



Verily Life Sciences  
1600 Amphitheatre Parkway  
Mountain View CA 94043

[verily.com](http://verily.com)

## MS Innovation Workshop for Spring 2016

### Summary

Verily is planning to host a workshop in May, on innovation in the treatment of Multiple Sclerosis (MS), in the context of our SysteMS Verily:Biogen:BWH MS systems biology collaboration.

### Description

The event will be a two-day workshop, hosted and organized by Verily (formerly Google Life Sciences) and Biogen IDEC. We are targeting the 23<sup>rd</sup> and 24<sup>th</sup> of May 2016, at Google's Cambridge office (5 Cambridge Center, Cambridge MA).

The agenda will start with scientific presentations for the first day, to provide MS context and introduce key areas of innovation in systems biology. The second day will focus on a workshop with the main goal of prioritizing novel experimental and analytic approaches to address the key questions in MS systems biology.

The result of this workshop will be a report articulating the potential of quantitative phenotyping and molecular systems biology in MS. We plan to publicise this report as a press release, or as an editorial article in a scientific journal.

### Organizers

Verily: Joseph Lehar, Abe Murray, Steve Vinter, Vik Bajaj.

Biogen: Jane Rhodes, Jaya Goyal, Richard Ransohoff.

Academic: Howard Weiner, Phillip Sharp, Dennis Ausiello.

For questions, contact [verily-ms-workshop@google.com](mailto:verily-ms-workshop@google.com)

## Workshop Agenda - Day 1 - May 23

8:00	Registration and breakfast	
<b>Introduction</b>		<i>10 min + 5 min Q&amp;A</i>
8:30	Challenges for MS patients	Bruce Bebo, MS Society
8:45	Challenges for MS treatment	Howard Weiner, HMS/BWH
9:00	Challenges for neurologic diseases	Al Sandrock, Biogen
<b>Phenotype</b>		<i>20 min + 10 min Q&amp;A</i>
9:15	Phenotypes in neurologic disease	Bastiaan Bloem, Nijmegen
9:45	Innovation in MS-related imaging	Dan Reich, NINDS
<i>15 minute break</i>		
<b>Mechanism</b>		<i>20 min + 10 min Q&amp;A</i>
10:30	Molecular mechanisms underlying MS	Sergio Baranzini, UCSF
11:00	Immunology of MS	Amit Bar-Or, McGill
11:30	MS Immune regulation	Philip De Jager, HMS/BWH
12:00	Microbiome and the immune system	Ramnik Xavier, Broad/HMS
<i>Lunch served in room</i>		
<b>Profiling</b>		<i>20 min + 10 min Q&amp;A</i>
1:30	Immunology systems and T-cell approaches	Vijay Kuchroo, Broad/HMS
2:00	Interrogation of the immune system	Aviv Regev, Broad/HMS
2:30	Brain Institute, multi-omics	Nancy Cox, Vanderbilt
<i>15 minute break</i>		
<b>Integrative</b>		<i>20 min + 10 min Q&amp;A</i>
3:15	Protein interactome of psychiatric disease	Kasper Lage, MGH/HMS
3:45	Integrative models of neurology	Dan Geschwind, UCLA
<b>Closing presentations</b>		<i>20 min + 10 min Q&amp;A</i>
4:15	Future of MS biology and treatment	Richard Ransohoff, Biogen
4:45	SystemMS collaboration	Vik Bajaj, Verily

## Workshop Agenda - Day 2 - May 24

9:00	Registration and breakfast	
<b>Workshop topics</b>		<i>20 min + 10 min Q&amp;A</i>
9:30	Workshop topics and goals	Phil Sharp, MIT/Koch
<b>Workshop sessions</b>		<i>4 groups, 2 hour discussion</i>
10:00	Phenotype - challenges & opportunities	Moderator: Bastiaan Bloem
10:00	Mechanism - challenges & opportunities	Moderator: Philip De Jager
10:00	Profiling - challenges & opportunities	Moderator: Nancy Cox
10:00	Integrative - challenges & opportunities	Moderator: Dan Geschwind
11:50	Break / return to main room	
<i>Lunch served in room</i>		
<b>Workshop outcomes</b>		<i>10 min + 5 min Q&amp;A</i>
1:00	Phenotype workshop results	
1:15	Mechanism workshop results	
1:30	Profiling workshop results	
1:45	Integrative workshop results	
<b>Closing remarks</b>		<i>10 min + 10 min Q&amp;A</i>
2:00	Next steps and final discussion	Vik Bajaj, Verily