MAPLE trial endpoint: PhenoBiome prebiotic raises gut microbial diversity, measured on Perseus Biomics' DynaMAP platform

Clinical trial shows significant gain in gut diversity alongside improved quality-of-life scores; DynaMAP validated against sequencing for microbiome read-outs.

PALM SPRINGS, CA, UNITED STATES, September 29, 2026 /EINPresswire.com/ -- PhenoBiome today reported results from its MAPLE clinical trial, an eight-week study of a personalized nutritional (prebiotic) supplement in adults, run in collaboration with Perseus Biomics using the DynaMAP microbiome-profiling platform. The trial met its primary microbiome endpoint: species-level Shannon diversity rose by 0.55 points (from 4.91 to 5.46; p = 0.010) across the twelve completers, with eight of twelve gaining diversity against their own baseline.

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>
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The gain came from sub-dominant species rather than a reshuffling of the community's most abundant members.

The six leading genera trended to held steady (54.2% of the community at baseline, 52.9% afterward; p = 0.85), while the rise in evenness appeared further down the population. Genus-level Shannon moved in parallel (+0.41; p = 0.034). Species richness shifted in the same direction, adding 56 observed species per sample, though this did not reach significance at the trial's size (p = 0.052).

The read-outs rest on DynaMAP, which PhenoBiome qualified for the study before any treatment analysis. Twenty-one samples were profiled on both DynaMAP and shotgun whole-genome sequencing with MetaPhlAn 4. The two methods ranked participants consistently (median Spearman ρ = 0.85; Pearson r between 0.78 and 0.95 across the six dominant genera) and placed samples on the same side of the clinical reference range in more than 70% of cases. On that basis DynaMAP was approved as the trial's profiling platform.

Secondary clinical measures supported the microbiome signal. On the SF-36 quality-of-life survey, both pre-specified success criteria were met, with Energy/Fatigue up 8.8 points and General Health up 7.4; six of the eight domains improved, and 43% of participants qualified as

responders. Most participants also reported improvement in gastrointestinal symptoms over the eight weeks, and changes in abdominal pain and constipation tracked with changes in perceived stress ($r = 0.55$ and $r = 0.51$), a gut-brain pattern the two companies plan to examine further.

A note from the collaboration lead

Didier Perez, President of PhenoBiome, oversaw the collaboration with Perseus Biomics through the MAPLE trial.

“When we set out to run MAPLE, the open question was whether we could move gut diversity in a real cohort and measure it in a way we could stand behind. Working with Perseus Biomics gave us both. The diversity gain we saw is the kind of change our formulation was built to produce, and having DynaMAP behind the numbers means we can act on them with confidence.”

“What mattered just as much was speed. DynaMAP gave us species- and strain-level results with a turnaround time fast enough that we weren’t waiting weeks to know if the formulation was doing what we designed it to do.”

“The collaboration worked because each side did what it does best,” Perez added. “We brought the formulation and the cohort; Perseus brought a platform we could trust to tell us what actually happened in the gut, quickly enough to act on it. That is the model we intend to keep building on.”

Melissa Meert, Director of Market Development at Perseus Biomics, said: “Before DynaMAP measured a single treatment effect in MAPLE, PhenoBiome put it head to head with shotgun sequencing on the same samples. It ranked participants the same way and reached the same clinical call in the large majority of cases. Fast, but precise insights that guide real decisions: that’s what we are building toward, at the highest level of scientific validation we can hold ourselves to. When a partner trusts the measurement, the conversation stops being about the numbers and starts being about what they mean. That’s the standardization we want to bring to this field.”

Some participants reported gastrointestinal effects during the trial, most of them mild and transient. Those observations are informing PhenoBiome’s work on formulation, including slow-release approaches, and on dose titration for future studies.

MAPLE ultimately answered the two questions it was built to test: that the formulations move diversity, and that the DynaMAP platform can be qualified and trusted to measure it. With both questions answered, PhenoBiome and Perseus Biomics now have a validated platform and clear signal to build on. Those are the inputs that feed directly into the collaboration. PhenoBiome and Perseus Biomics will continue to work together, applying the DynaMAPto guide the development and measurement of PhenoBiome’s microbiome-targeted products.

About PhenoBiome

PhenoBiome is a versatile B2B partner leveraging proprietary functional microbiome intelligence to drive product innovation for industry leaders. Built on 16+ years of research, its platform analyzes microbial functional activity (phenotypes) to create scientifically validated targeted interventions.

For more information, visit phenobiome.com or follow PhenoBiome on LinkedIn.

About Perseus Biomics

Perseus Biomics is a Belgium-based metagenomics company built around DynaMAPTM, a proprietary optical-mapping platform that resolves the gut microbiome down to individual microbial strains. The platform delivers same-day, strain-level microbiome data, supporting research teams, industry laboratories and clinical settings worldwide.

Offering both lab-based services and benchtop device solutions, the company is committed to setting a new standard for powerful microbiome data – one sample at a time.

For more information, visit perseusbiomics.com or follow Perseus Biomics on LinkedIn.

Kait Mikes
PhenoBiome
kait@phenobiome.com
Visit us on social media:
LinkedIn

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