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# Up close and personal

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How is personalised nutrition redefining consumer health? By Charlotte Bastiaanse

Although there is no universal definition of personalised nutrition, it's understood to be part of a larger health ecosystem that provides consumers with meaningful and personalised insights that lead them to successful, long-term behaviour change and, ultimately, a healthier life.

Every person is different in their genetic profile, phenotypic characteristics, microbiome, medical conditions, lifestyle, exercise and diet. These factors all impact individual nutrition needs, giving rise to an interest in tailored and customised solutions. For the healthcare industry, personalised nutrition offers a unique opportunity to engage with consumers and build stronger relationships.

### What is personalised nutrition?

From a tool to a service—personalised nutrition means different things to different experts. Ultimately, consumers have a varied understanding of what it is, too. Mariette Abrahams, founder and CEO of Qina (a consultancy), defines personalised nutrition as the ability to follow tailored long-term dietary and lifestyle recommendations that are grounded in science—effects of which should be measured and tracked over time. Having a feedback loop of quality information, data and insights in order to make personalised nutrition work is essential.

Daniel Protz, CEO and founder at FlavorWiki (a flavour technology company), defines personalised nutrition as a modern and digital term for curated nutritional advice, based on various unique inputs about an individual. He adds, "I do not believe that traditional coaching and biomarker technology is aligned. The coaching model lacks the ability to understand which of the biomarkers make sense and how to interpret them."

Marco lotti, co-founder at Mixfit (a digital tool provider), believes personalised nutrition should be approached from a holistic perspective. He notes, "The modern Western approach to nutrition and health needs to blend more with ancient traditional approaches—like Traditional Chinese Medicine and Ayurveda and philosophies."

#### Who are the buyers?

Empowered consumers are demonstrating a keen interest in personal wellbeing, and are motivated to seek tools that support health improvement. But businesses venturing into the space, and even those already there, must invest in identifying and understanding their target consumer.

Volker Spitzer, Ph.D, Global Principal R&D – IQVIA Consumer Health, highlights North America, Europe and, specifically, Japan as leaders in personalised nutrition. Abrahams agrees, as she also sees real interest in health and nutrition amongst consumers in these regions, and a general combined mistrust in pharma, food and healthcare.

Spitzer says the majority of current consumers in the personalised nutrition space are 'early adopters,' meaning they have a strong interest in their wellness, are actively looking for tailored solutions to help further optimise their health, and importantly—they're ready to invest. "The biohackers will always be the early adopters pushing the boundaries of the personalised nutrition space," says Philipp Schulte, cofounder and CEO at Baze. "They expect a lot from their data and are willing to trial methods and perform 'n=1' experiments on themselves, all of which helps the industry to grow as a whole."

Additionally, consumers battling medical conditions, such as metabolic disorders or obesity, will look to personalised nutrition for solutions. Those with specific nutritional needs or desires, such as keto or vegan diet, or during pregnancy and lactation, also seem to be a fast-growing consumer group. On this topic, lotti says, "I don't believe personalised nutrition, as it is concepted today, can manage serious disease and illness—this has to be left to medicine and pharmaceutical drugs. Personalised nutrition needs to find its place back in the kitchen and offer its capabilities in prevention and health enhancement. Food should seek to resonate with a time when eating was not just for the pleasure of the palate, but tied to healthy living and disease prevention."

When it comes to personalisation, it's not only the general population who want tailored solutions. "They're willing to invest in personalised nutrition because of the unmistakable benefits of these solutions performance enhancement and lower risk of injuries," says Philipp Merk, managing director at LOEWI (a personalised nutrition company focused on athletes). David Foreman, founder of Herbal Pharmacist, adds that high-level athletes are an ideal target group because they stand to gain from even the smallest changes in biochemistry and physiology.

Although a large population of consumers invested in their health and wellbeing exists, personalised nutrition may have a tough job convincing consumers who are conditioned to instant satisfaction to adopt behavioural changes with benefits realised over the long haul. There are also investments to be made when it comes to marketing personalised nutrition to end consumers. If you consider the food industry, to B2B developers, personalised nutrition is right up there with alternative meat. However, when you consider which market has greater consumer interest, the number of people who have shifted toward plant-based eating reveals higher uptake. lotti suggests this is because personalised nutrition hasn't been able to communicate the benefits to the consumer in the same simple and understandable way that the meat substitutes industry has.

"The really neat thing evolving in this space though is that personalised nutrition is gradually becoming more and more affordable and with that movement, more consumers are able to jump into adopting these tools and services," says Schulte. This allows companies to work with and learn from a whole new sector of consumers who may have different and varied interests from the biohacking type. He shares that as price decreases, science evolves and interest increases, the industry will be able to learn more from the everyday consumer, which will further the ability to deliver the benefits of personalised nutrition to the masses.

#### **Biomarkers and testing factors**

Historically, the development of biomarkers was driven by medical diseases rather than measuring current health status. Personalised nutrition primarily seeks to maintain and improve health, and therefore it is important to determine relevant biomarkers in the context of health before disease onset. Spitzer explains that when an individual is healthy, the mechanisms maintaining homeostasis buffer biochemical challenges that we all face as individuals. Lifestyle, including nutrition, affects how well homeostasis works, and disease prevails when the homeostatic system fails. Because the concept of

personalised nutrition is grounded in intelligence about the individual, gathering and interpretation of biomarkers are of utmost significance.

Lifestyle, including nutrition, affects how well homeostasis works, and disease prevails when the homeostatic system fails. Key markers will depend on personal goals, quality of the feedback, and the ecosystem around the offering—as no single company can do it all. Without understanding what a person seeks to improve or resolve, no path to that goal can be mapped. Abrahams notes, "This can be anything from a physical biomarker, such as weight loss or muscle strength, to a softer biomarker such as happiness, energy or anxiety levels."

Personalised nutrition has its roots in DNA testing, but Foreman notes the majority of these results usually reveal information that consumers should already be, or are, aware of; hence, developers have moved away from DNA as the foundation of personalised nutrition. DNA testing can reveal future risk, but it can't assess conditions in the body in real-time.

"If a personalised nutrition company tells a consumer they are at greater risk for cardiovascular disease, there is only implied actionability there," says Schulte. "Instead, picture a business that provides the risk assessment and then partners with strategic companies to create a wellness ecosystem that the consumer can take advantage of: health coaching, gyms, meal delivery services, lab testing—which model is more meaningful, actionable, and likely to lead to long term change?"

He adds that the personalised nutrition industry is heading in the right direction by moving away from 'DNA-only' models and instead moving toward a larger wellness picture, which includes coaching that provides action and accountability.

In the place of DNA is the microbiome, which seems to play a central and overlapping role with other health areas such as sports nutrition and cognition. Jonathan Jones, product development manager at Monteloeder, references to the 'TwinsUK' project conducted by Professor Tim Spector at Kings College in London, which showed that how the body assimilates nutrients has little to do with DNA. Instead, an increased interest in microbiome research has shown to be more relevant. "We are still some years away from truly understanding what constitutes a healthy gut microbiome, but it will become an increasingly relevant biomarker for overall health and weight management," Jones says. "Once baselines have been established, continued monitoring and regular feedback will help to enable ongoing personal attention."

So, if the industry is moving away from DNA testing, which markers does personalised nutrition need to consider? Spitzer refers to a recent analysis in which four main health influencing factors (health behaviours, genetics, the environment and access to healthcare services) were quantified.<sup>1</sup> Health behaviours (such as nutrition and physical activity) played the greatest role (at 50 percent) in maintaining health while the genetic profile only accounted for 20 percent. "It's a logical consequence that health behaviour has become a larger part of the personalised nutrition field aimed at delivering more holistic, targeted services to consumers," Spitzer says.

The full set of valid nutritional biomarkers has not yet been identified, but research teams are working to provide a better understanding of how health can be defined in terms of biomarkers. Spitzer says one such project is 'BIOCLAIMS (FP7-244995),' which established the principles to define robust biomarkers to quantify the health status. Another example is 'PREVENTOMICS (DT-SFS-14-2018-818318),' deriving from the European program, 'Horizon 2020.' Depending on an individual's specific needs, other established biomarkers such as blood pressure, glycated hemoglobin, blood lipid parameters and gut microbiome composition can be applied. As a live example, Spitz references the personalised

nutrition company, Habit, which provides a solution based on blood lipid parameters, such as LDL cholesterol, activity levels, and personal wellness goals.

#### **Data protection**

Personalised nutrition is possible because of technology and data. According to Merk, what recently put personalised nutrition into the spotlight were the advances achieved by finally being able to collect and utilise big chunks of data from various sources—such as fitness trackers, online questionnaires and lab diagnostics—in an efficient manner by using algorithms.

Data plays a central role in the concept of personalised nutrition but there are many considerations surrounding sourcing, interpretation and privacy protection. Consumers are conscious of giving up personal data and want to understand how it is used and stored. The responsibility of data explanation and transparency rests on the company's shoulders. Abrahams notes: "Scientific validation, accuracy of wearable data, and impact on health outcomes remain a challenge and we are now at a stage where we are learning from what works best, which data points are needed, and how to make sure that technology is ethical."

"It's a good thing that data privacy protection laws like General Data Protection Regulation (GDPR) exist," says lotti. "A civil society requires rules and big data do not differ. It's not difficult to build a

big data management system that is GDPRcompliant, and I don't see real blocker for innovation made through regulatory entities this is the way it should be." Privacy is of increasing concern when it comes to DNA collection, and Schulte says consumers can't discern the information that is gleaned from blood biomarkers in comparison to DNA—which can lead to some thinking any type of blood collection results in DNA extraction.

To highlight an example of good practice in the data protection field, Merk references 23andMe, a personalised nutrition company that offers full disclosure, is GDPR-compliant, and asks its patients if they are willing to participate in certain studies, thus allowing their personal information to be shared with third parties in order to contribute to scientific progress.

#### Technology driving innovation

The integration of digital technologies in personalised nutrition services has had a strong impact on developing consumer solutions. The mapping of human genome, the development of wearable sensors, and the progress in technology of dry blood spot tests are only a few of the milestones that have highly impacted this field over the last 20 years, as lotti highlights. "Recently, the ubiquities and simplicity of implementing deep learning

As the market continues to innovate, the challenge for businesses is staying relevant and adaptable. With technology perceived as a vehicle for market innovation, keeping up with the direction of change and the latest trends is key to maintaining competitive edge for personalised nutrition developers. to then develop predictive modelling in epidemiology is making incredible changes in the way we are applying personalised nutrition," he says. As the market continues to innovate, the challenge for businesses is staying relevant and adaptable. With technology perceived as a vehicle for market innovation, keeping up with the direction of change and the latest trends is key to maintaining competitive edge for personalised nutrition developers.

Abrahams observes that personalised nutrition is moving away from gadget-type models and toward detailed offerings and integration of technologies such as artificial intelligence, machine learning, chatbots, and coaching services.

Jones identifies the fastest growing technology as the 'servitisation (transformation journey)' of personalised nutrition through diet recommendations based on individual needs and personal preferences. "When this is done in an automated and non-invasive manner, it becomes a seamless part of nutrition and supplementation. Mobile apps and other digital technology can help to streamline the process of tracking, and conveniently deliver personal insights and encouragement," he says.

When comparing growth and cost, Schulte believes technology is evolving at the same rate as price is going down—both incredibly helpful for consumers and mass adoption. He elaborates that machine learning and supercomputers are helping personalised nutrition develop faster, and that personalisation is happening with fewer barriers to entry. As an example, companies have already rolled out video and phonebased counselling, at-home blood testing, and smartphone apps that make tracking behaviours and accountability as convenient as possible.

In Japan, Spitzer highlights Nestlé Health Science's launch of a personalised health support service, called 'Nestlé Wellness Club,' which provides subscribers with nutritional support based on data about their physical activity, dietary information and brain training scores, all of which are collated through a dedicated app. More recently, Nestlé expanded into personalised nutrition in North America through the acquisition of 'Persona.' The science-based proprietary technology is based on specific consumer factors, such as lifestyle, medical history and individual needs, and provides a customised nutritional assessment. The algorithm was developed through scientific data and recommendations from Nestle's Medical Advisory Board. After the assessment, consumers get a recommendation for specific and individualised dietary supplements.

"Currently, there is no particular leader in the area of technology as the capabilities to establish personalised solutions are spread across many industry sectors, such as nutrition, diagnostics and digital technologies," says Spitzer. "To successfully pull together the parts needed to offer tailored and personalised solutions, smart means of collaboration between different stakeholders is necessary."

#### Challenges and hurdles to commercial success

Personalised nutrition is an exciting market with tremendous potential to overcome ongoing health challenges and prevent the onset of disease. Historically, primary challenges for industry players are those of cost and scalability.

Schulte dives into why there is a historic issue of affordability: "The cost of testing—whether that be blood-based biomarkers, genetic sequencing, microbiome, saliva—is expensive. Then, when a consumer invests in personalised nutrition, they expect a lot back and, historically, the state of the science has not always met their expectations."

Schulte considers the example of the microbiome. Analysis can be done for a price but the information the consumer sees about their microbiome is not always actionable, because the science is just not there yet, or life-changing in the sense that it might not lead to behaviour change. When it comes to actionability, Schulte explains it's difficult to make personalised health information relevant to consumers in the long run if it's ultimately not actionable. While many early adopters are satisfied with learning more about themselves and then taking that data into their own hands, the everyday consumer requires more actionability. "The personalised

industry has not always been great with this,

typically because scientific research is in its infancy in some of these areas. One example being the early days of 23&Me and some of its reporting—it could detect asparagus odour or if I had an aversion to cilantro, but that's not going to influence any meaningful behaviour. The question the personalised nutrition industry needs to keep asking itself is 'so what?' How are consumers going to respond to this information? What can they do with this information to be healthier?"

Protz agrees that personalised nutrition is usually not affordable nor practical for the ordinary consumer, and, as a result, has a very small addressable market. Alternatively, Protz recommends utilising existing food products and helping the consumer to navigate purchase choices. "This is a more direct route than trying to optimise a program that is not achievable due to the complexity of life and the fragmentation of the food distribution chain."

Companies that offer personalised products are challenged by cost efficiency, as manufacturing personalised products is more expensive than manufacturing standardised products. To elaborate, Merk references his company, LOEWI, which provides personalised supplements for elite athletes and must ensure these products are compliant and free from banned substances. Merk explains, "With a standardised product, it is only necessary to test samples of one batch for doping substances before the product is ready to go. In our case, we need to test every batch of over 120 different granulates. This complex layer generates additional costs that drive up the prices of our products, but we reach the cusp of personalisation."

Across all markets and innovation models, long-term profitability and commercial viability are important drivers. But ultimately, consumers will determine the extent of success. Consumers need to invest financially on an ongoing basis in order to drive this, which requires continuous motivation to stick to their personalised program. "The industry needs to come up with meaningful, relevant and convenient solutions, and companies will only be successful if they are ready to demonstrate scientifically-validated concepts that also allow tangible and measurable health benefits," Spitzer says. Personalised nutrition should be positioned as a long-term project where consumers and service providers work together to improve overall health.

Abrahams agrees that an additional challenge exists in keeping customers engaged and contributing their data once the novelty has worn off. As a solution, she notes that as regulators become familiar with the field, the next step would be to see bigger investment made in prevention in terms of public spending. There is a need for more private-public partnerships to ensure the benefits of proven solutions can be widely accessed, and costs reduced as far as possible for the consumer.

"The big excitement about the personalised nutrition market of three to five years ago has mostly passed and this is actually a good thing," says lotti. "What is left is a healthy base of companies to build a proper future for the market, as the majority of the companies that paved the way are either out of business (such as Arivale and Ubiome) or resized in their projections. There is, of course, the importance of timing in launching a new endeavour, and the main question is whether or not the market is ready for it."

#### Not a one-man show

Personalised nutrition, in all its glory, has complex layers that no single company can peel away on its own. Instead, the solutions may be found through strategic collaboration. Spitzer notes developing personalised offerings is a challenge, particularly for bigger, less agile companies, as it typically runs contrary to the established industrialisation processes characterised by scale, repetition and efficiency. "Start-ups and smaller players have the opportunity and capability to act flexibly, and history shows that

breakthrough products or services aren't launched with a big bang, but rather start small and scale up as more people adopt

them," he says. While the large-scale personalised healthcare space is still in its infancy, there's an opportunity for the industry to revisit its approach to innovation and business models through new collaboration models with smaller players, which could just help to bring personalisation to life at scale. On the topic of where collaboration is needed, Merk notes some companies already have a large user base, but not the technological and scientific capabilities to develop high-quality algorithms for personalised nutrition. "On the other hand, there are science and technology-driven companies that put a lot of effort and research into developing quality recommendation algorithms, but lack pre-existing market access," he adds. Strategic partnership between these types of companies will be mutually beneficial and will drive the availability, reach and commercial viability of personalised nutrition over the coming years.

"Personalised nutrition companies can't be islands—they have to interact with the larger consumer ecosystem and there have been a lot of missed partnership opportunities because the industry does not always think ahead about how consumers will interact with the data and personalisation we provide them," says Schulte. "If we are only giving consumers one layer of actionability when there are in fact five different actionable steps that can come out of the information provided, then we are leaving 80% of opportunity on the table," he cautions.

Risk-sharing is another hurdle which could be overcome through strategic collaboration. Jones mentions that any new strategy comes with a degree of risk, which many companies are not willing to take. Start-ups are more willing but may not have the reach that established companies possess. He adds, "Even though many start-up incumbent partnerships are emerging, the speed and decision-making capabilities of these entities are very different. A consensus must be found between them."

## The consumer and landscape of the future

Looking to the future, technology, innovation and the changing consumer will continuously ask companies to reinvent. "Consumers will come to expect single-click, hyper-personalised, vast range and fast delivery from personalised nutrition—an Amazon or Netflix-style service for food and health. As lines continue to blur with other industries, we will start seeing big shifts driven by big technology players, and the personalised nutrition industry will shift gears once again," says Abrahams.

Schulte echoes this approach saying that personalised nutrition asks a lot of the consumer—tracking, testing and repeating. The everyday consumer is about convenience and ease, so this shifts the personalised nutrition landscape to be about making long-term personalised behaviour change as easy as possible and with the lowest barrier to entry.

On one hand, Merk believes the industry will see a broad user base looking for simple, convenient and cheap solutions. On the other, smaller groups with more specific needs athletes, pregnant women or medically diagnosed—will need very specialised solutions.

Furthermore, Spitzer identifies two demographics to be considered: the ageing society and the digitalised, health-focused consumers.

Globally, the elderly population is growing and the 'silver generation' is staying healthy longer. This creates new 'quality of life' expectations and are increasingly interested in products offering support for healthier ageing. However, there are also millions of people affected by age-related chronic diseases such as cardiovascular disease, cancer, respiratory problems, diabetes—which places a burden on healthcare systems. "Consumers and healthcare specialists are questioning why chronic age-related health problems are just accepted and not managed more effectively as there is movement towards prevention, and holistic and natural solutions," says Spitzer. "Dedicated personalised nutrition can foster prevention, and digital technologies and advances in diagnostics will further fuel this development."

Looking at the second consumer pool, as people become more engaged in their health and wellness journey, supporting digital tools continue to emerge. Spitzer shares that this includes access to a growing spectrum of health information and advice offered through digital devices, diagnostic tools, health tracking apps, and wearables paired with artificial intelligence. For selfcareoriented consumers, the freedom to diagnose and intervene in the field of acute problem-solving and prevention are high on the agenda. The 'I can look after myself' concept was identified as a key consumer trend for 2019 as people look for more real experiences, products and marketing to take control of their wellbeing.<sup>2</sup> "Consumers in 'selfcare' mode look for prevention methods, targeted physical exercise, healthy nutrition and more individualised solutions to address minor and chronic health concerns," notes Spitzer. "The market offering such support is growing, with a proliferation of services promoting healthier lifestyles through digitally supported diagnostic monitoring and selfeducation pathways already on the market." Consumers want health and selfcare to mimic their personalised 'digital life' outside of healthcare, and although we may not be there yet, the industry is paving this path rapidly. In the future, Spitzer expects that diagnostic information from different sources will merge and specific algorithms will turn this collated data into highly personalised health recommendations including which health products to use, lifestyle changes to make and daily behaviour to either eliminate or incorporate.

So, how will the consumer of the future shape the personalised nutrition market in coming years, and what other factors do developers need to consider? The education portion of what personalised nutrition is, how it delivers value, and digital health solutions are necessary for both consumers and healthcare professionals, says Abrahams. "We hope to see reimbursement of digital health solutions, and increasing involvement of key stakeholders, such as retailers and pharmacies."

Foreman adds that partnerships with labs and medical professionals for testing results and developing delivery technology will be beneficial to the personalised nutrition sector. "Of these professionals, involving pharmacists would be a great way to crack the challenge of scalability due to their ability to compound for each individual."

lotti's outlook is that it will be less a matter of large behavioural changes but rather an adaptation of personalised nutrition to people's habits. "Without instant satisfaction, we cannot think to have such impact on people's behaviour—that's why I don't think we will see much of a change in this regard. At the same time, the are accustomed to data and how it's managed, which will improve large collections in the future to make personalised nutrition more effective."

Considering that vast proportion of deaths caused by lifestyle-related diseases, the potential of personalised nutrition is tremendous. "If we are able to detect diseases long before actual outbreaks, we can undertake the right preventative measures by adjusting habits or closing nutritional gaps," says Merk. "The challenge will be to prove to health insurance companies and healthcare professionals that this can be achieved by personalised nutrition and that it will cut down costs in the long term, compared to current conventional treatments."

Diet Plan

#### References

- What Makes Us Healthy vs What We Spend on Being Healthy. (2012). Published by Bipartisan Policy Center. Accessed here: <u>https://bipartisanpolicy.org/report/</u> what-makes-us-healthy-vs-what-we-spend-on-beinghealthy/
- 2. Top Ten Global Consumer Trends 2019 (2019). Accessed here: <u>https://go.euromonitor.com/white-paper-EC-2019-Top-10-Global-Consumer-trends.</u> <u>html?utm\_source=blog&utm\_medium=blog&utm\_campaign=CT\_WP\_19\_01\_15\_Top%2010%20GCT%20</u> 2019%20EN&utm\_content=organic\_

#### **Biographies**

**Jonathan Jones**, Ph.D., product development manager, Monteloeder

Dr. Jones has 20 years of experience in clinical and applied research. His responsibilities include recognising challenges during study execution and analysis, identifying solutions, identifying data for collection, extracting subset of data and defining all the elements of the JITAI framework. He has collaborated with several global companies, universities, hospitals and agencies and has participated in the development of several industrial patents.

#### Mariette Abrahams, Ph.D., founder & CEO, Qina

Dr. Abrahams runs Qina, a boutique nutrition consultancy that provides strategy, data, training and NPD services to companies in the personalised nutrition and wellness industry. An established speaker, trainer and consultant in the area of personalised nutrition, she has worked with start-ups and global brands on developing new products, finding new target groups and closing the gap between industry, research, academia and frontline health practitioners.

#### Philipp Schulte, co-founder & CEO, Baze

Schulte has over 15 years of experience in life sciences with a focus on innovation and marketing. He is currently facing his most uphill struggle yet: getting his young daughter to have her full plate of nutrients.

#### Philipp Merk, managing director, LOEWI GmbH

Merk is founder and managing director of LOEWI and a data scientist at heart. He founded LOEWI with the vision to develop and utilise evidence-based personalised nutrition to improve people's overall health, performance and treatment of diseases. He oversees product development at LOEWI and puts emphasis on translating the latest research into algorithms and enabling the best evidence-based supplement and nutrition recommendations. He is a university lecturer and advises the regional government on digital health-related topics.

### **Volker Spitzer**, Ph.D, Global Principal R&D – IQVIA Consumer Health

Dr. Spitzer has over 28 years of R&D and innovation experience in the consumer health, natural ingredients industry and academia. After his career start as a professor, he pursued leading global roles at Roche, DSM Nutritional Products, Bayer Consumer Health and analyze & realize. He is now global principal at IQVIA leading consumer health R&D and innovation. He has authored over 70 papers and books around natural products, nutrition and innovation.

#### Marco lotti, Ph.D., founder & CEO, Altrove Innovation

Dr. lotti is an active foodtech entrepreneur, investor and strategic advisor. He is founder of ventures in Europe and North America, holds C-level positions in the nutrition, health and wellness field, and was a long-time member of the Open Innovation team of Nestlé and part of the effort behind Nespresso®. As a co-founder at Mixfit, Dr. lotti has been instrumental in the engineering required to bring Mixfit's solution to life. Leading a team of engineers, data scientists and product developers, Marco has brought forth the vision for key product features within Mixfit's real-time delivery system.

#### **David Foreman**, R.Ph., ND, founder, Herbal Pharmacist

Foreman is a pharmacist, author, television commentator, radio host and practicioner of natural living and holistic approaches to better health. His focus is to use all forms of media to educate on the benefits of herbs, vitamins, healthy lifestyle choices and the role they play in health. Foreman is currently part of the Scientific Advisory Board for Organic & Natural Health Association.

#### Daniel Protz, founder & CEO, FlavorWiki

Protz is an experienced executive and entrepreneur with proven change management and communication skills. Protz is an expert in delivering customer and business-facing products to drive growth and scale. His career spans across private equity, finance, business development, inventory and supply chain management. FlavorWiki is a data management solution that uses technology to capture individual consumer insights at scale with a focus on taste perception and preference.





As the official media for Vitafoods Europe and Asia, Vitafoods Insights explores emerging areas and key issues across the global health and nutrition industry, helping business executives make informed, strategic decisions. Vitafoods Insights reaches a broad audience of professionals, and shares the passion of enriching industry knowledge and growing the health and nutrition market.

Jon Benninger Vice President & Market Leader, SupplySide Portfolio jon.benninger@informa.com

Heather Granato Vice President, Content heather.granato@informa.com

Danielle Dunlap Vice President, Marketing Services danielle.dunlap@informa.com

Madison Dorn Program Coordinator

Andrew Rosseau Art Director

#### Informa Markets

2020 N. Central Ave., Suite 400 Phoenix, AZ 85004 United States

Phone: +1 480 990 1101 www.naturalproductsinsider.com Chris Lee Managing Director, GHNN Europe chris.lee@informa.com

Gareth Morris Head of Sales gareth.morris@informa.com

Maria Sidiropoulou Sales Excellence Manager maria.sidiropoulou@informa.com

Daniela Elia Head of Marketing daniela.elia@informa.com

Stephanie Campos Client Success Executive stephanie.campos@informa.com

Charlotte Bastiaanse Associate Editor charlotte.bastiaanse@informa.com

#### Informa Markets 240 Blackfriars Road London SE1 8BU United Kingdom

Phone: +44 (0) 20 7921 5000 www.vitafoods.eu.com



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