

Curriculum Vitae 2003
Zahi Damuni, Ph.D.

Professional History:

1. Undergraduate: 1975-1979, Dundee University, Dundee, Scotland. Qualification: B. Sc. in Biochemistry.
2. Graduate Studies: 1979-1983, with Sir Philip Cohen at the Department of Biochemistry, Medical Sciences Institute, University of Dundee. Qualification: Ph.D. in Biochemistry 1983.
3. Postdoctoral Research: 1983-1985, with Professor Lester J. Reed, Department of Chemistry and Biochemistry, University of Texas, Austin, Texas.
4. Research Scientist Associate: 1985-1987, with Professor Lester J. Reed, Department of Chemistry and Biochemistry, University of Texas, Austin, Texas.
5. Assistant Professor: 1987-1993, Department of Biological Sciences, University of South Carolina, Columbia, South Carolina.
6. Associate Professor: 1993-1997, Department of Cellular and Molecular Physiology, Pennsylvania State University College of Medicine, Milton S. Hershey Medical Center, Hershey, Pennsylvania.
7. Associate Professor with tenure: 1997-2003, Department of Cellular and Molecular Physiology, Pennsylvania State University College of Medicine, Milton S. Hershey Medical Center, Hershey, Pennsylvania.
8. President GloboZymes: 2001-present

Research Field:

Elucidation of the mechanism of action of hormones in normal, cancer and diabetic cells with particular emphasis on the contribution of protein serine/threonine phosphatase 2A (PP2A). We were the first to demonstrate that PP2A is inactivated following phosphorylation of the catalytic subunit of the enzyme on threonine residues after incubation with purified preparations of the catalytic domain of PAK2. We were also the first to show that two cellular proteins, I_1^{PP2A} and I_2^{PP2A} , potentially inhibit PP2A activity *in vitro* and *in vivo*. Two isoforms of I_1^{PP2A} and I_2^{PP2A} are now known to exist in cells. The I_1^{PP2A} and I_2^{PP2A} isoforms are expressed from two closely related genes. In contrast, the I_1^{PP2A} and I_2^{PP2A} isoforms are products of alternate splicing from a single gene. Interestingly, I_1^{PP2A} () and I_2^{PP2A} () are highly expressed in several forms of cancer. In addition, following a chromosomal translocation in acute undifferentiated leukemia, I_2^{PP2A} () occurs as a fusion protein with a putative nucleoporin termed CAN. I_2^{PP2A} () also forms a heterocomplex with PP2A and HRX fusion proteins which are produced with high frequency as a consequence of a 11q23 chromosomal abnormality in acute leukemia. We are currently investigating the regulation and mechanism of action of the inhibitor proteins as well as their dysfunction in disease with a view to extending these studies to the use of modern structure-based drug design methods in an effort to develop effective therapies.

Professional Society Affiliations: 1987-present, member of the American Society for Biochemistry and Molecular Biology.

Peer-reviewed Publications:

1. **Damuni, Z.**, Caudwell, F. B. & Cohen, P. (1982) "Regulation of the aminoacyl-tRNA synthetase complex of rat liver by phosphorylation dephosphorylation in vitro and in vivo" *Eur. J. Biochem.* 129, 57-65.
2. Cohen, P., Aitken, A., **Damuni, Z.**, Hemmings, B. A., Ingebritsen, T. S., Parker, P. J., Picton, C., Resink, T., Stewart, A. A., Tonks, N. K. & Woodgett, J. (1983) "Protein phosphorylation and the neural and hormonal control of enzyme activity" *Postranslational Covalent Modification of Proteins* (B. Connor Johnson, ed.) pp. 19-38, Academic Press, New York.
3. **Damuni, Z.**, Merrifield, M. L., Humphreys, J. S. & Reed, L. J. (1984) "Purification and properties of branched-chain α -keto acid dehydrogenase phosphatase from bovine kidney" *Proc. Natl. Acad. Sci. USA* 83, 4335-4338.
4. **Damuni, Z.**, Humphreys, J. S. & Reed, L. J. (1984) "Stimulation of pyruvate dehydrogenase phosphatase activity by polyamines" *Biochem. Biophys. Res. Commun.* 124, 95-99.
5. **Damuni, Z.**, Tung, H. Y. L. & Reed, L. J. (1986) "Specificity of the heat-stable protein inhibitor of the branched-chain α -keto acid dehydrogenase phosphatase" *Biochem. Biophys. Res. Commun.* 133, 878-883.
6. Reed, L. J., **Damuni, Z.** & Merrifield, M. L. (1986) "Regulation of mammalian pyruvate and branched-chain α -keto acid dehydrogenase complexes by phosphorylation/dephosphorylation" *Current Topics in Cellular Regulation* 27, 41-49.
7. **Damuni, Z.**, Humphreys, J. S. & Reed, L. J. (1986) "A potent heat-stable protein inhibitor of the branched-chain α -keto acid dehydrogenase phosphatase from bovine kidney mitochondria" *Proc. Natl. Acad. Sci. USA* 83, 285-289.
8. Reed, L. J. & **Damuni, Z.** (1987) "Mitochondrial protein phosphatases" *Adv. Prot. Phosphatase* 4, 59-76.
9. **Damuni, Z.** & Reed, L. J. (1987) "Purification and properties of the catalytic subunit of the branched-chain α -keto acid dehydrogenase phosphatase from bovine kidney mitochondria" *J. Biol. Chem.* 262, 5129-5132.
10. **Damuni, Z.** & Reed, L. J. (1987) "Purification and characterization of a divalent cation-independent spermine-stimulated protein phosphatase from bovine kidney mitochondria" *J. Biol. Chem.* 262, 5133-5138.
11. **Damuni, Z.** & Reed, L. J. (1988) "Purification and properties of a protamine kinase and a casein kinase from bovine kidney mitochondria" *Arch. Biochem. Biophys.* 262, 574-584.
12. **Damuni, Z.** & Reed, L. J. (1988) "Branched-chain α -keto acid dehydrogenase phosphatase and its inhibitor protein" *Methods Enzymol* 166, 321-329.
13. **Damuni, Z.**, Amick, G. D., & Sneed, T. R. (1989) "Purification and properties of a distinct protamine kinase from the cytosol of bovine kidney cortex" *J. Biol. Chem.* 264, 6412-6416.
14. **Damuni, Z.** (1990) "Inactivation of bovine kidney cytosolic protamine kinase by the catalytic subunit of protein phosphatase 2A" *Biochem. Biophys. Res. Commun.* 166, 449-456.
15. Reddy, S. A. G., Amick, G. D., Cooper, R. H. & **Damuni, Z.** (1990) "Insulin stimulates the activity of a protamine kinase in isolated rat hepatocytes" *J. Biol. Chem.* 265, 7748-7752.
16. Amick, G. D., Reddy, S. A. G. & **Damuni, Z.** (1992) "Purification and properties of a protamine kinase from bovine kidney microsomes" *Arch. Biochem. Biophys.* 297, 80-85.
17. Amick, G. D. & **Damuni, Z.** (1992) "Protamine kinase phosphorylates eukaryotic protein synthesis initiation factor 4E" *Biochem. Biophys. Res. Commun.* 183, 431-437.
18. Amick, G. D., Reddy, S. A. G. & **Damuni, Z.** (1992) "Protein phosphatase 2A is a specific protamine-kinase-inactivating phosphatase" *Biochem J.* 287, 1019-1022.

19. Guo, H. & **Damuni, Z.** (1993) "Autophosphorylation-activated protein kinase phosphorylates and inactivates protein phosphatase 2A" Proc. Natl. Acad. Sci. USA 90, 2500-2504.
20. Guo, H., Reddy, S. A. G. & **Damuni, Z.** (1993) "Purification and characterization of a distinct autophosphorylation-activated protein kinase that phosphorylates and inactivates protein phosphatase 2A" J. Biol. Chem. 268, 11193-11198.
21. Reddy, S. A. G., Guo, H., Tarun, S. Z. Jr. & **Damuni, Z.** (1993) "Phosphorylation and activation of protamine kinase by two forms of a myelin basic protein kinase from extracts of bovine kidney cortex" J. Biol. Chem. 268, 15298-15304.
22. Gong, C. -X., Grundke-Iqbal, I., **Damuni, Z.** & Iqbal, K. (1994) "Dephosphorylation of microtubule-associated protein tau by protein phosphatase-1 and -2C and its implication in Alzheimer Disease" FEBS Lett. 341, 94-98.
23. Idriss, H., Kumar, A., Casa-Fivet, J. R., Guo, H., **Damuni, Z.** & Wilson S. H. (1994) "Regulation of in vitro nucleic acid strand-annealing activity of heterogeneous nuclear ribonucleoprotein A1 by reversible phosphorylation" Biochemistry 33, 11382-11390.
24. Li, M. & **Damuni, Z.** (1994) "Okadaic acid and microcystin-LR directly inhibit the methylation of protein phosphatase 2A by its specific methyltransferase" Biochem. Biophys. Res. Commun. 202, 1023-1030.
25. **Damuni, Z.**, Xiong, H. & Li, M. (1994) "Autophosphorylation-activated protein kinase inactivates the protein tyrosine phosphatase activity of protein phosphatase 2A" FEBS Lett. 352, 311-314.
26. Li, M., Guo, H. & **Damuni, Z.** (1995) "Purification and characterization of two potent heat-stable protein inhibitors of protein phosphatase 2A from bovine kidney" Biochemistry 34, 1988-1996.
27. Garver, T. D., Oyler, G. A., Harris, K. A., Polavarapu, R., **Damuni, Z.**, Lehman, R. A. W. & Billingsley, M. L. (1995) "Tau phosphorylation in brain slices: Pharmacological evidence for convergent roles of protein phosphatases and MAP kinase on Tau" Mol. Pharm. 47, 745-756.
28. Makkinje, A., Xiong, H., Li, M. & **Damuni, Z.** (1995) "Phosphorylation of eukaryotic protein synthesis initiation factor 4E by insulin-stimulated protamine kinase" J. Biol. Chem. 270, 14824-14828.
29. **Damuni, Z.**, Li, M., Xiong, H. & Makkinje, A. (1995) "Regulation of protein phosphatase 2A by phosphorylation and heat-stable protein inhibitors" Adv. Prot. Phosphatase 9, 233-247.
30. Li, M., Makkinje, A. & **Damuni, Z.** (1996) "The myeloid leukemia-associated protein SET is a potent inhibitor of protein phosphatase 2A" J. Biol. Chem. 271, 11059-11062.
31. Li, M., Makkinje, A. & **Damuni, Z.** (1996) "Molecular identification of I_1^{PP2A} , a novel heat-stable inhibitor protein of protein phosphatase 2A" Biochemistry, 35, 6998-7002.
32. Li, M. & **Damuni, Z.** (1998) " I_1^{PP2A} and I_2^{PP2A} : Two potent and specific protein phosphatase 2A inhibitor proteins" Methods in Molecular Biology, 93, 59-65.
35. Al-Murrani, S. W. K., Woodgett, J. R. & **Damuni, Z.** (1999) "Expression of I_2^{PP2A} , an inhibitor of protein phosphatase 2A induces c-Jun and AP-1 activity" Biochem J. 341: 293-298.
34. Idriss, H., **Damuni, Z.** & Wilson, S. H. (1999) "Phosphorylation of HIV reverse transcriptase in vitro and in SF 9 cells" Int. J. Biochem. 31, 1443-1452.
35. Katayose, Y., Li, M., Al-Murrani, S. W. K., Shenolikar, S. & **Damuni, Z.** (2000) "Protein phosphatase 2A inhibitors, I_1^{PP2A} and I_2^{PP2A} , associate with and modify the substrate specificity of protein phosphatase 1" J. Biol. Chem. 2000, 9209-9214.
36. Chen, Y., Matsushita, M., Nairn, A. C., **Damuni, Z.**, Cai, D., Frerichs, K. U. & Hallenbeck, J. M. (2001) "Mechanisms for increased phosphorylation of Elongation Factor-2 during hibernation in ground squirrels" Biochemistry 40, 11565-11570

37. Dobson, S., Kumar, R., Bracchi-Ricard, V., Freeman, S., Al-Murrani, S. W., Johnson, C., **Damuni, Z.**, Chakrabarti, D. & Barik, S. (2003) "Characterization of a unique aspartate-rich protein of the SET/TAF-family in the human malaria parasite, Plasmodium falciparum, which inhibits protein phosphatase 2A" *Mol. Biochem. Parasitol.* 126, 239-250.
38. Lynch, C. J., Halle, B., Fujii, H., Vary, T. C., Wallin, R., **Damuni, Z.** & Hutson, S. M. (2003) "Potential role of leucine metabolism in the leucine-signaling pathway involving mTOR" *Am J Physiol* 285, E854-863.
39. Harmala-Brasken, A-S., Mikhailov, A., Soderstrom, T., Meinander, A., Holmstrom, T., **Damuni, Z.** & Eriksson, J.E. "Type-2A protein phosphatase activity is required to maintain death receptor responsiveness" (2003) *Oncogene* 22, 7677-7686.

Invited Presentations - Conferences:

1. **Damuni, Z.** (1992) "Regulation and function of a distinct insulin-stimulated protamine protein kinase" South Carolina Statewide Biotechnology Conference, Myrtle Beach, South Carolina.
2. **Damuni, Z.** (1994) "Regulation of protein phosphatase 2A by phosphorylation and heat-stable protein inhibitors" FASEB Summer Research Conference on Protein Phosphatases, Copper Mountain, Colorado.
3. **Damuni, Z.** (1994) "Regulation of initiation factor 4E by phosphorylation" Translational Control, Minisymposium, Milton S. Hershey Medical Center, Pennsylvania State University College of Medicine, Hershey, Pennsylvania.
4. **Damuni, Z.** (1995) "Regulation of protein phosphatase 2A by phosphorylation and heat-stable protein inhibitors" The Ninth Second Messenger and Phosphoprotein Research Meeting, Vanderbilt University, Nashville, Tennessee.
5. **Damuni, Z.** (1996) "Regulation of protein phosphatase 2A by phosphorylation and heat-stable protein inhibitors" EMBO meeting on Dephosphorylation, St. Moritz, Switzerland.
6. **Damuni, Z.** (1997) "Regulation of protein phosphatase 2A by cancer-associated inhibitor proteins" EMBO meeting on Dephosphorylation, Oxford University, England.
7. **Damuni, Z.** (1998) "Regulation of protein phosphatase 2A by cancer-associated inhibitor proteins" FASEB Summer Research Conference on Protein Phosphatases, Copper Mountain, Colorado.

Invited Presentations - Universities and Research Institutions:

1. **Damuni, Z.** (1982) "Regulation of the Aminoacyl-tRNA Synthetase Complex by Phosphorylation/ Dephosphorylation *in vitro* and *in vivo*" Department of Biochemistry, University of Glasgow, Glasgow, Scotland.
2. **Damuni, Z.** (1982) "Regulation of the Aminoacyl-tRNA Synthetase Complex by Phosphorylation/ Dephosphorylation *in vitro* and *in vivo*" Department of Biochemistry, University of Edinburgh, Edinburgh, Scotland.
3. **Damuni, Z.** (1984) "Branched-Chain -Keto Acid Dehydrogenase Phosphatase" Department of Biochemistry, Dundee University, Dundee, Scotland.
4. **Damuni, Z.** (1987) "Mitochondrial Protein Phosphorylation" Department of Pharmacy, University of Southern California, Los Angeles, California.
5. **Damuni, Z.** (1987) "Mitochondrial Protein Phosphorylation" Department of Biology, University of South Carolina, Columbia, South Carolina.
6. **Damuni, Z.** (1988) "Mitochondrial Protein Phosphorylation" Merrel-Dow Research Institute, Cincinnati, Ohio.

7. **Damuni, Z.** (1988) "Mitochondrial Protein Phosphorylation" Department of Pharmacology, University of Virginia, Charlottesville, Virginia.
8. **Damuni, Z.** (1989) "Identification of a Novel Family of Multiprotein Kinases" Department of Pharmacology, School of Medicine, University of South Carolina, Columbia, South Carolina.
9. **Damuni, Z.** (1989) "Identification of a Novel Family of Protein Kinases" Department of Chemistry and Biochemistry, University of South Carolina, Columbia, South Carolina.
10. **Damuni, Z.** (1992) "In Search of the Function and Regulation of a Distinct Protamine Protein Kinase" Department of Chemistry and Biochemistry, University of Texas, Austin, Texas.
11. **Damuni, Z.** (1993) "Identification of a Novel Protein Kinase and Phosphatase Network Involved in Insulin and Mitogen Transmembrane Signaling" Department of Internal Medicine, Wayne State School of Medicine, Detroit, Michigan.
12. **Damuni, Z.** (1993) "Identification of a Novel Protein Kinase and Phosphatase Network Involved in Insulin and Mitogen Transmembrane Signaling" Children's Hospital Oakland Research Institute, Oakland, California.
13. **Damuni, Z.** (1993) "Identification of a Novel Protein Kinase and Phosphatase Network Involved in Insulin and Mitogen Transmembrane Signaling" Department of Chemistry, Brooklyn College, New York
14. **Damuni, Z.** (1993) "Identification of a Novel Protein Kinase and Phosphatase Network Involved in Insulin and Mitogen Transmembrane Signaling" Department of Pharmacology, University of New Mexico School of Medicine, Albuquerque, New Mexico.
15. **Damuni, Z.** (1993) "Identification of a Novel Protein Kinase and Phosphatase Network Involved in Insulin and Mitogen Transmembrane Signaling" Fort Wayne Medical Center, University of Indiana, Fort Wayne, Indiana.
16. **Damuni, Z.** (1993) "Identification of a Novel Protein Kinase and Phosphatase Network Involved in Insulin and Mitogen Transmembrane Signaling" Departments of Cell Biology and Medicine, Duke University Medical Center, Durham, North Carolina.
17. **Damuni, Z.** (1993) "Identification of a Novel Protein Kinase and Phosphatase Network Involved in Insulin and Mitogen Transmembrane Signaling" Department of Biochemistry and Molecular Biology, University of Arkansas for Medical Sciences, Little Rock, Arkansas.
18. **Damuni, Z.** (1993) "A Novel Protein Kinase and Phosphatase Network Involved in Insulin and Mitogen Transmembrane Signaling" Department of Cellular and Molecular Physiology, Milton S. Hershey Medical Center, Pennsylvania State University College of Medicine, Hershey, Pennsylvania.
19. **Damuni, Z.** (1993) "A Novel Protein Kinase and Phosphatase Network Involved in Insulin and Mitogen Transmembrane Signaling" Center for Molecular Sciences, University of Texas at Galveston, Galveston Texas.
20. **Damuni, Z.** (1993) "Identification of a Novel Protein Kinase and Phosphatase Network Involved in Insulin and Mitogen Transmembrane Signaling" Department of Biochemistry and Molecular Biology, Louisiana State University Medical Center, Shreveport, Louisiana.
21. **Damuni, Z.** (1993) "Identification of a Novel Protein Kinase and Phosphatase Network Involved in Insulin and Mitogen Transmembrane Signaling" MD Anderson Cancer Center, Houston, Texas.
22. **Damuni, Z.** (1993) "Recent Advances in Studies of the Molecular Mechanism of Action of Insulin and Other Mitogens" Calbiochem-Novabiochem Corporation, La Jolla, California.
23. **Damuni, Z.** (1995) "Molecular Mechanism of Insulin-stimulated Phosphorylation of Initiation Factor 4E" Program in Cellular and Molecular Biology, Milton S. Hershey Medical Center, Pennsylvania State University College of Medicine, Hershey, Pennsylvania.

24. **Damuni, Z.** (1995) "Molecular Mechanism of Insulin-stimulated Phosphorylation of Initiation Factor 4E" Endocrinology Seminar Series, Milton S. Hershey Medical Center, Pennsylvania State University College of Medicine, Hershey, Pennsylvania.
25. **Damuni, Z.** (1996) "Regulation of Protein Phosphatase 2A by Phosphorylation and Heat-stable Inhibitor Proteins" Department of Biochemistry and Molecular Biology, Indiana University School of Medicine, Indianapolis.
26. **Damuni, Z.** (1996) "Regulation of Protein Phosphatase 2A by Phosphorylation and Heat-stable Inhibitor Proteins" Department of Pharmacology, University of Virginia School of Medicine, Charlottesville, Virginia.
27. **Damuni, Z.** (1997) "Regulation of PP2A by Cancer-associated Inhibitor Proteins" Fred Hutchison Cancer Center, Washington, Seattle.
28. **Damuni, Z.** (1997) "Regulation of PP2A by Cancer-associated Inhibitor Proteins" Department of Pharmacology, Duke University Medical Center, Durham, North Carolina.
29. **Damuni, Z.** (1997) "Regulation of PP2A by Cancer-associated Inhibitor Proteins" Department of Pathology and Medicine, University of Pennsylvania, Philadelphia, Pennsylvania.
30. **Damuni, Z.** (1999) "Regulation of PP2A by Cancer-associated Inhibitor Proteins" Department of Biochemistry and Molecular Biology, Pennsylvania State University College of Medicine, Hershey, Pennsylvania.
31. **Damuni, Z.** (2000) "Regulation of PP2A by Cancer-associated Inhibitor Proteins" Department of Cellular and Molecular Physiology, Pennsylvania State University College of Medicine, Hershey, Pennsylvania. Pennsylvania State University College of Medicine, Hershey, Pennsylvania.
32. **Damuni, Z.** (2001) "Recent Advances in Signal Transduction Research" Calbiochem-Novabiochem, San Diego, California.
33. **Damuni, Z.** (2002) "Regulation of PP2A by Cancer-associated Inhibitor Proteins" (2002) Department of Cellular and Molecular Physiology, Pennsylvania State University College of Medicine, Hershey, Pennsylvania. Pennsylvania State University College of Medicine, Hershey, Pennsylvania.

Poster Presentations at Conferences:

1. **Damuni, Z., & Cohen, P.** (1982) "Regulation of the Aminoacyl-tRNA Synthetase Complex of Rat Liver by Phosphorylation/Dephosphorylation in vitro and in vivo" Metabolic Interconversion of Enzymes Meeting, Madrid, Spain.
2. **Damuni, Z., Caudwell, F. B., & Cohen, P.** (1982) "Regulation of the Aminoacyl-tRNA Synthetase Complex of Rat Liver by Phosphorylation/ Dephosphorylation in vitro and in vivo" IUB Meeting, Sydney, Australia.
3. **Damuni, Z., Caudwell, F. B., & Cohen, P.** (1982) "Regulation of the Aminoacyl-tRNA Synthetase Complex of Rat Liver by Phosphorylation/ Dephosphorylation in vitro and in vivo" FEBS Meeting, Athens, Greece.
4. **Damuni, Z., Merrifield, M. L., & Reed, L. J.** (1984) "Purification and Properties of Branched-Chain -Keto Acid Dehydrogenase Phosphatase" ASBMB Meeting, Anaheim, California, Fed. Proc. 43, Abs. 1900.
5. **Reed, L. J. & Damuni, Z.** (1985) "Branched-Chain -Keto Acid Dehydrogenase Complex: Structure and Dephosphorylation" Metabolic Interconversion of Enzymes Meeting, Pitlochry, Scotland.

6. **Damuni, Z.** & Reed, L. J. (1987) "Purification and Characterization of a Divalent Cation-Independent Spermine-Stimulated Protein Phosphatase From Bovine Kidney Mitochondria" ASBMB Meeting, Philadelphia, Fed. Proc. 46, Abs. 893.
7. **Damuni, Z.** & Reed, L. J. (1987) "Purification and Properties of the Catalytic Subunit of Branched-Chain α -Keto Acid Dehydrogenase Phosphatase From Bovine Kidney Mitochondria" ASBMB Meeting, Philadelphia, Fed. Proc. 46, Abs. 892.
8. **Damuni, Z.**, Amick, G. D. & Sneed, T. R. (1989) "A Distinct Protamine Kinase From Bovine Kidney Cytosol" Joint ASBMB and ASCB Meeting, San Francisco, California, J. Cell. Biol. 107, Abs. 1569.
9. Amick, G. D., Tarun, S. Z. Jr., Reddy, S. A. G. & **Damuni, Z.** (1990) "Inactivation of Protamine Kinase by Protein Phosphatase 2A" ASBMB Meeting, New Orleans, Louisiana, FASEB J. 4, Abs. 2244.
10. Reddy, S. A. G., Amick, G. D. & **Damuni, Z.** (1990) "Insulin-Stimulated Protamine Kinase" ASBMB Meeting, New Orleans, Louisiana, FASEB J. 4, Abs. 2245.
11. Amick, G. D., Reddy, S. A. G. & **Damuni, Z.** (1992) "Protein Phosphatase 2A is a Specific Protamine Kinase Inactivating Phosphatase" ASBMB Meeting, Houston, Texas, FASEB J. 6, Abs. 225.
12. Reddy, S. A. G., Amick, G. D. & **Damuni, Z.** (1992) "Protamine Kinase Phosphorylates Ribosomal Protein S6" ASBMB Meeting, Houston, Texas, FASEB J. 6, Abs. 226.
13. Reddy, S. A. G., Guo, H. & **Damuni, Z.** (1992) "Purification and Properties of a New Autophosphorylation-Activated Protein Kinase" FASEB Meeting, Anaheim, California, FASEB J. 6, Abs. 4044.
14. Amick, G. D. & **Damuni, Z.** (1992) "Protamine Kinase Phosphorylates Initiation Factor 4E" FASEB Meeting, Anaheim, California, FASEB J. 6, Abs. 4042.
15. Amick, G. D., Reddy, S. A. G. & **Damuni, Z.** (1993) "Purification and Properties of a Protamine Kinase From Bovine Kidney Microsomes" South Carolina Statewide Biotechnology Conference, Charleston, South Carolina.
16. Guo, H. & **Damuni, Z.** (1993) "Regulation of Protein Phosphatase 2A by Reversible Phosphorylation" South Carolina Statewide Biotechnology Conference, Charleston, South Carolina.
17. Guo, H. & **Damuni, Z.** (1993) "Regulation of Protein Phosphatase 2A by Reversible Phosphorylation" ASBMB meeting, San Diego, California, FASEB J. 7, Abs. 600.
18. Guo, H. & **Damuni, Z.** (1993) "Regulation of Protein Phosphatase 2A by Reversible Phosphorylation" FASEB Summer Research Conference on Protein Kinases, Copper Mountain, Colorado.
19. Idriss, H., Kumar, H., **Damuni, Z.**, Guo, H. & Wilson, S. H. (1993) "Phosphorylation of the hnRNP A1 by Protein Kinase C Modulates its Strand Annealing Activity" ASCB meeting, New Orleans, Louisiana.
20. Idriss, H., Kawa, S., **Damuni, Z.**, Guo, H., Thompson, E. B. & Wilson, S. H. (1993) "Human Immunodeficiency Virus-1 Reverse Transcriptase Expressed in Baculovirus Infected Cells is a Phosphoprotein" ASCB meeting, New Orleans, Louisiana.
21. Guo, H. & **Damuni, Z.** (1994) "A Potent Heat-stable Protein Inhibitor of Protein Phosphatase 2A" ASBMB meeting, Washington, D. C.
22. Li, M., Guo, H. & **Damuni, Z.** (1994) "Two Potent Heat-stable Protein Inhibitors of Protein Phosphatase 2A" FASEB Summer Research Conference on Protein Phosphatases, Copper Mountain, Colorado.

23. **Damuni, Z.** (1996) "Regulation of Protein Phosphatase 2A by Phosphorylation and Heat-stable Inhibitor Proteins" EMBO meeting on Dephosphorylation, St. Moritz, Switzerland.
24. Li, M. & **Damuni, Z.** (1996) "Molecular Identification of I1PP2A and I2PP2A, Two Potent Heat-stable Inhibitor Proteins of Protein Phosphatase 2A" ASBMB meeting, New Orleans, Louisiana.
25. Al-Murrani, S. W. K. & **Damuni, Z.** (1997) "Expression of I2PP2A, A Specific Protein Inhibitor of Protein Phosphatase 2A, Enhances Nuclear Protein Phosphorylation and Induces AP-1 Activity" ASBMB meeting, San Francisco, California.