FALL/WINTER
NEWSLETTER
2018 | ISSUE #6

Providence MS

Yoga and Multiple Sclerosis

Written by Kyle Smoot, M.D., F.A.A.N.

Mind-body therapies can be extremely beneficial in patients with neurologic conditions, especially multiple sclerosis (MS). Given the nature of the disease, vigorous exercise can be challenging in many MS patients due to a variety of symptoms. Exercise also increases body temperature, which can cause temporary worsening of neurologic symptoms.

Yoga is a non-religious, mind-body approach focused on improving body awareness. Physical poses (asanas) with a focus on the breath (pranayama) can help accomplish this awareness. The physical poses can help improve strength, flexibility and balance. Several clinical trials have demonstrated benefit in overall quality of life – especially fatigue symptoms – in patients with multiple sclerosis. In addition, poses can be modified depending on your ability. For example, many yoga poses that help improve balance can be performed with support from a wall. Also, in poses that release tightness in the legs, a common MS complaint, adding a pillow or bolster can provide assistance.

While the physical poses are an important part of yoga, a daily meditation practice can also be extremely beneficial for mental health. The sympathetic nervous system, which is responsible for "fight or flight" impulses, is frequently overactive in people living with MS. This results in elevated levels of pain and anxiety. Focusing on the breath, especially the exhalation portion, can restore balance and reduce these symptoms. The next time, you find yourself in a stressful situation or feeling anxious, try counting to 3 or 4 with your inhale and then to 5 or 6 with your exhale for at least 8 to 10 rounds.

Yoga can be a tool to help manage your MS symptoms. There are several different schools of yoga, and each has a slightly different philosophy resulting in a variety of styles. Most MS patients should consider attending studios with Hatha-based yoga. The Portland area offers several yoga studios with certified teachers who specialized in Hatha yoga. In addition, classes are offered through the Multiple Sclerosis Yoga Program at Portland Community College Cascade (www.msyogaprogram.org) and the National MS Society has resources related to yoga on their website (https://www.nationalmssociety.org/Living-Well-With-MS/Diet-Exercise-Healthy-Behaviors/Exercise/Yoga).

Given the benefits of yoga for MS patients, Providence Brain and Spine Institute is sponsoring a three-part series focusing on yoga and nutrition. This series will be led by Kristi Cole, certified yoga instructor and co-owner of YoYo

…continued on page 8

IN THIS ISSUE

PROVIDENCE
Brain and
Spine Institute

Interview with Tiffany Gervasi-Follmar

Tiffany Gervasi-Follmar

Tiffany Gervasi-Follmar joined the Providence Brain and Spine Institute (PBSI) in January 2014 as a clinical trial coordinator. Shortly after arriving, she was promoted to a supervisor role leading a team of coordinators. Just recently, she took on additional responsibility as the Program Manager for Clinical Trials at PBSI. In this role, Tiffany will assist with: implementing PBSI-sponsored, investigator-initiated studies; managing the participating sites and data safety monitoring boards; training research personnel; and developing workflows to ensure research compliance and data quality. Since joining, Tiffany has been a valuable member of our research team, and we cannot thank her enough for her hard work and dedication to our MS Center.

What was your job prior to coming to Providence?

I was working for a private research facility in California as a Lead Clinical Research Coordinator. I worked on Alzheimer's disease, Clostridium difficile, and vaccine clinical trials.

What is your role at Providence?

I am the Clinical Research Program Manager for Providence Brain and Spine Institute.

How did you become interested in MS?

I have always wanted to be involved in medical research at some level, and my interest in neurology began when I was in my undergraduate program. When I was in graduate school, I met a now very dear friend who was diagnosed with MS when she was nineteen. It was hard to see such a vibrant young person struggle with daily tasks that most people take for granted. I was already working in clinical research at the time, but in endocrinology, so I completed an internship at a local infusion center to learn more about MS. This was a turning point for me to pursue work in this indication area.

How many clinical trials are active at PBSI?

We have about 70 active trials. These are across MS, ALS, epilepsy, stroke, and headache. We are also currently working on developing our Neuro-oncology, Parkinson's disease, and dementia clinical research programs.

How about for MS?

We have about 25 active MS trials right now, with more in the pipeline to be started soon!

Given the large number of trials, how many people are part of the research team?

We have fifteen caregivers supporting our Brain and Spine Institute clinical research projects, including: Nurse Data Coordinators, Research Assistants, Senior Research Assistants, Research Coordinators, Senior Research Coordinators and leadership-level caregivers. Every role in our department is crucial to the overall success of our projects, and I am very proud of the high caliber team we have.

Well enough about work, what do you like to do outside of work?

I enjoy kayak fishing with my husband, gardening, all kinds of crafts and spending time with my pets and family.

Who would you invite to your dream dinner party (alive or dead)?

I would invite Jane Goodall, Charles Darwin and my friend Don who passed away, so I could have some more time with him.

What life experience has taught or changed you the most?

Moving to a different state than my family. Family has always been extremely important to me, but being far away was a real eye opener for how much I appreciate and miss them. I prioritize making time to visit them as often as I can. ■

Focus on MS Symptom Management:

Vertigo and Balance Issues in Multiple Sclerosis

Written by Elisabeth Lucassen, M.D.

People with multiple sclerosis (MS) may develop dizziness, vertigo or imbalance as early signs of the disease or during the course of the illness. Many MS patients experience ongoing, intermittent dizziness, and approximately 5 percent say dizziness or vertigo is their worst symptom of the disease. Vertigo, which is a whirling or spinning sensation, can be a common cause of imbalance. Imbalance is a large concern for people with MS. It can make it difficult for them to move around and can cause falls.

Vertigo is typically caused by demyelinating lesions that are located in the brain stem or cerebellum regions of the brain. Some MS patients may have a relapse called acute vestibular syndrome (AVS). Typical AVS symptoms include an abrupt onset of vertigo, nystagmus (rapid involuntary movements of the eyes), nausea, vomiting, head-motion intolerance and unsteady gait. As with other MS relapses, symptoms can last for days to weeks, though treatment with IV steroids can help symptoms clear up faster. Only 10 percent of AVS cases are caused by demyelinating diseases such as MS. More common causes are stroke or vestibular neuritis (a viral infection of the vestibulocochlear nerve). Some patients can develop positional vertigo, which can mimic benign positional vertigo. In all of these situations, MRI imaging can be helpful in determining whether a new MS plaque or another process may be the cause of symptoms.

Nystagmus often accompanies vertigo or imbalance symptoms and is something easily seen in an exam. Nystagmus may have no symptoms, but in many cases it may cause a visual disturbance in which objects appear to oscillate, or move back and forth. Some MS patients may also notice blurred vision or decreased visual sharpness. Medications such as 4-aminopyridine, baclofen, clonazepam, memantine and gabapentin are commonly used to treat various types of vestibular nystagmus that can be caused by demyelinating lesions.

For people with MS, problems with balance and controlling posture are common and can be seen even in the beginning of the disease when there are few other impairments. Imbalance happens when physical input from the visual, somatosensory and vestibular systems – and how they work together – is disrupted. However, there is evidence that balance is responsive to change, which may help decrease the risk of falls.

In most cases, there are no medications for treating imbalance but there are various forms of therapy that may be helpful. A recent study compared an internet-based home training program to hippotherapy, which is therapeutic horseback riding. Both programs were shown to improve static and dynamic balance in MS patients. While it's normal to use various forms of physical therapy to improve balance, people often don't know about hippotherapy. Typically, hippotherapy includes 20- to 30-minute sessions at a therapeutic riding center, where an experienced riding therapist leads a patient on horseback, with one or two side assistants for safety. Some researchers say hippotherapy is one of the best therapies to treat problems with balance and posture control, as well as the gait and spasticity problems MS can cause. Hippotherapy is also thought to improve trunk stability and to stimulate the activity of various muscle groups. The natural movement of the horse, which is similar to human gait, also helps integrate sensory and motor systems.

Other therapies studied have focused mainly on physical therapy interventions. General exercise programs for strength and endurance show relatively small improvements in balance, likely because the programs don't specifically focus on balance training. Specific gait, balance and functional training programs have shown the largest effect on improving balance. Study results indicate that short-duration programs of high volume (more sessions per week) are likely to be more effective when it comes to balance training. To sustain results, patients should continue home-based practice of the exercises, which also allows them to increase the intensity of the exercises and integrate the programs into daily life. Outside of physical therapy, other programs that have been studied include yoga and core stability training, which also have shown a moderate overall effect in improving balance.

Although vertigo and imbalance can be common and frustrating symptoms for people with MS, fortunately there are interventions available to help patients. For this reason, it is important that neurologists ask their MS patients about such symptoms, and that patients mention these types of symptoms if they are having concerns. ■

References:

Frevel D et al. Internet-based home training is capable to improve balance in multiple sclerosis: a randomized controlled trial. Eur J Phys Rehabil Med (2015) 51:23-30.

Gunn H et al. Systematic review: the effectiveness of interventions to reduce falls and improve balance in adults with multiple sclerosis. Archives of Physical Medicine and Rehabilitation (2015) 96:1898-912.

Pula JH et al. Multiple sclerosis as a cause of the acute vestibular syndrome. J Neurol (2013) 260:1649-1654.

Subei AM et al. Efferent manifestations of multiple sclerosis. Curr Opin Ophthalmol (2012) 23:506-509.

Study Title: Pacific Northwest Multiple Sclerosis Registry

Objective: The purpose is to measure MS prevalence in the Pacific Northwest and create a database for ongoing epidemiological and health services research

Sponsor: Providence Health & Services
Principal Investigator: Stanley Cohan, M.D., Ph.D
Project Manager: Tamela Stuchiner

Study Title: North America Registry for Care and Research in Multiple Sclerosis

Objective: The primary objective is to develop a national longitudinal database in multiple sclerosis to capture, in a standardized manner, information from individuals with MS regarding their disease course from inception of the disorder through the lifespan of the individual.

Sponsor: Consortium of MS Centers
Site Principal Investigator: Stanley Cohan, M.D., Ph.D
Study Coordinator: Lynette Currie

Study Title: Providence Ocrelizumab Patient Registry

Objective: The goal is to collect information from patients receiving ocrelizumab for the treatment of MS to assess its long-term utilization, safety, tolerability and efficacy.

Sponsor: Providence Health & Services
Principal Investigator: Kyle Smoot, M.D.
Study Coordinator: Lois Grote

Study Title: Evaluating the Potential Role of Melatonin in Patients with Relapsing Multiple Sclerosis

Objective: The study will evaluate the change in melatonin and melatonin metabolite level in blood and urine and assess the effect of melatonin on quality of life.

Sponsor: Providence Health & Services
Principal Investigator: Kyle Smoot, M.D.
Study Coordinator: Hannah Voss

Study Title: Measurement of Relaxin in the Serum and Cerebrospinal Fluid of Subjects With and Without the Relapsing Form of Multiple Sclerosis

Objective: This study will evaluate relaxin (RLX) levels in patients with multiple sclerosis.

Sponsor: Providence Health & Services
Principal Investigator: Stanley Cohan, M.D., Ph.D
Study Coordinator: Hannah Voss

Study Title: Evaluating the Efficacy and Safety of Transitioning Patients From Natalizumab to Ocrelizumab (OCTAVE)

Objective: The primary objective of this study is to assess the efficacy of ocrelizumab (Ocrevus) in Relapsing Multiple Sclerosis patients who have been previously treated with natalizumab (Tysabri) by evaluating relapse rate, progression on MRI and disability progression.

Sponsor: Providence Health & Services
Principal Investigator: Kyle Smoot, M.D.
Study Coordinator: Genevieve Leineweber

Study Title: Long-term, Prospective, Multinational, Parallel-cohort Study Monitoring Safety in Patients With MS Newly Started With Fingolimod Once Daily or Treated With Another Approved Disease-modifying Therapy (PASSAGE)

Objective: The purpose of this world-wide prospective parallel-cohort study in patients with relapsing forms of Multiple Sclerosis, either newly treated with fingolimod or receiving another disease-modifying therapy, is to further explore the incidence of selected safety-related outcomes and to further monitor the overall safety profile of fingolimod under conditions of routine medical practice.

Sponsor: Novartis Pharmaceuticals
Site Principal Investigator: Stanley Cohan, M.D., Ph.D
Study Coordinator: Lynette Currie

Study Title: Multicenter, Double-blind, Placebo-controlled, Randomized Study to Assess the Efficacy and Safety of ADS-5102 Amantadine Extended Release Capsules in Multiple Sclerosis Patients with Walking Impairment

Objective: The primary objective is to evaluate the efficacy of ADS-5102 in MS patients with walking impairment

Sponsor: Adamas Pharmaceuticals, Inc.
Site Principal Investigator: Kiren Kresa-Reahl, M.D.
Study Coordinator: Deepthi Makam

Study Title: Measuring the Impact of Tecfidera on the Gut Microbiota: Does a Change in the Gut Flora Correlate With Gastrointestinal Disturbances Following Therapy Initiation?

Objective: The primary objectives of this study are to determine whether a measureable change in bacterial species representation follows the institution of DMF (Tecfidera); to determine whether a specific pattern of change in the microbiota phylotype with DMF therapy correlates to onset and severity of gastrointestinal disturbances (heartburn, nausea, flatulence, and diarrhea); to determine whether any instability of microbiota phylotype representation persists following the institution of DMF or whether stabilization relates to resolution of gastrointestinal disturbances; and to determine whether there is a correlation between a pre-existing functional bowel disorder and development or severity of gastrointestinal disturbances and of peripheral eosinophilia.

Sponsor: Evergreen Health
Site Principal Investigator: Kyle Smoot, M.D.
Study Coordinator: Lynette Currie

Study Title: Evaluation of Evidence from Smart Phone Sensors and Patient-Reported Outcomes in People with Multiple Sclerosis (elevateMS)

Objective: The primary objective is to characterize changes in participant-reported outcomes and functional performance tests collected on the elevate MS mobile application

Sponsor: Novartis Pharmaceuticals
Site Principal Investigator: Kiren Kresa-Reahl, M.D.
Study Coordinator: Hillary Frey

Study Title: Creation of a multi-center database to study real world brain and lesion volume changes in Multiple Sclerosis (MS) (NeuroSTREAM)

Objective: The primary objective is to determine whether retrospective collection of MRI scan data collected in real world clinical practice can be utilized to observe changes in brain and lesion volume using the NeuroSTREAM application

Sponsor: SUNY University at Buffalo
Site Principal Investigator: Stanley Cohan, M.D., Ph.D
Study Coordinator: Hillary Frey

Clinical Research | Team

Stanley Cohan, M.D., PhD,
Director and Principal Investigator

Kiren Kresa-Reahl, M.D., Principal Investigator

Kyle Smoot, M.D., Principal Investigator

Meghan Romba, M.D., Investigator

Elisabeth Lucassen, M.D., Investigator

Leah Gaedeke, FNP, Investigator

Chiayi Chen, RN, Ph.D,
Program Director, Clinical Research

Tiffany Gervasi, MPH, CCRP,
Program Manager, Clinical Research

Tamela Stuchiner, MA,
Program Manager, Research & Quality

Lois Grote, RN, Data Coordinator

Kyla Lindberg, RN,
RN Coordinator for Clinical Research

Genevieve Leineweber, CCRP,
Senior Research Coordinator

Arlena Cummings, CCRP, Clinical Trials Coordinator

Lynette Currie, MA, CCRP, Clinical Trials Coordinator

Alexis Young, BA, Clinical Trials Coordinator

Hannah Voss, CCRP, Clinical Trials Coordinator

Anne Gendreau, Clinical Trials Coordinator

Hillary Frey, CCRP, Senior Research Assistant

Robin Kintner, Senior Research Assistant

Jessie Wallace, Senior Research Assistant

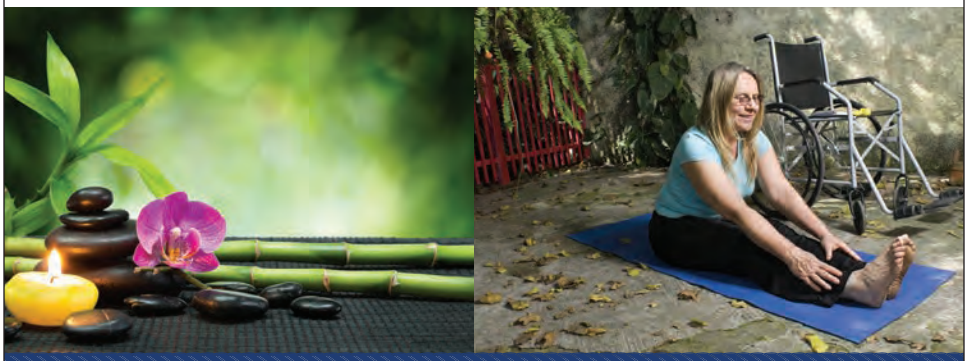
Deepthi Makam, CCRP, Senior Research Assistant

Francesca Negreanu, Clinical Research Assistant

For more information on clinical trials and research, visit us at
oregon.providence.org/our-services/c/clinical-trials-brain or **clinicaltrials.gov**

Clinic News

PROVIDENCE
Brain and
Spine Institute



YOGA & NUTRITION FOR MS

Are you living with Multiple Sclerosis and seeking ways to manage symptoms and improve wellness? Join our new class series from Providence Brain and Spine Institute: Yoga & Nutrition for MS.

Research has shown that several principles of yoga including body awareness, breath work, mobility and mindfulness can improve MS symptoms. This 3-class series*, taught by certified instructors, will lead people living with multiple sclerosis through 45 minutes of gentle yoga practice and 45 minutes of practical tips for nutrition and wellness. Classes are free but space is limited.

CLASS DETAILS: Thursdays from 6:30 p.m. to 8:30 p.m.
at Basecamp - 9427 SW Barnes, Rd, Mother Joseph Plaza, Providence St. Vincent Medical Center
Dates: 11/15/18, 12/13/18, and 1/24/19

**Attendance at all 3 sessions recommended but not required*

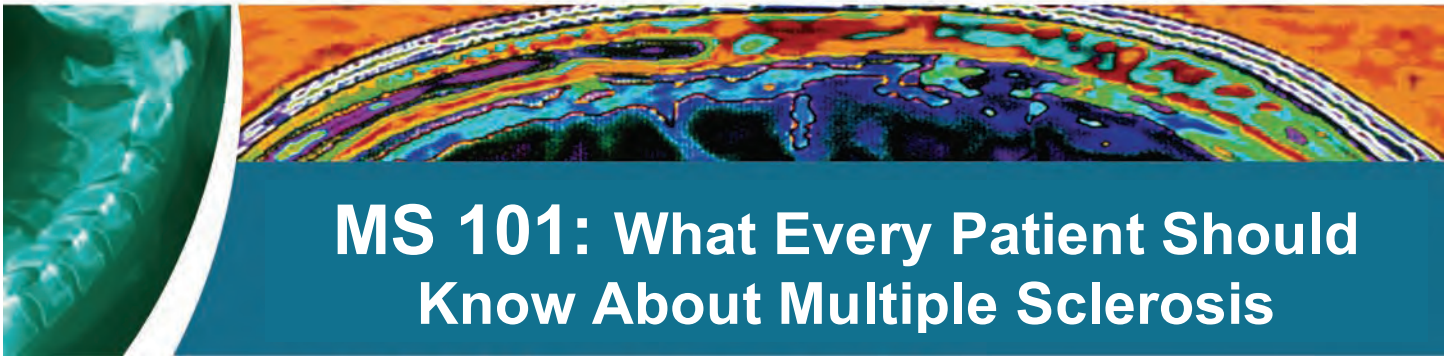
REGISTER: 503-574-6595 OR PROVIDENCE.ORG/CLASSES

Yoga and Multiple Sclerosis

…continued from page 1

Yogi (www.yoyoyogi.com), and Amanda Razey-Malarkey, certified yoga teacher and Ayurvedic wellness coach. The sessions will be held on Nov. 15, Dec. 13 and Jan. 24 from 6:30 p.m. to 8:30 p.m. at Basecamp in the Mother Joseph Plaza at Providence St. Vincent Medical Center. Attendance at all three sessions is recommended but not required. Please register by calling 503-574-6595 or visiting www.providence.org/classes. The sessions are free, but space is limited. ■

PROVIDENCE
Brain and
Spine Institute



MS 101: What Every Patient Should Know About Multiple Sclerosis

Join us for a free forum for persons newly diagnosed with multiple sclerosis and their family and friends.

Speaker: **Meghan Romba, M.D.**
Providence Multiple Sclerosis Center, Portland

When: **Wednesday, February 6, 2019**

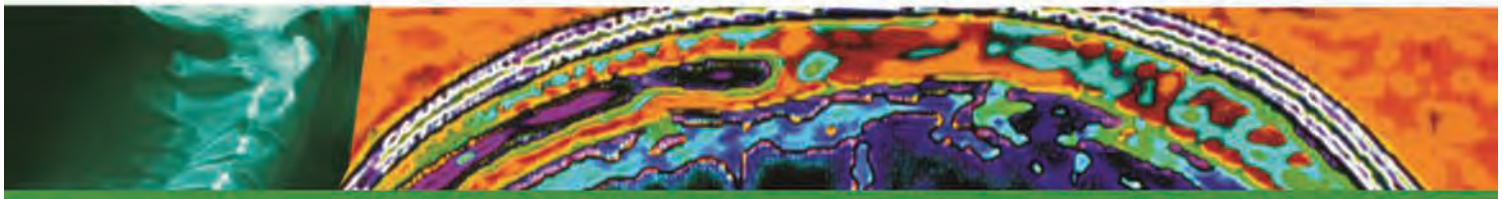
Where: **Providence St. Vincent Medical Center**
Brain and Spine Institute Conference Room
9135 NW Barnes Road, Ste. 363
Portland, OR 97225

Time: **6 – 7:30 p.m.**

Complimentary dinner will be provided.

Due to limited space, advance registration is required.
To register, please call 503-574-6595 or visit www.providence.org/classes

PROVIDENCE
Brain and
Spine Institute



Providence Multiple Sclerosis Center

NOW SEEING PATIENTS AT WILLAMETTE FALLS MEDICAL CENTER

Providence Multiple Sclerosis Center focuses on individual care and support for people living with multiple sclerosis. Our medical director Dr. Stanley Cohan, created the center because he recognized the need to expand treatment programs for MS patients in this region. The center is a leading participant in national and international clinical trials and also developed the Pacific Northwest Multiple Sclerosis Registry Project. We are dedicated to providing advanced treatment options with a multi-disciplinary approach to improve quality of life, tailor treatment plans and optimize physical and mental performance.

We specialize in:

- Complete MS care
- Neuropsychology
- Urology/bladder function
- Physical therapy
- MS research and clinical trials

Our Team at Providence Willamette Falls Medical Center:

Elisabeth Lucassen, M.D.

"Medicine allows me to combine my passion for science with my desire to help others. My patients and I work together to reach common goals, which makes communication very important."

Meghan Romba, M.D.

"I am dedicated to providing compassionate, patient-centered care. My role as a neurologist is to not only inform about MS and the most current treatment options, but to also partner with the patient as they adapt to their diagnosis."

For more information, call 503-216-1055, or visit us at Providence.org/brain

Providence Multiple Sclerosis Center

Providence Multiple Sclerosis Center, the only center of its kind in Oregon, is the state's leading care provider for people with MS. Our medical director, Stanley Cohan, M.D., Ph.D., was an investigator in the original, pivotal trial of beta interferon 1-A, one of the key medications for treating multiple sclerosis. He continues to play a leading role in MS research and founded the Pacific Northwest Multiple Sclerosis Registry Project, which will be used to help advance treatment of multiple sclerosis.

Our goal at Providence Multiple Sclerosis Center is to provide persistent, proactive, focused treatment that minimizes the effects of MS on your life. Patients benefit from comprehensive services that may include medication therapy, physical rehabilitation, counseling and other support. In addition, patients have access to the newest therapies through regional and international clinical trials.

Our Providence Multiple Sclerosis Center team specializes in:

- Comprehensive MS care
- Neurology
- Neuro-ophthalmology
- Neurotology (for ear disorders)
- Nursing
- Physical therapy
- MS research

Clinicians:

Stanley Cohan, M.D., Ph.D.,
Neurologist; medical director of Providence Multiple Sclerosis Center

Kiren Kresa-Reahl, M.D.,
Neurologist

Elisabeth Lucassen, M.D., Neurologist

Meghan Romba, M.D., Neurologist

Kyle Smoot, M.D., Neurologist

Leah Gaedeke, FNP,
Multiple Sclerosis Nurse Practitioner

Nurses:

Brittany Hannon, RN,
Patient Care Coordinator

Sam Brighton, RN,
Clinical Case Manager

Sarah Hogue, RN

Services:

- Highly advanced diagnostics
- Personalized treatment plans
- Attentive use of medications
- Rehabilitation with therapists who specialize in MS care
- Continence treatment for bladder and bowel dysfunction
- Emotional support and psychological counseling
- Opportunities to receive investigational medicines through clinical trials
- Close coordination with your primary care physician
- The Pacific Northwest Multiple Sclerosis Registry Project, a database created for epidemiological and health services research
- An MS Network that allows physicians to collaborate on MS treatments
- Community and provider education forums throughout Oregon

The Providence Multiple Sclerosis Center's research is supported by generous donations from friends in the community. If you are interested in learning more about supporting the center's work, please contact Dawn Johnston, Director of Development, at (503) 216-2198.

PROVIDENCE
Brain and
Spine Institute

Providence Multiple Sclerosis Center
9135 SW Barnes Road, Suite 461
Portland, OR 97225

Available on our Web site at providence.org/brain:

- **Physician directory:** Get contact information for all Providence Brain and Spine Institute physicians.
- **Upcoming events:** Providence offers educational events throughout the year. Check our online calendar to view upcoming topics.
- **Clinical trials:** Find out about multiple clinical trials for investigational treatments for MS, as well as other clinical trials available through Providence.
- **Support groups:** Get details on support groups in Oregon.
- **Additional resources:** Our website offers the latest information on available programs and services; educational toolkits; and links to trusted sources of information.

http://oregon.providence.org/our-services/p/providence-multiple-sclerosis-center

News & Events:

The MS Support Group meets for lunch from noon-1:00 p.m. on the first Thursday of each month. Lunch is provided.

All 2018 meetings held in Stanley Family Conference Rooms: Providence St. Vincent Medical Center East Pavilion.

All 2019 meetings held in Springwood Conference Room: Providence St. Vincent Medical Center Mother Joseph Plaza.

This group is led by a nurse practitioner from Providence Multiple Sclerosis Center. It is a forum for people living with MS and their loved ones to meet peers, share support and get education on healthy living.

Dr. Kyle Smoot is seeing patients on the East Side

Dr. Kyle Smoot is now offering patient appointments every Friday on the East side.

Providence Neurological Specialties-East
5050 NE Hoyt Street, Suite 615
Portland, OR 97213
(503) 215-8580

OUR MISSION

As expressions of God's healing love, witnessed through the ministry of Jesus, we are steadfast in serving all, especially those who are poor and vulnerable.

OUR CORE VALUES

Compassion, Dignity, Justice, Excellence, Integrity

PROVIDENCE MULTIPLE SCLEROSIS CENTER

9135 SW Barnes Road, Suite 461
Portland, OR 97225
(503) 216-1150

providence.org/ms