

# Siddiqui, Rafat, PhD

## FOOD SCIENCES

Associate Professor

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**Siddiqui, Dr. Rafat, PhD**

**NUTRITION SCIENCE AND FOOD CHEMISTRY**

**Agricultural Research Station**



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### Education

- Post-Doc (1990) - Vanderbilt University, Nashville, TN, USA
- Post Doc (1989) - Massey University, Palmerston North, New Zealand
- Ph.D. (1988) - Australian National University, Canberra, Australia
- M.Sc. (1982) - University of Karachi, Karachi, Pakistan

### Research Interest

- Lipids in health and disease
- Nutraceuticals for anti-inflammatory, anti-cancer, anti-diabetic properties
- Nutrients for improving muscle growth
- Super Foods (Papaya, Turmeric, Plums, Grapes)

### Professional Society Memberships

- International Society for the Study of Fatty acids and Lipids (ISSFAL)
- American Nutrition Society (ANS)
- The Nutrition Society (UK)

### MEMBER EDITORIAL BOARDS

1. Asian Journal of Biochemistry
2. American Journal of Biochemistry and Molecular Biology
3. Bioenergetics
4. British Journal of Nutrition
5. Enliven: Challenges in Cancer Detection and Therapy
6. Life Science Global
7. Journal of Biology and Nature

8. Journal of Biological Sciences
9. Journal of Cancer Metastasis and Treatment
10. Journal of Food and Nutrition
11. Journal of Glycomics and Lipidomics
12. Journal of Modern Chemistry and Applications
13. Journal of Molecular and Genetic Medicine
14. Journal of Nutrition Sciences
15. International Achieves of Clinical Pharmacology
16. International Journal of Biological Chemistry
17. Nutrition Health and Food Engineering
18. Research Journal of Developmental Biology
19. WebMedCentral

### **Selected Publications**

- Siddiqui, RA. Green Papaya as a Potential Source for Diabetic and Diabetic-Wound Healing Therapy. *J Nutr Health Food Eng.* 2016, 4(5): 00146
- Xu Z, Harvey KA, Pavlina TM, Zaloga GP, Siddiqui RA (2016) Distribution of tocopherols and tocotrienols in guinea pig tissues following parenteral lipid emulsion infusion. *J Parenter Enter Nutr.* 40(5): 672-681.
- Khan MA, Mesaik, MA, Abdalla, OM, Rahim F, Samreen S, Halim SA, Mustafa G, Ambreen N, Khalid AS, Taha M, Perveen S, Alam MT, Hameed A, Haq Z-U, Ullah H, Rehman Z-U, Siddiqui RA, Voelter W. (2016) The immunomodulation potential of the synthetic derivatives of benzothiazoles: Implications in immune system disorders through in vitro and in silico studies. *BioOrganic Chem* 64: 21-28.
- Siddiqui RA, Xu Z, Harvey K, Pavlina T, Becker M, Zaloga G, (2015) Comparative Study of the Modulation of Fructose/Sucrose-Induced Hepatic Steatosis by Mixed Lipid Formulations Varying in Unsaturated Fatty Acid Content. *Nutrition and Metabolism.* 12:41, DOI 10.1186/s12986-015-0038-x
- Harvey K, Xu Z, M. Saaddatzadeh MR, Wang H, Pollok K, Cohen-Gadol AA, and Siddiqui RA (2015) Enhanced anticancer properties of lomustine in conjunction with docosahexaenoic acid in glioblastoma cell lines. *Journal of Neurosurgery.* 122(3): 547-550. <http://thejns.org/doi/abs/10.3171/2014.10.JNS14759>
- Harvey KA, Xu Z, , Pavlina TM, Zaloga GP, Siddiqui RA (2015) Modulation of endothelial cell integrity and inflammatory activation by commercial lipid emulsions. *Lipids in Health and Disease* 14:9 DOI 10.1186/s12944-015-0005-6
- Xu Z, Harvey KA, Pavlina TM, Zaloga GP, Siddiqui RA (2015) Distribution of tocopherols and tocotrienols in guinea pig tissues following parenteral lipid emulsion infusion. *J Parenter Enter Nutr.* In press.
- Xu Z, Harvey K, Pavlina TM, Zaloga GP, Siddiqui RA (2015) Tocopherol and tocotrienol homologs in parenteral lipid emulsions. *European Journal of Lipid Science and Technology.* 117 (1): 15-22.

- Harvey K, Xu Z, Walker C, Pavlina T, McGrath S, Zaloga G, Siddiqui R (2014) Parenteral lipid emulsions in guinea pigs differentially influence plasma and tissue levels of fatty acids, squalene, cholesterol, and phytosterols. *Lipids*. 49: 777-793.
- Siddiqui RA, Harvey KA, Walker C, Altenburg J, Xu Z, Terry C, Camarillo I, Jones-Hall Y, Mariash C (2013) Characterization of synergistic anti-cancer effects of docosahexaenoic acid and curcumin on DMBA-induced mammary tumorigenesis in mice. *BMC Cancer* 13: 418.
- Altenburg JD, Bieberich AA, Terry C, Harvey KA, Vanhorn JF, Xu Z, Jo Davisson V, Siddiqui RA (2011) A synergistic antiproliferation effect of curcumin and docosahexaenoic acid in SK-BR-3 breast cancer cells: unique signaling not explained by the effects of either compound alone. *BMC Cancer* 11: 149
- Siddiqui RA, Hassan S, Harvey KA, Rasool T, Das T, Mukerji P, DeMichele S (2009) Attenuation of proteolysis and muscle wasting by curcumin c3 complex in MAC16 colon tumour-bearing mice. *Br J Nutr* 102: 967-975.
- Siddiqui RA, Harvey KA, Ruzmetov N, Miller SJ, Zaloga GP (2009) n-3 fatty acids prevent whereas trans-fatty acids induce vascular inflammation and sudden cardiac death. *Br J Nutr* 102: 1811-1819.