



Marie Tannous

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Biography

Marie Tannous is a full time associate professor in the Faculty of Natural and Applied Sciences at Notre Dame University North Campus. She was awarded the Natural Sciences and Engineering Research Council of Canada scholarship to pursue her Ph.D. in Clinical Chemistry at the University of Windsor, Canada. She then pursued her Post-Doctoral fellowship at Wayne State University, USA. Her long term research focuses on the clinical aspects of nitric oxide and related compounds.

Peer-reviewed Journals

- Teng J, Hejazi S, Hiddingh L, Carvalho L, de Gooijer M, Wakimoto H, Barazas M, Tannous M, Chi AS, Noske DP, Wesseling P, Wurdinger T, Batchelor TT, Tannous BA. Recycling drug screen repurposes hydroxyurea as a sensitizer of glioblastomas to temozolomide targeting de novo DNA synthesis, irrespective of molecular subtype. *Neuro Oncol.* 2018 Apr 9;20(5):642-654. doi: 10.1093/neuonc/nox198.
- Tannous M, Al Kalash Y. Prevalence of caffeinated-beverage consumption by university students in North Lebanon. *Public Health Research.* 2014, 4(5): 173-178.
- Degeling MH, Bovenberg MS, Tannous M, Tannous BA. Gaussia luciferase-based mycoplasma detection assay in mammalian cell culture. *Methods in Molecular Biology.* 2014; 1098:47-55.
- Bovenberg, MS; Degeling, MH; Hejazi, S; Amante, R; Van Keulen, M; Jeuken, J; Akbaripanahi, S; Vleggeert-Lankamp, C; Tannous, M; Wesseling, P; Wurdinger, T; Tannous, B. Multiplex blood reporters for simultaneous monitoring of cellular processes. *Analytical Chemistry.* 2013 Nov 5;85(21):10205-10.
- Tannous M, Sankari H, Tadmouri H. An assessment of the nutritional status of public school children in Tripoli's underprivileged areas. *Public Health Research.* October 2013; 3(5): 149-152.
- Tannous M, Haddad J, Jabbour M. Assessment of groundwater for heavy metals in selected areas of North Lebanon. *Journal of Earth Science and Engineering,* issue 6, 2013, 358-362.
- Degeling MH, Bovenberg MS, Lewandrowski GK, de Gooijer MC, Vleggeert-Lankamp CL, Tannous M, Maguire CA, Tannous BA. Directed molecular evolution reveals gaussia luciferase variants with enhanced light output stability. *Analytical Chemistry* 2013 Mar 5; 85(5):3006-12.
- Veluthakal, R., Chvyrkova, I., Tannous, M., McDonald, P., Amin, R., Hadden, T., Quon, M., Kowluru, A. essential role for membrane lipid rafts in interleukin-1beta-induced nitric oxide release from insulin-secreting cells: potential regulation by caveolin-1. *Diabetes* 2005; 54(9):2576-2585.
- Chen, H., Tannous, M., Veluthakal, R., Amin, R., Kowluru, A. Novel roles for palmitoylation of Ras in IL-1β-induced nitric oxide release and caspase-3 activation in insulin-secreting βcells. *Biochem Pharmacol.* 2003; 66(9):1681-1694.
- Kowluru, A., Chen, H., Tannous, M. Novel roles for the Rho subfamily of GTP-binding proteins in succinate-induced insulin secretion from βTC3 cells: further evidence in support of the succinate mechanism of insulin release. *Endocrine Research* 2003; 29(3):363-376.

- Amin, R., Chen, H., Tannous, M., Gibbs, R., Kowluru, A. Inhibition of glucose- and calcium-induced insulin secretion from β TC3 cells by novel inhibitors of protein isoprenylation. *J. Pharmacol. Exp. Ther.* 2002; 303(1):82-88.
- Tannous, M., Veluthakal, R., Amin, R., Kowluru, A. IL-1 β induced nitric oxide release from insulin secreting cells: Further evidence for the involvement of GTP-binding proteins. *Diabetes & Metabolism* 2002; 28:3S78-3S84.
- Veluthakal, R., Khan, I., Tannous, M., Kowluru, A. Functional inactivation by IL-1 β of glyceraldehyde-3-phosphate dehydrogenase in insulin-secreting cells. *Apoptosis* 2002; 7:241-246.
- Kowluru, A., Tannous, M., Chen, H. Localization and characterization of the mitochondrial isoform of the nucleoside diphosphate kinase in the pancreatic beta cell: evidence for its complexation with mitochondrial succinyl-CoA synthetase. *Arch Biochem Biophys.* 2002 Feb 15;398(2):160-169.
- Tannous, M., Amin, R., Popoff, M., Fiorentini, C., Kowluru, A. Positive Modulation by Ras of Interleukin-1 β -Mediated Nitric Oxide Generation in the Pancreatic β Cell. *Biochemical Pharmacology.* 2001;62:1459-1468.
- Tannous, M., Hutnik, C., Tingey, D., Mutus, B. S-Nitrosoglutathione Photolysis as a Novel Therapy for Antifibrosis in Filtration Surgery. *Investigative Ophthalmology & Visual Science.* 2000;41:749-755.
- Tannous, M., Cheung, R., Vignini, A., Mutus, B. Atorvastatin induces eNOS levels in human platelets of hyperlipidemic subjects. *Thromb Haemost* 1999; 82:1390-4.
- Lafreniere, K., Mutus, B., Cameron, S., Tannous, M. Effects of therapeutic touch on biochemical and mood indicators in women. *J Alter Complement Med.* 1999; Aug 5(4):367-70.
- Tannous, M., Rabini, R., Vignini, A., Moretti, N., Fumelli, P., Zielinski, B., Mazzanti, L., Mutus, B. Evidence for iNOS-dependent peroxynitrite production in Diabetic Platelets. *Diabetologia* 1999;42:539-544.
- Tannous, M. Phototherapeutic and clinical aspects of nitric oxide and related compounds. Published Ph.D. Thesis, 1998.
- Dimmock, J., Kandepu, M., Hetherington, M., Quail, W., Pugazhenth, U., Sudom, A., Chamankhah, M., Rose, P., Pass, E., Allen, T., Halleran, S., Szydowski, J., Mutus, B., Tannous, M., Manavathu, E., Myers, T., De Clercq, E., Balzarini, J. Cytotoxic activities of Mannich bases of Chalcones and related compounds. *Journal of Medicinal Chemistry* 1998;41(7):1014-1026.
- Tannous, M., Labbe, N., Redmond, R., Mutus, B. A photo-activated, protein-based, peroxynitrite generating system composed of the nitric oxide derivative of apo-metallothionein (thionein-NO) and glucose oxidase. *Journal of photochemistry and Photobiology* 1997;41:249-254.
- Murganandam, A., Tannous, M., Mutus, B. ELISA for in vivo assessment of nonenzymatically glycated platelet glutathione peroxidase. *Clinical Biochemistry* 1994;27(4):293-298.

Peer-reviewed Conference Proceedings

Papers in Conference Proceedings

- Tannous, M., Haddad, J., Jabbour, M. Determination of heavy metals in groundwater in three distinct areas of North Lebanon. 39th International Association of Hydrogeologists Congress, Niagara Falls, Canada (2012).

Published Abstracts in Conference Proceedings

- Tannous, M., Haddad, J., Jabbour, M. determination of heavy metals in groundwater in three distinct areas of North Lebanon. 39th International Association of Hydrogeologists Congress, Niagara Falls, Canada (2012).
- Veluthakal, R., Chyrykova, I., Tannous, M., McDonald, P., Amin, R., Hadden, T., Quon, M., Kowluru, A. Novel Roles for membrane lipid rafts in IL-induced NO release from the islet beta cell: potential regulation by caveolin-1. John D. Dingell VA National Research, (2004).
- Tannous, M., Veluthakal, R., Amin, R., Kowluru, A. Localization and phosphorylation of caveolin-1 in insulin-secreting HIT-T15 cells: its novel role[s] in IL1 β -induced NO release. Annual Meetings of the American Diabetes Association. New Orleans, Louisiana, June 2003. *Diabetes* (2003).
- Kowluru, A., Chen, H., Tannous, M. Novel roles for Rho G-proteins in succinate-induced insulin secretion from β TC3 cells. Annual Meetings of the American Diabetes Association. New Orleans, Louisiana, June 2003. *Diabetes* (2003).
- Tannous, M., Veluthakal, R., Amin, R., Hadden, T., Chen, H., Quon, M., Kowluru, A. Novel regulatory roles for caveolin-1 in IL-1 β -mediated dysfunction and demise of the islet β cell. John D. Dingell VA National Research, (2003).
- Tannous, M., Veluthakal, R., Amin, R., Kowluru, A. Further Evidence that G-proteins are involved in IL-induced NO release from pancreatic β cells. Annual Meetings of the American Diabetes Association. San Francisco, June 2002. *Diabetes* (2002).
- Veluthakal, R., Khan, I., Tannous, M., Kowluru, A. Functional inactivation by peroxynitrite of glyceraldehyde-3-phosphate dehydrogenase in pancreatic β cells. Annual Meetings of the American Diabetes Association. San Francisco, June 2002. *Diabetes* (2002).

- Amin, R., Chen, H.Q. Tannous, M., Gibbs, R., Kowluru, A. Inhibition of glucose-and calcium-induced insulin secretion by novel inhibitors of protein isoprenylation. Annual Meetings of the American Diabetes Association. San Francisco, June 2002. Diabetes (2002).
- Amin, R., Tannous, M., Kowluru, A. Novel regulatory roles for protein farnesylation in IL-1 β -induced nitric oxide release from the pancreatic β cells. Annual Meetings of the American Diabetes Association. San Francisco, June 2002. Diabetes (2002).
- Kowluru, A., Tannous, M., Chen, H., Veluthakal, R., Amin, R., Palmitoylation of Ras is essential for interleukin-1 β -induced NO release in insulin-secreting cells. Submitted for presentation at the European Association for the study of Diabetes in Budapest, (2002).
- Tannous, M., Veluthakal, R., Amin, R., Kowluru, A. Additional Evidence for the involvement of G-proteins in IL-1 β -induced nitrite release from insulin-secreting cells. John D. Dingell VA National Research, (2002).
- Amin, R., Tannous, M., Gibbs, R., Kowluru, A. Farnesylation of Ras is required for IL-1 β -induced nitric oxide release in pancreatic β cells. John D. Dingell VA National Research, (2002).
- Chen, H., Tannous, M., Veluthakal, R., Amin, R., Kowluru, A., Palmitoylation of Ras is essential for interleukin-1 β -induced NO release in insulin-secreting cells. John D. Dingell VA National Research, (2002).
- Tannous, M., Amin, R., M. Popoff, C. Fiorentini, & A. Kowluru. Positive role by Ras of Interleukin-1 β -Mediated Nitric Oxide Generation in the Pancreatic Cell. The Endocrine Meeting, (2001).
- Amin, R., Zahn, T., Chen, H., Tannous, M., Gibbs, R., Kowluru, A. Inhibition of glucose and calcium-induced insulin secretion from β TC3 cells by novel inhibitors of protein prenylation. The Endocrine Meeting, (2001).
- Tannous, M., Popoff, M., Kowluru, A. Specific regulation by Ras of cytokine-mediated nitric oxide generation in the pancreatic β cell. 3rd Annual International Motor City Diabetes Symposium, (2000).
- Tannous, M., Walsh, M., Reddy, M., Lingam, D., Sowers, J. Wortmannin inhibits β -estadiol and insulin-like growth factor-1 endothelial nitric oxide synthase induction. 18th Scientific Meeting of International Society of Hypertension, S213, P34.11, (2000).
- Tannous, M., Tang, N., Amin, R., Chen, H., Kowluru, A. Unique regulation by Rho subfamily of GTP-binding proteins of cytokine-mediated nitric oxide (NO) production in the islet β cell. John D. Dingell VA National Research, (2000).
- Tannous, M., Labbe, N., Redmond, R., Mutus, B. A photo-activated, protein-based, peroxy-nitrite generating system composed of the nitric oxide derivative of apo-metallothionein (thioenin-NO) and glucose oxidase. Journal of Clinical Chemistry, (1996).

Chapters in Books

- Degeling, M.H, Bovenberg, M.S.S, Tannous, M. and Tannous, B.A. (2014) Gaussia luciferase-based mycoplasma detection assay in mammalian cell culture. In Christian E. Badr (Ed) Bioluminescent Imaging Methods and Protocols, Methods Mol Biol, Vol. 1098, New York, NY, Springer Science and Business Media.

Oral & Posters Presentations

- Determination of heavy metals in groundwater in three distinct areas of North Lebanon. 39th International Association of Hydrogeologists Congress, Niagara Falls, Canada (2012).
- Novel regulatory roles for caveolin-1 in IL-1 β -mediated dysfunction and demise of the islet β cell. John D. Dingell VA National Research, Detroit, MI, USA. May 2003.
- IL-signaling mechanism in the islet beta cell. Departmental seminar, department of Pharmaceutical Sciences. Wayne State University. USA. October 2002.
- Inhibition of glucose-and calcium-induced insulin secretion by novel inhibitors of protein isoprenylation. Annual Meetings of the American Diabetes Association. San Francisco, USA. June 2002.
- Novel regulatory roles for protein farnesylation in IL-1 β -induced nitric oxide release from the pancreatic β cells. Annual Meetings of the American Diabetes Association. San Francisco, USA. June 2002.
- Farnesylation of Ras is required for IL-1 β -induced nitric oxide release in pancreatic β cells. John D. Dingell VA National Research, Detroit, MI, USA. April 2002.
- Positive role by Ras of Interleukin-1 β -Mediated Nitric Oxide Generation in the Pancreatic Cell. The Endocrine Society Meeting, Denver, CO, USA. June 2001.
- The effects of novel inhibitors of protein inhibition upon glucose- and calcium-induced insulin secretion from β TC3 cells. John D. Dingell VA Research, Detroit, MI, USA. May 2001.
- Specific regulation by Ras of cytokine-mediated nitric oxide generation in the pancreatic β cell. 3rd Annual International Motor City Diabetes Symposium, Detroit, MI, USA. Oct. 2000.

- Wortmannin inhibits β -estadiol and insulin-like growth factor-1 endothelial nitric oxide synthase induction. 18th Scientific Meeting of international Society of hypertension, Chicago, IL, USA. Aug. 2000.
- Unique regulation by Rho subfamily of GTP-binding proteins of cytokine-mediated nitric oxide (NO) production in the islet β cell. John D. Dingell VA Research, Detroit, MI, USA. April, 2000.
- Atorvastatin induces eNOS in human platelets of hyperlipidemic subjects. Canadian Lipoprotein conference, Mt. Tremblant, Quebec, Canada. April 1998.
- Evidence for iNOS-dependent peroxynitrite production in Diabetic Platelets. Canadian Diabetes Association conference, Calgary, AB, Canada. Oct 1998.
- Phototherapeutic and clinical aspects of nitric oxide and related compounds. Biochemistry Dept., University of Windsor, Canada. June 1998.
- A photo-activated, protein-based, peroxynitrite generating system composed of the nitric oxide derivative of apo-metallothionein (thionein-NO) and glucose oxidase. American Association of Clinical Chemistry/Canadian Association of Clinical Chemistry Annual Meeting, Chicago, IL, USA. July 1996.
- Assessment of photochemotherapeutic effect of T-NO on Cells in culture. Annual Meeting, Canadian Federation of Biological Societies. London, ON, Canada. June 1996.
- Assessment of photochemotherapeutic effect of Thionein/GOD on tumor cells in culture. The Michigan section of the American Association of Clinical Chemistry. Ypsilanti, MI, USA. May 1995.
- Chemotherapeutic role of metallothionein/NO in tumor cells. The University of California Irvine (UCI) Symposium for Cancer Research, Irvine, CA, USA. March 1995.