

УДК 612:616.34-008.87-098

## РАЗРАБОТКА НОВЫХ ПОДХОДОВ ВОЗДЕЙСТВИЯ НА АППЕТИТ ЧЕРЕЗ КИШЕЧНУЮ МИКРОБИОТУ

### DEVELOPMENT OF MICROBIOTA-BASED APPROACHES FOR TARGETING HOST APPETITE

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To develop microbiota-based approaches for targeting host appetite an important task is to understand molecular mechanisms linking the gut bacteria with the host pathways regulating feeding behavior (1). Using a proteomic approach, a molecular target has been identified in *Enterobacteriaceae* by linking these common gut bacteria with the host melanocortin system, critically involved in the regulation of energy balance. Bacterial protein homologue of caseinolytic protease B (ClpB) has been identified as a conformational mimetic of  $\alpha$ -melanocyte-stimulating hormone ( $\alpha$ -MSH), an anorexigenic neuropeptide (2). *E.coli* ClpB is present in both gut lumen and plasma and is able to activate directly intestinal and central satiety pathways, respectively (3). These results served for TargEDys SA, a start-up company, as the scientific background for development of the probiotic aimed to reduce appetite and body weight. Recent update on the development of this probiotic will be presented.

#### References

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