

Mathieu Lupien

Prepared January 14th, 2008

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EDUCATION

1999-2005 Ph.D. McGill University, Biology (Molecular Oncology)
1996-1998 M.Sc. McGill University, Biology (Neurophysiology)
1993-1996 B.Sc. McGill University, Biology (Molecular Biology and Biotechnology)

PROFESSIONAL EXPERIENCE

1999-2001 Research assistant, Clinical Research Institute of Montreal (IRCM)

POSTDOCTORAL TRAINING

2005-present Postdoctoral Fellow/Molecular Oncology, Dana-Farber Cancer Institute

AWARDS AND HONORS

2008-present Post-Doctoral Fellowship, Department of Defense (DoD), US Army (~\$200,000/yr)
2005 Era of Hope Meeting (DoD, US Army)/Traveling Award
2002-2004 Ph.D. Scholarship, Montreal Center for Experimental Therapeutics in Cancer (MCETC)
2003 European Molecular Biology Organization (EMBO) Conference Award
2003 Best Speaker, 23rd Experimental Medicine PhD Seminar Series, McGill University
1998, 2004 McGill University Alma Matter Travel Grant
1997-1998 Best Teaching Assistant, McGill Biology Student Union

TEACHING AND MENTORING EXPERIENCE

2005-2007 Ph.D. student training leading to publication, Harvard University
2001-2005 M.Sc. student training leading to publication, Université de Montréal
1999-2005 Undergraduate student training leading to publication, Université de Montréal
1997-1998 Undergraduate student teaching over four semesters: one 6-hr Cell and Molecular laboratory period per week, McGill University

INVITED PANELIST AND PRESENTATIONS

2007 Invited Speaker, 1st U.S. ChIP-on-chip Scientific Meeting, Boston, MA
2007 Panelist (ChIP-on-chip and meDIP technical aspects), 1st U.S. ChIP-on-chip Scientific Meeting, Boston, MA
2007 Panelist (ChIP-on-chip technical aspects), 2nd Annual Cistrome Meeting. Boston, MA.

JOURNAL REVIEWS

2007-present Molecular Cell
 2006-present Cancer Research
 2006-present Molecular Endocrinology
 2004-present The Journal of Psychiatric Research

PUBLICATIONS

- 1) ***Lupien, M.**, *Eeckhoute, J., Meyer, CA., Wang, Q., Zhang, Y., Li, W., Carroll, JS., Liu, XS and Brown, M. (2008). FoxA1 translates epigenetic signatures into enhancer driven lineage-specific transcription. Cell. (in press)
 * Authors with equal contribution
- 2) Frietze, S., **Lupien, M.**, Silver, PA. and Brown, M. (2008). Coactivator-associated arginine methyltransferase CARM1 is required for estrogen stimulated breast cancer growth through up-regulation of E2F1. Cancer Res. 68: 301-306
- 3) *Eeckhoute, J., *Keeton, EK., **Lupien, M.**, Krum, SA., Carroll, JS. and Brown, M. (2007). A positive cross-regulatory loop ties GATA-3 to estrogen receptor alpha expression in breast cancer. Cancer Res. 67: 6477-6483
 * Authors with equal contribution
- 4) **Lupien, M.**, Jeyakumar, M., Hebert, E., Hilmi, K., Cotnoir-White, D., Lock, C., Auger, A., Dayan, G., Pinard, G-A., Wurtz, J-M., Moras, D., Katzenellenbogen, J. and Mader, S. (2007). Raloxifene and ICI182,780 increase estrogen receptor- α association with a nuclear compartment via overlapping sets of hydrophobic amino acids in activation function 2 helix 12. Mol. Endocrinol. 21: 797-816
- 5) ***Lupien, M.**, *Diévert, A., Morales, C.R., Hermo, L., Calvo, E. Kay, D.G., Hu, C. and Jolicoeur, P. (2006). Expression of constitutively active Notch1 in male genital tracts results in ectopic growth of efferent ducts, blockage at the rete testis/efferent duct junction, epididymal hyperplasia and sterility. Dev. Biol. 300: 497-511
 * Authors with equal contribution
- 6) Dayan, G., **Lupien, M.**, Auger, A., Anghel, S.I., Rocha, W., Croisetiere, S., Katzenellenbogen, J.A. and Mader, S. (2006). Tamoxifen and raloxifene differ in their functional interactions with aspartate 351 of estrogen receptor α . Mol. Pharmacol 70: 579-588
- 7) *Hu, C., *Diévert, A., ***Lupien, M.**, Calvo, E., Karsan, A., Tremblay, G. and Jolicoeur, P. (2006). Overexpression of activated murine Notch1 and Notch3 in transgenic mice blocks mammary gland development and induces mammary tumors. Am. J. of Pathol. 168: 973-990
 * Authors with equal contribution
- 8) **Lupien, M.** (2005). Molecular Mechanisms of Estrogen Receptor Alpha Inactivation by Antiestrogens. Ph.D. Thesis, McGill University, Montreal, Quebec, Canada
- 9) ***Lupien, M.**, *Marshall, S., Leser, W., Pollack, G.S. and Honegger, H-W. (2003). Antibodies against the PER protein of *Drosophila* label neurons in the optic lobe, central brain and thoracic ganglia of the cricket *Teleogryllus commodus* and *Teleogryllus oceanicus*. Cell Tissue Res. 312: 377-391
 * Authors with equal contribution
- 10) **Lupien, M.** (1998). Correlation between ultradian and circadian rhythm in the cricket, *Teleogryllus oceanicus*: potential role for the *period* gene. M.Sc. Thesis. McGill University. Montreal, Quebec, Canada

BOOK CHAPTER

- 1) Invitation to write a book chapter detailing the methodology for conducting Chromatin ImmunoPrecipitation applied on DNA microarray (ChIP-on-chip) of transcription factors. *Methods in Molecular Biology* (in preparation for April 2008)

ABSTRACTS

- 1) Lupien, M., Eeckhoute, J., Meyer, CA., Krum, SA., Fietze, SE., Zhang, Y., Carroll, JS., Silver, PA., Liu, XS and Brown, M. (2007) Genome-wide estrogen induced histone methylation defines the functionally active estrogen receptor alpha (ER α) cistrome. *The Fourth Meeting on Chromatin Structure and Function*. Antigua.
- 2) **Lupien, M.**, Eeckhoute, J., Meyer, CA., Krum, SA., Fietze, SE., Zhang, Y., Carroll, JS., Silver, PA., Liu, XS and Brown, M. (2007) Estrogen-induced changes in breast cancer cell epigenome: Defining activating ER α binding sites. 1st U.S. ChIP-onChip Scientific Meeting. Boston, USA.
- 3) Eeckhoute, J., Keeton, EK., Li, W., **Lupien, M.**, Meyer, CA., Carroll, JS., Liu, XS and Brown, M. (2007) Transcriptional factor network involved in estrogen receptor signalling in breast cancer cells. 4th Annual Symposium of the Dana-Farber/Harvard Cancer Center Program in Breast Cancer. Boston, USA
- 4) **Lupien, M.**, Eeckhoute J, Meyer, CA., Krum, SA., Fietze, SE., Carroll, JS., Silver, PA., Liu, XS and Brown, M. (2007) Estrogen induced changes in breast cancer cell epigenome: Defining activating ER α binding sites. 4th Annual Symposium of the Dana-Farber/Harvard Cancer Center Program in Breast Cancer. Boston, USA
- 5) **Lupien, M.**, Hilmi, K., Hebert, E., Cotnoir-White, D and Mader, S. (2007) Raloxifene and ICI182,780 increase estrogen receptor alpha association with a nuclear compartment via overlapping sets of hydrophobic amino acids in AF2 helix 12. ENDO meeting, Toronto, Canada
- 6) Hilmi, K., **Lupien, M.**, Emtiazjoo, A., Hebert, E. and Mader, S. (2005) Mechanisms of constitutive activation of the estrogen receptor alpha. Louis-Bouthiller Seminar. St-Sauveur, Canada
- 7) **Lupien, M.**, Auger, A., Dayan, G., Pinard, G-A., Anghel, S.I., Loch, C., Wurtz, J-M., Moras, D. and Mader, S. (2005) Role of Long hydrophobic amino acid in AF-2 helix 12 in transcriptional repression of estrogen receptor alpha by antiestrogens. Era of Hope (US Army), Philadelphia, USA
- 8) **Lupien, M.**, Auger, A., Dayan, G., Pinard, G-A., Anghel, S.I., Loch, C., Wurtz, J-M., Moras, D. and Mader, S. (2005). Role of AF-2 helix 12 positioning in transcriptional repression of estrogen receptor alpha by full antiestrogens. Keystone symposia, Monterey, USA
- 9) Morales CR, **Lupien M**, Dievart A, et al. (2004) Male infertility in transgenic mice expressing constitutively active Notch1. *Biology of Reproduction*: 133-133 176 Sp. Iss. SI, Vancouver, Canada
- 10) **Lupien, M.**, Emtiazjoo, A., Melançon, G., Cormier, O., Loch, C., Wurtz, J-M., Moras, D. and Mader, S. (2003). Ligand-free estrogen receptor alpha activation: Its impact on breast cancer treatment. 23rd Annual Experimental Medicine Seminar, Montreal, Canada
- 11) **Lupien, M.**, Emtiazjoo, A., Melançon, G., Cormier, O., Loch, C., Wurtz, J-M., Moras, D. and Mader, S. (2003). Long hydrophobic amino acids upstream of H12 repress transcriptional activity of unliganded or full antiestrogen-bound estrogen receptor alpha. EMBO Conference, Ville-Franche-sur-Mer, France
- 12) Anghel, S., Perly, V., **Lupien, M** and Mader, S. (2002) Modulation of Estrogen Receptor Alpha Levels by Estrogen and Antiestrogens. Era of Hope (US army). Orlando, Florida, USA

- 13) **Lupien, M.**, Rocha, W., Marquier, G., Dayan, G., Chagnon, S. and Mader, S. (2002). Mise en évidence de nouveau corégulateur potentiel du récepteur aux estrogènes alpha. 2nd Cancer Gene and Cell Therapy Colloquium, Montreal, Canada
- 14) **Lupien, M.**, Dievart, A., Tremblay, G., Morales, C.R. and Jolicoeur, P. (2000). Activated Notch1 implication in mammary gland tumor development. American Association for Cancer Research, Mouse Model for Cancer Meeting, San Diego, USA
- 15) **Lupien, M.**, Hekimi, S. and Pollack, G.S. (1998). Correlation between circadian and ultradian rhythms in cricket: role for the period gene. International Neuroethology Meeting, San Diego, USA
- 16) **Lupien, M.**, Pollack, G.S. and Hekimi, S. (1998). Correlation between ultradian and circadian rhythms in cricket *Teleogryllus oceanicus*. 24th East Cost Nerve Net. Woods Hole, USA