

# FastForward<sup>SM</sup>

## General Fund

This project is funded by Fast Forward, LLC, a nonprofit organization established by the National Multiple Sclerosis Society in order to accelerate the development of treatments for MS. Fast Forward connects university-based MS research with private-sector drug development and funds small biotechnology/pharmaceutical companies to develop innovative new MS therapies and repurpose FDA-approved drugs as new treatments for MS.

<i>Primary Investigator</i>	<i>Project Title</i>	<i>Amount to be Committed</i>
Stefan Lohmer, PhD Axxam SpA Milan, Italy	Discovery research of innovative immunosuppressant for prevention of multiple sclerosis	\$250,000 Year 1 and \$220,000 Year 2 joint funding with JDRF

## About the Company

Axxam is a privately owned biotech firm based at the San Raffaele Biomedical Science Park in Milan (Italy). Axxam began operations as an independent and privately-owned company in November 2001, but its roots are built upon years of experience as part of the Bayer HealthCare, Research and Development organization. The company performs a wide range of activities including assay development, high-throughput screening, compound profiling and “hits to leads” testing. In addition, Axxam conducts several discovery programs for selected targets which are carried out in partnership with other companies or non-profit organizations.

## Project Background & Goals

Ion channels are tiny pores on the surface of certain cells – in this case, immune cells. These channels control the influx of charged particles and allow the cells to become activated to perform their natural functions of surveillance and protection against foreign invaders such as viruses or bacteria. Recent studies have found that immune cells involved in the immune attacks in MS contain high levels of a specific ion channel, Kv1.3, and that the hyperactivity of this channel may contribute to the dysfunction of the immune system in MS.

Axxam has access to a large collection of chemical compounds which can be sources for specific, potent ion channel blockers. The company is screening this extensive chemical library to identify compounds that can target Kv1.3 specifically.



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If the initial research is successful, Axxam will have identified compounds that modulate Kv1.3 ion channel activities, and these will be further developed by the company as potential therapies for MS.