Matthew J. LeBaron

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Education

UNIFORMED SERVICES UNIVERSITY OF THE HEALTH SCIENCES (USUHS), Bethesda, Maryland
Doctor of Philosophy in Pathology, June 2003
Research Focus: Molecular aspects of cellular signaling in human pathogenesis.
Dissertation Title: Technologies for Genome-Wide Identification of Stat5 Regulated Genes.

MICHIGAN STATE UNIVERSITY, East Lansing, Michigan
Bachelor of Science with Honors in Anatomy and Physiology, May 1994

UNIVERSITY OF SOUTHERN CALIFORNIA, Los Angeles, California
Earned 32 credits toward a Bachelor of Architecture degree, September 1990 – May 1991

Postdoctoral Training and Faculty Appointments

DOW CHEMICAL COMPANY, Midland, Michigan
Senior Toxicology Specialist, Toxicology and Environmental Research and Consulting,
January 2007 – Present

KIMMEL CANCER CENTER, Thomas Jefferson University, Philadelphia, Pennsylvania
Instructor, Department of Cancer Biology, March 2006 – January 2007

LOMBARDI COMPREHENSIVE CANCER CENTER, Georgetown University Medical Center, Washington, DC
Postdoctoral Fellow, Department of Oncology, June 2003 – February 2006
Research Focus: Molecular analysis of human cancers.

Research Support, Awards and Honors

CITATION OF EXCELLENCE IN RESEARCH FOR HIGH IMPACT PUBLICATION
Lombardi Comprehensive Cancer Center, Washington, DC, December 2005

NATIONAL INSTITUTES OF HEALTH NATIONAL RESEARCH SERVICE AWARD (T32-CA009686-08)
Postdoctoral Training Grant, April 2005 – February 2006

USUHS DISSERTATION AWARD (T074-LH-02)
USUHS, Bethesda, MD, October 2001 – September 2002

USUHS DISSERTATION AWARD (T074-LH)
USUHS, Bethesda, MD, October 2000 – September 2001

USUHS GRADUATE STUDENT COLLOQUIUM BEST POSTER AWARD
USUHS, Bethesda, MD, March 2001

Peer-Reviewed Publications

LeBaron MJ and Rui H. Alterations in Stat5-chromatin association patterns in breast cancer (in preparation, 2007).

LeBaron MJ, Ahonen TJ, Nevalainen MT, Rui H. *In vivo* response-based identification of direct hormone target cell populations using high-density tissue arrays. *Endocrinology* 2007;148(3):989-1008.

Utama FE, **LeBaron MJ**, Neilson LM, Sultan AS, Parlow AF, Wagner KU, Rui H. Human prolactin receptors are insensitive to murine prolactin: implications for xenotransplant modeling of human breast cancer in mice. *Journal of Endocrinology* 2006;188(3): 589-601.

Rui H and **LeBaron MJ**. Creating tissue microarrays by Cutting Edge Matrix Assembly. *Expert Review of Medical Devices* 2005;2(6): 673-680.

LeBaron MJ, Crismon HR, Utama FE, Neilson LM, Sultan AS, Johnson KJ, Andersson EC, Rui H. Ultrahigh density microarrays of solid samples. *Nature Methods* 2005;2(7): 511-513. (Comment in *Nature Methods* 2005;2(7): 492-493.)

LeBaron MJ, Xie J, Rui H. Evaluation of genome-wide chromatin library of Stat5 binding sites in human breast cancer. *Molecular Cancer* 01 Feb 2005;4:6 doi:10.1186/1476-4598-4-6.

Sultan AS, Xie J, **LeBaron MJ**, Ealley EL, Nevalainen MT, Rui H. Transcription factor Stat5 stimulates homotypic adhesion and inhibits invasive characteristics of human breast cancer cells. *Oncogene* 2005;24(5): 746-760.

Li H, Ahonen TJ, Alanen K, Xie J, **LeBaron MJ**, Pretlow TG, Ealley EL, Zhang Y, Nurmi M, Singh B, Martikainen PM, Nevalainen MT. Activation of signal transducer and activator of transcription 5 in human prostate cancer is associated with high histological grade. *Cancer Research* 2004;64(14):4774-4782.

Ahonen TJ, Xie J, **LeBaron MJ**, Zhu J, Nurmi M, Alanen KA, Rui H, and Nevalainen MT. Inhibition of transcription factor Stat5 induces cell death of human prostate cancer cells. *Journal of Biological Chemistry* 2003;278(29): 27287-27292.

LeBaron MJ. DNA microarray methodology. The American Society for Microbiology's MicrobeLibrary.org, 12 May 2003.

Xie J, **LeBaron MJ**, Nevalainen MT, Rui H. Role of tyrosine kinase Jak2 in prolactin-induced differentiation and growth of mammary epithelial cells. *Journal of Biological Chemistry* 2002;277(16):14020-14030.

Yamashita H, Nevalainen MT, Xu J, **LeBaron MJ**, Wagner KU, Erwin RA, Harmon JM, Hennighausen L, Kirken RA, Rui H. Role of serine phosphorylation of Stat5a in prolactin-stimulated β-casein gene expression. *Molecular and Cellular Endocrinology* 2001;183:151-163.

Presentations

Invited

LeBaron MJ, Ahonen TJ, Nevalainen MT, Rui H. *In situ* profiling to identify PRL, GH, EPO, and GCSF-responsive cells in rat tissues. Invited Oral Session presented at ENDO 2006: The Endocrine Society's 88th Annual Meeting, Boston, MA, June 24-27, 2006.

LeBaron MJ, Ahonen TJ, Nevalainen MT, Rui H. Functional identification of PRL and GH target cells in rat tissues. Invited Platform Presentation presented at the 2006 Gordon Research Conference on the Prolactin Family, Ventura, CA, January 29-February 3, 2006.

LeBaron MJ, Xie J, Rui H. Regulation of Stat5-chromatin association patterns in breast cancer cells by glucocorticoids. Invited Oral Session presented at ENDO 2003: The Endocrine Society's 85th Annual Meeting, Philadelphia, PA, June 19-22, 2003.

LeBaron MJ, Xie J, Rui H. Strategy to identify interaction sites of transcription factor Stat5 within the human genome. Invited Platform Presentation presented at the Ninth Annual USUHS Research Day and Graduate Student Colloquium, Bethesda, MD, May 15-16, 2002.

LeBaron MJ, Xie J, Rui H. Strategy to identify interaction sites of transcription factor Stat5 within the human genome. Invited Platform Presentation presented at the 2002 Gordon Research Conference on Prolactin, Ventura, CA, January 27-February 1, 2002.

LeBaron MJ, Yamashita H, Rui H. Suppressive role of serine phosphorylation sites within the transactivation domain of transcription factor Stat5a. Invited Oral Presentation of Special Featured Poster presented at the Seventh Annual USUHS Research Day and Graduate Student Colloquium, Bethesda, MD, March 22-23, 2000.

Seminars and Other Presentations

LeBaron MJ. Organism-wide *in situ* profiling of hormone-inducible Stat5 activation in rat tissues. Tumor Biology Data Club, Lombardi Comprehensive Cancer Center, Georgetown University Medical Center, Washington, DC, October 6, 2005.

LeBaron MJ. Identification of interaction sites for transcription factor Stat5 within the human genome. Department of Pathology Seminar, USUHS, Bethesda, MD, October 4, 2002.

LeBaron MJ. Method to identify Stat5 response elements by chromatin immunoprecipitation. Department of Pathology Seminar, USUHS, Bethesda, MD, October 26, 2001.

LeBaron MJ. Stat5 in hematopoietic cancer. Department of Pathology Seminar, USUHS, Bethesda, MD, May 31, 2000.

Abstracts

Utama Fe, Ryder A, **LeBaron MJ**, Rui H. Responsiveness of human prolactin receptors to prolactin from multiple species relevant for experimental modeling of human breast cancer. In: ENDO 2006: The Endocrine Society's 88th Annual Meeting Program and Abstracts Book, Boston, MA, June 24-27, 2006 [on CD-ROM].

Abstracts (cont)

Johnson KJ, **LeBaron MJ**, Neilson LM, Rui H. Investigating the role of phosphatases in regulation of the Prl/Jak/Stat5 signaling pathway in breast cancer. 2006 Gordon Research Conference on the Prolactin Family, Ventura, CA, January 29-February 3, 2006.

Utama FE, **LeBaron MJ**, Neilson LM, Sultan AS, Wagner KU, Rui H. Murine prolactin is a poor agonist for human prolactin receptors. In: ENDO 2005: The Endocrine Society's 87th Annual Meeting Program and Abstracts Book, San Diego, CA, June 4-7, 2005 [on CD-ROM].

LeBaron MJ, Crismon HR, Utama FE, Neilson LM, Sultan AS, Johnson KJ, Andersson EC, Rui H. Ultrahigh density microarrays of solid samples. In: Cambridge Healthtech Institute's Sixth Annual Microarrays in Medicine – Arrays of Possibilities Conference Abstracts and Proceedings, Boston, MA, May 4-5, 2005 [on CD-ROM].

LeBaron MJ, Xie J, Rui H. Genome-wide identification of chromatin interaction sites for transcription factor Stat5. In: Keystone Symposium on Jaks and Stats: Development to Disease Abstract Book, Whistler, BC, Canada, April 15-20, 2004, p. 63.

LeBaron MJ, Kerenyi M, Rui H. Harakiri, a prolactin regulated Stat5 target gene in breast cancer cells. 2004 Gordon Research Conference on Prolactin, Ventura, CA, February 1-6, 2004.

Sultan A, Xie J, Zhu J, **LeBaron MJ**, Rui H. Activation of transcription factor Stat5, but not Stat3, inhibits invasive characteristics of human breast cancer cell lines. 94th Annual Meeting of the American Association for Cancer Research, Washington, DC, July 11-14, 2003.

Xie J, **LeBaron MJ**, Nevalainen MT, Rui H. Targeted suppression of tyrosine-kinase Jak2: Impact on prolactin-induced differentiation and growth of mammary epithelial cells. 2002 Gordon Research Conference on Prolactin, Ventura, CA, January 27-February 1, 2002.

Patents and Patent Applications

Rui H and **LeBaron MJ**. Ultrahigh density array methodology. International Patent Application No. 60/513,197 (pending), October 2003.

Mentored Students

Heidi Crismon, M.D. student, Georgetown University School of Medicine, Washington, DC, June – December 2004

Ogan Abaan, Ph.D. student, Tumor Biology Interdisciplinary Program, Georgetown University, Washington, DC, February – April 2004

Lynn Neilson, Ph.D. student, Tumor Biology Interdisciplinary Program, Georgetown University, Washington, DC, November 2003 – February 2004

Marc Kerenyi, visiting student, Research Institute of Molecular Pathology, Vienna, Austria, July – September 2003

Mentored Students (cont)

Youhong Wang, Ph.D. student, Tumor Biology Interdisciplinary Program, Georgetown University, Washington, DC, June – August 2003

Joo Young-Lee, M.S. student, Tumor Biology Interdisciplinary Program, Georgetown University, Washington, DC, September 2002 – May 2003

Appointed Committees

Faculty Member, Endocrine Mechanisms and Hormone Action Program, Kimmel Cancer Center, Thomas Jefferson University, Philadelphia, PA, July 2006 - Present

Student Representative, Outstanding Biomedical Educator Award Committee, USUHS, Bethesda, MD, January 2002

Student Member, Graduate Program Review Committee, Graduate Education and Department of Pathology, USUHS, Bethesda, MD, November 2001

Student Representative, Assistant Dean for Graduate Education Search Committee, USUHS, Bethesda, MD, May 2001

Volunteer and Extracurricular Activities

Member, Ice Hockey Team, National Institutes of Health, Bethesda, MD, January 2002 – March 2006

Co-Captain, Ice Hockey Team, USUHS, Bethesda, MD, October 1999 – May 2003

Member, Ice Hockey Team, USUHS, Bethesda, MD, October 1998 – October 1999

Fellow, Primary Care Career Exploration Program, Butterworth Hospital, Blodgett Hospital, and St. Mary's Health Center, Grand Rapids, MI, March 1996 – August 1996

Surgery Ward/Operating Room Assistant, Ingham Medical Center, Lansing, MI, June 1993 – August 1993