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### Mission

Our mission is to enhance the quality of life for people with Parkinson's disease, their families, and caregivers in our communities throughout Missouri and southern Illinois, and to provide funding for ongoing Parkinson's disease research.

# IN THIS ISSUE

#### NEWSLETTER DISCLAIMER

"The information and reference material contained herein concerning research being done in the field of Parkinson's disease and answers to readers' questions are solely for the information of the reader. It should not be used for treatment purposes, rather for discussion with the patient's own physician." Newsletter of the American Parkinson Disease Association. St. Louis Chapter

# Update of Advances at the APDA Advanced Center for Parkinson's Research at Washington University School of Medicine

Joel S. Perlmutter, M.D., Department of Neurology, Medical Director, Movement Disorders Section, Washington University School of Medicine

he APDA Advanced Center for Parkinson's Research at Washington University continues to provide care to a large num-

ber of people with Parkinson and related diseases. Of course, our job is to not only provide cutting-edge care but to develop new treatments for future use. In both of these areas, we have made substantial progress. Much of our research has been made possible with support from the Greater St. Louis Chapter of the APDA and continued support from the National APDA. Ad-

ditional exciting research being conducted by Drs. Willis and Racette are covered in separate articles in this newsletter.

We are delighted to have two new fellows this year. Dr. Mwize Ushe joined us as a postdoctoral fellow in June 2011. During medical school at Washington University, he worked in my laboratory on mechanisms of deep brain stimulation. He will continue to focus on this area using PET and quantified measures of movement as research tools. Dr. Amy Viehover also joined us as a post-doctoral fellow in July 2011. She will focus also on deep brain stimulation and will work with Drs. Joe Colvert and Tamara Hershey to apply methods of optical imaging to investigate brain response to deep brain stimulation. Optical imaging uses the reflectance of light shined on the head to measure function of the surface of the brain – quite amazing. Light shining right through the scalp



and skull reaches the brain and then some of the light bounces back out and can be detected with special highly sensitive detectors.

#### **Deep Brain Stimulation (DBS)**

Investigation of DBS continues to be a major area of our research activities. We still are working on determining the effects of DBS on different parts of the subthalamic nucleus (STN). This tiny area in the brain is the target of stimulation for many of our people with PD. However, there

St.Louis

remains some controversy about which part of the STN should be targeted with DBS to provide optimal benefit and yet minimize any side effects. Interestingly, we found that stimulation of almost any part of STN could improve walking. This was rather surprising since it had been previously thought that the top part of the STN was the key area for this benefit. A paper describing these findings was just published by our group. In addition, we also just published a paper on the effects of stimulation of the STN on mood. We found that mood improved whether we stimulated just one side of the brain or both sides. However, left STN stimulation improved mood more than right STN stimulation. Interestingly, on the right side, stimulation of the more medial STN (that is the part closer to the center of the head) provided greater mood benefit than more lateral locations of

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#### **APDA INFORMATION & REFERRAL CENTER**

Deborah Dalin Guyer, MA, Coordinator guyerd@neuro.wustl.edu Elaine Dreher, Program Coordinator drehere@neuro.wustl.edu Campus Box 8111 • 660 S. Euclid St. Louis, MO 63110 314-362-3299 • 314-747-1601 (fax) Office Hours: Monday–Friday 7:30 AM–4:00 PM www.stlapda.org

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# LETTER FROM THE PRESIDENT

Matt LaMartina, APDA Board President, Greater St. Louis Chapter

ore than 130,000 people will be diagnosed with Parkinson's disease in the United States this year alone. I reflect on that number and

think about our mission, "To Ease the Burden—To Find the Cure." The American Parkinson Disease Association of Greater St. Louis lives that mission



every single day. Whether helping patients suffering from PD, supporting the families and caregivers who care for them, or funding the research teams who work tirelessly to find a cure, we are dedicated to this great cause.

Easing the burden and eventually finding a cure takes more than just man-hours; it takes resources and money. A donation to the St. Louis APDA will allow us to continue to provide a network of services to those impacted by Parkinson's disease. The list of patient and caregiver programs that the St. Louis APDA offers at little or no cost includes:

- Exercise classes
- Support groups

# REMINDER

We have a new database. If you have changed your address recently or if you no longer wish to receive our newsletters, please let us know by contacting us @ 314-362-3299 or drehere@ neuro.wustl.edu or by returning the form provided to APDA, Campus Box 8111, 660 S. Euclid Ave., St. Louis, MO 63110.

Name

Old Address

New Address\_\_\_\_\_

Email\_

Phone Number \_\_\_\_\_

- Aquatic exercise
- Dance classes
- Educational programs
- Resource library
- Speech classes
- Wellness classes
- Respite care programs

In addition, your gift touches the lives of people across the globe suffering from PD by funding research and clinical trials. The research not only focuses on finding a cure for the disease, but also identifies options to improve the quality of life of patients until a cure is found.

On behalf of individuals with Parkinson's disease, their care partners, researchers, and our chapter, I encourage you to join me in making a contribution to the St. Louis APDA. Please return the enclosed envelope or visit our website at **www.stlapda.org** to make a secure gift that impacts the lives of so many. The only gift too small is no gift at all. Thank you in advance for your support and generosity.

### **Research Advances**

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stimulation. We are following up both of these observations and are now doing more complex evaluations of mood, thinking, and movement.

As for many of the studies that I will describe, these studies could not have been done without the Chapter support that not only started these studies but continues to help us pursue new ideas and collect preliminary data. Of course, none of this research would be possible without our research participants with PD that have been treated with DBS. Their commitment and fortitude have been critical for us to make this progress. These studies are now supported by an NIH grant that Dr. Hershey has and another one that I have. My NIH grant was recently renewed for five more years, and this work will continue to need the support of our volunteer subjects.

### **Dementia in PD**

We have completed our fifth year of support by the Chapter to investigate the relationship of dementia with PD. This has been a particularly productive year. We are now completing a manuscript describing the changes in the brain that occur in people with PD who subsequently develop dementia. Dementia is most commonly associated with Alzheimer's disease, but we know that people with PD have an increased risk of developing this problem with concentration, sequencing of activities (like programming a remote control), and memory. In the past, we had thought that people with PD develop dementia due to one of two main causes. One possibility is co-existing Alzheimer's disease in which two proteins called amyloid and tau go awry in the brain. The other possibility is that a different protein called alpha-synuclein misbehaves in the brain. This is the protein that leads to the motor manifestations of PD when it accumulates in a part of the back of the brain called the substantia nigra.

Our study uses PET scans, MRI scans,

thinking tests, genetic testing, and measures of chemicals in the spinal fluid to try to determine the cause of thinking problems. We study people with PD without thinking problems, those with thinking problems, and people without PD or thinking problems. The idea is the PET scans, using a tracer called PIB, identify abnormal amyloid in the brain and will tell us who has Alzheimer's type changes in the brain. Of course, being hard-core investigators, the only way to know really what the PET or other measures reflect is to examine the brain after someone dies. That is also part of the study, but we encourage everyone to hang on to their brain as long as possible before making that contribution. However, that incredibly generous contribution has turned out to be immensely valuable. We found that those with abnormal PIB scans had excessive amyloid in the brain - like people with Alzheimer's disease but did not have abnormal tau. Thus, they did not have Alzheimer's disease. Rather all had abnormal alpha-synuclein throughout the brain and this was the likely cause of their thinking problems. Since finding these results, we were able to test whether this was true in a larger group of people. We reviewed the brain tissue from the last 33 people that had PD with dementia, and the analysis confirmed our findings. We are now in the process of completing a manuscript for publication on this part of the study.

The bottom line is that we now believe that dementia in PD is caused by this abnormal alpha-synuclein with or without abnormal amyloid but that Alzheimer's disease may be a relatively uncommon cause of dementia in people with PD. This new information will direct how and what therapies we test to treat thinking problems that may arise. This study was entirely funded by the Chapter for the first five years – the time needed to collect adequate preliminary data for an NIH grant application. We did apply and just received funding for a five-year study to support this research. Once again, though, it is critical to note that this research is only

possible with volunteer participants.

### Other Studies

We also continue to participate in several large studies to identify genetic factors that contribute to development of PD. Some of these studies require DNA samples be obtained from blood from thousands of people. We have been able to contribute more than 1000 samples collected at our center to these studies and continue to identify new genetic factors that may contribute to the risk of PD. Two more papers have been published in prestigious medical journals (PLoS Genetics and Lancet) describing the findings of these studies. The bottom line is that it appears that nearly 20% of the risk for developing PD may come from genetic factors. This work continues with the help of all physicians requesting each of our patients donate a blood sample for this research.

Another area of "hot research" has been using new MRI methods to measure the relationship of how different parts of the brain work together even when the brain is at "rest" while just lying in the scanner. These studies are called resting-state connectivity studies since they measure the connections among different brain regions. We have several studies in PD examining how these connections change in people with PD. One study has found changes in connections between brain regions low in dopamine (chemical messenger that is deficient in PD) with other brain regions either near the surface of the brain - the so-called cortex - as well as in deep structures in the back of the lower part of the brain. These findings may help explain some different problems like walking or balance problems as well as tremor. We are about to submit a manuscript for publication on these findings. Another study directed by Dr. Meghan Campbell uses the same methods to investigate these types of connections before someone with PD ever takes any medication and then repeats the scan to check the connections after a first dose of levodopa. We are still continued on next page

# **Research Advances**

#### continued from previous page

collecting participants for this study – so if you are newly diagnosed and have not taken any medication, give us a call. Finally, Drs. Kristen Pickett and Gammon Earhart are using these techniques to investigate the brain mechanisms of how different rehabilitation strategies help walking in PD.

Another area of research has been the development and validation of neuroimaging methods to measure the severity of brain abnormalities in people with PD. This has been a challenging area, but this year our hard work has borne fruit. First, we have found the degree of nerve cell loss needed to produce parkinsonian manifestations. This is particularly important since it also tells us how much we need to restore for someone to recover brain function. We also have found new relationships between several of the PET-based methods for trying to measure dopamine nerve cells and the function and number of those nerve cells. This is particularly critical since these types of PET scans can play an important role in research studies to test whether new treatments can slow progression of PD. These types of scans can be an objective measure of disease progression. We have just submitted several manuscripts describing these results and are now in the process of applying for another NIH grant to permit this line of research to continue.

inally, the last area that I should report is the progress made investigating a new drug that may slow the progression of PD. As I have said in past newsletters, these studies have been done in collaboration with Dr. Laura Dugan at the University of California in San Diego. She had discovered this new drug called carboxyfullerene. It was named fullerene since the structure of the molecule resembles a geodesic (think of the shape of the Climatron at the Botanical Gardens), and the geodesic dome was first designed by the architect Buckmeister Fuller - hence the name fullerenes. Although I thought we were close last year, we have found (based upon our neuroimaging research just described in the paragraph above) that we need to re-analyze the PET imaging data from this study. We are now in the process of doing that and then will send the final results to Dr. Dugan for statistical analysis. Although we are doing the research project at Washington University, we are blinded as to which subjects are treated with the active drug and which receive a placebo. This keeps the science pristine. Although I have said this in the past, I hope that next year's newsletter will have an answer about this exciting new area. This work was initially supported by the Chapter and more recently has been supported by an NIH grant.

Amazingly, this is not an exhaustive list of our PD research at Washington University but rather just some highlights. We have several other areas of active research, and do not forget to read Dr. Willis' summary of the exciting research that she and Dr. Racette's team have been doing – which has also been supported by the Chapter. Remember, we may think of new ideas about the cause or the treatment of PD, but the idea does not move forward without support to collect preliminary data. You have provided that support – both financially and with your volunteer participation.

Once again, I want to thank all of our volunteers and caregivers that have participated in our research. We also appreciate the continued financial support of the Greater St. Louis Chapter of the APDA and all of the contributors. All of the work described has truly been a team effort including the APDA Advanced Center faculty, staff, St. Louis Chapter, the hard working Board of Directors, the volunteers, the National APDA, and our other supporters like the National Institutes of Health. Finally, I want to specifically thank Debbie Guyer who puts in countless hours to help the Chapter and our research group work together. She deserves all of our appreciation. Thank you.

Dr. Perlmutter will be presenting his annual Research Update in April 2012, instead of November this year.

# STUDY: PARKINSON'S DISEASE AND PSYCHOSIS

r. Kevin Black at Washington University School of Medicine is participating in a research study investigating a medication for Parkinson's disease-related Psychosis (PDP) sponsored by ACADIA Pharmaceuticals, Inc. The most common symptoms of PDP are hallucinations (seeing, hearing, and/or feeling something that is not actually present) and delusions (believing in something that is not true, often including paranoid thoughts).

The study will research the safety and effectiveness of an investigational medication compared to placebo (an inactive look alike substance) in individuals who are experiencing hallucinations and/or delusions.

To take part in the study, individuals must be at least 40 years old with a diagnosis of PD for at least one year and have been experiencing PDP symptoms for at least the past month. It is important that caregivers are able to accompany the subject to all study visits. Participation will last approximately 12 weeks and includes up to five office visits and two phone contacts. For more information, please contact Mary C. at 314-362-7651 or maryc@npg.wustl.edu.

# Get Your "Good Samaritan" Savings

David S. Dankmyer, JD, LL.M., Partner, Financial Management Partners

hile everyone knows giving to a charity is its own reward, the government has added an extra benefit/incentive for your contributions. Every time you make a donation to the St. Louis Chapter of the American Parkinson Disease Association, you can be rewarded for your charity during tax filing season. When

you give money or property to the APDA, the IRS allows you to deduct those contributions from your taxes.

#### How to Get the "Good Samaritan" Savings

- Donate to the St. Louis Chapter of the APDA. As a 501(c)(3) organization, all donations to the APDA are deductible.
- 2. Make a record of the contribution by either:
  - a. Getting a bank record: a cancelled check, credit card statement, or a statement from your bank or credit union; or
  - b. Other written communication containing the name of the organization, the date of the contribution, and the amount of the contribution.
- Itemize the contribution on Schedule A of Form 1040, found here: http://www.irs.gov/pub/irs-pdf/ f1040sa.pdf. So if you donate to the St. Louis Chapter of the APDA in 2011, make sure to keep record of it and deduct it in your 2011 tax filing.

#### **A Few Things to Note**

- If you contribute more than \$250, you need written acknowledgment indicating the amount contributed.
- If the organization provided goods or services in exchange for your contribution (e.g. dinner in exchange for the tickets you purchased), make sure to

note that on the written communication to be filed. Your deduction is then offset by the fair market

value of the benefit received. • If you donate non-cash (e.g. property) that is valued at more than \$500, you must fill out Form 8283, found here: http://www.irs.

gov/pub/irs-pdf/f8283.pdf.

• If you donate non-cash that is more that \$5,000, you need to provide a qualified appraisal of the value, and fill out Form 8283 B, found here: http://www.irs.gov/ pub/irs-pdf/f8283.pdf.

#### A Word on Deduction Limits

Sadly, the IRS has put a limit on the amount of money you can deduct from your taxes for charitable contributions. For the APDA donations, you can deduct up to 50% of your adjusted gross income. Anything above that can be deducted over the next five years.

#### **Donating to the APDA Is Easy**

Here's how: Call us at 314-362-3299; send a check or credit card information to Campus Box 8111, 660 S. Euclid Ave., St. Louis, MO 63110; or donate online at http://stlapda.org/ donate. Once you donate, follow the steps above and get your "Good Samaritan" savings!

# Your Legacy

Debbie Guyer, M.A. Executive Director St. Louis APDA

laine and I were discussing the contents of this November news-

letter. The November issue is our annual research newsletter. But at the same time, we also want to remind our readers of many of the patient ser-



vices/programs available at no cost to participants, which Matt has addressed in his annual appeal.

So this does seem like a very appropriate issue and time of year to reflect and to ask you to consider giving a gift to sustain the wonderful programming and research being conducted in our local community. The board is considering enhancing our patient services by adding a taxi voucher/transportation assistance program, and also homemaker services to enable those individuals with Parkinson's disease to continue to live independently in their own homes.

I was catching up on my reading recently and came upon a very subtle but powerful message about creating a legacy. It was a small advertisement that filled a complete page of the paper: "We create meaning by connecting ourselves to something greater." It went on to say, "We create meaning by doing something with our lives that will not end with our death. The great use of life, wrote the philosopher William James, is to spend it on something that will outlast it." That reminded me of the quotation by Nelson Henderson, "The true meaning of life is to plant trees, whose shade beneath you do not expect to sit." What will you do this year that will outlast you? We hope you will consider our request. May you enjoy a happy and healthy holiday season with family and friends, and may 2012 bring us even closer to a cure for PD.

# IN SEARCH OF THE ETIOLOGY OF PARKINSON DISEASE: IS DOPAL THE CULPRIT?

W. Michael Panneton, Ph.D., Professor of Pharmacological & Physiological Science, Saint Louis University Medical School

any theories have been suggest-ed as to why dopamine neurons die in the brains of patients with idiopathic Parkinson's disease, but none have yet been proven. The loss of these neurons, as well as their projections, form the basis for the associated motor dysfunctions prevalent in Parkinson's disease (PD). My colleagues at Saint Louis University Medical School, William J. Burke and Vijay B. Kumar, and I have been working diligently on the "catecholaldehyde hypothesis" of PD which proposes that an accumulation of a toxic product of dopamine, DOPAL, is toxic to neurons in the brain and leads to PD. We have shown that DOPAL induces a protein to aggregate both in cell culture experiments as well as in rat brains. This protein is found in large quantities in Lewy bodies, a pathologic hallmark of PD, and suggested by some to be a precursor of cell death. Injections of DOPAL into the brains of rats induce cell death in 43-50% of dopaminergic neurons while apparently sparing nearby neurons which use transmitters other than dopamine. This data was supported by changes in rat behavior after DOPAL injections; the rats developed a turning behavior, likened to symptoms of PD patients. DOPAL is increased in

the brains of human PD patients. Thus DOPAL may indeed be the culprit poisoning the dopaminergic neurons in the brain and leading to PD.

We must remember that Parkinson's disease is classed as a neurodegenerative disorder; thus neurons are dying in PD merely by its association with this classification. The question arises, however, as to why DOPAL, a normal metabolite of dopamine in all humans, would be toxic in patients who develop PD while others are spared. Firstly, since the occurrence of PD increases with age, all might befall its wrath if we lived long enough. Indeed, we all travel through life at different speeds thus reaching an end point at different times. Secondly, it has been noted that an enzyme which normally breaks DOPAL down quickly to a nontoxic form is deficient in Parkinson brains. Our recent investigations, funded in part through the generosity of the St. Louis Chapter of the American Parkinson Disease Association and angel benefactor, Ted Hume, and his friends, have focused on determining whether decreasing this enzyme can induce behavioral changes in rats and kill dopamine neurons. This past summer we injected a molecule into the brains of rats in the hopes of disrupting this important enzyme from breaking

down DOPAL to nontoxic forms. The rats showed significant turning similar to that seen after injections of DOPAL. Also, there was marked loss of a synthetic enzyme for dopamine in brain neurons on the side of the injection, suggesting that not as much dopamine was being made in these cells. Qualitative observations of cells in the substantia nigra implicate that many of the dopamine cells located here have died, similar to that seen after DOPAL injections and mimicking that seen in Parkinson brains. This is very important since this enzyme neutralizes the toxic effects of DOPAL; without it DOPAL would remain in the neurons and, if our hypothesis is correct, the neurons should die.

We are currently doing more control experiments and quantifying this degeneration of dopamine neurons in the laboratory of Nigel Cairns at Washington University School of Medicine and hope to report on our findings in April at the American Academy of Neurology annual meetings. This observation provides an important link to the etiology of Parkinson's disease. If DOPAL is the culprit, we may now have a target to which we can take aim, and perhaps develop a therapeutic agent which can slow Parkinson's disease.

Every time you shop at Schnucks, they will automatically contribute up to 3% of every dollar you spend to the St. Louis APDA by using this card. If you do not have an eScrip card, call St. Louis APDA at 314-362-3299 and request a Schnucks eScrip community card. We will enroll you and mail the card out the same day.

# Don't forget OScrip

Another easy way to contribute to the APDA during these tough economic times is to request an eScrip card.

# PD4PD: PARTNERED DANCE FOR PARKINSON DISEASE

Gammon M. Earhart, PhD, PT, Associate Professor of Physical Therapy, Anatomy & Neurobiology, and Neurology, Washington University in St. Louis

ince 2006 my research laboratory at Washington University in St. Louis has studied the benefits of dance, and in particular Argentine tango, for people with Parkinson's disease (PD). This work has been possible through grant support from the national APDA, as well as support from the St. Louis Chapter of the APDA. I am pleased to have this opportunity to share with you the highlights of our most recent study, PD4PD: Partnered Dance for Parkinson Disease, funded by the Parkinson's Disease Foundation. I hope that you will find the results interesting, and perhaps even inspiring. Maybe you will consider dusting off your dancing shoes and joining our local tango class.

Beginning in late 2009, we launched a study to determine the long-term effects of tango dancing for people with PD. We were fortunate to have a very dedicated group of participants with PD who commit-

"Dancing makes use of the senses. Conscious use of vision, hearing, and touch makes moving easier for persons with PD, just as it does for dancers."

—Dance 4 PD

ted to dancing tango twice a week for a year. We tracked these individuals over the course of the year and compared them to another group of people with PD who were not dancing. All assessments were done with participants off medication; i.e., people skipped taking their PD medications for at least 12 hours prior to coming in for each evalu-



ation. We assessed participants' disease severity at the beginning of the study and again at 3, 6, and 12 months using the Unified Parkinson Disease Rating Scale. After just three months, the people who were dancing tango had lower disease severity than people who were not dancing, despite the fact that the two groups started out with equal levels of disease severity. Differences between the two groups got larger as time went on, with the tango group continuing to improve and show reduced disease severity over the full year. By the

end of the study, the tango group showed a 25% reduction in disease severity. This suggests that dancing may be able to modify the progression of disability over time and that the benefits of dancing tango are cumulative, as larger gains were noted with longer participation in a tango program. In addition to these exciting improvements in overall disease severity, we also noted significant improvements in balance and walking.

If you are interested in learning more about our other studies demonstrating the benefits of tango for people with PD, you can find the results in several published papers. Driven by this body of research, several communities have established or are in the process of establishing tango classes for people with PD. Thanks to the generous support of the St. Louis APDA, we are pleased to be able to offer tango classes for people with PD in our own community in 2012. If you are inspired to give tango a try, please contact the APDA office at 314-362-3299 and sign up for classes today!

Please note that if you are considering dance or another form of exercise, it is advised that you consult with a health professional prior to beginning.

# NEUROLOGIST CARE IN PARKINSON DISEASE: OPTIMIZING YOUR HEALTH

Allison W. Willis, M.D., Assistant Professor of Neurology, Movement Disorders Specialist Washington University School of Medicine

A lthough those of us who care for and about people with Parkinson disease are optimistic that some day treatments that slow the progression or prevent the disease will be discovered, recent medication studies have been disappointing. Coenzyme Q10 does not appear to slow the progression of PD, and although definitive studies are pending, the improvement in motor score associated with taking rasagaline (Azilect) was small and temporary. Therefore, there is a need to find other treated, according to the following outcomes: 1) hip fracture (people with PD are at higher risk for fall with resulting hip fracture), 2) skilled nursing facility placement and 3) survival.

Our results were striking: only 58% of people with a new diagnosis of PD were getting care from a neurologist in the first several years after diagnosis. Women and non-whites (Asian, Black, Hispanic) PD patients were about 30% less likely to have a PD specialist involved in their care compared to white



ways to improve well-being in those who have PD.

Recent data from our research group suggests that the simple act of seeing a neurologist for your PD care, rather than having your primary care physician also treat your PD, is associated with improved health and survival. This study was published in the journal *Neurology* (August 2011). We studied over 138,000 elderly people diagnosed with PD in 2002, and followed them through 2008. People were categorized according to whether the physician caring for their PD was a neurologist or not. We compared the two groups, neurologist treated vs. primary care doctor men. Those who had neurologist care were 36% less likely to be placed in a nursing home by the end of the study and 19% less likely to suffer a hip fracture. Finally, neurologist treated PD patients were 37% less likely to die by the end of the study.

There are many possible explanations for our findings. Women and minorities (Asians, Blacks, Hispanics) may not see neurologists as often because they may have milder forms of PD that do not seem to require a specialist, or don't request/desire a referral to a specialist. Our finding of improved survival may reflect health behaviors or overall health; people who take better care of themselves (maintain a healthy weight, exercise, take their medications) may be more likely to want to or be able to see a neurologist for their PD. On the other hand, neurologists may be more likely to get referrals for PD patients with more symptoms, and that could mean our data actually underestimates the benefit from neurologist care.

The treatment of PD can be very complicated; people with PD are more likely to have bladder infections, pneumonia, falls, and hallucinations in addition to the common PD motor symptoms of tremor, stiffness, slowness, and change in gait. The medications used to treat PD can cause confusion, hallucinations, and dyskinesias as the disease progresses. Add to these the high frequency of constipation, fainting, confusion, poor sleep quality, and anxiety/depression. It is not difficult to imagine that the experience gained from training in neurology may result in better outcomes.

As interesting as it may be, I caution that this data is preliminary, and we must identify specific ways in which neurologist care improves outcomes before our data may be used to change health care policies. I am beginning enrollment for a nationwide long term study of outcomes (iMPROve= Medicare Parkinson Risks and Outcomes study) to answer this very question in 2012. So, my advice to those who receive their PD care from a primary care physician and are doing relatively well is to keep doing what you are doing! Make sure you report all medications you are taking to avoid interactions. Do not neglect other medical problems like high blood pressure, diabetes, or high cholesterol, and exercise daily. And, if you are one of the people randomly selected to enroll in the study, please consider joining us in the largest study of PD in history aimed at easing the burden of this disease.



received a contribution this morning, and on the back of the tribute envelope was a sticker which read, Find Answers-Change Lives—Beat Parkinson's. I think

we've taken a giant step in that direction as a result of our recent 16th Annual Fashion Show-Auction-Luncheon which took place at the Sheraton Westport Lakeside Chalet on October 10, 2011.

So, how does a non-profit charity have a banner year, in a year that has otherwise been very difficult for many, many individuals, businesses and charities? Here is the recipe for our success this year.



Start with the perfect Honorary Chair, Steve Hurster. He has a passion and a

personal connection. His "can do" attitude, generosity, and competitive nature factored into his ability to surpass the other 15 years of this event. As one of his friends reported, "Steve put the touch on me, and he's such a sweetheart; how can you turn him down?" Steve Hurster inspired us and made us remember why we were all there in the first place. You are a real jewel, Steve, and I can certainly understand why your friends cannot tell you 'no.'



Add an auction chairperson extraordinaire, Lynda

Wiens, with over 30 years of experience with other chari-

ties and a personal connection to ours for the past seven years. She seeks perfection and won't stop until she achieves it. She is tireless and can't turn off those wheels of creation as she envisions and builds the amazing baskets which were



Steve Hurster, Honorary Chair



Lynda Wiens & Tracy Wright\*



Addie Tompkins & Gerry Francis

purchased by our guests during the auction. Lynda consistently makes gift baskets that are the envy of every other basket-maker and every other auction

coordinator in St. Louis. Combine it with a business woman who, by her very admission, can't accept responsibility or take

charge of something that she is abso-

lutely sure won't be her best effort. "If I am going to do it, I am going to do it well." Despite having taken a job based in Portland, Tracy Wright honored her commitment to APDA this year by putting together fashions from boutiques in our community which you will want to visit as you plan your fall wardrobe. Tracy assembled a beautiful show featuring a team of volunteers, radio and TV personalities. See photos on our website: www.stlapda.org.

Top it off with extraordian nary committee. You might

think we have hundreds of volunteers, but we are small and mighty, a committee of 13. Congratulations and our deep appreciation to our untiring committee members who went from shop to shop, restaurant to restaurant, collecting items and gift cards for our auction, and many into their own wallets to purchase items to complete an auction basket.



Mark & Nancy Kodner\*



Ruth Sandler, Dayle Norber & Edie Brown\*



Randee Fendelman, Courtney Adams, Terri Taylor, Carrie Taylor & Roz Gad\*



Emily Saksa & Courtney Tharpe



Dr. Allison Willis



Connor, Cooper & Reed Low



Julia & Joanie Garlich



Brayden Wakula & Ellie Palombo



#### Dr. Joel Perlmutter

ongratulations and our sincere thanks to the 14 boutique owners who selected fashions from their racks and fit our models for the show. Congratulations and a round of applause to our 50 beautiful models gliding the runway in fashionable attire. Heartfelt thanks to our reservation volunteers, bankers, and runners (31 more volunteers contributing to our success) who made sure that the event progressed smoothly for our 435 guests. And the 19 people who arrived in their SUVs and vans at our satellite resource center on Sunday afternoon to transport the 200 auction baskets, 50 centerpieces, signs and clothing to the hotel. Our gratitude is extended to the 141 donors who so generously contributed gift items for the baskets and tastes of our town buffet gift certificates and one-of-a-kind items for our raffle. We couldn't have achieved this success with-





Lynn & Steve Hurster Honorary Chair Couple

67 donors, totaling another \$11,155. It all came together for our most successful fundraiser to date, and you all had a role in our success. Victoria Babu kept the commentary running and amusing as emcee. The dancers from The Professional Dance Center performed to the delight of the audience entertaining us between runs. Nancy and Mark Kodner were recognized as they established a family tribute which they and many of their friends and relatives have already contributed to, for Parkinson's research. And finally, a special mention of my appreciation and credit due to my assistant, Elaine Dreher. Our differing styles and personalities make for a perfect complement (Yin-Yang). To my family, who for many months are so patient with my preoccupation with work, just knowing how important and personal Parkinson's is to me...you mean everything to me and enable me to give 120% to this cause and this event each year.

Congratulations and many, many thanks for all your help and support, as we tally up the sensational results of this year's fashion show event. For a complete viewing of all of the photographs taken by and courtesy of **Cathy Hartman Photography** and video production by **Larry Balsamo** (Video Views), visit our website at www.stlapda.org.



The Professional Dance Center





Annette Day, Norma McGehee & Nicole Beckman





Eliana Dubman



Garett, Melissa, Brook & Eliana Dubman



Dr. Joel & Monica Perlmutter

Peyton, Grant, & Matt LaMartina

#### **Sponsors**

#### SILVER LEVEL Community Partnership at Benton Homebuilders

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## Honorary Chair Couple &

Master of Ceremony Steve & Lynn Hurster Victoria Babu, KTRS 550AM

#### Models

Jane Aylward Nicole Beckman Stephanie Bodine Mary Ann Carson, Channel 9 Brook & Melissa Dubman Randy Gardner, NEWS20 TV Joanie Garlich Michael Hope Matt LaMartina Carlos Leon, actor Reed Low, former St. Louis Blues hockey player Io Luby Craig McBride Norma McGehee Joel Perlmutter, Medical Director, St. Louis APDA Monica Perlmutter Mary Powers Reann Ratterman Andrea Robertson, Mrs. Missouri 2009, Mrs. America 2010 Ryan Robertson, former Sacramento Kings NBA player Emily Saksa Jessica Schleicher Lauren Sciuto Stacey Smith, Miss Missouri 2009 Wendy Steinbecker

Angie Suntrup Courtney Tharpe Stephanie Tullock Betty Velten Allison Willis, MD, WUSM Rick Yust

#### **Junior Models**

Dominac, Maria & Maya Dolan Garett & Eliana Dubman Julia Garlich Grant & Peyton LaMartina Connor & Cooper Low Addison Luby Cara & Ellie Palombo Emma & Maggie Ratterman Lexus Tullock Brayden Wakula Rachel Walkenhorst

# Dancers: The Professional Dance Center

Choreographers: Jeana Smith & Yvonne Meyer Hare Olivia Botonis Hayley Duffin Therese Garret



Anna Gasset Emma Gasset Carly Klien Tori Marino Kathryn Mayer Megan Mayer Emma Miller Erica Staub Miranda Widman

#### Auction Committee

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Panera Bread Poptions Popcorn The Repertory Theatre of St. Louis The Ritz-Carlton, Bachelor Gulch Sylvia Saddler Dave & Christine Sadler Jean Sadler Ruth Sandler Schlafly Beer Shakespeare Festival, St. Louis Silpada Designs St. Louis Chapter APDA St. Louis Marriot West St. Louis Symphony Stages St. Louis Starbucks Galleria Steel Magnolias Spa & Boutique Kevin Steincross Stonewater Spa Mary Strauss Ted Drewes Kathleen Toal Addie Tompkins Trader Ioe's Carrie Travers-Wilson Means Salon Unique Toy & Game Video Views Elaine Viets Vincent's Jewelers Marilvn Warren Waterway Car Wash West Oak Cleaners Lynda Wiens Wild Birds Unlimited Winston Churchill Memorial Library & Museum Rusty Yost Vicky Young

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# MISSOURI SHARED CARE TAX CREDIT

Jean Leonatti, Mid-MO Area Agency on Aging

f you care for an older family member in your home, you might be eligible for a tax credit on your Missouri Income Tax Return. This includes spouses taking care of a sick husband or wife or children taking care of a disabled elderly parent. The Missouri Shared Care Tax Credit provides a tax credit to help families offset the costs of caring for an elderly person (age 60 or older).

### The Shared Care Tax Credit

- May be up to \$500 for the tax year. The credit is the amount of your Missouri tax liability or \$500, whichever is less.
- Is non-refundable and cannot be carried over to another tax year.
- Applies to the tax return of the "caregiver," not to the tax return of the older recipient of the care.

### **Eligible Applicants**

- The caregiver of the older person (age 60 or older) must be registered with the Department of Health and Senior Services as a certified "Shared Care Member" and not receive monetary compensation for providing care for the elderly person. In other words, you cannot receive any pay or compensation for providing care to the older person.
- The older person must live in the same residence as the caregiver for an aggregate of more than six months per tax year. It does not need to be a consecutive six months, but a total of at least six months for the year. For example, the older person lived with you from April through May, then went to a nursing home for rehabilitation services for two months, then came back and lived with you from August through December. That would be a total of more than six months of care in your home for the year.

- The older person must be physically or mentally incapable of living alone, as determined by a physician or the Department of Health and Senior Services certification.
- This ill person requires assistance with activities of daily living to the extent that without care and oversight at home, he would require placement in a licensed facility, such as a nursing home.
- Under no circumstances is the ill person able or allowed to operate a motor vehicle.
- The older person does not receive funding or services through Medicaid or Social Services Block Grant funding.

### **Process to Claim the Tax Credit**

- Call the Division of Senior and Disability Services at 1-573-751-4842 and request a Shared Care Registration Packet.
- Complete the forms contained in the Registration Packet and mail them back to the Department of Health and Senior Services. They will determine your eligibility for the tax credit and send you back the necessary documentation for your tax preparer.

### **Frequently Asked Questions**

### Must I be a registered caregiver to receive the shared care tax credit?

Yes. If you meet all other requirements, you may qualify for the tax credit if you register as a shared care member. To register with the Division of Senior and Disability Services, call 1-573-751-4942.

### Do I have to be in Missouri caring for the care recipient a consecutive six months to receive the tax credit?

No. The law provides more than six months per tax year requirement. If the total time frame caring for the elderly



care received is six months in the aggregate, you still qualify for the tax credit.

### I provided care for my mother half of the year, but I am not currently a Missouri resident. Do I still qualify for the credit?

Yes. If you have a Missouri tax liability and you met all of the requirements, you may still qualify for the shared care tax credit.

### What is considered when determining whether or not the care recipient is incapable of living alone?

A physician or a Division of Senior and Disability Services Social Service Worker must determine whether or not the care recipient is capable of living alone. The physician or counselor must provide a description of the care recipient's physical or mental condition, which prevents the recipient from living alone. The physician or social service worker must also describe the necessary treatment or care needed for the care recipient.

### Is the shared care tax credit refundable?

No. The credit is the amount of your Missouri tax liability or \$500, whichever is less. If your Missouri tax liability is \$200, you will receive a credit of \$200. The remaining \$300 is not refundable.

# If I receive Medicaid, am I eligible for the credit?

No. If you receive Medicaid-funded home and community-based services, you are not eligible for the tax credit. If you receive Medicare, you may qualify for the credit.

# MISSOURI SUPPORT GROUP CALENDAR

Sponsored by the St. Louis American Parkinson Disease Association

Our Support Groups meet once a month or as noted. Support Group day and time may change periodically. For current updates on support groups and exercise classes, call the APDA Information & Referral Center or the facilitator. Information that has changed since the last **LiNK** appears in **bold face**.

City	County	Meeting Site	Day of Meeting	Time	Leader(s)	Phone
Cape Girardeau	Cape Girardeau	Call for location	Call for schedule		Desma Reno, RN, MSN	573-651-2939
Chesterfield	St. Louis	APDA Satellite Resource Center 1415 Elbridge Payne, Suite 168	1st Tuesday	10:30 AM	Vicky Young	636-343-8280
Columbia	Boone	Lenoir Community Center 1 Hourigan Drive	1st Thursday	4:00 PM	Doris Heuer Mary Green	573-815-3718
Creve Coeur	St. Louis	For Caregivers Only Shaare Emeth, Library Conf. Room 11645 Ladue Rd.	2nd Monday	11:00 AM	Dee Jay Hubbard, PhD	314-362-3299
Creve Coeur	St. Louis	Young Onset Living and Working With PD Missouri Baptist Medical Center 3015 N. Ballas, Bldg. D, Conf. Rm. 6	3rd Tuesday	6:30 PM	Linda Pevnick, MSW, LCSW, BCD Rich Hofmann	314-362-3299 314-369-2624
Festus/Crystal City	Jefferson	Disability Resource Association 420 B S. Truman Blvd.	3rd Tuesday	1:00 PM	Penny Roth	636-931-7696 ext. 129
Florissant	St. Louis	Garden Villas North 4505 Parker Rd.	4th Thursday	11:00 AM	Julie Berthold Paula Simmons Nancy Robb	314-355-6100 314-869-5296
Jefferson City	Cole	Capital Regional Medical Center SW Campus, Cafeteria	3rd Monday	3:00 PM	Jennifer Urich, PT	573-632-5440
Joplin	Jasper	Call for meeting site	Mondays	1:30 PM	Nancy Dunaway	417-659-6694
Kirkwood	St. Louis	Kirkwood United Methodist 201 W. Adams	4th Tuesday	7:00 PM	Terri Hosto, MSW, LCSW	314-286-2418
Ladue	St. Louis	The Gatesworth 1 McKnight Place	2nd Wednesday	1:00 PM	Maureen Neusel, BSW	314-372-2369
Lake Ozark	Camden	Lake Ozark Christian Church 1560 Bagnell Dam Blvd.	3rd Thursday	Noon	Patsy Dalton	573-964-6534
Oakland/ Webster Groves	St. Louis	Bethesda Institute 8175 Big Bend, Blvd., Suite 210	Last Friday	10:30 AM	Laurel Willis, BSW	314-373-7036
Rolla	Phelps	Rolla Apartments 1101 McCutchen	4th Thursday	2:30 PM	Hayley Wassilak Tyler Kiersz	573-201-7300
Sedalia	Pettis	1st Christian Church (Disciples of Christ) 200 South Limit	3rd Monday	4:00 PM	Barbara Schulz	660-826-6039
South St. Louis	St. Louis	Garden Villas South 13457 Tesson Ferry Rd.	2nd Wednesday	10:00 AM	Jack Strosnider	314-846-5919
St. Peters	St. Charles	1st Baptist Church of Harvester 4075 Hwy. 94 S.	1st Tuesday	1:00 PM	Sherrie Rieves Ann Ritter, RN	636-926-3722
Ste. Genevieve	Ste. Genevieve	Ste. Genevieve County Mem.Hosp. Education Conference Room Hwy. 61 & 32 Intersection	2nd Wednesday	10:00 AM	Jean Griffard	573-543-2162
St. Louis	St. Louis	Pre/Post-DBS Sunrise on Clayton Senior Living 7920 Clayton Rd.	3rd Thursday	1:00 PM	Steve Balven Stan & Donna Wilensky	314-249-8812 314-997-5114



We want to express our sincere gratitude to Teva Pharmaceuticals and Amie Deakin for supporting the wonderful PEP meeting held at the St. Charles Convention Center on November 12, 2011, where hundreds of Parkinson individuals, their families and caregivers, and professionals in our community gathered to hear Dr. Bill Langston, Susan Imke, Pamela Quinn, and a panel including Dr. Lee Tempel and Dr. Kevin Black discuss What's New, What's Now, and What's Next in Parkinson's Treatments.



# Illinois Support Group Calendar

Sponsored by the St. Louis American Parkinson Disease Association

Our Support Groups meet once a month or as noted. Support Group day and time may change periodically. For current updates on support groups and exercise classes, call the APDA Information & Referral Center or the facilitator, Information that has changed since the last **LINK** appears in **bold face**.

City	County	Meeting Site	Day of Meeting	Time	Leader(s)	Phone
Alton	Madison	Eunice C. Smith Home 1251 College - Downstairs Conf. Rm.	2nd Monday	1:00 PM	Sheryl Paradine	618-463-7334
Belleville	St. Clair	Southwestern Illinois College (PSOP) 201 N. Church St., Rm 106	2nd Monday	1:30 PM	Jodi Gardner	618-234-4410 x7031
Carbondale	Jackson	Southern IL Healthcare Headquarters University Mall	1st Wednesday	1:00 PM	Bill Hamilton, M.D.	618-549-7507
Carmi	White	Phoenix Rehab. & Nursing 615 West Webb St.	4th Tuesday	1:00 PM	Carolyn Chastain	618-382-4932
Decatur	Macon	St. Paul's Lutheran Church 352 W. Wood St.	3rd Thursday	1:30 PM	Cathy Watts	217-428-7716
Glen Carbon	Madison	The Senior Community Center 157 N. Main St.	3rd Wednesday	10:30 AM	Marilynn Kozyak Jeanette Kowalski	618-288-3508 618-288-9843
Greenville	Bond	Greenville Regional Hospital 200 Healthcare Dr. Edu. Dept., Edu. Classroom	2nd Monday	1:00 PM	Alice Wright	618-664-0808 ext. 3703
Mattoon	Coles	First General Baptist Church 708 S. 9th St.	Last Tuesday	1:30 PM	Bernice Baker	217-243-4173
McLeansboro	Hamilton	Heritage Woods - Fox Meadows 605 S. Marshall Ave., Dining Room	1st Wednesday	1:00 PM	Paula K. Mason	618-643-3868
Mt. Vernon	Jefferson	Greentree of Mt. Vernon, 2nd Floor	4th Thursday	6:30 PM	Donna & Bill Peacock	618-242-4492
Quincy	Adams	Fellowship Hall of Salem Evangelical Church of Christ 9th & State	3rd Thursday	12:00 PM	Barb Robertson	217-228-9318
Springfield	Sangamon	Christ the King Parish Ctr. 1930 Brentwood Dr.	3rd Sunday in Jan., Mar., May, July, Sept., & Nov.	2:00 PM	Pam Miller	217-698-0088

# Welders May Be at Increased Risk for Brain Damage

Michael C. Purdy, Washington University Record

orkers exposed to welding fumes may be at increased risk of damage to the same brain area harmed by Parkinson's disease, according to a new study by researchers at Washington University School of Medicine in St. Louis. Fumes produced by welding contain manganese, an element that scientists have linked to neurological problems including Parkinson's disease-like symptoms. "In the United States alone, there are more than one million workers who perform welding as a part of their job," says Brad Racette, M.D., Professor and Vice Chairman of Neurology at Washington Univer-

sity School of Medicine. "If further investigation of this potential link between neurotoxic effects and these fumes proves it is valid, it would have a substantial publichealth impact for the U.S. workforce and the economy."

The study appeared online Dr. Brad April 6, 2011, in *Neurology*, the medical journal of the American Academy of Neurology. The study involved 20 welders with no symptoms of Parkinson's disease, 20 people with Parkinson's



Dr. Brad Racette

disease who were not welders, and 20 people who were not welders and did not have Parkinson's. The welders were recruited from two shipyards and one metal fabrication company, and each had an average of 30,000 hours of lifetime welding exposure.

All participants were given brain PET and MRI scans and motor skills tests. A *continued on next page* 



# Exercise Classes

Our Exercise Classes meet once a week or otherwise as noted. Information that has changed since the last **LiNK** appears in **bold face**.

City	County	Meeting Site	Day of Meeting	Time	Leader(s)	Phone
Clayton	St. Louis	Barnes Extended Care 401 Corporate Park Dr.	Wednesday & Friday	1:30 PM	Mike Scheller, OT	314-289-4202
Chesterfield	St. Louis	St. Luke's Hospital 232 S. Woods Mill Rd.	Tuesday	10:30 AM	Patty Seeling, PT	314-205-6934
Chesterfield	St. Louis	Gardenview Chesterfield 1025 Chesterfield Pointe Parkway	Thursday	2:30 PM	Cathy Clough, COTA	636-537-3333 ext. 204
Creve Coeur	St. Louis	Aquatic Exercise Rainbow Village 1240 Dautel Lane	Thursday Oct. 6 – Dec. 15	2:00 PM	Brenda Neumann	636-896-0999 ext. 21
South St. Louis County	St. Louis	Garden Villas South 13457 Tesson Ferry Rd.	Monday	11:30 AM	Mike Scheller, OT	314-289-4202
St. Peters	St. Charles	Barnes-Jewish St. Peters Hospital Ste. 117	Every Tuesday except 1st Tuesday	11:00 AM	Holly Evans, PT	636-916-9650
St. Peters	St. Charles	Aquatic Exercise St. Charles YMCA 3900 Shady Springs Ln.	Thursday Oct. 6 – Dec. 15	2:00 PM	Brenda Neumann	636-896-0999 ext. 21
North St. Louis County	St. Louis	Garden Villas North 4505 Parker Rd.	Tuesday & Thursday	10:00 AM	Bobby Lautenschleger, PTA	314-355-6100
Lake Ozark	Camden	Lake Ozark Christian Church 1560 Bagnell Dam Blvd.	Monday	4:00 PM	Alice Hammel, RN	573-964-6534
St. Louis City	St. Louis	The Rehab. Institute of St. Louis 4455 Duncan Ave.	Thursday	Noon	Janelle Burge, PT, DPT	314-658-3858

## Welders

### continued from previous page

neurologist who specializes in movement disorders also examined all participants. The welders' average blood manganese levels were found to be two times the upper limits of normal blood manganese levels established in prior studies of general populations. In one area of the brain, PET scans indicated that welders had an average 11.7 percent reduction in a marker of the chemical dopamine compared to people who did not weld. Dopamine helps nerve cells communicate and is decreased in specific brain regions in people with Parkinson's disease. The welders' motor skills test scores also showed mild movement difficulties that were not as extensive as those found in the early Parkinson's disease patients.

Although the same area of the brain



was affected as in Parkinson's disease, the pattern of effects within this area was reversed. Parkinson's disease normally has the greatest impact on the rear of a structure known as the putamen. In the welders, the largest drop in the marker for dopamine occurred in a structure behind the putamen known as the caudate. "While these changes in the brain may be an early marker of neuron death related to welding exposure, the damage appeared to be different from those of people with full-fledged Parkinson's disease," Racette says. "MRI scans also revealed brain changes in welders that were consistent with manganese deposits in the brain." Racette and his colleagues plan a larger follow-up study to clarify the potential links between welding and brain damage.

Criswell SR, Perlmutter JS, Videen TO, Moerlein SM, Flores HP, Birke AM, Racette BA. Reduced uptake of [18F] FDOPA PET in asymptomatic welders with occupational manganese exposure. Neurology, online April 6, 2011.

# Hallucinations— Psychosis Related To Parkinson's Disease

Kevin J. Black, M.D., Professor of Psychiatry, of Neurology, of Radiology, and of Neurobiology, Washington University School of Medicine

arly in the course of PD, treatment usually goes well. However, after five to ten years, things start to change as treatment requires higher doses of medications and side effects become more problematic. One of the most problematic side effects in this phase of illness involves what doctors call psychosis. Unfortunately the word can have very negative connotations to lay people. To physicians, psychosis is an indicator that something is going wrong in the brain (including medication side effects). Psychosis usually is diagnosed when the patient has hallucinations or delusions.

A hallucination is a sensory perception that does not correspond to reality, such as seeing people at the dinner table when no one is there. Hallucinations can involve senses other than vision, like hearing someone conversing with you when no one is actually there. The hallucinations that are most common in PD include seeing people who are not there, like the dinner table guest mentioned above, seeing small animals that are not present, or hearing someone's voice who is not in fact present.

A delusion is a firm belief in something that is not true despite substantial evidence to the contrary. Sometimes these are explanations for hallucinations (e.g., you see someone at the dinner table and you tell your spouse that it must be bridge night because that's when you invite people). Other delusions can involve themes of persecution, jealousy, or theft. Hallucinations are more common than delusions in PD, so I will focus on them.

The good news is that most people who have PD don't have hallucinations—at the moment. In fact, before we had good treatments for PD, hallucinations were rather rare. The bad news is that many people with PD will have hallucinations at some point in their illness. Although the hallucinations may not bother the patient at this time, they tend to indicate that this is someone with a high risk of having other complications, so we usually try hard to reduce the hallucinations.

here is another good news/bad news story for treatment of hallucinations. The good news is that we can almost always get rid of the hallucinations. The bad news is that available treatments are far from perfect. Here is what we do to treat psychosis. First, we make sure there is no other, more urgent problem. People can develop hallucinations, usually along with confusion, from other serious illnesses like pneumonia or heart disease. Talking to and examining the patient usually clears that up, but in some cases blood work, a urine sample, or other tests may be needed. The second step in treatment is to reduce medications that affect the brain. Sometimes a medication may not be necessary and can be eliminated.

New Satellite Resource Center Hours



Hours at the satellite center through the holidays and winter months will be by appointment only.

Please contact the Center at 314-362-3299 to make an appointment.

Other times, we try to switch the patient to levodopa rather than dopamine agonists, because on average, levodopa has a lower risk of hallucinations for the same amount of benefit on movement.

These steps are important, but often do not abolish the hallucinations. In that case, an antipsychotic medication is important. There are three classes of medications here. (1) Older antipsychotics work, but are a bad idea in PD because they worsen the movement problems too much. (2) Clozapine clearly works, doesn't worsen PD movement symptoms, and is the right choice for many patients. However, it requires frequent blood draws (every week at first, eventually once or twice a month). This is because one or two people in 100 will have a potentially serious side effect, which the blood draws are meant to detect before it is too serious. (3) There are several other proposed treatments that seem like they should help but have not been proven to help. The best-known example is quetiapine, which is often prescribed for hallucinations, but in at least three studies in PD it did not work better than a placebo (sugar pill).

There are current studies being conducted to determine whether a new drug called pimavanserin is better than a placebo in fighting the hallucinations. Pimavanserin does not worsen PD like many antipsychotics do, and it does not have the same risks as clozapine does, but we don't yet know if it works. There is excitement in the field about pimavanserin because it is a different kind of antipsychotic, working on serotonin rather than dopamine.

For full information on this new drug or other treatments for hallucinations in PD, please contact Mary Creech, RN, MSW at **314-362-7651** or **maryc@ npg.wustl.edu.** 

# **TRIBUTES & DONATIONS**

Tributes are a wonderful way to acknowledge the memory of a beloved person as well as honor those who mean so much to you. Tribute envelopes can be obtained from the Center 314-362-3299 or made directly on the St. Louis APDA website, www.stlapda.org.

#### HONORING

The speedy recovery of Sid Axelbaum Joy & Fred Levin Jack & Renee Rosen Alan & Peggy Schaffer

*The 50th Anniversary of Rich & Carole Bergmeier* Don & Diane Donlon Nancy Johann Dale & Norma Plank

Allen Brouk Gayle Brouk

The special birthday of William Bruchhauser Kay Bruchhauser

The special birthday of Jack Coffey Susan Bond

The special birthday of Walter Donius Bill & Jay, Michael, & Connie Donius

*Dr. Joshua Dowling* Nancy & Mark Kodner Family Tribute Fund

Receiving the O.W.L. Lifetime Achievement Award for Judith Gall Ralph & Helen Goldsticker

The special birthday of Ralph Goldsticker Margie & Bert Talcoff

The outstanding work of Debbie Guyer Sara Jane Weinhaus

*Camille Herman* Jody & Dick Homans

*The 70th birthday of Mary Hughes* Laura M. Adams

*Kathryn Muskopf* Carol & Ron Feuerhahn

The 80th Birthday of Aron Osherow Ralph & Helen Goldsticker

Dr. Joel Perlmutter Nancy & Mark Kodner Family Tribute Fund

The birthday of Phyllis Ross Ruth Young

The anniversary of Sylvan & Ruth Sandler Gertrude Hulbert

*The 60th birthday of Cheryl Shelton* Jody Shelton *Jack Strosnider* Robert & Jean Prichard

*James (Jim) Sutton* Jeffrey Higbie & Karen Wedekind

*Dr. Samer Tabbal* Nancy & Mark Kodner Family Tribute Fund

The quick healing of Terri Taylor Donna & Bob Cohen

The speedy recovery of Sharon Walker Kathi, Stuart, Jamie, Laura, & Corey Rosenberg

*Lynda Wiens* Jean Wunderlich

*Norma J. Ziegenhorn* Donald L. Ziegenhorn

#### REMEMBERING

*Gloria Albrecht* Gloria Chase

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