomedical sciences degree-seeking students through the Discovery Research Laboratories. Institute faculty participate in courses for both Ph.D. and M.S. students covering topics in Neuroscience, Pharmacology, Physiology, Experimental Design, Molecular Biology and Biochemistry. Graduate students from the College of Medicine and the School of Aging Studies conduct dissertation research at the institute and participate in a variety of academic enrichment programs such as the institute seminar series, journal club and research symposia. The Discovery Research laboratories have 25 continuing graduate students and approved one individual to receive the Ph.D. degree in academic year 2015.

Post-doctoral Training

Clinical and laboratory research fellows choose to continue their specialized training in preparation for independence at the institute because the environment is innovative, integrated and collaborative. Fourteen post-doctoral fellows trained under Institute faculty during academic year 2015.

Undergraduate and High School Student Training

Although the College of Medicine has few courses instructing undergraduates, the institute trains a number of undergraduate students in biomedical research skills. Students in the Honors program develop thesis projects in Institute laboratories under the guidance of institute investigators. Other students obtain independent study credit or simply volunteer to gain research experience. Still others work as part-time research technicians or complete their degree internships with our professional education and social support staff. Enterprising high school students also find their way into research laboratories to gain experience and work on laboratory skills

and science fair projects. In 2015, 114 undergraduate students and 11 high school students participated in research at the Alzheimer's Institute.

Healthcare Professionals

The clinicians and caregiving experts at the institute have created a portfolio of educational training programs and materials designed to meet the needs of professionals involved in the care of individuals with Alzheimer's and other dementias, as well as their caregivers. The training content provides the knowledge and practical skills necessary to provide quality care to those with dementia.

Our professional education is designed to meet the educational needs of a diverse audience of healthcare professionals including physicians, nurse practitioners, nurses, certified nursing assistants, social workers, nursing home and assisted living facility administrators, care managers, professional guardians, mental health counselors, pastoral care nurses, psychologists, occupational therapists, ombudsmen, memory care specialists and gerontologists. With the addition of a registered dietician at the institute and expertise in the role of diet and supplements to reduce the risk of Alzheimer's, we have added registered dieticians to our audience of healthcare providers and have become accredited through the Florida Council of Dietetics and Nutrition to provide continuing education credit. The health professionals trained represent diverse settings including assisted living facilities, nursing homes, home health care, primary care practice, hospitals, hospice, adult day care, rehabilitation facilities and private practice.

The institute conducts continuing education workshops, presents at community wide conferences and offers customized training for professional organizations and healthcare staff at assisted living facilities, home health care agencies and hospitals.

We are approved by the following organizations as an accredited provider of continuing education in Florida:

- Florida Board of Nursing (for nurses and certified nursing assistants)
- Florida Board of Clinical Social Work, Marriage and Family Therapy and Mental Health Counseling
- Florida Board of Nursing Home Administrators
- Florida Council of Dietetics and Nutrition
- Florida Board of Occupational Therapy

The institute also provides required continuing education for the following specialties:

- Assisted Living Administrators
- Care Managers
- Professional Guardians

Eleven education programs were presented reaching more than 500 healthcare providers. We developed and conducted training for the staff at Assisted Living Facilities in Tampa, Largo, Clearwater, and Sarasota , FL; presented at the Tampa Bay Professional Guardians Association, and the Retired Nurses Association in The Villages to name a few. Our monthly tours and lectures also attract health care providers throughout Tampa Bay who want to learn more about Alzheimer's diagnosis and research.

Geriatric Institute

The institute conducts a 3-day continuing education conference every June for long term care administrators, nurses, social workers, guardians, mental health counselors, care managers and others in the field of aging. Now in its 17th year, this conference is very well recognized in the aging network and the evaluations consistently rate the seminar excellent for content and speakers. The conference focuses on Alzheimer's disease and other dementias and also includes other practitioners from USF Health on topics pertaining to critical issues in geriatrics. This year, the 3-day program saw a 40 percent increase in attendee registration, some from as far as Tallahassee, which made it necessary to secure a new location to accommodate a larger audience and allow us to expand as a statewide program. More than 20 paid vendors participated comprised of businesses and service providers throughout the Tampa Bay area. The conference has been an excellent source of referrals and networking for future program collaboration at the institute.

Professional Consultation

The Education division provided two individualized consultation meetings with long term care corporations, assisted living administrators, architects and design firms on the design and components of the physical environment best suited to meet the cognitive and physical changes and challenges of Alzheimer's residents.

Family Caregivers

Caregiver Education

Providing education and support for caregivers is a priority of the institute and several educational programs were conducted during this year to reach family caregivers.

Support Groups

Two monthly support groups are held in the building and led by faculty at the institute, one for caregivers of individuals with Alzheimer's and other dementias and the other for individuals who have memory loss or have recently been diagnosed with Alzheimer's. The caregiver support group averages 18 -24 participants and the patient group averages 6-8 individuals each month. The caregiver group provides regular referrals to the institute's CARE Center, clinical trials and occupational services.

Presentations at community support groups

Institute faculty are requested to present at community-based support groups and discuss behavior management, communication techniques, medication management and research updates. Presentations were provided to Emeritus Senior Living, and the Samaritan Alzheimer's support group in Sun City Center to name a few. This initiative reached over 75 caregivers and resulted in referrals to the CARE center, clinical trials and caregiver seminars.

Caregiver Seminars

Five caregiver seminars were conducted during this period throughout Florida, including cities such as St. Petersburg, Sarasota, Largo, and Tampa reaching more than 400 caregivers. The day-long seminars target family caregivers who are caring for a loved one with Alzheimer's or other dementias in the home or an assisted living facility. Feedback from the participants is overwhelmingly positive and many have been caregivers for years with little or no education or support.

There are multiple benefits of this program including the opportunity to collaborate with community-based health care groups as sponsors of the seminar; to promote institute services and to increase the knowledge and skills of family caregivers.

Community Education

Each year the Byrd Institute engages in community outreach to educate people on the benefits of memory screening and early diagnosis; the warning signs of Alzheimer's and dementia; caregiver issues; pharmacological issues affecting memory; as well as Alzheimer's diagnosis, treatment and research through a variety of activities such as monthly tours, offsite community talks, health fairs and conferences. Byrd Institute staff and faculty participated in panel discussions and delivered presentations to local church groups, assisted living facilities and community dementia programs including the Better Living for Seniors Coalition of Polk County, Florida Assisted Living Association, Pasco-Hernando State College, Emmanuel Cathedral Church of GOD in Christ, Tampa Bay Times Senior Expo, and the USF Diversity Summit. We continue to provide similar education in The Villages, Sun City Center, East Tampa and Lakeland through existing partnerships.

Every year the institute conducts a 3-session class on Alzheimer's and brain health for the University of South Florida, Division of Lifelong Learning. This partnership has given the institute a great opportunity to reach older adults in the community and access to the Division of Lifelong Learning's database of seniors for outreach on institute programs and events.

The institute held the second annual Senior Safety and Falls Prevention Day in September – Falls Prevention Awareness Month – to educate the community on older adult falls and ways to prevent injury inside and outside of the home. In addition to free health screenings, a licensed occupational therapist delivered a presentation on the benefits of occupational therapy to aid in falls prevention.

Each November during National Alzheimer's Disease Awareness Month, the Institute partners with other USF Health departments to offer free memory screenings and other important health screenings to the community. In fiscal year 2015, guests were able to get a CarFit vehicle safety check in addition to a memory screening. CarFit is national program developed by AAA, AARP and the American Occupational Therapy Association and is designed to give a quick, yet comprehensive check on how well an older driver and their vehicle work together. During a CarFit safety check trained volunteers complete a 12-point checklist with each driver.

New Initiatives and Programs

In early 2015, Theresa Crocker, PhD, RD joined the Education division at the institute. Dr. Crocker is a registered dietitian and has expertise in the role of diet and supplements with regard to brain health as well as expertise in community-based research. With this addition to the Education division, we were able to focus on the statewide expansion of our Community-Based Memory Screening Program. This included an evaluation of our current screening site in The Villages in order to better understand the implementation, barriers and facilitators to program success at that site. Feedback and suggestions from the program administrator, volunteer nurse screeners and memory screening participants is being used to establish best practices for training and implementation strategies associated with the statewide expansion. Contact has been established in other communities in Tampa Bay, including Sun City Center and Lakeland to begin expanding the program.

Another new initiative was the expansion of training to include first responders. Nationally, it has been reported that due to the increase in the number of individuals with Alzheimer's, the number of calls to first responders has also increased. The calls have been from a distraught caregiver in potential danger from an aggressive loved

one, a person with Alzheimer's calling in response to their hallucinations, or the increasing number of caregivers calling to locate a loved one who has wandered away from home. Training was developed and conducted for first responders in Hernando County as a result of their increased number of calls from caregivers and individuals with dementia.

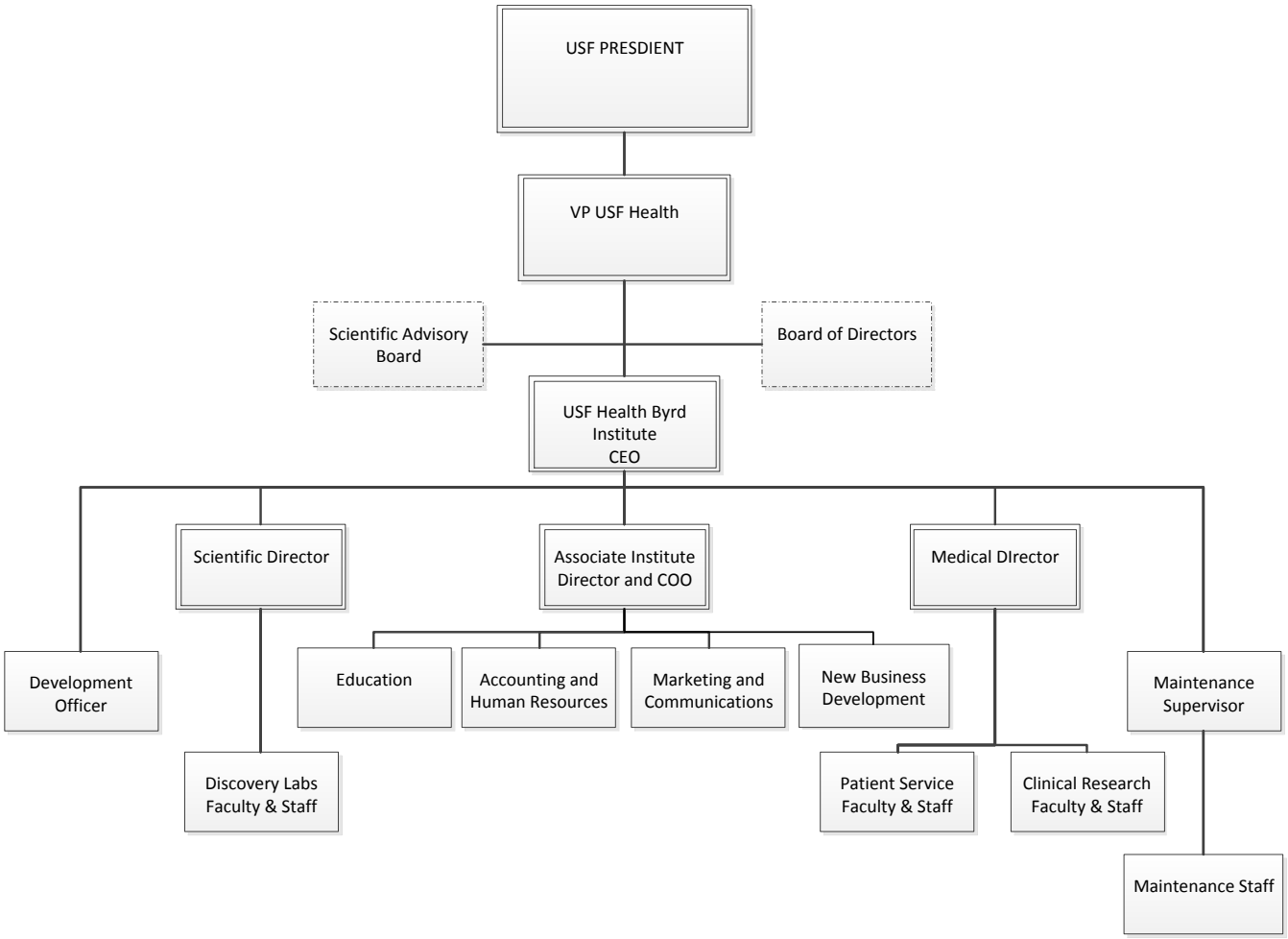
The institute was contacted by representatives from Seminole County Florida to establish the first “Dementia Friendly” city. As a result, the institute will be developing training videos for first responders and other community-based groups to have the necessary knowledge and skills to interact effectively with individuals with Alzheimer's.

Dissemination of Educational Material

Education materials is developed entirely in-house to meet the needs of the community requesting informational content related to Alzheimer’s disease management and caregiver issues. The Byrd Institute Alzheimer's Caregiver Education Resource Library is available to caregivers, healthcare professionals, students and the community at large. The education division of the institute continually replenishes holdings in the library and responds to phone, email, US mail and in-person requests for information. New educational material developed during this period include publications on home safety for the Alzheimer's individual, medication issues, and behavior management, as well as existing materials that are now translated into Spanish to meet the increasing need to communicate with Latino audiences.

Business Operations

Institute Organization Chart



Individuals Appointed to the institute Board of Directors

Chairman of the Board
Sherrill M. Tomasino

Vice Chairman
Eric Pfeiffer, MD

Members
Mary M. Barnes
Johnnie B. Byrd, Jr., JD
Sherrie Nickell, Ed.D.
Valerie Landrio McDevitt, J.D.
Frank L. Morsani

Individuals Appointed to Leadership Roles within the institute

Chief Executive Officer
Dave Morgan PhD

Associate Institute Director
Jessica Banko, PhD, MS

Medical Director
Amanda Smith, MD

Scientific Director
Edwin Weeber, PhD

Communications and Marketing

The Communications and Marketing Team at the Byrd Institute participated in several programs and events to strengthen relationships with surrounding communities, family caregivers and increase public awareness of clinic services, scientific research and caregiver support services.

Caregiver Appreciation Day

In July 2014, the Institute held its first Caregiver Appreciation event for family caregivers of patients seen in the clinics and those enrolled in a clinical research study. On this special day, caregivers enjoyed activities ranging from meditation and relaxation techniques to expressive arts through African drumming. Caregivers closed out the day by receiving a special gift from the Byrd Institute and hearing a message of encouragement from the director of education on taking time for yourself. The event was held again in April 2015 with activities including Latin dance lessons provided by the USF Latin Dance Club.

Science Open House

In September 2014, the Institute opened its doors to the community for an exclusive open house of research and clinical services. Over 150 guests were in attendance during the event that featured poster presentations from faculty researchers and the students in their labs. Guests were also treated to a walk-through of clinical services in the 2nd floor Center for Memory C.A.R.E. and the 6th floor Parkinson's and Movement Disorders Clinic. The day closed out with a presentation from CEO/Executive Director, Dave Morgan, PhD.

Florida Alzheimer's Clinical Trials Bus (FACT) Meeting

In December 2014, the first planning meeting for a mobile clinical trials unit was held at the Omni Hotel-ChampionsGate in Orlando, FL. The meeting brought together medical experts and clinical researchers from the University of South Florida, University of Florida Cognitive & Memory Disorder Clinics, Sarasota Memorial Hospital Memory Disorders Clinic, University of California at San Diego, Mount Sinai Medical Center, Morehouse School of Medicine, Quintiles Clinical Research, as well as the Alzheimer's Association FL Gulf Coast Chapter. Attendees shared ideas, challenges and best practices for the implementation of a mobile unit to bring clinical trials to targeted areas throughout the state of Florida.

"Forget Me Not" stage play – USAgainstAlzheimer's, African Americans Against Alzheimer's Network

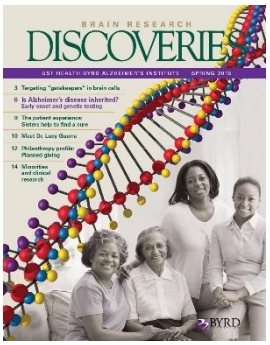
In June 2015, the Byrd Institute teamed up with the African Americans Against Alzheimer's Network and USAgainstAlzheimer's to host the award-winning Garrett Davis stage play, "Forget Me Not," as part of a sustained, nationwide effort to increase minority participation in clinical trials and to raise awareness about the importance of identifying and treating Alzheimer's disease in the African-American community. Nearly 300 people were in attendance during the Tampa debut which took audiences into the life of a family facing Alzheimer's disease and showed its impact on not just the immediate family but friends, marriage, and those in the community. The play also included a panel discussion with USF research faculty and medical experts to answer important questions about medical and social services, and how researchers are working to find ways to prevent and more effectively treat Alzheimer's.

Digital Media

The Byrd Institute continues to utilize digital marketing mediums such as Facebook, Twitter, Constant Contact, and Issuu.com. The Byrd Institute Facebook currently has 687 fans/followers and 105 Twitter followers. The Constant Contact email marketing service has risen to 1,190 subscribers since FY13/14. The email newsletter attracts an average email "open rate" of 40.5 percent, and a 17.3 percent average "click-through" rate. Issuu.com is a free electronic publishing site for magazines, catalogs, newspapers and other types of print media. All issues of Brain Research Discoveries magazine are uploaded to Issuu.com to reach millions of readers globally. To further enhance its digital presence, the Byrd Institute recently developed a Google+ page and YouTube channel.

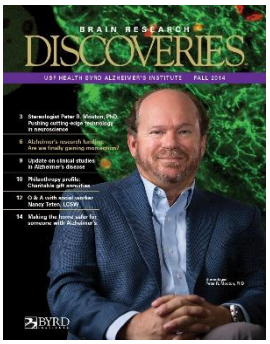
Print Media

The *Brain Research Discoveries* magazine fall and spring issues were published October 2014 and April 2015. The magazine has nearly 4,000 subscribed readers locally and across the US. Past issues have included content on the heritability of Alzheimer's disease, making the home safer for persons with Alzheimer's, update on state funding for research, and a 'Patient Experience' profile to highlight the stories of the clinic patients and caregivers. In fiscal year 2014/2015, the Byrd Institute purchased ad space in the Senior Living Guide resource directory, Alzheimer's Family Organization Companion Newsletter, and the Tampa Tribune 50 Plus magazine.



SPRING 2015

- Feature: Is Alzheimer's disease inherited? Early onset and genetic testing
- Feature: Targeting "gatekeepers" in brain cells
- Feature: The patient experience: Sisters help to find a cure



FALL 2014

- Feature: Alzheimer's research funding: Are we finally gaining momentum?
- Feature: Stereologist Peter R. Mouton, PhD: Pushing cutting-edge technology in neuroscience
- Feature: Q & A with social worker Nancy Teten, LCSW

Public Relations

The USF Health Byrd Institute works closely with the USF Health Office of Communications respond to incoming media inquiries. Among the most notable stories this fiscal year were:

Spectrum Magazine *'A "Long Shot" Pays Off, Grandmother's Alzheimer's leads scientist to a major breakthrough in Angelman Syndrome'*
BusinessWire *'Agilis Biotherapeutics and the University of South Florida enter into worldwide, exclusive license agreement for Angelman Syndrome gene therapy'*
Tampa Bay Times *'Play looks to raise Alzheimer's awareness among African-Americans'*
The Villages Daily Sun '*Unlocking the Memory Mystery'*
Florida Sentinel Bulletin *'USF Health Byrd Institute Brings Award Winning Play*
The Villages Daily Sun *'The longest day'*
USF Health News *'Dr. Lucy Guerra captures the essence of working at an academic medical center, reflects on power of a team-based approach to patient care'*
The Laker/Lutz News *'Speakers shed light on health care challenges'*
The Villages Daily Sun *'African-Americans Raise Awareness of Health Issues Related to Genetics'*
Tampa Bay Times *'Tampa Bay Alzheimer's experts weigh in on 'Still Alice''*
WUSF News *'Music Soothes As Alzheimer's Cure Sought'*
Tampa Tribune *'Tampa Bay area touted for medical tourism'*
PRWeb.com *'Journal of Alzheimer's Disease Publishes New Study Suggesting Ketones have Potential to Compensate for Brain Energy Deficit'*
Examiner.com *'Florida researchers report medical marijuana may improve Alzheimer's'*
TBO.com *'Editorial: Confronting Alzheimer's horrors'*
MyFOX Tampa Bay *'Alzheimer's study seeking 1,000 participants'*
EmaxHealth *'Coffee May Save Eyesight and 4 More Surprising Benefits'*
Herald-Tribune *'Scientists urge moderation with this nutrition trend'*
FL Governor's Office *'Gov. Scott Signs Legislation Supporting Floridians with Alzheimer's'*

Development

Development is identified as a major priority for the institute and a dedicated development officer works collaboratively with current staff, development volunteers and community members to gain their support for institute initiatives. The development program at the institute encompasses annual, special and major giving efforts. The current development officer was promoted into the director position within the College of Nursing at USF Health in early 2014. An active search has been underway for a new development officer this fiscal year and our top candidate, Daniel Minor, accepted the position to start in August 2015.

2015 Development Program Highlights

- Tour and presentation for NARFE members during NARFE National Convention (August 2014)
- Science Open House for 150 community members and donors (September 2014)
- Tour and presentation for NARFE District 6 members (February 2015)
- Charity Bingo Event to benefit the Byrd Institute (February 2015)
- Tour and presentation for NARFE Lake County chapter (May 2015)

Development Statistics

	2012/2013	*2013/2014*	*2014/2015*
BYRD INSTITUTE ENDOWMENT			
Principle value	$ 5,386,508	$ 5,478,384	$ 5,841,657
*Endowment return			4.2%
Market value	**$ 6,697,229**	**$ 7,643,015**	**$ 7,886,448**
ENDOWMENT SPENDABLE EARNINGS			
Beginning balance	$ 544,640	$ 603,977	$ **747,886
Deposits	$ 230,789	$ 243,873	$ 274,700
Expenditures and transfers	$ 171,452	$ 104,910	$ 298,500
Current balance	**$ 603,977**	**$ 742,939**	**$ 724,086**
OPERATING FUNDS			
Beginning balance	$ 884,400	$ 1,740,334	$ 1,830,671
Spendable gifts	$ 1,213,465	$ 437,521	$ 266,316
Earnings	$ 0	$ 0	$ 0
Expenditures and transfers	$ 355,531	$ 347,150	$ 181,924
Current balance	**$ 1,742,334**	**$ 1,830,705**	**$ 1,915,062**
PLEDGED FUNDS			
State match	$ 0	$ 0	$ 0
Pledged gifts	$ 8,499	$ 0	$ 972

*****Endowments established for the benefit of the institute are invested in the USF Foundation's long term Endowment pool. The primary long term investment objective of the endowment is to preserve the intergenerational equity of endowed gifts in order to provide a consistent source of funding for the programs supported by the endowment. These returns represent the 1 year return as of June 30th for the Foundation's Endowment pool.

**New Endowment fund created July, 2015 with $4,947

Faculty Achievement

Peer-Reviewed Publications by Institute Faculty in Fiscal Year 2015

1. Angelani CR, Curto LM, Cabanas IS, Caramelo JJ, Uversky VN, Delfino JM. Toward a common aggregation mechanism for a β-barrel protein family: insights derived from a stable dimeric species. Biochim Biophys Acta. 2014 Sep;1844(9):1599-607. doi: 10.1016/j.bbapap.2014.06.002. Epub 2014 Jun 11. PubMed PMID: 24929115.

2. Ari C, Borysov SI, Wu J, Padmanabhan J, Potter H. Alzheimer amyloid beta inhibition of Eg5/kinesin 5 reduces neurotrophin and/or transmitter receptor function. Neurobiol Aging. 2014 Aug;35(8):1839-49. doi:10.1016/j.neurobiolaging.2014.02.006. Epub 2014 Feb 10. PubMed PMID: 24636920; PubMed Central PMCID: PMC4084549.

3. Bajaj N, Hauser RA, Seibyl J, Kupsch A, Plotkin M, Chen C, Grachev ID. Association between Hoehn and Yahr, Mini-Mental State Examination, age, and clinical syndrome predominance and diagnostic effectiveness of ioflupane I 123 injection (DaTSCAN™) in subjects with clinically uncertain parkinsonian syndromes. Alzheimers Res Ther. 2014 Oct 8;6(5-8):67. doi:10.1186/s13195-014-0067-0. eCollection 2014. PubMed PMID: 25478029; PubMed Central PMCID: PMC4255542.

4. Blair LJ, Frauen HD, Zhang B, Nordhues BA, Bijan S, Lin YC, Zamudio F, Hernandez LD, Sabbagh JJ, Selenica ML, Dickey CA. Tau depletion prevents progressive blood-brain barrier damage in a mouse model of tauopathy. Acta Neuropathol Commun. 2015 Jan 31;3:8. doi: 10.1186/s40478-015-0186-2. PubMed PMID:25775028; PubMed Central PMCID: PMC4353464.

5. Blair LJ, Sabbagh JJ, Dickey CA. Targeting Hsp90 and its co-chaperones to treat Alzheimer's disease. Expert Opin Ther Targets. 2014 Oct;18(10):1219-32. doi: 10.1517/14728222.2014.943185. Epub 2014 Jul 29. Review. PubMed PMID:25069659; PubMed Central PMCID: PMC4625388.

6. Blair LJ, Baker JD, Sabbagh JJ, Dickey CA. The emerging role of peptidyl-prolyl isomerase chaperones in tau oligomerization, amyloid processing, and Alzheimer's disease. J Neurochem. 2015 Apr;133(1):1-13. doi: 10.1111/jnc.13033. Epub 2015 Feb 24. Review. PubMed PMID: 25628064; PubMed Central PMCID: PMC4361273.

7. Breydo L, Sales AE, Ferreira L, Fedotoff O, Shevelyova MP, Permyakov SE, Kroeck KG, Permyakov EA, Zaslavsky BY, Uversky VN. Effects of osmolytes on protein-solvent interactions in crowded environment: Analyzing the effect of TMAO on proteins in crowded solutions. Arch Biochem Biophys. 2015 Mar 15;570:66-74. doi: 10.1016/j.abb.2015.02.021. Epub 2015 Feb 21. PubMed PMID: 25712220.

8. Breydo L, Morgan D, Uversky VN. Pseudocatalytic Antiaggregation Activity of Antibodies: Immunoglobulins can Influence α-Synuclein Aggregation at Substoichiometric Concentrations. Mol Neurobiol. 2015 Apr 2. [Epub ahead of print] PubMed PMID: 25833100.

9. Brownlow ML, Joly-Amado A, Azam S, Elza M, Selenica ML, Pappas C, Small B, Engelman R, Gordon MN, Morgan D. Partial rescue of memory deficits induced by calorie restriction in a mouse model of tau deposition. Behav Brain Res. 2014 Sep 1;271:79-88. doi: 10.1016/j.bbr.2014.06.001. Epub 2014 Jun 9. PubMed PMID:24925454.

10. Burrell TC, Divekar SD, Weeber EJ, Rebeck GW. Fyn tyrosine kinase increases Apolipoprotein E Receptor 2 levels and phosphorylation. PLoS One. 2014 Oct 23;9(10):e110845. doi: 10.1371/journal.pone.0110845. eCollection 2014. PubMed PMID: 25340851; PubMed Central PMCID: PMC4207760.

11. Cao C, Li Y, Liu H, Bai G, Mayl J, Lin X, Sutherland K, Nabar N, Cai J. The potential therapeutic effects of THC on Alzheimer's disease. J Alzheimers Dis. 2014;42(3):973-84. doi: 10.3233/JAD-140093. PubMed PMID: 25024327.

12. DiBattista AM, Dumanis SB, Song JM, Bu G, Weeber E, Rebeck GW, Hoe HS. Very low density lipoprotein receptor regulates dendritic spine formation in a RasGRF1/CaMKII dependent manner. Biochim Biophys Acta. 2015 May;1853(5):904-17. doi: 10.1016/j.bbamcr.2015.01.015. Epub 2015 Jan 31. PubMed PMID: 25644714; PubMed Central PMCID: PMC4580245

13. Ferreira LA, Cole JT, Reichardt C, Holland NB, Uversky VN, Zaslavsky BY. Solvent Properties of Water in Aqueous Solutions of Elastin-Like Polypeptide. Int J Mol Sci. 2015 Jun 12;16(6):13528-47. doi: 10.3390/ijms160613528. PubMed PMID:26075870; PubMed Central PMCID: PMC4490507.

14. Ferreira LA, Madeira PP, Uversky AV, Uversky VN, Zaslavsky BY. Responses of proteins to different ionic environment are linearly interrelated. J Chromatogr A. 2015 Mar 27;1387:32-41. doi: 10.1016/j.chroma.2015.02.006. Epub 2015 Feb 11. PubMed PMID: 25708470.

15. Fontaine SN, Rauch JN, Nordhues BA, Assimon VA, Stothert AR, Jinwal UK, Sabbagh JJ, Chang L, Stevens SM Jr, Zuiderweg ER, Gestwicki JE, Dickey CA. Isoform-selective Genetic Inhibition of Constitutive Cytosolic Hsp70 Activity Promotes Client Tau Degradation Using an Altered Co-chaperone Complement. J Biol Chem. 2015 May 22;290(21):13115-27. doi: 10.1074/jbc.M115.637595. Epub 2015 Apr 11. PubMed PMID: 25864199; PubMed Central PMCID: PMC4505567.

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19. Grieco JC, Ciarlone SL, Gieron-Korthals M, Schoenberg MR, Smith AG, Philpot RM, Heussler HS, Banko JL, Weeber EJ. An open-label pilot trial of minocycline in children as a treatment for Angelman syndrome. BMC Neurol. 2014 Dec 10;14:232. doi: 10.1186/s12883-014-0232-x. PubMed PMID: 25491305; PubMed Central PMCID: PMC4276108.

20. Haghighi M, Smith A, Morgan D, Small B, Huang S. Identifying cost-effective predictive rules of amyloid-β level by integrating neuropsychological tests and plasma-based markers. J Alzheimers Dis. 2015;43(4):1261-70. doi:10.3233/JAD-140705. PubMed PMID: 25147105.

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Invited Presentations

1. Dickey, C. (2015) Invited Speaker. AFAR Conference. Santa Barbara, CA.
2. Dickey, C. (2015) Invited Speaker. Neimann Pick's Disease Workshop. Washington University, St. Louis.
3. Dickey, C. (2015) Invited Speaker. Proteostasis Colloquium. Washington University, St. Louis.
4. Dickey, C. (2015) Invited Symposium Speaker. EBBS (European Brain and Behaviour Society) & EBPS (European
5. Dickey, C. (2015) Invited Symposium Speaker. EMBO Conference on Mechanisms of Neurodegeneration. Heidelberg, Germany.
6. Dickey, C. (2014) Invited Symposium Speaker. Targeting chaperones to treat FTLD reveals new insights about tau function. AAIC Copenhagen, Denmark.
7. Dickey, C. (2014) Post-doc Invited Speaker (Jon Sabbagh). Epigenetic regulation of FKBP5 expression in aging and disease. Society for Neuroscience. Washington, DC.
8. Dickey, C. (2014) Post-doc Invited Speaker (Laura Blair). Tau and FKBP51 regulate glucocorticoid signaling and contribute to depression-like behavior. Society for Neuroscience. Washington, DC.
9. Dickey, C. (2014) Post-doc Invited Speaker (Sarah Fontaine). Chaperones modulate microtubule dynamics through tau. Society for Neuroscience. Washington, DC.
10. Behavioural Pharmacology Society) Joint Meeting. Verona, Italy.
11. Finneran DJ, Coppola M, Gordon MN, Morgan D, Nash KR (2015) Global brain expression of fractalkine to reduce neurodegeneration, Cell Transplantation 24: 757.
12. Jinwal, U. (2015) Newly developed TDP-43 targeting ICW drug screening revealed B10 as a novel potent drug for treatment of TDP43 proteinopathies. The American Society for Neural Therapy and Repair (ASNTR). Clearwater, FL.
13. Jinwal, U. (2015, May) Understanding the role of Cdc37 chaperone in neurodegenerative diseases using C. elegans. Florida Worm Meeting. Melbourne, FL.
14. Joly Amado A, Gordon MN, Morgan D (2014) Metabolic phenotyping of Tg4510 tau transgenic mice indicates hyperactivity and circadian disruption. Society for Neuroscience 41.14 (Online).
15. Kang, D. (2014, July) Coordinated Roles of Cofilin, SSH1, RanBP9, and Beta1-Integrin in Abeta Oligomer-Induced Synaptic Deficits. Alzheimer's Association International Conference (AAIC) Oral Presentation. Copenhagen, Denmark.
16. Lee, D. (2014, Oct) Harnessing Arginase 1 and Polyamines to Mitigate Tauopathies. Drug Discovery Colloquium. USF College of Arts and Sciences, Dept. of Chemistry. Tampa, FL.
17. Lee, D. (2014, Sept) Inflammation and the Impact on Models of Tauopathies. Global Health Seminar Series University of South Florida, Department of Global Health College of Public Health. Tampa, FL.
18. Lee, D. (2015, March) Neuroinflammation and Arginine Metabolism: The Impact on Tau Neuropathology Abstract # 0120. 12th Annual Society for Brain Mapping & Therapeutics. Los Angeles, CA.
19. Lee, D. (2015, May) Inflammation and Tau Pathology**.** 4th Venusberg Meeting on Neuroinflammation. Bonn, Germany.
20. Morgan, D. (2014, August) Alzheimer's drug development challenges: Improving the regulatory environment. 21st Century Cures Workshop (hosted by Congressman Gus Bilirakis). Lutz, FL.
21. Morgan, D. (2014, July) Inflammation in mouse models of Alzheimer's pathology. Florida Brain Project Inaugural Symposium. Tallahassee, FL.
22. Morgan, D. (2014, November) Pharmacology of Drugs used to Treat Dementia. NEI Symposium. Colorado Springs, CO.
23. Morgan, D. (2015, April) Increase Innate Immunity to treat Alzheimer's Disease. Alzheimer's Association Research Roundtable. Washington, DC.

24. Morgan, D. (2015, February) Alzheimer's Disease: Yesterday, Today and Tomorrow, NARFE visit to the Byrd Institute. Tampa, FL.
25. Morgan, D. (2015, February) The Science of Alzheimer's Disease. Rotary Club of North Tampa. Temple Terrace, FL.
26. Morgan, D. (2015, January) Modulation of the tau phenotype in Tg4510 mice. Croucher Symposium. Hong Kong University of Science and Technology, Hong Kong, China.
27. Morgan, D. (2015, June) Innovations in Alzheimer's Disease Management, Education and Detection. Clark Dementia Summit. Grand Rapids, MI.
28. Morgan, D. (2015, March) AAV Gene Therapy for Tau Deposition. 12th Annual AD/PD Meeting. Nice France.
29. Morgan, D. (2015, March) Mouse Models of Alzheimer's Disease (Panel discussion). 12TH Annual AD/PD Meeting. Nice France.
30. Morgan, D. (2015, March) Preventing Alzheimer's Disease by 2020. Annual meeting of the Alzheimer and Parkinson Association. Vero Beach, FL.
31. Morgan, D. (2015, May) Challenges in Management of Alzheimer's Disease. Assisted Living Foundation of America Annual Conference. Tampa, FL.
32. Morgan, D. (2015, May) Preventing Alzheimer's by 2020. National Association of Retired Federal Employees Annual State Meeting. Orlando, FL.
33. Morgan, D. (2015, May) Session Chairperson and Discussant; Member Scientific Advisory Committee. Biannual Meeting on Neuroinflammation. Bonn, Germany.
34. Morgan, D. (2015, May) Template Driven Propagation of Amyloid and Tau. American Society for Neural Transplantation Annual Meeting. Clearwater, FL.
35. Nash, K. (2014, Nov) Fractalkine Over Expression Suppresses α-Synuclein mediated Neurodegeneration. 9th Brain Research Conference. Arlington, VA.
36. Nash, K. (2014, Nov) Fractalkine Over Expression Suppresses α-Synuclein mediated Neurodegeneration. Society of Neuroscience. Washington, DC.
37. Nash, K. (2015, April) Fractalkine Over Expression Suppresses α-Synuclein mediated Neurodegeneration. The American Society for Neural Therapy and Repair (ASNTR). Clearwater, FL.
38. Padmanabhan, J. (2015, August) Hippo and calcium signaling in pancreatic cancer. Moffitt Cancer Center, GI SPORE presentation. Tampa, FL.
39. Padmanabhan, J. (2015, January) Targeting ADAM10 to combat pancreatic cancer. Moffitt Cancer Center, GI SPORE presentation. Tampa, FL.
40. Sanneh A, Johnson N, Housley SB, Manchec B, Liu J, Nash K, Lee DC, Gordon MN, Morgan D, Selenica MLB (2105) Characterization of Full Length and C-Terminal Truncated Tau Pathological Progression with Age in Wild Type Mice. Alzheimer's Association International Conference P3-007.
41. Selenica, M. (2015, July) Implication of tau species to AD pathology and the interface with neuroinflammation. Neurological Disorders Summit. San Francisco, CA.
42. Selenica, M. (2015, March) The Immunogenicity Of Tau Protein In Animal Models Reveals New Therapeutic Perspective. Society for Brain Mapping and Therapeutics. Los Angeles, CA.
43. Weeber, E. (2014) (Keynote Speaker) Foundation for Angelman Syndrome Therapeutics Global Summit & Gala. Chicago, IL.
44. Weeber, E. (2014) A Game of Neurons – understanding Human learning and memory. Pint of Science Festival. Tampa, FL.
45. Weeber, E. (2014) Role of ApoE in neuronal synaptic function. The Florida Brain Project. Tallahassee, Florida.
46. Weeber, E. (2014) Using the AS mouse model to identify new therapeutics & Update on AS clinical trial (U.S.). Angelman Convention. Soest, Germany.
47. Weeber, E. (2014) What we know about the human brain. TEDx. Tampa Bay Convention Center, Tampa, FL.

48. Weeber, E. (2015) A history of Angelman Syndrome and Therapeutic strategies. Society for Neuroscience, Angelman Convention. Soest, Germany.
49. Weeber, E. (2015) Panel discussion. St. Petersburg SciCafe. St. Petersburg, FL.
50. Weeber, E. (2015) Targeted Treatment of Angelman Syndrome. Keystone Symposia: Pathways of Neurodevelopmental Disorders (C8). Tahoe City, California.

Conferences Attended by Institute Faculty in Fiscal Year 2015

1. 12th Annual Alzheimer's Disease/Parkinson's Disease Meeting, Nice, France
2. 15th International Conference on Alzheimer's Drug Discovery, Jersey City, NJ
3. 2015 Graduate Student Research Symposium, Tampa, FL
4. 25th Annual USF Health Research Day, Tampa, FL
5. 3rd Annual Mild Cognitive Impairment Symposium, Miami, FL
6. 4th Vensburg Meeting on Neuroinflammation, Bonn, Germany
7. 7th annual NanoFlorida Nanoscience Technology Symposium, Miami, FL
8. 9th Annual Drug Discovery for Neurodegeneration Conference 2015, San Diego, CA
9. 9th Brain Research Conference, Arlington, VA
10. AAIC Copenhagen, Denmark
11. AFAR Conference Santa Barbara, CA
12. Alzheimer's Association Research Roundtable, Washington, DC
13. American Association of Pharmaceutical Scientists Annual Meeting and Exposition, San Diego, CA
14. American Society for Neural Transplantation Annual Meeting, Clearwater, FL
15. Annual meeting of the Alzheimer and Parkinson Association, Vero Beach, FL
16. Assisted Living Foundation of America Annual Conference, Tampa, FL
17. Association for Driver Rehabilitation Specialists, Columbus, OH
18. Castle Student Research Conference, Tampa, FL
19. Clark Dementia Summit, Grand Rapids, Michigan
20. EBBS (European Brain and Behaviour Society) & EBPS (European Behavioural Pharmacology Society) Joint Meeting, Verona, Italy
21. EMBO Conference on Mechanisms of Neurodegeneration, Heidelberg, Germany
22. Florida Brain Project Inaugural Symposium, Tallahassee, FL
23. Foundation for Angelman Syndrome Therapeutics Global Summit & Gala, Chicago, IL
24. Foundation for Angelman Syndrome, Boston, MA
25. Keystone Symposia: Pathways of Neurodevelopmental Disorders (C8), Tahoe City, California
26. National Association of Retired Federal Employees Annual State Meeting, Orlando, FL
27. NEI Symposium, Colorado Springs, Colorado
28. Neimann Pick's Disease Workshop, Washington University, St. Louis
29. Neurological Disorders Summit, San Francisco, California
30. Proteostasis Colloquium, Washington University, St. Louis
31. Scientific Advisory Committee. Biannual Meeting on Neuroinflammation, Bonn, Germany
32. Society for Brain Mapping and Therapeutics, Los Angeles, California
33. Society for Neuroscience, Washington, DC
34. Angelman Convention, Soest, Germany
35. The American Society for Neural Therapy and Repair (ASNTR), Clearwater, FL
36. The Florida Brain Project Symposium, Tallahassee, FL
37. USF Undergraduate Research and Arts Colloquium, Tampa, FL