

CURRICULUM VITAE
Hebe Guardiola-Diaz

Department of Biology
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Education

1984-1988 - <i>University of Puerto Rico,</i>	B.S., Chemistry
1988-1994 - <i>University of Michigan,</i>	Ph.D., Biological Chemistry
1994-1996 - <i>Karolinska Institute, Sweden</i>	Postdoctoral fellow
1996-1997 - <i>University of Michigan</i>	Postdoctoral fellow

Academic Appointments

1997 spring - <i>Washtenaw Community College</i>	Human Biology Instructor
1997-1998 - <i>University of Michigan</i>	Lecturer I (Biochemistry)
1998-2005 - <i>Trinity College</i>	Assistant Professor of Biology
2005- present – <i>Trinity College</i>	Associate Professor of Biology
2005 fall - <i>Moi University, Kenya</i>	Visiting Professor of Medical Biochemistry
2009-2010 <i>U. of Conn Medical School</i>	Visiting Faculty Neuroscience Department

Courses Taught at Trinity College

The Brain (NESC 101)
Beautiful Minds (FYSM 115)
Cells Metabolism and Heredity (BIOL 183L)
Introduction to Neuroscience; Neurobiology (NESC 201)
Introduction to Neuroscience Methodologies (NESC 301)
Biochemistry I (BIOL 317L)
Biochemistry II (BIOL 318)
Bioinformatics (BIOL 428)
Topics in Biochemistry (BIOL 443)
Drug Discovery (BIOL 440L)
Molecular and Cellular Neurobiology (NESC 402)
Body of Knowledge (FYSM 123)

Professional Memberships

American Society for Biochemistry and Molecular Biology
Genome Consortium for Active Teaching
Society for Neuroscience
Faculty for Undergraduate Neuroscience

Honors & Awards

1986-1988 M.A.R.C. (Minorities Access to Research Careers) Honor Program

- 1989 American Society for Cell Biology Travel Fellowship
 1988-1992 Minority Merit Fellowship
 1992 Society for Neuroscience Travel Fellowship
 1994 Swedish Medical Research Council Fellowship
 1996 Wenner Gren Foundation Fellowship
 1999 Green Circle Award, State of Connecticut Department of Environmental Protection
 2000 Green Circle Award, State of Connecticut Department of Environmental Protection

Grants

- 1999 Pfizer Grant (\$10,000)
 1999 Kellogg Foundation / Trinity College-Community Innovation Fund (\$37,000)
 1999 A.S.B.M.B. (American Society for Biochem. and Molecular Biology) Travel Award
 1999-2000 Trinity College Faculty Research Grant (\$3,500)
 1999-2000 Trinity Research Assistant Grants (Shaukat Khan '00 and Darren Mushrush'00)
 1999-2002 Trinity College Faculty Research Grant (\$10,000)
 2000 Council for Undergraduate Education Summer Research Fellowship (Suma Magge '01)
 2000-2001 Trinity Research Assistant Grant (Darren Mushrush '00)
 2001 Pfizer Undergraduate Summer Fellowship (Nicholas Kwiatkowski '03)
 2001 National Institutes of Health AREA Grant (\$100,000 NOT FUNDED)
 2001-2002 Trinity Research Assistant Grants (Matthew Fishel '02, Allison Zanno '04)
 2002 A.S.B.M.B. (American Society for Biochem. and Molecular Biology) Travel Award
 2002 National Science Foundation CCLI Grant (\$98,000 NOT FUNDED)
 2005 Trinity College's FRC and HHMI-funded student research assistantships
 2005 National Institutes of Health AREA Grant (\$150,000 NOT FUNDED)
 2006 Trinity College's FRC and HHMI-funded student research assistantships
 2010-2011 Trinity College Faculty Research Committee

Research Interests

Biochemistry and molecular biology of myelination; regulation cell-signaling during oligodendrocyte development.

Refereed Publications (Trinity students designated in bold text)

Casellas, A. M., DeJesus, S., Guardiola, H., & Renaud, F. L. (1988). Naloxone-reversible inhibition by opioids of phagocytosis in *T. thermophila* and mouse peritoneal macrophages. *Puerto Rico Health Sciences Journal*. 7(2), 103-5.

Casellas, A. M., Guardiola, H. & Renaud, F. L. (1991). Inhibition by opioids of phagocytosis in peritoneal macrophages. *Neuropeptides*, 18, 35-40.

Guardiola-Diaz, H. M., Boswell, C. & Seasholtz, A. F. (1994). The cAMP responsive element in the human corticotropin-releasing hormone gene mediates regulation by depolarization in PC-12 cells. *Journal of Biological Chemistry*, 269(20), 14784.

- Guardiola-Diaz, H. M., Kolinske, J. S., Gates, L., & Seasholtz, A. F. (1996). Negative glucocorticoid regulation of cyclic adenosine 3',5' monophosphate-stimulated corticotropin-releasing hormone-reporter expression in AtT-20 cells. *Molecular Endocrinology*, 10(3), 317-329.
- Mansen, A., Guardiola-Diaz, H. M., Rafter, J., Branting, C., & Gustafsson, J.-A. (1996). Expression of the peroxisome proliferator-activated receptor in the mouse colonic mucosa. *Biochemical and Biophysical Research Communications*, 222(3), 844-51.
- Guardiola-Diaz, H. M., Rehnmark, S., Usuda, N., Albrechtsen, T., Feltkamp, D., Gustafsson, J.-A., & Alexson, S. E. (1999). Rat peroxisome proliferator-activated receptors and brown adipose tissue function during cold acclimatization. *Journal of Biological Chemistry*, 274(33), 23368-23377.
- Guardiola-Diaz, H. M., Foster, L.-A., **Mushrush, D.**, & Vaz, A. (2001). Azole-antifungal binding to a novel cytochrome P450 from *Mycobacterium tuberculosis*: implications for treatment of tuberculosis. *Biochemical Pharmacology*, 61, 1463-1470.
- Magge, S. S.**, & Guardiola-Diaz, H. M. (2002). Characterization of the mouse peroxisome proliferator-activated receptor δ gene. *Biochemical and Biophysical Research Communications*, 290, 230-235.
- Zanno, A.**, **Kwiatkowski, N.**, Vaz, A.D. & Guardiola-Diaz, H. M. (2005). MT FdxR: a ferredoxin reductase from *M. tuberculosis* that couples to MT CYP51. *Biochimica et Biophysica Acta*, 1707 (2-3):157-69.
- Hebe M. Guardiola-Diaz, Akihiro Ishii, and Rashmi Bansal. (2011) Erk1/2 MAPK and mTOR Signaling Sequentially Regulates Progression Through Distinct Stages Of Oligodendrocyte Differentiation. *Glia*. 60(3):476-86.
- Conference Presentations & Abstracts (Trinity students designated in bold text)***
- Guardiola-Diaz, H. M., Boswell, C. & Seasholtz, A. F. (1991). Human corticotropin-releasing hormone gene: Positive and negative transcriptional regulation by glucocorticoids. *Abstracts of the 15th International Congress of Biochemistry*, 67.
- Guardiola-Diaz, H. M., Boswell, C., Mesa, B., & Seasholtz, A. F. (1991). Differential stimulation of the human corticotropin-releasing hormone gene in JEG-3 and PC-12 cells. *Society for Neuroscience Abstracts*, Vol. 17(2), 1095 (oral presentation).
- Guardiola-Diaz, H. M., & Seasholtz, A. F. (1992). Synergistic positive transcriptional regulation of the human corticotropin-releasing hormone gene by cAMP and depolarization. *Society for Neuroscience Abstracts*, Vol 18(1), 753 (oral presentation).
- Guardiola-Diaz, H. M., & Seasholtz, A. F. (1993). Mechanistic studies on the transcriptional regulation of the human corticotropin-releasing hormone gene by cAMP and glucocorticoids. *American Society for Biochemistry and Molecular Biology*.

- Guardiola-Diaz, H. M., Enmark, E., & Gustafsson, J.-A. (1995). Cloning and characterization of peroxisome proliferator-activated receptors (PPARs). *American Society for Biochemistry and Molecular Biology*.
- Mansen, A., Guardiola-Diaz, H. M., Rafter J., & Branting, C. (1995). Expression of the peroxisome proliferator-activated receptors (PPARs) in the colonic mucosa. *Nuclear Hormone Receptors: Novel Regulators in Physiology and Pathology. 7th International CBT Symposium, Huddinge, Sweden*, 99.
- Gustafsson, J.-A., Gottlicher, M., Albrechtsen, T., Banner, C., Treuter, E., Corton, C., Bocos, C., Guardiola-Diaz, H. M., Teboul, M., Wiebel, F., & Enmark, E. (1995). Mechanism of signal transduction by PPAR. (1995) *Nuclear Hormone Receptors: Novel Regulators in Physiology and Pathology. 7th International CBT Symposium, Huddinge, Sweden*, 46.
- Guardiola-Diaz, H. M., Rehnmark, S., Alexson S. E., & Gustafsson, J.-A. (1995). Involvement of peroxisome proliferator-activated receptors (PPARs) in cold adaptation *Nuclear Hormone Receptors: Novel Regulators in Physiology and Pathology. 7th International CBT Symposium, Huddinge, Sweden*, 89.
- Guardiola-Diaz, H. M., Rehnmark, S., Gustafsson, J.-A., & Alexson, S. E. (1995). Involvement of peroxisome proliferator-activated receptors in cold adaptation. *Society for Neuroscience Abstracts, Vol. 21(2)*.
- Guardiola-Diaz, H. M., McGinnity, D., & Vaz, A. (1998). Cloning and characterization of an *M. tuberculosis* CYP51-like protein. *12th International Symposium on Microsomes and Drug Oxidations. Montpellier, France*.
- Guardiola-Diaz, H. M. (1999). Green fluorescent protein (GFP) in the instructional biochemistry laboratory. *American Society for Biochemistry and Molecular Biology, San Francisco, CA*, 105.
- Guardiola-Diaz, H. M., Foster, L.-A., & Vaz, A. (1999). Anti-mycobacterial activity of azole-antifungals: Implications for potential new therapeutic targets in *M. tuberculosis*. *11th International Conference on Cytochrome P450. Sendai Japan*, 170.
- Henderson, D. E., & Guardiola-Diaz, H. M. (2000). *The neighborhood as a laboratory – teaching analytical and environmental chemistry*. Paper presented at the regional meeting of the American Chemical Society.
- Magge, S., Kurien, M., & Guardiola-Diaz, H. M.** (2001, April). *Novel mRNA transcripts involved in oligodendrocyte differentiation identified by differential display*. Poster session presented at NEURON Meeting, Wellesley College.
- Guardiola-Diaz, H. M. & **Magge, S.** (2001). PPAR δ -regulated genes in oligodendrocytes. *Society for Neuroscience Abstracts, Vol. 27*, 462.

Conference Presentations & Abstracts (cont.)

Zanno, A., Kwiatkowski, N., & Guardiola-Diaz, H. M. (2002, April). Expression and biochemical characterization of a putative ferridoxin reductase from *M. tuberculosis*. *American Society for Biochemistry and Molecular Biology*.

Guardiola-Diaz, H. M. (2004, October). *PPAR δ Enhances Expression of Myelin Proteins in Oligodendrocytes and C6 Cells*. Society for Neuroscience Abstracts, p.69.

Zanno, A., Kwiatkowski, N., Vaz, A., & Guardiola-Diaz, H. (2004, November). [Identification and characterization of the reductase component of the *M. tuberculosis* CYP51 system](#). Poster presented at the 21st Annual [New England Membrane Enzyme Group Meeting](#).

E. Prendaj, A. Ahmed, B. DiBenedictis, H Guardiola-Diaz and R. Bansal, “FGF-2 is not a prototypic member of the FGF family that regulates oligodendrocyte lineage cells”. Presented at the Gordon Research Conference on Myelin 2010.

H. Guardiola-Diaz, A. Ishi, R. Bansal, “MAP Kinase and mTOR Signaling Differentially Regulates Oligodendrocyte Differentiation”. Presented at the American Society for Neurochemistry Conference 2010.

John McInnis, Caroline Reiss, Angela Colantonio and Hebe Guardiola-Diaz “The cell signaling response to ER stress in oligodendrocytes.” Presented at FUN symposium Society For Neuroscience, Washington DC 2012

Lectures to College Community

Guardiola-Diaz, H. M. (1999). From the uncommon cold to athlete’s foot: Declaring war on the deadly *M. tuberculosis*. Brown Bag Lunch Series.

Henderson, D., & Guardiola-Diaz, H. M. (2001). Getting the lead out: Using plants to clean contaminated soil. Interdisciplinary Science Center Summer Lecture Series.

Guardiola-Diaz, H. M. (2001). Ownership of genetic information. Panel Discussion for Scientific Freedom and Responsibility Co-curricular Initiative.

Guardiola-Diaz, H. M. (March 2011) Myelin Matters

Invited Lectures

Guardiola-Diaz, H. M. (2001). Azole compound inhibition of MT CYP51. St. John’s University, New York.

Guardiola-Diaz, H. (2004, November). [Tuberculosis: Could Mycobacterial Cytochrome P450s Become Novel Therapeutic Targets](#). Invited lecture at the 21st Annual [New England Membrane Enzyme Group Meeting](#).

Guardiola-Diaz, H. M. (2005, August) Estrategias nuevas para combatir *M. tuberculosis*. To be presented at Congreso Latinoamericano de Estudiantes de Microbiología y Parasitología (Latinamerican Congress for Microbiology and Parasitology Students) in Lima, Peru.

Service at Trinity College

1998-present Neuroscience Coordinating Committee
 1999-2003 Watson Selection Committee
 1999-2008 Institutional Animal Care and Use Committee (Chair in 2001)
 2000-2002 Faculty Advisor to the Biology Club
 2000-2003 Committee on Committees (Chair in AY 02-03)
 2000-2007 Faculty Conference
 2000-2006 Community Learning Initiative Advisory Group (CLIAG)
 2001-2004 Health Studies Advisory Committee
 2003 40% Rule Committee
 2003 Contributed to HHMI grant application
 2004 Faculty Advisor to Medical Ethics Student Reading Group
 2005 Portal Committee
 2006-2009 Curriculum Committee (Chair 2008-2009)
 2006 Urban and Global Re-accreditation Working Group
 2010-present Admissions and Financial Aid
 2010-present Informal Advisory Group to Presidential Scholars
 2011 Trinity College Institutional Biosafety Committee
 2011 HMTCA Curricular Committee

Service to the Scientific Community

1999 National Science Foundation review panel
 1999 Judge- American Society for Biochemistry and Molecular Biology Undergraduate Poster Competition
 2000 Reviewed Stryer's Biochemistry 5th ed.
 2002 Panelist for American Physiological Society Career Information Session at FASEB
 2004 Judge- American Society for Biochemistry and Molecular Biology Undergraduate Poster Competition
 2004 Participant NIH Roadmap Implications Juniata College

Service to the Greater Hartford Community

1999-2000 Urban Environment Fellowship
 1999 Judge: State of Connecticut Department of Environmental Protection's Elementary School Poster Competition
 2000 Connecticut Children's Medical Center Auxiliary Board Fellowship Committee
 2000-2004 St. Joseph's Cathedral Sandwich Ministry
 2005 Hartford Middle School (Learning Corridor) -- College for a Day participant
 2008-2009 Charter Oak Elementary School Career Day
 2009 West End Community Association Education Committee

2009-present HMTCA Governance Team