Curriculum Vitae

Ashok K. Srivastava

Addresses

Work: Laboratory of Cell Signaling, Montreal Diabetes Research Center, Research Center, Centre hospitalier de l'Université de Montréal (CRCHUM), Technopole Angus,
2901 East Rachel Street,
Montréal (Québec), H1W 4A4
Tel.: 5l4.890.8000 ext. 23604
Fax: 514.412.7648
ashok.srivastava@umontreal.ca

Citizenship

Canadian

Educational qualifications

1968 - B.Sc. Chemistry, Lucknow University, Lucknow, India. Majored in chemistry with botany and zoology.

1970 - M.Sc. Biochemistry, Lucknow University, Lucknow, India.

1974 - Ph.D. Biochemistry, Kanpur University, Kanpur, India. Thesis entitled "Chemical Changes and Enzyme Regulation during Seed Germination".

Professional Experience

2005-present:

Professor
Département de médecine, Université de Montréal
Montréal, Qc, Canada

1998-2005:

Associate Professor
Département de médecine, Université de Montréal
Montréal, Qc, Canada

1998-present:

Accredited Professor
Département de physiologie, Université de Montréal
Montréal, Qc, Canada

1998-present:

Head, Laboratory of Cell Signaling
Research Center, CRCHUM,
Montréal, Qc, Canada

1993-present:

Accredited Professor
Département de nutrition, Université de Montréal
Montréal, Qc, Canada

1992-1998:

Senior Investigator
Research Center, CHUM, Hôtel-Dieu
Montréal, Qc, Canada

1992 (August):

Visiting Scientist
Laboratory of Molecular Oncology (Dr. M. Sudol)
Rockefeller University, New York, NY, USA

1981-1992:

Senior Investigator
Clinical Research Institute of Montreal
Montréal, Qc, Canada

1977-1980:

Research Associate
Department of Physiology, Vanderbilt University School of Medicine
Nashville, TN 37232, USA

1974-1977:

Post-doctoral Fellow
Department of Biochemistry, University of Southern California, School of Medicine, Los Angeles, CA 90033, USA

1970-1974:

New Delhi Council of Scientific and Industrial Research Research Fellow,
Division of Biochemistry, Central Drug Research Institute, Lucknow, India.

Memberships in societies

American Society for Biochemistry and Molecular Biology
Canadian Society of Biochemistry, Molecular and Cellular Biology
International Society for Heart Research
Indian Academy of Neuroscience (Life Member)

Ad hoc reviewer

Funding Agencies

The Canada Council
Canadian Diabetes Association
Canadian Liver Foundation
Fonds de la recherche en santé du Québec
Heart and Stroke Foundation of Canada
Medical Research Council of Canada
Natural Science and Engineering Council of Canada
United States - Israel Binational Science Foundation
Veterans Affairs, USA
Research Grant Council, Government of Hong Kong

Journals

American Journal of Physiology
Archives of Biochemistry and Biophysics
Biochemica Biophysica Acta
Biochemistry and Cell Biology
Bioscience Reports
British Journal of Pharmacology
Canadian Journal of Physiology and Pharmacology
Clinical and Investigative Medicine
Diabetes
Diabetologia
European Journal of Biochemistry
Journal of Biological Inorganic Chemistry
Journal of Cell Biology
Journal of Cellular Biochemuistry
Molecular and Cellular Biochemistry
Experimental and Clinical Cardiology

Membership on peer-review committees of funding agencies

- Member of the Peer-Review Committee on Cardiovascular System - A of Canadian Institutes of Health Research (CIHR) 2007-2010

- Invited member of the Peer-Review Committee on Cardiovascular System - A of Canadian Institutes of Health Research (CIHR) 2006-2007

- Invited member, NIH Study Section on Vascular Cell and Molecular Biology, Bethesda, MD, USA (June 2004).

- Invited member of the Peer-Review Committee on Metabolism and Nutrition of CIHR (2000, 2003).

- Membre du Comité d'évaluation des demandes de bourses de formation FRSQ-FCAR (2000-2003).

- Member, Scientific Review Committee of Heart and Stroke Foundation of Canada (1999-2002).

Memberships on Editorial Boards

- Molecular and Cellular Biochemistry, (Associate Editor), Springer Publishers, New York (2009-2012)

- Advances in Biochemistry in Health and Disease, Springer Publishers, New York (2004-2010).

- Patents on Endocrine, Metabolic and Immune Drug Discovery, Bentham Publishers (2004-2010).

Other contributions

- Member, International Scientific Advisory Committee of the IX World Congress of the International Society of Adaptive Medicine, Taipei, Taiwan, 2009.

- Member, Scientific Committee of the V International Symposium on Myocardial Cytoprotection, Pecs, Hungary, 2006.

- Guest Co-Editor of 3 focused issues of Cell Biochemistry and Biophysics, on Recent Advances in Biomedical Sciences and Therapeutics, 2005-2007.

- Guest Co-Editor of a focused issue of Canadian Journal of Physiology and Pharmacology, Focused on Second Messengers and Phosphoproteins, 2006.

- Member, International Advisory Committee, International Conference Series on Second Messengers and Phosphoproteins, 2001-2007.

- Guest Editor: Forum issue of Antioxidants and Redox Signaling: Modulation of Insulin Action and Signaling, 2004-2005.

- Chairman, Organizing Committee of 12th International Conference on Second Messengers and Phosphoproteins, Montreal, August 2004.

- Visiting Professor, CIHR-CONICET Exchange Program, Universidad Nacional de LaPlata, Argentina, 2002

- Member, Scientific Program Committee, XVII World Congress of the International Society for Heart Research, Winnipeg, 2001.

- Member, Organizing Committee, European Association for the Study of Diabetes (EASD), Satellite Symposium on « The insulinomimetic effects of vanadium and other metal ions: Potential therapy for diabetes mellitus », Barcelona, Spain, September 14-15, 2000.

- Member, International Advisory Committee, International Conference on Frontiers in Pharmacology and Therapeutics in 21st Century, New Delhi, India, December 1-4, 1999.

- Guest Co-editor of a focused issue of Molecular and Cellular Biochemistry (volume 182, May 1998) entitled « Insulin action ».

- Organized and chaired workshop on "Metal Ions in Diabetes" during the 4th International Symposium on Metal Ions in Biology and Medicine, Barcelona, Spain, May 19-20, 1996.

- Guest Co-Editor of a Focussed issue of *Molecular and Cellular Biochemistry* (Volume 153, December 1995; entitled "Vanadium Compounds: Biochemical and Therapeutic Applications").

- Chaired the organizing committee for "Vanadium Symposium 1994", Montréal (Canada), July 29-31, 1994.

- Travelling fellow of the American Society of Pharmacology and Experimental Therapeutics, July 1990.

- Travelling fellow of the American Society of Biological Chemistry to attend the International Congress of Biochemistry and Molecular Biology, Prague, 1989.

Publications

Papers

1. **Srivastava, A.K.:** Chemical changes and enzyme regulation during seed germination. Ph.D. Thesis, Kanpur University, l974.

2. Azhar, S., **Srivastava, A.K.**, and Krishna Murti, C.R.: Compositional changes during the germination of cicer arietinum. Phytochem. ll: 3l73-3179, l972.

3. **Srivastava, A.K.**, Azhar, S., and Krishna Murti, C.R.: Inhibition of germination of cicer arietinum. Phytochem. ll: 3l8l-3185, l972.

4. **Srivastava, A.K.**, Azhar, S., and Krishna Murti, C.R.: Stimulation of RNA synthesis in cicer arietinum seedlings by cyclic 3'5'-adenosine monophosphate. FEBS Lett. 33: 239-240, l973.

5. **Srivastava, A.K.**, Azhar, S., and Krishna Murti, C.R.: Action of indolyl 3-acetic acid on the in vitro synthesis of trypotophan oxygenase by cicer arietinum seedlings. Indian J. Biochem. Biophys. l0: l9l-194, l973.

6. **Srivastava, A.K.**, Azhar, S., and Krishna Murti, C.R.: Activation of adenyl cyclase during early phase of germination. FEBS Lett. 47: 330-332, l974.

7. **Srivastava, A.K.**, Azhar, S., and Krishna Murti, C.R.: A possible role of cyclic 3'5'-adenosine monophosphate in the germination of cicer arietinum seeds. Phytochem. l4: 903-907, l975.

8. **Srivastava, A.K.**, Azhar, S., and Krishna Murti, C.R.: Tryptophan metabolism of cicer arietinum. Acta Vitaminol. Enzymol. 29: 275-277, l975.

9. **Srivastava, A.K.**, and Azhar, S.: Cyclic nucleotide phosphodiesterase in cicer arietinum seedlings. Curr. Sci. 35: 2l, l976.

10. **Srivastava, A.K.**, and Stellwagen, R.H.: Presence of the sites for interacting with cyclic AMP and with catalytic subunit on small fragments of protein kinase regulatory subunit. J. Biol. Chem. 252: l752-1755, l978.

11. **Srivastava, A.K.**, Waisman, D.M., Brostrom, C.O., and Soderling, T.R.: Stimulation of glycogen synthase phosphorylation by calcium-dependent regulator protein. J. Biol. Chem. 254: 583-586, l979.

12. Soderling, T.R., **Srivastava, A.K.**, Bass, M.A., and Khatra, B.S.: Phosphorylation and inactivation of glycogen synthase by phosphorylase kinase. Proc. Natl. Acad. Sci. USA 76: 2536-2540, l979.

13. **Srivastava, A.K.**, Khatra, B.S., and Soderling, T.R.: Calcium-dependent regulation of glycogen synthase activity in a muscle glycogen particle. Arch. Biochem. Biophys. 205: 29l-296, l980.

14. **Srivastava, A.K.**: Streptozotocin-induced diabetes decreases the cyclic AMP binding activity of the regulatory subunit of type l cAMP-dependent protein kinase from rat liver. Biochem. Biophys. Res. Commun. ll7: 794-802, l983.

15. Chiasson, J.-L., Germain, L., **Srivastava, A.K.**, and Dupuis, P.: Hormonal regulation of glucose transport in contracting skeletal muscle from normal and diabetic rats. Metabolism 33: 6l7-621, l984.

16. **Srivastava, A.K.**: Stimulation of tyrosine protein kinase activity by dimethyl sulfoxide. Biochem. Biophys. Res. Commun. 126: 1042-1047, 1985.

17. **Srivastava, A.K.**, and Anand-Srivastava, M.B.: Streptozotocin-induced diabetes and hormone sensitivity of adenylate cyclase in rat liver, myocardial sarcolemma and aorta. Biochem. Pharmacol. 34: 2013-2017, 1985.

18. **Srivastava, A.K.**: Inhibition of phosphorylase kinase and tyrosine protein kinase activities by quercetin. Biochem. Biophys. Res. Commun. 131: 1-5, 1985.

19. **Srivastava, A.K.**, and Chiasson, J.-L.: Studies on the phosphorylation of insulin receptor and its associated tyrosine protein kinase activity from rabbit skeletal muscle. Ann. N.Y. Acad. Sci. 463: 234-237, 1986.

20. Anand-Srivastava, M.B., **Srivastava, A.K.** and Cantin, M.: Pertussis toxin attenuates atrial natriuretic factor mediated inhibition of adenylate cyclase: involvement of inhibitory guanine nucleotide regulatory protein. J. Biol. Chem. 262: 4931-4934, 1987.

21. **Srivastava, A.K.**, Khandelwal, R.L., Chiasson, J.-L. and Haman, A.: Inhibitory effect of the regulatory subunit of type 1 cAMP-dependent protein kinase on phosphoprotein phosphatase. Biochem. Internat. 16: 303-310, 1988.

22. **Srivastava, A.K.** and Chiasson, J.-L.: Regulation of a rat lung protein tyrosine kinase activity by reversible phosphorylation/dephosphorylation. FEBS Lett. 238: 156-160, 1988.

23. **Srivastava, A.K.** and Chiasson, J.-L.: Comparative characterization of receptor non receptor associated protein tyrosine kinases. Biochim. Biophys. Acta 996: 13-18, 1989.

24. Anand-Srivastava, M.B. and **Srivastava, A.K.**: Modulation of adenylate cyclase by Ca2+, phospholipid-dependent protein kinase in rat brain striatum. Mol. Cell. Biochem. 92: 91-98, 1990.

25. **Srivastava, A.K.**: Non-receptor protein tyrosine kinases of normal tissues. Int. J. Biochem. 22: 1229-1234, 1990.

26. Chiasson, J.-L., Dupuis, P., **Srivastava, A.K.**: Anomalies de la régulation du métabolisme du glycogène musculaire dans le diabète sucré. Médecine Sciences 7: 368-374, 1991.

27. Coderre, L., **Srivastava, A.K.** and Chiasson, J.-L.: Glucocorticoids in the regulation of glycogen metabolism in skeletal muscle. Am. J. Physiol. 260: E927-932, 1991.

28. **Srivastava, A.K.**, Chiasson, J.-C., Chiasson, J.-L., Lacroix, A., and Windisch, L.: Biochemical characteristics of cytosolic and particulate forms of protein tyrosine kinases from N-methyl-nitrosourea (MNU)-induced rat mammary carcinoma. Mol. Cell. Biochem. 106: 87-97, 1991.

29. Coderre, L., **Srivastava, A.K.**, and Chiasson, J.L.: The effects of hypercorticism on the regulation of skeletal muscle glycogen metabolism by insulin. Am. J. Physiol. 262: E427-E433, 1992.

30. Coderre, L., **Srivastava, A.K.**, and Chiasson, J.L.: The effects of hypercorticism on the regulation of skeletal muscle glycogen metabolism by epinephrine. Am. J. Physiol. 262: E434-E439, 1992.

31. **Srivastava, A.K.**, Sékaly, R.P., and Chiasson, J.-L.: Pentosan polysulfate, a potent anti HIV and anti tumor agent, inhibits protein serine/threonine and tyrosine kinases. Mol. Cell Biochem. 120: 127-133, 1993.

32. D'Onofrio, F., Le, M.Q.U., Chiasson, J.-L., and **Srivastava, A.K.**: Activation of mitogen activated protein (MAP) kinases by vanadate is independent of insulin receptor autophosphorylation. FEBS Lett. 340: 269-275, 1994.

33. **Srivastava, A.K.**: Protein tyrosine kinase activity in vascular smooth muscle cells (VSMC) from rat aorta. Int. J. Biochem. 26: 547-550, 1994.

34. **Srivastava, A.K.**: Protein tyrosine phosphorylation in cardiovascular system. Mol. Cell Biochem. 149/150: 87-94, 1995.

35. **Srivastava, A.K.**: Potential use of vanadium compounds in the treatment of diabetes mellitus. Expert Opinion on Invetigational Drugs 4: 525-536, 1995.

36. Pandey, S.K., Chiasson, J.-L., and **Srivastava, A.K.**: Vanadium salts stimulate mitogen-activated protein (MAP) kinases and ribosomal S6 kinases. Mol. Cell. Biochem. 153: 69-78, 1995.

37. St-Louis, J., Sicotte, B., Breton, E., and **Srivastava, A.K.**: Contractile effects of vanadate on aorta rings from virgin and pregnant rats. Mol. Cell Biochem. 153: 145-150, 1995.

38. Turcotte, L.P., **Srivastava, A.K.**, Chiasson, J.-L.: Fasting increases plasma membrane fatty acid-binding protein ($FABP_{pm}$) in red skeletal muscle. Mol. Cell. Biochem. 166: 153-158, 1997.

39. **Srivastava, A.K.**, and St-Louis, J.: Smooth muscle contractility and protein tyrosine phosphorylation. Mol. Cell. Biochem. 176: 47-51, 1997.

40. Dionne, S., D'Agata, I.D., Ruemmele, F.M., Levy, E., St-Louis, J., **Srivastava, A.K.**, Lévesque, D., and Seidman, E.G.: Tyrosine kinase and MAPK inhibition of TNF-alpha and EGF-stimulated IEC-6 cell growth. Biochem. Biophys. Res. Commun. 242: 146-150, 1998.

41. Pandey, S.K., Anand-Srivastava, M.B., and **Srivastava, A.K.**: Vanadyl sulfate-stimulated glycogen synthesis is associated with activation of phosphatidylinositol 3-kinase (PI3-K) and is independent of insulin receptor tyrosine phosphorylation. Biochemistry 37: 7006-7014, 1998.

42. **Srivastava, A.K.**: Use of pharmacological agents in elucidating the mechanism of insulin action. Trends Pharmacol. Sci. 19: 205-209, 1998.

43. **Srivastava, A.K.**, and Pandey, S.K.: Potential mechanism(s) involved in the regulation of glycogen synthesis by insulin. Mol. Cell. Biochem. 182: 135-141, 1998.

44. Pandey, S.K., Théberge, J.-F., Bernier, M., and **Srivastava, A.K.** : Phosphatidylinositol 3-kinase requirement in ac tivation of the ras/C-raf-1/MEK/ERK and $p70^{s6k}$ signaling cascade by the insulinomimetic agent vanadyl sulfate. Biochemistry 38: 14667-14675, 1999.

45. Benzeroual, K., Pandey, S.K., **Srivastava, A.K.**, van de Werve, G., and Haddad, P.: Insulin-induced Ca^{2+} entry in hepatocytes is important for PI3-Kinase activation but not for insulin receptor and IRS-1 tyrosine phosphorylation. Biochim. Biophys. Acta 1495: 14-23, 2000.

46. **Srivastava, A.K.**: Antidiabetic and toxic effects of vanadium compounds. Mol. Cell. Biochem. 206: 177-182, 2000.

47. **Srivastava, A.K.**: Hyperglycemia-induced protein kinase signaling pathways in vascular smooth muscle cells: implications in the pathogenesis of vascular dysfunction in diabetes. Adv. Exp. Med. Biol. 498: 311-318, 2001.

48. Tardif, A., Julien, N., Pelletier, A., Thibault, G., **Srivastava, A.K.**, Chiasson, J.-L., and Coderre, L.: Chronic exposure to β-hydroxybutyrate impairs insulin action in primary cultures of adult cardiomyocytes. Am. J. Physiol. Endocrinol. Metab. 281: E1205-E1212, 2001.

49. **Srivastava, A.K.**: High-glucose-induced activation of protein kinase signaling pathway in vascular smooth muscle cells: A potential role in the pathogenesis of vascular dysfunciton in diabetes. Intl. J. Mol. Medicine 9: 85-89, 2002.

50. Blanc, A., Pandey, N.R., and **Srivastava, A.K.**: Synchronous activation of ERK 1/2, p38mapk and PKB/Akt signaling by H2O2 in vascular smooth muscle cells: potential involvement in vascular disease. Intl. J. Mol. Medicine 11: 229-234, 2003.

51. Théberge, J.-F., Mehdi, M.Z., Pandey, S.K., and **Srivastava, A.K.**: Prolongation of insulin-induced activation of mitogen-activated protein kinases ERK 1/2 and phosphatidylinositol 3-kinase by vanadyl sulfate, a protein tyrosine phosphatase inhibitor. Arch. Biochem. Biophys. 420: 9-17, 2003.

52. Blanc, A., Pandey, N.R., and **Srivastava, A.K.**: Distinct Roles of Ca^{2+}, calmodulin and protein kinase C in H_2O_2 - induced activation of ERK 1/2, p^{38}MAPK and protein kinase B in vascular smooth muscle cells. Antioxidants and Redox Signaling 6: 353-366, 2004.

53. Bou Dao, G., and **Srivastava, A.K.**: Reactive oxygen species mediate of endothelin-induced activation of PYK-2, ERK 1/2, PKB/Akt and protein synthesis in vascular smooth muscle cells. Free Radical Biology and Medicine 37: 208-215, 2004.

54. Coderre, L., and **Srivastava, A.K.**: Vanadium and the cardiovascular system. Can. J. Physiol. Pharmacol. 82: 833-839, 2004.

55. **Srivastava, A.K.**, Mehdi, M.Z.: Insulino-mimetic and antidiabetic effects of vanadium compounds. Diabetic Med. 22: 2-13, 2005.

56. Mehdi, M.Z., Pandey, N.R., Pandey, S.K., and **Srivastava, A.K.**: H_2O_2-induced phosphorylation of ERK 1/2 and PKB requires tyrosine kinase activity of insulin receptor and c-Src. Antioxidant and Redox Signaling 7: 1014-1020, 2005.

57. **Srivastava, A.K.**: Redox regulation of insulin action and signaling. Antioxidant and Redox Signaling 7: 1011-1013, 2005.

58. Mehdi, M.Z., and **Srivastava, A.K.**: Organo-0vanadium compounds are potent activators of protein kinase B signaling pathway of protein tyrosine phosphorylation: Mechanism of insulinimimesis. Arch. Biochem. Biophys. 440: 158-164, 2005.

59. Mehdi, M.Z., Pandey, S.K., Théberge, J.-F., and **Srivastava, A.K**.: Insulin signal mimicry as a mechanism for insulin-like effects of vanadium. Cell Biochem. Biophys. 44 : 73-82, 2006

60. Azar, Z.M., Mehdi, M. Z. and **Srivastava, A. K**.: Activation of insulin-like growth factor type-1 receptor is required for H2O2- induced PKB phosphorylation in vascular smooth cells. Can. J. Physiol. Pharmacol. 84 :777-786, 2006

61. Mehdi, M.Z., Vardatsikos, G., Pandey, S.K. and **Srivastava, A.K.**: Involvement of insulin –like growth factor receptor and protein kinase C -delta in Bis(maltolato)-oxovanadium (IV) –induced phosphorylation of PKB in HepG2 cells. Biochemistry 45: 11605-11615, 2006

62. Mehdi, M. Z., Azar, Z.M**.** and **Srivastava , A. K**.: Role of receptor and non-receptor PTKs in H2O2- induced ERK ½ and PKB signaling. Cell Biochem. and Biophys. 47: 1-10, 2007

63. Bouallague, A., Bou Daou, G. and **Srivastava, A. K**.: Endothelin-1- induced signaling pathways in vascular smooth muscle cells. Curr. Vascular Pharmacol. 5: 45-52, 2007

64. Azar, Z.M., Mehdi, M. Z. and **Srivastava, A. K**.: Insulin-like growth factor type-1 receptor transactivation in vasoactive peptide and redox signaling pathways in vascular smooth cells. Can. J. Physiol. Pharmacol., 85: 105-111, 2007

65. Bouallague, A., Bou Daou, G., and **Srivastava, A.K.**: NO attenuates endothelin-1 -induced activation of ERK 1/2 and PKB signaling in vascular smooth muscle cells. American Journal of Physiology, Heart Circ. Physiol. 293: H2072-2079,2007

66. Ekladous, D., Mehdi, M.Z., Costa, M., **Srivastava, A.K.,** Chiasson, J.-L.and Coderre, L: Tissue and fibre –specific modification of insulin signaling molecules in cardiac and skeletal muscle of diabetic rats. Clinical and Exptl. Pharmacol. Physiol. 35 : 971-988, 2008.

67. Vardatsikos, G., Sahu, A., and **Srivastava, A.K.**: The Insulin –like growth factor family: Molecular mechanism,redox regulation and clinical implications. Antioxidant and Redox Signaling 11: 1165-1190,2009

68. Vardatsikos, G., Mehdi, M.Z., and **Srivastava, A.K.**: Bis(maltolato)-oxovanadium (IV) –induced phosphorylation of AKT and FOXO-1 contributes to its glucoregulatory responses. Int. J Mol Med. (In Press, 2009).

69. Vardatsikos, G., Mehdi, M.Z., and **Srivastava, A.K.**: Role of PKB/Akt signaling in the insulinomimetic effects of Organo-Vanadium Compounds. J Arg. Chem. Soc., (In Press,2009)

70. Bouallague, A., Vardatsikos, G., and **Srivastava, A.K**.: Role of the insulin-like growth factor-1 receptor and c-Src in endothelin-1 and angiotensin II-induced PKB phosphorylation as well as hypertrophic and proliferative responses in vascular smooth muscle cells. Can. J. Physiol.Pharmacol.(In Press, 2009)

71. Bouallague, A., Pandey, N.R. and **Srivastava, A.K.**: CaMKII-Knockdown Attenuates H_2O_2-Induced Phosphorylation of ERK1/2, PKB/Akt and IGF-1R In Vascular Smooth muscle cells (Under review)

72. Pandey, N.R., Vardatsikos, G., Mehdi, M.Z. and **Srivastava, A.K.**: Cell-type Specific Roles of IGF-1R and EGFR in Mediating Zn^{2+}-Induced ERK 1/2 and PKB Phosphorylation. (Manuscript under preparation).

Book chapters

1. **Srivastava, A.K.** and Chiasson, J.-L.: Effect of quercetin on serine/threonine and tyrosine protein kinases. *In*: Plant Flavonoids in Biology and Medicine: Biochemical, Pharmacological and Structure-Activity Relationships. Progress in Clinical and Biological Research. (Eds) Cody, V., Middleton, E. Jr., Harbone, J.B., Alan R. Liss, Inc., New York. 213: 315-318, 1986.

2. **Srivastava, A.K.**, Khandelwal, R.L., Chiasson, J.-L. and Haman, A.: Inhibitory effect of the regulatory subunit of type I cAMP-dependent protein kinase on phosphoprotein phosphatase. *In*: ICSU, Short reports 6 Contemporary Themes in Biochemistry, O.L. Koin, M.C.-M. Chung, P.L.H. Hwang, S.-F. Leong, K.H. Loke, P. Thiyagarajah and P.T.-H. Wong (Eds.), ICSU Press, pp. 62-63, 1986.

3. **Srivastava, A.K.**, Chiasson, J.-L., and Pandey, S.K.: Mechanism of insulin-like actions of vanadium compounds. *In*: Metal Ions in Biology and Medicine 4: 328-330, 1996, edited by P. Collery, J. Corbella, J.L. Domingo, J.C. Etienne, J.M. Llobet, John Libbey Eurotext, Paris.France

4. Chiasson, J.-L., **Srivastava, A.K.**: Effets insulinomimétiques du vanadium et autres ions métalliques. Utilisation potentielle dans le traitement du diabète. *In*: Journées annuelles de diabétologie de l'Hôtel-Dieu 1999, J.L. Selam, Éditeur. Médecine-Sciences Flammarian, Paris, France 1-261, 1999.

5. **Srivastava, A.K.**, and Pandey, S.K.: Stimulation of mitogen-activated protein kinases ERK 1 and ERK 2 by H_2O_2 in vascular smooth muscle cells. *In*: The Hypertrophied Heart, Takeda, N., Nagano, M., and Dhalla, N.S. (eds.). Kluwer Academic Publishers, Boston, USA pp. 197-206, 2000.

6. Théberge, J.-F., Pandey, S.K., and **Srivastava, A.K.**: The protein tyrosine phosphatase inhibitor vanadyl sulfate prolongs insulin-induced activation of mitogen-activated protein kinases ERK 1 and ERK 2 as well as phosphatidylinositol 3-kinase. *In*: Pharmacology and Therapeutics in the New Millenium, Gupta, S.K., Ed., Narosa Publishing House, 2001, New Delhi, India, pp. 726-738, 2000.

7. **Srivastava, A.K.**: Hyperglycemia-induced protein kinase signaling pathways in vascular smooth muscle cells: Implications in the pathogenesis of vascular dysfunction in diabetes. *In*: Diabetes and Cardiovascular Disease: Proceedings of an international conference. Angel, A., Singal, P.K., Pierce, G., and Dhalla, N.S., Eds., Kluwer Academic Plenum Publishers, , Boston, USA ,pp. 311-318, 2001.

8. **Srivastava, A.K.**, Pandey, N.R., and Blanc, A.: Activation of mitogen-activated protein kinases and protein kinase B/Akt signaling by oxidative stress in vascular smooth muscle cells: involvement in vascular pathophysiology. *In*: Pathophysiology of Cardiovascular Disease, Dhalla, N.-S., Rupp, H., Angel, A. and Pierce G.N. Eds., Kluwer Academic Publications, Boston, USA pp. 405-416, 2004.

9. **Srivastava, A.K.**: Insulino-mimetic actions of vanadium compounds in cardiovascular system. *In*: Antioxidants and Cardiovascular Disease, Nath, N., Khullar, M., and Singal, P.K., Eds., Narosa Publishing House., New Delhi, India, pp. 203-210, 2004 .

10. Mehdi, M.Z., and **Srivastava, A.K.**: Cell-specific effects of diphenyleneiodonium (DPI) on insulin–induced signaling events. *In*: Second Messenger and Phosphoprotein Signaling: Proceedings of the 12th International Conference on Second Messengers and Phosphoproteins. Anand-Srivastava,M.B.,Tremblay, M. and Srivastava, A.K., Eds., Monduzzi Editor, Medimond International Proceedings Division, Bologna, Italy , pp. 143-148 , 2004.

11. Chiasson, J.-L, Rabasa-Lhoret, R., and **Srivastava, A. K.**.: Oxidative stress in the development of diabetes and its complications. In: Antioxidants and Cardiovascular Disease, Tardif, J.C. and Bourassa, M.G., Eds. Springer, New York,pp 380-391 , 2006.

12. Azar, Z.M., Mehdi, M. Z. and **Srivastava, A. K**: Tyrosine kinases as upstream regulators of H_2O_2 – induced signaling. In: Adaptation Biology and Medicine: Health Potentials. Lukyanova, L., Takeda, N. and Singal, P.K.Eds. Narosa Publishers, New Delhi, India, 5:1-16,2008

13. Bouallague, A. and **Srivastava, A. K**.: Role of growth factor receptor transactivation in vasoactive -peptide -induced signaling in vascular smooth muscle cells. In: Advances in Biochemistry in Health and Disease, Signal transduction in Cardiovascular system in Health and disease. Anand-Srivastava, M.B. and Srivastava, A. K. Eds. Springer Publishers, New York, USA, pp177-192 (2008).

14. Anand-Srivastava, M.B. and **Srivastava, A.K**., Role of Hyperglycemia and Redox – induced Signaling in Vascular Complications of Diabetes, In: Advances in Biochemistry in Health and Disease, Signal transduction in Cardiovascular system in Health and disease. Anand-Srivastava, M.B. and Srivastava, A. K. Eds. Springer Publishers, New York, USA, pp 211-228 (2008).

Books

1. **Srivastava, A.K.**, and Chiasson, J.-L.: Vanadium Compounds: Biochemical and therapeutic applications. Kluwer Academic Publishers, Dordrecht, The Netherlands, pp. 1-244, 1995. (A focussed issue of Molecular and Cellular Biochemistry, Volume 153: Nos 1 and 2, 1995).

2. **Srivastava, A.K.**, and Posner, B.I.: Insulin Action, Kluwer Academic Publishers, Dordrecht, The Netherlands, pp. 1-194, 1998

3. Anand-Srivastava, M.B., Tremblay, M., and **Srivastava, A.K.** Second Messengers and Phosphoprotein Signaling, Monduzzi Editore, Medimond International Proceedings Division, Bologna, Italy, pp.1-243, 2004.

4. Anand-Srivastava, M.B. and **Srivastava, A. K.** Advances in Biochemistry in Health and Disease: Signal transduction in Cardiovascular System in Health and Disease. Springer Publishers, New York, USA, pp.1-424, 2008.

Abstracts

1. **Srivastava, A.K.**, Azhar, S., and Krishna Murti, C.R.: Indolyl 3-acetic acid and cyclic 3'5'-adenosine monophosphate mediated synthesis of RNA and protein in cicer arietinum seedling. Proc. Soc. Biol. Chem (India) 31: 106, 1972.

2. **Srivastava, A.K.**, and Azhar, S.: Adenyl cyclase and phosphoprotein kinase activities in germinating seeds of *cicer* arietinum. Proc. Soc. Biol. Chem. India, 32: 1973.

3. **Srivastava, A.K.**, Azhar, S., and Krishna Murti, C.R.: Tryptophan metabolism in cicer arietinum. Paper presented at the lst International Meeting on Tryptophan Metabolism at Padova (Italy) l May 2-4, 1974.

4. **Srivastava, A.K.**: Cyclic AMP as a second messenger in cicer arietinum. Proc. Soc. Biol. Chem. (India) 33: 22, 1974.

5. **Srivastava, A.K.**, Azhar, S., and Krishna Murti, C.R.: Stimulation of protein phosphorylation by cyclic 3'5'-adenosine monophosphate in cicer arietinum seedlings. Paper presented at the Second International Conference on Cyclic AMP, held at Vancouver, British Columbia, Canada. July 8-ll, l974.

6. Sharma, C., Govil, P., **Srivastava, A.K.**, Katiyar, J.C., and Saxena, K.C.: Studies on acetylcholinesterase in nippostrongylus brasiliensis adult worm. Proc. Soc. Biol. Chem. (India) 33: l3, l974.

7. Saxena, K.C., Sharma, C., Govil, P., **Srivastava, A.K.**, and Katiyar, J.C.: Neutralizing antibodies to acetylcholinesterase and their possible role in protective immunity. Paper presented at the Meeting of Society of Immunologists (India) December 1974.

8. **Srivastava, A.K.**, and Stellwagen, R.H.: Purification and some properties of cyclic AMP binding proteins from rat liver and hepatoma tissue culture cells. Fed. Proc. 35: 1713, l976.

9. **Srivastava, A.K.**, and Stellwagen, R.H.: Presence of the site for binding cyclic AMP and interacting with catalytic subunits on protein fragments of small molecular weight. Ad. Cyclic Nucl. Res. 9: 751, 1978.

10. Soderling, T.R., and **Srivastava, A.K.**: Phosphorylation and inactivation of glycogen synthase by Ca^{2+}. CDR-dependent kinase. Fed. Proc. 38: 788, l979.

11. Khatra, B.S., **Srivastava, A.K.**, and Soderling, T.R.: Specificity of glycogen synthase phosphatase. Fed. Proc. 39: l930, l980.

12. **Srivastava, A.K.**, Trudel, D., Chiasson, J.-L., Nolin, M.F., Cantin, M., and Anand-Srivastava, M.B.: Effect of some agonists on adenylate cyclase activity of liver, heart, brain and skeletal muscle from normal and diabetic rats. Fed. Proc. 42: 901, 1983.

13. Chiasson, J.-L., Germain, L., **Srivastava, A.K.**, and Dupuis, P.: Glycogen versus circulating glucose as energy-substrate for exercising skeletal muscle from normal and diabetic rats. Fed. Proc. 42: 733, 1983.

14. **Srivastava, A.K.**, and Trudel, D.: Characterization of cyclic AMP dependent protein kinase regulatory subunits from rabbit liver. Adv. Cyclic Nucl. Res. 15A: 147, 1983.

15. **Srivastava, A.K.**, and Anand-Srivastava, M.B.: Altered hormone sensitivity of adenylate cyclase in myocardial sarcolemma and aorta from streptozotocin diabetic rats. The Pharmacologist 25: 141, 1983.

16. **Srivastava, A.K.**: cAMP-dependent protein kinase and cAMP binding activities of diabetic rat liver. J. Cellular Biochem. Suppl. 8A: 289, 1984.

17. **Srivastava, A.K.**: cAMP binding activities in control and diabetic rat livers. Fed. Proc. 43: 964, 1984.

18. **Srivastava, A.K.**: Cyclic AMP dependent protein kinase regulatory subunits in subcellular fractions from rabbit liver. The Pharmacologist 26: l96, 1984.

19. **Srivastava, A.K.**: Stimulation of rat lung tyrosine protein kinase activity by dimethyl sulfoxide. Fed. Proc. 44: 1423, 1985.

20. **Srivastava, A.K.**: Differential effects of quercetin on phosphorylase kinase, C-kinase and tyrosine protein kinase activity. The Pharmacologist 27: 185, 1985.

21. **Srivastava, A.K.** and Kapoor, C.L.: Predominance of the regulatory subunit of type II cAMP-dependent protein kinase in particulate fractions of several rabbit tissues. Fed. Proc. 45: 1864, 1986.

22. **Srivastava, A.K.**, Khandelwal, R.L., Chiasson, J.-L. and Haman, A.: Inhibitory effect of the regulatory subunit of type I cAMP-dependent protein kinase on phosphoprotein phosphatase. Presented at the 4th Congress of Fed. of Asian and Oceanian Biochemists, November 30 - December 5, 1986, Singapore.

23. Coderre, L., **Srivastava, A.K.** and Chiasson, J.-L.: Le rôle des glucocorticoïdes dans la régulation du métabolisme du glycogène dans le muscle squelettique au repos et à l'exercice. Diabète & Métabolisme 1987.

24. Coderre, L., **Srivastava, A.K.** and Chiasson, J.-L.: Les glucocorticoïdes et le métabolisme du glycogène musculaire. Journée de la recherche, Hôtel-Dieu de Montréal, Montréal, Qc, May 1987.

25. Anand-Srivastava, M.B. and **Srivastava, A.K.**: Protein kinase C modulates adenylate cyclase activity in rat brain striatum: possible involvement of Gi-guanine regulatory protein. Adv. Cyclic Nucleotide and Protein Phosphorylation Research 21A: abstract no. 77, 1988.

26. **Srivastava, A.K.**: Comparative characterization of receptor and non-receptor associated protein tyrosine kinases. Adv. Cyclic Nucleotide and Protein Phosphorylation Research 21A: abstract no. 286, 1988.

27. **Srivastava, A.K.** and Chiasson, J.-L.: Regulation of a rat lung protein tyrosine kinase activity by reversible phosphorylation/dephosphorylation. FASEB J. 2A: 1758, abstract no. 8493, 1988.

28. Chiasson, J.-L., Coderre, L. and **Srivastava, A.K.**: The role of glucocorticoides in the regulation of glycogen metabolism in skeletal muscle. Diabetes 37: (suppl. A): abstract no. 294, 1988.

29. **Srivastava, A.K.**, Lacroix, A., Chiasson, J.-L. and Windisch, L.: Characterization of a protein tyrosine kinase activity in the methyl-nitrosourea (MNU)-induced rat mammary carcinoma. FASEB J. 3: A1290, abstract 6183, 1989.

30. Coderre, L., **Srivastava, A.K.** and Chiasson, J.-L.: Hypercorticism and skeletal muscle glycogen metabolism. Diabetes 38: (suppl. 2) 216A, 1989.

31. Coderre, L., **Srivastava, A.K.** et Chiasson, J.-L.: L'hypercorticisme et le métabolisme du glycogène dans le muscle squelettique. Diabète & Métabolisme 15: X, 1989.

32. **Srivastava, A.K.**, Lacroix, A., Chiasson, J-L. and Windisch, L.: Regulatory properties of a protein tyrosine kinase (PTK) from rat mammary carcinoma. The Pharmacologist 31: (3) 149, abstract 175, 1989.

33. **Srivastava, A.K.**, Chiasson, J.-C., Chiasson, J.-L., Lacroix, A., and Windisch, L.: Methyl-Nitrosourea (MNU)-induced rat mammary carcinoma expresses both particulate and cytosolic forms of protein tyrosine kinases. Eur. J. Pharmacol. 183 (IUPHAR Congress Supplement) 1519, 1990.

34. Coderre, L., **Srivastava, A.K.**, Chiasson, J.-L.: L'effet de l'hypercorticisme sur la régulation du métabolisme du glycogène musculaire par l'adrénaline. Diabète & Métabolisme 16: VI, 1990.

35. Chiasson, J.-L., Coderre, L., and **Srivastava, A.K.**: Effects of hypercorticism on the regulation of skeletal muscle glycogen metabolism by epinephrine. European Association for the Study of Diabetes 26th Annual Meeting, Copenhagen, Denmark, September 1990.

36. Doiron, B., **Srivastava, A.K.**, Chiasson, J.-L.: Entraînement physique et sécrétion de l'insuline: rôle de la protéine kinase A. Diabète & Métabolisme 17: XXXI, 1991.

37. **Srivastava, A.K.**, Chiasson, J.-L., Lacroix, A. and Windisch, L.: Biochemical characteristics of cytosolic and particulate forms of protein tyrosine kinases from methyl nitroso urea-induced rat mammary carcinoma. FASEB J. 5: A427, 1991.

38. Chiasson, J.-C., Sekaly, R.-P., Chiasson, J.-L., **Srivastava, A.K.**: Inhibitory effect of pentosan polysulfate - A potent anti HIV and anti tumor agent on protein serine/threonine and tyrosine kinases. FASEB J. 6: A1851, 1992.

39. ***Srivastava,* A.K.**, Chiasson, J.-C., Sekaly, R.-P. and Chiasson, J.-L.: Pentosan polysulfate, a potent anti HIV and tumor growth agent, inhibits protein serine/threonine and tyrosine kinases. Clin. Pharmacol. Exptl. Therapeut. 51: 144, 1992.

40. **Srivastava, A.K.**: Presence of protein tyrosine kinase activity in cultured vascular smooth muscle cells (VSMC) from rat aorta. Am. J. Hypertens. 5: 44A, 1992.

41. Turcotte, L., Richter, E.A., **Srivastava, A.K**., and Chiasson, J.-L.: First evidence for the existence of a fatty acid binding protein in plasma membrane of skeletal muscle. Diabetes 41: 172A, 1992.

42. Turcotte, L.P., Richter, E.A., **Srivastava, A.K.**, and Chiasson, J.-L.: Palmitate uptake in perfused skeletal muscle is a saturable function of the unbound concentration and may be mediated by a sarcolemmal binding protein. Clin. Invest. Med. (Suppl. A): 29, 1992.

43. D'Onofrio, F., Chiasson, J.-L., **Srivastava, A.K.**: Phosphorylation sur la tyrosine de protéines endogènes par l'insuline et les agents insulinomimétiques en l'absence d'activité tyrosine kinase du récepteur de l'insuline. Réunion annuelle de l'Association du diabète du Québec, Montréal, le 13 novembre 1992.

44. D'Onofrio, F., Chiasson, J.-L., and **Srivastava, A.K.**: Insulin-dependent activation of myelin basic protein (MBP) kinase activity in Chinese hamster ovary (CHO) cells over expressing a protein tyrosine kinase (PTK) deficient insulin receptor. FASEB J. 7: A376, 1993.

45. Doiron, B., **Srivastava, A.K.**, et Chiasson, J.-L.: Le rôle de la protéine kinase C dans l'adaptation des cellules bêta à l'entraînement physique. Diabète & Métabolisme 19: II, 1993.

46. Doiron, B., **Srivastava, A.K.**, and Chiasson, J.-L.: The role of protein kinase C in the adaptation of the β-cells to physical training. Diabetes 42 (Suppl. 1): 230A, 1993.

47. D'Onofrio, F., Le, M.Q., Chiasson, J-L., and **Srivastava, A.K.**: Vanadate dependent activation of mitogen activated protein (MAP) kinase in chinese hamster ovary cells overexpressing a wild type human insulin receptor (CHO-HIRc). The Pharmmacologist 35: 109 (abstract 242) 1993.

48. **Srivastava, A.K.**: Activation of serine/threonine kinases by vanadium compounds. Can. J. Physiol. Pharmacol. 73 (Suppl. 3): 4, 1994.

49. St-Louis, J., Sicotte, B., Breton, E., and **Srivastava, A.K.**: Contractile effects of vanadate on aorta rings from virgin and pregnant rats. Can. J. Physiol. Pharmacol. 72 (Suppl. 3): 17, 1994.

50. D'Onofrio, F., Chiasson, J.-L., and **Srivastava, A.K.**: Hydrogen peroxide and pervanadate-induced tyrosyl phosphorylation and activation of mitogen activated protein (MAP) kinases. Can. J. Physiol. Pharmacol. 72 (Suppl. 3): 14, 1994.

51. St.Louis, J., Sicotte, B., Breton, E., and **Srivastava, A.K.**: Vanadate-induced smooth muscle contraction and protein tyrosine phosphorylation is impaired in pregnancy. J. Mol. Cell. Cardiol. 27: A104, 1995.

52. D'Onofrio, F., Pandey, S., Chiasson, J.-L., **Srivastava, A.K**. Le peroxide d'hydrogène et l'orthovanadate de soude induisent un ephosphorylation tyrosyl et une activation des MAP ("Mitogen activated protein") kinases. Diabete & Metabolisme 21: XII (abstract 39), 1995.

53. **Srivastava, A.K.**, D'Onofrio, F., Chiasson, J.-L., and Pandey, S.K.: Mechanism of insulinomimesis by vanadium compounds. World Congress of International Society of Adaptive Medicine, Chandigarh, India (December 9-12, 1995).

54. Pandey, S.K., Chiasson, J.-L., Anand-Srivastava, M.B., and **Srivastava, A.K.**: Insulinomimetic agent, vanadyl sulfate (VS)-stimulated phosphatidylinositol 3-kinase (PI 3-K) and RAS/MAP kinase activation in independent of insulin receptor (IR) tyrosyl phosphorylation and is blocked by Wortmannin. FASEB J. 10: A420 (abstract 2428), 1996.

55. Pandey, S.K., Chiasson, J.-L., Anand-Srivastava, M.B., and **Srivastava, A.K.**: Insulinomimetic agent, vanadyl sulfate (VS)-stimulated phosphatidylinositol 3-kinase (PI 3-K) and RAS/MAP kinase activation in independent of insulin receptor (IR) tyrosyl phosphorylation and is blocked by Wortmannin. Exptl. Clin. Endocrinol. Diabetes 104 (Suppl. 2): 141, 1996.

56. Pandey, S.K., Anand-Srivastava, M.B., and **Srivastava, A.K.**: Vanadyl sulfate (VS)-induced glycogen synthesis in Chinese hamster ovarya cells overexpressing human insulin receptor (CHO-HIR cells) is blocked by Wortmannin and LY294002, inhibitors of phosphatidyl inositol 3-kinase (PI3-K). Fifth Chemical Congress of North America, Mexico, November 11-15, 1997.

57. Pandey, S.K., Anand-Srivastava, M.B., and **Srivastava, A.K.:** Implication of phosphatidylinositol 3-kinase (PI3-K) for vanadyl sulfate (VS)-induced glycogen synthesis. *Can. J. Diabetes Care* 21: 39, 1997.

58. Pandey, S.K., and **Srivastava, A.K.**: Rôle de la voie phosphatidylinositol 3-kinase (PI3-K) dans la synthèse du glycogène stimulée par le sulfate de vanadyl (VS). Médecine/Sciences 13 (Suppl 2): 52, 1997.

59. Pandey, S.K., Anand-Srivastava, M.B., and **Srivastava, A.K.**: Requirement of Wortmannin and LY294002 inhibitable phosphatidylinositol 3-kinase (PI3-K) for vanadyl sulfate (VS)-induced glycogen synthesis. FASEB J. 11: A1056 (abstract #1166), 1997.

60. Benzeroual, K., Pandey, S.K., and **Srivastava, A.K.**, Van de Werve, G., and Haddad, P.: Implication of calcium in the stimulation of phosphatidylinositol 3-kinase by insulin in isolated rat hepatocytes. *Hepatology* 26: 481A, 1997.

61. Benzeroual, K., Pandey, S.K., and **Srivastava, A.K.**, Van de Werve, G., and Haddad, P.: Insulin-induced calcium entry into hepatocytes is important for PI3-kinase stimulation but not IRS-1 phosphorylation. Can. J. Gastroenterol. 12 (Suppl. A): 83A (abstract #S31), 1997.

62. Pandey, S.K., and **Srivastava, A.K.**: H_2O_2-induced activation of mitogen-activated protein kinases (MAPKs) in vascular smooth muscle cells. J. Mol. Cell. Cardiol. 30 (9): 11 (abstract #A289), 1998.

63. Théberge, J.-F., Pandey, S.K., and **Srivastava, A.K.**: Enhancement of insulin action by protein tyrosine phosphatase inhibition. 10th International Conference on Second Messengers and Phosphoproteins in Jerusalem, November 8-13, 1998.

64. Théberge, J.-F., Pandey, S.K., and **Srivastava, A.K.**: Prolongation of inslin action by vanadyl sulfate and inhibitor of protein tyrosine phosphatase. Presented at the 100th Anniversary Symposium of the Joslin Diabetes Center on Diabetes Mellitus: From patients to genes and back. Boston, October 1998.

65. Théberge, J.-F., Pandey, S.K., and **Srivastava, A.K.**: Enhancement of insulin action by protein tyrosine phosphatase inhibition. 10th International Conference on Second Messengers and Phosphoproteins in Jerusalem, November 8-13, 1998.

66. **Srivastava, A.K.**: A possible role of oxidative stress-induced activation of phosphatidylinositol 3-kinase and mitogen-activated protein kinases (MAPK) in vascular dysfunction in diabetes. Presented at the International Conference on Diabetes and Cardiovascular Disease. June 3-6, 1999, Winnipeg, Canada.

67. Théberge, J.-F., Pandey, S.K., and **Srivastava, A.K.**: Le peroxyde d'hydrogène, un agent insulinomimétique, stimule la cascade de signalisation de l'insuline. 41e Réunion Annuelle du Club de recherches cliniques du Québec. *Médecine/Sciences*, Novembre 1999.

68. **Srivastava, A.K.**: Role of phosphatidylinositol 3-kinase (PI3-K) in oxidative stress mediated activation of mitogen-activated protein kinases, ERK 1/2 in vascular smooth muscle cells (VSMC). Presented at the International Symposium on Emerging Trends in Cardiovascular Pharmacology at the National Institute of Pharmaceutical Education and Research. November 29-30, 1999, Mohali, India.

69. **Srivastava, A.K.**: Augmentation of insulin signaling by protein tyrosine phosphatase inhibition. Presented at the International Congress on Frontiers in Pharmacology and Therapeutics in 21st Century. December 1-4, 1999, New Delhi, India.

70. Pandey, S.K., Blanc, A., and **Srivastava, A.K.**: A phosphatidylinositol 3-kinase-dependent pathway regulates H_2O_2-stimulated activation of mitogen activated protein kinases ERK 1 and ERK 2 in vascular smooth muscle cells. Presented at Annual Meeting of the American Societies for Biochemistry and Molecular Biology. June 4-8, 2000, Boston, MA.

71. **Srivastava, A.K.**, Théberge, J.-F., Bernier, M., and Pandey, S.K.: Vanadium and insulinomimesis. A possible role of phosphatidylinositol 3-kinase (PI3-K). Presented at the Conference on Metals and Medicine: Targets, Diagnotics and Therapeutics, NIH. June 28-29, 2000, Bethesda, MD.

72. Pandey, S.K., Blanc, A., and **Srivastava, A.K.**: Role of extracellular signal regulated kinases 1 and 2 (ERK 1/2) and phosphatidylinositol 3-kinase in vascular smooth muscle cell adaptation to oxidative stress. Presented at the 6th World Congress of the International Society of Adaptive Medicine. August 30-September 2, 2000, Lyon, France.

73. **Srivastava, A.K.**: Oxidant-induced signaling in vascular smooth muscle cells. Implications in cardiovascular dysfunction. Presented at the International Society for Heart Research (ISHR), Conference of Indian Section, Patiala, India, January 25, 2001.

74. **Srivastava, A.K.** and Théberge, J.-F.: Modulation of insulin signaling by protein tyrosine phosphatase inhibitors. Presented at the 11th International Conference on Second Messengers and Phosphoproteins, Melbourne, Australia, April 2001.

75. **Srivastava, A.K.**: Role of phosphatidylinositol 3-kinase in the regulation of hypertrophy in vascular smooth muscle cells. Presented at the 17th World Congress of ISHR, Winnipeg, Canada, July 10, 2001.

76. **Srivastava, A.K.**, Pandey, N.R., Pandey, S.K. and Blanc, A.: Role of Ca^{2+}, protein kinase C and Src in the regulation of oxidant-induced signaling in vascular smooth muscle cells (VSMC). Presented at the ISHR Indian Section Conference, Trivandrum, India, February 1-3, 2002.

77. Blanc, A., Pandey, N.R., Pandey, S.K. and **Srivastava, A.K.**: Distinct upstream pathways activate ERK 1/2 and PKB signaling system in response to oxidative stress in vascular smooth muscle cells. FASEB J. 16: 1179 (abstract 88222), April 2002, New Orleans, USA.

78. Mehdi, M., **Srivastava, A.K.**: Étude comparative de l'effet de divers composés de vanadium sur l'activation de la voie de signalisation de l'insuline. Médecine/Sciences 18 (Suppl 2): 22 (abstract no. 86), 2002.

79. Bou Daou, G., **Srivastava, A.K.**: NO attenue l'activation de ERK 1/2 induite par l'endothéline, mais pas celle de PKB, dans les cellules aortiques. Médecine/Sciences 18 (Suppl 2): 33 (abstract no. 151), 2002.

80. Blanc, A., Pandey, N.R., **Srivastava, A.K.**: Le stress oxydatif active ERK 1/2 et PKB par des voies de signalisation distinctes dans les celules du muscle lisse vasculaire. Médecine/Sciences 18 (Suppl 2): 33 (abstract no. 152), 2002.

81. Mehdi, M., **Srivastava, A.K.**: Étude comparaitve de divers composés de vanadium sur l'activation de la voie de signalisation de l'insuline. Médecine/Sciences 19 (Suppl 2): 41 (abstract no. 231), 2003.

82. Bou Daou, G., and **Srivastava, A.K.**: NO atténue l'activation de PYK-2, ERK 1/2 et PKB/Akt induite par l'endothéline dans les cellules aortiques (A-10). Médecine/Sciences 19 (Suppl 2): 10 (abstract no. 45), 2003.

83. Mehdi, M.Z., and **Srivastava A.K.**: Organo-vanadium compounds as potent activators of ERK1/2 / Akt and inhibitors of PTPase activity: role in insulin mimesis. FASEB J 17: A174 (abstract 124.12), 2003.

84. Pandey, N.R., and **Srivastava, A.K.**: Zinc (Zn^{2+})-induced activation of ERK 1/2 and Akt signaling is independent of insulin receptor (IR) protein tyrosine kinase (PTK) in Chinese hamster ovary (CHO) cells. FASEB J 17: A174 (abstract 130.23), 2003.

85. Mehdi, M.Z., and **Srivastava, A.K.**: Phosphorylation of forkhead transcription factor (FKHR) by vanadium compounds: Potential role in insulinomimesis. CFBS 46th Meeting-Program Proceedings: 78 (abstract T057), 2003.

86. Mehdi, M.Z., and **Srivastava, A.K.**: Enhanced phosphorylation of FKHR and GSK-3β by vanadium compounds: potential role in insulino-mimesis. Can. J. Diabetes 27 (3): 339 (abstract 162), 2003.

87. Mehdi, M.Z., and **Srivastava A.K.**: Phosphorylation de FKHR et de GSK-3β par les composés de vanadium: Rôle potentiellement insulinomimétique. Médecine/Sciences 19 (2): 27 (abstract 133), 2003.

88. Mehdi M.Z., and **Srivastava A.K.**: Phosphorylation de FKHR et de GSK-3β par les composés de vanadium: Rôle potentiellement insulinomimétique. Congrès annuel de Diabète Québec, Québec, 2003.

89. Mehdi, M. Z., and **Srivastava A.K.**: Cell-specific effects of Diphenyleneiodonium (DPI) on insulin–induced signaling events. 12th International Conference on Second Messengers and Phosphoproteins: 154 (abstract no. THP132) 2004.

90. Mehdi M.Z., and **Srivastava A.K.**: Le stress oxydatif medie la phosphorylation en tyrosine de p85, la sous-unité de phosphatidylinositol-3-kinase (PI3-K) via c-Src. Médecine/Sciences 20 (2):15 (abstract no. 63) 2004.

91. Pandey, N.R., and **Srivastava, A.K**.: Zinc (Zn^{2+})-induced activation of ERK 1/2 and Akt signaling requires insulin-like growth factor-1 receptor (IGF-1R) and is independent of insulin receptor (IR) protein tyrosine kinase (PTK). 12^{th} International Conference on Second Messengers and Phosphoproteins 113 (abstract no. WP146), 2004.

92. Bou Daou, G., and **Srivastava, A.K**.: Nitric oxide attenuates endothelin-1-induced activation of ERK 1/2, PKB and PYK-2 signaling in vascular smooth muscle cells. 12^{th} International Conference on Second Messengers and Phosphoproteins 84 (abstract no. WP043), 2004.

93. Mehdi, M. Z., and **Srivastava A.K.:** Cell-specific effects of diphenyleneiodonium (DPI) on insulin–induced signaling events. 12^{th} International Conference on Second Messengers and Phosphoproteins 154 (abstract no. THP132), 2004.

94. Mehdi M.Z., and **Srivastava A.K**.: Le stress oxydatif médie la phosphorylation en tyrosine de p85, la sous-unité de phosphatidylinositol-3-kinase (PI3-K) via c-Src. Médecine/Sciences 20 (Suppl 2): 15 (abstract no. 63), 2004.

95. Bou Daou, G., Bouallegue, A.,and **Srivastava, A.K.:** Modulation of endothelin-1 signaling and hypotrophic response by nitric oxide in vascular smooth muscle cells. Exp. Clin. Cardiol. 10: 60 (abstract no. 126), 2005.

96. Mehdi, M.Z., Pandey, N.R., Pandey, S.K., and **Srivastava, A.K**.: H_2O_2-induced phosphorylation of ERK 1/2 and PKB requires tyrosine kinase activity of insulin receptor and c-Src. FASEB J. 2005.

97. Mehdi, M.Z., and **Srivastava, A.K**.: Implication of PKC delta in bis (maltolato)-oxovanadium (BMOV)-induced PKB activation. CFBS 48^{th} Meeting Program Proceedings 78 (abstract no. F64), 2005.

98. Mehdi, M. Z., Vardatsikos, G and **Srivastava, A. K**. : La phosphorylation de PKB induite par le Bis (Maltolato)-oxovanadium (BMOV) est dépendante de l'activité en tyrosine kinase du récepteur D'IGF-TYPE 1. Médecine/Sciences, vol.21, suppl.2, pp.1 (abstract no.37), 2005.

99. Mehdi, M. Z., Vardatsikos, G and **Srivastava, A. K**.: Bis (Maltolato)-oxovanadium (BMOV)-induced PKB activation is dependent on protein tyrosine kinase activity of Insulin like growth factor type 1 receptor (IGF-1R). Canadian Diabetes Association/Canadian Society of Endocrinology and Metabolism (CDA/CSEM) Professional Conference and Annual Meeting (October 19 – 22), Edmonton, AB 2005., Canadian Journal of Diabetes, pp.270, abstract 30, 2005.

100. Bouallegue A, Bou Daou G and **Srivastava, A.K**.: Cyclic GMP-mediates NO-induced attenuation of endothelin-1 signaling and hypertrophic response in vascular smooth muscle cells. FASEBJ, 20(4): pp.A104 (abstract 98.4), 2006.

101. Mehdi, M. Z**.,** Vardatsikos, G. and **Srivastava, A.K**.: Involvement of Insulin-like growth factor type 1 receptor and Protein kinase C δ in the Protein Kinase B (PKB) phosphorylation induced by Bis(maltolato)-oxovanadium (IV) (BMOV) in human hepatoma cells (HepG2). FASEBJ, 20: pp.A104, abstract 98.2, 2006.

102. Bouallegue A, Pandey NR and **Srivastava, A.K.**: Involvement of calmodulin and calmodulin-dependent protein kinase II in ET-1 and H2O2-induced activation of ERK1/2 and protein kinase B in vascular smooth muscle cells. Canadian Cardiovascular Congress (abstract 327), 2006.

103. Mehdi, M. Z., Vardatsikos, G and **Srivastava, A. K** : L'Activation d'Insulin-like growth factor-1 receptor (IGF-1R) et de PKCδ contribue aux réponses insulinomimétiques induites par le Bis (Maltolato)-oxovanadium (BMOV) dans les cellules HepG2., Médecine/Sciences, vol.22, suppl.2, pp.18 (abstract no. 83) 2006.

104. Vardatsikos, G., Pandey, N.R., and **Srivastava, A.K**. : Mécanismes insulinomimétiques et antidiabétiques du zinc : rôle de IGF-1R-PTK., Médecine/Sciences, vol.23, suppl.2, abstract 154, 2007.

105. Vardatsikos, G., Pandey, N.R., Mehdi, M.Z., and **Srivastava, A.K**.: Enhanced phosphorylation of FOXO and GSK-3 by Organo-vanadium Complexes: potential role in insulino-mimesis., FASEB J., vol.22, abstract 614.10, 2008.

106. Bouallegue, A., and **Srivastava, A.K**.: A requirement of growth factor receptor PTK and metalloproteinase in triggering endothelin-1 (ET-1)-induced ERK1/2 and PKB phosphorylation in VSMC, FASEB J., vol.22, abstract 1050.5, 2008.

Invited lectures (last five years)

2004: International Symposium on Recent Advances in Pharmacology. "Involvement of calcium and calmodulin in reactive oxygen species-induced signaling in vascular smooth muscle cells". New Delhi, India, January 7, 2004.

2004: Joint International Conference of International Society for Heart Research (Indian section) & International Academy of Cardiovascular Sciences. "Role of Reactive Oxygen Species in Endothelin-1-induced activation of ERK 1/2, PKB, PYK2 and protein synthesis in vascular smooth muscle cells". Lucknow, India, January 9, 2004.

2004: International Conference on Recent Advances in Biomedical & Therapeutic Sciences."Insulin signal mimicry contributes to insulinomimetic and antidiabetic effects of metal ions". Jhansi, India, January 15, 2004.

2004: Institute of cardiovascular Sciences, University of Manitoba. "Redox modulation of signaling pathways in vascular smooth muscle cells". Winnipeg, Manitoba, March 3, 2004.

2004: Department of Pharmacology, University of Saskatchewan. "Endothelin signaling in vascular smooth muscle cells: Modulation by ROS and NO". Saskatoon, Saskatchewan, March 4, 2004.

2004: Research Center, Centre hospitalier de l'Université de Montréal (CHUM), Axe santé circulatoire et respiratoire. "Redox modulation of endothelin signaling in vascular smooth muscle cells". Montreal, March 20, 2004.

2004: Division of Endocrinology, Centre hospitalier de l'Université de Montréal (CHUM). "Insulinomimetic and antidiabetic effects of metals: Mechanism of action". Montreal, April 30, 2004.

2004: Joint International Conference of International Academy of Cardiovascular Sciences and International Society of Heart Research (Indian Section). "Role of cyclic GMP in nitric oxide-induced attenuation of endothelin-I signaling in vascular smooth muscle cells". Ahmedabad, India, December 31, 2004.

2005: International Conference on Recent Advance in Biomedical & Therapeutic Sciences, "Molecular signaling in cardiovascular disease", Jhansi, India, January 6, 2005.

2005: International Society of Heart Research (American section), "Modulation of endothelin-1signaling and hypertrophic response by nitric oxide in vascular smooth cells", New Orleans, USA, May 14, 2005.

2006: International Conference on Antioxidants, Oxidative Stress and Inflammation in Chronic Disease, "Role of receptor and non-receptor protein tyrosine kinases in H2O2- induced signaling pathway", Nagpur, India. Jan. 12, 2006

2006: Joint Conference of International Society of Heart Research and International Academy of Cardiovascular Sciences (Indian Section). "Vasoactive peptide and redox signaling in vascular smooth muscle cells", Chennai, India, Jan. 14, 2006

2006: VIII World Congress of International Society For Adaptive Medicine. "Role of reactive oxygen species- induced signaling in vascular adaptations and signaling". Moscow, Russia, June22, 2006

2006: International Symposium on Myocardial Cytoprotection. "Nitric Oxide mediated attenuation of endothelin -1 signaling and hypertrophic response contributes to cardiovascular protective effect". Pecs, Hungary, Sept.29, 2006.

2006: Global Conference on Health and Disease, "Growth factor receptor transactivation in Vasoactive peptide and redox- induced signaling in vascular smooth muscle cells", Winnipeg, Manitoba, Canada, Oct.13, 2006.

2007: Third Biennial Meeting of the Society of Free Radical Research – Asia and Sixth Annual Meeting of the Society for Free Radical Research – India, "Role of Receptor and Non-receptor tyrosine kinases in Reactive Oxygen Species –induced Signaling Pathways", Lonavala, India, Jan.10, 2007

2007: Groupe de Recherche sur le Systeme Nerveux Autonome, Universite De Montreal, "Modulation of Endothelin-1 Signaling by ROS and RNS in Vascular Smooth Muscle cells", Montreal, Feb.5, 2007.

2007: Montreal Diabetes Research Center, "Metals as Insulin-mimetics: Mechanism of Action", Montreal, Feb. 7, 2007.

2007: Department of Nutrition, University of Montreal, "Metal Complexes as insulinomimetic and hypoglycemic agents", Montreal, Sept.26, 2007

2007: International Congress of Cardiovascular Sciences,"Modulation of Endothelin-1 Signaling by Oxidative and Nitrosative Mechanisms" Belo Horizonte, Brazil, Nov.23, 2007.

2007: National Conference of Association of Clinical Biochemists of India,"Modulatory effect of nitric oxide on Endothelin-1-induced signaling and hypertrophy",New Delhi, India,Dec.19, 2007.

2008: NATO Advanced Research Workshop on Translational Knowledge for Heart Health "Redox-induced signaling in vascular smooth cells: Role in Vascular Pathophysiology ", Istanbul, Turkey, May 12-16, 2008.

2008: International Symposium on Advances in Cardiovascular Research "Molecular mechanism of vasculoprotective effect of NO", Devin, Bratislava, Slovakia, Sept.27-30,2008.

2008: Vincenzo Panagia Awards Lecture, "Endothelin-1 Signaling in Vascular Smooth Muscle Cells" Institute of Cardiovascular Sciences of Saint Boniface General Hospital, Faculty of Medicine, University of Manitoba, Winnipeg, Manitoba, Nov.7, 2008.

2008: Translational Research in Cardiovascular Medicine, "IGF-1 receptor transactivation in Vasoactive peptide and ROS- induced responses", Maharaja Sayajirao University, Baroda, India, Dec.11, 2008.

2008: Joint International Conference of International Society of Heart Research and International Academy of Cardiovascular Sciences (Indian Section). "Role of Ca and Calmodulin System in ROS and Vasoactive peptide-induced responses in vascular smooth muscle cells", Surat, India, Dec.13-15, 2008

2008: 2nd Indo-European Course on Revascularization "ROS-mediated signaling in the vasculature derived cells", New Delhi, Dec. 20, 2008.

2009: First Cuba- Canada International Heart Symposium "Signal transduction by oxidative stress in vascular smooth muscle cells", Holguin, Cuba, Jan. 9-16, 2009.

2009: Canadian Oxidative Stress Consortium "Role of calmodulin- dependent protein kinase II in ROS-induced signaling", Winnipeg, Manitoba, May 9, 2009