

Fast ForwardSM

Accelerating Commercial Development Fund

This project is funded through a collaboration between Fast Forward, LLC, established by the National MS Society to speed potential therapies into drug development and clinical trials, and EMD Serono, Inc., an affiliate of Merck KGaA, Darmstadt, Germany. Fast Forward and EMD Serono committed \$3 million in 2009 to support innovative early-stage projects directed towards the development of therapies to prevent treat, or reverse nervous system damage in MS. This Request for Proposals (RFP) was issued under the auspices of a multi-year collaboration between Fast Forward and EMD Serono to accelerate innovation and commercial development of MS therapies. Merck KGaA, the parent corporation of EMD Serono, Inc., will provide up to \$19 million in total funding for the collaboration.

<i>Primary Investigator</i> <i>Roger Olsson, PhD</i> <i>ACADIA Pharmaceuticals Inc.</i> <i>Rhonda Voskuhl, MD</i> <i>University of California, Los Angeles</i>	<i>Project Title</i> Selective ERbeta Agonists for the Treatment of Multiple Sclerosis	<i>Amount to be Committed</i> \$545,380 Term – 12 months
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About the Company

ACADIA is a biopharmaceutical company focused on innovative treatments that address unmet medical needs in neurological and related central nervous system disorders. ACADIA has a pipeline of product candidates led by pimavanserin, which is in Phase III development as a potential first-in-class treatment for Parkinson's disease psychosis. ACADIA also has clinical-stage programs for chronic pain and glaucoma in collaboration with Allergan, Inc. and two advanced preclinical programs directed at Parkinson's disease and other neurological disorders. All product candidates are small molecules that emanate from discoveries made at ACADIA.



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Project Background & Goals

Multiple sclerosis involves an immune attack directed against the brain and spinal cord. Current treatments target this attack, but none can protect the nervous system from damage. Damage to nerve tissue underlies the progression of disease and disability that people with MS experience.

ACADIA Pharmaceuticals Inc. is teaming up with Rhonda Voskuhl, MD, an expert MS physician and researcher at the University of California, Los Angeles, and colleagues, to test an approach to protecting the nervous system in MS. Studies in mice show that removing brain cells called “astrocytes” during the course of MS-like disease increases inflammation and nerve tissue damage. Receptors, or docking sites, for estrogen are active on the surface of astrocytes.

Dr. Voskuhl is a pioneer in sex hormone research in MS, and her studies indicate that estrogen treatment might be neuroprotective. With funding from the National MS Society and NIH, she has been testing the ability of the estrogen-related drug estriol to reduce disease activity in women with MS. Now, she is collaborating with ACADIA to study a novel compound, AC186, which binds to specific estrogen receptors. They are testing whether AC186 will protect the nervous system from damage in mice with MS-like disease.

This study can move forward a novel treatment that may help to protect the nervous system from damage and stop MS in its tracks.