



EMD Serono Launches MS-LINK™, a Community to Advance MS Science and Improve Patient Lives

- **MS-LINK™ brings together first interdisciplinary community across industry, academia and advocacy with the shared goal of improving outcomes in MS**
- **Initial collaborations launched with the National MS Society and the University of Texas Southwestern Medical Center**

ROCKLAND, Mass., — May 07, 2019 — EMD Serono, the biopharmaceutical business of Merck KGaA, Darmstadt, Germany, in the U.S. and Canada, today announced the launch of MS-LINK™ (Leadership and Innovation Network), an initiative that brings together an interdisciplinary community of multiple sclerosis (MS) stakeholders to form a top-tier scientific research network focused on sustainable transformation of MS care. MS-LINK will focus on working cooperatively in the areas of real-world data and patient reported outcomes, as well as scientific and precision medicine, and initially includes the National MS Society and the University of Texas Southwestern Medical Center.

"Real progress in MS will not come from just one lab or one doctor, but from working together collaboratively with the brightest minds in MS to drive a true paradigm shift in how we treat and support people living with this disease," said Rehan Verjee, President of EMD Serono and Global Head of the Innovative Medicine Franchises. "Together with the National MS Society and the University of Texas Southwestern Medical Center, our work to bring together research focusing on patient-reported outcomes, real-world data and precision medicine has only just begun, and we're excited to continue to grow the MS-LINK network in the future."

MS-LINK is comprised of two research networks. The first network – the real-world data and patient reported outcomes network (RWD/PRO) -- will generate and analyze large-scale, longitudinal data to tackle clinical questions directly impacting MS patients' daily lives and to bring patient-centered solutions to the forefront of care. The first RWD/PRO collaboration is with the University of Texas Southwestern Medical Center and will focus on analyzing magnetic resonance imaging (MRI) anomalies through 3D visual modelling and artificial intelligence to differentiate MS brain lesions from non-specific white matter lesions. These insights may not only provide clinicians with a more accurate diagnostic tool but provide a more refined clinical surveillance metric for disease surveillance. In addition, 3D research will examine the effects of MS treatment on lesion size, shape and surface features to further investigate the impact of race and ethnicity in MS.



"Being able to see and feel a 3D printed lesion in your hand is very different from looking at it on a screen, even if you're examining a 3D model," noted Darin T. Okuda, M.D., Neurology and Neurotherapeutics professor at the University of Texas Southwestern Medical Center, and project lead. "This is an important advancement for patients and healthcare professionals, and also artificial intelligence researchers, as investigating accurate 3D representations of MS brain lesions both before and after treatment has unmatched explanatory power."

The second network – the scientific and precision medicine network - will address individual patient needs by creating physician resources and conducting innovative research that considers personal variability in genes, environment and lifestyle. This network recently launched its first research collaboration with the National MS Society. Through this network, EMD Serono is funding a pilot research program to test innovative ideas or untested methods to understand the impact of aging on MS, and to gather preliminary data to determine the potential for further funding.

"We believe that everyone who wants to do something about MS can fuel progress. Partnering with EMD Serono's MS-LINK initiative will enable us to fund more research focused on understanding how aging contributes to MS progression," commented Bruce Bebo, PhD, Executive Vice President, Research at the National MS Society. "Pilot projects funded by this collaboration could help identify new innovative strategies for slowing down, stopping, or even reversing MS progression."

MS-LINK will continue expanding collaborations focusing on topics such as immune involvement, treatment selection, shared decision making and modifiable risk factors. New studies are set to be launched later in the year with additional MS-LINK community members.

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About Multiple Sclerosis

Multiple sclerosis (MS) is a chronic, inflammatory condition of the central nervous system and is the most common, non-traumatic, disabling neurological disease in young adults. It is estimated that more than 2.3 million people have MS worldwide. While symptoms can vary, the most common symptoms of MS include blurred vision, numbness or tingling in the limbs and problems with strength and coordination. The relapsing forms of MS are the most common.



About MS-LINK™

MS-LINK™ is an initiative developed by EMD Serono that brings together a community of multiple sclerosis (MS) stakeholders, including industry, academia and advocacy groups, to form a top-tier scientific research network for sustainable transformation of MS care, with the shared goal of improving patient outcomes. MS-LINK is comprised of two research networks committed to working cooperatively to address key unmet needs in MS. The first is the real-world data and patient reported outcomes (RWD/PRO) network, that will generate and analyze large-scale, longitudinal data to tackle clinical questions that have a direct impact on the everyday lives of MS patients, and bring patient-centered solutions to the forefront of MS care. The second is the scientific and precision medicine network, which will address the needs of patients by creating physician resources and conducting innovative research that takes into account individual variability in genes, environment and lifestyle.

EMD Serono, Inc. and Multiple Sclerosis

For more than 20 years, EMD Serono has been relentlessly focused on understanding the journey people living with MS face in order to create a meaningful, positive experience for them and the broader MS community. However, there is still much that is unknown about this complex and unpredictable disease. EMD Serono is digging deeper to advance the science.

About EMD Serono, Inc.

EMD Serono - the biopharmaceutical business of Merck KGaA, Darmstadt, Germany, in the U.S. and Canada - is engaged in the discovery, research and development of medicines for patients with difficult to treat diseases. The business is committed to transforming lives by developing and delivering meaningful solutions that help address the therapeutic and support needs of individual patients. Building on a proven legacy and deep expertise in neurology, fertility and endocrinology, EMD Serono is developing potential new oncology and immuno-oncology medicines while continuing to explore potential therapeutic options for diseases such as psoriasis, lupus and MS. Today, the business has approximately 1,300 employees around the country with commercial, clinical and research operations based in the company's home state of Massachusetts. www.emdserono.com

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