

MOHAMAD G. ABIAD

American University of Beirut
 Faculty of Agricultural and Food Sciences
 Department of Nutrition and Food Sciences
 PO Box 11-0236 Riad El-Solh,
 Beirut 1107 2020 – Lebanon
 Tel: +961-1-343002 ext.:4412
 Mobile: +961-3-888560
 E-mail: ma192@aub.edu.lb / abiad@msu.edu

EDUCATION

INSTITUTION (LOCATION)	DEGREE	COMPLETION DATE	FIELD OF STUDY
Purdue University – West Lafayette, IN, USA College of Engineering Department of Agriculture and Biological Engineering	PhD	06/2009	Agricultural and Biological Engineering (Food Process Engineering)
Purdue University – West Lafayette, IN, USA College of Engineering Department of Agriculture and Biological Engineering	MSE	08/2004	Agricultural and Biological Engineering (Food Process Engineering)
Lebanese American University – Beirut, Lebanon School of Business	MBA	09/2002	Business Administration
American University of Beirut – Beirut, Lebanon Faculty of Engineering and Architecture	BE	07/1998	Civil Engineering

PROFESSIONAL EXPERIENCE

American University of Beirut – Lebanon Faculty of Agricultural and Food Sciences Department of Nutrition and Food Sciences Associate Professor of Food Processing & Packaging	2016 – present
Michigan State University – East Lansing, MI, USA College of Agriculture and Natural Resources School of Packaging Adjunct Faculty	2012 – present
American University of Beirut – Lebanon Faculty of Agricultural and Food Sciences Department of Nutrition and Food Sciences Assistant Professor of Food Processing & Packaging	2009 – 2016
Michigan State University – East Lansing, MI, USA College of Agriculture and Natural Resources School of Packaging Visiting Scholar	Fall 2011-2012
Purdue University – West Lafayette, IN, USA College of Engineering Department of Agriculture and Biological Engineering Visiting Scholar	Summer 2010
Purdue University – West Lafayette, IN, USA College of Agriculture Department of Food Science Post-Doctoral Researcher	Summer 2009
Purdue University – West Lafayette, IN, USA College of Engineering Department of Agriculture and Biological Engineering Graduate Research Assistant	2007 – 2009
Scoops Ice Cream – West Lafayette, IN, USA Owner/Manager	2007 – 2008

Purdue University – West Lafayette, IN, USA College of Science Department of Mathematics Graduate Teaching Assistant	2006 – 2007
Global Grocers – West Lafayette, IN, USA Owner/Manager	2005 – 2008
Purdue University – West Lafayette, IN, USA College of Engineering Department of Agriculture and Biological Engineering Graduate Research Assistant	2003 – 2005
Purdue University – West Lafayette, IN, USA College of Agriculture Department of Food Science Graduate Research Assistant	2003 – 2004
Ets. Aralco – Paris, France Regional Sales and Marketing Manager	1999 – 2002

PROFESSIONAL TRAINING AND CERTIFICATIONS

- Certified Packaging Professional (CPP). Certified 2010; Recertified 2015
- Engineer in Training (EIT) – Michigan, USA. 2008
- Certification from Better Process Control School (FDA) – Canned Foods, Principles of Thermal Process Control, Acidification and Container Closure Evaluation. 2005
- Retail Food Safety Manager Certificate, from the National Registry of Food Safety Professionals. 2005
- Training and Certification in Development and implementation of (Hazard Analysis Critical Control Point) HACCP programs for the food industry. 2005

PROFESSIONAL AFFILIATIONS

- Food Safety Alliance for Packaging – Technical Committee of the Institute of Packaging Professionals (Professional member since 2010)
- Institute of Packaging Professionals (Professional Elite member since 2010)
- International Society of Food Engineering (Professional member since 2009)
- American Association of Pharmaceutical Scientists (Professional member since 2009)
- Institute of Food Technologists (Professional member since 2001)
- Order of Engineers and Architects, Beirut, Lebanon (Professional Member since 1998)

HONORS AND AWARDS

- Travel and training grant (\$5,000) from the Chinese Academy of Sciences, the Centre of Excellence for Biotechnology and the World Academy of Sciences for the advancement of science in developing countries to attend the “2013 Food Biotechnology Training Course for Developing Countries”. November 2013
- Elected ‘Best Professor’ by the Food Science and Management Class of 2011. July 2011
- First Place in Soybean Product Innovation Competition, Indiana, USA. (Monetary Award: \$17,500). May 2009
- Second Place in Corn Product Innovation Competition, Indiana, USA. (Monetary Award: \$1,500). May 2009

PATENTS

(* Undergraduate Student; ‡ Graduate Student; ¯ Research Assistant)

- Line Koleilat[‡], Diala El Debs^{*}, Farah Houmani[‡] and **Mohamad Abiad**. (May 17, 2016). *Food Package*. U.S. Patent No. D756,216.
- Line Koleilat[‡], Diala El Debs^{*}, Farah Houmani[‡] and **Mohamad Abiad**. (2014). *Innovative spill-proof hamburger package intended for one-handed use*. Ministry of Economy and Trade, Republic of Lebanon, Directorate General for Economy and Trade, Intellectual Property Protection Office, Certificate of registration number 10712.
- **Mohamad Abiad** and Jacob Smoker. (2009). *Cork-like material made from soybean and corn based byproducts*.

U.S. Provisional Patent/Application Serial No.: 61/210,797.

- **Mohamad Abiad**, Osvaldo Campanella and Teresa Carvajal. (2009). *Disposable Cassette for Characterizing Thermal Transitions by Dynamic Mechanical Analysis*. U.S. Provisional Patent/Application Serial No.: 61/158,912

RESEARCH INTERESTS

Rheology of foods, polymers and biomaterials
 Functional membranes/materials for food applications
 Food packaging design and development for traditional local foods
 Food safety and consumer research
 Food waste: sources, economics, mitigation, recycling (processing and reuse)
 Climate change, energy and the agro-food industry

PUBLICATIONS

(* Undergraduate Student; ‡ Graduate Student; ¶ Research Assistant)

Published Articles in Refereed Journals

1. G.K. Abebe, A. Chalak and **M.G. Abiad (corresponding author)**. *Food safety governance mechanisms: Evidence from Lebanese dairy supply chain*. Journal of the Science of Food and Agriculture. (In Press) doi:10.1002/jsfa.812
2. M.I. Tsiraki, L. Karam, **M.G. Abiad**; H.M. Yehia and I. Savvaidis. *Use of Natural Antimicrobials to Improve the Quality Characteristics of Fresh "Phyllo" - A Dough-based Wheat Product - Shelf Life Assessment*. Food Microbiology. (2017) 62: 153-159 doi:10.1016/j.fm.2016.10.001
3. A. Kathuria, S. Al-Ghamdi, **M. Abiad** and R. Auras. *Synthesis of Nanoporous Carbohydrate Metal-Organic Framework and Encapsulation of Acetaldehyde*. Journal of Crystal Growth. (2016) 451: 72-78. doi:10.1016/j.jcrysgro.2016.07.004
4. Z. Moussa[‡], M. Hmadeh, **M.G. Abiad**, O.H. Dib[‡] and D. Patra. *Encapsulation of curcumin in cyclodextrin-metal organic frameworks: Dissociation of loaded CD-MOFs enhances stability of curcumin*. Food Chemistry. (2016) 212: 485-494. doi:10.1016/j.foodchem.2016.06.013
5. M. Chebl[‡], **M.G. Abiad**, Z. Moussa[‡] and D. Patra. *Two Modes of Associations of Curcumin with Pre- and Nano-Aggregated Chitosan Oligosaccharide Lactate: Ionic Strength and Hydrophobic Bile Salt Modulate Partition of Drug and Self-Assembly Process*. The Journal of Physical Chemistry C. (2016) 120 (20): 11210-11224. doi:10.1021/acs.jpcc.6b01486
6. Ali Chalak, **Mohamad Abiad** and Kelvin Balcombe. *Joint Use of Attribute Importance Rankings and Non-attendance Data in Choice Experiments*. European Review of Agricultural Economics. (2016) 43 (2): 1-24. doi:10.1093/erae/jbw004
7. Ali Chalak, Chaza Abou Daher[‡], Jad Chaaban and **Mohamad G. Abiad (corresponding author)**. *The Global Economic and Regulatory Determinants of Household Food Waste Generation: A Cross-Country Analysis*. Waste Management (2016) 48: 418-422. doi:10.1016/j.wasman.2015.11.040
8. Ajay Kathuria, Saleh Al-Ghamdi, **Mohamad G. Abiad** and Rafael Auras. *The Influence of Cu₃(BTC)₂ Metal Organic Framework on the Permeability and Perm-selectivity of PLLA-MOF Mixed Matrix Membranes*. Journal of Applied Polymer Science. (2015) 132 (46): 42764. doi:10.1002/app.42764
9. Elsy El Khoury[‡], **Mohamad Abiad**, Zeina G. Kassafy, Digambara Patra. *Green synthesis of curcumin conjugated nanosilver for the applications in nucleic acid sensing and anti-bacterial activity*. Colloids and Surfaces B: Biointerfaces. (2015) 127: 274-280. doi:10.1016/j.colsurfb.2015.01.050
10. R. Ayasso[‡], H. Ghattas, **M.G. Abiad** and O. Obeid. *Meal Pattern of Male Rats Maintained on Amino Acid Supplemented Diets: The Effect of Tryptophan, Lysine, Arginine, Proline and Threonine*. Nutrients. (2014) 6: 2509-2522. doi:10.3390/nu6072509
11. H. Fawaz[‡], **M.G. Abiad**, N. Ghaddar and K. Ghali. *Solar Assisted Localized Ventilation System for Poultry Brooding*. Energy and Buildings. (2014) 71: 142-154. doi:10.1016/j.enbuild.2013.12.021
12. O. El Mogharbel[‡], K. Ghali, N. Ghaddar and **M.G. Abiad**. *Simulation of a localized heating system for broiler brooding to improve energy performance*. International Journal of Energy Research. (2014) 38 (1): 125-138 doi:10.1002/er.3023

13. **M.G. Abiad (corresponding author)**, O.H. Campanella and M.T. Carvajal. Effect of spray drying conditions on the physicochemical properties and enthalpy relaxation of α -lactose. *International Journal of Food Properties*. (2014) 17 (6): 1303-1316 doi:10.1080/10942912.2012.710287
14. A. Kathuria[‡], **M.G. Abiad** and R. Auras. Toughening of poly(L-lactic acid) with Cu₃BTC₂ metal organic framework crystals. *Polymer*. (2013) 54 (26): 6979-6986. doi:10.1016/j.polymer.2013.11.005
15. Ali Chalak, Scott Reid, Martin Silcock and **Mohamad Abiad (corresponding author)**. Customer perspectives of water safety and service failure risks. *Journal of American Water Works Association (JAWWA)*. (2013) 105 (8): E449-E459. doi:10.5942/jawwa.2013.105.0092
16. A. Kathuria[‡], **M.G. Abiad** and R. Auras. Deterioration of metal-organic framework crystal structure during fabrication of poly(L-lactic acid) mixed-matrix membranes. *Polymer International*. (2013) 62 (8): 1144-1151. doi:10.1002/pi.4478
17. **M.G. Abiad** and Ali Chalak. Unraveling mean and variance heterogeneity influences of information provision on safer food purchasing decisions: A heteroscedastic mixed Logit approach. *Food Economics*. (2012) 9 (3): 135-144. doi:10.1080/2164828X.2013.781942
18. A. Chalak and **M.G. Abiad (corresponding author)**. How effective is information provision in shaping food safety related purchasing decisions? Evidence from a choice experiment in Lebanon. *Food Quality and Preference*. (2012) 26: 81-92. doi:10.1016/j.foodqual.2012.04.00
19. A. Chalak, J. Hecht, S. Reid and **M.G. Abiad (corresponding author)**. Willingness-to-pay for greenhouse gas reductions: A Bayesian investigation of distributional patterns. *Environmental Science and Policy*. (2012) 19-20: 147-157. doi:10.1016/j.envsci.2012.02.003
20. P.H.S. Santos[‡], **M.G. Abiad (corresponding author)**, M.A. Carignano, O.H. Campanella. Viscoelastic properties of di-benzylidene sorbitol (DBS) physical gels at high frequencies. *Rheologica Acta*. (2012) 51 (1): 3-11. doi:10.1007/s00397-011-0591-9
21. **M.G. Abiad**, D.C. Gonzalez, B. Mert, O.H. Campanella and M.T. Carvajal. A novel method to measure the glass and melting transitions of pharmaceutical powders. *International Journal of Pharmaceutics*. (2010) 396 (1-2): 23-29. doi:10.1016/j.ijpharm.2010.06.001
22. **M.G. Abiad**, O.H. Campanella and M.T. Carvajal. Assessment of thermal transitions by dynamic mechanical analysis (DMA) using a novel disposable powder holder. *Pharmaceutics*. (2010) 2: 78-90. doi:10.3390/pharmaceutics2020078
23. S. Basu[‡], M. Diwan, **M.G. Abiad**, Y. Zheng, O.H. Campanella, and A. Varma. Transport characteristics of dehydrogenated ammonia borane and sodium borohydride spent fuels. *International J. of Hydrogen Energy*. (2010) 35: 2063-2072. doi:10.1016/j.ijhydene.2009.12.159
24. **M.G. Abiad**, M.T. Carvajal, and O.H. Campanella. A review on methods and theories to describe the glass transition phenomenon: Applications in food and pharmaceutical products. *Food Engineering Reviews*. (2009) 1 (2): 105-132. doi:10.1007/s12393-009-9009-1
25. Gandolph, J., **M.G. El-Abiad**, L.J. Mauer, and M. Perchonok. Equivalent system mass (ESM) estimates for commercially available, small-scale food processing equipment. *SAE Transactions Journal of Aerospace*. (2004) 1:1189-1206.

Reports and Policy Notes

1. Chamieh, Naji, **Mohamad Ghassan Abiad**, Fadi Doumani, and Karine Abdelnour-Thome, (March 2016). "Economic Instruments to Create Incentives for Recycling in Lebanon." Prepared for the Lebanon Ministry of Environment through the European Union Support to Reforms – Environmental Governance (StREG) Project. GFA Consulting Group GmbH / Umweltbundesamt / Mott MacDonald. Beirut, Lebanon
2. **Abiad, M. (corresponding author)**, Habchi^T, R., Bashour, I., and Chalak, A. (2011). Recycling Farm Biomass for Biogas Production: A Feasibility Study in Rural Lebanon Climate Change and Environment in the Arab World - Research and Policy Memo no. 7. Beirut, Lebanon: Issam Fares Institute for Public Policy and International Affairs, American University of Beirut.

Conference Proceedings

1. Rita Jalkh[‡]; **Mohamad G. Abiad** and Ghassan Chehab. *Rejuvenators for Asphalt Binders Using Oil Extracted from Spent Coffee Grounds*. Geo-Chicago 2016: Sustainability, Energy, and the Geoenvironment. Chicago, Illinois USA. August 2016
2. Deeb, George[‡]; Hasan, Anwarul; **Abiad, Mohamad G.**; Alhadrami, Hani A.; and Mustafy, Tanvir, *Experimental studies and computer modeling of viscoelastic properties of heart valve leaflets: Implication in heart valve tissue engineering*. 2015 International Conference on Advances in Biomedical Engineering (ICABME), pp.226-229, September, 2015. doi:10.1109/ICABME.2015.7323293

3. Dima Z. Al Hassanieh[‡], Hussein A. Kassem[‡], Ghassan R. Chehab and **Mohamad G. Abiad**. *Use of Fine Aggregates Recycled from Cementitious Constituents of Construction Demolition Waste in Hot-Mix Asphalt*. Proceedings of the Transportation Research Board 94th Annual Meeting. Washington, D.C., USA. January 2015
4. N. Ghaddar, K. Ghali and **M. Abiad**. *Feasibility Study of Localized Heating and Cooling Systems Totally Powered by Solar Energy*. Proceedings of the 48th AIAA/ASME/SAE/ASEE Joint Propulsion Conference & Exhibit 10th Annual International Energy Conversion Engineering Conference. Atlanta, USA. July 2012
5. Saoud I. Patrick, **Mohammad Abiad** and Ali Chalak. *Integrating aquaculture with dairy farm waste recycling and irrigation to reduce consumptive freshwater use, alleviate rural poverty and improve food security*. Symposium publication in: Water and Energy in Sustainable Food Security, Beirut, Lebanon. December 2011
6. Gandolph, J., **M.G. El-Abiad**, M. Perchonok and L.J. Mauer. *Equivalent System Mass (ESM) estimates for commercially available, small-scale food processing equipment*. Proceedings of the SAE International Meeting, Colorado Springs, CO. July 2004

INTERNATIONAL AND NATIONAL CONFERENCE PRESENTATIONS

(* Undergraduate Student; [‡] Graduate Student; [‡] Research Assistant)

1. Rita Jalkh[‡], **Mohamad Abiad** and Ghassan Chehab. *From your coffee cup to the road you use: A novel asphalt rejuvenator from spent coffee grounds*. 4th Kamal A. Shair Central Research Science Laboratory (KAS CRSL) Research Conference. Beirut, Lebanon. May 2015
2. Rita Jalkh[‡], **Mohamad Abiad** and Ghassan Chehab. *Rejuvenators for Asphalt Binders from Spent Coffee Grounds and Waste Cooking Oil*. 21st LAAS International Science Conference (LAAS'15) – Horizon 2020: Advances in Sciences and technology. Beirut, Lebanon. April 2015
3. Rita Jalkh[‡], Ghassan Chehab and **Mohamad Abiad**. *Oil extracts from spent coffee grounds to modify the physical properties of recycled asphalt binder*. 3rd MESAT (Middle East Society of Asphalt Technologists) Conference 2015 theme 'Performance-Based Specifications and Design for Sustainable Asphalt Pavements in the Middle East'. Dubai, United Arab Emirates. April 2015
4. Nancy F. Nakhoul, Hani Tamim, Youssef Mouneimne, Lara Nasreddine, **Mohamad G. Abiad**, Nathalie Khoueiry-Zgheib, Hussain Ismaeel and Mona P. Nasrallah. *Is the Prevalence of Diabetes Increasing in Lebanon?* The Endocrine Society's 97th Annual Meeting & Expo (ENDO 2015), San Diego, California, USA. March 2015
5. Dima Z. Al Hassanieh[‡], Hussein A. Kassem[‡], Ghassan R. Chehab and **Mohamad G. Abiad**. *Use of Fine Aggregates Recycled from Cementitious Constituents of Construction Demolition Waste in Hot-Mix Asphalt*. Transportation Research Board 94th Annual Meeting. Washington, D.C., USA. January 2015
6. **Mohamad Abiad**, Omar Dib[‡], Ajay Kathuria[‡], Saleh Al-Ghamdi[‡], Houssam El-Rassy and Rafael Auras. *Structural properties of cyclodextrin based metal organic framework crystals in various organic solvents*. MOF 2014: 4th International Conference on Metal Organic Frameworks & Open Framework Compounds. Kobe, Japan. September 2014
7. Ali Chalak and **Mohamad Abiad**. *The interplay of qualitative and quantitative messages in shaping consumers' preferences for food safety under various certifying regimes: The case of Lebanon*. EuroSense 2014: A Sense of Life - 6th European Conference on Sensory and Consumer Research. Copenhagen, Denmark. September 2014
8. Zeina G. Kassaify, Reem Hamzeh[‡], Houda Harastani, Celine Ajjour[‡], Maya Farah[‡] and **Mohamad Abiad**. *Molecular typing and probiotic attributes of Lactobacillus casei isolated from fermented goat cheese (Anbaris)*. International Association for Food Protection (IAFP) Annual Meeting 2014. Indianapolis, IN, USA. August 2014
9. **Mohamad Abiad**, Nathalie J. Malek[‡], Houda H. Harastani, Reem Hamzeh[‡] and Zeina Kassaify. *Emergence of Heat-Resistant Salmonella and Escherichia coli Isolated From Food Products*. International Association for Food Protection (IAFP) Annual Meeting 2014. Indianapolis, IN, USA. August 2014
10. Farah Houmani[‡], Line Koleilat[‡], Diala El Debs^{*} and **Mohamad Abiad**. *New burger package*. 8th Annual International Biodiversity Day at the American University of Beirut (IBDAA), Beirut, Lebanon. April 2014 (**Winner of 2nd prize in product development category**)
11. Rola Malaeb^{*}, Lama Mdeihli^{*}, Ali Al Berjawi^{*} and **Mohamad Abiad**. *Disposable hookah head*. 8th Annual International Biodiversity Day at the American University of Beirut (IBDAA), Beirut, Lebanon. April 2014
12. Moustafa Abiad^{*}, Loujein Mouammer^{*}, Mona Talih^{*} and **Mohamad Abiad**. *Instant coffee smart package*. 8th Annual International Biodiversity Day at the American University of Beirut (IBDAA), Beirut, Lebanon. April 2014
13. Dima Al Hassanieh[‡], Hussein Kassem[‡], Ghassan Chehab and **Mohamad G. Abiad**. *Investigation of hot-mix asphalt (HMA) containing fine recycled aggregates from construction demolition waste*. The First AUB Symposium on Materials Science and Energy. Beirut, Lebanon. April 2014.

14. Darine Salam, **Mohamad G. Abiad**, Nesreene Ghaddar, Kamel Ghali and Ghassan Chehab. *An energy efficient poultry house for boiler production: A showcase*. Regional Conference on Renewable Energy and Sustainable Development in Rural Areas of the ESCWA Region. Rabat, Morocco. November 2013
15. Reem Hamzeh[†], Zeina Kassaify and **Mohamad G. Abiad**. *Molecular typing and probiotic attributes of lactic acid bacteria strains isolated from Labneh Anbaris*. The 8th Dubai International Food Safety Conference, Dubai, UAE. November 2013
16. Nadera Hamdar[‡], Zeina Kassaify and **Mohamad G. Abiad**. *Food safety knowledge and practices at the home of Lebanese consumers and its association with the level of risk*. The 8th Dubai International Food Safety Conference, Dubai, UAE. November 2013
17. Maya El-Mokdad[‡], Zeina Kassaify and **Mohamad G. Abiad**. *Implementation and viability of traceability systems in small and medium dairy processing plants in Lebanon*. The 8th Dubai International Food Safety Conference, Dubai, UAE. November 2013
18. Zeina Kassaify, Reem Hamzeh[†] and **Mohamad G. Abiad**. *Extending the shelf life and eliminating Salmonella spp. and Escherichia coli in tahini-based dressing*. International Association for Food Protection Annual Meeting. Charlotte, NC. July 2013
19. **Mohamad Abiad** and Kamel Aboughali. *Solar energy operated brooder to improve food security of small-holder poultry farmers in rural Lebanon*. Fourth Annual International Masri Institute Workshop on Energy and Natural Resources, American University of Beirut, Beirut, Lebanon. May 2013
20. Suzanna AL-Bacha^{*}, Line Koleilat^{*}, Mireille Najjar^{*}, Reem Sayyed Ahmad^{*} and **Mohamad Abiad**. *Conserving marine biodiversity through an innovative recycling solution for waste cooking oil*. 7th Annual International Biodiversity Day at the American University of Beirut (IBDAA), Beirut, Lebanon. April 2013
21. I. P. Saoud, **M. Abiad**, N. Farajalla, M. Haidar and A. Baalbaki. *Improving water use efficiency by integrating aquaculture, agriculture and green energy production*. Energy, Water and Sustainability, Beirut, Lebanon. December 2012.
22. **Mohamad Abiad** and Ali Chalak. *Shaping Food Safety Related Purchasing Decisions: Evidence from a Choice Experiment in Lebanon*. Institute of Food Technologists (IFT) annual meeting scientific program, Las Vegas, NV. June 2012
23. A. Chalak and **M. Abiad**. *Food choice & safety certification: a mixed logit investigation of the systematic, distributional & differential influences of information provision*. Agricultural and Applied Economics Association (AAEA/EAAE) Food Environment Symposium on "Food Environment: The Effects of Context on Food Choice", Tufts University, Boston, MA. May 2012
24. R. Ayaso[‡], H. Ghattas, **M. Abiad** and O. Obeid. *Meal patterns of rats maintained on tryptophan and lysine supplemented diet*. 19th European Congress on Obesity (ECO2012), Lyon, France. May 2012
25. Imad P. Saoud, **Mohammad Abiad**, Ali Chalak, Nadim Farajalla and Zeina Kassaify (2011). *Integrating aquaculture with dairy farm waste and irrigation to reduce consumptive freshwater use, alleviate rural poverty and improve food security*. Water and Energy in Sustainable Food Security, Beirut, Lebanon. December 2011
26. Karim Batlouni^{*}, Imad Kastoun^{*} and **Mohamad Abiad**. *Aerial reforestation containers from recycled agricultural and food wastes*. Fifth Annual International Biodiversity Day at the American University of Beirut (IBDAA), Beirut, Lebanon. May 2011
27. **Abiad, M.G.**, Carvajal, M.T., and Campanella, O.H. *Monitoring Thermal Properties of Pharmaceutical Powders*. Dane O. Kildsig Center for Pharmaceutical Processing Research (CPPR) Annual Meeting, West Lafayette, IN, USA. October 2010
28. **Abiad, M.G.**, Carvajal, M.T., and Campanella, O.H. *The Effect of Spray Drying Conditions on Enthalpy Relaxation of α -Lactose*. Dane O. Kildsig Center for Pharmaceutical Processing Research (CPPR) Annual Meeting, Storrs, CT, USA. October 2009
29. **Abiad, M.G.**, Carvajal, M.T., and Campanella, O.H. *A Novel Disposable Powder Holder to Characterize Thermal Transitions by Dynamic Mechanical Analysis (DMA)*. American Association of Pharmaceutical Scientists (AAPS) Annual Meeting, Los Angeles, CA. November 2009
30. **Abiad, M.G.**, Mosharraf, L., Campanella, O.H., and Hamaker, B.R. *Glass Transition and Moisture Effects on Gluten-starch Dough Systems*. Institute of Food Technologists annual meeting, Anaheim, CA, USA. July 2009
31. **Abiad, M.G.**, Mosharraf, L., Campanella, O.H. and Hamaker, B.R. *Rheological Characterization and Comparison between Zein-Starch and Gluten-starch Dough Systems*. Conference of Food Engineering, Ohio State University, Columbus, OH. April 2009

32. **Abiad, M.G.**, Mosharraf, L., Campanella, O.H. and Hamaker, B.R. *Effect of Temperature and Water Content on the Rheological Properties of Gluten-starch Dough Systems*. Conference of Food Engineering, Ohio State University, Columbus, OH. April 2009
33. **Abiad, M.G.**, Carvajal, M.T., and Campanella, O.H. *A Novel Method to Measure Melting and Glass Transition Temperatures of Pharmaceutical Powders*. Dane O. Kildsig Center for Pharmaceutical Processing Research (CPPR) Annual Meeting. West Lafayette, IN, USA. October 2008
34. **M.G. Abiad**, M.T. Carvajal, and O.H. Campanella. *Interplay between the Change in Surface Energy of the Crystalline and Amorphous Material*. Whistler Center for Carbohydrate Research (WCCR) Annual Meeting, West Lafayette, IN, USA. June 2007
35. Gandolph, J., **M.G. El-Abiad**, M. Perchonok, and L.J. Mauer. *Equivalent System Mass (ESM) estimates for commercially available, small-scale food processing equipment*. SAE International Meeting, Colorado Springs, CO, USA. July 2004
36. **Mohamad G. Abiad** and Osvaldo Campanella. 2004. *Improvement in Spray Drying Manufacturing through Control of Droplet Size*. Whistler Center for Carbohydrate Research (WCCR) Annual Meeting, West Lafayette, IN, USA. June 2004
37. **Mohamad El-Abiad**. *NASA Project: Food Processing in Space*. (A presentation describing the challenging of processing food in space with emphasis on various potential crops.) Advanced Life Support - NASA Specialized Center of Research and Training (ALS-NSCORT) Technical Exchange Workshop, West Lafayette, IN, USA. July 2003
38. Lisa J. Mauer, Ilan Weiss, **Mohamad El-Abiad** and Deidra Carr. *Food Processing and Packaging*. Advanced Life Support - NASA Specialized Center of Research and Training (ALS-NSCORT) Technical Exchange Workshop, West Lafayette, IN, USA. June 2003

GRANTS

1. Lebanese National Council for Scientific Research (CNRS-L) (\$17,250) 01/11/2016 – 31/10/2018
Extended Producer Responsibility (EPR) as a Waste Management System for the Lebanese Agro-Food Industry: Effectiveness, Challenges and Opportunities
Role: Principal Investigator
Status: Awarded
2. AUB University Research Board (\$30,000) 01/07/2014 – 30/06/2017
Household Food Waste Generation in Urban Lebanon: Behavioral Patterns, Economic Costs and Policy Options
Role: Principal Investigator
Status: Ongoing
3. Faculty of Agricultural and Food Sciences Research Seed Funding (\$5,000) 15/12/2015 – 30/06/2016
Combined Effects of Antimicrobials on the Background Flora, *Salmonella enterica* and *Listeria monocytogenes* in fresh marinated chicken
Role: Co-Principal Investigator (PI: Ioannis Savvaidis)
Status: Completed
4. Medical Practice Plan, AUB Medical Center (\$28,000) 01/02/2014 – 31/01/2016
The Association of BPA levels with estrogen receptors promoter methylation
Role: Co-Investigator (PI: Nathalie Zgheib)
Status: Completed
5. European Union under the Seventh Framework Programme (FP7) 01/01/2014 – 31/12/2015
Total Award: €798,000; AUB's share: €37,698 (\$51,554)
MOSAIC – Cooperation with Mediterranean partners to build opportunities around ICT and societal and industrial challenges of Horizon 2020
Role: Co-Investigator (PI: Fadi Zaraket)
Status: Completed
6. Faculty of Agricultural and Food Sciences Research Seed Funding (\$5,000) 01/12/2014 – 31/08/2015
Identification, characterization and control of foodborne pathogens found in Lebanese sesame seed-based products
Role: Co-Principal Investigator (PI: Ewen Todd)
Status: Completed
7. AUB University Research Board (\$19,600) 01/07/2013 – 30/06/2015
The effect of solvent polarity and different activation methods on the surface area of cyclodextrin metal organic frameworks

Role: Principal Investigator

Status: Completed

8. AUB University Research Board (\$14,800) 01/07/2013 – 30/06/2015
Incorporating tire waste and waste cooking oil in asphalt binders
Role: Co-Investigator (PI: Ghassan Chehab)
Status: Completed
9. Medical Practice Plan (MPP) and University Research Board (URB) (\$22,000) 01/07/2014 – 30/06/2015
The association of Bisphenol A with serum prolactin levels
Role: Co-Investigator (PI: Mona Nasrallah)
Status: Completed
10. Munib Shahid Memorial Fund (\$10,000) 01/02/2014 – 01/31/2015
The prevalence of vascular risk factors and their association with urinary Bisphenol A
Role: Co-Investigator (PI: Mona Nasrallah)
Status: Completed
11. The United Nations Economic & Social Commission for Western Asia (\$129,200) 01/12/2013 – 31/12/2014
Energy efficient poultry house as a showcase of various renewable energy applications at AREC-AUB
Role: Co-Principal Investigator (Co-PI: Darine Salam)
Status: Completed
12. Munib & Angela Masri Institute of Energy and Natural Resources (\$16,800) 01/10/2012 – 30/09/2014
A solar energy operated brooder to improve food security of small-holder poultry farmers in rural Lebanon.
Role: Principal Investigator
Status: Completed
13. AUB University Research Board (\$10,000) 01/07/2013 – 30/06/2014
The inhibitory effects of encapsulated curcumin in liposomes on Salmonella spp., E. coli, Listeria Monocytogenes and Staphylococcus Aureus
Role: Co-Investigator (PI: Zeina Kassaify)
Status: Completed
14. American University of Beirut Medical Center (\$40,000) 01/07/2013 – 30/06/2014
BPA levels and their association with the health status among the Lebanese population
Role: Co-Investigator (PI: Hani Tamim)
Status: Completed
15. AUB University Research Board (\$10,000) 01/07/2012 – 30/06/2013
The release kinetics of volatile organic compounds stored in metal organic frameworks (MOF's) made from edible ingredients
Role: Principal Investigator
Status: Completed
16. Lebanese National Council for Scientific Research (LNCSR) (\$8,300) 01/10/2011 – 31/10/2012
Consumers' demand for mitigating foodborne risks and the role of awareness campaigns in adding value to microbiological safety in food markets of Lebanon
Role: Co-Principal Investigator (PI: Ali Chalak)
Status: Completed
17. AUB University Research Board (\$9,500) 01/07/2011 – 30/06/2012
The impact of various Escherichia coli strains on methane gas production from farm and kitchen waste
Role: Principal Investigator
Status: Completed
18. AUB University Research Board (\$9,500) 01/07/2011 – 30/06/2012
The implementation and viability of traceability systems in small and medium dairy processing plants
Role: Co-Principal Investigator (PI: Zeina Kassaify)
Status: Completed
19. AUB University Research Board (\$10,000) 01/07/2011 – 30/06/2012
The effect of environmental and health labels at capturing market share: The case "zero nitrate" labels in the Lebanese market for bottled water in Lebanon.
Role: Co- Investigator (PI: Ali Chalak)
Status: Completed
20. AUB University Research Board (\$6,400) 01/10/2010 – 30/09/2011
Food safety among food vendors in poor Lebanese neighborhoods: A step towards a healthy marketplace.
Role: Co-Investigator (PI: Zeina Kassaify)
Status: Project Completed

21. AUB University Research Board (\$6,500) 01/10/2010 – 30/09/2011
The effect of different milling conditions on the thermal properties of crystalline powders
Role: Principal Investigator
Status: Completed
22. AUB University Research Board (\$7,300) 01/10/2010 – 30/09/2011
Consumer inertia and the role of awareness campaigns in valorizing safety and hygiene in food markets of developing countries; the case of Lebanon
Role: Co- Investigator (PI: Ali Chalak)
Status: Completed
23. Issam Fares Institute for Public Policy & International Affairs (\$7,300) 01/02/2010 – 30/09/2010
Feasibility of recycling farm biomass for biogas production and its implications on rural livelihoods and greenhouse gas emissions
Role: Principal Investigator
Status: Completed
24. AUB University Research Board (\$4,122) 01/02/2010 – 30/09/2010
The effects of spray drying conditions on aging and enthalpy relaxation of α -lactose
Role: Principal Investigator
Status: Completed

TEACHING

Courses taught at AUB

NFSC 252 – Food Processing (3 credits, Undergraduate – average class size: 10 students): This course is targeted for Agribusiness students. It covers the basics of food processing technologies from farm to fork.

NFSC 272 – Introduction to Food Service and Industries (2 credits, Undergraduate – average class size: 18 students): The objectives of this course are to provide a fundamental understanding of the various methods of food processing and preservation; familiarize the students with the agro-food industry and available career opportunities and provide them with the adequate knowledge required for their summer internships. During this course students visit local food processors including dairy, meat, poultry, cereals, nuts, snacks, sweets, fresh juice, carbonated beverages, bottled water, flour mill as well as catering.

NFSC 280 – Summer Training in Food Establishments (1 credit, Undergraduate – average class size: 18 students): During this course, students are placed for eight full weeks at a recognized agro-food company in Lebanon or abroad, in a capacity which ensures that they apply their knowledge and acquire professional experience in the field of food science and management.

NFSC 287 – Food Processing (2 credits, Undergraduate – average class size: 80 students): This course covers the basics of different technologies of food processing from postharvest to consumption. The course details the technology of Cereals, Dairy products, Meat and Fish, Fruits and Vegetables, Fats and Oils, and Fermentation.

NFSC 291 – Elements of Food Engineering (3 credits, Undergraduate – average class size: 30 students): This course is designed to help students acquire knowledge related to applied food manufacturing and processing technology emphasizing the food processing calculations of various unit operations. The basic principles include but are not limited to units and dimensions, mass balance, energy balance, thermodynamics, fluid flow and heat transfer.

NFSC 296 – Seminar Presentation in Food Sciences and Nutrition (1 credit, Undergraduate – average class size: 24 students): This course focuses on developing research and communication skills and strengthening critical thinking skills of senior students while looking at current and controversial issues in nutrition and food science. The course provides the student with a hands-on experience in giving a seminar: the student will conduct research and deliver a presentation on current topics in food sciences and nutrition.

NFSC 299 – Special Topics in Nutrition and Food Science (2 credits, Undergraduate – average class size: 60 students): This course allows students to apply the knowledge and skills acquired throughout their undergraduate courses. Through this course, students develop an understanding of how to conduct a research project beginning with the conception of research ideas and concluding with depicting written results and discussing them, along with proper citations and research procedures.

NFSC 371 – Food Engineering (3 credits, Graduate – average class size: 15 students): This course covers the principles of food engineering including mass and energy balances, thermodynamics, fluid flow, and heat and mass transfer. It also covers the application of these principles to several areas of food processing and unit operations. Students will be able to understand the food processing literature and to communicate effectively with food technologists and engineers.

NFSC 377 – Food Packaging (3 credits, Graduate – average class size: 15 students): This course provides the students with the basic knowledge regarding food packaging materials, machinery and technology. It provides an overview of the elements of packaging science and engineering applied to the preservation, distribution and marketing

of various food products. This course also explains the different procedures and food safety requirements for developing, evaluating and testing of food packages in accordance to international standards.

NFSC 395 – Graduate Seminar in Nutrition and Food Science (1 credit, Graduate – average class size: 12 students): This course focuses on developing and strengthening communication skills of graduate students while looking at current and controversial issues in nutrition and food science. The course provides the student with a hands-on experience in delivering a seminar lecture by presenting their thesis work or research proposals which focus on current topics in nutrition and food science.

Courses co-taught at School of Packaging, Michigan State University

PKG 992 – Packaging Seminar (1 credit, Graduate – class size: 15 doctoral students): This course involves students in presentations of detailed studies on specialized aspects of packaging. The course also provides the students with a wide view of the packaging industry through invited speakers with different backgrounds in packaging applications.

MSc Thesis Advisor

1. Nivin Nasser – Converting post-consumer food waste into fish feed; *expected completion date: May 2018*
2. Marie George Hatem – Determining the pasting properties of corn, tapioca, and rice flours in a pressurized vessel; *expected completion date: May 2018*
3. Line Kolehailat – The effect of di-potassium phosphate and sodium chloride on the pasting properties of cereal flours; **Completed January 2017**
4. Rita Jalkh – Waste cooking oil and oil extracts from spent coffee grounds to modify the physical properties of recycled asphalt binder; **Completed May 2016**
5. Ghina Hammoud – investigating the inhibitory effects of free and encapsulated curcumin on foodborne pathogens; **Completed May 2015**
6. Nadine Najjarine – Effect of silica on the properties of polyvinyl alcohol Nano-composite membranes; **Completed May 2014**
7. Nathalie Malek – Antimicrobial activity of *Origanum Ehrenbergii* extracts on resistant bacterial strains; **Completed May 2014**
8. Omar Dib – The effect of solvent polarity on the properties of activated cyclodextrin based metal organic frameworks (CDMOFs); **Completed December 2013** [Recipient of the Abdul Hadi Debs Endowment Award for Academic Excellence¹]
9. Patricia Tabarani – Modifying the traditional processing of Arishi cheese: effect on sensory, microbiological and chemical properties; **Completed February 2013** [Recipient of the Abdul Hadi Debs Endowment Award for Academic Excellence¹]
10. Nadine Nehme – Consumer acceptability of different packaging solutions to extend the shelf-life of Baklava; **Completed April 2012**

MSc Thesis Committee Member

1. Tarek Abou Omar – Bisphenol A Exposure Assessment from Olive Oil Consumption; **Completed December 2016**
2. Rayane Mrad – Use of biochar from solid waste pyrolysis in construction materials; **Completed May 2016**
3. Jalal Karaziwan – Multi scale evaluation of the effect of filler from CDW on bituminous mixtures; **Completed May 2016**
4. Nada Ghanem – Feasibility of vermicomposting: A case study Warhanieh, Lebanon; **Completed May 2015**
5. Saleh Alghamdi – Synthesis of Nano-porous Carbohydrate Metal-Organic Framework and Encapsulation of Selected Organic Compounds; (School of Packaging, Michigan State University, East Lansing, MI); **Completed December 2014**
6. Dima Al-Hasanieh – The use of fine recycled concrete aggregates in asphalt mixes; (Department of Civil and Environmental Engineering, American University of Beirut, Beirut, Lebanon); **Completed July 2014**
7. Pardie Karamanoukian – Impact of food safety certifications and certifying bodies on purchasing decisions of Lebanese consumers; **Completed May 2014**
8. Maya El-Mokdad (**Co-Advisor**) – Implementing a traceability system in small to medium dairy plant in Lebanon with isolation and characterization of *Staphylococcus Aureus*; **Completed May 2014**

¹ Abdul Hadi Debs Endowment Award for Academic Excellence an award given to a graduating student, at the graduate level, with an outstanding academic record who has demonstrated research capabilities through a paper, project or thesis deemed worthy of publication
Updated February 2017

9. Hajar Fawaz – Localized heating and ventilation system for poultry brooding with an integrated solar assisted heat pump; (Department of Mechanical Engineering, American University of Beirut, Beirut, Lebanon); **Completed August 2013**
10. Hayat Hatab – Food and health in rural Lebanon: Options to improve dietary diversity, food security, livelihoods and ecosystem management; **Completed October 2012**
11. Celine Ajjour – Characterization of lactic acid bacteria in Anbaris (goat fermented milk) and preliminary probiotic selection; **Completed June 2012**
12. Omar Mogharbel – Energy performance of solar assisted localized heating system for broiler brooding; (Department of Mechanical Engineering, American University of Beirut, Beirut, Lebanon); **Completed June 2012**
13. Raghad Ayaso – The effect of various essential proteins on meal patterns of rats; **Completed January 2012**

PhD Thesis Committee Member

1. Hussein Kassem – Design and evaluation of short term performance of warm asphalt mix (Department of Civil and Environmental Engineering, American University of Beirut, Beirut, Lebanon); *expected completion date: May 2017*
2. Ajay Kathuria – Functional properties and stability of PLLA-metal organic framework based mixed matrix membranes; (School of Packaging, Michigan State University, East Lansing, MI); **Completed August 2013**

PROFESSIONAL DEVELOPMENT

1. *Food Losses and Food Waste: The Role of Packaging*. The webinar discuss the role packaging plays in food loss and waste, along with the measures that can be taken to prevent this from happening. The webinar was organized by the Institute of Packaging Professionals and delivered by Dr. Johannes Bergmaier, Vice President Sustainability & Food Safety, World Packaging Organization. Vienna, Austria. January 2017
2. *Methods to Study Properties of Foods and Biomaterials and Their Role on Processing and Quality*. The webinar presents the various experimental approaches including standard and acoustic rheology and atomic force microscopy used to characterize the mechanical properties of biomaterials will be presented. Physicochemical methods including Fourier Transform Infrared (FT-IR) and Circular Dichroism (CD) spectroscopy and Molecular Modeling (MD) applied to study the structure of foods and biomaterials and its relationship to the functionality of main components forming them. Moreover, the webinar highlights novel modeling approaches, notably drying, developed to describe the processing of biomaterials by including the material composition and its structural complexity. The webinar was organized by the International Society of Food Engineering (ISFE) and delivered by Dr. Osvaldo Campanella, Professor of Food Engineering, Purdue University, West Lafayette, Indiana, USA. April 2016
3. *High Pressure Rheology: Introduction and Applications*. The webinar highlights the advantages of using pressure rheometry which was illustrated in four case studies: 1. Performing real time accelerated aging tests on biomass pyrolysis oils 2. Measuring the viscoelastic properties of surfactant-sugar-oil complex glasses 3. Quantifying “live oil” viscosity by saturating heavy crude oil with methane 4. Exploring the flow assurance of methane hydrates created in the pressure rheometer cell. The webinar was organized by TA Instruments and delivered by Matthew Liberatore, Associate Professor of Chemical Engineering, University of Toledo, Toledo, Ohio, USA. October 2015.
4. *2nd MED Solutions Conference: Solutions for Agri-food sustainability in the Mediterranean – Policies, technologies and business models*. The conference provided a platform for debate and exchange of information for network partners, policymakers, scholars and stakeholders who have an interest in agro-food sustainability in the Mediterranean region. Outputs of the conference include a position paper summarizing the challenges facing Mediterranean societies, an exchange of views on relevant regional indicators and targets for sustainable agriculture, as well as the adoption of possible solutions. University of Siena, Siena, Italy, March 2015
5. *NESSI (the Network Software and Services Initiative) Member’s and International Day Workshop*. The purpose of this workshop was to set-up a “Proposal development & consortium formation” Workshop in view of the H2020 calls closing in April 2015 with the aim at enhancing collaboration between NESSI members, other ETP members and organizations from International Co-operation partner countries. The event aimed at an open dialogue to discuss and elaborate proposal ideas and start building proposals under the ICT topics identified. The event reinforced industrial cooperation and ICT research, development and innovation through a better networking between European ICT Technology Platforms and International Co-operation partner countries. Universidad Autònoma de Barcelona, Bellaterra, Barcelona, Spain. November 2014
6. *Food Fraud Overview MOOC (Massive Open Online Course)*. This online course provided an insight into the emerging corporate need of Food Fraud Management. The course drew on a wide range of current experience and expertise, infusing many real-world applications and problem-solving exercises. The course instructor is Dr. John Spink, Michigan State University, East Lansing, MI, USA. November 2014
7. *The Secrets of Package Optimization*. The webinar explored various areas where packaging can further reduce costs. It also provided insights for how to improve package optimization, which can pay potentially huge dividends

in reducing warehouse storage and handling, and transportation costs. The webinar was organized by the Institute of Packaging Professionals and delivered by Terry Harris, Managing Partner, Chicago Consulting, and Jeff Haushalter, Partner, Chicago Consulting. August 2014

8. *The One-Handed World – Package for One-Handed Usage or Lose.* This webinar provided foresight of the new trend of one-handed use and shed light on innovation in package development. The webinar was organized by the Institute of Packaging Professionals and delivered by Kelley Styring, Principal, InsightFarm Inc. March 2014
9. *Food Biotechnology Training Course for Developing Countries.* This 6-day training course was organized by CAS-TWAS Centre of Excellence for Biotechnology and sponsored by CAS- Chinese Academy of Sciences and TWAS- the World Academy of Sciences, for the advancement of science in developing countries. The course covered classical biotechnology and genomics for new and improved food products. It aimed to spread new knowledge and initiate new research and development activities in developing countries. It also provided the ground to exchange ideas with scientist from China and other developing countries. Beijing, China. November–December 2013
10. *Analyzing Polymer Molecular Weight Distribution and Blend Morphology Using Rheology.* This webinar was organized by TA Instruments (New Castle, DE) and delivered by Prof. Chris Macosko, the director of the Industrial Partnership for Research in Interfacial and Materials Engineering and Professor of Chemical Engineering and Materials Science at the University of Minnesota and a member of the National Academy of Engineering. November 2013
11. *Orthogonal Superposition Rheology.* This webinar was organized by TA Instruments (New Castle, DE) and delivered by Prof. Jan Vermant, professor and chair of Chemical Engineering at the KU Leuven, University of Leuven in Belgium. September 2013
12. *Rheological Fingerprinting of Complex Fluids and Soft Solids using Large Amplitude Oscillatory Shear.* This webinar described a framework for quantifying and physically interpreting deviations from linearity that considers the 2D space of frequency and strain-amplitude to generate a unique 'rheological fingerprint' of a viscoelastic material. This webinar was organized by TA Instruments (New Castle, DE) and delivered by Prof. Gareth H. McKinley, Professor of Mechanical Engineering, Director of the Hatsopoulos Microfluidics laboratory and Director of Program in Polymer Science & Technology, Massachusetts Institute of Technology. September 2013
13. *Interfacial Rheology.* This webinar covered the basic forces that drive interfacial dynamics and stability, what can be learnt from them about product performance and therapeutic efficacy, and how to accurately measure them. The webinar was organized by TA Instruments (New Castle, DE) and delivered by Prof. Gerald Fuller, Stanford University. February 2013
14. *Sustainability: Step 1 = Better Design.* The webinar discussed best practices for maximizing space density, what packaging engineers need to know to extend their influence in the packaging process, where and how to find meaningful cost savings-you may not be looking in all the right places. The webinar was organized by the Institute of Packaging Professionals and delivered by Kevin Howard, Senior Packaging Consultant, Packnomics LLC. September 2012
15. *Sustainability in Packaging: Can the momentum be sustained?* The webinar covered key aspects of developing and implementing a sustainability strategy, platforms and tools for package and product design from a food manufacturer point of view; the case of Kraft Foods. It discussed the different efforts to standardize metrics for sustainability through better understanding and the cooperation among packagers around the world. In addition, it provided an update on the current practices to improve packaging sustainability whilst highlighting the of the Sustainable Packaging Coalition. This webinar was organized by Kraft Foods, the Sustainable Packaging Coalition and Packaging Digest. December 2011
16. *Four Key Questions for Designing Great Packages.* This webinar addressed the four key questions regarding the design of a new ground-breaking package. It covers the competitive analysis, consumer research, voice of the customer, and bridging communication gaps and addressed three critical stages that define a consumer's experience with a new package from purchase through use. In addition, the webinar covered the current hot trends in closure design from around the world. Organized by Weatherchem Corporation (Twinsburg, Ohio, USA) in collaboration with Packaging World (Schaumburg, Illinois, USA). December 2011
17. *Revolution in Motion: Rise of the Machine Automation Controller.* Webinar on the various Machine Automation Controllers applications in robotics, packaging and material handling organized by Omron Industrial Automation in collaboration with Packaging World, Automation World and Design World. Schaumburg, Illinois, USA. December 2011
18. *Thermal Analysis and Rheology of Thermosetting Polymers.* The course presented an overview with practical applications of thermal analysis and rheology of thermosetting resins. Thermal analysis techniques covered are differential scanning calorimetry, thermo-gravimetry, dynamic mechanical analysis, thermo-mechanical analysis and oscillatory shear rheology. The course was organized by TA Instruments (Schaumburg, Illinois, USA) and Iowa State University (Ames, Iowa, USA). December 2011

19. *Sustainability and Packaging*. Forum organized by the School of Packaging, Michigan State University. East Lansing, Michigan, USA. November 2011
20. *Critical Research Needs in Food and Packaging Industry*. Forum organized by the School of Packaging and the Department of Food Science and Human Nutrition, Michigan State University. East Lansing, Michigan, USA. November 2011
21. *ENPI – CBCMED Technical Seminar and Partner Search Forum*. Organized by ENPI CBC Med the Joint Managing Authority and the Branch Office in Aqaba. Bristol Hotel, Beirut, Lebanon. June 2011
22. *Water and Waste Water Treatment*. The seminar was organized by EMCO in Biel, Beirut, Lebanon. June 2011
23. Regional Conference of Food Security in the Middle East and North Africa. American University of Beirut, Beirut, Lebanon. June 2011
24. *ENPI – CBCMED Technical Seminar and Partner Search Forum*. Organized by ENPI CBC Med the Joint Managing Authority and the Liaison Office in Valencia. The conference aimed at reinforcing cooperation between the European Union and partner countries and regions along the shores of the Mediterranean Sea. ADEIT - Fundación Universidad Empresa de Valencia, Valencia, Spain. May 2011
25. *Save Food Congress*. Organized by Messe Düsseldorf in cooperation with the Food and Agriculture Organization of the United Nations. This international congress focused on the conflict between nutrition, packaging and sustainability. The Congress brought together key stakeholders from the food and packaging industries, retail, politics, administration, research and civil society in Düsseldorf to address issues such as global food supply, supply security, urbanization, food development and marketing, logistics, recycling and agricultural economy. Düsseldorf, Germany. May 2011
26. *Interpack* – The world's most important trade fair for the packaging sector and related processing industries. Messe Düsseldorf, Düsseldorf, Germany. May 2011
27. *Food Quality and Safety in the Lebanese Industry*. This workshop was organized by the Lebanese Ministry of Agriculture in collaboration with the Order of Engineers and Architects, Beirut, Lebanon. April 2011
28. *Symposium on Consumer Protection and Food Safety*. Organized by the Faculty of Agricultural and Food Sciences, American University of Beirut in collaboration with the Lebanese Ministry of Economics – Consumer Protection. Beirut, Lebanon. March 2011
29. *PACK EXPO International*, North America's largest packaging and processing show. McCormick Place, Chicago, IL, USA. October 2010
30. *Food Safety and Packaging: The Hazards, Recalls, and New Strategies*. This seminar was organized by the Institute of Packaging Professionals at PACK EXPO International, McCormick Place, Chicago, IL, USA. October 2010
31. *Required Packaging GMP's (Pre-Requisite Programs): One Voice from the CPG Companies*. This seminar was organized by the Institute of Packaging Professionals at PACK EXPO International, McCormick Place, Chicago, IL, USA. October 2010
32. *Food Packaging in Lebanon*. This seminar was organized by the Market Access and Compliance of Lebanese Export Project (UNIDO and LibanPack) Moevenpick Hotel, Beirut, Lebanon. April 2010
33. Diversity Workshop, Purdue University, West Lafayette, IN, USA. March 2004
34. The Institute of Food Technologists Annual Meeting and Food Exposition, Las Vegas, NV, USA. July 2004
35. Diversity Workshop, Purdue University, West Lafayette, IN, USA. March 2003
36. The 20th Annual Aseptic Workshop, Food Science Department, Purdue University, West Lafayette, IN, USA. June 2003
37. The Institute of Food Technologists Annual Meeting and Food Exposition, Chicago, IL, USA. July 2003

CONSULTANCIES, PUBLIC SERVICE AND SERVICES TO PROFESSION

Capacity Building Workshops

- 1-day workshop and local training focusing on some packaging problems with examples from the Lebanese industry along with proposed solutions to improve cost efficiency without jeopardizing the quality and safety of the product. The workshop also included a tour to the Packaging Lab at the Department of Nutrition and Food Sciences along with demonstration on some package testing. The workshop was held in collaboration with Euro-Lebanese Centre for Industrial Modernization (ELCIM) and the Lebanon Industry Value Chain Development Project, DAI funded by United States Agency for International Development (USAID). AUB, Beirut, Lebanon. February 2016

- 2-day workshop and local training on a new methodological tool to assess the economic, environmental, community and social impact of new and existing projects under the proposed EDILE label (Economic Development through Inclusive and Local Empowerment). The workshop was organized by the Chamber of Commerce, Industry and Agriculture of Beirut and Mount Lebanon (CCIA-BML), EDILE's EU partners lesMed, a cooperative from Barcelona, Spain, and ClassM, a business solution company from Marseille, France. The training workshop was held in Beirut, Lebanon. September 2015
- 3-day workshop and capacity building on food processing including wheat processing, dairy processing as well as fruits and vegetables preservation methods. The workshop was organized in collaboration with Aghthia Group PJSC. Al Ain, UAE. May 2015
- 3-day workshop and capacity building on food processing including wheat processing, dairy processing as well as fruits and vegetables preservation methods. The workshop was organized in collaboration with Aghthia Group PJSC. Abu Dhabi, UAE. April 2015
- 6-day workshop on Organic Fresh Produce Packaging in Ajloun Governorate, Jordan at Al Kifah Cooperative Society. The workshop was funded United States Agency for International Development (USAID) and ACDI/VOCA, Farmer-to-Farmer program. Amman, Jordan. May 2013
- Co-instructed along with Dr. Ghassan Chehab (Civil and Environmental Engineering Department, Faculty of Architecture and Engineering, AUB) a special workshop for Dar Al-Handasah, Shair and partners, on construction materials. The workshop was designed to train engineers on various construction materials and their properties including rheological properties of asphalt/bitumen binder as well as the various methods used to measure them. The workshop was attended by 10 engineers as well as management personnel from the Geotechnical and Heavy Civil Engineering Department. Beirut, Lebanon. April 2013
- 4-day seminar series on Food Packaging in collaboration with the United States Agency for International Development (USAID) and ACDI/VOCA, Farmer-to-Farmer program. The lectures covered topics on the role of packaging in maintaining product quality and safety, shelf life modeling, barrier, migration and product-package interaction, packaging of fresh produce, post-harvest handling and modified atmosphere packaging (map), as well as sustainability and recycling. The seminar series was well attended by 124 individuals representing local and international NGO's, Ministries and packaging professionals. Beirut, Lebanon. March 2013
- 3-day workshop and capacity building in implementation of laboratory procedures to understand the effect of different ingredients and processing conditions and parameters on the quality of jams, jellies, marmalades, dairy production, bread making, blanched vegetables and emulsion stabilization. Lebanese European Agro-Food VTE project, Kab Elias, Lebanon. July 2011
- 3-week workshop on packaging fundamentals for the food and packaging industry professionals. The course covered the various packaging materials, their properties and applications. Liban Pack, Beirut, Lebanon. September 2010

Consultancies

- Touma Development s.a.r.l.
Jal el Dib, Lebanon
December 2016
Advising and assisting in the development and formulation of new food products; advising and evaluating packaging material for selected products; assisting in the design and evaluation of various food processes including but not limited to machinery design and selection; shelf-life evaluation of various food products; provide scientific and sound solutions where applicable to extend the shelf-life of new and existing products
- Biolicious s.a.l.
Achrafieh, Lebanon
November 2016
Advising, testing and evaluating packaging material for selected products
- Sanitary Paper Co. – (Mimosa)
Zahleh-Qaa el Rim, Lebanon
February 2016
Packaging testing and quality monitoring
- Lebanese Ministry of Environment
Support to Reforms – Environmental Governance (StREG)
June 2015 – Nov. 2015
The project involved the development of analysis of tools to support solid waste management in Lebanon, including (1) fiscal instruments to support recycling and (2) solid waste management charges. Recycling-related activities include collection of data, analysis of the amount of subsidy needed to enable the industry to grow, design of fiscal instruments for implementing such subsidies; development of the legal and institutional framework for implementing them; and drafting the laws, decrees or guidelines needed to implement them.
- Chamber of Commerce, Industry & Agriculture of Beirut & Mount Lebanon
Economic Development through Inclusive and Local Empowerment (EDILE)
July 2014 – Sept. 2015

The project involved the development of a toolkit for investment evaluation based on good sustainability practices in addition to conducting training and capacity building workshops for the Agro-food industry in Lebanon and partner countries. The scope of work also involved assessment of two pilot projects from Lebanon in the scope of EDILE. In addition to Lebanon, the EDILE team included partners from France, Tunisia, Italy and Spain.

- Sanitary Paper Co. – (Mimosa)
Zahleh-Qaa el Rim, Lebanon
Packaging testing and quality monitoring

June 2015
- Sugar Beet Processing Co. S.A.L. (.شركة تصنيع الشمندر السكري ش.م.ل.)
Anjar, Lebanon
Provided an expert report on interpretation of the laboratory testing results for granulated white sugar which was presented to the Lebanese courts during the Ministry of Health vs. Sugar Beet Processing Co. case

January 2015
- Lebanese Ministry of Agriculture
Beirut, Lebanon
Provide expert report on interpretation of the laboratory testing results for imported wheat samples regarding safety, quality and suitability for human consumption prior to issuing approval for entry into the country

January 2015
- Radisson Blue Martinez Hotel
Phoenicia Street, Ain El Mreysseh, Beirut, Lebanon
Quality and safety monitoring including microbiological analyses of various food samples

January 2015
- Sugar Beet Processing Co. S.A.L. (.شركة تصنيع الشمندر السكري ش.م.ل.)
Anjar, Lebanon
Provided an expert report on the shelf-life of granulated white sugar which was presented to the Lebanese courts during the Ministry of Health vs. Sugar Beet Processing Co. case

December 2014
- MGR Hatem
Beir El Heit Zebdin, Jbeil, Lebanon
Quality and safety monitoring including microbiological analyses of various food samples

December 2014
- Al Wafaa Modern Bakery
Al Kafaat area, Hadi Nasrallah highway, Al Wafaa Bldg, Beirut, Lebanon
Quality and safety monitoring including microbiological analyses of various food samples

December 2014
- Assaad Food & Beverage S.A.L. – (PF Changs)
Makdisi Street, Hamra, Beirut, Lebanon
Quality and safety monitoring including microbiological analyses of various food samples

December 2014
- Main Street S.A.L.
Badaro, Main Street, Beirut, Lebanon
Quality and safety monitoring including microbiological analyses of various food samples

December 2014
- Roadster Diner
Bsalim Road, Bsalim, Metn, Lebanon
Quality and safety monitoring including microbiological analyses of various food samples

December 2014
- Ministry of Food – (Classic Burger)
Sodeco, Petro Trad Street, Beirut, Lebanon
Quality and safety monitoring including microbiological analyses of various food samples

December 2014
- Skateboard – (Found'd Group)
Kaslik- Zouk Mosbeh-Zeidan Bldg., Lebanon
Quality and safety monitoring including microbiological analyses of various food samples

December 2014
- Breakfast & Co. (Zaatar w Zeit)
Kaslik- Zouk Mosbeh-Zeidan Bldg., Lebanon
Quality and safety monitoring including microbiological analyses of various food samples

December 2014
- Sanitary Paper Co. – (Mimosa)
Zahleh-Qaa el Rim, Lebanon
Packaging testing and quality monitoring

December 2014
- Al Kazzi Trading S.A.L.
Jisr el Bacha Industrial Area, Beirut, Lebanon
Packaging testing and quality monitoring

November 2014
- Roadster Diner
Bsalim Road, Bsalim, Metn, Lebanon
Quality and safety monitoring including microbiological analyses of various food samples

September 2014

- Assaad Food & Beverage S.A.L. – (PF Changs)
Makdisi Street, Hamra, Beirut, Lebanon July 2014
Quality and safety monitoring including microbiological analyses of various food samples
- Roadster Diner
Bsalim Road, Bsalim, Metn, Lebanon July 2014
Quality and safety monitoring including microbiological analyses of various food samples
- Societe Mouawad Edde S.A.R.L.
Fouad Chehab Avenue, Borj Al Ghazal Bldg., Tabaris, Beirut, Lebanon June 2014
Rheological testing and analysis of emulsions
- MM Sinno & Sons S.A.L.
Sinno Bldg., Ne'mat Yafith Street, Hamra area, Beirut, Lebanon October 2013
Consulting on a new product development: chemical analysis
- ARACO Lebanese Asphalt S.A.L.
Green Park Bldg., Kaskas area, Beirut, Lebanon October 2013
Rheological testing and analysis of asphalt binders and emulsions
- Freiha Falafel
Salam Street, Hayek bldg., Ashrafieh, Lebanon August 2012
Consulting on a new product development: processing, packaging and shelf-life study
- Sonaco S.A.R.L. – (Al-Rabih)
Ghefrine, Byblos, Lebanon February 2012
Consulting on US Food and Drug Administration (FDA) compliance for low-acid and acidified canned food.
Develop heat penetration profiles and required processing conditions for several products
- Al-Rifai Roastery
Corniche Al Mazraa, Beirut, Lebanon January 2012
Consulting on packaging solutions for roasted nuts and shelf-life evaluation
- Quatrah Beverage Innovations and Development Competition
Arab Beverage Association, Beirut, Lebanon September 2011
Developed guidelines rules and procedures for the Beverage Innovations and Development Competition for the nonalcoholic beverages industry in the other Arab countries (Quatrah Annual Competition) and served on the judging panel
- Sonaco S.A.R.L. – (Al-Rabih)
Ghefrine, Byblos, Lebanon August 2011
Consulting on US Food and Drug Administration (FDA) compliance for low-acid and acidified canned food.
Develop heat penetration profiles and required processing conditions for several products
- Lebanese European Agro-Food Vocational Training and Employment Project
Kab-Elias, Beqaa, Lebanon July 2011
Capacity building in design and implementation of experimental procedures
The main objectives were to design, develop and implement agro-food laboratory scale production procedures to facilitate the understanding of the various roles of key ingredients/parameters in food processing
- The Lebanese Packaging Center – (Liban Pack)
Beirut, Lebanon 2010-2011
Consulting on various projects regarding proper packaging material selection and package design
- United Nations Industrial Development Organization (UNIDO) – MACLE Project
Beirut, Lebanon 2010-2011
Consulting on the Market Access and Compliance for Lebanese Export (MACLE) project regarding packaging, package design and proper material selection for Lebanese products to be able to comply with international regulations and standards and to improve quality as to compete and have access to international markets
- Quatrah Beverage Innovations and Development Competition
Arab Beverage Association, Beirut, Lebanon September 2010
Developed guidelines rules and procedures for the Beverage Innovations and Development Competition for the nonalcoholic beverages industry in the other Arab countries (Quatrah Annual Competition) and served on the judging panel
- Al-Amira Nuts
Kfarsaroun El-Koura, Lebanon September 2010
Facility inspection and planning and recommendations for expanding the existing factory and rebuilding as to comply with HACCP and GMP's implementation

- FPP Jana
Deir Koubel, Lebanon February 2010
Facility inspection and planning and recommendations for expanding the existing factory and rebuilding as to comply with HACCP and GMP's implementation as well as ISO 22000
- Caritas
Sin el-Fil, Lebanon January 2010
Evaluation of pilot plant setup for the production of fruit preserves and jam including recommendations and design analysis and plant layout

Public Service

- The Lebanese National Standards Institution (LIBNOR), Lebanese Ministry of Industry, Technical Committee on Essential Oils (NL TC54); *Since 2016*
- The Lebanese National Standards Institution (LIBNOR), Lebanese Ministry of Industry, Technical Committee on Pulses and Grains (NL TC34 SC4zein); *Since 2016*
- The National Committee for Monitoring and Controlling Wheat, Lebanese Ministry of Agriculture; *Since 2016*
- The National Committee for Agricultural Manufacturing and Food Products, Lebanese Ministry of Agriculture; *Since 2010*
- The Lebanese National Standards Institution (LIBNOR), Lebanese Ministry of Industry, Technical Committee on Packaging (NL TC122); *Since 2010*
- The Lebanese National Standards Institution (LIBNOR), Lebanese Ministry of Industry, Technical Committee on Safety of Food Processing Machinery (NL TC 653); *Since 2009*
- The Lebanese National Standards Institution (LIBNOR), Lebanese Ministry of Industry, Technical Committee on Food additives (NL TC 1008); *Since 2009*
- The Lebanese National Standards Institution (LIBNOR), Lebanese Ministry of Industry, Technical Committee on Food Labeling (NL TC 1011); *Since 2009*
- The Lebanese National Standards Institution (LIBNOR), Lebanese Ministry of Industry, Technical Committee on Paper, Board and Pulp, Glass and Metal Containers (NL TC 3010); *Since 2009*

Services to the Profession

Reviewer for the Institutional Review Board (IRB) at AUB

Reviewer for the following international journals:

- Journal of Environmental Planning and Management
- Journal of Cleaner Production
- Food Quality and Preference
- RSC Advances
- European Review of Agriculture Economics
- Journal of Solid Waste Technology
- Journal of Materials in Civil Engineering
- Advances in Civil engineering
- Materials Letters
- International Journal of Food Properties
- Food and Bioprocess Technology
- Foodborne Pathogens and Disease
- Food Biophysics

Judge for the following competition:

- Darwazah Student Innovation Contest 2014 (Darwazah Center for Innovation Management and Entrepreneurship, Olayan School of Business, American University of Beirut)
- The Educational Robotics Tournament 2014 organized by First® Lego League Challenge
- Quatrah Beverage Innovations and Development Competition 2011 – Arab Beverage Association

- The Educational Robotics Tournament 2011 organized by First® Lego League Challenge

Reviewer (abstracts and proceedings) for the following conferences and meetings:

- 2012 AAPS (The American Association of Pharmaceutical Scientists) National Biotechnology Conference
- 2011 AAPS National Biotechnology Conference and Annual Meeting
- 2010 AAPS National Biotechnology Conference and Annual Meeting

Invited Speaker/Guest Lecturer

1. M.G. Abiad (2016). "Sustainable Packaging: A Solution to Many Problems". Seminar series organized by the Industrial Research Institute (IRI) and the Euro-Lebanese Centre for Industrial Modernization (ELCIM). HORECA 2016, Beirut, Lebanon
2. M.G. Abiad (2016). "Assessing the economic, environmental, community and social impact of new and existing projects under the proposed EDILE label (Economic Development through Inclusive and Local Empowerment). EDILE Regional Seminar, Barcelona, Spain
3. M.G. Abiad. (2015). "Introduction to Packaging". NFSC 288 – Technology of Food Products. American University of Beirut, Beirut, Lebanon
4. M.G. Abiad (2015). "Food Safety Tips while Grocery Shopping". Fingerprints Children Center, Beirut, Lebanon
5. M.G. Abiad (2015). "The Role of Universities in the Development of New Products". TAIEX Workshop on Research and New Product Development for the Agro-food Sector. Organized in co-operation with the Euro Lebanese Centre for Industrial Modernization (ELCIM). Beirut, Lebanon
6. M.G. Abiad (2015). "Food Safety while Grocery Shopping". Fingerprints Children Center, Beirut, Lebanon
7. M.G. Abiad (2015). "Food Safety and Toddlers". Fingerprints Children Center, Beirut, Lebanon
8. M.G. Abiad. (2014). "Introduction to Packaging". NFSC 288 – Technology of Food Products. American University of Beirut, Beirut, Lebanon
9. M.G. Abiad. (2014). "Thermal Analysis". NFSC 391 – Laboratory Methods in Nutrition and Food Science. American University of Beirut, Beirut, Lebanon
10. M.G. Abiad. (2014). "Packaging Functionality and Sustainability: Designing Better with Less". Arab Beverage Association Annual Meeting, Cairo, Egypt
11. M.G. Abiad. (2014). "Thermal Analysis". NFSC 391 – Laboratory Methods in Nutrition and Food Science. American University of Beirut, Beirut, Lebanon
12. M.G. Abiad. (2013). "Introduction to Packaging". NFSC 288 – Technology of Food Products. American University of Beirut, Beirut, Lebanon
13. M.G. Abiad. (2013). "How to Prepare a Poster Presentation". AGSC 295 – Graduate Seminar. American University of Beirut, Beirut, Lebanon
14. M.G. Abiad. (2012). "Metal Organic Frameworks and their Potential Applications in Food Packaging". Faculty of Agricultural and Food Sciences Brown-bag Seminar Series. American University of Beirut, Beirut, Lebanon
15. M.G. Abiad. (2011). "An Overview of Lebanon and AUB". Brown-bag Seminar Series, School of Packaging, Michigan State University, East Lansing, Michigan, USA
16. M.G. Abiad. (2011). "Food Processing and Packaging". AGSC 201 – Orientation to Agriculture and Food Systems. American University of Beirut, Beirut, Lebanon
17. M.G. Abiad. (2010). "Introduction to Thermal Analysis: Food and Pharmaceutical Applications". Faculty of Agricultural and Food Sciences Brown-bag Seminar Series. American University of Beirut, Beirut, Lebanon
18. M.G. Abiad. (2010). "Facilities Planning and Design". NFSC 290 – Food Services Management. American University of Beirut, Beirut, Lebanon
19. M.G. Abiad. (2010). "Introduction to Food Engineering". AGSC 201 – Orientation to Agriculture and Food Systems. American University of Beirut, Beirut, Lebanon
20. M.G. Abiad. (2009). Co-chair - Rheology session at the Conference of Food Engineering, Columbus, Ohio, USA
21. M.G. Abiad. (2009). "Novel Methods to Measure Thermal and Rheological Properties of Food and Pharmaceutical Material". IPPH 696 – Seminar in Industrial and Physical Pharmacy. Purdue University, West Lafayette, Indiana, USA
22. M.G. Abiad. (2009). "Glass Transition and Powder Processing". Whistler Center for Carbohydrate Research, Purdue University, West Lafayette, Indiana, USA

23. M.G. Abiad. (2009). "Glass Transition, Rheology and Food Processing". American University of Beirut, Beirut, Lebanon
24. M.G. Abiad. (2008). "Introduction to Rheology". IPPH 562 – Pharmaceutical Manufacturing, Purdue University, West Lafayette, Indiana, USA
25. M.G. Abiad. (2008). "Introduction to Dynamic Mechanical Analysis". Department of Industrial and Physical Pharmacy, School of Pharmacy, Purdue University, West Lafayette, Indiana, USA
26. M.G. Abiad. (2004). "Arab Americans and Cultural Differences". Diversity Workshop, School of Agriculture, Purdue University, West Lafayette, Indiana, USA
27. M.G. Abiad. (2004). "Stereotypes: Arab Americans and Terrorism". Diversity Workshop, School of Agriculture, Purdue University, West Lafayette, Indiana, USA
28. M.G. Abiad. (2004). "Arab Americans and the Feel of Belonging". Diversity Workshop, School of Agriculture, Purdue University, West Lafayette, Indiana, USA
29. M.G. Abiad. (2003). "Package Integrity Testing". 20th Annual Aseptic Workshop, Food Science Department, Purdue University, West Lafayette, Indiana, USA
30. M.G. Abiad. (2003). "Arab Americans and the Feel of Belonging". Diversity Workshop, School of Agriculture, Purdue University, West Lafayette, Indiana, USA

Media Appearances

1. Article on the safety of wheat milling and storage in light of the growing concerns of hygiene and food safety associated with the problem of Municipal Solid Waste featured in Al-Diyar Newspaper, Beirut, Lebanon. October 28, 2015
(Arabic title: "هل أصبح الرغيف اللبناني مغمسا بالنفايات؟")
2. Article on procedures for non-transfer of pollution to restaurants and supermarkets in light of the growing concerns of hygiene and food safety associated with the problem of Municipal Solid Waste featured in As-Safir Newspaper, Beirut, Lebanon. July 30, 2015
(Arabic title: "إجراءات لعدم نقل التلوث إلى المطاعم والسوبرماركت")
3. Interview on An-Nour Radio Station (91.7 FM) "صحتك بالدني" show elaborating on the various processing technologies to produce milk including pasteurization, ultra-heat treatment, evaporation and spray drying. Beirut, Lebanon. July 6, 2015
4. Interview on An-Nour Radio Station (91.7 FM) "صحتك بالدني" show discussing the different processing technologies for cereal products such as cornflakes and the like. Beirut, Lebanon. June 29, 2015
5. Interview on Radio France Internationale (RFI) (96.2 FM) discussing the recent food related scandals and food safety issues in Lebanon. Paris, France. January 8, 2015
6. Article on food safety and Lebanese standards in response to the recent food scares and outbreaks entitled "Food nonconforming to inexistent standards" featured in Al-Akhbar Newspaper, Beirut, Lebanon. December 15, 2014
(Arabic title: "غذاء غير مطابق لمواصفات غير موجودة")
7. Interview on An-Nour Radio Station (91.7 FM) "صحتك بالدني" show regarding the safety of Lebanese dairy products as concerns keep growing with the various outbreaks in the last few months. Beirut, Lebanon. December 4, 2014
8. Interview on MTV-Lebanon regarding the recent food scares/outbreaks and the establishment of a unit in Lebanon to monitor food safety similar to the US-FDA. Beirut, Lebanon. November 15, 2014
9. Article entitled "Hot Chicks" on the development of an energy-efficient chicken coops for the future featured in the MainGate Magazine. Beirut, Lebanon. Fall 2014 Vol. XIII. No.1
10. Interview on An-Nour Radio Station (91.7 FM) "صحتك بالدني" show regarding the processing of cereals and health associated effects. Beirut, Lebanon. August 12, 2014
11. Interview on the Lebanese National Radio (Radio Lebanon 98.5 FM) about the arising public concern of plastic food packaging and the safety of Bisphenol A (BPA). Beirut, Lebanon. April 11, 2014
12. Interview on Voice of Lebanon Radio Station (100.5 FM) regarding the safety of plastic packaging and Bisphenol A. Ashrafieh, Lebanon. April 10, 2014
13. Article on the safety of Bis-phenol A used in food packaging entitled "Bisphenol A: A Material under Investigation" featured in As-Safir Newspaper, Beirut, Lebanon. April 8, 2014
(Arabic title: "البسفينول أ: مادة قيد الدراسة")
14. Article on the arising concerns of Bis-phenol A and its presence in food packaging entitled "A Material at our Disposal Associated with Cancer, Prostate and Sexual Diseases" featured in Lebanon Debate.com. April 8, 2014

(*Arabic title: "مادة في تناول أيدينا تسبب السرطان والبروستات والأمراض الجنسية"*)

15. Interview on An-Nour Radio Station (91.7 FM) "صحتك بالدني" show regarding the safety of food packaging in general and plastic bottles in specific as well as addressing the safety concerns of Bisphenol A (BPA) on health of infants and children. Beirut, Lebanon. April 4, 2014
16. Interview on Al-Ettejah Iraqi TV station about processed foods and eco-terrorism. May 9, 20

UNIVERSITY, FACULTY AND DEPARTMENTAL SERVICES

University Standing Committees

1. University Senate – <i>Elected FAFS Representative</i>	2015 – present
2. University Senate Steering Committee – <i>Elected FAFS Representative</i>	2015 – present
3. University Disciplinary Committee – <i>Elected FAFS Representative</i>	2015 – present
4. Social and Behavioral Sciences Institutional Review Board (SBS-IRB) – <i>Full Member</i>	2014 – present
5. University Sports Committee – <i>Member</i>	2014 – present
6. Nature Conservation Center Executive Committee – <i>Elected Member</i>	2013 - present
7. Writing Center Advisory Board – <i>Member</i>	2013 – present
8. K.A.S. Central Research Science Laboratory Steering Committee – <i>Member – FAFS Representative</i>	2011 – present
9. Interfaculty Financial Aid Committee – <i>FAFS Representative (member)</i>	2011 – present
10. Nature Conservation Center for Sustainable Futures – <i>Member</i>	2009 – present
11. IBDA (Student Innovation Initiative) Organizing Committee – <i>Member</i> – <i>Chair</i>	2015 – 2016 2011 – 2014
12. Board of Graduate Studies – <i>Elected FAFS Representative</i>	2013 – 2016
13. University Student Faculty Committee (USFC) – <i>Elected FAFS Representative</i>	Spring 2014 – 2015
14. Senate Admissions Committee – <i>Member</i>	2012 – 2015
15. Teaching Excellence Award Committee – <i>FAFS Representative</i>	2012 – 2014
16. Unified University Admissions Committee – <i>Member</i>	2010 – 2015
17. Career Service Task Force – <i>FAFS representative (member)</i>	2012 – 2013
18. University Scholarship Program (USP – USAID) Selection Committee – <i>Member</i>	2012 – 2013

University Ad-Hoc Committees and Task Forces

1. Middle States Commission on Higher Education (MSCHE) Reaccreditation – Self-Study working group addressing Standard VII: Governance, Leadership, and Administration	2017 – present
2. Provost Consultation Committee	2017 – present
3. Task Force for the Review of Grading System	2016 – present
4. Faculty of Agricultural and Food Sciences Dean Search Committee	2016 – present
5. Task Force on Campus Master Plan and Academic Strategic Plan	1. – present

6. USFC Bylaws Committee – *Designated Advisor by the Senate*

January 2016

Faculty Standing Committees

- | | |
|---|-----------------------|
| 1. Faculty Student Affairs Committee – <i>Elected Member</i> | 2016 – <i>present</i> |
| – <i>Chair</i> | 2014 – 2016 |
| – <i>Elected Member</i> | 2010 – 2012 |
| 2. Faculty Graduate Studies Committee – <i>Elected Member</i> | 2013 – 2016 |
| | AY 2015 – 2016 |
| 3. Student Representative Committee – <i>Elected Advisor</i> | AY 2014 – 2015 |
| | AY 2012 – 2013 |
| | AY 2011 – 2012 |
| 4. Faculty Undergraduate Admissions Committee – <i>Elected Member</i> | 2010 – 2015 |
| 5. Faculty Library Committee – <i>Elected Member</i> | 2013 – 2015 |
| | 2009 – 2011 |
| 6. Faculty Academic and Curriculum Committee – <i>Elected Member</i> | 2009 – 2011 |

Departmental Committees and Task Forces

- | | |
|---|-------------|
| 1. Task Force for the Development of BSc in Food Science & Technology Seeking IFT Certification | 2015 – 2016 |
| 2. Departmental Search Committee for Professorial Position in Food Microbiology | 2015 – 2016 |
| 3. Task Force for the Development of MS Program in Food Safety | 2014 – 2015 |
| 4. Task Force to review Food Science and Management Certification/Accreditation | 2013 – 2015 |