



GEORGE A. BURDOCK, Ph.D.

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OVERVIEW

George A. Burdock, Ph.D. is the president of the safety and regulatory consulting firm of Burdock Group, with offices located in Orlando, Florida. Dr. Burdock is an internationally recognized authority on the safety of human and animal food ingredients, personal care products and dietary supplements. He has nearly forty years of experience dealing with regulatory issues related to product safety and risk assessment. He has nearly 100 publications in scientific journals, over fifty domestic and international invited presentations and has published four editions of *Fenaroli's Handbook of Flavor Ingredients* and the first edition of the *Encyclopedia of Food and Color Additives*. He is co-author of the chapter "Food Toxicology" in four editions of Casarett and Doull's textbook "Toxicology," the standard graduate textbook and reference book in the field of toxicology. Dr. Burdock is a Diplomate of the American Board of Toxicology, a Fellow of the American College of Nutrition and is a member of several professional societies including, but not limited to the American Chemical Society, the Society for Regulatory Toxicology and Pharmacology, the Society of Toxicology, the American College of Toxicology and the Institute of Food Technologists (Professional Member status).

CURRICULUM VITAE

**Burdock Group
Orlando, FL**

1988-Present

Founder and President

Dr. Burdock is an internationally recognized authority on the safety of food ingredients, personal care products, and dietary supplements. He has more than twenty years of experience dealing with regulatory issues related to product safety and risk assessment. As the President of Burdock Group, Dr. Burdock provides safety and regulatory information and advice on food, additives for food and feed, dietary supplements, excipients, and contaminants, to a varied client list, including Fortune 100 corporations, start-up companies, law firms, and trade associations. This information may be in the form of confidential reviews, regulatory petitions, Generally Recognized As Safe (GRAS) self-

determinations, GRAS and new dietary ingredient notifications, product contamination, due diligence investigations prior to an acquisition and litigation support. As a leading scientist in the food industry, Dr. Burdock is sought by scientific publishers to write books and journal articles on food additives, flavor ingredients, and regulatory matters and by clients to comment on proposed regulations or respond to communications from regulatory agencies including the FDA and the USDA.

**Flavor and Extract Manufacturers' Association (FEMA)
Washington, D.C.**

1986-1991

Director of Scientific Affairs

Dr. Burdock managed the FEMA scientific programs, coordinated the research activities of the testing laboratories, and communicated with external consultants and allied industry committees working with FEMA. As the primary scientific liaison, Dr. Burdock guided member companies with the preparation of submissions to the FEMA Expert Panel for GRAS review, alerted Expert Panel and Association members to scientific developments in the food and flavor industry, and identified changes in the regulatory policies as a result of these developments. He authored and edited comprehensive literature reviews on flavor additives and other topics relevant to the Association's interests.

**Shulton Research Division, American Cyanamid Corporation
Clifton, New Jersey**

1984-1986

Manger of Biological Services

Dr. Burdock directed the Product Safety section, Microbiological Research Services, the Clinical Evaluation Laboratory and the Product Evaluation Center. As the senior toxicologist, he was responsible for the toxicological laboratories and microbiologic safety of products applied to the test groups in clinical evaluation laboratories and for those products released for public use. Dr. Burdock served as a corporate member of the Pharmacology/Toxicology Committee and the Cosmetic Ingredient Review Subcommittee of the Cosmetic, Toiletries and Fragrance Association. He represented the Consumer Products Division on toxicology issues within the corporation, and externally, with vendors, government agencies, and trade associations.

**Hazleton Laboratories America, Inc.
Vienna, Virginia**

1979-1984

Senior Staff Scientist

As a Study Director, Dr. Burdock designed and managed toxicological oversight for compliance with regulatory requirements, quality assurance, budgetary monitoring, testing of pharmaceuticals, food additives, pesticides, and evaluated the performance of subcontractors. He negotiated program design and individual toxicity study requirements for the registration of substances with FDA, EPA, and other regulatory agencies. Dr. Burdock supervised two laboratory sections -Teratology/Reproduction and Sub-Chronic Rodent Toxicology.

EDUCATION

Ph.D. in Toxicology, School of Pharmacy, University of Mississippi, 1980
Master of Combined Sciences, Physiology and Biochemistry, University of Mississippi, 1973
Bachelor of Science, Biology, University of Mississippi, 1969

CERTIFICATIONS

Diplomate, American Board of Toxicology, 1983; Recertified, 1988, 1993, 1998, 2003, 2009, 2014, 2017, 2019

Fellow, Academy of Toxicological Sciences, 2021

Fellow, American College of Nutrition, 2003

Preventive Controls Qualified Individual, Food Safety Preventive Controls Alliance, FSPCA Preventive Controls for Animal Feed and Human Food, 2018

PROFESSIONAL ORGANIZATIONS MEMBERSHIPS (Partial list)

American Botanical Council

American Chemical Society

American College of Nutrition

American College of Toxicology

American Society for Nutrition

American Society for Clinical Nutrition

Council for Responsible Nutrition

Food and Drug Law Institute

Institute of Food Technologists

International Society of Regulatory Toxicology and Pharmacology

Society of Toxicology

PUBLICATIONS

Burdock, G.A. (2022). Assessment of black cumin (*Nigella sativa* L.) as a food ingredient and putative therapeutic agent. *Regulatory Toxicology and Pharmacology* 128:105088.
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Burdock, G.A., Cowley, A.B. and Li, Q-S. (2020). Repeat-dose animal toxicity studies and genotoxicity study with deactivated alkaline serine protease (DASP), a protein low in phenylalanine (PHE). *Food and Chemical Toxicology* 146:111839.

G.A. Burdock and I.G. Carabin (2019). Breaking Down the Barriers to Functional Foods, In: *Nutraceutical And Functional Food Regulation In The United States and Around The World*, 3rd Edition, *Food Science and Technology Series*. D. Bagchi (ed). Elsevier, NY.

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Burdock, G. (2017). U.S. Ingredient Approval – *Which is Best?* A food additive petition or Generally Recognized As Safe (GRAS). <https://online.flippingbook.com/view/529912/10/>

Kennedy, C. and **Burdock, G.** (2016). Whatever happened to common-use GRAS? *Nutritional Outlook*. September, 2016, pp. 32-36. <http://www.nutritionaloutlook.com/regulatory/whatever-happened-common-use-gras-0>

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G.A. Burdock and I.G. Carabin (2014). Breaking Down the Barriers to Functional Foods, In: *Nutraceutical And Functional Food Regulation In The United States and Around The World*, 2nd Edition, *Food Science and Technology Series*. D. Bagchi (ed). Elsevier, NY. Pp. 75-103.

G.A. Burdock and R.A. Matulka (2013). Regulatory Considerations and the Pet Food Market. *Supply Side Animal Nutrition Insights*, April, 2013.

G.A. Burdock and R.A. Matulka (2013). The trouble with “natural”. *World of Food Ingredients*. September, 2013, pp. 44-46.

F. Kotsonis, and **G.A. Burdock** (2013) Chapter 31: Food Toxicology. In: *Toxicology: The Basic Science of Poisons*. 8th edition C.D. Klaassen (Ed.) McGraw-Hill, New York pp. 1305-1356.

G.A. Burdock (2013) Nanotechnology: A game changer for pet food. *Natural Products Association's NOW*. May/June 2013, pp. 10-11.

Burdock, G.A. (2013). Commentary: FDA must overcome skepticism toward health claims. *The Tan Sheet*. April 22, 2013, pp. 12-13.

Burdock, G.A. (2012). Is GRAS the cure for the high rate of NDI rejections? *Newhope360 (digital publications)* (<http://newhope360.com/regulation-and-legislation/gras-cure-high-rate-ndi-rejections>)

Burdock, G.A. (2012). Staying in the claim game. *The World of Food Ingredients*. September, 2012. Pp. 58-59.

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Szabo, N.J., Dolan, L.C., **Burdock, G. A.**, Shibano, T., Sato, S., Suzuki, H., Useugi, T., Yamahira, S., Toba, M. and Ueno, H. (2011). Safety evaluation of *Lactobacillus pentosus* strain b240. *Food and Chemical Toxicology* 49:251-258.

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Burdock, G.A. and Matulka, R.A. (2010). Special Delivery: Do today's novel delivery systems meet dietary supplement regulations? Four criteria to consider. *Nutritional Outlook*, April, 2010. <http://www.nutritionaloutlook.com/article/special-delivery>

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Williams, L.D., **Burdock, G.A.**, Jiménez, G. and Castillo, M. (2009). Literature review on the safety of Toyocerin® a non-toxicogenic and non-pathogenic *Bacillus cereus* var. *toyoi* preparation. *Regulatory Toxicology and Pharmacology* 55:236-246.

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G.A. Burdock (2007) Safety assessment of castoreum extract as a food ingredient. *International Journal of Toxicology* 26:51 – 55.

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G.A. Burdock, I.G. Carabin and J.C. Griffiths (2006). Toxicology and pharmacology of sodium ricinoleate. *Food and Chemical Toxicology* 44, 1689-1698.

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M.G. Soni, **G.A. Burdock**, M.S. Christian, C.M. Bitler and R. Crea (2006). Safety Assessment of Aqueous Olive Pulp Extract as an Antioxidant or Antimicrobial Agent in Foods. *Food Chemical Toxicology* 221, 17-27.

G.A. Burdock and B. Magnuson (2006) Small threat? *World of Food Ingredients*. Pp 61-62.

G.A. Burdock, I.G. Carabin and J.C. Griffiths (2006). The Importance of GRAS to the Functional Food and Nutraceutical Industries *Toxicology* 221: 12-27.

G.A. Burdock and J.C. Griffiths (2006). Aflatoxin basics: Penicillins deadly cousin – past and present. *Petfood Industry* Pp. 28-29.

M.G. Soni, I.G. Carabin and **G.A. Burdock**. (2005) Safety assessment of esters of *p*-hydroxybenzoic acid (Parabens) *Food and Chemical Toxicology* 43(7):985-1015.

I.G. Carabin and **G.A. Burdock**. (2005) Overweight and obesity in the United States – an overview. *Update: Food and Drug Law, Regulation and Education* 42(9), 2004: 1513-29.

M.G. Soni, I.G. Carabin, J.C. Griffiths and **G.A. Burdock** (2005). β -Nitropropionic acid in the diet: Toxicity aspects. In: *Reviews in Food and Nutrition Toxicity*. Vol. 2, (V.R. Preedy and R.R. Watson, Eds. CRC Press, Boca Raton, FL p. 127-170.

G.A. Burdock. (Ed) (2004) *Fenaroli's Handbook of Flavor Ingredients*. Fifth Edition. CRC Press, Boca Raton, FL. 2040 pp.

G.A. Burdock and I.G. Carabin (2004) Generally recognized as safe (GRAS): History and description. *Toxicology Letters*. 150(1):3-18.

M.G. Soni, I.G. Carabin, J.C. Griffiths, and **G.A. Burdock**. (2004) Safety of ephedra: lessons learned. *Toxicology Letters*. 2004 150(1): 97-110.

M.G. Soni, **G.A. Burdock**, H.G. Preuss, S.J. Stohs, S.E. Ohia, D. Bagchi (2004) Safety assessment of (-)-hydroxycitric acid and Super CitriMax®, a novel calcium/potassium salt, *Food and Chemical Toxicology* 42, 1513-1529

G.A. Burdock, and I.G. Carabin. (2004) Warning letters, recalls and elixir of death. *Nutritional Outlook* p. 20 – 26.

G.A. Burdock. (2003) Sensory deception: the science of making foods more palatable. *Functional Foods and Nutraceuticals* p. 34-36.

G.A. Burdock. (2003) The GRAS process. *Food Technology* 57(5):17.

G.A. Burdock. (2002) Chapter 3: Status and safety assessment of foods and food ingredients produced by genetically modified microorganisms. In *Biotechnology and Safety Assessment*. Third Edition. (J.A. Thomas and R. Fuchs, Eds.) Elsevier Science, New York. P. 39-83.

M.G. Soni, S.L. Taylor, and N. Greenberg and **G.A. Burdock**. (2002) Evaluation of the health aspects of methyl paraben: a review of published literature. *Food and Chemical Toxicology*. 2002 10: 1335-73.

F. Kotsonis, **G.A. Burdock**, and W.G. Flamm. (2001) Chapter 31: Food Toxicology. In: *Toxicology: The Basic Science of Poisons*. 6th edition C.D. Klaassen (Ed.) Pergamon Press, New York. P. 1049-1088

G.A. Burdock. (Ed.) (2002) *Fenaroli's Handbook of Flavor Ingredients*. Fourth Edition. CRC Press, Boca Raton, FL. 1834 pp.

G.A. Burdock. (2002) Regulation of flavor ingredients. In: *Nutritional Toxicology*. Second Edition. Target Organ Toxicology Series. (F. Kotsonis and M. Mackey, Eds.). Taylor and Frances, New York. p. 316-339.

G.A. Burdock, I.G. Carabin, and M.G. Soni. (2001) Safety assessment of beta-nitropropionic acid: A monograph in support of an acceptable daily intake in humans. *Food Chemistry* 75(1): 1-27.

M.G. Soni, **G.A. Burdock**, S.L. Taylor, and N. Greenberg. (2001) Safety assessment of propyl paraben. *Food and Chemical Toxicology* 39:513-532.

G.A. Burdock, M.G. Soni, and I.G. Carabin. (2001) Evaluation of health aspects of kojic acid in food. *Regulatory Toxicology and Pharmacology* 33:80-101.

M.G. Soni, S.A. White, W.G. Flamm, and **G.A. Burdock**. (2001) Safety evaluation of dietary aluminum. *Regulatory Toxicology and Pharmacology* 33:66-79.

M.G. Soni, H. Kimura, and **G.A. Burdock**. (2001) Chronic studies on diacylglycerol oil in rats. *Food and Chemical Toxicology* 39:317-329.

I.G. Carabin, **G.A. Burdock**, and C. Chatzidakis. (2000) Safety assessment of *Panax* ginseng. *International Journal of Toxicology* 19:293-301.

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G.A. Burdock. (Ed.) (1995) *Fenaroli's Handbook of Flavor Ingredients*, Volume I - Natural Flavoring Ingredients. Third. Edition. CRC Press, Boca Raton, FL. pp. 1-350

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J.A. Trutter, F.E. Reno, **G.A. Burdock**, and D.W. Korte, Jr. (1984). Fertility study with a candidate antimalarial drug in the rat. *Journal of the American College of Toxicology* 3:172.

Burdock, G.A., Wolfe, G.W., Hepner, K.E., Alsaker, R.D., Koka, M., and Phipps, R.B. (1984). Oncogenicity study in rats. Diflubenzuron. Unpublished report from Hazleton Labs., Project No. 553-122. Submitted to WHO by Duphar. ([721. Diflubenzuron \(Pesticide residues in food: 1985 evaluations Part II Toxicology\) \(inchem.org\)](#) (site accessed 18May2021))

Reno, F.E., **Burdock, G.A.**, Serota, D.G., Voelker, R.W., Alsaker, R.D., Milad, G.M. & Zurek, E.K. (1981). Subchronic toxicity study in rats. Phaltan: Final Report. Report from Hazleton Laboratories America, Inc. submitted by Chevron Chemical Co. to WHO. (Unpublished). ([704. Folpet \(Pesticide residues in food: 1984 evaluations\) \(inchem.org\)](#) (Site accessed 18May2021)).

Burdock, G.A. (1981) Two-year chronic oral toxicity study in albino rats with technical CGA 15324. Unpublished report No. 483-134 from Hazleton, Inc., Vienna, Virginia, USA. Submitted to WHO by Syngenta Crop Protection, Greensboro, North Carolina, USA. ([Pesticide residues in food — 2007: Toxicological evaluations \(inchem.org\)](#) (site accessed 18May2021))

Burdock, G.A. (1981) Twenty-four month carcinogenicity study in mice with technical CGA 15324. Unpublished report No. 483-133 from Hazleton Inc., Vienna, Virginia, USA. Submitted to WHO by Syngenta Crop Protection, Greensboro, North Carolina, USA. ([Pesticide residues in food — 2007: Toxicological evaluations \(inchem.org\)](#) (site accessed 18May2021))

Burdock, G.A. et al., (1980). Ninety-day subchronic toxicity study in mice: diflubenzuron technical. Hazleton Project no. 533-120. (Unpublished). As reported in IPCS Inchem Pesticide Residues in Food, 1981. ([547. Diflubenzuron \(Pesticide residues in food: 1981 evaluations\) \(inchem.org\)](#) (site accessed 15May2021))

Burdock, G.A., Weatherholtz, W.M., Alsaker, R.D., Brown, H.R., Dawkins, B.G., Voelker, R.W., Dawkins, K.K. and Marshall, P.M. (1980). Subchronic toxicity study in dogs - CGA-72662 technical – final report. Unpublished report, project no. 483-180 from Hazleton Laboratories America, Vienna,

VA, USA. Submitted to WHO by CIBA-GEIGY Ltd., Basle, Switzerland. ([807. Cyromazine \(Pesticide residues in food: 1990 evaluations Toxicology\) \(inchem.org\)](#)) (site accessed 18May2021)

Burdock, G.A. et al. (1980). Subchronic dietary toxicity study in rats, diflubenzuron. Hazleton Project no. 533-119. (Unpublished). As reported in IPCS Inchem Pesticide Residues in Food, 1981. ([547. Diflubenzuron \(Pesticide residues in food: 1981 evaluations\) \(inchem.org\)](#)) (site accessed 15May2021)

G.A. Burdock, R. B. Hackett, and L.W. Masten. (1980). A comparison of hepatic microsomal enzyme induction by methadone, phenobarbital and 3-methylcholanthrene in the mouse. *Biochemical Pharmacology* 28:3476-3482.

J.C. Kapeghian, **G.A. Burdock**, and L.W. Masten. (1980). The effect of the route of administration of microsomal enzyme induction following repeated methadone administration in the mouse. *Biochemical Pharmacology* 28:3021-3025.

G.A. Burdock. (1980). Some Toxic Effects of Diethanolamine in the Neonatal Rat. Doctoral Dissertation. School of Pharmacy, University of Mississippi.

J.C. Kapeghian, **G.A. Burdock**, and L.W. Masten. (1977). Effect of the route of administration on microsomal enzyme induction following repeated administration of methadone in the mouse. *Toxicology and Applied Pharmacology* 41:159.

G.A. Burdock, R. B. Hackett, and L.W. Masten. (1976). Dose-response relationship of oral methadone administration and liver microsomal enzyme activity. *Federation Proceedings* 35:469.

J.D. Catravas, I.W. Waters, **G.A. Burdock**, and W.M. Davis. (1975). Haloperidol and propranolol in the treatment of acute amphetamine intoxication in the dog. *Toxicology and Applied Pharmacology* 33:185.

REPORTS

G.A. Burdock. (1993). High Dose Irradiation of Food. Report submitted to the Food Safety Unit, World Health Organization.

W.G. Flamm, P. Lombardo, A. Forbes, W. Nichols, J.B. Little, **G.A. Burdock**, and J.A. Flamm. (1992). Review of the wholesomeness of irradiated food. Report submitted to the Food Safety Unit, World Health Organization.

Dr. Burdock is the author of approximately 300 technical reports while serving as a consultant and a scientist at Burdock Group and for the Flavor and Extract Manufacturers' Association, Hazleton Laboratories and American Cyanamid. The content of the majority of these reports is proprietary and confidential to the sponsoring companies and organizations.

INVITED PRESENTATIONS AND ABSTRACTS

G.A. Burdock. *Unconventional Stratagems for GRAS of Unconventional and Novel Food Ingredients: Insects As A Possible Source of Food.* Presented at the Institute of Food Technology, New Orleans, LA, June 5, 2019.

G.A. Burdock. *Nutraceutical and Functional Food Regulations.* Presented at the Institute of Food Technology, New Orleans, LA, June 4, 2019.

G.A. Burdock. *The US FDA Approach to the Regulation of Feed Ingredients.* Presented at the Management Forum Conference, London, UK, December, 2017

G.A. Burdock. *The US FDA Approach to the Regulation of Feed Ingredients.* Presented at the Management Forum Conference, London, UK, December 9, 2016.

G.A. Burdock. *Food Ingredient Safety and Regulatory Compliance.* Presented at the Food and Drug Law Institute's Introduction to Food Law course. Chicago, IL, July 28, 2016.

L. Dolan and **G.A. Burdock.** *FDA's Un-Guidelines on Medical Food - FDA's Attempts to Limit the Development of Medical Foods as Foods per se.* Presented at the Institute of Food Technology Meeting Chicago, IL, July 19, 2016.

G.A. Burdock. *Nutraceuticals and Functional Food Regulations in the United States With a Special Emphasis on New Dietary Ingredient (NDI) and Generally Recognized as Safe (GRAS)* Presented at the Institute of Food Technology Meeting, Chicago, IL, July 18, 2016.

G.A. Burdock. *A Convulsive Change in Pet Food (and Animal Feed) Regulation.* Presented at the 1st Annual Food Litigation Insurance ExecuSummit. February 3, 2016

G.A. Burdock. *Dietary Supplements.* Presented at the Food and Drug Law Institute's Introduction to Food Law course. Washington, DC, February 24, 2015.

G.A. Burdock. *Food Ingredient Safety and Regulatory Compliance.* Presented at the Food and Drug Law Institute's Introduction to Food Law course. Washington, DC, February 23, 2015.

G.A. Burdock. *Nanotechnology and Food Safety.* Presented at the ANDP/CSFA meeting in Washington, DC, November 5, 2014.

G.A. Burdock. *Nanotechnology and Food Safety.* Presented at Virginia Tech, Blacksburg, VA September 9, 2014.

G.A. Burdock. *IADC Nanotechnology Briefing.* Presented at the American Feed Industry Association IADC meeting in Sacramento, CA, July 24, 2014. (Lecture written by GA Burdock, but presented by RA Matulka.)

G.A. Burdock. [The GRAS Process is not broken.¹] Presented at the Food Drug Law Institute (FDLI Dialogue) *Is the GRAS Process Broken?* Presented at FDLI symposium site, Washington, DC July 23, 2014.

¹ No official speech title.
2021Dec10

G.A. Burdock. *Regulatory Requirements in Sports Nutrition and Muscle Building Supplements.* Presented at the Nutraceuticals and Functional Foods in Enhanced Sports Performance, Exercise and Muscle Building Food. A course presented in conjunction with the Institute of Food Technologists annual meeting in New Orleans, LA, June 21, 2014.

G.A. Burdock. *When is a food not a drug?* Presented at A Forum on Strategic Management of Food Safety, United International College, Zhuhai, China April 19, 2014

G.A. Burdock. *The Impending Regulatory Crisis for Pet Food Ingredient Standards and Approval.* Presented at Petfood Forum, Schaumburg, IL, April 2, 2014

G.A. Burdock. *Nanotechnology: It's Importance to You.* Presented at Engredea – Ingredients and Innovation, Anaheim, CA, March 7, 2014.

G.A. Burdock. *Nanotechnology: The (NOT so) Scary Science.* Presented at the Next Innovation Summit, Anaheim, CA, March 6, 2014

G.A. Burdock. *Food Ingredient Safety and Regulatory Compliance.* Presented at the Food and Drug Law Institute's *Introduction to Food Law* course. Washington, DC, February 10, 2014.

G.A. Burdock. *Animal Feed Ingredient & Dietary Supplement Safety and Regulatory Compliance.* Presented at Supply Side (West) Animal Nutrition Insights Summit. Las Vegas, NV, November 13, 2013.

G.A. Burdock. *Regulatory Approval of Natural Antioxidants.* Presented as part of a continuing education course titled: "Antioxidants: Fundamentals, Applications and Health Effects." Institute of Food Technology, Chicago, Illinois, July 13, 2013.

G.A. Burdock. *Codex Alimentarius and the Re-listing of Magnesium Stearate.* Presented at the 2013 Consumer Health Care Products Association's Regulatory, Scientific and Quality Conference. Washington, DC, May 2-3, 2013.

G.A. Burdock. *Nanotechnology and Pet Food: What is it? Defining its importance to you.* Presented at the Pet Food Forum, Schaumburg, Illinois, April 16, 2013.

G.A. Burdock. *Food Ingredient Safety and Regulatory Compliance.* Presented at the Food and Drug Law Institute's *Introduction to Food Law* course. Washington, DC, February 5, 2013.

G.A. Burdock. *Breaking Down the Barriers to Functional Foods (or Functional Foods in a Dysfunctional Regulatory Setting).* Presented as the Plenary Speech at the International Society for Nutraceuticals and Functional Foods' Annual Meeting in Kona, Hawaii, 3 December 2012.

G.A. Burdock. *Safety and GRAS Status of Nutritional Oils and Antioxidants, But What Should I do Next?* Presented at the pre-meeting conference at the International Society for Nutraceuticals and Functional Foods' Annual Meeting in Kona, Hawaii, 2 December 2012

G.A. Burdock. *Bringing New Food Products from the EU to USA: Case Study 1: Food Products with Glucomannan. Case Study 2: Food Products with β -Glucans.* Bringing New Food Products From the EU to the USA and Brazil: A Case Study Discussion. VitaFoods, Geneva, Switzerland, 24 May 2012.

G.A. Burdock. *Lessons in Feed Ingredient Approvals: An Update on the FDA Center for Veterinary Medicine (CVM) GRAS Notification Process* - Virtual Pet Food Forum, 20Oct11 (webcast).

G.A. Burdock. *Strategies for Safety Assessment of Natural Flavor Complexes (NFC) & Rationale for Safety Determination.* International Conference on Natural Products, Castres, France, 26May2011.

G.A. Burdock. *Lessons in Feed Ingredient Approvals. An Update on the CVM GRAS Notification Process.* Presented at the International Poultry and Feed Expo, Atlanta, GA 26 January 2011.

G.A. Burdock. *FDA's Definition of Product Categories and Claims Permitted.* Presented at the Supply Side West meeting, Las Vegas, NV, October 20, 2010.

G.A. Burdock. *An Update on the CVM GRAS Notification Process: Notice of Pilot Program (FR 75(107):31800-31803, June 4, 2010).* Presented at the Trouw Nutrition Companion Animal Summit in Nashville, TN, October 13, 2010.

G.A. Burdock. *Nanotechnology and Dietary Supplements.* Presented at the annual meeting of the Council for Responsible Nutrition in Austin, TX, September 30, 2010.

G.A. Burdock. *Regulatory Approval Process for Algae Products – Human and Animal Food and Human Dietary Supplements.* Presented at the Algae World Summit, San Diego, CA, May 17, 2010.

G.A. Burdock. *Lessons in Feed Ingredient Approvals - An Update on the CVM GRAS Notification Process.* Presented at the International Poultry and Feed Expo, Atlanta, GA 26 January 2010.

G.A. Burdock. *The Future of Dietary Supplements as Pet Food Ingredients.* Presented at the Supply Side West meeting, Las Vegas, NV, November, 2009

G.A. Burdock. *Regulations On Nutraceuticals And Functional Foods In The United States.* Presented at the Annual meeting of the American College of Nutrition, Orlando, FL, October, 2009

G.A. Burdock. *A Description of the GRAS and Food Additive Processes.* Presented as part of the symposium *Recipe for a Successful GRAS.* Presented at the Institute for Food Technology meeting Anaheim, CA, June, 2009.

G.A. Burdock. *U.S. Regulations on Nutraceuticals and Functional Foods and GRAS Status.* Presented as part of the symposium on *Nutraceutical and functional foods regulations in the world.* Presented at the Institute for Food Technology meeting Anaheim, CA, June, 2009.

G.A. Burdock. *CVM's (Center for Veterinary Medicine) GRAS Approval Process - A Work in Progress.* American Food Ingredients Association, Pet Food Forum, Chicago, IL April, 2009.

G.A. Burdock. *The Science of Nanotechnology. The Food and Drug Law Institute 2nd Annual Conference on Nanotechnology Law, Regulation and Policy,* Washington, DC, February, 2009.

G.A. Burdock. *Nanotechnology Safety Issues. The Food and Drug Law Institute 2nd Annual Conference on Nanotechnology Law, Regulation and Policy,* Washington, DC, February, 2009.

G.A. Burdock. *The Basis of a Successful NDIN. What you Need to Know Now about Emerging Dietary Supplements Issues & Trends.* The Food and Drug Law Institute. Washington, DC, January, 2009.

G.A. Burdock. *Emerging Technology and Issues in Food Industry. FOOD INDUSTRY OUTLOOK 2009: Challenges and Opportunities.* Southeast Asian Food and Agricultural Science and Technology (SEAFAST) Center. Bogor, Indonesia, January, 2009.

G.A. Burdock. *Novel Food Regulation in Europe.* Industrial Technology Research Institute (ITRI), Taiwan, January, 2009.

G.A. Burdock. *US Regulation of Novel Food. Novel Food Regulation.* Industrial Technology Research Institute (ITRI), Taiwan, January, 2009.

G.A. Burdock. *Safety and Effectiveness of Novel Food. Novel Food Regulation.* Industrial Technology Research Institute (ITRI), Taiwan, January, 2009.

G.A. Burdock. *Practical Approaches for Bringing New Ingredients To Market. Bringing New Ingredients to Market: New Developments In The New Dietary Ingredient Notification (NDIN) Process.* Virgo Publishing Webinar, December, 2008.

G.A. Burdock. *Food & Supplement Nanotechnology Applications and Safety Considerations.* Iowa State University, Ames, Iowa, November, 2008.

G.A. Burdock. *Nanotechnology Applications and Safety Considerations for Personal Care Products and Cosmeceuticals.* Supply Side West, Las Vegas, NV, October, 2008.

G.A. Burdock. *Assessment of Safety Claims For Functional Foods And Nutraceuticals.* American College of Nutrition Annual Meeting, Arlington, VA, September, 2008.

G.A. Burdock. *Nanotechnology: General Overview.* Institute of Food Technologists (IFT), New Orleans, LA, June, 2008.

G.A. Burdock. *Safety Evaluation of Nutraceuticals and Functional Foods: U.S. Regulations and GRAS Status.* Institute of Food Technologists (IFT), New Orleans, LA, June, 2008.

G.A. Burdock and R.A. Matulka (shared podium). *Future Applications of Nanotechnology in Food and Consumer Products: Are Novel Safety Studies Necessary?* Virgo Publishing Webinar, May, 2008.

G.A. Burdock. *US Regulatory Guidance: Session I - Functional Foods and Dietary Supplements Regulations and Claims.* Pole QCA Economic Development Corp, Quebec, Canada, May 2008.

G.A. Burdock. *US Regulatory Guidance: Session II - Drivers and Processes.* Pole QCA Economic Development Corp, Quebec, Canada, May 2008.

G.A. Burdock. *US Regulatory Guidance: Session III – Costs and Timelines.* Pole QCA Economic Development Corp, Quebec, Canada, May 2008.

- G.A. Burdock.** *Regulations & Claims for Functional Foods & Dietary Supplements. Second Annual Food Technology & Innovation Forum*, World Trade Group, Chicago, IL, April, 2008.
- G.A. Burdock.** *Functional Foods: Regulatory Considerations and Common Sense*. Alltech International Animal Health and Nutrition Symposium, Lexington, KY, April, 2008.
- G.A. Burdock.** *When Accidents Happen – Risk Assessment from a Consultant’s Point of View*. 235th American Chemical Society National Meeting & Exposition, New Orleans, LA, April, 2008.
- G.A. Burdock.** *Nanotechnology and Food Nanotoxicology*. The Food Drug Law Institute 1st Annual Conference on Nanotechnology Law, Regulation and Policy, Washington, DC, February, 2008.
- G.A. Burdock.** *Claims and the Future of Claims for Food and Food Ingredients*. Virgo Publishing Webinar, December, 2007.
- G.A. Burdock.** *Breaking down the barriers to functional foods*. Supply Side West, Las Vegas, NV, November, 2007.
- G.A. Burdock.** *Functional Foods: Session I – Functional Foods – What are they? Who wants them? Who regulates them?* 4th Inventages Life Venture Summit, Great Exuma, Bahamas, June, 2007.
- G.A. Burdock.** *Functional Foods: Session II - How can Functional Ingredients be Added to Food?* 4th Inventages Life Venture Summit, Great Exuma, Bahamas, June, 2007.
- G.A. Burdock.** *Functional Foods – Session IV – Getting to market: Costs, timelines and frequent mistakes*. 4th Inventages Life Venture Summit, Great Exuma, Bahamas, June, 2007.
- G.A. Burdock.** *Practical applications of toxicology*. University of Mississippi School of Pharmacy, University, MS, May, 2007.
- G.A. Burdock.** *Nanotechnology and Nanotoxicology of Food and Feed Ingredients*. Alltech International Feed Industry Symposium, Lexington, KY, May 23, 2007.
- G.A. Burdock.** *Food and Supplement Nanotechnology*. Nutracon, Anaheim, CA, March, 2007.
- G.A. Burdock.** *Food Toxicology: An Applied Science*. University of Florida, Nutritional Science Department. Gainesville, FL, February, 2007.
- G.A. Burdock.** *Nanotechnology: Implications for food and food ingredients*. Annual ILSI Meeting. Cancún, México, January, 2007.
- G.A. Burdock.** *Breaking Down the Barriers to Functional Foods*. Conventional Foods as “Functional Foods,” FDA Public Hearing. Washington, DC, December, 2006.
- G.A. Burdock.** *Nanotechnology in Food and Nanotoxicology*. Nano4Food Conference. Atlanta, GA, 2006.
- G.A. Burdock.** *New Dietary Ingredient Notifications*. Council for Responsible Nutrition (CRN). Boston, Mass, 2006.

G.A. Burdock. *Nanotoxicology: a small science or the (big) science of small things?* Institute of Food Technologists (IFT). Orlando, FL, 2006.

G.A. Burdock. *Nutraceuticals & Functional Foods – Strategies for Moving Forward.* Nestlé Foods Technical Centre. Lausanne, Switzerland, June, 2006.

G.A. Burdock. *Qualified Health Claims: A Critical Juncture.* 2005 Institute of Food Technologists Annual Meeting and Food Expo. New Orleans, LA, 2005.

G.A. Burdock. *Why Efficacy Trials for Dietary Supplements?* Association of Clinical Research Professionals 2005 Conference and Exhibition – North America. Orlando, FL. 2005.

G.A. Burdock. *Dietary Supplements and a Method for Determining Safety and Efficacy. Botanical Dietary Supplements: Scientific Perspectives and Public Health Pitfalls Congressional Science Briefings.* Washington, DC. 2005.

G.A. Burdock *Approving Preservatives: Not a ‘Natural’ Process.* International Symposium on Natural Preservatives in Food Systems. Princeton, NJ. 2005.

G.A. Burdock. *Regulatory Issues and the Effect on Your Bottom Line.* South Florida Regional Chapter, Institute of Food Technologists. Fort Lauderdale, FL. 2004.

G.A. Burdock. *The Dichotomy of Structure Function Claims.* Food and Drug Law Institute, Qualified Health Claims Conference. 2004.

G.A. Burdock. *Qualified Health Claims and the Role of Independent Experts (and a few other items).* 2004 Institute of Food Technologists Annual Meeting and Food Expo. Las Vegas, NV. 2004.

G.A. Burdock. *Dietary Supplements Public Meeting. Dietary Supplements Public Meeting Pre-Market Notification Program For New Dietary Ingredients.* Food and Drug Administration/Center for Food Safety and Nutrition. College Park, MD. November, 2004.

G.A. Burdock. *Efficacy Assessment of Functional Ingredients by Independent Experts.* Institute of Food Technologists. Chicago, IL. 2003.

G.A. Burdock. *When Accidents Happen – Risk Assessment for the Processing Plant.* American Meat Institute. Chicago, IL. 2003.

G.A. Burdock. *The GRAS status of Pycnogenol[®].* Vitafoods International. Geneva, Switzerland. 2003.

G.A. Burdock. *Risk Assessment at the Processing Plant.* Food Safety Inspection Service, U.S. Department of Agriculture. Washington, DC. 2003.

G.A. Burdock. *Hot Topics (Dietary Supplements).* Food and Drug Law Institute, Washington, DC 2003.

G.A. Burdock. *Overview: Nutraceuticals, Dietary Supplements and Functional Food Ingredients.* American College of Toxicology 23rd Annual Meeting. Hershey, PA. 2002.

G.A. Burdock. *Pycnogenol®.* SupplySide East International Trade Show and Conference. Seacacus, NJ. 2003.

G.A. Burdock. *When Accidents Happen – Risk Assessment for the Processing Plant.* American Meat Institute, Chicago, IL July, 2002.

G.A. Burdock. *Safety Assessment of Foods Derived From Biotech Crops.* 42nd Annual Meeting of the Society of Toxicology. Nashville, TN. 2002.

G.A. Burdock. *Dietary Supplements at a Crossroads.* Food and Drug Law Institute Food Week. Washington, DC. 2002.

G.A. Burdock. *Determining the Safety of a Dietary Supplement (Ingredient).* Food and Drug Law Institute. Washington, DC. 2002.

G.A. Burdock. *Safety Assessment of Botanicals.* Worldnutra 2002 3rd Annual International Conference and Exhibition on Nutraceuticals and Functional Foods. San Diego, CA. 2002.

G.A. Burdock. *Safety Assessment of Botanicals.* ILSI Workshop on Principles for the Safety Assessment of Botanicals and Botanical Preparations in Food and Food Supplements. Marseille, France. 2002.

G.A. Burdock. *Ephedra, Is It As Toxic As Reported?* 43rd Annual Meeting of the American College of Toxicology. San Antonio, TX. 2002.

G.A. Burdock. *DSHEA, GRAS and Functional Foods: Regulatory and Safety Criteria.* American Chemical Society. 224th ACS National Meeting. Boston, MA. 2002.

G.A. Burdock. *The Line Between Generally Recognized As Safe (GRAS) and Dietary Supplements.* Toxicology Forum, Aspen, CO. 1999.

POSTER PRESENTATIONS

L.C. Dolan and **G.A. Burdock** (2011). Safety of ginger oil and ginger oleoresin and food ingredients. Presented at the Society of Toxicology meeting, Washington, DC.

I.G. Carabin and **G.A. Burdock** (2009). Safety Assessment of Opopanax Oil as a Food Ingredient. Presented at the Institute of Food Technology meeting, Anaheim, CA.

I.G. Carabin and **G.A. Burdock** (2009). Safety Assessment of Lovage Extract as a Food Ingredient. Presented at the Institute of Food Technology meeting, Anaheim, CA.

L.C. Dolan and **G.A. Burdock** (2009). Safety of Angelica Root Oil as a Food Ingredient. Presented at the Institute of Food Technology meeting, Anaheim, CA.

R.A. Matulka and **G.A. Burdock** (2009) Risk Assessment of Oleic Acid as a Food Ingredient. Presented at the Institute of Food Technology meeting, Anaheim, CA.

I.G. Carabin and **G.A. Burdock** (2009). Prescription for Claim Substantiation (Part I). Key Ingredients for a Successful Claim Approval. Presented at the Institute of Food Technology meeting, Anaheim, CA.

I.G. Carabin and **G.A. Burdock** (2009). Prescription for Claim Substantiation (Part II). How to Develop a Successful Clinical Trial. Presented at the Institute of Food Technology meeting, Anaheim, CA.

L. Dolan, C. Crincoli and G.A. Burdock (2009). Safety of geranium oil as a food ingredient. Presented at the Society of Toxicology Meeting, Baltimore, MD.

I. Carabin and **G.A. Burdock** (2009). Safety assessment of sclareolide as a food ingredient. Presented at the Society of Toxicology Meeting, Baltimore, MD.

R.A. Matulka and **G.A. Burdock** (2009). Risk assessment of dandelion root extract solid as a food ingredient. Presented at the Society of Toxicology Meeting, Baltimore, MD.

A.C. Mozingo and **G.A. Burdock** (2008). Delivery Systems for Supplements and Functional Foods: Guidelines for Decisions. *Institute of Food Technologists Annual Meeting Poster Presentation*. June 26 – July 1, 2008, New Orleans, LA.

G.A. Burdock, A.C. Mozingo and J.W. Rochowicz (2008). Regulatory and Scientific Roadmap for Claims. *Institute of Food Technologists Annual Meeting Poster Presentation*. June 26 – July 1, 2008, New Orleans, LA.

G.A. Burdock. (1983). Diethanolamine-induced changes in liver and kidney of the neonatal rat. *The Toxicologist* 4 (1): 491.

G.A. Burdock and L.W. Masten. (1979). Diethanolamine-induced changes in the neonatal rat. *Toxicology and Applied Pharmacology* 48:A30.

NEWSLETTER ARTICLES WITH LINK (PARTIAL LIST)

G.A. Burdock and J. Lagabon (2020). [Before we GRAS, Let's Sharpen Our Axe - Burdock Group Consultants](#)

G.A. Burdock (2020) [Opening the Dietary Supplement Floodgates - Burdock Group Consultants](#)

J. Lagabon and G.A. Burdock (2019) [GRAS: Meeting the Burden of Persuasion - Burdock Group Consultants](#)

G.A. Burdock (2019) [Medical Foods Governance A Slippery Proposition - Burdock Group Consultants](#)

G.A. Burdock (2018) [Can a Food Be a Drug and a Supplement? - Burdock Group Consultants](#)

G.A. Burdock (2018) [FDA's Hostile Take-Over of GRAS, Part III: It Started Earlier Than We Think - Burdock Group Consultants](#)

- G.A. Burdock** (2018) [FDA's Hostile Take-Over of GRAS, Part II: FDA's Assault on Legitimacy of GRAS Expert Panels - Burdock Group Consultants](#)
- G.A. Burdock** (2018) [What do organic fertilizer, cow milk and rheumatoid arthritis have in common? - Burdock Group Consultants](#)
- G.A. Burdock** (2018) ["Self"-GRAS in AAFCO's Official Publication a Win-Win - Burdock Group Consultants](#)
- G.A. Burdock** (2017) [Is This FDA's Hostile Take-Over of GRAS or Is It Simply Establishing Some Ground Rules? - Burdock Group Consultants](#)
- G.A. Burdock** (2017) [Don't Build Me a Cadillac: All I Want Is a Ford - Burdock Group Consultants](#)
- G.A. Burdock** (2017) [Why Is 2017 a Better Year for Dietary Supplements Than 1997? - Burdock Group Consultants](#)
- G.A. Burdock** (2017) [U.S. Ingredient Approval- Which is Best? FAP or GRAS \(burdockgroup.com\)](#)
- G.A. Burdock** (2017) [Is "All Natural" Really "All Good"? | Burdock Group Consultants](#)
- G.A. Burdock** (2016) [Are AAFCO and the Official Publication Headed for Extinction? - Burdock Group Consultants](#)
- G.A. Burdock** (2016) [The GRAS Process and Notifying FDA under the Final Rule \(Part 1\) - Burdock Group Consultants](#)
- G.A. Burdock** (2016) Some Speculation on Forthcoming Dietary Supplement Guidelines
- G.A. Burdock** (2016) The Elements for a Successful Generally Recognized as Safe (GRAS)
- G.A. Burdock** (2016) A Message from the President: What's on the Horizon for 2016

EDITORIAL REVIEW

Regulatory Toxicology and Pharmacology. (1997 to present) Elsevier Science. Manuscript reviews.

Journal of Agricultural and Food Chemistry. (1998 to present) American Chemical Society. Manuscript reviews.

Bee World. (1999 to present) International Bee Research Association. Manuscript reviews.

Italian Journal of Food Science. (1999 to present) Istituto di Industrie Agrarie, University of Perugia. Manuscript reviews.

Journal of Agricultural Research. (1999 to present) Agricultural Research Service. Manuscript reviews.

Food and Chemical Toxicology. (1999 to present) Elsevier. Manuscript reviews.

International Journal of Toxicology. (2000 to present) Taylor & Francis. Manuscript reviews.

Update (2005 - 2008) Food and Drug Law Institute. Editorial Board Member.

CONTINUING EDUCATION (Partial List)

	Date	Hours* (Approx.)
Webinar: Up Front Earth Day Event – Featuring Environmental Toxicology Experts Courtney Roper, Marc Slattery and Kristie Willett. University of Mississippi	4/22/ 2021	3
Webinar: Insect Genomic Technologies to Improve Food Applications. Moderated by Brenda Oppert, USDA-ARS, Manhattan, KS, USA.	2/9/2021	1.5
Webinar: FDA sponsored webinar. CBD and other cannabinoids: Sex and Gender differences in use and responses.	11/19/2020	5.5
Webinar: Botanical Safety Consortium Annual Meeting. News & Events – Botanical Safety Consortium This meeting is intended to provide information about the newly-formed Botanical Safety Consortium. Meeting objectives are to: • Provide information on the structure, mission, objectives, and strategy of the BSC • Share an overview of the current Technical Working Group (TWG) plans • Recruit new BSC members • Solicit input into current scientific challenges and opportunities related to botanical dietary supplement safety AGENDA 9:00 Introductions & Objectives Michelle Embry, HESI 9:15 Botanical Safety: Discovering Common Struggles, Needs, and Solutions Dan Marsman, Procter & Gamble 9:35 The BSC as a public-private partnership: HESI’s involvement in the BSC Connie Mitchell & Michelle Embry, HESI 10:05 Research on Botanical Safety at the National Toxicology Program Cynthia Rider, NIEHS / NTP 10:25 The Modernization of FDA’s Dietary Supplement Program: the Botanical Safety Consortium Cara Welch, USFDA CFSAN 10:45 What are the objectives of the BSC and how does it plan to meet them? Jim Griffiths, CRN 11:00 Botanical Ingredient Characterization; a tale of more than one thousand and one compounds Stefan Gafner, ABC 11:30 Avengers Assemble! A Day in the Life of the BSC Technical Working Groups Joe Dever, Amway 12:00 Conclusions 12:15 Open discussion / Q&A 12:45 Adjourn	5/29/2020	3.5
FDA/CFSAN Webinar: Public Meeting: Responsible Innovation in Dietary Supplements	5/16/2020	5
SOT Webinar: Applying Modern Toxicology to Dietary Supplements with Ancient Roots: Botanical Safety in the 21st Century. April 23, 2020. Introduction. Cynthia Rider, NIEHS/NTP, Research Triangle Park, NC.; Applying Modern Toxicology to Botanical Dietary Supplements. Michelle Embry, HESI, Washington, DC.; Chemical Analysis: The Foundation of Botanical Safety. Joshua Kellog, Pennsylvania State University, State College, PA.; Developing and Applying In Vitro Liver Models to Address Potential Hepatotoxicity of Botanical Dietary Supplements. Amy Roe, Procter & Gamble, Cincinnati, OH.; Systems Toxicology Approaches to Evaluate Botanical Safety. Joseph Dever, Amway Nutrilite, Grand Rapids, MI.; Challenges and Approaches for Using Animal and Human Data to Evaluate In Vitro Systems in Botanical Safety Assessment. Cynthia Rider, NIEHS/NTP, Research Triangle Park, NC. SOT Virtual Meeting:	4/23/2020	3

[WORKSHOP SESSION: Applying Modern Toxicology to Dietary Supplements with Ancient Roots: Botanical Safety in the 21st Century » British Toxicology Society \(thebts.org\)](#)

AACT Webinar: US FDA’s Safety evaluation of foods from genetically engineered plants.	4/16/ 2020	1
SOT Webinar: Microbiome: the missing piece in the diet/health puzzle. Tiffany Weir, PhD. Colorado State Univ.	1/15/2020	1.5
Food Safety and Regulation of Insect Based Food. Institute of Food Technology Meeting, Session 333; Ernest N. Morial Convention Center, Room 271-273, New Orleans, LA	6/5/2019	1.5
Nutraceuticals and Functional Food Regulations in the United States, Europe, and the Asian Sub-Continents. Institute of Food Technology Meeting; Session 218; Ernest N. Morial Convention Center, Room 271-273, New Orleans, LA	6/4/2019	1.5
FDA/CFSAN Public Meeting: Responsible Innovation in Dietary Supplements	4/16/2019	8
ACT Webinar: Safety Assessment of Monoclonal Antibodies for Immunosuppressants and Anti-Inflammatory Agents	12/19/2018	1
Webinar: <i>Microbial Metabolism Associated with Health</i> ILSI Europe April 12, 2018. Effects of the intestinal microbiota on selected dietary components, Prof. Colette Shortt, Johnson & Johnson, UK.; Impact of intestinal metabolism and findings, Prof. Ian Rowland, Univ. of Reading, UK; Health benefits of fermented foods: Microbiota and beyond, Prof. Robert Hutkins, Univ. of Nebraska, US.	4/12/2018	1.5
SOT meeting: Deliberations in Regulatory and Safety: Deliberations in regulatory and Safety Assessment of Food Substances in Early Life.	3/13/2018	2.5
SOT meeting: Nanotoxicology	3/13/2018	3
SOT meeting: Safety Evaluation of Plant-Based Color Additives Used in Foods	3/13/2018	3
A Regulatory Update on Animal Feed and Feed Additives in the EU (European Union), USA and China Training Course. London, UK	12/2017	12
Nutraceutical and Functional Food Regulations. Institute of Food Technology Meeting,		1.5
FDA Meeting on Dietary Supplements	10/3/2017	6
A Regulatory Update on Animal Feed and Feed Additives in the EU (European Union), USA and China Training Course	12/9/2016	12
Understanding the Medical Food Category, Institute of Food Technology Meeting. July 17, 2016 Chicago IL	7/17/2016	3
2016 FDLI Annual Conference (Two-day conference, including need for GMO labeling, regulation of dietary supplements, chemical contaminants in food, risk assessment framework, inorganic arsenic in food, warning letter to KIND bars). Giving credit for only four hours out of a possible 12.	5/5-6/2019	4

NIEHS Assessment of Botanical Safety. Bethesda, MD, NLM Library meeting room	4/26-27/2016	10
GMA Science Forum Meeting	4/18/2016	7
A Convulsive change in Pet Food (and Animal Feed) Regulation. 1 st Annual Food Litigation Insurance ExecuSummit	2/3-4/2016	8
2015 <i>Dietary Guidelines Advisory Committee Report: Recommendations, Implications and Impact on Policy</i> . Institute of Food Technology. March 20, 2015.	3/20/2015	1
SOT: Nanotoxicology Webinar: “ <i>Progress Towards Understanding the Health Effects of Carbon Nanotubes</i> ” Dr. James Bonner, Associate Professor of Environmental and Molecular Toxicology, North Carolina State University, presenting, “ <i>Progress Towards Understanding the Health Effects of Carbon Nanotubes</i> ”.	12/17/2013	1
CRN/VIRGO Webinar: <i>Dietary Supplement Safety: From Mice to Men- with expert scientific legal and regulatory presenters</i> . December 4, 2013.	12/4/2013	3

*Some of these events were longer than the hours posted because there were hours included in the event that could not legitimately be claimed to be Continuing Education; however, those hours that were logically CE, were posted in the column “Hours”.

PROFESSIONAL ACHIEVEMENT AND RECOGNITION

Institute of Food Technologists (2006) Bernard L. Oser Food Ingredients Safety Award. Institute of Food Technologists, *Toxicology and Safety Evaluation Division*

Society of Toxicology, *Food Safety Specialty Section*, (2005 – 2006 Vice President, 2004 – 2005 Vice President-Elect).

International Society of Regulatory Toxicology and Pharmacology (2005 - 2006 President; 2004 – 2005 Past Vice-President; Councilor)

FDA Advisory Committee Member, *Additives and Ingredients Subcommittee*. 2004.