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Programs: Jill Reid Educational Outreach: Jill Reid Membership: Carole Henrichsen Chaplain: Rusty Merrill Parkinson's Awareness Day: Vacant Photographer: Vacant Lending Locker Coordinator: Main Dish Coordinator: Bill Hicks ///////// or potluck@co-parkinson.org Picnic: Carole Henrichsen and Janet Adams Media Relations: Mary Sauvain Medical Advisor: Curt Freed, MD New Member Table Chairmen: Vacant Sunshine (Cards): Sharon Carlson T-Shirt Chairman: Vacant Webmaster: Julie Pfarrer webmaster@co-parkinson.org Newsletter Editor: K. Schleiker

Address/Email/Database Updates and Newsletter Coordinator:

Contact Julie Pfarrer at db_mgr@co-parkinson.org or call //////////

The *Colorado Springs Parkinson's Support Group* (part of CPF) meets the second Saturday of each month at 10AM (with exceptions to be noted in this newsletter).

Parkinson's Perspective

Newsletter of the Colorado Springs Parkinson's Support Group Colorado Parkinson Foundation, Inc.

www.co-parkinson.org | (719) 884-0103

July Meeting: Saturday, July 9th – 10:00 am – 1:30 pm We will be Zooming and recording this meeting.

Location: First United Methodist Church, 420 N. Nevada Ave, downtown just south of St. Vrain.

9:30 am – Come early for a group sing-along with music therapist, Heather Johnson. See more about Heather's business under '**Other Opportunities**' later in this newsletter.

9:45 am – Everyone else come in a few minutes early to check in, greet other members and ask questions.

First time visitors: Be sure to sign in, get a name tag and proceed to the visitors' table for some special attention and information.

Knowledge is power and enables us all to live well, so plan to attend the meetings at First United Methodist Church.

JULY PROGRAM: Scam Prevention SPEAKER: Colorado Springs Police Department

Scams are largely targeted to us, the older generation. Many scammers are very clever and have convincing approaches to get us to hand over money or our financial information. Older people lose millions of dollars to scammers each year. How do we know when a scammer is making a move on us? Come to the July meeting and find out. An officer from the Colorado Springs Police Department's Scam Prevention section will teach us how to protect ourselves from these vicious and hard-core criminals.

The July Potluck - Patriotic Themed Dishes

Dishes with a patriotic look – red, white or blue food or serving dishes - typical all-American dishes.

If you would like to sign up to be one of the providers of a main dish or a side dish/dessert for the July meeting, you can contact Bill Hicks at ////////// or potluck@co-parkinson.org, no later than Wed. July 6th and tell him what you would like to bring.

> Remember that bringing food for the potluck is voluntary. We look forward to seeing you there!

SAVE THE DATE: SUMMER PICNIC - SATURDAY, AUGUST 13th 11am - 1pm



Our annual summer picnic will be August 13th at Venezia Park at the corner of Union Blvd and Briargate Parkway. Look for three large pavilions with green roofs. THE HOUSE pavilion is the far right pavilion which is the closest to the restrooms and the main parking lot.

Directions to Venezia Park:

- From I-25 take the Briargate Parkway exit. Go east on Briargate Parkway to Union.
- From Union Blvd., Turn west at the light at Family Place into the park (across from the King Soopers (continued on page 2...)

PARKINSON'S PERSPECTIVE

The President's Corner

Artists are amazing people. Mom used to say that my childish stick figures had lots of character-I think that was her way of saying gently that I didn't have any artistic ability. It is really beyond my comprehension how someone can draw or paint a beautiful scene, and I greatly admire anyone who can do it. I certainly can't. I haven't graduated beyond stick figures!

One of our former members, Hector Foutz, took up painting years after he was diagnosed with Parkinson's. He found that

while he had brush in hand and was applying paint to canvas, his Parkinson's symptoms went away. And his paintings were breathtaking! I talked him into letting me buy two of them, and they hang proudly in my home.

Mary and Rich Sauvain's daughter, Tara, is also a very talented artist. She recently responded to a call to artists to produce large yard ornaments based on butterflies. Her work, along with the work of other artists, will compete for top prize and then will be auctioned off as a fundraiser for the Colorado Springs Rotary Club. Since Rich has Parkinson's and Tara has been involved with him in his Parkinson's journey, she designed her butterfly to represent that journey. The design is stunning (pictured to the right) and includes a brain, dopamine neurons and receptors, and the Parkinson's tulip. She is calling her entry "Living with the Brakes On," in honor of her father's struggles with Parkinson's.

Her parents are both volunteer members of the support group's executive committee, and they suggested to the rest of the committee that we ask the Colorado Parkinson Foundation (CPF) Board of

Getting To Know You: Bill and Brenda Hicks

Please meet perhaps the hardest working PWP and Care-Giver pair among us. Shortly after joining our Support Group, Brenda volunteered to take over leadership of the



'Caregivers Support Group". They both stepped right up and volunteered to fill another vacancy created when Stephen Rudawsky 'retired' as Food/ Kitchen coordinator. Our memcharacter of both Bill and Brenda in that role. Brenda and Bill thrive on serving those in need. Whether they live in Colorado Springs, Japan, or elsewhere around the world.

Bill grew up in New Jersey and came to Colorado in 1994 as a member of an Air Force Special Forces team. Brenda was born and raised in Minnesota, where she trained as a nurse, and worked several years in a small hospital in Bemidji, Minnesota. She met Bill shortly after relocating to Albuquerque, N.M. They soon married and began their journey as military member and spouse.

Their service time took them to Okinawa Japan and other exotic places.

Along the way while in active service and retirement Bill also got into the nursing

| Jill Reid - Acting President, CPF & CSPSG

Directors to fund the expensive paints that Tara needs to complete the project. The CPF board approved our request. More importantly, they agreed to bid on the project during the auction that will be held in September and, should they win, to donate her butterfly to the city of Colorado Springs to add to the outdoor art displays around downtown. If we win the bid, we'll add a plaque to it naming Tara and her sponsors-the Colorado Parkinson Foundation and the Colorado Springs Parkinson's Support Group.



by Mike Koloski

profession. Their son was born in Japan; their daughter in the Springs where Bill served his last Air Force assignment before retirement. After a full career in oncology, palliative medicine and hospice Brenda also retired. As retired volunteers, Brenda and Bill thrive on serving those in need.

Bill was diagnosed with Parkinson's Disease in 2016. He says his PD is slow moving/ progressing. Bill works diligently at a program featuring vigorous exercise. He credits exercise and rigidly maintaining a healthy diet with his success.

Whether they live in Colorado Springs or Japan, or elsewhere around the world Brenda and Bill Hicks epitomize service beyond self. For that CSPSG thanks them.

Summer Picnic – Saturday, August 13th, 11am – 1pm

(...continued from page 1)

Wind around until you see the windmill the and large pavilions with the green roofs. The easiest parking lot is the one to the right (east, next to the HOUSE pavilion) - no inclines or ramps. There is another parking lot on the west side of the 3 large pavilions next to the BUNKHOUSE pavilion but you have to

navigate an incline (ramp) to reach the pavilions.

Main Dish - your choice of fried or baked chicken & water will be furnished. If you would like to drink something else, please bring your own.

In order to assure that we have a good variety of side dishes, Bill would like for you to let him know what you're bringing to the picnic by contacting him at ////////// or potluck@co-parkinson.org.

Attire - if you own one, wear your 'safety green' (actually vellow) Parkinson's neon shirts so we stand out in the crowd by 'glowing'. If not, wear whatever Parkinson's Support Group apparel you might have, otherwise, wear something comfortable.

There are picnic tables with seats furnished but you're welcome to bring a lawn chair. If you help set up or clean up, contact:

> Carole Henrichsen Janet Adams

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Recipe of the Month: Keto Beef Stew

Our low carb/good fat ketogenic study that was completed this past year showed incredible results. Not only was there remarkable improve ment in the symptoms of Parkinson's but also with overall health in general (including the health of the caregivers who chose to change their diet along with their Parkinsonians). Since it seems clear that everyone's health would improve exponentially if we all changed our diet to eat this way and since we have potlucks, we thought we would feature an easy low carb/good fat recipe or two in the newsletter each month to promote healthy eating at our potlucks.

If you have a favorite low carb/good fat recipe you'd like to share, please send it to Julie at db_mgr@co-parkinson.org. Ingredients: 1 1/2 lbs chuck roast, 1" pieces sea salt & pepper 3 Tbl olive oil

1 shallot, diced 3 celery stalks, diced 1 tsp garlic powder

Rub beef pieces all over with 1 1/2 tsp salt and 1/2 tsp pepper; let sit at room temp for 30 to 60 minutes.

Heat olive oil in Dutch oven over medium heat. In batches, add beef pieces in one layer, not touching, sear all sides until golden brown, 5-7 minutes. Remove and set aside. Repeat.

Add shallots and cook, stirring often, until softened, 1-2 minutes. Add celery and mushrooms and cook, stirring often, for 3 minutes. Add garlic powder, thyme and Worcestershire sauce and cook 1

1 tsp dried thyme 1/2 lb white mushrooms, quartered 1 T Worcestershire sauce 1 quart beef broth 1/2 lb green beans

6 radishes, quartered 1 tsp xanthan gum 1/4 C chopped parsley, for garnish

minute, stirring and scraping the brown bits off bottom of pot. Add beef broth and scrape brown bits for 1 minute. Return beef and juices to pot and bring to boil. Reduce to simmer, cover and cook for 45 minutes.

Add green beans and simmer for 10 minutes with lid slightly open. Stir in radishes and simmer 5 minutes.

Gradually sprinkle in xanthan gum, mixing until incorporated. Season to taste with salt and pepper and serve.

Potluck Favorites - Shakin' & Bakin' Cookbook!!!

ver the years, we have shared some delicious potluck dishes at our monthly meetings and many of you have expressed interest in making those recipes available to the membership. It just so happens that years ago, probably close to 30 years ago, the support group did put together a cookbook featuring some of the group's favorite potluck recipes.

Sherry Whitaker has volunteered to lead a new effort to add new favorite recipes to the original cookbook using your favorite recipes – old or new family recipes, newly discovered favorite recipes, etc. We only want recipes that you have actually tried and liked - not ones that you think should be good but haven't tried or tasted. They don't have to be gluten -free or Keto. We will, however, indicate which ones fit those categories. We will also add a conversion table that will tell you how to convert ordinary recipes into gluten-free or Keto recipes if you would like to know how to do that.

> All favorite recipes are welcome Send them to Sherry at project@co-parkinson.org.

Vibration device may help ease resting tremors in Parkinson's disease

By Denise Mann, HealthDay News

Physiotherapist David Putrino was working on a vibrating glove to help The study was not designed to show it or how well the device works, deaf people experience live music when a friend mentioned that the same technology might stop tremors in people with Parkinson's disease.

Putino, director of rehabilitation innovation for Mount Sinai Health System in New York City, was intrigues. The friend's father had Parkinson's, so they placed the new device on his wrist, and the tremors stopped in their tracks.

"He was a former pianist and sat down and started playing. It was quite dramatic," Putrino recalled.

And that's when Putrino and his team pivoted and began investigating the new device for Parkinson's-related tremors.

A new study shows that they're on to something. The device, which is worn on the wrist or ankle and is roughly the size and weight of a smartwatch, may be a safe and effective way to reduce resting tremors in people with Parkinson's disease.

The technology sends signals to the brain to disrupt the abnormal rhythms that cause resting tremors.

The typical Parkinson's tremor tends to occur when muscles are relaxed, such as when hands are resting on the lap. The tremors tend to lessen when the body is engaged in another activity.

"Drugs and even some of the more invasive interventions like deep brain stimulation (DBS) therapy aim to break up the abnormal synchrony between brain regions to improve symptoms" for Parkinson's patients, Putrino explained.

For the new study, 44 people with Parkinson's used the device on their wrists or ankles with two vibration patterns to make sure it was safe.

The answer was yes.

"Patients did not report any serious adverse events," Putrino said. "Some people turned the intensity down, while others said it was pleasant."

but most folks reported a reduction in tremors while receiving the vibrating pulses.

"Sending competing messages to the brain to disrupt abnormal synchronicity through the wrist or ankles can help stop tremors." Putrino said.

The next step is a larger study comparing the device to a placebo device for daily use, he said.

If follow-up studies show similar results, the device may be here sooner than you know. "There is no reason why this can't be made within five years as long as studies continue to be encouraging, and we continue to see no adverse reactions," Putrino said.

The device won't be a panacea for other types of tremors with different neurologic cause. Researchers do plan to study the vibrating device in spinal cord injury, stroke and other types of neurologic disabilities, he said. It's now being used to allow deaf people to experience live music.

The findings were published this month in the journal Frontiers in Human Neuroscience.

Dr. Michele Tagliati, director of the Movement Disorders Program at Cedars-Sinai in Los Angeles, reviewed the findings.

"Tremor in Parkinson's disease is an interesting symptom, but it is often not the most disabling symptom," he said.

There aren't great ways to treat tremors in Parkinson's disease right now. Surgeries such as that for DBS are extremely effective but they are invasive and not everyone is a candidate. Medication such as levodopa doesn't always curb tremors either.

"We don't have perfect control of tremors, so a noninvasive method would be really nice," Tagliati said. But it's too early to say whether this device will fill this need. "More study is needed before any conclusions can be drawn about this wearable device," he added.



PARKINSON'S PERSPECTIVE

Other Local Support Groups: Due to Coronavirus concerns, check ahead to see if canceled					Other Opportunities: <i>Due to Coronavirus concerns, check ahead to see if canceled</i>					
Parkinson's Caregivers Support Group All family caregivers of persons with Parkinson's are invited to come and participate in our discussion meetings. We meet the 3rd Thursday of each month from 10:00 to 12:00 at 6310 Gemstone Way, Colo Spgs, 80918 Contact Brenda Hicks at bbhicks54@gmail.com or //////////////////////////////////	Tri- Park Suppo Meets the 3 every month Monumer Presbyte 238 3rd Stra For more info Barry Ha bhanenbu@ Syble Krat	Tri-Lakes Parkinson's Support Group Meets the 3rd Saturday of every month at 10 am at the Monument Community Presbyterian Church, 238 3rd Street, Monument. For more information contact Barry Hanenburg at bhanenbu@hotmail.com or Syble Krafft at ////////////////////////////////			Adult Speech Therapy at Home Outpatient speech therapy services conducted in the comfort of the patient's home. Personalized speech therapy for restoration of function due to illness or injury. Treating: Parkinson's: Voice & Swallowing Swallowing - SPEAK OUT! - Neuromuscular Electrical Stimulation - LSVT, an evidenced based voice Therapy Parkinson's patients - Respiratory Muscle Strength Training Parkinson's patients Aphasia following stroke Cognitive-Linguistic Deficits For more info, contact Jana Hothan, MA, CCC-SLP at slp@janahothan.com or by phone at (719) 338-8165.					
Essential Tremor Support Group Meeting Location: ENT Conference Room Pikes Peak Library District. Colorado Springs Library 21c, 1175 Chapel Hills Drive. For meeting dates/times or for questions, contact Jim Sanchez at ////////////////////////////////////	Ladies w/ Suppo If you an person, plo voluntee this valu If you're pleas Julie I db_mgr@cc or ////				Parkinson's Sing-a-Long Group No music experience necessary! Join board certified music therapist, Heather Johnson, every Monday at 1 pm as we participate in group singing focused on improving breath control, strengthening of the throat muscles, and improving voice control, volume, and quality! Parkinson's Sing-a-Long is held at Square Music Co located at 2332 Vickers Drive in Colorado Springs. An online participation option is available as well. Square Music Co also offers individual music therapy to work towards motor movement goals along with the voice qualities listed above. For more information or to sign up, please email heather@squaremusic.co or call/text 719-345-2887.					
BORN IN JULY HAPPY BIRTHDAY! ENJOY YOUR MONTH!	Alexander Anne Farlow Ivin Anderson Ken Farlow n Binkley Shelly Fly ıry Bradley Shirley Gloss an A. Carlson Rex Helmsing Ily Clark John Henrick ala Cobey Delories Heyl ıdy de Naray Brenda Jense			-Soler g s liger en	Gary Jensen Heather Johnso Vern McDonne Patricia Meredi Ruth Modaff Beverly Noe Julie Pfarrer Steve Telatnik	on II th	Thank You!	Thanks to Al brought food those that h set up & clea the last mee	L who and to elped nup at eting!	
BORN IN AUGUST	Kathy Ader Bethany Andreen Randall Austin Allen Beauchamp Charles Bogues Sharon Carlson Barbara Carr James Coen	athy AderMarc Ciethany Andreen-BaileyLarry Ctandall AustinMike DIlen BeauchampReva Etharles BoguesJune Esharon CarlsonLarry Csarbara CarrLorrainames CoenSonya			ollins Roger Hill ostello John Hobson avis Lowell Kayso oler Micheal Lipp ising Carl McKelli rubaugh Jim Prior ⇒ Helminski Frank Quida Hero Lil Ray			Ill out the membership form and chec Catherine Reed Mark Ruport Alfredo Serrano Mary Taylor Bruce Terrell Laura Torgerson Alice Wilson Carol Zier	k BD listed "YES".	
July & August Executive Committee Meetings July 12th and August 16th at 11:00 a.m. Location: Place to be determined (you will be notified by email) Contact Jill at president@co-parkinson.org if you haven't been to an Executive Meeting so we will know that you're coming. Leave your email address so Jill can contact you if anything changes.										
	wheeled walker	1		ercise pedale			Swivel seat		1	
LENDING LOCKER INVENTORY Ba Be Note: A stair chair lift system has been donated to us. It's a seat on a rail that takes you up and down a staircase. This one is for a 14 step or less straight staircase with no turns. If you would like to borrow any of the equipment listed here, please contact: Rich Sauvain at ////////////////////////////////////	k brace 1				1	Toilet arm assist		1		
	d cane			Lift chairs			Toilet seats		3	
	d pan	1	Lift-ware t	rremor ating utensils		1 set	Transport ch	airs	3	
	d rails	ails 1		Pick-up assist			Tub rail 2			
	d risers	s 1 set Shower b		enches		9	U-step		4	
	dside toilets	de toilets 6 Sock he		er		2	Walkers with wheels & seat 11			
	nes	s 7 Stair cha		rail system		1	Wheelchairs		7	

Crutches

2 sets

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PD Exercise Classes: Due to Coronavirus concerns, check ahead to see if canceled

Dance for Parkinson's

Moving with joy, creativity, and community to support people living with Parkinson's.

All are welcome and care partners are encouraged to move with us!

Classes meet in person every Friday at 11:00 am at Ormao Dance Company, 10 S. Spruce Street \$5/class. Free for care partners.

You can also join us for this class online. Visit our website www.ormaodance.org and click on "Dance for Parkinson's" under the "Outreach" tab to get the Zoom link.

Questions: Contact Laura at laura.hymers@gmail.com or 719-640-8478.

UCCS Center for Active Living - at the Lane Center

Power Moves group exercise and Balance & Agility classes. For more information call (719) 255-8004 or email CAL@uccs.edu.

PWR!Moves Class

Skyline Wellness & Aquatics Center is partnering with the YMCA to help the PWR! Moves class be more available to everyone. We are reaching out to help individuals who may be located on the south side of town and need a closer location to their

home. We are located within Brookdale Skyline at 2365 Patriot Heights near Bear Creek Dog Park. Our classes are held every Tuesday and Thursday from 12:30-1:30 pm. If you have any questions, please contact the Fitness Coordinator Karisa Dreyer at (719) 867-4658

PWP: Parkinson's With Poles

Come join Emily Moncheski and Eileen O'Reilly for a great exercise workout at Monument Valley Park. Every Friday, 9 am at the north parking entrance of Fontanero and Culebra streets. Poles are provided. Everyone is welcome.

Max Capacity NeuroFitness is offering PWR Boot Camp classes, donation based Power Punch Boxing, pole walking classes and individual PD specific fitness training. NEW LOCATION: 525 E. Fountain Blvd. Suite 150. Park on the S. Royer side of the building. Boxing: Tues/Thur - 4:00 to 5:00pm and Sat - 9:00am to 10:00am PWR Boot Camp: Mon/Wed -3:30pm to 4:30pm Boxing is free of charge, Boot Camp packages available! Contact Emily Moncheski at (719) 213-3996 or emily@maxcapacitypt.com for info.

NIA Class

Moving to Heal – the art of feeling better; slower movements with joy and purpose. NIA works with balance, breath, cognitive mind/

body function, mobility and stability. You can go at your own pace. Stop if you want, sit down and dance while sitting in a chair for a while. All while dancing to music from all genres; Jane, the instructor, often asks what we need that day and works her routine around what can help. She has done a wonderful job making the routines fit our Parkinson's needs.

When: Every Friday at 10:30 Location: 525 East Fountain Blvd. MACS-corner of Fountain & Royer Cost: \$10.00 a class.

Coronavirus and Parkinson's Disease For information on coronavirus and Parkinson's Disease go to: www.parkinson.org/CoronaVirus.

YMCA PD Exercise Classes

We utilize exercise as medicine to increase quality of life so that you can get better and stay better.

NOTE: All classes have been suspended except the following:

Tri-Lakes YMCA: PWR!Moves Tuesday & Thursday, 1:30-2:30 PM

Briargate YMCA: PWR!Moves Monday, Wednesday & Friday, 1:30-2:30 PM

For more information contact Jamie Clayton at jclayton@ppymca.org

NeuroRehab Project at ORA Water and Movement Classes

Note: We were told that these classes have been discontinued, check ahead to see if canceled.

Improve your mobility in the water: We offer warm water (92 degrees) pool classes for people with movement disorders. Mondays and Wednesdays from 1:30-2:30. \$10.

Parkinson's Wellness Recovery Exercise Class:

Power Moderate level. Fri at 1:30. \$10 Parkinson's Wellness Recovery Exercise Class:

Power Advanced level. Wed at 1:30. \$10. Danielle Spivey, PT and Rachel Johnson, SLP have created these opportunities to augment skilled Physical and Speech Therapy.

Location: Pikes Peak Athletics, 602 Elkton Drive in Rockrimmon. Please call us at (719) 559-0680 for information and to get signed up.

A CPF Charitable Giving Opportunity!

Another reminder about an easy and painless way for you to help CPF. An ongoing charitable giving opportunity each time you order merchandise from Amazon. It's called **Amazon Smile**. Colorado Parkinson Foundation (which includes CSPSG and all its other support groups) is listed with Amazon Smile as a charity that you can generate donations for. Rather than starting your Amazon shopping by pulling up **Amazon.com**, type in **SMILE.AMAZON.COM** instead.

The first time you do that you will have to designate Colorado Parkinson Foundation, Inc. as the recipient of charitable donations based on your purchases. From then on 0.5% of the eligible purchase prices you place through Amazon Smile will automatically generate donations from Amazon to CPF – at no cost to you!

PARKINSON'S PERSPECTIVE

Inflammatory Markers, Sleep Disorder Linked in Parkinson's

By Lindsey Shapiro, PhD - Parkinson's New Today, 5/27/22

monocyte ratio (LMR), two indicators of systemic inflammation, were associated with the presence of rapid eye movement (REM) sleep behavior disorder (RBD) in people with Parkinson's disease, a study found.

Patients with RBD also had worse cognition than those who did not.

The findings suggest that "inflammatory factors are associated with the pathogenesis of RBD in [Parkinson's] patients." The researchers wrote, noting that they could serve as potential RBD biomarkers in Parkinson's.

"However, the role of peripheral [outside the brain and spinal cord] inflammation in disease progression still needs to be elucidated in a larger sample size," they said.

The study, "Peripheral Blood Inflammatory Cytokines are Associated with Rapid Eye Movement Sleep Behavior Disorder in Parkinson's Disease," was published in Neuroscience Letters.

During the REM phase of sleep, the brain is very active and dreams are particularly vivid. Normally, changes in brain signaling cause the muscles to lose tone, "paralyzing" the body and preventing it from moving too much in response to dreams.

RBD is common non-motor symptom of Parkinson's wherein this paralysis does not occur, leading to violent and complex movements while dreaming. Such movements can lead to serious injury to the person or those near them during sleep.

Recent research suggests that inflammation may play a role in causing RBD, but the mechanisms through which it does so are not clear.

A research team in Chine examined that potential association by measuring blood levels of inflammatory markers in Parkinson's patients with or without RBD, and a group of healthy volunteers.

A total of 153 patients were rerolled; 60 had RBD and 93 did not. An additional 36 healthy people were also enrolled.

In general, baseline characteristics did not differ between the two pa-

Blood levels of c-reactive protein (CRP) and the lymphocyte-to- tient groups. Motor symptoms, general sleepiness, and medication doses were comparable. But levels of inflammatory markers were different.

> In particular, patients with RBD had higher levels of CRP, a biomarker of acute inflammation. They also had increased levels of monocytes an immune cell type previously associated with non-motor Parkinson's symptoms - and decreased levels of lymphocytes, a family of infection fighting white blood cells.

> Those with RBD had a higher neutrophil-to-lymphocyte ratio, and a lower lymphocyte-to-monocyte ratio (LMR), both of which are indicators of systemic inflammation.

> An analysis also showed that levels of CRP and the LMR were significant predictive factors of RBD, with increased CRP being a risk factor and a higher LMR ratio being a protective factor. Both have been previously associated with Parkinson's, the researchers noted.

> Blood CRP concentrations over 5.05 mg/mL were predictive of RBD, and an LMR of 4.125 was also predictive, according to the researchers.

> "These results indicated that CRP level and LMR were independent contributors to [Parkinson's]-RBD, with CRP level seeming to have greater predictive value," they wrote.

> Cognitive performance was lower among patients with RBD, as measured by the Montreal Cognitive Assessment and the Mini-Mental State Examination.

> "[Parkinson's] patients with RBD had higher inflammatory indicators and worse cognition; therefore, our results indicate that RBS may affect cognitive function due to increased inflammation," the researchers wrote.

> Overall, the findings "present new information on the role of inflammatory factors in the onset of RBD and provide new opportunities for potential treatments," they added. "CRP and LMR levels may serve as biomarkers and predict the prognosis of [Parkinson's] patients with RBD.'

Two Exercise Programs Improve Dexterity, Quality of Life: Study

By Marisa Wexler, MS - Parkinson's New Today, 5/4/22

Two different types of rehabilitation-focused exercise programs - activity-based training and strength exercise - improved measures of dexterity and upper limb function in a small clinical trial of people with Parkinson's disease.

The study, "Effect of Activity-Based Training Versus Stengthening Exercises on Upper Extremity Functions in Parkinson's Patients; A randomized Controlled, Single Blind, Superiority Trial," was published in Clinical Neurology and Neurosurgery.

Parkinson's motor symptoms, such as resting tremor, bradykinesia (slowness of movement), or postural instability, significantly affect upper extremity functions, dexterity, and activities of daily living. For this reason, rehabilitation programs "should be implemented in addition to pharmacological treatments to improve the dexterity and functional activities: of those with Parkinson's the researchers wrote.

A team of Turkish researchers enrolled 40 adults with idiopathic (non-familial) Parkinson's. the participants were randomly assigned to one of two types of training, done

five days a week for six weeks.

One intervention, called activity-based training (ABT), involves a series of exercises that are broadly intended to help patients practice doing activities they might encounter in daily life. For example, patients might work on manipulating door handles and locks, using scissors, or fastening buttons. Along with directly practicing day-to-day tasks, the intervention involves a number of exercises, aimed at improving dexterity and hand-eye coordination.

The other intervention, called strengthening exercise (SE), was a more conventional regimen targeting the upper arms and consisting of lifting weights. Both interventions were done under the guidance of expert therapists.

At the start and end of the study, participants underwent a number of standardized measures of coordination and hand function. In particular, the Nine Hole Peg Test (9HPT) and Jebsen Taylor Hand Function Test (JTHFT) were used to measure upper arm function and dexterity.

Overall scores on both the 9HPT and the JTHFT improved significantly following the exercise interventions with no significant differences between them. Some subscores on the JTHFT - specifically reflecting participants' ability to grip and lift light objects were significantly better in the ABT group compared to the SE group.

Other measures of disability and quality of life also generally improved after the interventions with no notable differences between the groups. This finding "emphasizes the importance of rehabilitation on quality of life," the researchers wrote.

"Our results showed that both SE and ABT programs had positive effects on hand dexterity, motor functions and grip strengths... quality of life, and the level of disability in IPD [idiopathic Parkinson's disease], the scientists concluded.

The researchers noted that the study was small and that more research was needed to identify the best strategies for improving Parkinson's patients' physical functioning abilities.

Cdk5 Inhibitor Shows Early Potential in Easing Anxiety, Aiding Neurons

By Marta Figueiredo, PhD - Parkinson's New Today, 5/26/22

(Cdk5) - an enzyme whose activity is associated with neuropsychiatric and neurodegenerative conditions - that can robustly enter the brain and appears to be more potent than previous, similar molecules.

When injected into the bloodstream, the new molecule, named 25-106, was shown to reduce anxiety- and depression-like behaviors in mice, supporting further studies in animal models of conditions that include Parkinson's disease.

Developing a Cdk5 inhibitor that can be administered directly into the bloodstream and effectively reach the brain "may be considered a step forward toward the testing of Cdk5 inhibitors [suppressors] to treat neuropsychiatric and neurodegenerative diseases," James Bibb, PhD, the study's senior author and a professor and vice chair of basic research at the University of Alabama at Birmingham (UAB), said in a press release.

"This provides a promising landscape for future studies to assess the effects of brain-permeable Cdk5 inhibitors to combat stress, anxiety, depression, addiction, cancer and neurodegeneration," Bibb added.

More research is needed to better understand 25-106's safety profile and whether derivatives of this molecule may show even greater functional and pharmacological features, the study note.

Findings were detailed in the study "Systemic Administration of a Brain Permeable Cdk5 Inhibitor Alters Neurobehavior," published in the journal Frontiers in Pharmacology.

Cdk5 is an enzyme mainly produced by mature nerve cells. Its dysregulated activity has been implicated "in various neuropsychiatric and neurodegenerative conditions such as stress, anxiety, depression, addiction, Alzheimer's disease, and Parkinson's disease," the researchers wrote.

Notably, several Cdk5 suppressors have been shown to reduce stress and anxiety-like behaviors, have neuroprotective effects, and lessen neurodegeneration in animal models, but none "has proven effective in clinical trials," they added.

This is mainly due to these molecules' poor specificity - which is associated with its effects on molecules other than Cdk5, called off-targets, and greater toxicity - and limited ability to cross the blood-brain barrier.

This barrier, a highly selective membrane, tightly regulates what substances from the blood stream can access the central nervous system (CNS; the brain and spinal cord), and crossing it is often a challenge for CNS-targeting therapies.

Bibb and colleagues at UAB and other U.S. institutions developed 25-106, a

Researchers have developed a new suppressor of cyclin-dependent kinase 5 Cdk5 inhibitor that can be delivered directly into the bloodstream (also known as systemic delivery) and robustly cross the blood-brain barrier.

> The molecule was created based on similar compounds known to block Cdk5, and carried chemical modifications that were expected to strengthen its pharmacological properties.

> 25-106 was shown to suppress Cdk5 activity in a dose-dependent manner in lab -grown mouse brain slices and to rapidly reach the brain when delivered directly into the mice's blood stream. In addition, the molecule was still detected in the brain 24 hours after injection.

> Its use was also seen to reduce anxiety- and depression-like behaviors in these mice, similar to effects reported in previous studies of mice lacking Cdk5.

> These findings indicated that "25-106 modulated several ... behaviors that have previously been linked to Cdk5," the researchers wrote.

> Molecular modeling showed that 25-106 likely binds to the same Cdk5 region as the well-established Cdk5 inhibitor roscovitine (also known as seliciclib), but with greater strength.

> This may explain 25-106's apparently superior effects over roscovitine observed in this study, the team noted.

> Similar to other Cdk5 inhibitors, 25-106 was found to block another cyclindependent kinase, Cdk2. However, very low levels of Cdk2 are found in the brain and other Cdk5 suppressors were shown to be more selective for Cdk5 than Cdk2.

> "Any off-target or toxic effects of systemic [whole-body] inhibition of Cdk2 by 25-106 remain unknown," the researchers wrote.

> The molecule "was also well-absorbed by peripheral tissues such as the liver and kidney, which could contribute to off-target effects or toxicity arising from prolonged treatment," they added.

> As such, further studies are needed to comprehensively evaluate 25-106's safety profile and "the development of derivatives of 25-106 with greater brain permeability and tissue specificity is a reasonable goal," the researchers wrote.

> "Altogether, 25-106 represents a promising preclinical Cdk5 inhibitor that can be systemically administered with significant potential as a neurological/ neuropsychiatric therapeutic," the researchers concluded.

> "As perhaps the first robust systemic inhibitor," 25-106 may also be an effective "tool to study the function of Cdk5 activity in [healthy] animals," Bibb said.

Compound show promise for minimizing erratic movements in Parkinson's patients

A new study from Texas Biomedical Research Institute (Texas Biomed) and collaborators has identified a promising drug candidate to minimize uncontrolled, erratic muscle movements, call dyskinesia, associated with Parkinson's disease.

The small molecule, call PD13R, educed dvskinesia y more than 85% in the marmoset animal model of Parkinson's disease. Additionally, the animals got much better sleep taking this compound compared to another drug often prescribed for dyskinesia. The results were published in the journal Experimental Neurology.

Dyskinesia is a common side effect in patients with Parkinson's disease. It is not a symptom of the disease itself, but typically emerges about five years into takin levodopa, the leading medication used to restore balance, reduce shaking and manage other of compounds for their antipsychotic properties, to motor control issues patients experience.

side effects. If we can eliminate these side effects, it well the compound targeted the D3 receptor comcould change the life of patients with Parkinson's," says Marcel Daadi, Ph.D., an associate professor at tests. They found it had a 1,486-times higher selec-

By Texas Biomedical Research Institute, Dec. 1, 2021

Texas Biomed and lead paper author.

Designing drugs for Parkinson's and its side effects is notoriously difficult. This is in part due to the progressive nature of the disease as neurons deteriorate, and because it involves the neurotransmitter dopamine. There are five types of dopamine receptors, all with different functions, yet very similar structures. Finding a compound that only interacts with the desire receptor is a major challenge.

To try to identify a compound that only binds to dopamine receptor #3(D3), Daadi teamed up with Southwest Research Institute. SwRI's drug discovery software Rhodium[™] identified PD13R as a likely candidate and predicted how it would bind to D3. Daadi reached out to medicinal chemists at Temple University, who are currently working on this class synthesize the compound.

"Levodopa is amazing, it works like magic, but it has Daadi and his team at Texas Biomed explored how pared to the other dopamine receptors in cell culture

tivity for D3 than for D2, which is the most similar in structure.

The team then administered PD13R to marmoset animal model of Parkinson/s. like human patients, the nonhuman primates developed dyskinesia after receiving levodopa. When treated with PD13R. dyskinesia dropped dramatically.

"We are very excited to see the robust antidyskinetic effect of the drug," Daadi explains.

The animals wore activity monitors, and with PD13R, their activity was low at night, when they normally sleep. In contrast, when given a different drug currently on the market for dyskinesia, their nighttime activity was significantly high, suggesting that PD13R may be a good treatment option without this side effect.

Daadi and his team plan to continue with safety and efficacy studies required by the U.S. Food and Drug Administration (FDA) before human clinical trials can begin. "I am very hopeful we can move this into Phase 1 clinical trials within two years," Daadi says.



Help us spread some sunshine to our members!

If you know of a Parkinsonian or PD caregiver that is having a tough time (illness, surgery) or one of our members has passed away, please let our Sunshine Chairman, Sharon Carlson know.

Colorado Parkinson Foundation, Inc.

1155 Kelly Johnson Blvd. Suite # 111 Colorado Springs, CO 80920

