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### Understanding and optimising the nutraceutical properties of fruit and vegetables

Edited by Professor Victor R. Preedy, King's College London, UK and Dr Vinood B. Patel, University of Westminster, UK



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This collection reviews research on phytochemicals in fruits and vegetables, their health benefits and ways these benefits can be optimised to improve human health.

### About the editors

**Dr Victor R. Preedy** is Professor of Clinical Biochemistry and Pathology at King's College Hospital and Emeritus Professor of Nutritional Biochemistry at King's College London, UK. He has published over 750 articles ona wide range of topics related to the impact of nutrition on health and disease.

**Dr Vinood B. Patel** is Reader in Clinical Biochemistry in the School of Life Sciences at the University of Westminster and a fellow of the Royal Society of Chemistry.

## Understanding and optimising the nutraceutical properties of fruit and vegetables

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### Part 1 Phytochemical compounds in fruits and vegetables: polyphenols

- Advances in understanding the nutraceutical properties of antioxidants in fruits and vegetables: Ugunujhie Agbaje, Mallaidh Hyndman and Soraeya Kharaty, School of Food Science and Environmental Health, Technological University Dublin - City Campus, Ireland; and Swarna Jaiswal and Amit K. Jaiswal, School of Food Science and Environmental Health, Technological University Dublin - City Campus and Environmental Sustainability and Health Institute, Technological University Dublin - City Campus, Ireland
- Advances in understanding phenolic compounds in fruits and vegetables: Cristine Vanz Borges, São Paulo State University (UNESP), Brazil; Fabio Vianello, University of Padua (UNIPD), Italy; Ricardo Alfredo Kluge, University of São Paulo (USP), Brazil; and Giuseppina Pace Pereira Lima, São Paulo State University (UNESP), Brazil
- Understanding the nutraceutical properties of flavonoids in fruits and vegetables: chemical structure and groups: A. D. Diwan, S. N. Harke and A. N. Panche, MGM Institute of Biosciences & Technology, Mahatma Gandhi Mission University, India
- Understanding the nutraceutical properties of flavonoids in fruits and vegetables: mechanisms of action: A. D. Diwan, S. N. Harke and A. N. Panche, MGM Institute of Biosciences & Technology, Mahatma Gandhi Mission University, India

#### Part 2 Phytochemicals in fruits and vegetables: glucosinolates and organosulfur compounds

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- 6. Nutraceutical potential of glucosinolates: Ella O'Grady and Greta Pileckaite, School of Food Science and Environmental Health, Technological University Dublin – City Campus, Ireland; Aline Alberti, Graduate Program in Food Science and Technology, State University of Ponta Grossa, Brazil; and Swarna Jaiswal and Amit K. Jaiswal, School of Food Science and Environmental Health, Technological University Dublin – City Campus and Environmental Sustainability and Health Institute, Technological University Dublin – City Campus, Ireland
- 7. Understanding the health benefits and nutraceutical properties of organosulphur compounds in vegetables: Greta Pileckaite and Ella O'Grady, School of Food Science and Environmental Health, Technological University Dublin – City Campus, Ireland; and Swarna Jaiswal and Amit K. Jaiswal, School of Food Science and Environmental Health, Technological University Dublin – City Campus and Environmental Sustainability and Health Institute, Technological University Dublin – City Campus, Ireland

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- 15. Advances in understanding and improving the nutraceutical properties of broccoli and other Brassicas: Elsa M. Gonçalves, Unidade de Tecnologia e Inovação, Instituto Nacional de Investigação Agrária e Veterinária and GeoBioTec Geobiociências, Geoengenharias e Geotecnologias, Faculdade de Ciências e Tecnologia, Universidade Nova de Lisboa, Portugal; Carla Alegria, SFCOLAB Associação Smart Farm COLAB Laboratório Colaborativo para a Inovação Digital na Agricultura, Rua Cândido dos Reis n°1, Espaço SFCOLAB and C52 Centre for Ecology, Evolution and Environmental Changes, Faculdade de Ciências, Universidade de Lisboa, Portugal; Ana Cristina Ramos, Unidade de Tecnologia e Inovação, Instituto Nacional de Investigação Agrária e Veterinária and GeoBioTec Geobiociências, Geoengenharias e Geotecnologias, Faculdade de Ciências e Tecnologia, Universidade Nova de Lisboa, Portugal; and Marta Abreu, Unidade de Tecnologia e Inovação, Instituto Nacional de Investigação Agrária e Veterinária and LEAF, Linking Landscape, Environment, Agriculture and Food, School of Agriculture, Universidade de Lisboa, Portugal

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