

Curriculum Vitae

RAYMOND ROGER MAHONEY

PERSONAL: Born 1st July, 1944
Married, 2 children

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EDUCATION: Ph.D. (Biochemistry) University of California, Davis, 1976
M.S. (Food Science) University of California, Davis, 1968
B.Sc. (Food Technology) First Class Honours, National College of
Food Technology, University of Reading, England, 1967.

PRESENT POSITION: Professor, Department of Food Science.
University of Massachusetts, Amherst.

PREVIOUS POSITIONS: Associate Professor, Department of Food Science and
Nutrition, University of Massachusetts, Amherst, 1982-89

Assistant Professor, Department of Food Science and
Nutrition, University of Massachusetts, Amherst, 1977-82

Trainee-Production Supervisor, T. Wall & Sons (Ice Cream) Ltd.,
Gloucester, England, 1963-67.

Internal Auditor, Unilever Ltd., London, England 1962-63

AREAS OF SPECIALIZATION: Food Biochemistry and Enzymology. Chemistry and technology
of enzyme action and its effects on food quality.
Iron bioavailability from foods. Biochemical and nutritional
changes during food processing and storage.

AWARDS: N.A.T.O. Research Scholarship for study in the United States,
1967-1970

PROFESSIONAL ORGANIZATIONS: Institute of Food Technologists, Professional Member

TEACHING AND INSTRUCTIONAL ACTIVITIES:

Undergraduate/graduate courses taught:	Food Chemistry Food Analysis Food Processing (Lecture and Laboratory) The Nature of Food The Science of Food World Food Habits
Graduate Courses taught:	Food Enzymology Graduate Seminar

Have supervised M.S. and Ph.D. students in Food Science and in Nutrition. Have served on thesis committees for M.S. and Ph.D. students in Food Science, Nutrition and Food Engineering.

SERVICE ACTIVITIES

1. Department of Food Science and Nutrition.
 - a. Administration: Graduate Program Director, 1987-1989
Responsible for recruitment and admission, curriculum development and student progress.
 - b. Committee service:
Graduate Policy Committee (1981, 82, 84, and 91). Chairman 1987-89.
Department Head Search Committee (1977-78)
Department Personnel Committee (1991-93, 2006)
 - c. Department Representative to the Massachusetts Society of Professors (1980-82)
 - d. Department Building Officer (1998-present)
 - e. Undergraduate Curriculum Committee (1996-present)

2. College of Food and Natural Resources

College Curriculum Committee (1984-87).
Chairperson (1985-87) and (2001-present).

3. University

Faculty Senator, (1987-92)
University Academic Personnel Policy Committee, (1987-90)
University Academic Priorities Council, (1986-89)

University Human Subjects Research Review Committee, (1981-86)
Foreign and International Studies Council (2001-present)

OTHER PROFESSIONAL EXPERIENCE

1. Visiting Scientist: University of California, Davis, Department of Food Science and Technology, June-August 1977. Research in food enzymology.
2. Visiting Scientist: Central Food Technological Research Institute, Mysore, India, January-April, 1983, Research and consulting in food biochemistry, invited and sponsored by the Government of India.
3. Visiting Scientist: Agricultural Research Council Food Research Institute, Norwich England 1983. Research on dietary fiber and intestinal enzyme activity.
4. Heritage lecturer: Department of Food Science, University of Alberta, Canada. 1989. Lectures and consultations in food biochemistry.
5. Visiting Scientist: RHM Research and Engineering, High Wycombe, U.K. January-June 1990. Research in food biochemistry.
6. External Examiner: Food Technology, University of the West Indies, St. Augustine, Trinidad, 1992-present.
7. External Examiner: University of Mysore, India, 1999, 2001.
8. Visiting Professor: University of the West Indies, St. Augustine, Trinidad, February 1997.
9. Member of the Science Advisory Board, Nexia Biotechnology, Montreal
10. Institute of Food Technologists Committees:
 - Committee on Policies and Procedures, Chairman, 1995-96
 - Committee on Constitution and Bye-Laws, Member, 1992-97.
 - Chairman, 1996-97
 - Committee on Higher Education, Member, 1999-2001, 2003-2004.
 - Task Force on Implementation of Governance, 1998-present.
 - Nicholas Appert Award Jury 2001-2004
 - Industrial Scientist Award Jury 2004-2006

REVIEWING

Served as reviewer for: J. Food Science
J. Food Biochemistry
J. Food Processing and Engineering
J. Cereal Science
J. Agricultural and Food Chemistry
Food Chemistry
Food Technology
Ecology of Food and Nutrition
Reproduction, nutrition, development (France)
International Journal of Peptide and Protein Research

GRANTS RECEIVED

1. U.S.D.A.- Hatch. Characterization of lactase from Kluyveromyces fragilis (1977-81), \$43,500.
2. U.S.D.A.-Hatch. Stable lactases of microbial origin (1981-85), \$43,000.
3. University of Massachusetts Faculty Research Grant. Identification of a lactase inhibitor in milk (1987), \$1,800.
4. Corning Glass, unrestricted grant in aid of research on lactase (1982), \$5,000.
5. U.S.D.A.- Hatch. Thermostability of lactase in milk-based systems (1985-89), \$52,000
6. University of Massachusetts Faculty Research Grant – Specific polygalacturonase inhibitors in tomatoes (1987-88), \$4,500.
7. U.S.D.A. – Hatch. Stabilization of lactase by proteins, polypeptides and amino acids (1989-94), \$54,500
8. National Research Center (Cairo). Studies on microbial β -galactosidase, 1992-93, \$10,000
9. U.S.D.A.- Hatch. Enhancement of iron uptake by meat proteins, 1995-99, \$60,000.
10. Faculty Research Grant, University of Massachusetts. Isolation of iron-binding peptides, 1998, \$5,000.
11. Nutratch Inc., N.J. Research in Enzymology. 2000, \$5,500.
12. U.S.D.A.-Hatch. Effect of animal proteins on iron uptake 2001- 2007.

CURRENT RESEARCH INTERESTS

1. Identification of a “meat-factor” which promotes iron absorption.

In this work we aim to separate and characterize compounds present in muscle proteins which enhance the bioavailability of iron in humans. In addition to increasing basic understanding of iron absorption, this knowledge might lead to alternative strategies for iron fortification of cereals.

2. Isolation and application of inhibitors of pectic enzymes.

In this work we plan to isolate and characterize extremely specific plant inhibitors of pectic enzymes secreted by plant pathogens. Such inhibitors could be used to protect growing food plants and lengthen the post-harvest storage life of fruits and vegetables.

3. Thermal stability/denaturation of enzymes in food systems.

Using lactase in milk as a model system, we are studying how food components can act and interact with enzymes so as to affect their stability during food processing. The aim of this work is to provide strategies for enzyme stabilization which may have wide applications in food and biological systems.

PUBLICATIONS—BOOK AND BOOK CHAPTERS

1. "Modification of Lactose and Lactose-Containing Dairy products with β -Galactosidase." In, *Developments in Dairy Chemistry. Volume 3* (P.F. Fox Editor) Applied Science, 1985, pp. 69-109.
2. "Enzymology". In, *Encyclopedia of Food Science and Technology* (Y.H. Hui editor) Wiley, 1991, pp 743-746.
3. "Immobilized Enzymes". In, *Encyclopedia of Food Science and Technology* (Y.H. Hui editor) Wiley, 1991, pp 1450-1452
4. "Lactose: Enzymatic Modification." In *Advanced Dairy Chemistry-3* (P.F. Fox editor) Chapman Hall, 1996, pp. 77-125.
5. Enzymology. In: *Wiley Encyclopedia of Food Science and Technology* (F.J. Francis, editor) 2nd Edn, 1999, pp 658-661.
6. Immobilized Enzymes. In: *Wiley Encyclopedia of Food Science and Technology* (F.J. Francis, editor) 2nd Edn, 1999, pp 1342-1345.
7. β -Galactosidase. In: *Encyclopedia of Dairy Sciences* (H. Rogenski, J.W. Fuquay and P.F. Fox editors) Academic Press, London 2002, 907-914.
8. β -Galactosidase. In: *Handbook of Food Enzymology* (J.R. Whitaker, A.G. J. Voragen and D.Wong editors) Dekker, New York, 2003. pp 823-828

9. R.E. Levin, R.G. Labbe and R.R. Mahoney, The Science of Food, Kerdau/Hunt, Dubuque Iowa, 2003, 270 pp

BOOK REVIEWS

1. Advances in Enzymology, Volume 44, Interscience. In J. Food Biochemistry, (1977), 1(3), 314.
2. Chemical Analysis of Foods, 7th Edition. Chemical Publishing Company. In Food Technology, (1978), 32(1),106.
3. A study on the prevalence and implications of hypolactasia on Surinam's Bush-negro children. In Ecology of Food and Nutrition, (1979), 7(4), 262-263.
4. Chemical deterioration of proteins. American Chemical Society. In J. Food Biochemistry, (1981), 5, 155-156.
5. Food Processing Technology, Principles and Practice. P. Fellow. VCH/Ellis Horwood, (1989). In Ecology of Food and Nutrition, 23, 161-162, 1989. Vols. 1 and 2.
6. Food Enzymology, P.F. Fox ed. Vols 1 and 2, Elsevier, 1991 In Trends in Food Science and Technology 3, 149-152,1992.
7. Enzymes in Food Processing, G.A. Tucker and L.F. Woods eds., Blackie, 1991. In Food Control, 3, 218,1992.
8. Principles of Enzymology for the Food Sciences, 2nd ed. J.R. Whitaker. Marcel Dekker, 1993. In Food Technology (1994) 11, 181

PUBLICATIONS-JOURNAL ARTICLES

1. Jarvis, B. and R.R. Mahoney (1969). Inactivation of nisin by alpha-chymotrypsin. *J. Dairy Science*, 52(9), 1448-1451.
2. Mahoney, R.R., T.A. Nickerson and J.R. Whitaker (1975). Selection of strain, growth conditions and extractions procedures for optimum production of lactase from Kluyveromyces fragilis. *J. Dairy Science*, 58 (11), 1620-1629.
3. Mahoney, R.R. and J.R. Whitaker (1978). Purification and physicochemical properties of β -galactosidase from Kluyveromyces fragilis. *J. Food Science*, 43, 584-591.
4. Mahoney, R.R. and J. R. Whitaker (1978). Stability and enzymatic properties of β -galactosidase from Kluyveromyces fragilis. *J. Food Biochemistry*, 1, 270-277.
5. Mahoney, R.R. and C. Adamchuk (1980). Effect of milk constituents on the enzymatic hydrolysis of lactose. *J. Food Science*, 45(4), 962-964 & 968.
6. Greenberg, N.A. and R.R. Mahoney (1981). Immobilizaion of lactase for use in dairy processing: A review. *Process Biochemistry*, 16(2), 2-8 and 49.
7. Greenberg, N. A. and R.R. Mahoney (1981). Rapid purification of β -galactosidase (Aspergillus niger) from a commercial preparation. *J. Food Science* 46, (3), 684-687.
8. Lazaridis, H.N., J.R. Rosenau and R.R. Mahoney (1981). Enzymatic control of meltability in direct acidified cheese products. *J. Food Science*, 46(2), 332-335 & 339.
9. Levin, R.E. and R.R. Mahoney (1981). Purification and characterization of β -galactosidase from Bacillus coagulans. *Antonie van Leewenhoek*, 47, 53-64.
10. Mahoney, R.R. (1981). On the sulfhydryl groups of β -galactosidase from Kluyveromyces fragilis. *J. Food Biochemistry*, 4(3), 189-199.
11. Bunjapamai, S., R.R. Mahoney and I.S. Fagerson (1981). Determination of D-amino acids in some processed foods and effects of racemization on in-vitro digestibility of casein. *J. Food Science*, 47(4), 1229-1234.
12. Sha, N.O., M.T. Atallah, R.R. Mahoney and P.L. Pellett (1982). Effect of dietary fibre components on fecal nitrogen excretion and protein utilization in growing rats. *J. Nutrition*, 112(4), 658-666.

13. Lazaridis, H.N., R.R. Mahoney and J.R. Rosenau (1982). Protein size and meltability in enzyme-treated direct acidified cheese products. *J. Food Science*, 47(2), 670-671.
14. Mahoney, R.R., C. Farrell and A.M. Wetherby 1982. Interaction of pectin and lysine. *Food Chemistry*, 9, 289-294.
15. Greenberg, N.A. and R.R. Mahoney (1982). Production and characterization of β -galactosidase from *Streptococcus thermophilus*. *J. Food Science*, 47(6), 1824-1828 and 1835.
16. Rawson, N. And R.R. Mahoney (1983). A modified method of determination of reactive lysine in milk powder using Remazol Brilliant Blue R. *Lebensmittel-Wissenschaft Und Technologie*, 16, 1-4.
17. Greenberg, N.a. and R.R. Mahoney (1983). Formation of oligosaccharides by β -galactosidase from *Streptococcus thermophilus*. *Food Chemistry*, 10, 195-204.
18. Rawson, N. and R.R. Mahoney (1983). Effect of processing and storage on the quality of spray-dried lactose-hydrolysed milk powder. *Lebensmittel-Wissenschaft Und Technologie*, 16, 313-316.
19. Greenberg, N.A. and R. R. Mahoney (1984). Activity of Lactase (*Streptococcus thermophilus*) in milk and whey. *Food Chemistry*, 15, 307-313.
20. Johnson, I.T., J.M. Gee and R.R. Mahoney (1984). Effect of dietary supplements of guar gum and cellulose on intestinal cell proliferation, enzyme levels and sugar transport in the rat. *Brit J. Nutrition*, 52, 477-487.
21. Greenberg, N.A., T. Wilder and R.R. Mahoney (1985). Studies on the thermostability of lactase (*Streptococcus thermophilus*) in milk and sweet whey. *J. Dairy Research*, 52, 439-499.
22. Schuler, R., R.E. Mudgett and R.R. Mahoney (1985). Kinetic properties of α -D-galactosidase from *Lactobacillus fermenti*. *Enzyme and Microbial Technol*, 7, 207-211.
23. Shah, R., R.R. Mudget and R.R. Mahoney and P.L. Pellett (1986). Effect of guar gum, lignin and pectin on proteolytic enzyme levels in the gastrointestinal tract of the rat: a time based study. *J. Nutrition*, 116, 786-794.
24. Howard, P., R.R. Mahoney and T. Wilder (1986). Binding of amino acids by dietary fibres and wheat bran. *Nutrition Reports Int.*, 34, 135-141.

25. Annunziato, M.E., R.R. Mahoney and R.E. Mudgett (1986). Production of α -galactosidase from Aspergillus oryzae grown in solid-state culture. J. Food Science, 51, 1370-1371.
26. Annunziato, M.E. and R.R. Mahoney (1987). Partial purification and characterization of α -galactosidase from Aspergillus oryzae. J. Food Biochem., 11, 263-277.
27. Shah, N., R.R. Mahoney and P.L. Pellet (1987). Effect of guar gum, pectin and lignin on proteolytic zymogens in the pancreas of the rat Nutrition Reports Int., 26, 223-228.
28. Mahoney, R.R. and T. Wilder (1987). Enhanced thermostability of lactase (Escherichia coli) in milk. J. Food Science, 52, 1730-1731.
29. Mahoney, R.R. and T. Wilder (1988). Thermostability of yeast lactase (Kluyveromyces marxianus) in milk. J. Dairy Research, 55, 423-433.
30. Mahoney, R.R. and T. Wilder (1988). Substrate induced thermal stabilization of lactase in milk. Annals N.Y. Acad. Sci., 542, 274-278.
31. Chang, B.S. and R.R. Mahoney (1989). Purification and thermostability of β -galactosidase (lactase) from an autolytic strain of Streptococcus thermophilus. J. Dairy Research. 56, 117-127.
32. Mahoney, R.R. and T. Wilder (1989). Effect milk constituents and related compounds on the thermal stability of lactase (Escherichia coli). J. Food Science, 54, 899-901.
33. B.S. Chang and R.R. Mahoney (1989). Factors affecting the thermostability of β -galactosidase (Streptococcus salivarius subsp. thermophilus) in milk: a quantitative study. J. Dairy Research. 56, 785-792.
34. Howard, P. and R.R. Mahoney (1989). Effect of dietary fibers on the enzymatic digestion of casein. Food Chemistry, 34, 141-146.
35. S. Surve and R.R. Mahoney (1991). Effect of histidine and casein amino acids on the thermostability of β -galactosidase from Kluyveromyces marxianus. J. Food Biochemistry, 15, 201-208.
36. R.R. Mahoney and M. Ramsay. (1992). A rapid tyrosinase test for detecting contamination of durum wheat. J. Cereal Sci. 15, 267-70.

37. Chang, B.S. and Mahoney, R.R. (1994) Thermal denaturation of β -galactosidase (*Streptococcus thermophilus*) and its stabilization by bovine serum albumin: an electrophoretic study. *Biotechnol. Appl. Biochem.* 19, 169-178.
38. Surve, S.S. and Mahoney, R.R. (1994). Kinetic stabilization of β -galactosidase (*Kluveromyces marxianus*) by histidine and other amino acids. *Biotechnol. Appl. Biochem.* 20, 55-65.
39. R.R. Mahoney and A. Seth (1995). Solubilization of iron by chicken muscle digests. *Meat Focus International*, 4,103.
40. B.S. Chang and R.R. Mahoney (1995). Enzyme thermostabilization by bovine serum albumin and other proteins: evidence for hydrophobic interactions. *Biotechnol. Appl. Biochem.* 22, 203-214.
41. S.S. Surve and R.R. Mahoney (1996). Thermostabilization of β -galactosidase (*Kluveromyces marxianus*) by histidine: physical studies. *Biotechnol. Appl. Biochem.* 23, 155-162.
42. S. Ismail, S.S. Mabrouk and R.R. Mahoney (1997). Purification and characterization of β -galactosidase from *Mucor pusillus*. *J. Food Biochemistry*, 21, 145-162.
43. R.R. Mahoney (1998). Galactosyl-oligosaccharide formation during lactose hydrolysis: a review. *Food Chemistry*, 63, 147-154.
44. L.K. Huang and R.R. Mahoney (1999). Purification and characterization of an endopolygalacturonase from *Verticillium alb-atrum*. *J. Applied Microbiology*, 86, 145-156.
45. A. Seth and R.R. Mahoney (2000). Solubilization of iron by chicken muscle protein digest. *J. Sci. Food and Agriculture*, 79, 958-963.
46. A. Seth and R.R. Mahoney (2000). Binding of iron by chicken muscle protein digests: the size of the iron binding peptides. *J. Sci Food and Agriculture*, 80, 1595-1600.
47. A. Seth and R.R. Mahoney (2001). Iron chelation by digests of insoluble chicken muscle protein: the role of histidine residues. *J. Sci. Food and Agriculture*, 81, 183-187.
48. D.A. Vatter, A. Seth and R.R. Mahoney (2001). Chelation and reduction of iron by chicken muscle protein digest: the role of sulphhydryl groups. *J. Sci. Food and Agriculture*, 81, 1476-1480

49. M. Diaz, D. Vatterm and R.R. Mahoney (2002). Production of dialyzable and reduced iron by in-vitro digestion of chicken muscle protein fractions. J. Sci. Food and Agriculture, 82, 1551-1555
50. D. Vatterm and R.R. Mahoney (2005). Production of dialyzable iron by in-vitro digestion of chicken muscle protein fractions: the size of the dialyzable iron. J.Sci. Food and Agriculture, 85, 1537-1542.

ABSTRACTS AND PAPERS PRESENTED

1. R.R. Mahoney and J.R. Whitaker. Purification and properties of β -galactosidase from Kluyveromyces fragilis. Presented at the Institute of Food Technologist Annual Meeting, Anaheim, CA 1976.
2. R.R. Mahoney. Some properties of β -galactosidase from Kluyveromyces fragilis. Presented at the American Society for Microbiology, Connecticut Valley Branch Meeting, Amherst, MA, 1977.
3. R.R. Mahoney and C. Adamchuk. Effect of milk constituents on the enzymatic hydrolysis of lactose. Presented at the Institute of Food Technologists Annual Meeting, St. Louis, MO, 1979.
4. N.A. Greensberg and R.R. Mahoney. Purification and properties of β -galactosidase from Aspergillus niger. Presented at the Institute of Food Technologists Annual Meeting, New Orleans, LA, 1980.
5. H.N. Lazaridis, J.R. Rosenau and R.R. Mahoney. Enzymatic control of meltability in direct acidified cheese products. Presented at the Institute of Food Technologist Annual Meeting, New Orleans, LA, 1980
6. N. Rawson and R.R. Mahoney. Changes available lysine during processing and storage of lactose-hydrolysed milk powders. Presented at the Institute of Food Technologists Annual Meeting, Atlanta, GA, 1981.
7. S. Bunjapamai, R.R. Mahoney and I.S. Fagerson. Determination of some D-amino acids in processed foods. Presented at the Institute of Food Technologists Annual Meeting, Atlanta, GA, 1981.
8. N.A. Greenberg and R.R. Mahoney. Purification and properties of β -galactosidase from Streptococcus thermophilus. Presented at the Institute of Food Technologist Annual Meeting, Atlanta, GA, 1981.

9. N.O. Shah, M.T. Atallah, R.R. Mahoney and P.L. Pellett. Effect of dietary fibre components and wheat bran on protein utilization in rats. Selected for a mini-symposium and presented at the XIIth International Congress of Nutrition, San Diego, CA, 1981.
10. N. A. Greenberg and R.R. Mahoney. Immobilization of β -galactosidase (Streptococcus thermophilus) on polyethyleneimine-coated glass beads. Presented at the Institute of Food Technologist Annual Meeting, Las Vegas, NV, 1982.
11. N.A. Greenberg and R.R. Mahoney. Effect of milk constituents on the activity and stability of lactase from Streptococcus thermophilus. Presented at the 6th World Congress of Food Science and Technology, Dublin, Ireland, 1983.
12. N. O Shah, R.R. Mahoney and P.L. Pellet. Effect of dietary fibre constituents on protein utilization in growing rats. Presented at the 6th World Congress of Food Science and Technology, Dublin, Ireland, 1983.
13. R.R. Mahoney. "Job opportunities for food science graduated in the West". In: CFTRI/UNU Food Technology Students Yearbook. Mysore, India, 1983.
14. N.A. Greenberg and R.R. Mahoney, Stabilization of lactase by milk proteins. Presented at the Institute of Food Technologist Annual Meeting, Anaheim, CA, 1984.
15. R.R. Mahoney and T. Wilder. Influence of milk components on the thermal stability of yeast lactase. Presented at the Institute of Food Technologists Annual Meeting, Anaheim, CA, 1984.
16. H. Schwartzberg, J.M., Bouvier, G. Fayard and R.R. Mahoney. Protein reactions in extrusion working of soy flour. Presented at the American Institute of Chemical Engineers Annual Meeting, Chicago, IL. 1985.
17. R.R. Mahoney and T. Wilder. Thermal stability of lactase in milk. Presented at the Annual Meeting of the Institute of Food Technologist, Las Vegas, NV, 1987.
18. R.R. Mahoney and T. Wilder. Substrate induced thermal stabilization of lactase in milk. Presented at the Ninth International Conference on Enzyme Engineering, Santa Barbara, CA, 1987.
19. B.S. Chang and R.R. Mahoney. Thermostability of lactase from Streptococcus thermophilus. Presented at the Annual Meeting of the Institute of Food Technologist, New Orleans, LA, 1988.

20. B.S. Chang and R.R. Mahoney. Stabilization of lactase by amino acids and poly-amino acids. Presented at the Institute of Food Technologist Annual Meeting, Chicago, IL, 1989.
21. L.K. Huang and R.R. Mahoney. Inhibitor of fungal polygalacturonase in tomato fruits and stems. Presented at the Institute of Food Technologists Annual Meeting, Chicago, IL, 1989.
22. B.S. Chang and R.R. Mahoney. Thermostabilization of β -galactosidase from Streptococcus thermophilus by hydrophobic interactions with proteins. Presented at the American Chemical Society Meeting, Miami, FL, 1989.
23. B.S. Chang and R.R. Mahoney. The role of bovine serum albumin in the thermostabilization of β -galactosidase from Streptococcus thermophilus. Presented at the American Chemical Society Meeting, Miami, FL, 1989.
24. B.S. Chang and R.R. Mahoney. Thermostabilization of β -galactosidase by hydrophobic interactions with bovine serum albumin. Presented at the Royal Society of Chemistry Conference on Protein Stability, Cambridge, England, 1990.
25. S.S. Surve and R.R. Mahoney. Stabilization of lactases by amino acids-a comparative study. Presented at the Institute of Food Technologists Annual Meeting, Anaheim, CA, 1990.
26. S.S. Surve and R.R. Mahoney. Histidine increases the operational stability of lactase. Presented at the Institute of Food Technologists Annual Meeting, New Orleans, LA, 1992.
27. S.S. Surve and R.R. Mahoney. Histidine stabilizes lactase by delaying unfolding. Presented at the Institute of Food Technologists Annual Meeting, Atlanta, 1994.
28. Seth, A. and R.R. Mahoney. Solubilization of iron chicken muscle digest. Presented at the Institute of Food Technologists Annual Meeting, Atlanta, 1994.
29. L.K. Huang and R.R. Mahoney. Isolation of polymethylgalacturonase from Verticillum albo-atrum. Presented at the Institute of Food Technologists Annual Meeting, Anaheim, CA, 1995.
30. A. Seth and R.R. Mahoney. Iron solubilization by chicken muscle protein digests-size of the peptides. Presented at the Institute of Food Technologists Annual Meeting, Orlando, FL, 1997.
31. A. Seth and R.R. Mahoney. Iron solubilization by chicken muscle protein digest-the role of histidine. Presented at the Institute of Food Technologists Annual Meeting, Orlando, FL, 1997.

32. A. Seth and R.R. Mahoney. Role of sulfhydryl groups in iron solubilization by chicken muscle protein. Presented at the Institute of Food Technologists Annual Meeting, Chicago, IL, 1999.
33. M. Diaz and R.R. Mahoney. Solubilization and reduction of iron by proteins of chicken muscle. Presented at the Institute of Food Technologists Annual Meeting, Chicago, IL, 1999.
34. D.A. Vatterm and R.R. Mahoney. Chelation and reduction of non-heme iron by sulphhydryl groups in chicken muscle protein digest. Presented at the Institute of Food Technologists Annual Meeting, New Orleans, LA, 2001.
35. M. Diaz and R.R. Mahoney. Effect of soluble and insoluble chicken muscle proteins on the in-vitro bioavailability of non-heme iron. Presented at the Institute of Food Technologists Annual Meeting, New Orleans, LA, 2001.
36. R. Shinde and R.R. Mahoney. Mycoprotein enhances production of dialyzable iron. Presented at the Institute of Food Technologists Annual Meeting, Las Vegas, NV. 2004.
37. N.B.Karava and R.R.Mahoney. Production of dialyzable iron during in vitro digestion and extraction of mycoprotein. Presented at the Institute of Food Technologists Annual Meeting, Orlando, FL 2006.

INVITED SEMINARS

1. "Lactose and Lactase". 1982. Department of Nutritional Science, University of Connecticut, Storrs, CT.
2. "Production of Lactose-Hydrolysed Milk". Central Food Technological Research Institute, Mysore, India, 1983.
3. "Lactose and Lactase". Departments of Microbiology and of Food and Nutrition, M.S. University of Baroda, India, 1983.
4. "Hydrolysis of Lactose in Milk". Council for Scientific and Industrial Research-Regional Research Laboratory, Trivandrum, India, 1983.
5. "Chemical Changes During Extrusion of Cereal and Legume Ingredients". Department of Food Engineering. University of Massachusetts, Amherst, MA, 1985.
6. "Stabilization of Enzymes". North East IFT Symposium on "Biotechnology in the Food Industry", Amherst, MA, 1986.
7. "Enzyme Stabilization-Concepts and Approaches". Department of Food Science, University of Alberta, Edmonton, Canada, 1989.
8. "Stabilization of Lactase by Milk Components". Department of Food Science, University of Alberta, Edmonton, Canada, 1989.
9. "Stabilization of Lactase by Milk Components". National Research Center, Cairo, Egypt, 1995.
10. "Biotechnology and the Food Supply". University of the West Indies, St. Augustine, Trinidad, 1997
11. "Food Habits in the Americas". University of the West Indies, St. Augustine, Trinidad, 1997.
12. "Molecules on Your Plate". American Institute of Material Science, Manchester, NH, 2005