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Curriculum Vitae

JEREMY M. BOSS

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Place of Birth: Brooklyn, New York

Family: Wife and daughter

Education:

B.S. 1977; Biology, State University of New York at Albany

M.S. 1979; Biology, State University of New York at Albany

Ph.D. 1982; Biology, State University of New York at Albany, Department of Biological Sciences. Yeast Genetics and Molecular Biology. *Mentor: Dr. Richard S. Zitomer.*

Postdoctoral Fellow: Sept. '82 - Aug. '86; Harvard University, Department of Biochemistry and Molecular Biology. Molecular Biology and Immunology. *Mentor: Dr. Jack L. Strominger.*

Honors and Fellowships:

-Distinguished Doctoral Dissertation Award, May 1982.

-Damon Runyon Cancer Fund Postdoctoral Fellowship, Jan. '83 - Sept. 83.

-NIH Postdoctoral Fellowship Award; Sept.'83 - Aug.'86.

-Outstanding Faculty Service Award, Graduate Program in Genetics & Molecular Biology 2008.

-Elected Member, Henry Kunkel Society, 2013.

-to be awarded: *American Association of Immunologists* – Distinguished Service Award 2014.

Appointments: (Current)

•**Professor:** Emory University School of Medicine, Department of Microbiology & Immunology. September 1997 – present.

•**Department Chair:** Department of Microbiology & Immunology, Emory University School of Medicine. June 2009 — present.

•Editor-in-Chief: *The Journal of Immunology*, American Association of Immunologists. 2008-2013.

•Director, Graduate Program in Genetics and Molecular Biology: Emory University. May 1994 - June 2001; June 2004 to June 2008.

•**Member:** Emory Vaccine Center 2010-present.

•**Councilor:** Association of Medical School Microbiology and Immunology Chairs, 2012-2015.

•Deputy Editor, *The Journal of Immunology*, American Association of Immunologists. 2003-2008.

•Associate Professor: Emory University School of Medicine, Department of Microbiology & Immunology, Atlanta, Georgia. September 1992-August 1997.

•Program Leader: Winship Cancer Center Developmental Program in Gene Expression and Signal Transduction. August 1995 - September 1996.

•Director of Graduate Studies, Program in Genetics and Molecular Biology: May 1990- May 1994.

•Assistant Professor: Emory University School of Medicine, Department of Microbiology & Immunology, Atlanta, Georgia. September 1986 - August 1992.

Research Foci:

Molecular and epigenetic mechanisms of immune system gene regulation

Regulation of human major histocompatibility complex class II genes

Regulation of PD-1 during chronic viral infection

PUBLICATIONS

From Graduate Studies with Dr. Richard S. Zitomer at State University of New York at Albany

1. **Boss, J.M.**, Darrow, M.D., and Zitomer, R.S. (1980) Characterization of the yeast iso-1 cytochrome c mRNA. *J. Biol. Chem.* 255: 8623-8628.
2. **Boss, J.M.**, Gilliam, S., Zitomer, R.S., and Smith, M. (1981) Sequence of the yeast iso-1 cytochrome c mRNA. *J. Biol. Chem.* 256: 12958-12961.
3. Montgomery, D.L., **Boss, J.M.**, McAndrews, S., Marr, L., Walthall, D., and Zitomer, R.S. (1982) The molecular characterization of three transcriptional mutations in the yeast iso-2 cytochrome c gene. *J. Biol. Chem.* 257: 7756-7761.
4. Wright, C.F., Walthall, D.A., **Boss, J.M.**, and Zitomer, R.S. (1982) Insertion mutations which stimulate expression of the yeast iso-2 cytochrome c gene. *Current Genetics* 7: 117-122.

From Postdoctoral Studies with Dr. Jack L. Strominger at Harvard University

5. Roux-Dosseto, M. Auffray, C., Lillie, J.W., **Boss, J.M.**, Cohen, D., DeMars, R., Mawas, C., Seidman, J.G., and Strominger, J.L. (1983) Genetic mapping of a human class II antigen β chain cDNA clone to the SB region of the HLA complex. *Proc. Natl. Acad. Sci. USA* 80: 6036-6040.
7. **Boss, J.M.**, and Strominger, J.L. (1984) Cloning and sequence analysis of a DC-3 β gene. *Proc. Natl. Acad. Sci. USA* 81: 5199-5203.
8. Collins, T., Korman, A., Wake, C., **Boss, J.M.**, Kappes, D., Fiers, W., Ault, K., Gimbrone Jr., M., Strominger, J.L., and Pober, J. (1984) Immune interferon activates multiple class II major histocompatibility complex genes and the associated invariant chain gene in human endothelial cells and dermal fibroblasts. *Proc. Natl. Acad. Sci. USA* 81: 4917-4921.
9. Okada, K., Prentice, H., **Boss, J.M.**, Levy, D., Kappes, D., Spies, T., Raghupathy, R., Mengler, R., Auffray, C., and Strominger J.L. (1985) SB subregion of the human major histocompatibility complex: Gene organization, allelic polymorphism and expression in transformed cells. *EMBO J.* 4: 739-748.
10. Okada, K., **Boss, J.M.**, Prentice, H., Spies, T., Mengler, R., Auffray, C., Lillie, J., Grossberger, D., and Strominger, J.L. (1985) Gene organization of the DC and DX subregions of the human major histocompatibility complex. *Proc. Natl. Acad. Sci. USA*, 82: 3410-3414.
11. **Boss, J.M.**, Mengler, R., Okada, K., Auffray, C., and Strominger, J.L. (1985) Sequence analysis of the human major histocompatibility gene SX α . *Mol. Cell Bio.* 5: 2677-2683.
12. Spies, T., Sorrentino, R., **Boss J.M.**, Okada, K., and Strominger, J.L. (1985) Structural organization of the DR region of the human major histocompatibility complex. *Proc. Natl. Acad. Sci. USA* 82: 5165-5169.
13. Collins, T., Ginsburg, D., **Boss, J.M.**, Orkin, S.H., and Pober, J.S. (1985) Cultured human endothelial cells express platelet-derived growth factor B chain: cDNA cloning and structural analysis. *Nature* 316: 748-750.
14. Dialynas, D.P., Murre, C., Quertarmous, T., **Boss, J.M.**, Seidman, J.G., and Strominger, J.L. (1985) Cloning and characterization of complementary DNA encoding an aberrantly rearranged human T cell gamma chain. *Proc. Natl. Acad. Sci. USA* 83: 2619-2623.
15. Sorrentino, R., Auffray, C., **Boss, J.M.**, Grossberger, D., Kappes, D., Levy, D., Levy, D., Lillie, J., Mengler, R., Okada, K., Prentice, H., Raghupathy, R., Spies, T., and Strominger, J.L. (1986) Major histocompatibility complex class II antigens: Genes and proteins. *Mt. Sinai J. Med.* 53: 202-209.

16. **Boss, J.M.**, and Strominger, J.L. (1986) Regulation of a transfected human class II MHC gene in human fibroblasts. *Proc. Natl. Acad. Sci. USA.* 83: 9139-9143.
17. Haas, D.A., **Boss, J.M.**, Strominger, J.L., and Spies, T. (1987) A highly diverged b1 exon in the DR region of the human MHC: Sequence and evolutionary implications. *Immunogenetics.* 25: 15-20.
18. Auffray, C., Lillie, J.W., Korman, A.J., **Boss, J.M.**, Frechin, N., Guillemot, F., Cooper, J., Mulligan, R.C., and Strominger, J.L. (1987) Structure and expression of HLA-DQ alpha and -DX alpha genes: Interallelic alternate splicing of the HLA-DQ alpha gene and functional splicing of the HLA-DX alpha gene using a retroviral vector. *Immunogenetics* 26: 63-73.

At Emory University

19. Sloan, J.H. and **Boss, J.M.** (1988) Conserved upstream sequences of the human MHC gene, DQ β , direct B cell specific expression: comparison to a class II negative B cell line. *Proc. Natl. Acad. Sci. USA.* 85: 8186-8190.
20. Wilkinson, K.D., Lee, K., S. Deshpande, Duerksen-Hughes, P.L., **Boss, J.M.**, and Pohl, J. (1989) The neuronal specific protein, PGP 9.5 is a member of a newly recognized protein family of ubiquitin carboxy terminal hydrolases. *Science* 246:670-673.
21. Hasegawa, S.L., Sloan, J.H., Reith, W., Mach, B., and **Boss, J.M.** (1991) Regulatory factor-X binding to mutant HLA-DRA promoter sequences. *Nucleic Acids Research* 19:1243-1249.
22. **Boss, J.M.**, Laster, S.M., and Gooding, L.R. (1991) Sensitivity to tumour necrosis factor-mediated cytolysis is unrelated to manganese superoxide dismutase messenger RNA levels among transformed mouse fibroblasts. *Immunology* 73: 309-315.
23. Hasegawa, S.L., Doetsch, P.W., Hamilton, K.K., Martin, A.M., Lenz, J., Okenquist, S.A., and **Boss, J.M.** (1991) DNA binding properties of YB-1 and dbpA: binding to double stranded, single-stranded, and abasic site containing DNAs. *Nucleic Acid Research* 19: 4915-4920.
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25. Sloan, J.H., Hasegawa, S.L., and **Boss, J.M.** (1992) Single base pair substitutions within the HLA-DRA gene promoter separate the functions of the X1 and X2 boxes. *Journal of Immunology* 148: 2591-2599.
26. Gordon, H.M., Kucera, G., Salvo, R., and **Boss, J.M.** (1993) Tumor necrosis factor induces genes involved in inflammation, cellular and tissue repair, and metabolism in murine fibroblasts. *Journal of Immunology* 148: 4021-4027.
27. Hasegawa, S.L., Riley, J.L., Sloan, J.H., and **Boss, J.M.** (1993) Protease treatment of nuclear extracts distinguishes between class II major histocompatibility complex X1 box DNA-binding proteins. *Journal of Immunology* 150: 1781-1793.
28. Riley, J.L. and **Boss, J.M.** (1993). Class II Major Histocompatibility Complex Transcriptional Mutants are Defective in Higher Order Complex Formation. *Journal of Immunology* 151: 6942-6953.
29. Lu, Y., Ussery, G.D., Jacim, M., Tschickardt, M. **Boss, J.M.**, and Blanck, G. (1994) Retinoblastoma protein regulation of surface CD74 (invariant chain) expression in breast carcinoma cells. *Molecular Immunology* 31: 1365-1368.
30. Chin, K.-C., Mao, C., Skinner, C., Riley, J.L., Wright, K.L., Moreno, C.S., Stark, G.R., **Boss, J.M.**, Ting, J.P.-Y. (1994) Molecular analysis of G1B and G3A IFN γ mutants reveals that defects in CIITA or RFX result in defective class II MHC and Ii gene induction. *Immunity* 1: 687-698.

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32. Riley, J.L., Westerheide, S.D., Brown, J.A., Price, J.A., and **Boss, J.M.** (1995) Activation of class II MHC genes requires both the X box region and the class II transactivator CIITA. *Immunity* 2: 533-543.
33. Lu, H.-T., Riley, J.L., Babcock, G.T., Huston, M., Stark, G.R., **Boss, J.M.**, and Ransohoff, R.M. (1995) IFN- β acts downstream of IFN- γ -induced CIITA mRNA accumulation to block MHC class II gene expression and requires the 48 kD DNA binding protein, ISGF3- γ . *Journal of Experimental Medicine* 182: 1517-1525.
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38. Ping, D., Jones, P.L. and **Boss, J.M.** (1996) TNF regulates the in vivo occupancy of both distal and proximal regulatory regions of the murine monocyte chemoattractant protein-1 (MCP-1/JE) gene. *Immunity* 4: 455-470.
39. Jabrane-Ferrat, N., Fontes, J.D., **Boss, J.M.**, and Peterlin, B.M. (1996) Complex architecture of major histocompatibility complex class II promoters: Reiterated motifs and conserved protein-protein interactions. *Molecular and Cell Biology* 16: 4683-4690.
40. Smith, E.R., Jones, P.L., **Boss, J.M.**, and Merrill Jr., A.H. (1997) Changing J774A.1 cells to new medium perturbs multiple signaling pathways, including the modulation of protein kinase C by endogenous sphingoid bases. *Journal of Biological Chemistry* 272: 5640-5646.
41. Lee, Y.-J., Lu, H.-T., Nguyen, V., Qin, H., Howe, P.H., Rogers, E., **Boss, J.M.**, Ransohoff, R.M., and Benveniste, E.N. (1997) Transforming growth factor- β suppresses IFN- γ induction of class II MHC gene expression by inhibiting class II transactivator mRNA expression. *Journal of Immunology* 158: 2065-2075.
42. Westerheide, S.D., Louis-Pence, P., Ping, D., and **Boss, J.M.** (1997) The HLA-DMA and HLA-DMB require the X-box region, RFX, and CIITA for expression. *Journal of Immunology* 158: 4812-4821.
43. Moreno, C.S., Rogers, E., Brown, J.A., and **Boss, J.M.** (1997) The bare lymphocyte deficient factor RFX is a heterotrimer and phosphorylate in vivo. *Journal of Immunology* 158: 5841-5848.
44. Louis-Pence, P., Moreno, C.S., and **Boss, J.M.** (1997) Formation of a RFX-X2BP-NF- κ B multiprotein complex on the conserved regulatory regions of HLA-class II genes. *J. Immunology* 159: 3899-3909.
45. Jones, P.L., Ping, D., and **Boss, J.M.** 1997. TNF- α and IL-1 β regulate the murine manganese superoxide dismutase gene through a complex intronic enhancer involving C/EBP- β and NF- κ B. *Molecular and Cellular Biology* 17: 6970-6981.
46. Miller, D.M., Rahill, **Boss, J.M.**, J.E., Lairmore, M., B, Durbin, Waldman, W.J., and Sedmak, D.D. 1998. Human cytomegalovirus inhibits major histocompatibility complex class II expression by disruption of the Jak/Stat pathway. *Journal of Experimental Medicine* 187: 675-683.
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- astrocytoma cells: functional interaction between a gamma activated site (GAS) and a GC -rich element. *Journal of Immunology* 160:3908-3916.
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49. Morris, A., Riley, J.L., Fleming, H., and **Boss, J.M.** 1998. MHC class II gene silencing in trophoblast cells is caused by inhibition of CIITA expression *American Journal of Reproductive Immunology* 40:3 85-94.
Commentary on paper in journal.
50. Brown, J.A., Rogers, E.M., and **Boss, J.M.** 1998. Mutational analysis of the MHC class II transactivator (CIITA) indicates a functional requirement for interactions with the conserved W-box promoter element. *Nucleic Acids Research* 26: 4128-4136.
51. Ping, D., Boekhoudt, G.H., Rogers, E.M., and **Boss, J.M.** 1999. NF- κ B p65 mediates the assembly and activation of the tumor necrosis factor responsive element of the murine monocyte chemoattractant-1 gene. *Journal of Immunology* 162: 727-734.
52. Nagarajan, U., Louis-Pence, P., DeSandro, A., Nilsen, R., Bushey, A., and **Boss, J.M.** 1999. RFX-B, the gene responsible for the most common cause of the bare lymphocyte syndrome, a MHC class II immunodeficiency *Immunity* 10: 153-162.
Journal Cover describing mechanism in paper
53. Moreno, C.S., Beresford, G., Louis-Pence, P., Morris, A.C., and **Boss, J.M.** 1999. CREB regulates MHC class II expression in a CIITA dependent manner. *Immunity* 10: 143-151.
Journal Cover describing mechanism in paper (back to back papers with the one above)
54. Westerheide, S.D. and **Boss, J.M.** 1999. Orientation and positional mapping of the subunits of the multicomponent transcription factors RFX and X2BP to the major histocompatibility complex class II transcriptional enhancer. *Nucleic Acids Research* 27: 1635-1641.
55. Ping, D., Boekhoudt, B., and **Boss, J.M.** 1999. Trans-retinoic acid blocks the PDGF induced induction of the monocyte chemoattractant-1 gene by blocking the assembly of a promoter proximal Sp1 binding site. *Journal of Biological Chemistry* 274: 31909-31916.
56. DeSandro, A., Nagarajan, U., and **Boss, J.M.** 1999. The Bare Lymphocyte Syndrome: Molecular clues to the transcriptional regulation of MHC class II genes. *Am. J. Hum. Gen.* 65: 279-286.
57. Brown, J.A. and **Boss, J.M.** 1999. Transcriptional regulation of major histocompatibility complex class II genes. *Recent Developments in Immunology* 1: 217-237.
58. Ping, P., Boekhoudt, G., Zhou, F. Morris, A., Philipson, S., Warren S.T., and **Boss, J.M.** 2000. Sp1 binding is critical for promoter assembly and activation of the MCP-1 gene. *Journal of Biological Chemistry* 275:1708-1714.
59. Morris, A.C., Spangler, W.E., and **Boss, J.M.** 2000. Methylation of class II transactivator promoter IV prevents gene expression in trophoblast cells. *Journal of Immunology* 164: 4143-4149.
60. Nagarajan, U.M., Peijnenburg, A., Gobin, S.J.P., **Boss, J.M.**,[§] and Elsen, P.V.D. 2000. Novel mutations within the RFX-B gene and partial rescue of MHC and related genes through exogenous class II transactivator in RFX-B-deficient cells. *Journal of Immunology* 164: 3666-3674.
[§]Communicating author
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63. Beresford, G.W., and **Boss, J.M.** 2001. CIITA binding in vivo increases acetylation at the *HLA-DRA* promoter and upstream nucleosomes. *Nature Immunology* 2: 652-657.
64. Goodwin, B., Xi, H., Eason, D., Ghosh, N., Wright, K, Wuderlich, J., **Boss, J.M.**, Blanck, G. 2001 Varying functions of specific major histocompatibility class II transactivator promoter III and IV elements in melanoma cell lines. *Cellular Growth and Differentiation* 12: 327-335.
65. Gobin, S.J.P., van Zutphen, M., Westerheide, S.D., **Boss, J.M.**, and van den Elsen, P.J. 2001. The MHC-specific enhanceosome and its role in MHC class I and $\beta 2$ - microglobulin gene transactivation. *Journal of Immunology* 167: 5175-5184.
66. Nagarajan, U.M., Lochamy, J., Chen, X., Beresford, G.W., Nilsen, R., Jensen, P.E., and Boss, J.M. 2002. CIITA is required for maximal expression of HLA-DOB in B cells. *Journal of Immunology* 168: 1780-1786.
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71. Boekhoudt, G.H., Guo, Z., Beresford, G.W., and **Boss, J.M.** 2003. Communication between NF- κ B and Sp1 controls histone acetylation within the proximal promoter of the MCP-1 gene. *Journal of Immunology* 170:4139-4147.
- Manuscript Featured in "In This Issue" section.**
72. Guo, Z., Boekhoudt, G.H., and **Boss, J.M.** 2003. Role of the intronic enhancer in the tumor necrosis factor induction of MnSOD gene. *Journal of Biological Chemistry* 278:23570-23578.
73. Hornell, T.M.C., Bushey, A., Beresford, G.W., **Boss, J.M.**, and Mellins, E.D. 2003. Regulation of the class II pathway in primary human monocytes by Granulocyte-Macrophage Colony Stimulating Factor. *Journal of Immunology* 171: 2374-2384.
74. **Boss, J.M.** 2003. CIITA and MHC Transcription. Interview Review. *Modern Aspects of Immunobiology* 3: 18.
75. van den Elsen, P.J., Holling, T.M., van der Stoep, N., and **Boss, J.M.** 2003. DNA methylation and expression of MHC class I and CIITA genes in human developmental tumor cells and in T cell malignancies. *Clinical Immunology (Special Edition) DNA Methylation in the Immune System*. 109: 46-52. PMID: 14585275
76. Nagarajan, U.M, Bushey-Long, A., Harreman, M.T., Corbett, A.H., and **Boss, J.M.** 2004. A hierarchy of nuclear localization signals governs the import of the RFX complex subunits and MHC class II expression. *Journal of Immunology* 173: 410-419.
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77. Fujita, N., Jaye, D.L., Giegerman, C., Akyildiz, A., Mooney, M.R., **Boss, J.M.**, and Wade, P.A. 2004. MTA3 and the Mi-2/NuRD complex regulate cell fate during B-lymphocyte differentiation. *Cell* 119: 75-86.

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89. Green, M.M. Yoon, H., and **Boss, J.M.** 2006. [Epigenetic regulation during B cell differentiation controls CIITA promoter accessibility.](#) *Journal of Immunology* 177:3865-3873.
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****Article chosen for commentary feature**
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Scharer, C.D., Lohsen, S., Choi, N., and Boss, J.M. CIITA binds to numerous sites within the B cell genome.

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Book Chapters

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Boss, J.M. and Eckert, S.H. 2003. ***To Teach or Not to Teach?*** Science’s Next Wave – On line Journal. May 9, 2003. <http://nextwave.sciencemag.org/cgi/content/full/2003/05/08/1>

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RESEARCH SUPPORT

Current Support

1) 5 R01 GM47310-16 P.I. Jeremy M. Boss 20% effort
NIH/GM, AI 8/1/1993 - 4/01/2015

Regulation of the human MHC class II genes

This program examines the role of chromatin structure and function in the regulation of MHC-II gene expression. Specific aims address histone modifications and remodeling systems, role of the enhancer insulator CTCF on MHC-II expression, and the organization of MHC chromatin architecture with respect to long-range interactions.

2) T32 NIGMS GM008490-21 Program Director: Jeremy M. Boss 10% effort
NIH NIGMS 6/2013 – 5/2018

Predocutorial Training in Genetics

This institutional training grant supports students and activities in the Graduate Program in Genetics and Molecular Biology.

3) 1 PO1AI 080192-05 P.D. Rafi Ahmed Project 2, PI Jeremy M. Boss 0% effort
NIH/NIAID 9/08-9/14 - in no cost extension.

PD-1 Function, Signaling, and Regulation During Viral Infection

Project 2, Regulation and Expression of PD-1

This Program Project (PO1) with Rafi Ahmed, Bruce Walker and Daniel Kaufmann (Harvard U.), Rafick Sekaly (U. Montreal), James Riley (U. Penn), Gordon Freeman (Dana Farber Cancer Inst), Arlene Sharpe (Harvard Med School), and Michael Dustin (NYU) seeks to understand the regulation of PD-1 and its function with respect to HIV infection.

4) 2U19 AI05726-09 NIAID P.D. Rafi Ahmed Project 1, Co-Investigator Jeremy M. Boss 10%
NIH/NIAID 5/1/09-4/31/14

NIH/NIAID Vaccine Induced Immunity in the Young and Aged

Project 1, Immune Memory –

In this project, we will examine the gene expression profiles and changes in DNA methylation in antigen specific CD8 T lymphocytes of human volunteers undergoing vaccination to yellow fever virus. The gene expression profiling will provide us with the first longitudinal human study on what makes a good vaccine, as yellow fever virus vaccination is highly effective. For the DNA methylation studies, we hypothesize that we will discover genes that have to be critically controlled to allow the formation of antigen specific cells.

5) Michael J. Fox Foundation for Parkinson's Research (PI: Tansey, MG; Co-Inv: Boss, JM) 5% effort
Feb 2014 –2016

“Age-related alterations in LRRK2 expression and function in immune cells and risk for idiopathic PD”

The overall goal of this application is to test the hypotheses that age- or PD- related changes in LRRK2 expression result in a skewed immune cell repertoire, dysregulated signal transduction coupling, and altered activation responses of innate and adaptive immune cells.

6) R21 1R21NS084647-01 (PI: Tansey, M; Co-Inv, Boss) 10% calendar
NIH/NINDS 4/1/14-3/31/16

Immunophenotyping in LRRK2 mutation carriers

The overall goal of this application is to test the hypothesis that pathogenic LRRK2 mutations a) disrupt monocyte and T-cell homeostasis and/or the ability to respond to activation.

Role: co-inv, 10% effort

To be funded – impact score 14 with 2%tile.

Student Fellowship Support

F31 AI 112261-01 (PI, Barwick BG – Sponsor, Boss)

Epigenetic programming of B cell Terminal Differentiation

NIH/NIAID 4/1/2014-3/31/2017

Graduate Student Fellowship

Pending Support:**U19 Autoimmunity Centers of Excellence**

1U19AI110483-01 (PD: I. Sanz; Proj Lead – Collaborative Project, Boss, JM) 20% effort

NIH/NIAID 4/1/2014 – 3/31/2019

U19 Autoimmunity Centers of Excellence: B cell autoimmunity in human SLE**Collaborative Project: Epigenetic Regulation of Autoimmunity**

This collaborative project will create epigenetic maps of autoimmune cells and compare gene expression patterns to identify novel biomarkers and specific epigenetic programming events that lead to autoimmune disease. **Slated for funding.**

RO1 NS0844476-01A1 – (Dual P.I. Tansey, M. and Boss J.M.) 20% effort

Role of MHC-II gene expression in Parkinson's Disease

This grant seeks to understand the relationship between MHC-II gene expression and Parkinson's Disease and is based on the findings of a strong SNP within the HLA-DRA MHC-II gene. Experiments will explore the epigenetics regulation of HLA-DRA and also use mouse models to investigate MHC-II dependent immune responses to alpha-synuclein. 25%tile – unlikely to be funded.

2U19 AI05726-11 (PD: R. Ahmed; Project 1, Co-Inv JM Boss) 5% effort
NIH/NIAID 5/1/14-4/31/19 salary only

NIH/NIAID Vaccine Induced Immunity in the Young and Aged

Project 1, Immune Memory – The epigenetic relationship in T cells produced during vaccination will be studied through whole genome approaches.

Slated for funding

New -RO1 – (PI: Boss, JM) 20% effort
NIH/NIAID 7/1/2014 – 6/30/2019

Regulation of PD-1 gene expression

This program will examine the cis-regulatory elements that function to regulate PD-1 during acute and chronic infection, determine the interplay between the transcription factors NFATc1, Blimp-1, and STAT3, and examine the role that the chromatin modifier LSD1 plays in regulating PD-1 expression in T cells.

Received an impact score of 20 and is in the 7th %tile.

New - 1R21 AI114391-01 P.I. Boss, J.M., co-PI Daniel Kaufmann (U. Montreal and MGH) 5% Effort
NIH/NIAID 7/1/2014-6/30/2016

Epigenetic dynamics of HIV specific CD8 T cells

This program will determine the DNA methylation profiles of HLAB*5701 HIV specific CD8 T cells and compare those within elite controllers, as well as to HIV chronic progressors.

Past Extramural Support:

- NSF Research Grant, PI. Regulation of MHC class II genes (Principal Investigator) 1989-1991.

- NIH RO1, PI. Cloning of Tumor Necrosis Factor induced genes (Principal Investigator) 1989-1996 (2- three year competing awards).
 - NIH P30 Induction of Dermal Endothelial Specific Genes by TNF α (Seed Grant Investigator)
 - NIH NCRR Shared Instrumentation Award. (Co-PI and Author) 1994. Phosphorimager Analysis
 - NIH NCRR Shared Equipment Grant: (Principal Investigator) 4/1/99 - 3/31/00
Mass Spectrometer, Triple Quadrupole \$312,000 direct costs
 - Georgia Research Alliance: (Principal Investigator) 6/99.
Funds to purchase a Flow Cytometer. \$150,000.
 - NIH P.I. Jenny Ting, (U. N. Carolina) J. Boss- Co-Organizer
MHC Class II Regulation and Disease Symposium - for March 2001.
 - NIH NICHD 1R01 HD34440-05 P.I. Jeremy M. Boss
9/15/96 -8/31/02 \$824,571 direct costs
Role of Class II MHC in Maternal-Fetal Tolerance
 - NIH NIAID 1R21 RR15183-01 P.I. Jeremy M. Boss
9/01/99 - 8/31/02 \$300,000 direct costs
In vivo markers of T cell differentiation
 - NIH/NCRR Shared Equipment Grant: P.I. Jeremy M. Boss
4/1/02 - 3/31/03 \$493,815
Funds to purchase Q-Tof Mass Spectrometer
 - RO1 96810-05 P.I. Jeremy M. Boss
NIH NCI 7/02 - 6/07
Regulation of the manganous superoxide dismutase gene
 - 1R01 CA74271-08 P.I. Jeremy M. Boss
NIH NCI/NIAID 04/01/1997 - 12/31/2008
Regulation of the murine MCP-1/JE gene
 - 5R01 DK065961-04 P.I. Jeremy M. Boss
NIH NIDDK 1/1/05 -12/31/09
Estrogen Receptors, MTA3 and transcriptional repression
The project seeks to identify MTA3 targets and to characterize their regulation in response to estrogen and MTA3. Elucidation of the molecular regulation of the MTA3 target genes Snail and Slug is being pursued. This grant was initially obtained by Dr. Paul Wade while he was at Emory and transferred to Dr. Boss to continue the training of his fellows and students.
 - T32 AI 76070-10 PD: Linda Gooding; co-Director: Jeremy M. Boss
NIH Training Grant, NIAID 7/00-6/10
- Pre- and Postdoctoral Training in Immunology and Molecular Pathogenesis**
This training grant support students and postdoctoral fellows in the IMP graduate program and their related laboratories. The training grant is still in force. Dr. Brian Evavold is the PD now.
- NCRR Shared Instrumentation Grant P.I. Jeremy M. Boss
NIH SBRR Equipment Grant – 4/1/10

Typhoon Trio Imaging System

Equipment grant to purchase a new phosphorimager/scanner system.

1R01 AI34000-15; 2R56 AI34000-16; P.I. Jeremy M. Boss

NIH NIAID 4/1/1993-8/31/2012

Function and Regulation of the class II transactivator (CIITA)

Target Validation Grant P.I. Jeremy M. Boss

Michael J. Fox Foundation July 1, 2011-June 30, 2013

Molecular basis of PARK18 in Parkinson's Disease

This joint project with Drs. Malu Tansey, Stewart Factor, and Jae Lee will investigate the new marker of Parkinson's disease, which resides in the *HLA-DRA* gene of the human MHC.

Past Intramural Support (partial listing)

Emory University Research Committee	9/96-4/97	\$10,000
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Regulation of MHC class II genes

Emory University Research Committee	6/99- 10/99	\$30,000
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Fluorescent markers of T cell differentiation

Emory – Udall Parkinson's Disease Center and the Atlanta Clinical and Translational Science Institute (ACTSI) Pilot Grant Program UL1RR025008 (ACTSI and 1P50NS071669 (Udall Pilot grants)

P.I. Jeremy M. Boss 1% effort 2011-2012, \$35,000.

Molecular Basis for PARK18 Association with Parkinson's Disease

PD-CERC Pilot Grant Program P.I. Malu Tansey; co-Investigator, Jeremy M. Boss;

July 1, 2011- June 30, 2012

Role of MHC class II in Parkinson's Disease

Continued on next page

ACTIVITIES AND SERVICE

Professional Societies

American Association for the Advancement of Science
 American Association of Immunologists
 American Society of Microbiologists
 Association of Medical School Microbiology and Immunology Chairs

National Positions

- **Councilor:** Association of Medical School Microbiology and Immunology Chairs Executive Committee. 1/2012 – 12/2015. Elected by membership.

National Service (••current, • past; most recent service listed first)

Peer Review Groups

- External Reviewer, National Cancer Institute Intramural Research Program Review Cmte for Experimental Immunology Branch – April 2010, April 2014 pending.
- External Reviewer for University of Utah Graduate Program in Immunology, Nov 2012.
- Ad hoc reviewer, NIH, NIGMS, BRT-B study section. Chair of site visit team for Genetics Graduate program, May 2011.
- Ad hoc reviewer, Natural Sciences and Engineering Research Council of Canada, 2010.
- Member, National Institutes of Health, NIGMS, Biomedical Research Training Programs (BRT-A and -B), October 2001->05. Ad hoc in 2005, special panel in 2006. Ad hoc in October, 2008.
- Ad hoc, WWTF Austrian Science Foundation – grant review, June 2009.
- Ad hoc, American Cancer Society; Study Section for Development, Differentiation in Cancer, June 2008.
- Ad hoc, National Science Foundation. Research in Undergraduate Institutions grant reviewer. March 2009.
- Ad hoc, National Institutes of Health, Cell and Molecular Immunology A Study Section, June 2007. Special Review for CMIA in July 2007.
- Ad hoc member, Associazione Italiana per la Ricerca sul Cancro, Cancer Immunology review panel. 2007.
- NIH, Special review Panel for NIAID, November 2004.
- NIH, Special review Panel for ALY and NIAID. December 2003 and December 2004.
- NIH, Special Review Panel for NIDDK program project, Pathophysiology of Renal Allograft Dysfunction. Dec. 2003 and Dec 2004..
- Ad Hoc, American Cancer Society; Study Section for Cancer and Immunology Jan 2000.
- Ad hoc, National Institutes of Health, Study Section NBRR, Instrumentation review panel, July 1999.
- National Institutes of Health, Ad Hoc - NINDS, Program Project (NSDB) review, June '97
- Member, American Cancer Society; Study Section for Cancer and Immunology August '96 to July '98.
- Ad Hoc, National Institutes of Health, Allergy and Immunology Study Section, Fall '95.
- Member, American Cancer Society, Study Section for Personnel for Research - B grants. June 93 to June '96.
- National Institutes of Health, NIAID - DMID Special Study Section "Design and construction of vaccines for *Plasmodium falciparum* malaria" March 1993.
- National Institutes of Health, NIAID - Special Study Section for "Program Projects on new methods of immune intervention". RFA-A1-91-11; March 1992.
- National Science Foundation. Genetics Program. Ad hoc reviewer for NSF Research Grants.

Editorial Board Positions

- Editor-in-Chief, *The Journal of Immunology*, July 2008-2013 - American Association of Immunologists.
- Ex-Officio member AAI Council and Publications Committee – American Association of Immunologists 2008-2013. Position associated with Editor-in-Chief.
- Deputy Editor, *The Journal of Immunology*, January 2003-> July 2008.
- Associate Editor, *The Journal of Immunology*, April 2001-> November 2002.

Journal Reviewer

Ad Hoc reviewer for:

•EMBO Journal	•Immunity
•Immunogenetics	•FASEB Journal
•Journal of Biological Chemistry	•The Journal of Immunology
•Molecular and Cellular Biology	•Nucleic Acids Research
•Proceedings of the National Academy of Sciences	•Genomics
•Journal of Leukocyte Biology	•Science
•Cell	•American Journal of Human Genetics
•Journal of Cellular Biochemistry	•Oncogene
•Blood	•European Journal of Immunology
•PLoS Genetics	• Nature Methods
•Journal of Clinical Investigation	•PLoS Pathogens
•Epigenetics	

and others.....

Academic Advisor/Consultant

- Advisor/Consultant for University of Puerto Rico Medical School's (San Juan) Minority Biomedical Research Support-Research Initiative for Scientific Enhancement (MBRS-RISE) program and grant - 2007-2011.

Meeting Symposia Organization Committees (•Current)

Co-organizer with Dr. J. Ting (U. N. Carolina) HLA gene expression meeting, held in South Carolina

Member, Organizing Cmte: Spring Southeastern Immunology Symposium. 2012

Member, Organizing Cmte: Spring Southeastern Immunology Symposium. 2013

- Chair, Organizing Cmte: Spring Southeastern Immunology Symposium. 2014

University Service: (••current, • past) Major participation or leadership (bolded)

- Director of graduate student admissions for Department of Microbiology and Immunology. Graduate Program. Spring 1986 - Fall 1988.
- Faculty Search Committee (Microbiology/ Immunology). 1989.
- Faculty Search Committee (Pathology). 1989.
- Organizer of Department Seminar Program (3 years). 9/89 - 9/93.
- Organizer of Immunology Graduate Program Seminar Program. 9/89 - 9/94.
- Committee to evaluate and rank Emory's American Cancer Society seed money grant. Fall 90 - Spring 96.
- Member, various capacities, Executive Committee for Genetics and Molecular Biology Graduate Program. Spring 1990 -> present. Chaired from '94-2001 and 2004-2008.**
- Director of Graduate Studies** for the Genetics and Molecular Biology Graduate Program. Spring 1990 - May '94.
- Graduate Student Admissions Recruiter**, Genetics and Molecular Biology Graduate Program. Spring 1990 - May '94.

- Member, Executive Committee, Immunology and Molecular Pathogenesis graduate program. Fall 9/90 - 6/92; 2002-> present.**
- Committee on Graduate Student Teaching Assignments. 6/90 -> 9/97.
- Chair**, committee to allocate Department equipment budget. 9/91 -> 2005?.
- Member, Curriculum Committee, Program in Genetics. 1/92 -> 99.
- Medical Student Research Day Poster Presentation Judge. 1/92.
- Faculty Search Committee, Department of Genetics and Molecular Medicine. Spring '92.
- Faculty Search Committee, Department of Pathology. Spring '92.
- Internal Advisory Board, Winship Cancer Center. Fall '92 ->Fall '93.
- Member**, various capacities, Executive Committee, Genetics and Molecular Biology Training Grant. Spring '93 -> present. Currently Chair and Training Grant Program Director.
- Director, Graduate Program in Genetics and Molecular Biology. May '94 to June 01; June 2004 to June 2008.**
- Member, Executive Committee, Graduate Division of Biological and Biomedical Sciences. May '94 to June 01; June 2004->2008.
- Leader, Developmental Program in Gene Expression and Signal Transduction for the Winship Cancer Center. Spring '95 -> '97.
- Division of Biological and Biomedical Graduate Programs, Long Range Planning Committee, Aug '95 -> 97.
- Departmental Review Committee for Dr. Amy Sears. Fall 95.
- Bishop Litton Chair Search Committee. Fall '95 -> Fall '96.
- Departmental Review Committee for Dr. Brian Evavold. Fall 96.
- School of Medicine Ad hoc Promotions and Tenure Committee. Fall 1996 -> June 2001.
- Departmental Review Committee for Dr. Glen Barber. Spring 1997.
- Department of Dermatology Chairman Search Committee, Spring 1997
- Subcommittee, School of Medicine, Strategic Planning Incentives and Center/Program Project Organization, Spring 1997.
- Departmental Strategic Plan Subcommittee Chair, Cancer Immunology, Spring 1997.
- Core Facilities Advisory Subcommittee to Medical School Research Advisory Committee, Fall 1997 -> Sept 2002.
- Founder and Chair** of organization committee for Emory's genetics symposia - Molecular Genetics and Human Disease. June 1998 --> May 2002.
- Chair, Departmental Review Committee for Dr. John Altman, Summer 1998.
- Co-Director**, Immunology Training Grant. June 1998--> June 2010.
- Chair, Departmental Postdoctoral Fellowship Evaluation Committee, PRIME. Sept. 1998-->2000.
- Chair**, Immunology Graduate Program Curriculum Committee 1998->2006.
- Medical School Office of Postdoctoral Education Advisory Committee. Jan 1999 --> June 2009.
- Chair, Mass Spectrometry Oversight Committee, June 1999.
- Member**, Research Advisory Committee for School of Medicine. Sept. 1999--> Sept 2002.
- Chair**, Research Advisory Sub-committee on Core Laboratories. Sept 2001-2002.
- Chair, Dept. Committee for progress review of Dr. Joshy Jacob, March 2000, 2002.
- Chair, Postdoctoral Selection and Review committee, IMP training grant, Sept. 2000-june 2010.
- Charter Member, Faculty committee on Tenure and Promotions**, School of Medicine, June 2001-May 2003.
- Health Science Center, Basic Science Research IT Focus Group, July 2001.
- Member, Department Finance Committee, Sept 2002- 2003.
- Member, Research Advisory Subcommittee on DNA sequencing core. Nov 2002.
- Member, Oral Exam Committee for Genetics and Molecular Biology graduate program, 2003-2004
- Member, Oral Exam Committee for Immunology and Molecular Pathogenesis graduate program, 2003-2005.
- Member, Strategic Planning Subcommittee, Immunology Focus, 2003.
- Member, Strategic Planning Subcommittee, Genomics Focus, 2003.
- Chair, Dept. Committee for progress review of Dr. David Steinhauer, 2003, 2007.
- Chair, Research Advisory Subcommittee on DNA sequencing core, 2003.
- Member, Cottrell Fellows Postdoctoral Training Program Executive Committee, 2003 -> 2008.
- Co-chair**, School of Medicine Curriculum Revision Sub-committee on Mentoring. Feb 2005 → Jul 2005.
- Acting Chair: Cottrell Fellows Postdoctoral Training Program, Jan 2005->Jan 2007.

- Member, Committee on Faculty Development 2006-2010.
- Member, Dean's Task Force on Faculty Development 2006-Sept 2007.
- Co-Director**, GMB Training Grant, 2006-> 2007.
- Program Director, GMB Training Grant, 2007- present.**
- Member, WHSC Research Advisory Committee Fall 2009-present
- WHSC Strategic Plan Task Force – Resource Sub Committee, Fall 2009.
- Member, Cell Biology Chair Search Committee, Spring 2011.
- Member, Environmental Health Safety Steering and Search Committee, Spring 2011 – present
- Member, Conflict of Interest Website Development Group, Summer 2011.
- Chair, Scientific Integrity Committee, School of Medicine.** Fall 2011-present
- Member, Executive Committee overseeing the development of Shared Research Administration Services. Fall 2012 – August 2013.
- Member, Advisory/Steering Committee for the Lowance Center, Emory University School of Medicine. January 2013- present.
- Member, Dean's Research Agenda Advisory Committee. Spring 2013 – Present
- Member, School of Medicine committee to review the meaning and definition of tenure – charged by Provost, Executive VP of Emory Healthcare, and Dean. Spring 2013 – September 2013.
- Member, Review Panel Pilot Projects –Cooperative Centers on Human Immunology Emory Vaccine Center. July 2013-present.
- Member, Research Administration Services Advisory/Oversight Committee. January 2014 - present

Commercial Consulting

Promega Biotech, Inc., 1985
 Betagen, Inc., 1985-1988
 LifeCodes, Inc., 1986-1988
 C-six Diagnostics, Inc., 1991
 Scriptgen Pharmaceuticals, Inc., 1995
 Rockland Immunologicals 1998- present
 Bio-Rad Laboratories, Inc. 2001

Licensing and Patents

•Rockland Immunologicals, Inc. Collaborative agreement and license with Emory University to develop antibodies to chromatin modifying proteins and transcription factors. Dr. Boss and Emory University receive royalties from the sale of antibodies. Current antibodies include: RFX5, CREB, pCREB, Blimp-1, Biotin ligase tag, histone H3, histone H3K4me0, and TET2.

CV Continued on next page

TEACHING / TRAINING / MENTORING

Faculty Mentorship Responsibilities

The Dept. of Microbiology and Immunology at Emory has a specific junior faculty mentoring program whereby the junior faculty choose a senior faculty member(s) to be his/her guide through their academic career. The list below represents those faculty who chose Dr. Boss to be their mentor.

Brian E. Evavold, Ph.D. 1997-> present – promoted to Associate Professor Sept 2001; Professor 2012.

John Altman, Ph.D. 1998 -> present – promoted to Associate Professor Sept 2002.

Joshy Jacob, Ph.D. 1999 -> present – promoted to Associate Professor, Sept 2007.

David Steinhauer, Ph.D. 2003-> present – promoted to Associate Professor Sept 2008

- Carmen Cadilla Vazquez, Ph.D. University of Puerto Rico School of Medicine. Dr. Boss served as a faculty mentor for Dr. Cadilla's SCORE grant and project on the regulation of Twist2 and its role in Setleis Syndrome.

- Discussant and Co-organizer – Emory Junior Faculty Development Course, Spring 2007 – Spring 2008.

- Section organizer and lecturer responsible for Emory Junior Faculty Development Course section on Grant Proposals. 2009-2011.

- Co-lecturer with Dr. Carolyn Meltzer- SOM Faculty Development Lecture Series – The NIH Study Section (Fall 2007).

Other Faculty Sponsorships/Mentorships at Emory

- Caleb Callen, MD, Department of Obstetrics/Gynecology – Co-sponsor for KO8 award. 2007-2009.

- Brian Pollack, MD/PhD, Assistant Professor, Department of Dermatology, 2006 -> present.

Ph.D. Students Trained

John H. Sloan, III, Ph.D. - Fall 1991.

Thesis: "The regulation of human major histocompatibility complex class II genes"

-Postdoctoral- Dr. Skip Virgin, Washington University, St. Louis

-Current Position: Principal Research Scientist, Laboratory for Experimental Medicine, Eli Lilly and Company.

Susan L. Hasegawa, M.D./Ph.D. program. Ph.D. - Spring 1992.

Thesis: "DNA/protein interactions at the promoters of human major histocompatibility complex class II genes."

Awarded the Helen Miller Research Award for the best scientific project by a medical student for Summer research.

-Awarded Woodruff Graduate Student Fellowship

-Resident, Brigham and Women's Hospital, Boston MA

-Postdoctoral: Douglas Engel's lab, U. Michigan.

-Current Position, Assistant Professor: Department of Pathology, Children's Hospital; Feinberg School of Medicine, Northwestern University.

James Riley, Ph.D., Fall 1994.

Thesis: "Activation of class II major histocompatibility complex genes"

-Postdoctoral fellow: Carl Jun's lab. Division of Retrovirus Research, U.S. Army

-Current Position: Professor, Research Track, Department of Pathology, University of Pennsylvania.

2011: Received GDBBS Distinguished Alumni of the Year award (first offered by Emory)

Peter Jones, Ph.D., Spring 1997.

Thesis: "Regulation of the Murine Manganous Superoxide Dismutase Gene"

- Postdoctoral Fellow, Alan Wolffe's lab at NIH.
- Previous Position: Assistant Professor, University of Illinois, Champagne-Urbana; Principal Scientist, Boston Biomedical Research Institute, Watertown, MA.
- Current Position: Associate Professor, Cell and Developmental Biology and Neurology & The Wellstone Program; University of Massachusetts Medical School.

Helen M. Gordon, M.D. Visiting Howard Hughes Medical Institute Fellow. Fall 1990 to Fall 1991. H. Gordon was a Duke University medical student that spent a year research rotation in my laboratory.

-Current Position: Physician

Carlos Moreno, Ph.D., Spring 1998.

Thesis: "Identification of factors that control the regulation of the major histocompatibility complex class II genes.

- Postdoctoral fellow: David Pallas's lab at Emory Univ.
- Current Position: Associate Professor, Department of Pathology and Laboratory Medicine, Emory University

Sandy Westerheide, Ph.D., Summer 1998.

Thesis "Anatomy of the MHC class II enhancer"

- Postdoctoral Fellow, Albert Baldwin's lab at U. North Carolina; Senior Research Fellow; Rick Morimoto's lab, Northwestern University.
- Current Position: Assistant Professor, Department of Cell Biology, Microbiology and Molecular Biology, University of South Florida (Dec 2009)

Jeffrey Brown, Ph.D. Spring 1999.

Thesis "Structure and functional analysis of the MHC class II transactivator, CIITA"

- Current Position: Senior Scientist, BASF Plant Science, LLC, N. Carolina

Wendi Spangler 1998 to 1999.

Withdrew from program due to personal reasons.

Ann Morris, Ph.D., Fall 2000.

Thesis: "Regulation of MHC class II gene expression at the fetal-maternal interface"

- Postdoctoral Associate and Adjunct Instructor. Dr. James Fadool's lab, Florida State University.
- Current Position: Assistant Professor, Department of Biology, University of Kentucky (Fall 2009)

Angela DeSandro, Ph.D., Spring 2001.

Thesis: Defining functional regions in the subunits of RFX, an MHC class II transcription factor.

- Post-doctoral Fellow – Clinical Chemistry, Department of Pathology, Division of Laboratory Medicine, Washington University, St. Louis,
- Current Position: Assistant Director, Clinical Chemistry Laboratories. Department of Pathology and Laboratory Medicine. Children's Mercy Hospitals and Clinics. Academic appointment in Department of Pediatrics at the University of Missouri-Kansas City School of Medicine

Gunther H. Boekhoudt, Ph.D. Spring 2003.

Thesis: Regulation of the monocyte chemoattractant protein-1 gene by tumor necrosis factor requires activation of transcription factors, chromatin modification, and long distance protein-protein communication.

Current Position: Research Scientist- Food and Drug Administration, US Government.

Alyssa Bushey-Long, Ph.D. Spring 2005

Thesis: Characterization of the bare lymphocyte syndrome transcription factors, from evolution to function.

Postdoctoral: Tamara Caspary Lab – Department of Human Genetics, Emory University.

Current Position: Postdoctoral Research Associate as above

Jonathan Lochamy, Ph.D. Summer 2005

Thesis: The Effects of cAMP, CREB, and CREB-associated proteins on transcription of the MHC-II genes.

Current Position: Assistant Professor Department of Biology – Georgia Perimeter College, Clarkston, GA.

Jorge A. Gomez, Ph.D. Fall 2005

Thesis: The affects of chromatin on MHC class II gene expression.

Postdoctoral Position: CDC Research Fellow, Influenza Division

Current Position: Senior Market Analyst, Solvay Pharmaceuticals, Inc.

Myesha Mooney Green, Ph.D., Summer 2006

Thesis: Regulation of the Class II Transactivator

Current Position: Primary School Teacher, Arbor Montessori School

Matthew B. Palmer, Ph.D. January 2007; MD 2008

Thesis: Regulation of the Snail gene transcription

Current Position: Residency in Pathology, Yale Medical School

Hyesuk Yoon, Ph.D. March 2010.

Thesis:

Current Position: Postdoctoral Fellow Position - Fred Alt Lab, Harvard Medical School

Wendy Zinzow-Kramer, Ph.D. February 2, 2012

Thesis: *CIITA* promoter I and isoform I expression and function in cells of the myeloid lineage.

Current Position: Postdoctoral Fellow at Emory University

Nancy Choi, Ph.D. June 2012

Thesis: Epigenetic regulation of MHC-II genes

Current Position: Postdoctoral Fellow – Ann Feeny Lab, Scripps Medical Research Institute

James Wes Austin, Ph.D. February 2014

Thesis: Regulation of PD-1 in CD8 T cells

Current Position: Postdoctoral Fellow.... To be determined.

Current Ph.D. Students

Sarah Edwards Lohsen 2008 to present

Benjamin Barwick 2011 to present

Alexander Bally 2011 to present

Visiting Exchange Students

Yan (Valorie) Tang 2013 to present
Central South University Changsha, China

Post Baccalaureate Student Program for Minorities in Science

Tamika Brooks 2003 to 2004 – Post Baccalaureate Student
Current Position: Researcher, Centers for Disease Control.

Asimi Siddiqi - summer 2013 – present Post Baccalaureate Student – volunteer.

Post Doctoral Fellows (Years, Current Position)

- Dongsheng Ping, Ph.D. 1994 - 1998. Computer Consultant Software Development
- Pascale Louis-Plence, Ph.D. 1995 to 1997. Charge de Recherche-CR1, CHU St. Eloi, Montpellier, France.
- Uma Nagarajan, Ph.D. 1997 to 2002.
 - Assistant Professor at University of Arkansas.
 - Assistant Professor, Department of Pediatrics, University of North Carolina, Chapel Hill.
- Christine Ruddy, Ph.D. 1997 to 1999. - alternative career in science.
- Guy Beresford, Ph.D. 1998 to 2003. Research Scientist, Natural resource Ecology Lab, Colorado State University, Fort Collins, CO.
- Shantha Kumar, Ph.D. 1997 to 2001. - Research position unknown
- Zhu Guo, Ph.D. 1999 to 2003. – Associate Service Fellow, Microbiologist, Molecular Virology and Vaccine Branch, Influenza Division, CDC, Atlanta, GA
- Belete Teferendgne, Ph.D. 2002 to 2005 – Senior Research Scientist, Food and Drug Administration, Bethesda, MD
- Brian Pollack, MD, PhD 7/03 to 6/06 – Assistant Professor, Dept. of Dermatology Emory University.
- Priya Ranjan, Ph.D. 8/03 to 10/06 – Scientist Position, Influenza Division at the CDC.
- Parimal Majumder, Ph.D. 9/03 to present. Currently Research Track Assistant Professor.
- Maritza Jaramillo, Ph.D. 6/04 to 9/04. Assistant Professor at INRS-Institut Armand-Frappier, Infectious Diseases
- Masahiro Kajita, Ph.D. 11/04 to 3/05- Assistant Professor, Univ. Japan.
- Naoyuki Fajita, Ph.D. 11/04 to 3/05 – Assistant Professor, University Kyoto, Japan
- Laura Bender, Ph.D. 2/05 to 1/06, Postdoctoral Fellow, Emory University.
- Melinda Horne, Ph.D. 2/05 to 1/07 – Disability back injury
- Latarshal Morton, Ph.D. 9/05 to 7/07 – FIRST Fellow, Undergraduate Science Career Development Administrator; Emory University
- Kenneth Oestreich, Ph.D. 9/06 to 9/08 –
 - Postdoctoral Fellow, Amy Weinman Lab. University of Washington Seattle – 2013
 - Assistant Professor, Virginia Polytechnic Institute and State University · Virginia Tech Carilion School of Medicine and Research Institute
- J. Christopher Cooper, PhD. 5/07 to 5/09 – Postdoctoral Fellow, University of Georgia
- Peiyuan Lu, Ph.D. 5-09 to present
- Christopher Scharer, Ph.D. 6-09 to present

Visiting Scientists

1998-Luis Barrera, Ph.D. Universidad de Antioquia, Medellin, Colombia
 1998, 2002-Sam Gobin, Ph.D. University of Leiden, Leiden, The Netherlands
 1999-Dominic Suisci, Ph.D. Fred Hutchinson Cancer Institute, Seattle, Washington
 1999- Gloria Vasquez, M.D. Universidad de Antioquia, Medellin, Colombia
 2007 – Braulio Jimenez, PhD, Professor, University of Puerto Rico Medical School.
 2007 – Jose Casanovas, PhD Student, University of Puerto Rico Medical School

2007 – Paul Wade, Ph.D. NIH Environmental Health Sciences

Graduate Program Memberships

- Department of Microbiology and Immunology Graduate Program, 1986 to 1988.
- Interdepartmental Program in Genetics, 1986 to 1988.
- Graduate Program in Immunology and Molecular Pathogenesis, 1988 to present.
- Graduate Program in Genetics and Molecular Biology, 1988 to present.

Rotation and Summer Students (Program Affiliation)

John Sloan	(Dept. Microbiology and Immunology Program)
Susan Hasegawa	(Dept. Microbiology and Immunology Program, MSTP)
Beth Moeller	(Dept. Microbiology and Immunology Program)
Mike Tuscan	(Dept. Microbiology and Immunology Program)
Susan Clippert	(Dept. Microbiology and Immunology Program)
Dan Cameron	(Dept. Microbiology and Immunology Program)
Sarah Satola	(Dept. Microbiology and Immunology Program)
Julie Davis	(Dept. Microbiology and Immunology Program)
Josh McCannless	(Genetics and Molecular Biology Program)
Maggie Flores	(Genetics and Molecular Biology Program, MSTP)
Claude Ashley	(Genetics and Molecular Biology Program, MSTP)
Melanie Fleek	(Immunology and Molecular Pathogenesis Program)
Chi-chuan Yang	(Genetics and Molecular Biology Program)
Deborah Wellner	(Immunology and Molecular Pathogenesis Program)
Yu-Sheng Chen	(Genetics and Molecular Biology Program)
Diana Blau	(Immunology and Molecular Pathogenesis Program)
Herbert Runnels	(Immunology and Molecular Pathogenesis Program)
Lisa Coburn	(Immunology and Molecular Pathogenesis Program)
Anna Speke	(Genetics and Molecular Biology Program)
Kimberly Jollow	(M.D./Ph.D., Immunology and Molecular Pathogenesis Program)
Kathy Mekjian	(Genetics and Molecular Biology Program)
Gloria Kelly	(Genetics and Molecular Biology Program)
Victoria Brown	(Immunology and Molecular Pathogenesis Program)
Mildred Quan	(M.D./Ph.D., Immunology and Molecular Pathogenesis Program)
Florence Roan	(M.D./Ph.D., Genetics and Molecular Biology Program)
Bret Friday	(M.D./Ph.D. Genetics and Molecular Biology Program)
Heather Roach	(Genetics and Molecular Biology Program)
M. Benjamin Hock	(Genetics and Molecular Biology Program)
Taku Kambayashi	(Immunology and Molecular Pathogenesis Program. MSTP)
Jessica Connelly	(Genetics and Molecular Biology Program)
Ben Studebaker	(Undergraduate Summer Program)
Jonathan Lochamy	(Genetics and Molecular Biology Program)
Tiffany Thomas	(Genetics and Molecular Biology Program)
Myesha Mooney	(Immunology and Molecular Pathogenesis Program)
Jorge Gomez	(Genetics and Molecular Biology Program)
Heather Cooke	(Undergraduate Summer Program)
Jonathan Cornett	(Genetics and Molecular Biology Program)
Matt Zuckerman	(Undergraduate Summer Program)
Andrea Siegel	(Immunology and Molecular Pathogenesis Program)
Anna Goldshmidt	(Neurosciences Graduate Program)
Katherine Gray	(Immunology and Molecular Pathogenesis Program)
Tasheka Stevenson	(Genetics and Molecular Biology Program)
David Lanier	(MSTP, Immunology and Molecular Pathogenesis Program)
Maxine Desmarte	(Immunology and Molecular Pathogenesis Program)
Christopher Scharer	(Genetics and Molecular Biology Program)
Kayla Bucholz	(Genetics and Molecular Biology Program)
Melissa Nelsin	(Summer Research Student)

Monica Hall	(Genetics and Molecular Biology Program)
Victoria Jesey	(Immunology and Molecular Pathogenesis Program)
James Wes Austin	(Genetics and Molecular Biology Program)
Anlys Olivera	(Neuroscience Program)
Sarah Edwards	(Genetics and Molecular Biology Program)
David Alderman	(Genetics and Molecular Biology Program)
Tao Wang	(Genetics and Molecular Biology Program)
Weiyan Li	(Biochemistry, Cell, & Developmental Biology Program)
Debbie Besu	(Immunology and Molecular Pathogenesis Program)
Jeong Ahn	(Genetics and Molecular Biology)
Jung-hua Lee	(Immunology & Molecular Pathogenesis Program)
Kate Henry	(immunology & Molecular Pathogenesis Program)
Richard Carter, III	(Genetics & Molecular Biology Program)
Sarah Bay	(Genetics & Molecular Biology Program)
Alexander Bally	(Immunology & Molecular Pathogenesis Program)
Mingyoung Lee	(Molecular Systems Pharmacology)
Benjamin Barwick	(Genetics & Molecular Biology Program)
Michael Holden-Nichols	(Genetics & Molecular Biology Program)
Sara Fieldler	(Genetics & Molecular Biology Program)

Graduate Student Thesis Committees (Year Degree Awarded; Affiliation)

1. Johnny Railey, Ph.D. (1987; Wu lab, Department of Microbiology and Immunology)
2. Phil Rather, Ph.D. (1988; Moran lab, Department of Microbiology and Immunology)
3. Ingrid Tanyecz, Ph.D. (1990; Ziegler lab, Department of Microbiology and Immunology)
4. Claudiu Bandea, Ph.D. (1990; Wu lab, Department of Microbiology and Immunology)
5. Martin Smith, Ph.D. (1990; Crouse lab, Department of Biology)
6. Liz Selby, M.S. (1990; Crouse lab, Department of Biology)
7. Kang Li, Ph.D. (1990; Department of Biochemistry)
8. Terzah Horton, MD, Ph.D. (1990; Gooding lab, Department of Microbiology and Immunology)
9. Nancy Marshall MD, Ph.D. (1990; Ziegler lab, Department of Microbiology and Immunology)
10. Hal Jones - Ph.D. (1991; Moran lab, Department of Microbiology and Immunology)
11. Paul Kirchman, Ph.D. (1992; Moran lab, Department of Microbiology and Immunology)
12. Andrew Chung, Ph.D. (1993; Wallace lab, Genetics and Molecular Biology Program)
13. Susan Safely, Ph.D. (1993; Ziegler lab, Immunology and Molecular Pathogenesis Program)
14. Claude Ashley, MD, Ph.D. (1994; Warren lab, Genetics and Molecular Biology Program)
15. Kathy Soreng, Ph.D. (1994; Jensen Lab, Immunology & Molecular Pathogenesis Program)
16. Fang Liu, Ph.D. (1994; Churchward lab, Immunology & Molecular Pathogenesis Program)
17. Kathy Kuntz, Ph.D. (1994; Warren lab, Biochemistry and Molecular Biology Program)
18. Jean Baldus, Ph.D. (1994; Moran lab, Immunology and Molecular Pathogenesis Program)
19. Maggie Florez-Shuler, MD, PhD (1995; Moran lab, Genetics and Molecular Biology Program)
20. Wei Zhou, Ph.D. (1995; Doetsch lab, Biochemistry and Molecular Biology Program)
21. Ingrid Ruf, Ph.D. (1995; Rollins lab, Genetics and Molecular Biology Program)
22. Margaret Lanterman Ph.D. (1995; Danner lab, Biochemistry and Molecular Biology Program)
23. Lisa Coburn, M.S. (1995; Evavold lab, Immunology and Molecular Pathogenesis Program)
24. Beth Hiltbolt, Ph.D. (1996; Ziegler lab, Immunology and Molecular Pathogenesis Program)
25. Tim Sparer, Ph.D. (1996; Gooding lab, Immunology and Molecular Pathogenesis Program)
26. Dereck Eberhart, Ph.D. (1996; Warren lab, Genetics and Molecular Biology Program)
27. Beth McConnell, Ph.D. (1996; Genetics and Molecular Biology Program)
28. Joanna Shisler, Ph.D. (1996; Gooding lab, Immunology and Molecular Pathogenesis Program)
29. Rebecca McHugh, Ph.D. (1997; Selvaraj Lab, Immunology and Molecular Pathogenesis Program)
30. Loni Longnecker, Ph.D. (1997; Physiology and Pharmacology Program)
31. Keith Rott, MD, Ph.D. (1997; Rollins/ Sears lab, Immunology & Molecular Pathogenesis Program)
32. Tad Sayer, Ph.D. (1997; Moran Lab, Microbiology and Molecular Genetics Program)
33. Ellen Kellner, Ph.D. (1997; Moran Lab, Microbiology and Molecular Genetics Program)
34. James Zimmering, M.D. Ph.D. (1998; Offermann Lab; Immunology & Molecular Pathogenesis)

35. Chris Zerylnick, Ph.D. (1999; Warren Lab; Genetics and Molecular Biology Program)
36. Cindy Buckner, M.D., Ph.D. (Moran Lab; Genetics and Molecular Biology)
37. J. Cale Lennon, Ph.D. (Reines Lab; Genetics and Molecular Biology Program)
38. Brian Harcourt, Ph.D. (Offermann Lab; Genetics and Molecular Biology Program)
39. Kathy Mekjian, Ph.D. (Moran Lab; Genetics and Molecular Biology Program)
40. Luke Esposito, Ph.D. (Wallace Lab; Biochemistry and Molecular Biology Program)
41. Gloria Kelly, Ph.D. (Genetics and Molecular Biology Program)
42. Brett Burkholter, M.S. (Danner Lab; Biochemistry and Molecular Biology Program)
43. Stephania Patton, Ph.D. (Warren Lab; Biochemistry, Cell, and Developmental Biology Program)
44. Georgette Cannon, Ph.D. (Caughman Lab; Immunology and Molecular Pathogenesis Program)
45. John Hural, Ph.D. (Brown Lab; Immunology and Molecular Pathogenesis Program)
46. Nikki Zirk, Ph.D., MPH (Ziegler Lab; Immunology and Molecular Pathogenesis Program)
47. Megan Wind, Ph.D. (Reines Lab; Genetics and Molecular Biology Program)
48. Karama Neal, Ph.D. (Lucchesi Lab; Genetics and Molecular Biology Program)
49. Victoria Brown, Ph.D. (Warren Lab; Genetics and Molecular Biology Program)
50. Anne Mackeiowitz, Ph.D. (Price lab; Biochemistry, Cell, and Developmental Biology Program)
51. Charlie Garnett, Ph.D. (2002, Gooding Lab; Immunology and Molecular Pathogenesis Program)
52. Adriane McNees, Ph.D. (2002, Gooding Lab; Immunology and Molecular Pathogenesis Program)
53. Jeff Mahr, Ph.D. (2002, Gooding Lab; Immunology and Molecular Pathogenesis Program)
54. Susan Lee, M.S. (2002, Brown Lab; Immunology and Molecular Pathogenesis Program)
55. Ben Hock, Ph.D. (2003, Brown Lab; Genetics and Molecular Biology Program)
56. Krista Simpson, Ph.D. (2003, Vertino Lab; Genetics and Molecular Biology Program)
57. Jeffrey Levine, Ph.D. (2003, Vertino Lab; Genetics and Molecular Biology Program)
58. Joseph Miller, Ph.D. (2003, Altman Lab; Immunology and Molecular Pathogenesis Program)
59. William O'Donnell, MD/PhD (2004, Warren Lab; Genetics and Molecular Biology Program)
60. Aaron Rubida, Ph.D. (2004, Murphy Lab; Molecular Systems Pharmacology Program)
61. Eric Mueller, Ph.D. (2004, Danner lab; Genetics and Molecular Biology Program)
62. Molly Freeman, Ph.D. (2005, Ziegler Lab; Immunology and Molecular Pathogenesis)
63. Greg Gregory, Ph.D. (2005, Brown Lab; Immunology and Molecular Pathogenesis)
64. Jonathan Cornett, Ph.D. (2006, Li Lab; Genetics and Molecular Biology Program)
65. Maria Zakharova, Ph.D. (2006, Evavold lab; Immunology and Molecular Pathogenesis)
66. Robert Collins, Ph.D. (2007, Cheng Lab; Biochemistry, Cell and Dev. Biol.)
67. Mindy Martin, Ph.D. (2007, Escayg Lab; Genetics and Molecular Biology Program)
68. Matt Bettini, Ph.D. (2008, Kersh Lab; Immunology and Molecular Pathogenesis Program)
69. Travis Riney, Ph.D. (2008, Moran Lab; Microbiology and Microbial Genetics)
70. Mary Lucas, Ph.D. (2009, Vertino Lab; Genetics and Molecular Biology Program)
71. Chris Scharer, Ph.D. (2009, Moreno Lab; Genetics and Molecular Biology Program)
72. Zoe Donaldson, Ph.D. (2009, Young Lab; Neuroscience Program)
73. Katherin Gray, Ph.D. 2009 (Speck Lab; Immunology and Molecular Pathogenesis Program)
74. Andrea Kasinski, Ph.D. 2009 (Fu Lab; Genetics and Molecular Biology Program)
75. Jacob Kagey, Ph.D. 2009 (Vertino Lab; Genetics and Molecular Biology Program)
76. Daniel Choo, Ph.D. 2010 (Ahmed Lab; Immunology and Molecular Pathogenesis Program)
77. Cheryl Clauson, Ph.D. 2010 (Doetsch Lab; Genetics and Molecular Biology Program)
78. Keith Zwulwach, Ph.D. 2010 (Jin Lab; Genetics and Molecular Biology Program)
79. Joe Sabatino, Ph.D. 2010 (Evavold Lab; Immunology and Molecular Pathogenesis Program)
80. Changhui Pak, Ph.D. 2011 (Corbett/Moberg Lab; Genetics and Molecular Biology Program)
81. Weiyan Li, M.S. 2011 (Ahmed Lab; Biochemistry, Cell & Developmental Biology Program)
82. Yu-Heng Lai, Ph.D. 2011 (Moreno Lab; Genetics and Molecular Biology Program)
83. Wendy Kellner, Ph.D. 2012 (Corces Lab; Genetics and Molecular Biology Program)
84. Clint Payden, Ph.D. 2012 (Speck Lab; Immunology and Molecular Pathogenesis Program)
85. Victoria Jesey, Ph.D. 2012 (Jackie Katz Lab; Immunology and Molecular Pathogenesis Program)
86. Beth Bowman 2013 (Kelly Lab; Biochemistry, Cell & Developmental Biology Program)
87. Tuoqi Wu 2013 (Ahmed Lab; Biochemistry, Cell, & Developmental Biology Program)

Current Doctoral Dissertation Committees

Michael Gerhing

(Talyor Lab: Population Biology, Ecology and Evolution Program)

Caline Matar	(Speck Lab: Microbiology and Molecular Genetics Program)
Jeong Ahn	(Kelly Lab: Genetics and Molecular Biology Program)
Vincent (Qifeng) Han	(Cooper Lab: Genetics and Molecular Biology Program)
Catherine Gavile	(Boise Lab: Immunology & Molecular Pathogenesis Program)

Thesis Committees at schools other than Emory (Thesis award date)

Y. Lu, Ph.D.; University of South Florida, Tampa, 1996.
 Dan Miller, MD, Ph.D.; The Ohio State University, Columbus, OH, 1998.
 Mauricio Rojas, Ph.D. Universidad de Antioquia, Medellin Colombia, 1998.
 Gloria Vasquez, MD/PhD, Universidad de Antioquia, Medellin Colombia 1998.

Cottrell's Postdoctoral Fellows Mentoring Committees

The Cottrell's Fellows program sponsors outstanding fellows at Emory. The postdoctoral committees function like dissertation committees.

Dr. Kim Kafdar- sponsor Dr. Grace Pavlath
 Dr. Michael McCabe – sponsor – Dr. Paula Vertino
 Dr. Steven Bray – sponsor – Dr. Stephen Warren

Course Participation and Teaching Experiences at Emory

1986/87

- Concepts in Immunology. 3 lectures on MHC genes and proteins.

1987/88

- Concepts in Immunology; 1/3 of course, lectures on immunoglobulins, MHC, T-cell receptor genes and immunoglobulin super gene family.
- Medical Microbiology Laboratories.
- Human and Medical Genetics; Discussion Group Leader.

1988/89

- Concepts in Immunology; 1/3 of course, lectures on immunoglobulins, MHC, T-cell receptor genes and immunoglobulin super gene family.
- Medical Microbiology Laboratories.
- Human and Medical Genetics; Discussion Group Leader.
- Physician Assistant Allied Health Microbiology and Immunology Course, Section on Bacterial structure and Genetics.

1989/90

- Concepts in Immunology; Taught 1/3 of course, lectures on immunoglobulins, MHC, T-cell receptor genes and immunoglobulin super gene family.
- Physician Assistant Allied Health Microbiology and Immunology Course, Taught section on Bacterial structure, Genetics and Immunology.
- **Course Creator and Sole Lecturer**, IBS-720: Eukaryotic Gene Organization and Regulation.
- Human and Medical Genetics; Section on Immunogenetics.

1990/91

- Concepts in Immunology; Taught 1/3 of course, lectures on immunoglobulins, MHC, T-cell receptor genes and immunoglobulin super gene family.
- Medical Microbiology and Immunology. Taught two introductory lectures on Immunogenetics.
- Physician Assistant Allied Health Microbiology and Immunology Course. Taught section on Immunology.
- **Co-Director and Organizer**, IBS-515 Genetics Seminar Course. Gene transcription.
- Human and Medical Genetics; Taught section on Immunogenetics.

1991/92

- Concepts in Immunology; Taught 1/3 of course, lectures on immunoglobulins, MHC, T-cell receptor genes and immunoglobulin super gene family.
- Directed Study; Eukaryotic Gene Transcription,
- Physician Assistant Allied Health Microbiology and Immunology Course. Taught sections on Bacterial Genetics and Immunology.
- Human and Medical Genetics; Taught Section on Immunogenetics;
- Advanced Topics in Immunology. Co-participant.

1992/93

- Concepts in Immunology; Taught 1/3 of course, lectures on immunoglobulins, MHC, T-cell receptor genes and immunoglobulin super gene family.
- **Course Director**, Physician Assistant Allied Health Microbiology and Immunology Course; Taught lectures in Immunology Section.
- **Course Director**, IBS-720. "Eukaryotic Gene Organization and Regulation". Human and Medical Genetics; Taught section on Immunogenetics.

1993/94

- Concepts in Immunology: Taught 1/3 of course, lectures on immunoglobulins, MHC, T-cell receptor genes and immunoglobulin super gene family.
- **Course Director**, Physician Assistant Allied Health Microbiology and Immunology Course. Taught lectures in Immunology Section.
- Human and Medical Genetics; Taught section on Immunogenetics.

1994/95

- Concepts in Immunology Taught 1/4 of course, lectures on immunoglobulins, MHC, T-cell receptor genes, and immunoglobulin super gene family; Fall 1994.
- **Course Director**, Physician Assistant Allied Health Microbiology and Immunology Course; Lectures in Immunology Section
- Human and Medical Genetics; Section on Immunogenetics;
- Course Co-Director; IBS-720, Eukaryotic Gene Organization and Regulation (EGOR),
- **Director/Organizer**, 1st and 2nd year M.D./Ph.D. student basic science journal club.

1995/96

- **Course Director**, Physician's Assistant Allied Health Microbiology and Immunology Course; Immunology Section.
- Human and Medical Genetics; Section on Immunogenetics.

1996/97

- **Course Organizer and Director**, IBS 515 Mechanisms of Gene Regulation.
- Medical Microbiology and Immunology: Sections on MHC, T cell function.
- **Course Director**, Physician's Assistant Allied Health Microbiology and Immunology Course.
- Human and Medical Genetics; Section on Immunogenetics.
- **Course Co-Director**; IBS-720, Eukaryotic Gene Organization and Regulation (EGOR).

1997/98

- **Course Director**, Physician's Assistant Allied Health Microbiology and Immunology Course..
- Human and Medical Genetics; Taught section on Immunogenetics.

1998/99

- **Co-Director**, IBS 515 Chromatin and Gene Expression.
- Human and Medical Genetics; Taught section on Immunogenetics.
- IMP Oral Exam Committee

1999/00

- Lecturer, Medical Microbiology and Immunology, Sections on Overview, Antibodies, and T cell receptors.
- Lecturer, IBS 542, Concepts in Immunology, Sections on Gene Expression, Fall.
- **Course Co-Director**; IBS 720, Eukaryotic Gene Organization and Regulation (EGOR).
- Human and Medical Genetics; Section on Immunogenetics; Spring 00.

- Oral Exam Committee for Immunology graduate program, Spring 00.

2000/01

- Lecturer, Medical Microbiology and Immunology, Sections on Overview, Antibodies, and T cell receptors.
- Lecturer, IBS 542, Concepts in Immunology, Taught section on Gene Expression.

2001/02

- Lecturer, Medical Microbiology and Immunology, Sections on Overview, Antibodies, and T cell receptors.
- Lecturer, IBS 542, Concepts in Immunology, Section on Gene Expression.
- Discussion Leader, IBS 520, Introductory Biochemistry. 2 sections on Immunology and Biochemistry.
- **Course Co-Director**; IBS 720, Eukaryotic Gene Organization and Regulation (EGOR) Spring 02.

2002/03

- Lecturer, Medical Microbiology and Immunology, Sections on Overview, Antibodies, and T cell receptors. Fall 02.
- **Course Director**: IBS 542, Concepts in Immunology. Introductory graduate course for immunology students. Responsible for organization, exams and 5 of the lectures. Topics include: Overview of the Immune System; Antibodies, T cell receptors, and Gene regulation.

2003/2004

- Lecturer, Medical Microbiology and Immunology, Sections on Overview, Antibodies, and T cell receptors.
- **Course Director**, IBS 542, Concepts in Immunology. Introductory graduate course for immunology students. Responsible for organization, exams and 5 of the lectures. Topics include: Overview of the Immune System; Antibodies, T cell receptors, immunological methods, and Gene regulation.
- **Co-Director**, Responsible Conduct in Science Discussion group course for Genetics and Molecular Biology 2nd and 3rd year graduate students. Topics include data management, authorship, intellectual property, and publishing.

2004/2005

- **Course Director**, IBS 542, Concepts in Immunology. Introductory graduate course for immunology students. Responsible for organization, exams and 6 of the lectures. Topics include: Overview of the Immune System; Antibodies, T cell receptors, immunological methods, and Gene regulation.
- Lecturer, Medical Microbiology and Immunology, Sections on Overview, Antibodies, and T cell receptors. Summer 04.
- Lecturer, IBS 555, Biochemistry and Molecular Biology. Three lectures on gene regulation and transcription.

2005/2006

- **Course Director**, IBS 542, Concepts in Immunology. Introductory graduate course for immunology students.
- Lecturer, Medical Microbiology and Immunology, Sections on Overview, Antibodies, and T cell receptors. Summer 05.
- Lecturer, IBS 555, Biochemistry and Molecular Biology. Two lectures on gene regulation and transcription.
- **Course Director**: IBS 515r, Current Topics in Genetics. Topic- Chromatin and Gene Regulation. Invited Speaker course. Co-Directors were Drs. D. Reines, and J. Lucchesi.

2006/2007

- **Course Director**, IBS 542, Concepts in Immunology. Introductory graduate course for immunology students.
- Lecturer, Medical Microbiology and Immunology, Sections on Overview, Antibodies, and T cell receptors. Summer 06.
- Lecturer, IBS 555, Biochemistry and Molecular Biology. Three lectures on gene regulation and transcription.
- Speaker, Plenary Session of TATTO
- Class Organizer and Speaker – Faculty Development Course: Grants and Grant Writing.

2007/2008

- Lecturer, Medical Microbiology and Immunology, Sections on Overview, Antibodies, and T cell receptors. Summer 07.
- Lecturer, IBS 542, Concepts in Immunology. Intro to adaptive immunity, antigen receptor genes, immunological tools, and epigenetics in the immune system.
- Lecturer, IBS 555, Biochemistry and Molecular Biology. Three lectures on gene regulation, transcription, and chromatin.

- Speaker, Plenary Session of TATTO
- Class Organizer and Speaker – Faculty Development Course: Grants and Grant Writing.

2008/2009

- Speaker, Plenary Session of TATTO
- Lecturer, IBS 542, Concepts in Immunology. Antigen receptor genes, immunological tools, and epigenetics in the immune system.
- Lecturer, IBS 555, Biochemistry and Molecular Biology. Four lectures on gene regulation, transcription, and chromatin.
- Class Organizer and Speaker – Faculty Development Course: Grants and Grant Writing.

2009/2010

- Lecturer, IBS 542, Concepts in Immunology. Antigen receptor genes, immunological tools, and epigenetics in the immune system.
- Lecturer, IBS 555, Biochemistry and Molecular Biology. Four lectures on gene regulation, transcription, and chromatin.
- Class Organizer and Speaker – Faculty Development Course: Grants and Grant Writing.
- Speaker, Office of Postdoctoral Education: Responding to Reviews: I can't believe they didn't like it!

2010/2011

- Speaker, TATTO program session.
- Lecturer, IBS 542, Concepts in Immunology. Antigen receptor genes, immunological tools, and epigenetics in the immune system.
- Lecturer, IBS 555, Biochemistry and Molecular Biology. Four lectures on gene regulation, transcription, and chromatin.
- Class Organizer and Speaker – Faculty Development Course: Grants and Grant Writing.

2011/2012

- Lecturer, IBS 542, Concepts in Immunology. Antigen receptor genes, immunological tools, and epigenetics in the immune system.
- Lecturer, IBS 555, Biochemistry and Molecular Biology. Four lectures on gene regulation, transcription, and chromatin.
- Lecturer, Pilot course for Laney Graduate School on Publication Ethics
- Panelist – Faculty Development Course: Speaking to your Chair
- Panelist – Office of Postdoctoral Education. 2 classes, Starting your Lab and finding a job.

2012/2013

- Lecturer, IBS 542, Concepts in Immunology. Antigen receptor genes, immunological tools, and epigenetics in the immune system.
- Lecturer, IBS 555, Biochemistry and Molecular Biology. Four lectures on gene regulation, transcription, and chromatin.
- Lecturer, PSI 610, Laney Graduate School Scholarly Ethics Program - Publication Ethics presentation
- Lecturer/workshop, Office of Postdoctoral Education; 2 classes, Starting your Lab and finding a job.

2013/2014

- Lecturer, IBS 542, Concepts in Immunology. Antibodies and Antigen receptor gene diversity / formation.
- Lecturer, IBS 555, Biochemistry and Molecular Biology. Four lectures on gene regulation, transcription, and chromatin.

Planned -

- Faculty Development Course: Publishing science 2014

INVITED PRESENTATIONS**1987**

American Society for Histocompatibility and Immunogenetics.

- Gave seminars on molecular genetics and its relation to tissue typing for local ASHI workshops in:
 Boston;
 New Orleans;
 St Louis; and
 San Francisco.
 National Institutes of Health - Immunogenetics group
- 1988**
 Georgia State University - Department of Biology
- 1990**
 University of Wisconsin Medical School - Department of Microbiology
- 1991**
 National Institutes of Health - Immunobiology Seminar Program
 University of North Carolina - Department of Pharmacology
 Duke University - Department of Microbiology and Immunology - Division of Immunology.
 FASEB - Biotechnology Education, Training and Research (BETR) workshop - Topic: Eukaryotic gene regulation.
- 1992**
 FASEB - Mini-symposium, Class II MHC gene regulation.
 Chiron Corporation (San Francisco)
 University of North Carolina, Chapel Hill -- Immunology Program
- 1993**
 Tulane University - Department of Microbiology
- 1994**
 9th HLA/H-2 histocompatibility complex workshop, Garda, Italy
 University of Pennsylvania, Department of Microbiology, Student invited speaker
- 1995**
 FASEB, Session Chair, Cytokines and Gene Expression.
 University of South Florida, Tampa - Department of Biochemistry and Molecular Biology, Speaker and
 Outside Examiner for Ph.D. dissertation.
- 1996**
 Juan March Symposia, Structure and Regulation of Class II MHC, Madrid.
 Ohio State University, Department of Pathology
- 1997**
 Ohio State University, Immunology Group
- 1998**
 University of Washington, Department of Immunology
 University of Georgia, Dept. of Cellular and Molecular Biology, seminar and guest lecturer in student class.
 Georgia State University, Department of Biology
 Georgia State University, Department of Biology, guest lecturer.
 Ohio State University (Thesis Committee Defense- Dan Miller)
 Speaker and Thesis Committee Universidad de Antioquia, Medellin Colombia
 Oregon Health Sciences University, Department of Microbiology and Immunology
- 1999**
 Georgia State University, Department of Biology, guest lecturer.
 ALIFI-Symposia on Immune Regulation: University of Leiden, The Netherlands, Keynote Speaker.
- 2000**
 Speaker, Symposium to dedicate the Donald Pious Laboratory, University of Washington School of
 Medicine.
 University of Michigan, Department of Immunology.
 Georgia State University, Department of Biology, guest lecturer.
 Roswell Park Memorial Institute, Division of Immunology
 University of Maryland, Department of Microbiology/Immunology
- 2001**
 FASEB 2001, Symposium speaker.
 FASEB 2001, Chair session on Gene Regulation in the Immune System
 MHC Class II Regulation Meeting in Seabrook Island SC. Co-Organizer and Speaker.
 Keystone Meeting: Transcription and Chromatin Workshop session

- St. Jude's Children's Hospital. Bio-Rad Laboratories, Inc. Sponsored lecture
- 2002**
University of North Texas Health Science Center, Department of Pathology and Anatomy
AAAAI 2002, Symposium Speaker.
Invited Speaker: The Daagarad Immunology Meeting, Holland.
- 2003**
Georgia State University, Department of Biology, guest lecturer.
- 2004**
AAI – Annual Meeting – Invited Speaker, Plenary Session.
Speaker, University of Amsterdam, Honorary Symposium for the promotion of Dr. Peter van den Elsen to Professor.
Georgia State University, Department of Biology, guest lecturer.
- 2005**
University of Utah, Department of Pathology.
AAI-Annual Meeting —Invited Speaker: Workshop on Career Management.
Universidad de Antioquia, Medellin, Colombia — Invited Speaker
Universidad de Antioquia, Medellin, Colombia —Taught a three-day course on real-time PCR.
Georgia State University – course lecture on Gene Expression
University of Georgia, Department of Cell and Developmental Biology
Northwestern University, Department of Microbiology and Immunology
University of Illinois, Urbana-Champaign, Department of Biology
University of Pennsylvania, Department of Pathology
- 2006**
National Cancer Institute CCR Fellows and Young Investigators Program – Invited Speaker
AAI-Annual Meeting, Boston—Invited Speaker: Women in Science Forum on Career Development
Cold Spring Harbor Laboratories – Signaling and Gene Expression in the Immune System – Oral presentation.
Georgia State University – course lecture on Gene Expression
Rutgers University – Department of Cell Biology
University of Washington — Department of Immunology
University of Puerto Rico — Department of Biochemistry and Toxicology
- 2007**
Vanderbilt University – Department of Microbiology & Immunology
Emory University, Winship Cancer Center, Career Development Course, Speaker – “Managing Your Scholarship
AAI Annual meeting, Miami– Speaker for workshop on responding to manuscript reviews. “I can’t believe they didn’t accept it.”
AAI Annual meeting, Miami— Speaker for Women Science Forum on Career Development “Being a mentor and a mentee.”
Oregon Health Sciences University – Vollum Institute, seminar to gene expression group.
Cold Spring Harbor Laboratories – Mechanisms of Eukaryotic Gene Expression – Oral Presentation.
Georgia State University – course lecture on Gene Expression
National Institutes of Health - Mentoring Women in Biomedical Careers Conference – Nov 07
- 2008**
AAI Annual Meeting, San Diego – Speaker for workshop on manuscripts “To accept or Reject: A guide on how to review a manuscript.”
AAI Annual Meeting, San Diego – Session chair on career development.
University of Puerto Rico – Department of Biochemistry and Toxicology, Seminar and taught two classes in a molecular biology course.
University of California, Irvine – Department of Microbiology, Science Seminar and Career Guidance Workshop
American Cancer Society Postdoctoral Fellows Symposium
NIH IDeA Symposium of Biomedical Research Excellence
Georgia State University – course lecture on Gene Expression

ASBMB - Transcriptional Regulation by Chromatin and RNA polymerase II Meeting - long talk selected.
Medical College of Wisconsin – Spotlight on Science Seminar Series and Department of Microbiology & Molecular Genetics Seminar Series

2009

NIEHS – Laboratory of Molecular Carcinogenesis Seminar Program
University of Alabama, Birmingham – UAB Postdoctoral invited speaker for career development; and
Department of Cell Biology Seminar Series
Rosalind Franklin University of Medicine and Science – Department of Microbiology & Immunology
AAI Annual Meeting, Seattle
Winship Cancer Institute Symposium (Emory). Writing Grants
American Cancer Society Postdoctoral Symposium, Oregon

2010

NIGMS Workshop for Postdoctoral Fellows - Advancing Biomedical Research Workforce Diversity: NIGMS
Workshop for Postdocs Transitioning to Independent Positions
AAI Annual Meeting, Baltimore
NIH IDeA Symposium of Biomedical Research Excellence
University of Puerto Rico; Department of Biochemistry
ASBMB - Transcriptional Regulation by Chromatin and RNA polymerase II Meeting
Nankai University, College of Life Sciences, Tianjin, China
Wuhan University School of Medicine, Wuhan, China
Chinese Society of Immunology, Beijing China
AALAS Conference – Workshop on Journals and Animal Protection

2011

Winship Cancer Institute Symposium (Emory). Where'd my Day go!
Experimental Biology – Career Development – Publishing
Louisiana State University – Research Program Grants Writing
AAI Annual Meeting, San Francisco – Speaker for Publication's Committee Workshop.
Cold Spring Harbor Asia Conferences 2011, Shanghai, China
Morehouse University School of Medicine, 2011
Duke University, Department of Immunology
Indiana University, Department of Microbiology and Immunology

2012

FASEB/NIH NIGMS workshop for Postdoctoral Fellows, NIH Campus, Bethesda
AAI Annual Meeting, Boston – Speaker for Publication's Committee Workshop
University of Alabama, Birmingham, Immunology Symposium Speaker
NIH IDeA Symposium of Biomedical Research Excellence, Symposium Speaker
Transplantation Society Meeting, Berlin, Symposium Speaker

2013

Henry Kunkel Society Annual Meeting, Rockefeller University
Institutional Research and Academic Career Development Award (IRACDA) Conference
Gas South, Inc., Atlanta, Senior Managing Group Leadership Course
Student Invited Speaker, Cancer Biology Graduate Program Retreat. Emory University, Callaway Gardens.
Dept. of Medicine, University of Vermont
Department of Pathology Washington University School of Medicine,
Keynote Address, Postdoctoral Association, University of Calgary

2014

Invited Speaker, Emory University, Malaria QIM meetings
Invited Speaker, St Jude Children's Hospital, Postdoctoral Association
Invited Speaker, 2014 Association of Medical School Microbiology & Immunology Chairs, Session on
Current Trends in Publication

Pending

Invited Speaker, University South Carolina School of Medicine
Invited Speaker, Yale University – Junior Faculty Retreat