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UPCOMING EVENTS

Surrey Regional Conference

Saturday, March 28, 2015 - 10:00am to 4:00pm

Comfort Inn & Suites | 8255 - 166 Street, Surrey ([map](#))

Parkinson's is a journey of different stages and challenges. Learn from leading experts in the field to help you live well at every stage.

Information & registration: www.parkinson.bc.ca/Surrey-Conference

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Annual General Meeting

Saturday, April 11, 2015 - 9:45am to 12:30pm

Broadway Church | 2700 East Broadway, Vancouver ([map](#))

Join us as the Board Chair provides a summary of 2014 and Dr. Jon Stoessel shares highlights of the latest PD research. Later, get moving by participating in an interactive session on Dance for PD® led by Jo-Ann Gordon (from New York's Mark Morris Dance Group).

Please be advised that this is a members only event and registration is required for attendance. If you are a non-member interested in attending the AGM and educational sessions, membership with the Society is offered at an annual fee of \$25. This fee allows you and your family to take advantage of all benefits for the year.

Parking is available on site and the venue is wheelchair accessible. Light refreshments will be provided.

More details available soon at www.parkinson.bc.ca/education-events.

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Save the Date! Voice & Swallow Seminar - Kelowna

Wednesday, April 29 and Thursday, April 30, 2015 - 10:00am to 3:00pm

Ramada Hotel & Conference Centre | 2170 Harvey Avenue, Kelowna ([map](#))

This two-day event will focus on the voice and swallowing challenges faced by people living with Parkinson's. It will be an interactive and participatory format and all levels of voice and swallow disorder will be included.

More details available soon at www.parkinson.bc.ca/education-events.

DISCUSSION TOPIC: COGNITIVE HEALTH

Introduce the topic by asking these questions:

1. What problems have you had with your cognitive health?
2. What strategies do you use to manage your cognitive health?

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Exercise, healthy eating, spending time with family and friends, doing crosswords and puzzles and a good night's sleep are just some of the habits that help to preserve your brain health and memory.

Challenge yourself and enhance cognitive health

Visit your community or senior center to see what programs are available to you and your family.

Ask your healthcare provider for a referral to an occupational, recreational, art or physical therapist to help you get started with recommendations listed below.

- Devote a calendar to scheduling these activities. Pace yourself and have fun.
- Get plenty of sleep, pay attention to your diet and be sure to get the fluids you need throughout the day.

Increase physical activity

- See your primary doctor or neurologist to be sure you are safe to exercise.
- Get a physical therapy consultation to develop the best and safest exercise program for you.
- Exercise five times a week.
- Don't do it alone: Involve family, a buddy, walk in the park, go to exercise or yoga class.
- Yoga and Tai Chi give extra benefits of relaxation.
- Dance and music add fun, joy and allow creative expression.

Flex your "thinking muscles"

- Take a class, 'go back to college' and attend lectures.
- Read or listen to documentaries, books on tape.
- Do mind teasers such as computer or video games, puzzles.
- Play cards: bridge, poker, even solitaire.

Engage socially

- Attend support groups.
- Volunteer for a cause.
- Join PSBC's Advocacy Group.

Combine social benefits with that of exercise, creativity and fun by:

- Taking a painting or arts class, acting class, dancing class.
- Joining a poetry or book group.
- Joining a coffee hour, movie night or making your own get together.

DISCUSSION TOPIC: COGNITIVE HEALTH

The following table* lists specific functions, activities or games that build on these functions:

| | |
|-----------------|---|
| Language | Reading, journaling |
| Visual scanning | Video games, puzzles, drawing, painting and crafts |
| Multi-tasking | Any complex task: cooking, assembling furniture |
| Planning | Card games, strategy games such as bridge, poker |
| Problem solving | Strategy games |
| Memory | Jigsaw puzzles |
| Coordination | Games, jigsaw puzzles, painting, playing musical instrument, constructional games |
| Speech | Reading aloud, singing and attending social groups can help maintain speech |
| Calculation | Games requiring calculation skills such as Suduko |

*Reprinted with permission by Dr. Monique Giroux, MD and the Northwest Parkinson Foundation.

RESEARCH

RESEARCH DISCLAIMER

Our monthly updates are a collection of recent articles that we have found on the Internet and in publications. They are offered solely on an informational basis. PSBC does not research or investigate the articles further and we do not provide additional follow up to verify that they are anything other than interesting. We urge you to do your own follow up on any of the information found in the articles presented. ***If you have any questions or concerns about the information contained in the articles ALWAYS check with your doctor.***

Research Profile: Naila Kuhlmann How One Parkinson's Gene can Change the Shape and Function of Brain Cells

Research Project: Morphological and electrophysiological investigation of the role of LRRK2 in activity-dependent striatal synaptic plasticity.

Pilot Project Grant: \$30,000 over two years

Project Description:

"I want to identify the characteristics at the beginning of the disease, in order to be able to intervene at that stage."

One of the most fascinating areas of neuroscience concerns the plasticity of the brain – its ability to adapt and to form new connections in response to new information, or damage from injury or illness.

At the University of British Columbia's Djavad Mowafaghian Centre for Brain Health, graduate student Naila Kuhlmann studies the plasticity of neurons in the area of the brain called the striatum, which is affected in Parkinson's disease.

Kuhlmann examines the structure of the neurons themselves. She focuses on parts of the brain cells called dendrites, which look like tree branches, and the knobs on the cells called spines, where connections form to other cells. Kuhlmann studies the way changes in a gene called LRRK2 affects these neurons. Mutated forms of LRRK2 are the most commonly known genetic cause of Parkinson's disease. Kuhlmann investigates whether changes in the LRRK2 protein affect the transmission of chemicals among brain cells, and the structure of dendrites and spines.

"I'm looking at whether that mutation is having a direct effect on the structure of the neurons," Kuhlmann says. "Structure is related to function. We know that there's some kind of altered function in the pathology of Parkinson's disease."

If Kuhlmann can figure out how the mutated LRRK2 and its associated protein alter the structure of the other brain cells that regulate dopamine, the brain chemical required for muscle movement, that fundamental knowledge might help researchers design new drugs. They could then stop the progression of Parkinson's disease at a very early stage.

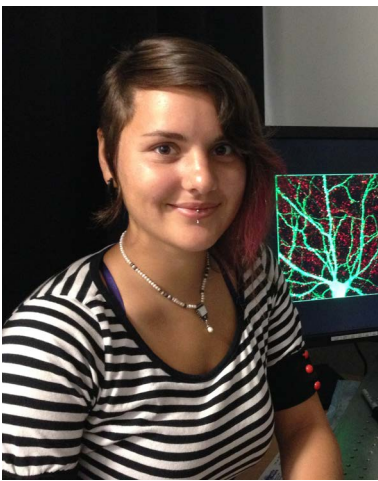
RESEARCH

(continued)

“Sometimes just varying the amount of protein could fix the problem,” Kuhlmann says. Identifying problems at the cellular level is important because if researchers determine where Parkinson’s disease originates, they may be able to intervene at that point.

Growing up, Kuhlmann had a family friend with Parkinson’s disease who was a fellow piano student. She was struck by how he gained better control of his movements when he played piano. She has thought often of her friend as she conducted her research – and his email encouraging her to keep going has inspired her.

“That was a really good moment to see who I’m affecting, and to know that people actually care about my research,” she says.



Biography:

Kuhlmann’s fascination with neuroscience began in high school, when she volunteered in a cognitive neuroscience lab at the University of Saskatchewan in order to get research experience. There, she got exposure to a number of language processing theories, and learned how to develop and conduct functional magnetic resonance imaging studies.

Kuhlmann proceeded to complete a BSc. double Honours (in Biology and Psychology) at the U of S, at which time she studied rodent models of neurodevelopmental disorders in Dr. John Howland’s lab. Through this research, she was able to examine the effects of perturbations in the prenatal environment on the cognitive and behavioural development of the (rat) offspring. In September 2013, she moved to Vancouver to start graduate studies at UBC, under Prof. Matt Farrer’s and Dr. Austen Milnerwood’s guidance at the Centre for Applied Neurogenetics (CAN).

Kuhlmann had been interested in studying neurodegenerative disorders, and was particularly intrigued by investigating the genetic basis of Parkinson’s and integrating this closely with molecular in vitro and in vivo methods. Joining CAN has given her the opportunity to use a myriad of sophisticated techniques to address her research questions, and collaborate with a number of experts in the field.

Kuhlmann’s current focus is examining synaptic and structural plasticity changes in transgenic mouse models of Parkinson’s disease, particularly with respect to LRRK2 PD-causing mutations. Her goal is to further elucidate the role of early synaptic alterations implicated in the pathophysiological progression of PD, which will aid in the development of intervening therapeutics.

CAREPARTNER'S CORNER

10 Reasons Why Music is Good for the Brain & Wellbeing



Studies show that music is a powerful stimulus for the brain, both emotionally and cognitively. This may be why it is such an important intervention in memory loss and overall health. When cognition is disappearing, when semantics, comprehension, working memory, and processing may be lost, music reaches into the emotional places where neural activity may be intact or at least somewhat active.

Individuals living with Parkinson's may find that they experience mild cognitive impairment. When memory begins to be disturbed, carepartners seek to find strategies which improve absorption of short-term events into long-term memory. Successful strategies which do this are making associations, emotional reaction or enhanced mood, repetition, organization and patterning of information, and humor.[i] Music possesses many of these elements. This may be why it is a useful trigger to remembering.

It is the connections of the auditory nerve to key limbic structures in the brain that account for such emotionally charged responses to familiar music. The limbic area of the mid-brain has been indicated in long-term memory storage and emotional processing. Familiar music is used as a trigger to spark memories from the past and help people connect to experiences that have been important and meaningful.

There are a number of reasons why music can be great for you, including:

- Supporting and stimulating memory.
- Personalized music may reduce agitated or combative behaviors.
- Individualized music helps to restructure identity and preserve the self.
- Music is a means of expression and non-verbal communication connecting with emotions and feelings.

- Music is an aesthetic experience reintroducing beauty and the spiritual life.
- Music may have a carryover effect which impacts connections or appropriate behaviors for an extended period of time.
- Music can be implemented by carepartners.
- Music-making reaches psychosocial needs of persons like comfort, attachment, inclusion, occupation.
- Music makes connections in every domain.
- Music contributes to quality of life by enhancing socialization.

[i]Rio, R (2009). *Connecting through music with people with dementia: a guide for caregivers*. London: Jessica Kingsley Publishers.

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Source: Adapted from "[10 Reasons Why Music Works in Dementia Care](#)" by Bev Foster, Agecomfort.org Health Care Resource Centre

Image: Courtesy of [freeimages.com](#)

New Caregivers Support Group!

We are pleased to announce the North Shore Caregivers Support Group.

When: Every 4th Wednesday from 1:30 pm - 3:00 pm

Where: Amica | 659 Clyde Avenue, West Vancouver, BC

For more information, please contact:

Myriame Lepine Lyons

mlepinelyons@parkinson.bc.ca

604 662 3240 | 1 800 668 3330

NEWS



Move to Improve your wellbeing!

Studies show that exercise can help the brain through direct and indirect means. With this in mind, it's a great time to get active and **join The Parkinson's Movement!** Help PSBC raise awareness and critical funds for programs and services.

It's easy to participate. All you have to do is commit to an exercise goal between now and the end of April, register online, ask for pledges and get moving!

Move to improve! Join the movement at www.parkinson.bc.ca.

It's not too late to renew your membership!

It's not too late to become a 2015 PSBC member! For only \$25, you will receive an annual membership for you and your household valid until December 31, 2015.

Did you know your membership fee helps us:

- Support more people in need across British Columbia – no one should feel alone with this disease.
- Provide more education events with leaders in the field – knowledge is power!
- Develop more resources on diverse topics – everything you need, at your fingertips.

RENEW ONLINE NOW!

Cheques payable to Parkinson Society British Columbia and may be mailed to 600-890 West Pender Street, Vancouver, BC V6C 1J9.



Step by Step Program NOW RECRUITING TEAM LEADERS & PARTICIPANTS!

As part of PSBC's continued effort to bring you more services and programming, we're offering a new pilot program in communities across BC! Set to take place from April 11th to July 4th, Step by Step is a 12-week walking program aimed at incrementally improving the number of steps an individual takes per day. In participating communities a group leader will organize a weekly group walk which will allow participants to meet, socialize, and help motivate one another.

The following communities have already confirmed a group leader and are looking for participants: Abbotsford, Chilliwack, Cowichan, Kamloops, Maple Ridge/Pitt Meadows, Parksville and Prince George.

If you or someone you know would be interested in leading a Step by Step group or participating in your community, please contact Caroline Wiggins at cwiggins@parkinson.bc.ca or 604 662 3240 | 1 800 668 3330.

Volunteers needed for Speaker's Bureau

Are you knowledgeable and interested in Parkinson's disease?

Are you a retired health care professional, teacher or public speaker?

Would you be interested in spreading awareness to communities about Parkinson's disease?

THEN WE WANT YOU!

Parkinson Society British Columbia (PSBC) is starting a volunteer Speaker's Bureau! We're looking for individuals who are passionate, educated and experienced with Parkinson's disease and would be interested in sharing their knowledge with the public.

Parkinson Society British Columbia's Volunteer Speakers Bureau will help to:

- Offer presentations about PSBC and Parkinson's disease.
- Raise awareness and spread education about Parkinson's disease.
- Increase PSBC's outreach to communities.
- Increase public understanding of the Society and what our purpose, goals and services provide.

Qualifications:

- Experienced with or knowledgeable about Parkinson's disease.
- Comfortable presenting to large groups of people.
- Retired health care professional, teacher or public speaker.
- Ability to communicate effectively both verbally and in writing.
- Proficient computer skills: Word, PowerPoint and email.
- Ability to work independently.

If you think you have the skills, motivation and time to volunteer, we would be happy to hear from you! Please help us make a positive difference in communities across BC.

For more information contact:

Caroline Wiggins, Education and Support Services Coordinator

cwiggins@parkinson.bc.ca or 604 662 3240 | Toll-Free: 1 800 668 3330

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www.parkinson.bc.ca

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