

MULTA SPES

MUCH HOPE

Improving the Quality of Life for Those with MS since 1949

Winter 2013 / 2014: Issue

Practice Makes Myelin by Larry S. Sherman, Ph.D

How Learning to Play a Musical Instrument Could Influence Brain Function

Playing a musical instrument is one of the greatest challenges that a human brain can experience. Musicians must integrate many different sensory, motor, emotional and higher executive functions when they play their instruments, and each of these functions pose their own unique demands on the nervous system. Imagine that you are at the keyboard of a church organ and you are playing a piece of music. The first thing your brain must do is keep your body in position to play the organ. It must convert the visual information on the sheet music in front of you into instructions for how to move your arms, hands, fingers, legs, feet and toes. That information must travel from your brain, down your spinal cord, then through your arms to your fingers and through your legs to your toes. Meanwhile, nerves in your hands and feet are transmitting information back to your brain about the position of your hands, arms, legs and feet, and the amount of pressure your fingers and feet are applying to keys and pedals. While this two-way communication between your brain and extremities is moving along, you are also listening to the

music. Sound is entering your ears and is being processed by auditory centers in your brain, which are transmitting information to other areas of the brain that react to what you expect the music to sound like and simultaneously stimulating an emotional response to the music. In the middle of the piece you are playing, you start singing the lyrics that you are also reading from the sheet music. This poses a whole new set of challenges to your already very busy brain.

Playing a musical instrument is clearly very challenging but does it help your brain? A number of recent studies indicate that playing an instrument can have a number of affects on the brain that could indeed improve brain function. Remarkably, these effects influence the very same cellular processes that are affected in multiple sclerosis (MS). Many of the neurons (the cells that transmit electrical impulses in the nervous system) in our brains, spinal cords and peripheral nerves (the nerves outside the brain and spinal cord) are insulated by a substance called myelin. A neuron that has myelin transmits its electrical signals up

to one hundred times faster than a neuron without myelin. In MS, for reasons we still do not fully understand, the immune system attacks and destroys myelin as well as neurons in the brain and spinal cord. The neurons that survive these attacks but which are demyelinated now transmit their impulses much slower, causing problems with brain function.

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Multa Spes is the quarterly newsletter of the MSSP, distributed to MSers, consumers, families, professionals and friends.

Comments and articles are welcome. Publication depends on space available and is subject to editing. The next submission deadline is: 2/15/2014.

Please send submissions to Candyce Hayes, Executive Director, at: candycehayes@msoregon.org or mail: MSSP, 2901 SE 122nd Ave. Portland, OR 97236.

If you are not currently receiving Multa Spes by mail, we would be happy to add you to our mailing list. Direct all subscription requests or address changes to candycehayes@msoregon.org or call 503.297.9544.

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Director's Notes by Candyce Hayes



As we look to 2014 we are filled with excitement and anticipation. The year will bring informative and educational workshops, fun family-oriented social events, pain relief through acupuncture and massage, medical equipment and air conditioners to beat the heat for hundreds of individuals.

Our annual fundraiser, seasonal flu shots, was once again a great success. We thank our local businesses and properties for their continued support of this fundraiser. We will provide flu shots starting in September.

One of our goals this year is to extend the Summer Comfort program throughout the state of Oregon. While the program has always been open to all Oregonians we have been limited due to funding restrictions. Our new grantwriter, Miranda, is working hard preparing proposals to local foundations and corporations to increase program support.

We have several new programs in the pipeline which I will share with you in future issues. Until then, take care.

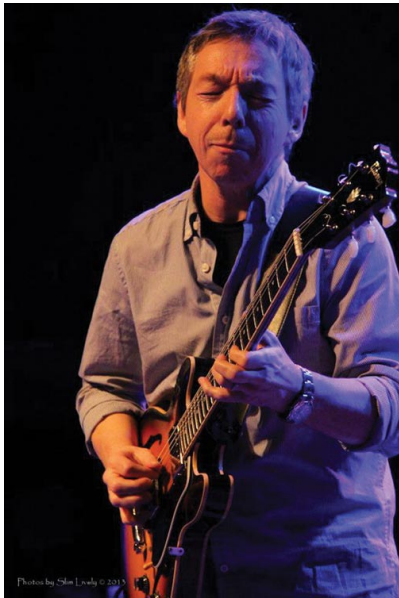
Vocational Rehabilitation by Jennifer Frank

OVRs-Oregon Vocational Rehabilitation Services is a statewide resource for people with disabilities and is part of the Department of Human Services. We assist individuals with disabilities in getting and keeping a job. Vocational Rehabilitation (VR) is a state and federally sponsored program. VR works in partnership with the community and businesses to develop employment opportunities for people with disabilities.

VR is a voluntary program. The first step is to attend an orientation session held weekly at most VR offices. To find the office nearest you, go to the website www.oregon.gov/dhs/vr and view the service directory. Orientation is on a "first come, first served basis," so call the office closest to you to learn of the date and time of the next orientation.

Eligibility is determined by identifying the barriers as a result of a disability that limit return to work. A Vocational Counselor will work with you to identify viable job goals and an individualized plan will be created to address the services needed to overcome the impediments to work. If you are a SSD or SSI recipient, benefits counseling is also provided to show you how it is possible to work and not lose your benefits.

Blues4MS IV Benefit Concert



The Multiple Sclerosis Society of Portland's (MSSP) fourth annual Blues 4MS concert is coming up on Sunday, March 2, 2014 at the Aladdin Theatre. Great thanks to the Cascade Blues Association for co-sponsoring the event and an even greater thanks to CBA's President Greg Johnson for putting together a spectacular line up.

The fun starts at 3 pm and will conclude around 9 pm. Here are the great folks who will be sharing their talents: The Fabulous Bad Cats, Soul Cookin', Rae Gordon Band, Robbie Laws Band, Karen Lovely, The Roseland Hunters.

A \$10 suggested donation is encouraged. Donations will remain in Oregon and SW Washington to support the local MS

community. MSSP seeks to improve the quality of life for those living with MS, including family members and caregivers. We help take care of the here and now needs.

This year, we are raffling a fabulous Normandy electric guitar, hand signed by the Doobie Brothers. Raffle tickets will be sold at \$5 each or 6/\$25. The winning tickets will be selected following the last set on March 2nd and the lucky ticket holders need not be present to win.

Come prepared to have a great time listening to some of the best blues talent around. In the meantime, go to www.blues4ms.org or call 503.297.9544 for more information.



Caregiver Classes

MSSP will offer your choice of four free caregiver classes during 2014 (see schedule below). These classes are offered to all (MS and non-MS) caregivers. They are taught by a registered nurse and held at the MSSP office at 2901 SE 122 Avenue, Portland, Oregon 97236.

Each 90-minute class will focus on basic transfer skills, hygiene and caregiver burnout. Certificates will be issued at the completion of each class.* Please note the MSSP doesn't offer CEU (continuing education units) certificates. The classes are geared towards family caregivers instead of nursing home assistants. RSVP is required. To register and learn more contact Kaisa at kaisa@msoregon.org or 503.297.9544.

CLASS SCHEDULE

(3rd Sundays from 2:00-3:30 pm)

March 16, 2014

May 18, 2014

July 20, 2014

Sept 21, 2014

RSVP DEADLINE

March 3, 2014

April 28, 2014

July 7, 2014

September 8, 2014

*REQUIREMENT

Requires minimum of one complete class attendance and may be cancelled depending on number of RSVPs

Practice Makes Myelin by Larry S. Sherman, Ph.D

How Learning to Play a Musical Instrument Could Influence Brain Function



Larry S. Sherman, Ph.D.
Department of Cell and Developmental Biology
Oregon Health & Science University
Division of Neuroscience
Oregon National Primate Research Center

Furthermore, the neurons that are lost in MS attacks are not replaced, causing even more problems. How can music help someone with a disease where myelin and neurons are being attacked this way?

If you think about the demands of learning to play a musical instrument (or learning any similar task) much of what we try to do as we learn an instrument requires our neurons to communicate at ever faster rates. While learning to play the piano, for example, your first attempts will be slow as you start to coordinate your fingers and feet while reading the music.

But over time, this coordination will become second nature and you will be able to play faster and perform more complex pieces of music. A number of recent studies have found that practicing a musical instrument leads to the generation of more myelin in the brain and, possibly, the generation of new neurons that form circuits or become parts of old circuits in the act of learning and developing memories required to play your instrument. A key to these studies is that this formation of myelin (a process called myelination) and the generation of new neurons (a process called neurogenesis)

likely only occur when you really push yourself to learn something new. A third process, called synaptogenesis, where neurons form connections and become parts of circuits, may also be induced by musical practice.

Does the myelination and neurogenesis induced by music practice improve the function of your brain for anything other than just playing an instrument? A number of studies suggest that compared to non-musicians, musicians have improved neurological function ranging from language skills to improved cognitive function. Musicians also appear to have an enhanced ability to sense small differences in objects with their fingers (so-called tactile discrimination). One study examining orchestral musicians suggested that as a group, musicians suffer less from dementia than non-musicians. Although many of these studies suffer from small numbers of subjects and other problems in their designs, collectively they suggest that practicing and performing music can have a broad number of neurological benefits.

It is unclear if musical practice can generate new myelin and new neurons to replace the specific cells that are lost following an MS attack. In addition, learning to play an instrument is obviously a very demanding task for someone who already has sensory and

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motor problems. However, it is not an impossible task. Olga Bobrovnikova, a Russian concert pianist, was diagnosed with MS early in her career. She has fought MS for many years by pushing herself to keep playing, constantly challenging her brain. She still performs and has written a soon-to-be-published book about her experiences and thoughts about

how music influences the human brain. Regarding what playing her piano does for her, she writes, "Each time I enter my lounge and touch my beautiful [piano], I have the feeling that my brain has been restored." While learning to play a musical instrument is challenging even for people who do not have MS, and undertaking such a task will certainly not fully restore the

brain of someone who does suffer from MS, the evidence reviewed here clearly suggests that music practice can promote processes that could at least improve brain function that in turn could slow MS progression. And, in the process of stimulating myelination, neurogenesis and synaptogenesis, one might just make some beautiful music.

Please join us for

Positive approaches to MS

An informative event designed to educate people with multiple sclerosis (MS) and their caregivers

Our featured speaker will discuss relapsing forms of MS, provide an overview of a once-daily oral therapy called AUBAGIO® (teriflunomide), and inform patients of available support.

Date: Wednesday, March 19, 2014

Date: Wednesday, April 9, 2014

Time: 6:30 PM Pacific

Time: 6:30 PM Pacific

Speaker: Kiren Kresa-Reahl, MD
Providence MS Center

Speaker: Stanley Cohan, MD
Providence MS Center

Location: Hilton Garden Inn
15520 Northwest Gateway Court
Beaverton, OR 97006

Location: Embassy Suites
7900 Northeast 82nd Avenue
Portland, OR 97220

reference ID TR237909

reference ID TR235476

Space is limited. To RSVP, please call 1-866-703-6293 or email GenzymePatientRSVP@ahmdirect.com and reference ID of event.

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Once-daily
AUBAGIO®
(teriflunomide) 14mg tablets

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WAYS TO SUPPORT MSSP

The Fabulous Bad Cats, Soul Cookin', Robbie Laws Band,
Rae Gordon Band, Karen Lovely, The Roseland Hunters

BLUES 4 MS
a benefit concert
the Multiple Sclerosis Society of Portland
2014
www.blues4ms.org

Sunday, March 2nd 2014
3:00pm - 9:00pm

MSSP

BENEFIT CONCERT - DONATIONS APPRECIATED.
Raffle: Normandy Electric Guitar Hand Signed by The Doobie Brothers.
More information on the event and the raffle at www.blues4ms.org.

Honorariums

There are many occasions when you want to say something special to a family member, friend or associate. Honorariums are a wonderful way to commemorate happy occasions – birthdays, anniversaries, weddings, retirements, graduations or memorial gifts. Whatever the occasion, your thoughtfulness will be acknowledged immediately to the person you are honoring or to the family.

Donate a Vehicle

Ready to unload that old car, truck, RV or boat and receive a tax deductible donation? Let us help you! Call the MSSP today at 503.297.9544.

Workplace Giving and Matching Gift Programs

Many workplaces today offer the opportunity to make a donation. Contact Candyece Hayes at 503.297.9544 or candyecehayes@msoregon.org for more details.

We thank our wonderful Blues4MS corporate sponsors:

ABI Insurance
Cascade Blues Assoc.
Normandy Guitars
Blind Willie's - Atlanta
Fender
Conrad Amps
Willamette Week
Dave's Killer Bread
OPB and KMHD 89.1 FM
The Oregonian
and of course MSSP



All proceeds help fund programs and services that directly help those living with MS, their family members and caregivers in Oregon and SW Washington.

MARK THESE DATES

Event/Activity	Date	RSVP
Acupuncture MSSP Annex Portland, OR	Open Mondays 10:00am-2:00pm	503.297.9544 Ongoing
Robbie Laws Rhythm Class 7604 SE Milwaukie Avenue, Portland	April 19, 2014 4:15pm	RSVP required - Limit 20 503.297.9544
Blues4MS Aladdin Theater 3017 SE Milwaukie Portland, OR	March 2, 2014 3:00-9:00pm	None required FREE concert See blues4ms.org for more info
Educational Workshop How Learning to Play a Musical Instrument Could Influence Brain Function & Staying Out of The Doctor's Office	May 31, 2014	By May 15, 2014 503.297.9544
8th Annual MJN Slingball Tournament Pacific City, OR (Oregon Beach)	June 28 - 29, 2014	Register to play or volunteer at www.slingball.com

Summer Comfort

Enclosed you will find an application for the Summer Comfort program. Please note the deadline is March 31, 2014. If you have any questions please email programs@msoregon.org or call 503.297.9544.

Medical Marijuana Survey

As mentioned in our Fall 2013 newsletter we are researching the interest and benefits of medical marijuana. Please take a moment to complete and return the enclosed confidential questionnaire so we can gauge your interest.

ANNUAL PICNIC

Date:	6/21/2014
Location:	Oaks Park 7805 SE Oaks Park Way Portland, OR 97202
Time:	11:30-2:30pm
Cost:	FREE "Donations Appreciated"
Limit each party:	4 per family
RSVP Deadline:	6/13/2014
Call or Email:	503.297.9544 events@msoregon.org



Anonymous Medical Marijuana Survey

1. Do you currently use Medical Marijuana? If yes, please complete the remaining questions. If no, you are done with this survey. Thank you for your time.

- ☐ Yes ☐ No

2. What type of Multiple Sclerosis do you have?

- ☐ Relapsing-remitting MS (RRMS) ☐ Secondary-progressive MS (SPMS)
☐ Primary-progressive MS (PPMS) ☐ Progressive-relapsing MS (PRMS)
☐ I do not have Multiple Sclerosis, but use Medical Marijuana

3. What is your age?

- ☐ 18 to 24 ☐ 25 to 34 ☐ 35 to 44 ☐ 45 to 54
☐ 55 to 64 ☐ 65 to 74 ☐ 75 or older

4. What is your gender?

- ☐ Female ☐ Male ☐ Prefer not to answer

5. How much do you agree with the following question- Has medical marijuana helped with your symptoms?

- ☐ Yes, Extremely Agree ☐ Yes, Somewhat Agree
☐ No, Somewhat Disagree ☐ No, Extremely Disagree

6. What symptoms has Medical Marijuana helped you with?

- ☐ Anxiety/Stress ☐ Appetite ☐ Balance/Vertigo ☐ Chronic Pain
☐ Depression ☐ Fatigue ☐ Muscle Spasms ☐ Nausea
☐ Seizures ☐ Sleep ☐ Spasticity ☐ Stiffness
☐ Tremors ☐ Other (please specify) _____

7. Would you recommend Medical Marijuana to others?

- ☐ Yes ☐ No ☐ Unsure

8. Do you want MSSP to contact you regarding medical marijuana? If so, please leave your name and phone/email address below.

PRINT NAME

PHONE

EMAIL

SUMMER COMFORT

New air conditioners for individuals with MS

Thank you for contacting the Multiple Sclerosis Society of Portland, Oregon, Inc. (MSSP) concerning our air conditioner program "Summer Comfort." Through the generous support of private contributions, grants and individuals, new air conditioners are given to individuals diagnosed with MS living in the state of Oregon and SW Washington. These units are given on a first-come, first-serve basis and only one per household. We provide a basic air conditioner. As a non-profit agency we strive to serve as many patients as possible and it is for this reason we are unable to accommodate special needs i.e. freestanding or vertical units. The machines we offer work best in windows that open (up and down) versus sliding (left to right). Some folks with sliding windows have accepted the units and inserted a piece of plexy glass or other material to close the space above the air conditioner. Once all your paperwork is received, you are then placed on a waiting list. When your machine is sent (via UPS or a volunteer) you become the owner. As such you are responsible for the installation, maintenance and for submitting all warranty information.

Application Instructions:

Step 1: Provide documentation of your MS diagnosis. This can be either a medical chart note that includes your name and diagnosis, SSI/SSDI verification or the cardboard cover off your Avonex, Beta Interferon or Copaxone medication.

Step 2: Complete the Summer Comfort application.

Step 3: Must be postmarked by March 31, 2014. Ways to get materials to us:

Fax: 503.297.6264

Mail: 2901 SE 122nd, Portland, OR 97236

Email: programs@msoregon.org

We ask you to make a donation of \$20.00 to enable us to continue providing other MS patients with relief from the summer heat. If you have any questions please don't hesitate to call our office at 503.297.9544.

Multiple Sclerosis Society of Portland, OR, Inc.
2901 SE 122nd Ave.
Portland, OR 97236
Phone: 503.297.9544
Fax: 503.297.6264
Email: programs@msoregon.org

MSSP Office USE ONLY

Date Received: _____
Dr's Note: _____
Date Sent: _____

Deadline: March 31, 2014

"Summer Comfort" Client Application

First Name: _____ Last Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Telephone : _____

Email Address: _____

1. Do you currently receive our newsletter?

☐ Yes ☐ No

If No, check here to be added to our mailing list? ☐

Please select delivery method:

☐ US MAIL ☐ PDF by Email

2. When and where were you diagnosed with MS? _____

3. How did you hear about this program?

☐ Newsletter

☐ Website

☐ Telephone Book

☐ Support Group

☐ TV/Radio News Program

☐ Word of Mouth

☐ Your Doctor's Office

☐ Other: _____

4. Comments:

--

Include verification of your diagnosis