Labor Health and Human Services, Education, and Related Agencies
Witness Disclosure Form

Clause 2(g) of rule XI of the Rules of the House of Representatives requires non-governmental witnesses to disclose to the Committee the following information. A non-governmental witness is any witness appearing on behalf of himself/herself or on behalf of an organization other than a federal agency, or a state, local or tribal government.

Your Name, Business Address, and Telephone Number:

George A. Carlson, PhD

[redacted]

1. Are you appearing on behalf of yourself or a non-governmental organization? Please list organization(s) you are representing.

McLaughlin Research Institute for Biomedical Sciences, Inc.

2. Have you or any organization you are representing received any Federal grants or contracts (including any subgrants or subcontracts) since October 1, 2008?

Yes ~~No~~

3. If your response to question #2 is "Yes", please list the amount and source (by agency and program) of each grant or contract, and indicate whether the recipient of such grant or contract was you or the organization(s) you are representing.

- All Federal Grants and Contracts on the attached listings were awarded to McLaughlin Research Institute, Inc.

Summary of Total Federal Expenditures by Agency and Program:

- Department of Health and Human Services
- National Institutes of Health $7,433,069
- Department of Housing and Urban Development
- Community Development Block Grant –Great Falls $ 100,000

Signature: [redacted]

Date: 26 March 2012

MCLAUGHLIN RESEARCH INSTITUTE
SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS
For the Year Ended June 30, 2009

Funding Agency	Federal CFDA Number	Program Number	Grant Revenue Recognized	Grant Expenditures Recognized
Department of Health & Human Services				
National Institute of Health				
Mutant Human A-Synuclein Toxicity in Mice	93.853	1 R01 NS062121-01A1	$ 292,823.00	$ 292,823.00
Myosin-Va and Axonal Protein Synthesis	93.989	1 R03 TW007220-01A2	16,826.33	16,826.33
Myosin-Va and Axonal Protein Synthesis	93.989	5 R03 TW007220-02	18,776.20	18,776.20
Genetics of Prion Susceptibility in vitro	93.853	5 P01 NS041997-07	1,366,668.95	1,366,668.95
Genetics of Prion Susceptibility in vitro	93.853	5 P01 NS041997-07	31,614.05	31,614.05
Novel Stem Cell and Mouse Models to Study Frontotemporal Dementia	93.866	1 F31 AG031630-01A2	18,533.01	18,533.01
Genetic Control of Schwann Cell Differentiation	93.853	5 R01 NS040751-07	164,023.98	164,023.98
Genetic Control of Schwann Cell Differentiation	93.853	5 R01 NS040751-08	218,977.35	218,977.35
National Institute of Health				
Passed through from University of Minnesota				
Biology of Alzheimer's Disease in Transgenic Mice	93.866	5 R01 AG026252-05	63,252.01	63,252.01
National Institute of Health				
Passed through from Massachusetts General Hospital				
Anatomical Changes in Tau Transgenic Models	93.866	5 R01 AG026249-05	36,543.43	36,543.43
National Institute of Health				
Passed through from University of Montana				
Center for Structural and Functional Neuroscience	93.389	5 P20 RR015583-09	50,414.13	50,414.13
			$ 2,278,452.44	$ 2,278,452.44

For the Year ended June 30, 2010

Funding Agency	CFDA Number	Program Number	Federal Expenditures
Department of Health & Human Services			
National Institutes of Health			
Mutant Human A-Synuclein Toxicity in Mice	93.853	5 R01 NS062121-02	335,672.00
Myosin-Va and Axonal Protein Synthesis	93.989	5 R03 TW007220-02	19,604.74
Myosin-Va and Axonal Protein Synthesis	93.989	5 R03 TW007220-03	4,943.64
Genetics of Prion Susceptibility in vitro	93.853	5 P01 NSO41997-08	1,209,791.35
Genetics of Prion Susceptibility in vitro	93.701	3 P01 NSO41997-08S1	54,231.06
Novel Stem Cell and Mouse Models to Study Frontotemporal Dementia	93.866	1 F31 AG031630-01A2	7,861.99
Novel Stem Cell and Mouse Models to Study Frontotemporal Dementia	93.866	5 F31 AG031630-02	21,225.87
Parkin and MGRN1: Common Roles in Mitochondria and Neurodegeneration?	93.853	1 R21 NS070246-01	54,627.70
GE Typhoon 9410 Variable Mode Imager	93.701	1 S10 RR026868-01	148,992.00
Genetic Control of Schwann Cell Differentiation	93.853	5 R01 NS040751-08	141,290.81
Genetic Control of Schwann Cell Differentiation	93.853	5 R01 NS040751-09	278,308.48
National Institutes of Health			
Passed through from Massachusetts General Hospital			
Anatomical Changes in Tau Transgenic Models	93.866	5 R01 AG026249-05	2,116.58
Anatomical Changes in Tau Transgenic Models	93.866	5 R01 AG026249-05S1	46,779.51
National Institutes of Health			
Passed through from The University of Montana			
Center for Structural and Functional Neuroscience	93.389	5 P20 RR015583-10	22,500.00
Department of Housing and Urban Development			
Office of Community Planning and Development			
Passed Through from the City of Great Falls, Montana			
Community Development Block Grants/ Entitlement Grants	14.218	Not Applicable	100,000.00
			2,447,945.73

For the Year Ended June 30, 2011

Funding Agency	CFDA Number	Program Number	Federal Expenditures
Department of Health & Human Services			
National Institutes of Health			
Mutant Human A-Synuclein Toxicity in Mice	93.853	5 R01 NS062121-03	332,315
Myosin-Va and Axonal Protein Synthesis	93.989	5 R03 TW007220-03	84,869
Olympus FV1000 Inverted Spectral Confocal System	93.701	1 S10 RR027807-01	374,805
Genetics of Prion Susceptibility in vitro	93.853	5 P01 NSO41997-09	1,365,444
Genetics of Prion Susceptibility in vitro	93.701	3 P01 NSO41997-09S1	80,714
Novel Stem Cell and Mouse Models to Study Frontotemporal Dementia	93.866	5 F31 AG031630-02	5,748
Novel Stem Cell and Mouse Models to Study Frontotemporal Dementia	93.866	5 F31 AG031630-03	21,807
Parkin and MGRN1: Common Roles in Mitochondria and Neurodegeneration	93.853	1 R21 NS070246-01	170,372
Parkin and MGRN1: Common Roles in Mitochondria and Neurodegeneration	93.853	1 R21 NS070246-02	32,455
Genetic Control of Schwann Cell Differentiation	93.853	5 R01 NS040751-09	77,938
Genetic Control of Schwann Cell Differentiation	93.853	5 R01 NS040751-10	192,459
National Institutes of Health			
Passed through from Massachusetts General Hospital			
Anatomical Changes in Tau Transgenic Models	93.866	5 R01 AG026249-05S1	9,758
Anatomical Changes in Tau Transgenic Models	93.866	5 R01 AG026249-06A1	57,987
			2,806,671

Dr. George Carlson, Director of McLaughlin Research Institute, Great Falls, Montana

Testimony for the Public Witness Hearing for the Labor Health and Human Services, Education, and Related Agencies Subcommittee

March 29, 2012
2358-C, Rayburn House Office Building

Thank you Mr. Chairman and members of the Committee for providing me the opportunity to testify today on behalf of McLaughlin Research Institute. MRI is an independent, non-profit research institute in Great Falls, Montana where we conduct basic biomedical research to understand, and ultimately prevent, neurodegenerative diseases like Alzheimer's, Parkinson's, and prion disorders like mad cow disease. I thank the committee for its record of support for medical research funded by the National Institutes of Health (NIH). We ask that the committee provide at least $32 billion in funding for the NIH in fiscal year 2013 and I will offer a few examples showing why this increased level of support is vitally important for our country's future.

NIH-supported research at universities, medical centers, small businesses, and independent research institutions is taking place in every state in our country. At the McLaughlin Research Institute, as much as 90% of our research budget has come from NIH grants, creating a wide range of jobs and careers. While the most important outcome of NIH supported research is improved human health, Montana's economy also benefits both from extramural NIH support through competitive research grants and the intramural program, which supports the National Institute of Allergy and Infectious Disease Rocky Mountain Laboratory. Montana's biomedical research community is vibrant and interactive. MRI, along with Montana State University, is a participant in the University of Montana's Center for Structural and Functional Neuroscience, a Center of Biomedical Research Excellence funded by NIH's IDeA program, which broadens the geographic distribution of NIH funding for biomedical research.

Since work at MRI targets Alzheimer's disease and related disorders, I will emphasize the dramatic impact of Alzheimer's disease on our population. An estimated 5.4 million Americans are afflicted by Alzheimer's disease, including 200,000 who are under age 65. In Montana alone, 21,000 have this devastating disease. In addition to the human tragedy of dementing illness for patients and family members, the financial cost of treating Alzheimer's disease is already at $200 billion in 2012 and is projected to skyrocket to $1.1 trillion by 2050; this will put tremendous strain on public and private health care providers and insurers. However, with continued investments in research, we can bend this cost curve. For example, new approaches developed using mice by MRI scientists and our collaborators are identifying the earliest events in neurodegenerative diseases and molecular markers that can indicate incipient disease well before clinical signs or symptoms appear. We also are beginning to understand mechanisms for spread of Alzheimer's disease pathology within the brain, offering new ways to intervene. Understanding disease mechanisms will lead to new therapies, and early identification of patients at a stage when therapy is most likely to be effective will enable effective treatment of this currently incurable disease. Americans know that our nation's best weapon against disease

and spiraling health care costs is research. Ultimately, we must prevent and cure disease in order to tackle the personal and economic costs associated with it.

Since much of the research NIH supports is at the non-commercial stages of the research pipeline, NIH funding sets the stage for critical private sector investment. These two complementary funding streams lead to sustainable business development, new jobs, and breakthrough medical products. Whether viewed through the lens of advancing health, creating new businesses and jobs, ensuring our nation's global economic competitiveness, or gaining control over spiraling health care costs, investing in medical research must remain a top priority.

Americans recognize that our nation's global leadership in science is tenuous with 77% of those polled by Research!America thinking that the U.S. is losing its competitive edge in scientific innovation and technology. Our leadership position *will* evaporate if policymakers shortchange government investment in the basic research that is the essential fuel for private sector innovation. Given its current rate of spending on research, China will begin to outspend the U.S. on research within the next five to ten years. As it stands, Israel, Sweden, South Korea, and Japan are spending more on R&D than the U.S. as a portion of GDP while countries like China and India are rapidly increasing investments in science. With funding from India's National Centre for Biological Sciences, MRI scientists are helping establish a mouse genetics facility and a cardiomyopathy lab at Bangalore's new Institute for Stem Cell Biology and Regenerative Medicine. In Great Falls, MRI scientists are producing engineered mice, again with funding from India, for scientists in Bangalore. While this international collaboration is exciting, it points out the appreciation that other countries have developed for the importance of basic research. Before this, I had never imagined that basic research in the U.S. would be supported by funds from a developing country.

MRI also is dedicated to science education, providing research internships for high school students, teachers and undergraduates who work alongside our scientists on NIH supported research projects. To maintain our country's leadership in biomedical research, it is essential that talented young people pursue scientific careers. We at MRI have observed first hand decisions by talented postdoctoral trainees, discouraged by the downturn in grant application success rates, to abandon basic research for careers that offer more security. Similarly, rather than working to remain in the U.S. as was the norm in the past, a talented postdoc from India returned to his home country to continue his career as a faculty member at the National Brain Research Centre near Dehli. Similar loss of scientific talent is occurring across the country. Adequate support from NIH is essential to foster and retain the next generation of research innovators.

At the end of the 20th century and the beginning of the 21st, members of Congress on both sides of the aisle and Democratic and Republican Administrations alike came together to double the budget of NIH. They made a commitment to the American public to increase the priority of finding treatments and cures for diseases that needlessly disable and kill Americans, and at the same time took a major step in advancing our nation's global leadership in the R&D arena. Research can't be turned on and off like a light switch; it yields results over time and with consistent effort. A decline in productivity and loss of talent in the short term can have dire long-

term effects. The research enterprise supported by NIH cannot be forsaken without significant consequences for our economy. Without innovation, business development and job growth are both at serious risk. If Congress and the Administration decide to let NIH funding stagnate as inflation eats away at its value, it will compromise medical and economic progress, reversing course on medical innovation at a time when our nation can least afford to do so. The discoveries made at MRI and research organizations across the country are setting our nation on a pathway to improved treatments and cures for patients and their families, which will lower the cost of healthcare. With grant success rates at the NIH at an all time low, we urge the Committee to provide at least $32 billion in funding for fiscal year 2013. New investments are essential for our nation to maintain our historic global leadership in medical research and innovation. Thank you Mr. Chairman and members of the Committee for your attention and for providing this opportunity to testify on behalf of the federal government's contribution to our nation's critical medical research enterprise.