

**III. APPLICANT/FELLOW BIOGRAPHICAL SKETCH**

NAME OF APPLICANT/FELLOW Felix Vazquez-Chona		POSITION TITLE Postdoctoral Fellow	
eRA COMMONS USER NAME (credential, e.g., agency login)			
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
Rhodes College (Memphis)	B.A.	1996	Economics (Physics minor)
Christian Brothers University (Memphis)	B.S.	1998	Biology
University of Tennessee (Memphis)	Ph.D.	2006	Neurobiology

**A. Positions and Honors**

ACTIVITY/OCCUPATION	BEGINNING DATE (mm/yy)	ENDING DATE (mm/yy)	FIELD	INSTITUTION/COMPANY	SUPERVISOR/ EMPLOYER
Postdoctoral Fellow	2006	Present	Ophthalmology	University of Utah	Robert Marc & Edward Levine
Lecturer	2007	2007	Visual Neuroscience	University of Utah	Robert Marc
Graduate Student	2001	2006	Neuroscience	University of Tennessee	Eldon Geisert
Histology Lab Assistant	2002	2002	Neuroscience	University of Tennessee	Eldon Geisert
High School Instructor	1998	2000	Biology, Anatomy & Physiology & Physics	Memphis Catholic High School	Melinda Fitzgerald
Research Assistant	1996	1998	Neuroscience	University of Tennessee	Eldon Geisert

**Academic and Professional Honors**

2009-2010	Knights Templar Eye Foundation Award Type; Period: Fellowship; 7/1/2009-6/31/2010
2007-2009	NIH Developmental Biology Training Grant fellowship (5T32 HD07491) Type; Period: Fellowship; 5/1/2007-4/30/2009
2007-2009	Charles D. Kelman, MD Postdoctoral Scholar Award, The International Retinal Research Foundation, Type; Period: Research; 7/1/2007-6/31/2009
2007-2008	Fight for Sight Postdoctoral Fellowship Award Type; Period: Research; 7/1/2007-12/31/2008
2006	NEI fellowship for the MBL's "Fundamental issues in vision research" course
2006	Travel Award, Vanderbilt Eye Institute symposium
2005	Travel Award, University of Tennessee
2004	Fight For Sight Summer Student Fellowship
1998	Tennessee Academy of Sciences Collegiate Division, Research award

**Professional service**

2008 Reviewer, Experimental Eye Research,  
2006 Reviewer, Investigative Ophthalmology & Visual Science.  
2006 ARVO moderator, Microarray and Bioinformatics section,

**B. Publications: published and in preparation**

1. **Vázquez-Chona F**, Geisert EE Jr. N-cadherin at the glial scar in the rat. *Brain Res.* 1999; 838:45-50.
2. Song BK, Geisert GR, **Vázquez-Chona F**, Geisert EE Jr. Temporal Regulation of CD81 following retinal injury in the rat. *Neuro Lett.* 2003; 20:29-32.
3. **Vázquez-Chona F**, Song BK, Geisert EE Jr. Temporal Changes in Gene Expression After Injury in the Rat Retina. *Invest Ophthal Vis Sci*, 2004; 45:2737-46.
4. **Vázquez-Chona FR**, Khan AN, Chan CK, Moore AN, Dash, PK, Hernandez MR, Lu L, Chesler EJ, Manly KF, Williams RW, Geisert EE Jr. Genetic networks controlling retinal injury. *Mol Vis.* 11:958-70.
5. **Vázquez-Chona FR**, Wang XD, Wang XF, Geisert EE Jr. Genetic loci modulating the retinal transcriptome in wound healing. *Gene Regulation and Systems Biology*, 2007: 1 327–348.
6. Marc RE, Jones BW, Watt CB, **Vázquez-Chona F**, Vaughan DK, Organisciak DT. Extreme Retinal Remodeling Triggered by Light Damage: Implications for AMD. *Mol Vis.* 2008
7. **Vázquez-Chona FR**, Clark AM, Levine EM. Rlbp1 promoter drives Müller cell-specific GFP expression in transgenic mice. *Invest Ophthalmol Vis Sci.*, in press.
8. **Vázquez-Chona FR**, Swan A, Defoe DM, Levine EM. Conditional p27 Inactivation In The Adult Mouse Induces Muller Glial Reactivity. Manuscript in preparation. ARVO abstract 2009
9. **Vázquez-Chona FR**, Ferrell DW, Lin YH, Jones BW, Marc RE, Metabolic biomarkers of early retinal oxidative stress. Manuscript in preparation. ARVO abstract 2009.
10. Templeton JP, **Vázquez-Chona FR**, Nassr M, Orr WE, William RW, Geisert EE Jr. Differences in response of injury in the C57BL/6 and DBA/2J mouse and susceptibility to retinal ganglion cell death. In preparation. Submitted to BMC Neuroscience, February 2009; ARVO abstract 2009.
11. Lin Y, Jones BW, **Vázquez-Chona FR**, Rapp K, Liu A, Zou C, Tucker JF, Shaw MV, Yang J, Anderson JR, Watt CB, Marc RE. Rapid ionotropic glutamate receptor plasticity under light-induced retinal stress. In preparation. XIIIth International Symposium on Retinal Degenerations abstract 2008.

**C. Fellow's Research Support Available**

Active:

1- NIH Developmental Biology Training Grant fellowship (5T32 HD07491)

Vazquez-Chona, F (PI) 5/1/2007-4/30/2009 \$42,000 yearly stipend

2-Charles D. Kelman, MD Postdoctoral Scholar Award, The International Retinal Research Foundation,

Vazquez-Chona, F (PI) 7/1/2007-6/31/2009 \$32,000 for research;

3-Undergraduate Research Opportunities Program at the University of Utah

Vazquez-Chona, F (mentor) 9/1/2008-5/31/2009 \$1,600 for Mr Drew Ferrell stipend;

Pending:

1- NIH Research Service Awards (NRSA) for Individual Postdoctoral Fellows (F32)

Vazquez-Chona, F (PI) 9/1/2009-8/30/2010 \$42,000 yearly stipend

**D. Career Goals:**

1. To become a principal investigator with the objective of preventing and reversing retinal degenerations by enhancing the neuroprotective and regenerative properties of Müller glia. To achieve this goal, I will focus on three areas: (a) defining the networks controlling Müller glial neuroprotection, (b) manipulating endogenous Müller glia at the genetic and molecular level via RNA interference and gene therapy, and (c) engineering exogenous Müller glia that can replace dying photoreceptors and retinal neurons.
2. To mentor college, graduate, and medical students in their research and academic pursuits.
3. To make vision and regenerative research understandable to the general public by becoming involved with

the local public education and news media.

**Postdoctoral Training Goals:**

1. To learn to integrate molecular, proteomic, metabolic, ultrastructure, and neurophysiological analyses to develop a systems approach to study Müller glial biology.
2. To refine the concept that Müller glia sense stress and compartmentalize their neuroprotection response at the single cell level whether it is a photoreceptor, interneuron, or ganglion cell. Thus, I believe that Müller glia are an ideal system to target retinal degenerations regardless of their etiology.