

CURRICULUM VITAE

NAME : BENDAYAN, Moïse
POSITION : Full Professor
Department of Pathology and Cell Biology,
Faculty of Medicine,
Université de Montréal

STATUS :Canadian

EDUCATION

- Baccalauréat, Sciences, Université de Bordeaux, 1968
- B.Sc. Biology, Université de Montréal, 1972
- M.Sc. Clinical Sciences, Université de Montréal, 1974
- Ph.D. Anatomy, Université de Montréal, 1976

ADDITIONAL TRAINING

- Post-doctoral training:
Institut d'Histologie et d'Embryologie, Department of Morphology, Université de Genève, 1976-1979
- Institut de Recherches Scientifiques sur le Cancer, Villejuif, 1981, 1982
- Sabbatical, Department of Pathology, The Hebrew University, Jerusalem, Israel 1987
- Sabbatical, Diabetes Center, Hadassah Medical School, Jerusalem, Israel, 2006

PROFESSIONAL CAREER

- 1972-1976 **Instructor** in Histology, Department of Anatomy,
Université de Montréal,
- 1976-1979 **Instructor** in Histology, Department of Anatomy,
Université de Genève,
- 1979-1983 **Assistant Professor** in Research, Department of Anatomy,
Université de Montréal,
- 1983-1985 **Associate Professor** in Research, Department of Anatomy,
Université de Montréal,
- 1985-1988 **Associate Professor**, Department of Anatomy,
Université de Montréal,
- 1988-1997 **Full Professor**, Department of Anatomy,
Université de Montréal,
- 1990-1997 **Chairman**, Department of Anatomy,
Université de Montréal,
- 1997- present **Full Professor**, Department of Pathology and Cell Biology
Université de Montréal

TEACHING

- Cell biology (14 hrs/year), first year medicine
- Cell biology (10 hrs/year) first-second year medicine
- Cell biology (10 hrs/year) School of Pharmacy
- Cell Biology (8 hrs/year) Bio-Engineering
- Advance Cell Biology (15hrs/year) third year biomed
- Techniques in microscopy (12 hrs/year) post-graduate course
- Techniques in microscopy (60 hrs lab/year) post-grad course
- Techniques in electron microscopy (3 hrs), post-graduate course, 1982
- Lectures in Histology (Endocrinology) (4 hrs)
- Lectures in Histology (15 hrs/year)
- Advanced course on colloidal gold cytochemistry (30 hrs)
- Cell biology, graduate courses (10hrs/year)
- Gastroenterology, graduate course (3hrs/ year)

RESEARCH INTERESTS

- Electron microscopy and cytochemistry
- Protein secretion
- Pancreatic function in diabetes
- Diabetic microangiopathy & vascular permeability
- Diabetic nephropathy
- Intestinal absorption
- Gasto-Enteropancreatic Axis

PERSONAL GRANTS

- MRC Studentship 1972-1975
- MRC Fellowship 1976-1977
- MRC Scholarship 1979-1984
- FRSQ Senior Scholarship 1984-1987
- MRC Scientist 1985-1990
- Awards from the Ministère des Affaires Intergouvernementales du Québec "Echanges France-Québec" with the Institut de Recherches Scientifiques sur le Cancer, Villejuif (France), Prof. E. Puvion 1981-1988 ;
Echanges INSERM-FRSQ, with the INSERM, Unit 55, Hôpital Saint-Antoine, Paris, Prof. G. Rosselin, 1995-1997 ;
Echanges INSERM-FRSQ, with the INSERM, Unit 559, Université de Marseilles, France Dr D. Lombardo. 2000-2003
- The Lady Davis Visiting Professorship, Jerusalem, Israel, 1987-1988

RESEARCH GRANTS

- Medical Research Council & CIHR operating grants :MT-7284, (1980-2005) MT-9702, (1986-2006) and 2008-2011
- Medical Research Council, major equipment grants 1980, 1984, 1985, 1986 and 1987
- Maintenance Grant, 1989-2008
- Medical Research Council - Carl Zeiss Canada, major equipment grant 1990
- Conseil de RSQ, établissement de jeunes chercheurs, 1980-1982
- CAFIR (Université de Montréal), 1979-1980, 1984-1985, 1986-1987
- Canadian Diabetes Association, operating grant 1982-1987
- Canadian Heart Foundation, operating grant 1990-1993
- R & D Université de Montréal, 1992 & 1993
- Quebec Diabetes Association, 1993-1994, 2000-2010
- Major equipment grants Canadian Foundation for Innovation, group grants 2000, 2006.
- NIH, group operating grant 2001-2009
- Juvenile Diabetes Foundation operating grant 2001-2004

AWARDS

- Murray L. Barr Junior Scientist Award from the Canadian Society of Anatomy, 1982
- Vector Young Investigator Award from the American Society of Histochemistry, 1983
- Robert Feulgen Award from the Gesellschaft für Histochemie, 1984
- Cited in the Seventeenth Edition of "American Men & Women of Science" 1989 for outstanding achievement
- Award for Excellence in Research from the Quebec Diabetes Association, 1993
- Certificat d'appréciation Fonds de la Recherche en Santé du Québec, 2004
- Prix pour l'enseignement; étudiants de Pré-Med, Faculté de Médecine 2004
- Premio Venezia, Chambre de Commerce Italienne du Canada (Collaboration scientifique, Université de Siena), 2008.

SABBATICALS, VISITING PROFESSORS, POST-DOCTORAL FELLOWS, GRADUATE STUDENTS AND RESEARCH TRAINEES

- 12 visiting professors on sabbatical
- 35 visiting professors
- 22 Post-doctoral Fellows
- 25 Graduate students (5 Ph.D. ; 20 M.Sc.)
- 35 Research trainees

PUBLICATIONS : 263 (excluding abstracts) see list below under Publications

ABSTRACTS : 290 see list below under Publications

ACTIVITIES (outside the University of Montreal)

- Member of the MRC, Pathology/Morphology Committee, 1983-86, 1990-92
- Member of the MRC, site visit committee, 1986, 1988, 1992 & 1993
- Member of the ICRS 2001-2004

- Member of the MRC, Major equipment Committee, 1999-2005
- Member of the FRSQ, Scholarship committees, Junior researchers 1988-1991, Chairman of the Committee 1990-1991; Senior researchers 2002-2004
- Member of the FCAR, 1989
- Member of several MRC Site visits
- Member of the ADQ 2004-2009

- Member of the Editorial Board of The Journal of Histochemistry and Cytochemistry (1984-), Associate Editor since 1995.
- Member of the Editorial Board of The Journal of Electron Microscopy Technique becoming Microscopy, Research and Techniques (1984-)
- Member of the Editorial Board of The Histochemical Journal (1983-)
- Member of the Editorial Board of the Int. J. Pancreatology (1991-1996)
- Editor of Progress Histochem. Cytochem. (1993-)
- Member of the Editorial Board of Cell Vision Journal of Analytical Morphology (1994-1999)
- Member of the Editorial Board of Applied Immunohistochemistry and Molecular Morphology (1999-)

VISITING PROFESSOR

- Medical Research Council Visiting Professor to the Faculty of Medicine, University of Western Ontario, London, Ontario, March 1984
- Visiting Professor (advanced course in cytochemistry) to The Weizmann Institute of Science,
- Visiting Professor (advanced course in cytochemistry) to The Royal Postgraduate Medical School, University of London, London, England, March 1986
- Visiting Professor (advanced course in cytochemistry) to The Michigan State University, Michigan, January 1987
- Lady Davis Visiting Professor to The Hadassah Medical School The Hebrew University, Jerusalem, Israel, 1st October-31st December 1987
- Visiting Professor (advanced course in cytochemistry) to the University of Minnesota, Dept. of Genetics and Cell Biology, Minnesota, April 1988
- Visiting Professor (advanced course in cytochemistry) to the University of Illinois, Center of Electron Microscopy, Illinois, April 1990
- Medical Research Council Visiting Professor to the Faculty of Medicine, Queen's University, Kingston, Ontario, March 1993
- INSERM-FRSQ Visiting Professor (INSERM, U.55, Hôpital Saint-Antoine, Université de Paris VI, Paris) January 1996
- The Hebrew University, Jerusalem, Israel, 2006
- Diabetes Center, Hadassah Medical School, Jerusalem, Israel, 2008
- Universita Degli Studi Di Siena, Siena, Italy, 2008

PUBLICATIONS

Peer reviewed articles

BENDAYAN, M., SANDBORN, E. and E. RASIO. The capillary endothelium in the rete mirabile of the swimbladder of the eel (*Anguilla anguilla*): Functional and ultrastructural aspects. *Can. J. Physiol. Pharmac.* 52, 613-623, 1974.

BENDAYAN, M., SANDBORN, E. and E. RASIO. Studies on capillary basal lamina. I. Ultrastructural of the rete mirabile of the eel swimbladder.

Lab. Invest., 32, 757-767, 1975.

BENDAYAN, M., SANDBORN, E. and E. RASIO. Studies on capillary basal lamina. II. Preparation, chemical composition and metabolic properties. Lab. Invest., 32, 768-772, 1975.

RASIO, E., **BENDAYAN, M.** and C.A. GORESKY. Diffusion permeability of an isolated rete mirabile. Circ. Res., 41, 807-813, 1977.

RASIO, E. and **M. BENDAYAN**. Le métabolisme du tissu capillaire et ses anomalies au cours du diabète. Diabète et Métabolisme, 4, 57-62, 1978.

ROTH, J., **BENDAYAN, M.** and L. ORCI. Ultrastructural localization of intracellular antigens by the use of protein A-gold complex. J. Histochem. Cytochem., 26, 1074-1081, 1978.

BENDAYAN, M. and S. ITO. Immunohistochemical localization of exocrine enzymes in normal rat pancreas. J. Histochem. Cytochem., 27, 1029-1034, 1979.

ROTH, J., **BENDAYAN, M.** and L. ORCI. Protein A-gold complex for post-embedding staining of intracellular antigens. Acta Histochem., Suppl. 22, 269-273, 1980.

ROTH, J., **BENDAYAN, M.** and L. ORCI. FITC-Protein A-gold complex for light and electron microscopic immunocytochemistry. J. Histochem. Cytochem., 28, 55-57, 1980.

BENDAYAN, M., ROTH, J., PERRELET, A. and L. ORCI. Quantitative immunocytochemical localization of exocrine pancreatic enzymes in subcellular compartments of the rat acinar cell. J. Histochem. Cytochem., 28, 149-160, 1980.

BENDAYAN, M. Use of the protein A-gold technique for the morphological study of vascular permeability. J. Histochem. Cytochem., 28, 1251-1254, 1980.

ROTH, J., RAVAZZOLA, M., **BENDAYAN, M.** and L. ORCI. Application of the protein A-gold technique for electron microscopic demonstration of polypeptide hormones. Endocrinology, 108, 247-253, 1981.

BENDAYAN, M. Ultrastructural localization of nucleic acids by the use of enzyme-gold complexes. J. Histochem. Cytochem., 29, 531-541, 1981.

BENDAYAN, M. and E. RASIO. Hyperglycemia and microangiopathy in the eel. Diabetes, 30, 317-325, 1981.

BENDAYAN, M. The protein A-gold technique: A new approach for qualitative and quantitative immunocytochemistry. Proc. Microsc. Soc. Can., 8, 24-29, 1981.

ROTH, J., **BENDAYAN, M.**, CARLEMALM, E., VILLIGER, W. and M. GARAVITO. The enhancement of structural preservation and immunocytochemical staining in low temperature embedded pancreatic tissue. J. Histochem. Cytochem., 29, 663-671, 1981.

BENDAYAN, M. Electron-microscopic localization of nucleic acids by means of nuclease-gold complexes. Histochem. J., 13, 699-710, 1981.

RASIO, E., **BENDAYAN, M.** and C. GORESKY. The effect of hyperosmolality on the permeability and structure of the capillaries of the isolated rete mirabile of the eel. Circ. Res., 49, 661-676, 1981.

SHORE, G.C., POWER, F., **BENDAYAN, M.** and P. CARIGNAN. Biogenesis of a 35-kilodalton protein associated with outer-mitochondrial membrane in rat liver. J. Biol. Chem., 256, 8761-8766, 1981.

BENDAYAN, M. Ultrastructural localization of actin in insulin-containing granules. Biol. Cell., 41, 157-160, 1981.

BENDAYAN, M. and T.B. ORSTAVIK. Immunocytochemical localization of kallikrein in the rat exocrine pancreas. *J. Histochem. Cytochem.*, 30, 58-66, 1982.

BENDAYAN, M. Double immunocytochemical labeling applying the protein A-gold technique. *J. Histochem. Cytochem.*, 30, 81-85, 1982.

BENDAYAN, M. and G.C. SHORE. Immunocytochemical localization of mitochondrial proteins in the rat hepatocyte. *J. Histochem. Cytochem.*, 30, 139-147, 1982.

BENDAYAN, M. Contacts between endocrine and exocrine cells in the pancreas. *Cell Tiss. Res.*, 222, 227-230, 1982.

BENDAYAN, M. Ultrastructural localization of nucleic acids by the use of enzyme-gold complexes: Influence of fixation and embedding. *Biol. Cell*, 43, 153-156, 1982.

REDDY, J.K., BENDAYAN, M. and M.J. REDDY. Immunocytochemical localization of catalase, heat-labile enoyl-CoA hydratase and polypeptide PPA-80 in rat liver. *Ann. N. Y. Acad. Sci.*, 386, 495-498, 1982.

BENDAYAN, M., ITO, S. and I. MANOCCHIO. Alterations of exocrine pancreatic enzymes in virus-induced diabetic cattle as revealed by immunohistochemistry. *Diabetologia*, 23, 65-68, 1982.

BENDAYAN, M. and J.K. REDDY. Immunocytochemical localization of catalase and heat-labile enoyl CoA hydratase in the livers of normal and peroxisome proliferator-treated rats. *Lab. Invest.*, 47, 364-369, 1982.

BENDAYAN, M., MARCEAU, N., BEAUDOIN, A.R. and J.M. TRIFARO. Immunocytochemical localization of actin in the pancreatic exocrine cell. *J. Histochem. Cytochem.*, 30, 1075-1078, 1982.

GARZON, S., **BENDAYAN, M.** and E. KURSTAK. Ultrastructural localization of viral antigens using the protein A-gold technique. *J. Virol. Methods*, 5, 67-73, 1982.

PAIEMENT, J. and **M. BENDAYAN**. Association of RNA with chromatin granules in incubated rat liver nuclei. *J. Ultrastruct. Res.*, 81, 145-147, 1982.

STEPHENS, H., **BENDAYAN, M.** and M. SILVER. Immunocytochemical localization of collagen types and laminin in skeletal muscle with the protein A-gold technique. *Biol. Cell*, 44, 81-84, 1982.

BENDAYAN, M. Protein A-gold and enzyme-gold: Two novel affinity techniques for the ultrastructural localization of macromolecules. *Proceedings 10th Intern. Congress Elect. Microsc.*, 427-439, 1982.

BENDAYAN, M. Ultrastructural localization of actin in muscle, epithelial and secretory cells by applying the protein A-gold immunocytochemical technique. *Histochem. J.*, 15, 39-58, 1983.

BENDAYAN, M. and M. ZOLLINGER. Ultrastructural localization of antigenic sites on osmium-fixed tissues applying the protein A-gold technique. *J. Histochem. Cytochem.*, 31, 101-109, 1983.

BENDAYAN, M., REDDY, M.K., HASHIMOTO, T. and J.K. REDDY. Immunocytochemical localization of fatty-acid metabolizing heat-stable and heat-labile enoyl CoA hydratases in liver and renal cortex. *J. Histochem. Cytochem.*, 31, 509-516, 1983.

BECICH, M.J., **BENDAYAN, M.** and J.K. REDDY. Intracellular transport and storage of secretory proteins in relation to cytodifferentiation in neoplastic pancreatic acinar cells. *J. Cell Biol.*, 96, 949-960, 1983.

BENDAYAN, M. and E. PUVION. Ultrastructural detection of RNA: Complementarity of high resolution autoradiography and RNAase-gold method. *J. Ultrastruct. Res.*, 83, 274-283, 1983.

PLOTON, D., **BENDAYAN, M.** and J.J. ADNET. Ultrastructural localization of Ag-NOR proteins and nucleic acids in thread-like structured nucleoli. Biol. Cell., 49, 29-34, 1983.

BENDAYAN, M. Concentration of amylase along its secretory pathway in the pancreatic acinar cell as revealed by high resolution immunocytochemistry. Histochem. J., 16, 85-108, 1984.

HERBENER, G.H., **BENDAYAN, M.** and R.C. FELDHOFF. The intracellular pathway of vitellogenin secretion in the frog hepatocyte as revealed by protein A-gold immunocytochemistry. J. Histochem. Cytochem., 32, 697-704, 1984.

BENDAYAN, M., BECICH, M.J. and J.K. REDDY. Immunocytochemical localization of exocrine enzymes in rat pancreatic acinar carcinoma. Eur. J. Cell Biol., 34, 151-158, 1984.

BENDAYAN, M. Protein A-gold electron microscopic immunocytochemistry: methods, applications and limitations. J. Elect. Microsc. Tech., 1, 243-270, 1984.

BENDAYAN, M. Enzyme gold electron microscopic cytochemistry: a new affinity approach for the ultrastructural localization of macromolecules. J. Elect. Microsc. Tech., 1, 349-372, 1984.

BENDAYAN, M. and E. PUVION. Ultrastructural localization of nucleic acids through several cytochemical techniques on osmium-fixed tissues: comparative evaluation of the different labelings. J. Histochem. Cytochem., 32, 1185-1191, 1984.

BENDAYAN, M. and N.D. MAESTRACCI. Pituitary adenomas: patterns of hPRL and hGH secretion as revealed by high resolution immunocytochemistry. Biol. Cell., 52, 129-138, 1984.

NANCI, A., **BENDAYAN, M.**, BRINGAS, P. and H.C. SLAVKIN. High resolution immunocytochemical localization of enamel proteins in mouse ameloblasts in situ and in culture. Tooth morphogenesis and differentiation. Les colloques de l'INSERM, 125, 333-340, 1984.

BARQUE, J.P., LAGAYE, S., **BENDAYAN, M.**, PUVION-DUTILLEUL, F., DANON, F. and C.J. LARSEN. PSL, an S phase-related p⁵⁵ nuclear antigen, associates transiently with chromatin. Exptl. Cell Res., 157, 8-14, 1985.

BENDAYAN, M. Morphometrical and immunocytochemical characterization of peri-insular and tele-insular acinar cells in the rat pancreas. Eur. J. Cell Biol., 36, 263-268, 1985.

BENDAYAN, M. Ultrastructural localization of cytoskeletal proteins in pancreatic secretory cell. Canad. J. Biochem. Cell Biol., 63, 680-690, 1985.

BENDAYAN, M., BRUNEAU, A. and J. MORISSET. Morphometrical immuno-cytochemical and biochemical studies of rat pancreatic acinar cells under control and experimental conditions. Biol. Cell, 54, 227-234, 1985.

NANCI, A., **BENDAYAN, M.** and H.C. SLAVKIN. Enamel protein biosynthesis and secretion in mouse incisor secretory ameloblasts as revealed by high resolution immunocytochemistry. J. Histochem. Cytochem., 33, 1153-1160, 1985.

BENDAYAN, M. Alteration in the distribution of type IV collagen in glomerular basal laminae in diabetic rats as revealed by immunocytochemical and morphometrical approach. Diabetologia, 28, 373-378, 1985.

STEPHENS, H., **BENDAYAN, M.** and V. GISIGER. Simultaneous labelling of basal laminae components and acetylcholinesterase at the neuromuscular junction. Histochem. J., 17, 1203-1220, 1985.

HERBENER, G.H., **BENDAYAN, M.** and R.C. FELDHOFF. Immunocytochemical localization of a non-vitellogenin, estrogen-induced plasma protein in the hepatocyte of the American bullfrog *Rana Catesbeiana*. Eur. J. Cell Biol.,

39, 142-146, 1985.

RYALL, J., NGUYEN, M., **BENDAYAN, M.** and G.C. SHORE. Expression of nuclear genes encoding the mitochondrial enzymes, Carbamyl phosphate synthetase I and Ornithine carbamyl transferase, in rat liver and intestinal mucosa. *Eur. J. Biochem.*, 152, 287-292, 1985.

HERBENER, G.H., NANCI, A. and **M. BENDAYAN**. The application of protein A-gold immunocytochemistry to studies of protein secretion. *Proc. 43rd Ann. Meeting Elect. Microsc. Soc. Amer.*, pp. 426-429, 1985.

BENDAYAN, M. A review on colloidal gold post-embedding cytochemical technique. *Proc. 43rd Ann. Meeting Elect. Microsc. Soc. Amer.*, pp. 422-425, 1985.

BENDAYAN, M. Colloidal gold post-embedding cytochemical techniques: a review. *Proc. 1st Janssen Life Sciences Symposium: Gold probes in biological and biomedical research*, pp. 1-31, 1985.

RAO, M.S., **BENDAYAN, M.**, KIMBROUGH, R.D. and J.K. REDDY. Characterization of pancreatic-type tissue in the liver of rat. *J. Histochem. Cytochem.*, 34, 197-201, 1986.

BENDAYAN, M. and M.A. DUHR*. Modification of the protein A-gold immunocytochemical technique for the enhancement of its efficiency. *J. Histochem. Cytochem.*, 34, 569-575, 1986.

BENDAYAN, M., NANCI, A., HERBENER, G.H., GRÉGOIRE*, S. and M.A. DUHR*. A review on the study of protein secretion applying the protein A-gold immunocytochemical approach. *Amer. J. Anat.*, 175, 379-400, 1986.

HERBENER, G.H., **BENDAYAN, M.** and R.C. FELDHOFF. Albumin localization in the frog hepatocyte during vitellogenesis as revealed by protein A-gold immunocytochemistry. *J. Histochem. Cytochem.*, 34, 665-671, 1986.

BENDAYAN, M. Facts and artefacts in colloidal gold post-embedding cytochemistry. *Proc. 44th Ann. Meeting Elect. Microsc. Soc. Amer.*, pp. 44-47, 1986.

BENDAYAN, M., DUHR*, M.A. and D. GINGRAS*. Studies on pancreatic acinar cells in tissue culture: basal laminae (basement membrane) matrix promotes three-dimensional reorganization. *Eur. J. Cell Biol.*, 42, 60-67, 1986.

GRÉGOIRE*, S. and **M. BENDAYAN**. Immunocytochemical studies of pancreatic acinar cells in normal and streptozotocin-induced diabetic rats. *Diabetologia*, 29, 655-660, 1986.

BENDAYAN, M. GINGRAS*, D. and P. CHAREST*. Distribution of endogenous albumin in the glomerular wall of streptozotocin-induced diabetic rats as revealed by high resolution immunocytochemistry. *Diabetologia*, 29, 868-875, 1986.

GRÉGOIRE*, S. and **M. BENDAYAN**. Immunocytochemical studies of pancreatic acinar cells in spontaneously diabetic BB rats. *Pancreas*, 2, 205-211, 1987.

DESJARDINS*, M., GINGRAS, D. and **M. BENDAYAN**. Immunocytochemical studies of glomerular permeability in long term diabetics. *Proc. Microsc. Soc. Canada*, 14, 19-21, 1987.

BENDAYAN, M. and S. GRÉGOIRE*. Immunohisto and cytochemical studies of pancreatic enzymes in peri-insular and tele-insular acinar cells of streptozotocin-induced diabetic rats. *Pancreas*, 2, 272-282, 1987.

BENDAYAN, M. Presence of endocrine cells in the wall of pancreatic ducts. *Pancreas*, 2, 393-397, 1987.

BENDAYAN, M. Introduction of the protein G-gold complex for high resolution immunocytochemistry. *J. Elect. Microsc. Tech.*, 6, 7-13, 1987.

BENDAYAN, M., NACI, A. and F.W.K. KAN. Effect of tissue processing on colloidal gold cytochemistry. *J. Histochem. Cytochem.*, 35, 983-996, 1987

LEVY, E., MARCEL, Y., DECKELBAUM, R., MILNE, R., LEPAGE, G., SEIDMAN, E., **BENDAYAN, M.** and C.C. ROY. Intestinal Apo B synthesis, lipids, and lipoproteins in chylomicron retention disease. *J. Lipid Res.*, 28, 1263-1274, 1987.

BENDAYAN, M. and N. BENHAMOU. Ultrastructural localization of glucoside residues on tissue sections by applying the enzyme-gold approach. *J. Histochem. Cytochem.*, 35, 1149-1155, 1987.

LONDONO*, I. and **M. BENDAYAN**. Ultrastructural localization of mannoside residues on tissue sections: Comparative evaluation of the enzyme-gold and the lectin-gold approaches. *Eur. J. Cell Biol.* 45, 88-96, 1987.

POWERS-LEE, S.G., MASTICO, R.A. and **M. BENDAYAN**. The interaction of rat liver carbamoyl phosphate synthetase and ornithine transcarbamoylase with inner mitochondrial membranes. *J. Biol. Chem.* 262, 15683-15688, 1987.

LEVY, E., THIBAULT, L.A., ROY, C.C., **BENDAYAN, M.**, LEPAGE G. and J. LETARTE. Circulating lipids and lipoprotein in glycogen storage disease type I with nocturnal intragastric feeding. *J. Lipid Res.*, 29, 215-226, 1988.

BENDAYAN, M. and S. GARZON. Protein G-gold complex: Comparative evaluation with the protein A-gold for high resolution immuno-cytochemistry. *J. Histochem. Cytochem.*, 36, 597-607, 1988.

LONDONO*, I. and **M. BENDAYAN**. High resolution cytochemistry of neuraminic and hexuronic acid-containing macromolecules applying the enzyme-gold approach. *J. Histochem. Cytochem.*, 36, 1005-1014, 1988.

BENDAYAN, M. and E. LEVY. Immunocytochemical and biochemical evaluation of pancreatic lipase in acinar cells of control and streptozotocin-induced diabetic rats. *Pancreas*, 3, 269-273, 1988.

HERBENER, G.H. and **M. BENDAYAN**. A correlated morphometric and cytochemical study of hepatocyte nucleolar size and RNA distribution during vitellogenesis. *Histochem. J.*, 20, 194-200, 1988.

COULOMBE*, P.A., KAN, F.W.K. and **M. BENDAYAN**. Introduction of a high-resolution cytochemical method for studying the distribution of phospholipids in biological tissues. *Eur. J. Cell Biol.*, 46, 564-576, 1988.

STROMER, M.H. and **M. BENDAYAN**. Arrangement of desmin intermediate filaments in smooth muscle cells as shown by high resolution immunocytochemistry. *Cell Motil. Cytosk.*, 11, 117-125, 1988.

LEVY, E., ROY, C.C., LEPAGE, G. and **M. BENDAYAN**. Lipid abnormalities in pancreatic tissue of streptozotocin-induced diabetic rats. *Lipids*, 23, 771-779, 1988.

DESJARDINS*, M. and **M. BENDAYAN**. Ultrastructural distribution of endogenous IgGs in the glomerular wall of control and diabetic rats. *Histochem. J.*, 21, 731-742, 1989.

RASIO, E., **BENDAYAN, M.** and C.A. GORESKY. Effect of reduced energy metabolism and reperfusion on the permeability and morphology of the capillaries of an isolated rete mirabile. *Circ. Res.*, 64, 243-254, 1989.

BENDAYAN, M. Ultrastructural localization of insulin and C-peptide antigenic sites in rat pancreatic B-cell applying the quantitative high resolution protein A-gold approach. *Amer. J. Anat.*, 185, 205-216, 1989.

COULOMBE*, P.A. and **M. BENDAYAN**. Cytochemical demonstration of an increased phospholipid content in cell membranes in chlorphentermine-induced phospholipidosis. *J. Histochem. Cytochem.*, 37, 139-147, 1989.

COULOMBE*, P.A. and **M. BENDAYAN**. Heterogeneous distribution of phospholipids in membranes along the secretory pathway in pancreatic B-cells. *Biol. Cell.*, 65, 83-86, 1989.

BENDAYAN, M., BARTH, R.F., GINGRAS*, D., LONDONO*, I., ROBINSON, P.T., ALAM, F., ADAMS, D.M. and L. MATTIAZZI. Electron spectroscopy imaging for high resolution immunocytochemistry: Use of boronated protein A. *J. Histochem. Cytochem.*, 37, 573-580, 1989.

DESJARDINS*, M. and **M. BENDAYAN**. Heterogenous distribution of type IV collagen, entactin, heparan sulfate proteoglycan and laminin among renal basement membranes as demonstrated by quantitative immunocytochemistry. *J. Histochem. Cytochem.*, 37, 885-897, 1989.

RASIO. E.A., **BENDAYAN, M.**, GORESKY, C.A., ALEXANDER, J.S. and D. SHEPRO. Effect of phalloidin on structure and permeability of rete capillaries in the normal and hypoxic state. *Circ. Res.*, 65, 591-599, 1989.

KAN, F.W.K. and **M. BENDAYAN**. Topographical and planar distribution of Helix pomatia lectin-binding glycoconjugates in secretory granules and plasma membrane of pancreatic exocrine acinar cells as revealed by thin section and fracture-label cytochemistry: Demonstration of membrane heterogeneity. *Amer. J. Anat.*, 185, 165-176, 1989.

LEVY, E., LEPAGE, G., **BENDAYAN, M.**, RONCO, N., THIBAULT, L., GALEANO, N., SMITH, L and C.C. ROY. Relationship of decreased hepatic lipase activity and lipoprotein abnormalities to essential fatty acid deficiency in cystic fibrosis patients. *J. Lipid Res.*, 30, 1197-1210, 1989.

COULOMBE*, P.A. and **M. BENDAYAN**. Lung surfactant-associated protein and type IV collagen share common epitopes: An immunocytochemical demonstration. *Amer. Rev. Resp. Dis.*, 140, 1040-1044, 1989.

BENDAYAN, M. and D. GINGRAS*. Effect of vanadate administration on blood glucose and insulin levels as well as on the exocrine pancreatic function in streptozotocin-diabetic rats. *Diabetologia*, 32, 561-567, 1989.

LONDONO*, I. and **M. BENDAYAN**. Distribution of endogenous albumin across the rat aortic wall as revealed by quantitative immunocytochemistry. *Amer. J. Anat.*, 186, 407-416, 1989.

LONDONO*, I., COULOMBE*, P.A. and **M. BENDAYAN**. Brief review on progresses in enzyme-gold cytochemistry. *Scanning Microsc.*, Suppl. 3, 7-14, 1989.

KURIAKOSE, N.R., REIFEL, C.W., **BENDAYAN, M.**, ELCE, J.S. and S.H. SHIN. Prolactin crinophagy is induced in the estrogen-stimulated male rat pituitary. *Histochemistry*, 92, 499-503, 1989.

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