

# The Evolution of Personalised Nutrition:

## References

Aboulaghras, S., Piancatelli, D., Oumhani, K., Balahbib, A., Bouyahya, A., & Taghzouti, K. (2022). Pathophysiology and immunogenetics of celiac disease. *Clinica Chimica Acta*, 528, 74–83.

<https://doi.org/10.1016/j.cca.2022.01.022>

Adams, S. H., Anthony, J. C., Carvajal, R., Chae, L., Khoo, C. S. H., Latulippe, M. E., Matusheski, N. V., McClung, H. L., Rozga, M., Schmid, C. H., Wopereis, S., & Yan, W. (2020). Perspective: Guiding Principles for the Implementation of Personalized Nutrition Approaches That Benefit Health and Function. *Advances in Nutrition*, 11(1), 25–34.

<https://doi.org/10.1093/advances/nmz086>

Asnicar, F., Berry, S. E., Valdes, A. M., Nguyen, L. H., Piccinno, G., Drew, D. A., Leeming, E., Gibson, R., Le Roy, C., Khatib, H. Al, Francis, L., Mazidi, M., Mompeo, O., Valles-Colomer, M., Tett, A., Beghini, F., Dubois, L., Bazzani, D., Thomas, A. M., ... Segata, N. (2021). Microbiome connections with host metabolism and habitual diet from 1,098 deeply phenotyped individuals. *Nature Medicine*, 27(2), 321–332. <https://doi.org/10.1038/s41591-020-01183-8>

Bean, L. J. H., Funke, B., Carlston, C. M., Gannon, J. L., Kantarci, S., Krock, B. L., Zhang, S., & Bayrak-Toydemir, P. (2020). Diagnostic gene sequencing panels: from design to report—a technical standard of the American College of Medical Genetics and Genomics (ACMG). *Genetics in Medicine*, 22(3), 453–461. <https://doi.org/10.1038/S41436-019-0666-Z>

Berry, S. E., Valdes, A. M., Drew, D. A., Asnicar, F., Mazidi, M., Wolf, J., Capdevila, J., Hadjigeorgiou, G., Davies, R., Al Khatib, H., Bonnett, C., Ganesh, S., Bakker, E., Hart, D., Mangino, M., Merino, J., Linenberg, I., Wyatt, P., Ordovas, J. M., ... Spector, T. D. (2020). Human postprandial responses to food and potential for precision nutrition. *Nature Medicine*, 26(6), 964–973. <https://doi.org/10.1038/s41591-020-0934-0>

Bishop, T., & Thorne, J. (2019, April 26). [Why Arivale failed: Inside the surprise closure of an ambitious 'scientific wellness' startup](#). *GeekWire*.

Bjelakovic, G., Nikolova, D., Gluud, L. L., Simonetti, R. G., & Gluud, C. (2007). Mortality in Randomized Trials of Antioxidant Supplements for Primary and Secondary Prevention. *JAMA*, 297(8), 842. <https://doi.org/10.1001/jama.297.8.842>

Boland, M., Alam, F., & Bronlund, J. (2019). Modern Technologies for Personalized Nutrition. In C. M. Galanakis (Ed.), *Trends in Personalized Nutrition* (pp. 195–222). Academic Press. <https://doi.org/10.1016/B978-0-12-816403-7.00006-4>

Brock, A., & Huang, S. (2017). Precision Oncology: Between Vaguely Right and Precisely Wrong. *Cancer Research*, 77(23), 6473–6479. <https://doi.org/10.1158/0008-5472.CAN-17-0448>

Bush, C. L., Blumberg, J. B., El-Sohemy, A., Minich, D. M., Ordovás, J. M., Reed, D. G., Behm, V. A. Y. Y., & Ordovás, M. (2020). Toward the Definition of Personalized Nutrition: A Proposal by The American Nutrition Association. *Journal of the American College of Nutrition*, 39(1), 5–15. <https://doi.org/10.1080/07315724.2019.1685332>

Buziau, A. M., Schalkwijk, C. G., Stehouwer, C. D. A., Tolan, D. R., & Brouwers, M. C. G. J. (2020). Recent advances in the pathogenesis of hereditary fructose intolerance: implications for its treatment and the understanding of fructose-induced non-alcoholic fatty liver disease. *Cellular and Molecular Life Sciences*, 77(9), 1709–1719. <https://doi.org/10.1007/s00018-019-03348-2>

Callaghan, S., Lösch, M., Pione, A., & Teichner, W. (2021). [Feeling good: The future of the \\$1.5 trillion wellness market](#) | McKinsey. McKinsey & Company, April, 1–8.

Catanzaro, R., Sciuto, M., & Marotta, F. (2021). Lactose intolerance: An update on its pathogenesis, diagnosis, and treatment. *Nutrition Research*, 89, 23–34. <https://doi.org/10.1016/j.nutres.2021.02.003>

Celis-Morales, C., Livingstone, K. M., Marsaux, C. F. M., Forster, H., O'Donovan, C. B., Woolhead, C., Macready, A. L., Fallaize, R., Navas-Carretero, S., San-Cristobal, R., Kolossa, S., Hartwig, K., Tsirigoti, L., Lambrinou, C. P., Moschonis, G., Godlewska, M., Surwi??o, A., Grimaldi, K., Bouwman, J., ... Mathers, J. C. (2015). Design and baseline characteristics of the Food4Me study: a web-based randomised controlled trial of personalised nutrition in seven European countries. *Genes and Nutrition*, 10(1). <https://doi.org/10.1007/s12263-014-0450-2>

Cifuentes, A. (2009). Food analysis and Foodomics. *Journal of Chromatography A*, 1216(43), 7109. <https://doi.org/10.1016/j.chroma.2009.09.018>

D'Auria, E., Abrahams, M., Zuccotti, G., & Venter, C. (2019). Personalized Nutrition Approach in Food Allergy: Is It Prime Time Yet? *Nutrients*, 11(2), 359. <https://doi.org/10.3390/nu11020359>

de Luca, A., Hankard, R., Borys, J.-M., Sinnott, D., Marcil, V., & Levy, E. (2017). Nutriepigenomics and malnutrition. *Epigenomics*, 9(6), 893–917. <https://doi.org/10.2217/epi-2016-0168>

De Roos, B. (2013). Personalised nutrition: Ready for practice? *Proceedings of the Nutrition Society*, 72(1), 48–52. <https://doi.org/10.1017/S0029665112002844>

Delnoy, B., Coelho, A. I., & Rubio-Gozalbo, M. E. (2021). Current and Future Treatments for Classic Galactosemia. *Journal of Personalized Medicine*, 11(2), 75. <https://doi.org/10.3390/jpm11020075>

Deloitte. (2021). [The Future of Food: Personalized Nutrition Grants and incentives to accelerate the development of personalized nutrition.](#)

DigitalFoodLab. (2021). [Foodtech Trends in 2021 | Global Report of the Innovations that will Disrupt the Food Ecosystem | 2021 Edition.](#)

Doets, E. L., de Hoogh, I. M., Holthuysen, N., Wopereis, S., Verain, M. C. D., van den Puttelaar, J., Hogenelst, K., Boorsma, A., Bouwman, E. P., Timmer, M., Pasman, W. J., van Erk, M., & Reinders, M. J. (2019). Beneficial effect of personalized lifestyle advice compared to generic advice on wellbeing among Dutch seniors – An explorative study. *Physiology & Behavior*, 210, 112642. <https://doi.org/10.1016/j.physbeh.2019.112642>

Dr Goodfood. (2018, July 17). ["Let food be thy medicine"- Hippocrates? | Dr Goodfood. Dr. Goodfood Coalition.](#)

Drabsch, T., Gatzemeier, J., Pfenhauer, L., Hauner, H., & Holzapfel, C. (2018). Associations between single nucleotide polymorphisms and total energy, carbohydrate, and fat intakes: A systematic review. *Advances in Nutrition*, 9(4), 425–453. <https://doi.org/10.1093/advances/nmy024>

Egger, G. (2017). *Lifestyle Medicine: Lifestyle, the Environment and Preventive Medicine in Health and Disease* (G. Egger, A. Binns, S. Rössner, & M. Sagner (eds.)), Academic Press

FDA. (2017, April 6). [FDA allows marketing of first direct-to-consumer tests that provide genetic risk information for certain conditions | FDA. US Food & Drug Administration.](#)

Floris, M., Cano, A., Porru, L., Addis, R., Cambedda, A., Idda, M. L., Steri, M., Ventura, C., & Maioli, M. (2020). Direct-to-Consumer Nutrigenetics Testing: An Overview. *Nutrients*, 12(2), 566. <https://doi.org/10.3390/nu12020566>

FoodNavigator. (2021). [The FoodTech 500: The 'world's first' definitive list of AgriFoodTech talent unveiled.](#)

ForwardFooding. (2021). [Forward Fooding AgriFood |Tech ecosystem mapping | Forward Fooding.](#)

García-Cañas, V., Simó, C., Herrero, M., Ibáñez, E., & Cifuentes, A. (2012). Present and Future Challenges in Food Analysis: Foodomics. *Analytical Chemistry*, 84(23), 10150–10159. <https://doi.org/10.1021/ac301680q>

Gibney, M. J., & Walsh, M. C. (2013). The future direction of personalised nutrition: My diet, my phenotype, my genes. *Proceedings of the Nutrition Society*, 72(2), 219–225. <https://doi.org/10.1017/S0029665112003436>

GlobalData Healthcare. (2021, November 18). [The continuous glucose monitors market grows rapidly due to fast customer adoption. Medical Device Network.](#)

Gnodi, E., Meneveri, R., & Barisani, D. (2022). Celiac disease: From genetics to epigenetics. *World Journal of Gastroenterology*, 28(4), 449–463. <https://doi.org/10.3748/wjg.v28.i4.449>

Gonzalez-Covarrubias, V., Martínez-Martínez, E., & del Bosque-Plata, L. (2022). The Potential of Metabolomics in Biomedical Applications. *Metabolites*, 12(2), 194. <https://doi.org/10.3390/metabo12020194>

Goodrich, J. K., Waters, J. L., Poole, A. C., Sutter, J. L., Koren, O., Blekhman, R., Beaumont, M., Van Treuren, W., Knight, R., Bell, J. T., Spector, T. D., Clark, A. G., & Ley, R. E. (2014). Human Genetics Shape the Gut Microbiome. *Cell*, 159(4), 789–799. <https://doi.org/10.1016/j.cell.2014.09.053>

Goossens, J. (2015). [Does personalised nutrition have business potential in the future? Food4Me Conference, 30 March 2015.](#)

Goossens, J. (2016). [Personalised Nutrition - A new business potential for the future? Agro Food Industry Hi Tech, April, 18–21.](#)

Grand View Research. (2019, January). [Nutrigenomics Market Size, Trend | Industry Analysis Report, 2019-2025.](#)

Grimaldi, Keith A., van Ommen, B., Ordovas, J. M., Parnell, L. D., Mathers, J. C., Bendik, I., Brennan, L., Celis-Morales, C., Cirillo, E., Daniel, H., de Kok, B., El-Sohemy, A., Fairweather-Tait, S. J., Fallaize, R., Fenech, M., Ferguson, L. R., Gibney, E. R., Gibney, M., Gjelstad, I. M. F., ... Bouwman, J. (2017). Proposed guidelines to evaluate scientific validity and evidence for genotype-based dietary advice. In *Genes and Nutrition* (Vol. 12, Issue 1). BioMed Central Ltd. <https://doi.org/10.1186/s12263-017-0584-0>

Grimaldi, Keith Anthony. (2019). Guidelines to Evaluate the Scientific Validity for Genotype-Based Dietary Advice. In *Trends in Personalized Nutrition* (pp. 33–53). Elsevier.

<https://doi.org/10.1016/B978-0-12-816403-7.00002-7>

Guasch-Ferré, M., Dashti, H. S., & Merino, J. (2018). Nutritional Genomics and Direct-to-Consumer Genetic Testing: An Overview. *Advances in Nutrition*, 9, 128–135.  
<https://doi.org/10.1093/advances/nmy001>

HM Government. (2020, September 26). [Genome UK: the future of healthcare](#).

Holzapfel, C., & Drabsch, T. (2019). A scientific perspective of personalised gene-based dietary recommendations for weight management. *Nutrients*, 11(3), 1–14.  
<https://doi.org/10.3390/nu11030617>

Horton, R., Crawford, G., Freeman, L., Fenwick, A., Wright, C. F., & Lucassen, A. (2019). Direct-to-consumer genetic testing. *The BMJ*, 367. <https://doi.org/10.1136/bmj.l5688>

House of Commons Science and Technology Committee. (2021). [Direct-to-consumer genomic testing](#).

IFIC. (2018). [2018 Food & Health Survey](#).

Ignaszewski, E. (2022, January 19). [When will the price be right? The Good Food Institute](#).

Joost, H. G., Gibney, M. J., Cashman, K. D., Görman, U., Hesketh, J. E., Mueller, M., van Ommen, B., Williams, C. M., & Mathers, J. C. (2007). Personalised nutrition: Status and perspectives. *British Journal of Nutrition*, 98(1), 26–31.  
<https://doi.org/10.1017/S0007114507685195>

Khan, R., & Mittelman, D. (2018). Consumer genomics will change your life, whether you get tested or not. In *Genome Biology* (Vol. 19, Issue 1). BioMed Central Ltd.  
<https://doi.org/10.1186/s13059-018-1506-1>

Khera, A. V., Chaffin, M., Wade, K. H., Zahid, S., Brancale, J., Xia, R., Distefano, M., Senol-Cosar, O., Haas, M. E., Bick, A., Aragam, K. G., Lander, E. S., Smith, G. D., Mason-Suares, H., Fornage, M., Lebo, M., Timpson, N. J., Kaplan, L. M., & Kathiresan, S. (2019). Polygenic Prediction of Weight and Obesity Trajectories from Birth to Adulthood. *Cell*, 177(3), 587-596.e9.  
<https://doi.org/10.1016/j.cell.2019.03.028>

King, S. E., & Skinner, M. K. (2020). Epigenetic Transgenerational Inheritance of Obesity Susceptibility. *Trends in Endocrinology & Metabolism*, 31(7), 478–494.  
<https://doi.org/10.1016/j.tem.2020.02.009>

Kohlmeier, M., De Caterina, R., Ferguson, L. R., Görman, U., Allayee, H., Prasad, C., Kang, J. X., Nicoletti, C. F., & Martinez, J. A. (2016). Guide and Position of the International Society of Nutrigenetics/Nutrigenomics on Personalized Nutrition: Part 2 - Ethics, Challenges and Endeavors of Precision Nutrition. *Journal of Nutrigenetics and Nutrigenomics*, 9(1), 28–46.  
<https://doi.org/10.1159/000446347>

Kootte, R. S., Levin, E., Salojärvi, J., Smits, L. P., Hartstra, A. V., Udayappan, S. D., Hermes, G., Bouter, K. E., Koopen, A. M., Holst, J. J., Knop, F. K., Blaak, E. E., Zhao, J., Smidt, H., Harms, A. C., Hankemeijer, T., Bergman, J. J. G. H. M., Romijn, H. A., Schaap, F. G., ... Nieuwdorp, M. (2017). Improvement of Insulin Sensitivity after Lean Donor Feces in Metabolic Syndrome Is Driven by Baseline Intestinal Microbiota Composition. *Cell Metabolism*, 26(4), 611-619.e6.  
<https://doi.org/10.1016/j.cmet.2017.09.008>

Kristensen, N. B., Bryrup, T., Allin, K. H., Nielsen, T., Hansen, T. H., & Pedersen, O. (2016). Alterations in fecal microbiota composition by probiotic supplementation in healthy adults: a systematic review of randomized controlled trials. *Genome Medicine*, 8(1), 52.

<https://doi.org/10.1186/s13073-016-0300-5>

Kumar Dalei, S., & Adlakha, N. (2022). Food Regime for Phenylketonuria: Presenting Complications and Possible Solutions. *Journal of Multidisciplinary Healthcare*, Volume 15, 125–136. <https://doi.org/10.2147/JMDH.S330845>

Larsen, L. H., Ångquist, L., Vimalaswaran, K. S., Hager, J., Viguerie, N., Loos, R. J., Handjieva-Darlenska, T., Jebb, S. A., Kunešova, M., Larsen, T. M., Martinez, J. A., Papadaki, A., Pfeiffer, A. F., van Baak, M. A., Sørensen, T. I., Holst, C., Langin, D., Astrup, A., & Saris, W. H. (2012). Analyses of single nucleotide polymorphisms in selected nutrient-sensitive genes in weight-regain prevention: the DIOGENES study. *The American Journal of Clinical Nutrition*, 95(5), 1254–1260. <https://doi.org/10.3945/ajcn.111.016543>

Lebwohl, B., Cao, Y., Zong, G., Hu, F. B., Green, P. H. R., Neugut, A. I., Rimm, E. B., Sampson, L., Dougherty, L. W., Giovannucci, E., Willett, W. C., Sun, Q., & Chan, A. T. (2017). Long term gluten consumption in adults without celiac disease and risk of coronary heart disease: prospective cohort study. *BMJ*, j1892. <https://doi.org/10.1136/bmj.j1892>

Letai, A. (2017). Functional precision cancer medicine—moving beyond pure genomics. *Nature Medicine*, 23(9), 1028–1035. <https://doi.org/10.1038/nm.4389>

Li, S. X., Imamura, F., Ye, Z., Schulze, M. B., Zheng, J., Ardanaz, E., Arriola, L., Boeing, H., Dow, C., Fagherazzi, G., Franks, P. W., Agudo, A., Grioni, S., Kaaks, R., Katzke, V. A., Key, T. J., Khaw, K. T., Mancini, F. R., Navarro, C., ... Wareham, N. J. (2017). Interaction between genes and macronutrient intake on the risk of developing type 2 diabetes: systematic review and findings from European Prospective Investigation into Cancer (EPIC)-InterAct. *The American Journal of Clinical Nutrition*, 106(1), 263–275. <https://doi.org/10.3945/ajcn.116.150094>

Livingstone, K. M., Celis-Morales, C., Lara, J., Woolhead, C., O'Donovan, C. B., Forster, H., Marsaux, C. F., Macready, A. L., Fallaize, R., Navas-Carretero, S., San-Cristobal, R., Kolossa, S., Tsigoti, L., Lambrinou, C. P., Moschonis, G., Surwi, A., Drevon, C. A., Manios, Y., Traczyk, I., ... Mathers, J. C. (2016). Clustering of adherence to personalised dietary recommendations and changes in healthy eating index within the Food4Me study. *Public Health Nutrition*, 19(18), 3296–3305. <https://doi.org/10.1017/S1368980016001932>

Livingstone, K. M., Celis-Morales, C., Navas-Carretero, S., San-Cristobal, R., Forster, H., Woolhead, C., O'donovan, C. B., Moschonis, G., Manios, Y., Traczyk, I., Gundersen, T. E., Drevon, C. A., Marsaux, C. F. M., Fallaize, R., Macready, A. L., Daniel, H., Saris, W. H. M., Lovegrove, J. A., Gibney, M., ... Mathers, J. C. (2020). Characteristics of participants who benefit most from personalised nutrition: findings from the pan-European Food4Me randomised controlled trial. *British Journal of Nutrition*, 123(12), 1396–1405. <https://doi.org/10.1017/S0007114520000653>

Livingstone, K. M., Celis-Morales, C., Navas-Carretero, S., San-Cristobal, R., Forster, H., Woolhead, C., O'Donovan, C. B., Moschonis, G., Manios, Y., Traczyk, I., Gundersen, T. E., Drevon, C. A., Marsaux, C. F. M., Fallaize, R., Macready, A. L., Daniel, H., Saris, W. H. M., Lovegrove, J. A., Gibney, M., ... Mathers, J. C. (2021). Personalised nutrition advice reduces intake of discretionary foods and beverages: findings from the Food4Me randomised controlled trial. *International Journal of Behavioral Nutrition and Physical Activity*, 18(1), 1–12. <https://doi.org/10.1186/s12966-021-01136-5>

Macready, A. L., Fallaize, R., Butler, L. T., Ellis, J. A., Kuznesof, S., Frewer, L. J., Celis-Morales, C., Livingstone, K. M., Araújo-Soares, V., Fischer, A. R., Stewart-Knox, B. J., Mathers, J. C., & Lovegrove, J. A. (2018). Application of Behavior Change Techniques in a Personalized Nutrition Electronic Health Intervention Study: Protocol for the Web-Based Food4Me Randomized Controlled Trial. *JMIR Research Protocols*, 7(4), e87. <https://doi.org/10.2196/resprot.8703>

Marcum, J. A. (2020). Nutrigenetics/Nutrigenomics, Personalized Nutrition, and Precision Healthcare. *Current Nutrition Reports*, 9, 338–345. <https://doi.org/10.1007/s13668-020-00327-z>

Matusheski, N. V., Caffrey, A., Christensen, L., Mezgec, S., Surendran, S., Hjorth, M. F., McNulty, H., Pentieva, K., Roager, H. M., Seljak, B. K., Vimalaswaran, K. S., Remmers, M., & Péter, S. (2021). Diets, nutrients, genes and the microbiome: Recent advances in personalised nutrition. *British Journal of Nutrition*, 126(10), 1489–1497. <https://doi.org/10.1017/S0007114521000374>

Mendes-Soares, H., Raveh-Sadka, T., Azulay, S., Edens, K., Ben-Shlomo, Y., Cohen, Y., Ofek, T., Bachrach, D., Stevens, J., Colibaseanu, D., Segal, L., Kashyap, P., & Nelson, H. (2019). Assessment of a Personalized Approach to Predicting Postprandial Glycemic Responses to Food Among Individuals Without Diabetes. *JAMA Network Open*, 2(2), e188102. <https://doi.org/10.1001/jamanetworkopen.2018.8102>

Menni, C., Jackson, M. A., Pallister, T., Steves, C. J., Spector, T. D., & Valdes, A. M. (2017). Gut microbiome diversity and high-fibre intake are related to lower long-term weight gain. *International Journal of Obesity*, 41(7), 1099–1105. <https://doi.org/10.1038/ijo.2017.66>

Mills, Lane, Smith, Grimaldi, Ross, & Stanton. (2019). Precision Nutrition and the Microbiome Part II: Potential Opportunities and Pathways to Commercialisation. *Nutrients*, 11(7), 1468. <https://doi.org/10.3390/nu11071468>

Mills, S., Stanton, C., Lane, J., Smith, G., & Ross, R. (2019). Precision Nutrition and the Microbiome, Part I: Current State of the Science. *Nutrients*, 11(4), 923. <https://doi.org/10.3390/nu11040923>

Moore, J. B. (2020). From personalised nutrition to precision medicine: the rise of consumer genomics and digital health. *Proceedings of the Nutrition Society*, 79(3), 300–310. <https://doi.org/10.1017/S0029665120006977>

NHS. (2019, January 28). [The Eatwell Guide - NHS. NHS.](#)

NHS. (2020, July 20). [Customer survey 2020. NHS Resolution.](#)

NIH. (2021, November 1). [The Cost of Sequencing a Human Genome. National Human Genome Research Institute.](#)

O'Sullivan, A., Gibney, M. J., & Brennan, L. (2011). Dietary intake patterns are reflected in metabolomic profiles: potential role in dietary assessment studies. *The American Journal of Clinical Nutrition*, 93(2), 314–321. <https://doi.org/10.3945/ajcn.110.000950>

Olsson, L. M., Boulund, F., Nilsson, S., Khan, M. T., Gummesson, A., Fagerberg, L., Engstrand, L., Perkins, R., Uhlén, M., Bergström, G., Tremaroli, V., & Bäckhed, F. (2022). Dynamics of the normal gut microbiota: A longitudinal one-year population study in Sweden. *Cell Host & Microbe*. <https://doi.org/10.1016/j.chom.2022.03.002>

Ordovas, J. M., Ferguson, L. R., Tai, E. S., & Mathers, J. C. (2018). Personalised nutrition and health. *BMJ (Online)*, 361, 1–7. <https://doi.org/10.1136/bmj.k2173>

Póinhos, R., Oliveira, B. M. P. M., van der Lans, I. A., Fischer, A. R. H., Berezowska, A., Rankin, A., Kuznesof, S., Stewart-Knox, B., Frewer, L. J., & de Almeida, M. D. V. (2017). Providing Personalised Nutrition: Consumers' Trust and Preferences Regarding Sources of Information, Service Providers and Regulators, and Communication Channels. *Public Health Genomics*, 20(4), 218–228. <https://doi.org/10.1159/000481357>

Póinhos, R., van der Lans, I. A., Rankin, A., Fischer, A. R. H., Bunting, B., Kuznesof, S., Stewart-Knox, B., & Frewer, L. J. (2014). Psychological Determinants of Consumer Acceptance of

Personalised Nutrition in 9 European Countries. PLoS ONE, 9(10), e110614.  
<https://doi.org/10.1371/journal.pone.0110614>

Porzi, M., Burton-Pimentel, K. J., Walther, B., & Vergères, G. (2021). Development of Personalized Nutrition: Applications in Lactose Intolerance Diagnosis and Management. *Nutrients*, 13(5), 1503. <https://doi.org/10.3390/nu13051503>

Rankin, A., Bunting, B. P., Poínhos, R., Van Der Lans, I. A., Fischer, A. R. H., Kuznesof, S., Almeida, M. D. V., Markovina, J., Frewer, L. J., & Stewart-Knox, B. J. (2018). Food choice motives, attitude towards and intention to adopt personalised nutrition. *Public Health Nutrition*, 21(14), 2606–2616. <https://doi.org/10.1017/S1368980018001234>

Ray, K. (2018). Filling up on fibre for a healthy gut. *Nature Reviews Gastroenterology & Hepatology*, 15(2), 67–67. <https://doi.org/10.1038/nrgastro.2018.2>

ResearchAndMarkets. (2020, December 8). [\\$16.6 Billion Personalized Nutrition Market - Global Size, Research and Markets](#).

Ronteltap, A., Van Trijp, H., Berezowska, A., & Goossens, J. (2013). Nutrigenomics-based personalised nutritional advice: In search of a business model? *Genes and Nutrition*, 8(2), 153–163. <https://doi.org/10.1007/s12263-012-0308-4>

Rose, G. (1981). Strategy of prevention: lessons from cardiovascular disease. *BMJ*, 282(6279), 1847–1851. <https://doi.org/10.1136/bmj.282.6279.1847>

Röttger-Wirtz, S., & De Boer, A. (2021). Personalised Nutrition: The EU's Fragmented Legal Landscape and the Overlooked Implications of EU Food Law. *European Journal of Risk Regulation*, 12(1), 212–235. <https://doi.org/10.1017/err.2020.79>

Sagentia Innovation. (2021). [White paper: Unlocking personalised nutrition](#).

Schuetz, P., Fehr, R., Baechli, V., Geiser, M., Deiss, M., Gomes, F., Kutz, A., Tribolet, P., Bregenzer, T., Braun, N., Hoess, C., Pavlicek, V., Schmid, S., Bilz, S., Sigrist, S., Brändle, M., Benz, C., Henzen, C., Mattmann, S., ... Mueller, B. (2019). Individualised nutritional support in medical inpatients at nutritional risk: a randomised clinical trial. *The Lancet*, 393(10188), 2312–2321. [https://doi.org/10.1016/S0140-6736\(18\)32776-4](https://doi.org/10.1016/S0140-6736(18)32776-4)

Spector, T., Berry, S., Valdes, A., Drew, D., Chan, A., Franks, P., Asnicar, F., Segata, N., & Davies, R. (2019). Integrating Metagenomic Information into Personalized Nutrition Tools: The PREDICT I Study (P20-005-19). *Current Developments in Nutrition*, 3(Supplement\_1). <https://doi.org/10.1093/cdn/nzz040.P20-005-19>

Stewart-Knox, B. J., Markovina, J., Rankin, A., Bunting, B. P., Kuznesof, S., Fischer, A. R. H., van der Lans, I. A., Poínhos, R., de Almeida, M. D. V., Panzone, L., Gibney, M., & Frewer, L. J. (2016). Making personalised nutrition the easy choice: Creating policies to break down the barriers and reap the benefits. *Food Policy*, 63, 134–144. <https://doi.org/10.1016/J.FOODPOL.2016.08.001>

Stewart-Knox, B., Kuznesof, S., Robinson, J., Rankin, A., Orr, K., Duffy, M., Poínhos, R., de Almeida, M. D. V., Macready, A., Gallagher, C., Berezowska, A., Fischer, A. R. H., Navas-Carretero, S., Riemer, M., Traczyk, I., Gjelstad, I. M. F., Mavrogianni, C., & Frewer, L. J. (2013). Factors influencing European consumer uptake of personalised nutrition. Results of a qualitative analysis. *Appetite*, 66, 67–74. <https://doi.org/10.1016/j.appet.2013.03.001>

Stewart-Knox, B., Rankin, A., Kuznesof, S., Poínhos, R., Vaz De Almeida, M. D., Fischer, A., & Frewer, L. J. (2015). Promoting healthy dietary behaviour through personalised nutrition: Technology push or technology pull? *Proceedings of the Nutrition Society*, 74(2), 171–176.

<https://doi.org/10.1017/S0029665114001529>

Strauss, B., Bertolaso, M., Ernberg, I., & Bissell, M. (2021). *Rethinking Cancer*. MIT Press.

Tandy-Connor, S., Guiltinan, J., Krempely, K., LaDuca, H., Reineke, P., Gutierrez, S., Gray, P., & Tippin Davis, B. (2018). False-positive results released by direct-to-consumer genetic tests highlight the importance of clinical confirmation testing for appropriate patient care. *Genetics in Medicine*, 20(12), 1515–1521. <https://doi.org/10.1038/gim.2018.38>

The Global Wellness Institute. (2021). [Healthy Eating, Nutrition, & Weight Loss; The Global Wellness Economy](#).

The Global Wellness Institute. (2022). [The Global Wellness Economy Country Rankings](#).

Tischer, C., Dyba, C., Clabbers, N., Abrahams, M., Burse, K., Schirmacher, G., Frey, S., & Dyba Nx-Food, C. (2021). [Personalized Nutrition Finding the right Business Model to overcome the Valley of Death, NX-Food](#).

Trestini, I., Sperduti, I., Caldart, A., Bonaiuto, C., Fiorio, E., Parolin, V., Zambonin, V., Zanelli, S., Tregnago, D., Avancini, A., Cintoni, M., Pilotto, S., Mele, M. C., Gasbarrini, A., Scambia, G., Milella, M., Tortora, G., Bria, E., & Carbognin, L. (2021). Evidence-based tailored nutrition educational intervention improves adherence to dietary guidelines, anthropometric measures and serum metabolic biomarkers in early-stage breast cancer patients: A prospective interventional study. *Breast*, 60, 6–14. <https://doi.org/10.1016/j.breast.2021.08.008>

Trifonova, Maslov, Balashova, & Lokhov. (2019). Evaluation of Dried Blood Spot Sampling for Clinical Metabolomics: Effects of Different Papers and Sample Storage Stability. *Metabolites*, 9(11), 277. <https://doi.org/10.3390/metabo9110277>

UK Government. (2021, May 19). [Genome UK: 2021 to 2022 implementation plan - GOV.UK. UK Government Department of Health & Social Care](#).

UK Parliament. (2021, September 15). [Event summary: Food insecurity and children's health - POST. UK Parliament](#).

Valdes, A. M., Walter, J., Segal, E., & Spector, T. D. (2018). Role of the gut microbiota in nutrition and health. *BMJ (Online)*, 361, 36–44. <https://doi.org/10.1136/BMJ.K2179>

Viana, J. N., Edney, S., Gondalia, S., Mauch, C., Sellak, H., O'Callaghan, N., & Ryan, J. C. (2021). Trends and gaps in precision health research: a scoping review. *BMJ Open*, 11(10), e056938. <https://doi.org/10.1136/bmjopen-2021-056938>

Vicente, A. M., Ballensiefen, W., & Jönsson, J.-I. (2020). How personalised medicine will transform healthcare by 2030: the ICPeMed vision. *Journal of Translational Medicine*, 18(1), 180. <https://doi.org/10.1186/s12967-020-02316-w>

Weinrich, R. (2019). Opportunities for the adoption of health-based sustainable dietary patterns: A review on consumer research of meat substitutes. *Sustainability (Switzerland)*, 11(15). <https://doi.org/10.3390/su11154028>

Westerman, K., Reaver, A., Roy, C., Ploch, M., Sharoni, E., Nogal, B., Sinclair, D. A., Katz, D. L., Blumberg, J. B., & Blander, G. (2018). Longitudinal analysis of biomarker data from a personalized nutrition platform in healthy subjects. *Scientific Reports*, 8, 14685. <https://doi.org/10.1038/s41598-018-33008-7>

WHO. (2021, April 13). [Noncommunicable diseases. WHO Fact Sheets](#).



Wu, H., Tremaroli, V., Schmidt, C., Lundqvist, A., Olsson, L. M., Krämer, M., Gummesson, A., Perkins, R., Bergström, G., & Bäckhed, F. (2020). The Gut Microbiota in Prediabetes and Diabetes: A Population-Based Cross-Sectional Study. *Cell Metabolism*, 32(3), 379-390.e3. <https://doi.org/10.1016/j.cmet.2020.06.011>

Zhang, F. F., Barr, S. I., McNulty, H., Li, D., & Blumberg, J. B. (2020). Health effects of vitamin and mineral supplements. *BMJ*, m2511. <https://doi.org/10.1136/bmj.m2511>

Zhang, P., Carlsten, C., Chaleckis, R., Hanhineva, K., Huang, M., Isobe, T., Koistinen, V. M., Meister, I., Papazian, S., Sdougkou, K., Xie, H., Martin, J. W., Rappaport, S. M., Tsugawa, H., Walker, D. I., Woodruff, T. J., Wright, R. O., & Wheelock, C. E. (2021). Defining the Scope of Exposome Studies and Research Needs from a Multidisciplinary Perspective. *Environmental Science & Technology Letters*, 8(10), 839–852. <https://doi.org/10.1021/acs.estlett.1c00648>

ZOE. (2020, October 1). [The PREDICT program. ZOE.](#)