

Dilip Ghosh, PhD, FACN



Dr. Ghosh is an international speaker, facilitator and author and professionally associated with industries & institutes involved in Nutraceuticals, Pharmaceuticals & Complementary Medicine domain. Dr. Ghosh is an advisor and executive board member of Health Foods and Dietary Supplements Association (HADSA), India; Council for Ayurveda Research, USA; Adjunct-Industry Fellow, National Institute of Complementary Medicine (NICM), Western Sydney University, Australia) and Adjunct Professor, KASTURBA HEALTH SOCIETY, Medical Research Center, Mumbai, India. Dr. Ghosh is also a Honorary Ambassador, Global Harmonization Initiative (GHI). He is also on board of Vitafoods Content Advisory Panel.

With more than 25 years of experience in both pharmaceutical and food-nutrition industries, he is one of the pioneer facilitators in scientific and medical affairs domain.

Dilip previously held positions in Organon (India) Ltd., a division of Organon International, BV and AKZO-NOBEL, The Netherlands; HortResearch, New Zealand; USDA-ARS, HNRCA at Tufts University, Boston; The Smart Foods Centre, University of Wollongong, Australia; Neptune Bio-Innovations Pty Ltd, & Soho Flordis International (SFI), Sydney. He has been involved for a long time in drug-development and functional food research & development and its commercialisation both in academic and industry domains.

He received a PhD in biomedical science from the University of Calcutta, India along with a BSc (Hons) and MSc degrees in Zoology/Microbiology, MPhil in Environmental Sciences. He completed his post-doc from Tufts University, Boston, USA.

He was involved with two big research-based consortia, Wellness Food and Nutrigenomics New Zealand, is a fellow of the American College of Nutrition, professional member of Australian Institute of Food Science & Technology (AIFST), a member of several editorial boards, serves as a distinguished advisor for many international conferences. He also lectures in the School of Health Science at the University of Western Sydney and Smart Foods Centre, University of Wollongong, Australia, ITMO University, Russia.

His research interest includes food chemistry & biotechnology, oxidative stress, bioactive, clinically proven functional food and natural medicine development, regulatory and scientific aspects of functional foods, nutraceuticals and herbal medicines.

Dr. Ghosh has published more than 100 papers in peer reviewed journals, numerous articles in food and nutrition magazines and books. His recent books, "Biotechnology in functional foods and nutraceuticals", "Innovation of healthy and functional foods", "Clinical aspects of functional foods and nutraceuticals" & "Pharmaceutical to Nutraceutical: A Paradigm shift in disease prevention" by CRC Press have been published in 2010, 2012, 2014 & 2016, respectively. His most recent book "Nutraceuticals in Brain Health & Beyond" has just published by Elsevier/Academic Press. Dr. Ghosh is Review Editor, Frontiers in Nutrigenomics (2011 to present), American Journal of Advanced Food Science and Technology (2012 to present), J of Bioethics (2013 to present); J of Obesity & Metabolic Research (2013 to present), Associate Editor & member, Toxicology Mechanisms and Methods, Taylor & Francis, USA (2006-2007), Columnist at The Nutraceuticals World, USA

Dilip Ghosh

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CAREER ACHIEVEMENTS

- Strong background in all major areas of Quality Control and Research & Development related to Drug Discovery & Development (both synthetic & natural), Food Chemistry & Biotechnology, New Product Development, Safety Analysis of New Technology, Nutritional Science and Clinical Nutrition in a Pharmaceutical and Food Research Institute.
- Strong background in scientific and medical affairs areas in both pharmaceutical and nutraceutical industries with strong record of publications
- Demonstrated working experience with 'Key Opinion Leaders' and science advocacy through media campaigns, public speaking, commissioning and publishing research
- Demonstrated working experience with regulatory bodies, industry associations, health advocacy groups in Australia and overseas (South Asia, ASEANS, China, Japan).
- One of the most sought-after speakers in functional foods, nutraceuticals & natural medicine and human health domains
- *In-vitro*, *in-vivo* (Pre-clinical) and clinical trials experience for Biotech and Pharmaceutical company.
- Excellent working experience in a world-leading university as well as in industry with extensive well nurture network.
- Leadership and project management experience
- Expert in writing systematic review and translate hard-core science for non-specialist
- Proven Research Proposal & Report writing skill.

EDUCATION

- PhD** Biochemistry and Immunology of parasites causing Leishmaniases, University of Calcutta, India; Title: “Membrane glycoconjugates of Indian Leishmaniae - biochemical and immunological analysis”
- MPhil** Environmental Science, University of Calcutta, India, with First Class
Title: “Ecological survey of recent outbreak of Kala-azar in the different regions of West Bengal with special reference to its vector”
- MSc** Zoology (specialization in Parasitology / Microbiology), University of Calcutta, India, with First Class
- BSc (Honors)** Zoology with Human Physiology and Botany, University of Calcutta, with Second Class

BIOGRAPHIC INFORMATION

Citizenship: Australia, New Zealand & India (OCI)

HONOURS, AWARDS AND MEMBERSHIP

- Fellow, American College of Nutrition (ACN), USA
- Adjunct Professor, KASTURBA HEALTH SOCIETY, Medical Research Center, Mumbai, India
- Advisor, The Health Foods and Dietary Supplements Association (HADSA), India; Society for Ethnopharmacology, India
- Professional Member, The Australian Institute of Food Science & Technology (AIFST), Australia
- Honorary Ambassador, Global Harmonization Initiative (GHI), Austria

TEACHING EXPERIENCE

1. ITMO University, Saint Petersburg, Russia, School of Biotechnology;
Semester on “Food additives/Ingredients in the Food Industry”
(January 2022) 45 hrs teaching & tutorial
2. Western Sydney University, School of Science and Health, CLINICAL PHARMACOLOGY 400981 (2018 onwards): Spring semester 50 hrs
Teaching, tutorial & workshop

3. Western Sydney University, School of Biomedical and Health Sciences (2008 to Present): **Spring semester 50 hrs**

Course coordinator (No. I & II) and Regular Semester-based lecturing in

- i) **Post-graduate-** Pharmacology of Chinese Medicine (**45 hours per semester**); ii) **Under-graduate-** Herbal Pharmacognosy from pharmacology through herbs-drugs interaction, to adverse reaction notification (65 hours per semester) and iii) **Chinese Materia Medica (12 hours per semester)**.
- ii) **Under-graduate-Clinical Pharmacology**, School of Science & Health, Western Sydney University-**Pharmacokinetics & Pharmacodynamics**

4. University of Wollongong (Guest lecturing), Smart Food Centre (2007 to Present): **8 hrs** Invited guest lectures in post-graduate studies (Innovation Food cluster) on all emerging technologies such as nanotechnology and nutrigenomics in food and nutrition sciences.

5. Invited guest lectures in post-graduate studies at NUPALS (Niigata University of Pharmaceutical & Appli Life Sci), Japan (2006 to 2015) on selected topics such as global regulation, innovation in food and nutrition, disease prevention by functional foods etc.

6. Invited (on-line) guest lectures at Indian Institute of Technology, Roorkee, India, Dept of Biotechnology on Nutrigenomics, nanotechnology, food delivery technology; Maulana Abul Kalam Azad University of Technology, Department of Food Science & Technology, India on Food-Drug interphase and medicalization of foods, *KASTURBA HEALTH SOCIETY, Medical Research Center, Mumbai, India*- on novel technologies in medical research

Average 4-6 lectures of 1 hr per institutions per year

LIST OF PUBLICATIONS

Published numerous papers/articles (more than 100) in peer reviewed journals, food and nutrition magazines and books (7 books with CRC Press & Elsevier/Academic Press and few are in progress). See detail at the END

CONFERENCE PRESENTATION AT INTERNATIONAL & NATIONAL LEVEL (Full detail to be provided on request)

WORK EXPERIENCE WITH KEY RESPONSIBILITIES

Company name & duration of work	Position Title	Key Responsibilities
NutriConnect, Sydney, Australia (2008 to present)	Principal Consultant	<ul style="list-style-type: none"> • Strategic advice on nutritional, functional food and natural medicine products in Australia, South-East Asia, and South Asia including market entry • Regulatory and safety evaluation of new technologies • Systematic review & meta-analysis of evidences behind products • Scientific & Medical affairs support
NICM Health Research Institute, Western Sydney University	Adjunct-Industry Fellow (2017 to present)	<ul style="list-style-type: none"> • Develop strategic partnership with industries. • Develop Ayurvedic Partnership with Ministry of AYUSH, Govt of India and Ministry of Indigenous Medicines, Sri Lanka
SOHO-Flordis International (SFI), Sydney, Australia (2011 to Dec 2017)	Business Development Lead-South Asia	<ul style="list-style-type: none"> • Business development in India, Sri Lanka, Bangladesh & Nepal through company formation, partner selection, product registration, market research and product launch • Lead member of scientific and medical affairs international team • Explore new commercial opportunities within strategic pathway • Liaise, influence and build relationships with key opinion leaders and regulatory bodies
Neptune Bio-Innovation Pty Ltd, Sydney, Australia (2010 to 2011)	Director, R&D	<ul style="list-style-type: none"> • Outsourcing R&D services including clinical studies • Public Health based research initiative • Commercialisation of NBI science and products in overseas markets • Commercialization of science through partnership and licensing agreement
National Centre of Excellence in Functional Foods, Wollongong University, NSW, Australia (2007-2008)	Regulatory affairs consultant	<ul style="list-style-type: none"> • Develop industry linkage and industry-sponsored projects • Perform regulatory & nutritional projects for food & nutrition industry • Write regulatory dossiers, white papers, risk assessment report and nutritional analysis of products
The Horticulture and Food Research Institute, New Zealand (2001-2007)	Senior Scientist	<ul style="list-style-type: none"> • Perform research on health benefits of bioactive from natural products, particularly from fruits & vegetables • Develop commercial collaboration with food and nutrition industry on project and program-basis • Commercialization of science through partnership and licensing agreement
USDA-ARS, Human Nutrition Research Centre of Aging at Tufts University, Boston, USA (2001-2002)	Visiting Scientist	<ul style="list-style-type: none"> • Perform collaborative research on animal motor & cognition behavior by nutritional intervention • Develop linkages with world leading research facility • Technology transfer to New Zealand
Organon Research Center & Infar (India) Ltd., India, a division of Organon International, BV and AKZO-NOBEL, The Netherlands (1989 to 1998)	Senior Scientist	<ul style="list-style-type: none"> • Perform drug-development research in gastrointestinal diseases • Oversaw microbiology team • Developmental work in QC & QA areas

REFERENCES

Prof. Dennis Chang, MBBS, MSc, PhD

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E-mail. a.k.duttaroy@medisin.uio.no

LIST OF PUBLICATIONS (2009-2020, SELECTED ONLY)

JOURNALS

1. Ghosh, D (2021) Potential of Ethnomedicines to be developed as Nutraceuticals. *Pharma Times*, 53 (07): 13-15.
2. Ghosh, J & **Ghosh, D.** (2021) Nutritional Assessment and Associated Factors in the Elderly: An overview. *J Nutraceuticals Food Sci* Vol.6 No.4:21
3. **Ghosh, D** (2021) A cinnamon-derived procyanidin type-A compound: A potential candidate molecule against coronaviruses including COVID-19. *J Ayurveda Case Rep.*,3: 122-6.
4. **Ghosh, D.** (2020) Role of evidence-based nutraceuticals in tackling viral infection including Covid-19 pandemic. *Agro FOOD Industry Hi Tech* - 31(2): 64-66.
5. **Ghosh, D.** (2020) Personalised Nutrition: Part 1: Where we are now and where to go. *Agro FOOD Industry Hi Tech*-31 (1): 22-23.
6. **Ghosh, D.** (2018). Quality Issues of Herbal Medicines: Internal and External Factors. *Int J Complement Alt Med.*, 11(2): 00350. 3 pages
7. **Ghosh, D** & Smarta, R. (2017). Illness to Wellness: Paradigm Shift in Healthcare Industry. *Int J Complement Alt Med* 2017, 8(4): 00268.
8. Dowell, A., Davidson, G., & **Ghosh, D.** (2015). Validation of Quantitative HPLC Method for Bacosides in KeenMind. *Evidence-Based Complementary and Alternative Medicine*, Volume 2015, Article ID 696172, 8 pages.
9. **Ghosh, D.** (2014) Food safety regulation in Australia-New Zealand. *J Science Food Agriculture* DOI 10.1002/jsfa.6657.
10. **Ghosh, D.** (2010) Personalised food: how personal is it? *Genes and Nutrition*, 5: 51-53.
11. **Ghosh D.** (2009) Role of polyphenol-fortified foods and beverages on vascular health. *Agro Food Industry Hitech*, Nov/Dec Issue, 38-39.
12. **Ghosh, D.** (2009) Future perspectives of nutrigenomics foods: Benefits vs. risks *Ind. J. Biochem. Biophy.* 46: 37-44.
13. **Ghosh, D** (2009) Functional food and health claims: regulations in Australia and New Zealand. *Aust. J. Dairy Technol.* 64: 152-155.
14. **Ghosh, D,** and Scheepens, A (2009) Vascular effect of polyphenols. *Mol Nutr Food Res* 53: 322-331.
15. William, P, and **Ghosh, D** (2008) Health claims and functional foods. *Nutrition & Dietetics* 65 (3): S89-93.

BOOK CHAPTERS

1. **Ghosh D** (2021) Obesity and lifestyle-related disorders beyond the stethoscope: Role of botanicals. In: *Evidence-Based Validation of Herbal Medicine*, Elsevier/Academic Press (In Press)
2. **Ghosh D** (2021) Role of food or food component in brain health. In: *Nutraceuticals in Brain Health and Beyond*, Chapter 2, 3-11, Academic Press.
3. **Ghosh D** (2019). Codex and global consensus in food safety. In: *Food Safety & Standards Act, 2006, Commemorating a Decade*, Food Safety Standard Authority of India, New Delhi, India, 50-53.

4. **Ghosh D** (2019). Cannabis and cannabinoids: A journey from an ancient believe to the fore. In: "Natural Medicines: Clinical Efficacy, Safety, and Quality", Eds. Ghosh D & Mukherjee P, CRC Press. Chapter 29, 537-549.
5. Pinder TA, **Ghosh D**. (2019) Complementary Medicine Regulation in Australia. In: "Nutraceutical and Functional Food Regulations" 3rd edition. Ed. Bagchi D, Elsevier (In Press)
6. **Ghosh D** (2016) Seed to Patient Model in Clinically Proven Natural Medicines. In: Nutraceuticals: Efficacy, safety & toxicity, Academic Press, Chapter 64: 925-931.
7. Zangara A & **Ghosh D** (2014) Role of Seed to Patient Model in Clinically Proven Natural Medicines. In: Clinical aspects of functional foods and nutraceuticals, CRC Press, Chapter 19.
8. **Ghosh D**. (2014) Complementary Medicine Regulation in Australia. In: Nutraceutical and Functional Food Regulations in the United States and around the World, 2nd Edition, Ed. Prof. D Bagchi, Elsevier, Chapter 17.
9. **Ghosh D**. (2012) Nature vs Nurture: Role of plant-based diet in obesity management. In: "Obesity: Epidemiology, Pathophysiology, and Prevention", 2nd Edition, CRC Press, USA, Chapter 33, 485-493.
10. Roy R, Close K, & **Ghosh D** (2012). Novel Extraction Technology for Antioxidants and Phytochemicals. In: Eds. Ghosh, D, Das S, Bagchi D, & Smarta R. "Innovation in Healthy & Functional Foods, Chapter 21, pp.335-354, CRC Press, USA.
11. **Ghosh, D**, Das S, Bagchi D, & Smarta R. 2012. The Innovation Journey: How to Improve R&D Leverage and Speed to Market. In: Eds. Ghosh, D, Das S, Bagchi D, & Smarta R. "Innovation in Healthy & Functional Foods, Chapter 1, pp.3-4, CRC Press, USA.
12. **Chang, D**, Ghosh, D, and Bensoussan, A (2011) Complementary therapies for Alzheimer's disease. Encyclopaedic book, "Dementia" (4th edition, eds. Ames, O'Brien and Burns), Hodder, U.K. Chapter 57, 504-512.
13. **Ghosh, D** (2011) Australian and New Zealand legislation on functional foods: Heath claims and substantiation. In: Functional foods: concept to product, Editor: Maria Saarela, Woodhead Publisher, U.K, Chapter 4, 64-72.
14. Sarkar A, Das S, **Ghosh D**, and Singh H (2011) Green concepts in food industry. In: Handbook of Nutraceuticals, Vol. II (Ed. Y. Pathak), Taylor & Francis, CRC Press, Chapter 18, 457-485.
15. **Ghosh D** (2011) Anti-arthritis potential of Bromelain from Ananas comosus and its combination. In: Arthritis: Pathophysiology, Prevention, and Therapeutics, Ed. Bagchi D, Academic Press, Chapter 27, 403-407.
16. **Ghosh, D**. and Williams, P. (2010) Global functional food regulations in relation to emerging technologies and urgency for harmonization. In: Biotechnology in functional foods and nutraceuticals, (Eds. Bagchi, D, Lau, F, Ghosh, D), CRC Press, USA, Chapter 29, 529-539.
17. **Ghosh D**, Bagchi D, Lau F. (2010). Way forward for the strategic development of biotechnology-enhanced nutrition and functional food and its contribution to human nutrition. In: Biotechnology in functional foods and nutraceuticals, (Eds. Bagchi, D, Lau, F, Ghosh, D), CRC Press, USA, Chapter 30, 543-545.
18. Zhang, J, Greenwood, J, Skinner, M, and **Ghosh, D** (2009) Oxidative stress and antioxidants: from test tubes to cell-based assays. In: Methods in Redox Signaling (Ed. D. Das), Chapter 8, 45-62.

19. **Ghosh, D**, and Tapsell, L (2008) Nutrigenomics: a genomic approach to human nutrition. In: Genomics: Principles, Applications and Regulatory Perspectives, Chapter 14, 337-344, CRC Press, USA.
20. **Ghosh, D**. (2009) Botanical approach to managing obesity. In: Functional foods for chronic diseases. Functional Foods Center, D&A Inc., Richardson, TX, USA, pp. 263-273.

BOOK (AUTHORED & EDITED)

1. "Biotechnology in functional foods and nutraceuticals", CRC Press, Taylor & Francis Group, Editors: Bagchi, D; Lau F, and **Ghosh D**, Catalogue No. 87118. 2010
2. "Innovation in healthy and functional food", Eds. **Ghosh D**, Das S, Smarta S, and Bagchi D. 2012, CRC Press, USA. Catalogue No. 978-1-4398-6267-4
3. "Clinical aspects of functional foods and nutraceuticals", Eds. **Ghosh D**, Konishi T, Bagchi D. CRC Press, USA 2015, ISBN: 13:978-1-4665-6910-2
4. "Pharmaceuticals to Nutraceuticals: A shift in disease prevention". Authored by **Ghosh, D** and Smarta, R. CRC Press, USA, 2016. ISBN 9781482260755,
5. "The Future of Dietary Supplements and Personalized Nutrition", Authored by **Ghosh, D**. Wiley, 2021 (In Press)
6. "Natural Medicines: Clinical Efficacy, Safety, and Quality" Eds. **Ghosh D** & Mukherjee P. CRC Press, 2019. ISBN 13:978-1-138-73306-0
7. "Nutraceuticals in Brain Health and Beyond". Ed. **Ghosh D**, Elsevier/Academic Press, 2020, ISBN: 9780128205938
8. "Fenugreek: Traditional and Modern Medicinal Uses": Eds. **Ghosh D** & Thakurdesai P CRC Press. Catalogue #: 383819; ISBN: 9780367536572 (In Press).
9. "Nutrition Science, Marketing Nutrition, Health Claims, and Public Policy": Eds. **Ghosh D**, Bogueva D, & Smarta R. Elsevier/Academic Press (In Progress)
10. "Traditional, Complementary and Integrative Medicine for Neurocognition": Eds: Ghosh D, Rajagopala S, Chang D, Nesari T, Nesari M. CRC Press (In Progress)

MAGAZINE ARTICLES

Magazine reference	Title
The World of Food Ingredients, Oct/Nov, 2017	Adjunctive ADHD Treatments: The "Herb-Nutra" Connection
Nutrition Insight, July/Aug, 2017	Inside Age-Associated Cognitive Decline
Nutrition Insight, July/Aug, 2018	The Need to Go Beyond "Antioxidant"
The World of Food Ingredients, March, 2016	Antioxidants & Health: Marketing Over Substance?
Nutraceuticals World, September, 2018	The Science of Cannabis & Cannabinoids
Nutraceuticals World, August, 2019, Special; issue	Curcumin: Beyond Anti-Inflammation & Anti-Oxidation
The World of Food Ingredients, December, 2019	Psychobiotics: Targeting the Gut for Brain Health
Nutrition Insight, July/Aug, 2016	Fenugreek: Journey From Traditional to Modern Medicine?
The World of Food Ingredients, June, 2017	Food for the Brain: Ingredient Potential

The World of Food Ingredients, Oct/Nov, 2018	Genotype-Based Testing: Opening A Pandora's Box?
NuFFooDS Spectrum Asia, September 2017	Trends in New Generation Foods
Nutraceuticals Now, Spring 2013	Personalised nutrition could be the way forward
Nutrition Insight, Summer 2014	The Nutraceutical Potential of Ayurvedic Medicine
The World of Food Ingredients, April/May, 2017	Nutrition and the Microbe-Gut-Brain Axis