

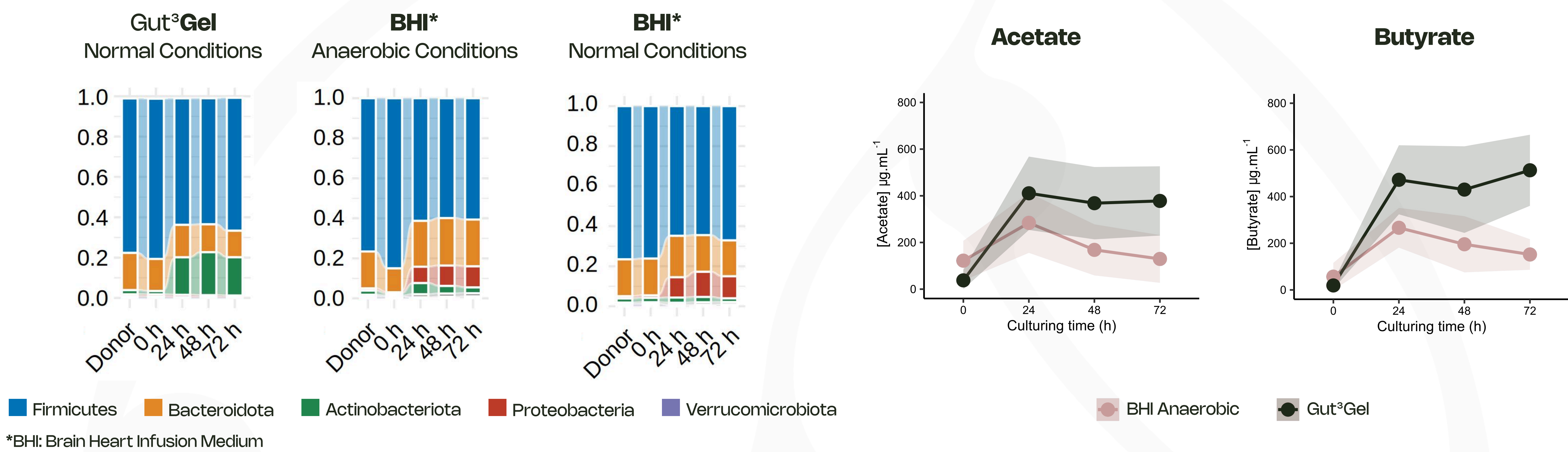
Advanced In Vitro Model for Intestinal Microbiota Culture

Gut³Gel is a cutting-edge 3D in vitro model of the intestinal mucus layer that enables the representative study of intestinal microbiota dynamics.



Key Features

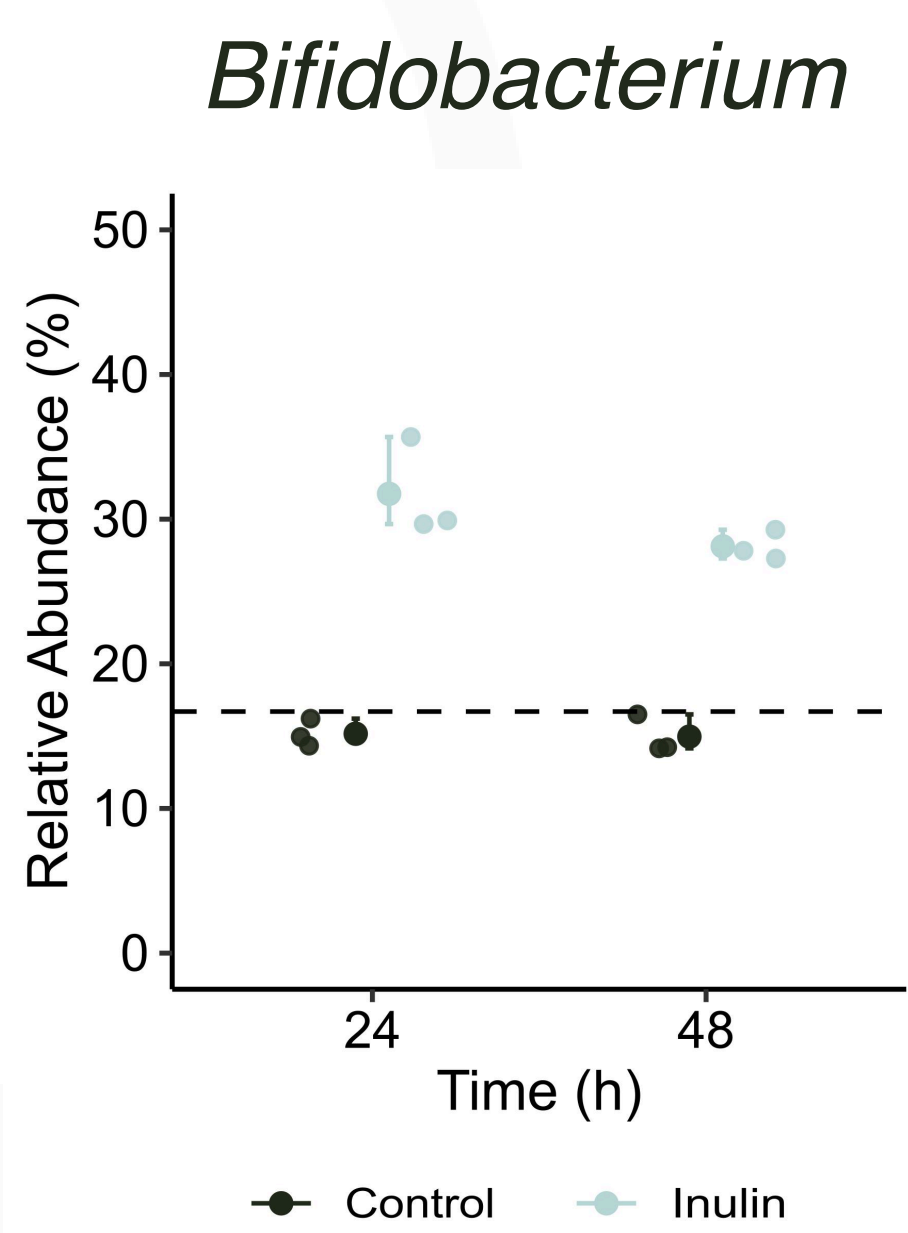
- **Physiologically Relevant:** Replicates intestinal mucus properties, as nutrient content, and viscoelasticity.
- **Microbiota-Friendly:** Supports growth of key families (e.g., *Bacteroidaceae*, *Coriobacteriaceae*, *Prevotellaceae*, *Lachnospiraceae*, *Oscillospiraceae*, and *Ruminococcaceae*).
- **Lab-Compatible:** Ready for standard equipment and high-throughput setups.



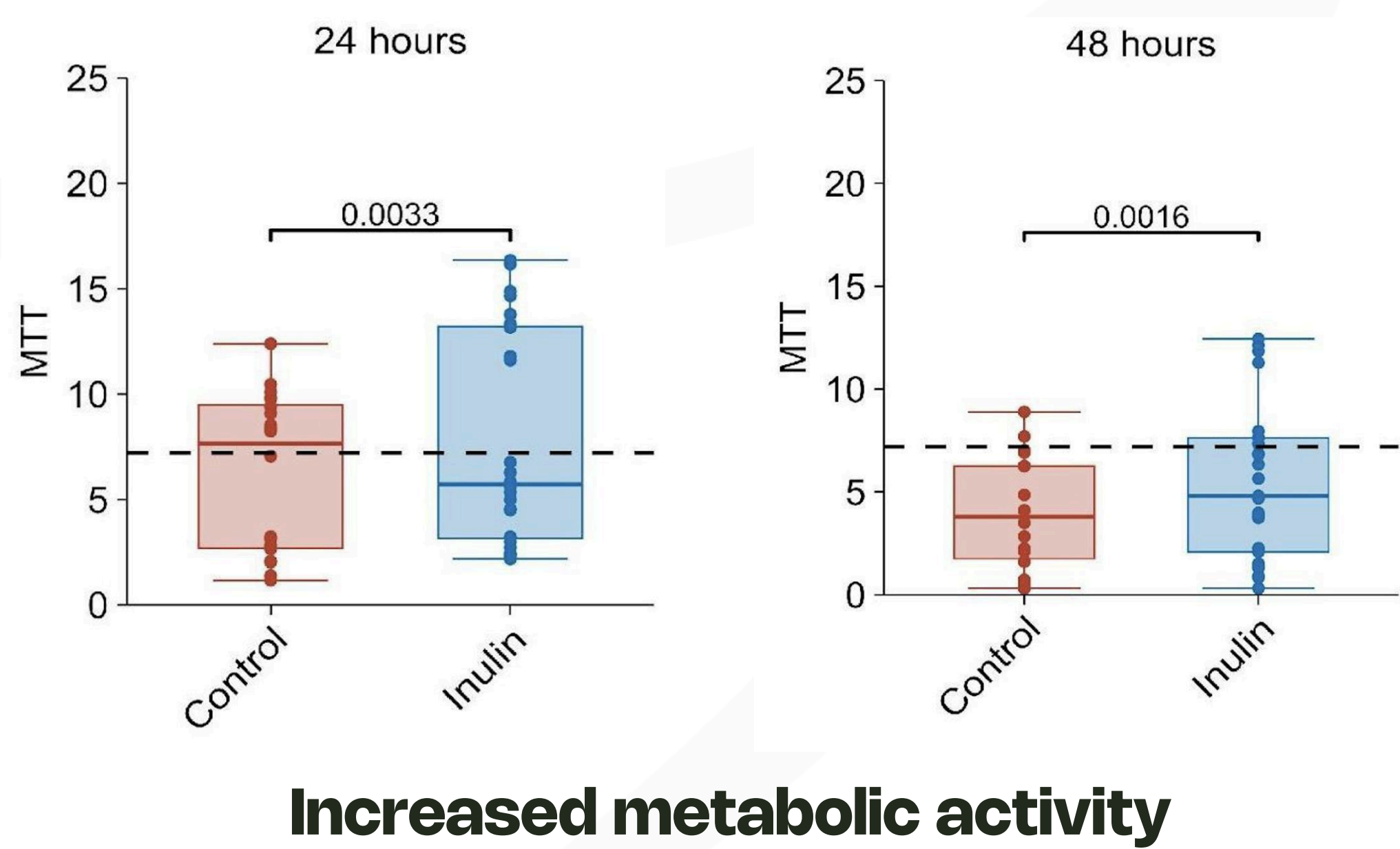
- **Gut³Gel promoted higher Firmicutes:Bacteroidetes ratios;**
- **Increased Actinobacteriota abundance** (green);
- **Proteobacteria** (red tones) expanded notably in BHI under aerobic conditions (right panel), but **remained low in Gut³Gel cultures;**
- **Higher production of Acetate and Butyrate in Gut³Gel** than in BHI cultures under anaerobic conditions.

Derisking the development of pro-, prebiotic and live biotherapeutics at early stages

After stabilising the microbiota in Gut3Gel for 24 hours, Inulin treatment was performed for 24 and 48 hours.



Increased abundance of *Bifidobacterium* after inulin treatment, as reported in clinics



Increased metabolic activity

Applications

- Unlock microbiome research.
- Evaluate the efficacy of antimicrobial agents, probiotics, prebiotics, and live biotherapeutics.
- Development of personalised therapies.

Interested in knowing more about Gut³Gel? Contact us at contact@bac3gel.com or visit www.bac3gel.com