

**BIOGRAPHICAL SKETCH**

Provide the following information for the Senior/key personnel and other significant contributors in the order listed on Form Page 2. Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME Odom, Guy Leary	POSITION TITLE Acting Assistant Professor
eRA COMMONS USER NAME (credential, e.g., agency login) Odom	

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)

INSTITUTION AND LOCATION	DEGREE (if applicable)	MM/YY	FIELD OF STUDY
Louisiana State University, New Orleans, LA	MS	1998	Microbiology, Immunology & Parasitol.
Tulane University, New Orleans, LA	Ph.D.	2004	Molecular & Cellular Bio.
University of Washington, Seattle, WA	Post Doc	2005-2011	Molecular Genetics

**A. Personal Statement**

I have a broad background in molecular biology, with specific training and expertise in key research areas for this application. As a postdoctoral fellow at the University of Washington, I carried out small and large animal research and secondary data analysis on the histopathological correction with various therapeutic constructs (micro-dystrophin and micro-utrophin) delivered with recombinant adeno-associated viral vectors a subject of the present application. As a post-doc recipient of several foundation and NIH-funded grants, I laid groundwork for the proposed research by developing effective assays relevant to the study of dystrophin, and by establishing strong ties within the research community that will make it possible to enhance the success of this research effort over time. I have also been conducting studies of AAV-mediated delivery to canines and non-human primates. The studies in Project 1 Aim 1 are a direct extension of these studies. In addition, I successfully administered the projects, collaborated with other researchers, and produced several peer-reviewed publications. As a result of these previous experiences, I am aware of the importance of shared scientific data, frequent communication, of constructing a realistic research plan, and timeline. I look forward to contributing while continuing growth toward developing methods of therapy and contributing toward a better understanding of muscle disease progression.

**B. Positions and Honors**

**Positions and Employment**

- 1993-1994 Volunteer Service, Emergency and Oncology Ward, Charity Hospital, New Orleans LA.
- 1993-1995 Microbiology Extern, Diagnostic Lab, Charity Hospital, New Orleans, LA
- 1994-1995 Howard Hughes Medical Research Internship, LSUHSC, Dept. of Medicine, Section of Pulmonary Critical Care, New Orleans, LA.
- 1995-1997 Research Asst., laboratory of Dr. J. Kolls MD, LSUHSC, Dept. of Medicine, Section of Pulmonary Critical Care, New Orleans, LA.
- 1996-1998 Medical Microbiology Teaching Assistant, LSUHSC, Department of Microbiology, Immunolgy and Parasitology.
- 1998-2000 Research Associate II, Tulane University, Tulane University Regional Primate Research Center, Dept. of Pathology, Covington, LA.
- 2000-2002 Teaching Assistant, Tulane University, Dept. of Molecular and Cellular Biology, New Orleans, LA.
- 2005-2010 Senior Fellow, University of Washington, Department of Neurology, Seattle, WA.

2011- Acting Assistant Professor, University of Washington, Department of Neurology, Seattle, WA.

### Honors

1995 American Federation of Clinical Research, Student award recipient.  
1996 American Federation of Clinical Research, Student award recipient.  
1996 LSUHSC, Dept. of Medicine, Annual Research Day, 1<sup>st</sup> Place award recipient  
1998 LSUHSC, Dept. of Medicine, Annual Research Day, 1<sup>st</sup> Place award recipient  
1998 American Federation of Medical Research, Student award recipient.  
2005- Member-American Society of Gene and Cellular Therapy  
2005-2008 Cardiovascular research center training grant (NIH T32 HL07828-09)  
2008-2011 Muscular dystrophy association developmental grant  
2010 American Society of Gene and Cell Therapy, Travel award recipient.

### **C. Peer-reviewed publications (in chronological order).**

1. Kolls JK, Lei D, Odom GL, Nelson S, Summer WR, Gerber MA, Shellito JE. Transient CD4 lymphocyte depletion prolongs transgene expression of E-1 deleted adenoviral vectors. *Human Gene Therapy*, 1996; 7:489-497.
2. Kolls JK, Lei D, Vazquez C, Odom GL, Summer WR, Nelson S, Shellito J. Exacerbation of murine *Pneumocystis carinii* Infection by adenoviral-mediated gene transfer of a TNF inhibitor. *American Journal of Respiratory Cell and Molecular Biology*, 1997; 16:112-118.
3. Lei D, Lancaster JR, Joshi MS, Nelson S, Stoltz D, Bagby GJ, Odom GL, Shellito JE, Kolls JK. Activation of alveolar macrophage and pulmonary host defenses using transfer of the Interferon-gamma Gene. *American Journal of Physiology*, 1997; 272: (L852-859).
4. Odom GL, Robichaux JL, Deininger PL. Predicting mammalian SINE subfamily activity from A-tail length. *Mol. Biol. Evol.* 2004; 21:2140-8.
5. Roy-Engel AM, El-Sawy M, Farooq L, Odom GL, Perepelitsa-Belancio V, Bruch H, Oyeniran OO, Deininger PL. Human retroelements may introduce intragenic polyadenylation signals. *Cytogenetics and Genome Research*, 2005; 110:365-71.
6. Odom GL, Gregorevic P, Chamberlain JS. Viral-mediated gene therapy for the muscular dystrophies: successes, limitations and recent advances. *Biochim Biophys Acta.* 2007; 1771:243-62. [PMC1894910](#).
7. Odom GL, Banks GB, Allen JA, Adams M, Meuse L, Haraguchi M, Froehner S, and Chamberlain JS. Alpha-dystrobrevin-3 prevents muscular dystrophy in the alpha-dystrobrevin null mouse by rAAV6 gene transfer. *Mol. Ther.* 2007; 15:S1, S52.
8. Percival J, Gregorevic P, Odom GL, Banks GB, Chamberlain JS, and Froehner S. rAAV6-microdystrophin rescues aberrant golgi complex organization in *mdx* skeletal muscles. *Traffic.* 2007; 8:1424-39.
9. Odom GL, Gregorevic P, Doremus C, Allen J and Chamberlain JS. Micro-utrophin delivery *via* rAAV6 increases lifespan and improves muscle function in dystrophic *mdx:utrn<sup>-/-</sup>* mice. *Mol. Ther.* 2008; 16:1539-1545. [PMC2643133](#).
10. Odom GL, Banks GB, Schultz BR, Gregorevic P, Chamberlain JS. Preclinical studies for gene therapy of Duchenne muscular dystrophy. *J Child Neurol.* 2010; 25:1149-1157.

11. Odom GL, Gregorevic P, Allen JM, Chamberlain JS. Gene therapy of *mdx* mice with large truncated dystrophins generated by recombination using rAAV6. *Mol. Ther.* 2011; 19:36-45. PMC3017440.
12. . Rainer Ng, Glen B. Banks, John H. Hall, Lindsey Muir, Julian N. Ramos, Jacqueline Wicki, Guy L. Odom, Patryk Konieczny, Jane Seto, Joel R. Chamberlain, and Jeffrey S. Chamberlain: Animal Models of Muscular Dystrophy. In: *Progress in Molecular Biology and Translational Science: Animal Models of Molecular Pathology*, Conn M, ed. Elsevier. 105:84-100, 2011.
13. Seto J, Ramos JN, Muir L, Chamberlain JS, and Odom GL. Gene replacement therapies for Duchenne muscular dystrophy using adeno-associated viral vectors. *Current Gene Therapy.* 2012 Jun 1;12(3):139-51.

#### D. Research Support

##### Ongoing Research Support

NIH R01 AR44533 Chamberlain (PI) 03/01/2012 – 02/28/2017  
*Assembly of the dystrophin-glycoprotein complex*  
Role: Co-investigator

NIH R37 AR040864 Chamberlain (PI) 04/01/2012 - 03/31/2015  
*Dystrophin Replacement in MDX mice*  
Role: Co-investigator

NIH RO1 HL111197 Regnier (PI) 08/15/2012 – 07/31/2017  
Effect of R1R2 over-expression on cardiac function  
Role: Co-investigator

##### Completed Research Support

T32 HL07828-09 Odom (PI) 06/01/05-06/01/08  
*Functional Analysis of alpha dystrobrevin in striated muscle by rAAV6 gene transfer*  
Role: PI

MDA award ID 115196 Odom (PI) 01/01/08-12/31/11  
*Vectors to avoid a cellular immune response against dystrophin in DMD patients*  
Role: PI