The Evolution of Personalised Nutrition: Executive Summary

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Health and wellbeing and susceptibility to disease are causally linked to food and nutrition intake, an observation that has informed dietary advice for centuries. However, physiological response to different food types varies greatly by individual, meaning that a “one size fits all” approach to nutritional advice may be inadequate to ensure optimum health outcomes. Personalised nutrition (PN) services, operating at the intersection between health advisory, the wellness sector, and the food system, seek to address this through individualised targeted dietary advice focused on achieving lasting dietary behaviour change that is beneficial for health. In this report we specifically analyse the evolution of personalised nutrition defined as nutritional advice based on personalised analysis of scientific data obtained from the customers’ phenotype and the scientific knowledge base underpinning such advice. We will touch on technologies that enable the personalisation of food more generally only insofar as they might impact PN in the future through wider network effects within the food system.

Personalised nutrition as a clinical and academic field of study has existed for at least four decades, however recent investor interest and cheaper direct-to-consumer (D2C) testing devices have enabled a growing commercial PN sector that has evolved over the past ten years. Commercial PN services provide mostly advice, which is claimed to be based on the latest scientific evidence showing the causal connections between certain individual phenotypic traits (genes, lifestyle factors, gut microbe, blood parameters, age, sex, etc.) and the physiological response to food. In addition to advice, providers increasingly offer personalised supplements and vitamins (which are within the FSA remit) as well as personalised, tailored subscription meal plans. The sector in the UK is currently still small but represented by a number of different business models serving increasing consumer interest in health-related offerings. Moreover, there are hopes that commercial PN might, in the longer-term future, contribute to public health.

In this report we have analysed the specific input trends that have enabled the emergence of the sector with the drivers and challenges that are shaping its evolution today. This analysis included a thorough assessment of the science that underpins PN services, the role of technology trends and commercial activity including an overview of the current global and UK markets, wider social trends that impact consumer uptake of PN, and the existing regulatory environment that surrounds PN, a currently unregulated commercial activity. The potential impact on public health, food safety and consumer choice as the industry develops over the coming decade were also

assessed.