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EDUCATION

2006 **Ph.D. Cell and Molecular Regulation**, Saint Louis University, St. Louis, MO
"Friend of echinoid is required in *Drosophila* eye imaginal discs to regulate endocytosis of notch and delta." Mentor: Susan Spencer, Ph.D.

2002 **M.S. Biological Sciences**, Southern Illinois University Edwardsville, Edwardsville, IL
"Construction of a transfer vector for the expression of the fibrinogen γ΄variant in the baculovirus expression system." Mentor Mark Bolyard, Ph.D.

2000 **B.S. Genetic Engineering**, Southern Illinois University Edwardsville, Edwardsville, IL

RESEARCH EXPERIENCE

10/1/2013-present **Assistant Professor**, Delaware State University, Delaware Center for Neuroscience Research, Department of Biological Sciences.

11/2011-10/2013 **Assistant Scientist,** University of Wisconsin, Madison, School of Pharmacy, Division of Pharmaceutical Sciences. Research mechanisms of neurodegeneration and examine the role TDP-43 plays in Alzheimer's disease.

11/2009-11/2011 **Postdoctoral Research Associate**, University of Wisconsin, Madison. School of Pharmacy, Division of Pharmaceutical Sciences. Research mechanisms involved in neurodegeneration and neuroprotection of motor neuron disease (MND) and Alzheimer's disease under the mentorship of Jeffrey A. Johnson, Ph.D.

05/2006-11/2009 **Postdoctoral Fellow**, Washington University School of Medicine, Alzheimer's Disease Research Center, Department of Neurology. Research mechanisms involved in neurodegeneration of frontotemporal dementia (FTD) and motor neuron disease under the mentorship of Nigel J. Cairns, Ph.D., FRCPath and Alison M. Goate, D.Phil.

GRANTS

Awarded

- UW-Alzheimer's Disease Research Pilot Grant, $30,000 4/2011 to 3/2012
- Alzheimer's Association: NIRG-12-241456 $100,000 11/2012 to 10/2014
  New Investigator Research Grant: "Age-Dependent increases of phosphorylated TDP-43 in APP/PS1 mice"
  http://www.alz.org/research/alzheimers_grants/for_researchers/overview-2012.asp?grants=2012gitcho
- NIH-NIA K01: 1K01AG042500-01A1 Mentored Research Scientist Development Award "Selective over expression of TDP-43 in APP/PS1 mice alters APP processing" (7/2013 to 6/2018).

TEACHING EXPERIENCE

2013-present	Assistant Professor in the Department of Biological Sciences, Delaware State University. Introduction to Neuroscience.
2004-2009	**Biology Instructor**. Saint Louis Community College-Meramec: General Biology for non-biology majors and Anatomy & Physiology (didactic instruction in both lecture and lab, part-time).
2002-2003	**Teaching Assistant**. Saint Louis University: General Biology and Cellular Structure & Function.
2000-2002	**Teaching Assistant.** Southern Illinois University at Edwardsville: Cell & Molecular Biology, Histology, Field Ecology, Genetics, and Recombinant DNA.

WORKSHOPS

National Institute on Aging, Summer Institute on Aging Research, July 9-15, 2011

National Institute on Aging, Grant Technical Assistance Workshop, November 17–18, 2009

PEER REVIEW COMMITTEES

2013 Alzheimer's Association Review Committee

2012 Alzheimer's Association Review Committee

INVITED TALKS

International

- Departmental Seminar, Ludwig-Maximilians-Universität, Adolf-Butenandt-Institut, München, Germany. September 11th, 2008 "FTLD and MND: Two Faces of TDP-43 Proteinopathy"
- Breaking News Seminar, 6th International Conference on Frontotemporal Dementias, Rotterdam, The Netherlands. September 3rd, 2008. "*VCP* Mutations Causing Frontotemporal Lobar Degeneration Disrupt Localization of TDP-43 and Induce Cell Death"

National

- Washington University School of Medicine, September 21st, 2012. "Selective overexpression of TDP-43 in an APP/PS1 background alters APP processing"
- Waisman Center, Madison, Wisconsin, February 7th, 2012. "Phosphorylated TDP-43 aggregation in APP/PS1 mice: relationship to Alzheimer's disease"
- Society for Neuroscience (Minisymposium), Washington, DC, November 13th, 2011 "TDP-43 Phosphorylation in an Alzheimer's Disease Mouse Model"
- Louisiana State University Health Sciences Center. May 22nd, 2009. "A Tissue Culture Model of Frontotemporal Dementia"
- Alzheimer's Disease Research Seminar, Washington University School of Medicine. "FTLD and MND: Two Faces of TDP-43 Proteinopathy" May, 2008.
- Departmental Seminar, Southern Illinois University at Edwardsville. May, 2005. "Development seen through the *Drosophila* Eye"

PUBLICATIONS

Dayton RD, **Gitcho MA**, Orchard EA, Wilson JD, Wang DB, Cain CD, Johnson JA, Zhang Y-Z, Petrucelli L, Mathis JM, Klein RL. Selective forelimb impairment in rats expressing a pathological TDP-43 25 kDa C-terminal fragment to mimic amyotrophic lateral sclerosis. *Molecular Therapy* 2013, in press.

Wang, DB, **Gitcho, MA**, Kraemer, BC, and Klein, RL. Genetic strategies to study TDP-43 in rodents and to develop preclinical therapeutics for amyotrophic lateral sclerosis. *European Journal of Neuroscience*, 2011. 34(8):1179-1188 (review).

Page, T*, **Gitcho, MA***, Mosaheb, S, Carter, D, Chakraverty, S, Perry, RH, Bigio, EH, Gearing, M, Ferrer, I, Goate, AM, Cairns, NJ, Thorpe, JR. FUS immunogold labelling TEM analysis of the neuronal cytoplasmic inclusions of neuronal intermediate filament inclusion disease: a frontotemporal lobar degeneration with FUS Proteinopathy. *Journal of Molecular Neuroscience*, 2011. 45(3):409-421.

Cairns, NJ, Perrin, RJ, Schmidt, RE, Gru, A, Green, KG, Carter, D, Taylor-Reinwald, L, Morris, JC, **Gitcho, MA**, Baloh, RH. TDP-43 proteinopathy in familial motor neuron disease with TARDBP A315T mutation: a case report. *Neuropathol Appl Neurobiol*. 2010. 36(7):673-679.

Wang, J, Van Damme, P, Cruchaga, C, **Gitcho, MA**, Vidal, JM, Seijo-Martinez, M, Wang, L, Wu, JY, Robberecht, W, and Goate, AM, Pathogenic Cysteine Mutations Affect Progranulin Function and Production of Mature Granulins. *Journal of Neurochem* 2010. 112(5):1305-15

Gitcho, MA*, Bigio, EH*, Mishra, M, Johnson, N, Weintraub, S, Mesulam, M, Rademakers, R, Chakraverty, S, Cruchaga, C, Morris, JC, Goate, AM, and Cairns, NJ. *TARDBP* 3'UTR Mutation in Autopsy-Confirmed Frontotemporal Lobar Degeneration with TARDBP Proteinopathy 2009. 118(5):633-45.

Gitcho, MA, Strider, J, Carter, D, Taylor-Reinwald, L, Forman, MS, Goate, AM, and Cairns NJ. *VCP* Mutations Causing Frontotemporal Lobar Degeneration Disrupt Localization of TDP-43 and Induce Cell Death. *Journal of Biological Chemistry*. 2009 284(18):12384-98.

Liscic, RM,Tenenholz-Grinberg, L, Zidar, J, **Gitcho, MA**, and Cairns, NJ
ALS and FTLD: Two faces of TDP-43 proteinopathy. *European Journal of Neurology*. 2008, 15(8):772-780 (review).

Gitcho MA*, Baloh RH*, Chakraverty S, Mayo K, Norton JB, Levitch D, Hatanpaa KJ, White CL 3rd, Bigio EH, Caselli R, Baker M, Al-Lozi MT, Morris JC, Pestronk A, Rademakers R, Goate AM, and Cairns NJ. TDP-43 A315T mutation in familial motor neuron disease. *Annals of Neurology*. 2008. 63(4): 535-538 (*Annals of Neurology* most cited in 2008).

Mukherjee O, Wang J, **Gitcho M**, Chakraverty S, Taylor-Reinwald L, Shears S, Kauwe JS, Norton J, Levitch D, Bigio EH, Hatanpaa KJ, White CL, Morris JC, Cairns NJ, and Goate A.. Molecular Characterization of Novel *Progranulin* (GRN) Mutations in Frontotemporal Dementia. *Human Mutation*. 2008. 29(4): 512-521.

Cairns NJ, Neumann M, Bigio EH, Holm IE, Troost D, Hatanpaa KJ, Foong C, White CL 3rd, Schneider JA, Kretzschmar HA, Carter D, Taylor-Reinwald L, Paulsmeyer K, Strider J, **Gitcho M,** Goate AM, Morris JC, Mishra M, Kwong LK, Stieber A, Xu Y, Forman MS, Trojanowski JQ,

Lee VM, and Mackenzie IR. TDP-43 in familial and sporadic frontotemporal lobar degeneration with ubiquitin inclusions. *American Journal of Pathology*. 2007. 171(1):227-40.

Behrens MI, Mukherjee O, Tu PH, Liscic RM, Grinberg LT, Carter D, Paulsmeyer K, Taylor-Reinwald L, **Gitcho M**, Norton JB, Chakraverty S, Goate AM, Morris JC, and Cairns NJ. Neuropathologic heterogeneity in HDDD1: a familial frontotemporal lobar degeneration with ubiquitin-positive inclusions and progranulin mutation. *Alzheimer Disease and Associated Disorders*. 2007. 21(1):1-7.

Mukherjee O, Pastor P, Cairns NJ, Chakraverty S, Kauwe JS, Shears S, Behrens MI, Budde J, Hinrichs AL, Norton J, Levitch D, Taylor-Reinwald L, **Gitcho M**, Tu PH, Tenenholz Grinberg L, Liscic RM, Armendariz J, Morris JC, Goate AM. HDDD2 is a familial frontotemporal lobar degeneration with ubiquitin-positive, tau-negative inclusions caused by a missense mutation in the signal peptide of progranulin. *Annals of Neurology*. 2006. 60(3):314-22.

Ju JS, **Gitcho MA**, Casmaer CA, Patil PB, Han DG, Spencer SA, Fisher JS. Potentiation of insulin-stimulated glucose transport by the AMP-activated protein kinase. *American Journal of Physiology. Cell Physiology*. 2007. 292(1):564-72.

*contributed equally to this work

PATENT

SEQUENCES ASSOCIATED WITH TDP-43 PROTEINOPATHIES AND METHODS OF USING THE SAME
United States Patent Application PCT/US2009/032627 Filed February 1, 2008
Inventors: Michael Gitcho, Nigel Cairns, Alison Goate, Robert Baloh, Alan Pestronk.
Licensed to Athena Diagnostics.

VOLUNTEER EXPERIENCE
Alzheimer's Association, Science Olympiad, and Engineering Science Pre-College Program

PROFESSIONAL MEMBERSHIPS
Society for Neuroscience