

## CURRICULUM VITAE

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*web sites:* <https://www.binghamton.edu/pharmacy-and-pharmaceutical-sciences/research/eric-hoffman.html>

*CINRG clinical trial group:* <http://www.cinrgresearch.org>

*ReveraGen BioPharma:* <http://www.reveragen.com>

*AGADA BioSciences:* <http://www.agadabio.com>

<http://scholar.google.com/citations?user=ZL4pyUkAAAAJ&hl=en>

**DATE OF BIRTH:** 12/16/58

**EDUCATION:** 1982 B.A. Biology (*Cum Laude*)  
B.A. Music (*Cum Laude*)  
Gettysburg College, Gettysburg, PA

1987 Ph.D. Biology (Genetics)  
The Johns Hopkins University, Baltimore, MD  
(*requirements completed 6/86*)

### RESEARCH FELLOWSHIPS:

1986-1990 Research Fellow in Medicine (Genetics), Children's Hospital, Boston  
1986-1988 Research Fellow in Pediatrics, Harvard University, Boston  
1988-1990 Research Associate, Howard Hughes Medical Institute

### FACULTY APPOINTMENTS:

7/88-11/89 Instructor, Pediatrics, Harvard Medical School  
11/89-5/90 Assistant Professor, Pediatrics, Harvard Medical School  
5/90-1/96 Assistant Professor, Department of Molecular Genetics and Biochemistry  
University of Pittsburgh School of Medicine  
7/90-1/96 Assistant Professor, Department of Human Genetics  
University of Pittsburgh Graduate School of Public Health  
3/90-1/96 Assistant Professor, Department of Pediatrics  
University of Pittsburgh School of Medicine, Children's Hospital  
6/91-12/98 Center for Neuroscience of University of Pittsburgh, Training Faculty  
1/96-12/98 Associate Professor, Departments of Molecular Genetics and  
Biochemistry, Pediatrics, Human Genetics, and Neurology  
12/98 Professor, Departments of Molecular Genetics and  
Biochemistry, Pediatrics, Human Genetics, and Neurology  
12/98-10/15 Director, Research Center for Genetic Medicine,  
Children's Research Institute, Children's National Medical Center

	Washington, DC
10/99-4/16	A James Clark Endowed Chair in Molecular Genetics
10/99-4/16	Professor, Department of Pediatrics, Biochemistry and Molecular Biology, George Washington University School of Medicine and Health Sciences, Washington, DC
9/00-10/15	Director, Genomics Core Facility, Children's National Medical Center
6/09-4/16	Professor and Chair, Department of Integrative Systems Biology, George Washington University School of Medicine and Health Sciences.
12/11-10/15	Director, Graduate Program in Biochemistry and Systems Biology, George Washington University School of Medicine
4/16-present	Associate Dean for Research, School of Pharmacy and Pharmaceutical Sciences, University of Binghamton SUNY

### **CORPORATE/INDUSTRY:**

1999-present	Co-Founder, Board Member: <b>ReveraGen Biopharma</b>
2014-present	CEO: <b>ReveraGen Biopharma</b>
2013-present	Co-Founder, Vice President, Board Member: <b>Agada Biosciences</b>
2015-present	Co-Founder, President: <b>TRINDS LLC</b>

### **SCIENTIFIC ADVISORY BOARDS:**

2001-present	Scientific Advisory Board, <b>Foundation to Eradicate Duchenne</b> ( <a href="http://www.duchennemd.org">www.duchennemd.org</a> )
2001-2007	Scientific Advisory Board, <b>Nanogen, Inc.</b>
2002-present	Scientific Director, <b>Cooperative International Neuromuscular Research Group (CINRG)</b> ( <a href="http://www.cinrgresearch.org">www.cinrgresearch.org</a> )
2009-present	Scientific Advisory Board, <b>CureDuchenne Foundation</b> ( <a href="http://www.cureduchenne.org">www.cureduchenne.org</a> )
2009-present	Scientific Advisor, <b>Crystal Ball for a Cure Foundation</b>
2010-present	Scientific Advisory Board, <b>Prothelia LLC</b>
2011-present	Scientific Advisory Board, <b>C3 Foundation</b>
2013-present	Executive Committee, <b>TREAT-NMD</b> ( <a href="http://www.treat-nmd.eu">www.treat-nmd.eu</a> )
2014-present	Advisory Board, <b>Science Translational Medicine</b> (AAAS)
2014-present	Advisory Board, <b>Save Our Sons</b>
2016-present	Advisory Board, <b>Duchenne UK Foundation</b>

### **SOCIETY MEMBERSHIPS:**

1993-2016	American College of Medical Genetics
1994-2016	American Society of Human Genetics
1997-2010	American Academy of Neurology, Affiliate
1998-2010	American Society for Gene Therapy
1999-2014	American College of Sports Medicine
1999-2010	Society for Pediatric Research

### **MEDICAL (MOLECULAR DIAGNOSTIC) CERTIFICATIONS:**

1993-2016	<i>American Board of Medical Genetics</i> – Clinical Molecular
1993-2013	<i>New York State Certification</i> - Molecular Genetics Laboratory Director
1996-2016	<i>American College of Medical Genetics</i> - Fellow
1994-2007	<i>CLIA Certification, Neuromuscular Disease Laboratory</i>

### **AWARDS AND HONORS:**

1977-1978	AFS International Scholarship, 1 year in Roskilde, Denmark
1982	Departmental Honors in Biology, Gettysburg College
1982	William C. and Helen H. Darrach Award in Biology, Gettysburg College
1985	Genetics Society of America, Graduate Student Travel Award

1986-1988	Harry Zimmerman Postdoctoral Fellowship of The Muscular Dystrophy Association
1987-1989	Publication of 7 High Impact Papers, defined by ISI as 200 or more citations the year following publication
1991	The 1991 Young Alumni Achievement Award, Gettysburg College
1991	"G. Conte" Award for Molecular Genetics, University of Naples, Italy
1992,1998	Department of Human Genetics Teaching Award
1994-2000	Established Investigator Award, American Heart Association (National)
1996	Chancellor's Distinguished Research Award, University of Pittsburgh
1998-present	A. James Clark Endowed Chair in Molecular Medicine
1999	Periodic Paralysis Association Scientist of the Year
2000	George Washington University Distinguished Researcher Award
2002	Honoree, 2003 Heartsongs Gala, Muscular Dystrophy Association

### EDITORIAL BOARDS:

1991-2011	Editorial Board, <i>Journal of the Neurological Sciences</i>
1991-1996	Editorial Board, <i>Muscle &amp; Nerve</i>
1991-present	Editorial Board, <i>Acta Cardiologica</i>
1993-2004	Editorial Board, <i>Neuropediatrics</i>
1993-1995	Editorial Board, <i>Neuromuscular Disorders</i>
1994-2010	Editorial Board, <i>Gene Therapy</i>
1995-1998	Editorial Board, <i>Molecular Diagnosis</i>
1995-2002	Associate Editor, <i>Neuromuscular Disorders</i>
1996-1999	North American Editor, <i>Neurogenetics</i>
2000-present	Editorial Board, <i>European Journal of Human Genetics</i>
2006-present	Editorial Board, <i>Personalized Medicine</i>
2009-present	Associate Editor, <i>American Journal of Pathology</i>
2014-present	Associate Editor, <i>Journal of Neuromuscular Diseases</i>
2014-present	Scientific Advisory Board, <i>Science Translational Medicine</i>

### COMMITTEE MEMBERSHIPS:

1992-1995	Fellowship Review Subcommittee, <b>Muscular Dystrophy Association</b>
1990-1999	Scientific Commission, <b>Comitato Italiano Telethon</b> , Telethon, Italy
1995-1999	Scientific Advisory Committee, <b>Foundation Cavalieri Ottolenghi</b> , Italy
1995-2000	Executive Committee, <b>World Muscle Society</b>
1996-2000	Executive Committee, Research Group on Neuromuscular Diseases, World Federation of Neurology
2000-2010	Musculoskeletal Disease Committee, <b>American Society of Gene Therapy</b>
2002-2010	Genetic Diseases Committee, <b>American Society of Gene Therapy</b>
2003-2006	Translational Research Advisory Committee, <b>Muscular Dystrophy Association</b>
2003	Myopathy Task Force, <b>Merck Pharmaceuticals, Inc.</b>
2003-2009	Committee Member, Ethics, Genetics and the Future of Sport, <b>Hastings Center for Bioethics</b>
1997-2006	Genetics and Society Project, <b>Stichting Porticus Foundation</b>
2012-2016	Therapeutics Committee, <b>American College of Medical Genetics</b>

### PATENTS:

US 20140350069 A1	Methods and agents to increase therapeutic dystrophin expression in muscle. Inventors: Eric Hoffman, Alyson Fiorillo (2014)
Pending	Methods and agents to quantify proteins from tissues. Inventors: Yetrib Hathout, Kristy Brown, Eric Hoffman (2013)

- WO2011127170 A3. Methods for diagnosing and treating asthma. Inventors: Robert Freishtat, Eric Hoffman (2012)
- 8,334,279 Non-hormonal steroid modulators of NF- $\kappa$ B for treatment of disease. Inventors: John McCall, Eric Hoffman, Kanneboyina Nagaraju (2012)
- 8,207,151
- [6,268,145](#) [Screening test for the lethal genetic trait of recurrent spontaneous pregnancy loss.](#) Inventors: EP Hoffman, WA Hogge, M Lanasa (2001)
- [5,621,091](#) [Probes for and nucleic acid encoding the muscular dystrophy protein, dystrophin.](#) Inventors: LM Kunkel, AP Monaco, EP Hoffman, M Koenig (1997)
- [5,541,074](#) [Antibodies to dystrophin and uses therefor.](#) Inventors: LM Kunkel, AP Monaco, EP Hoffman, M Koenig (1993)
- [5,356,777](#) [Methods of detecting periodic paralysis in horses.](#) Inventors: EP Hoffman, SJ Spier (1995)
- [5,239,060](#) [Muscular dystrophy protein, dystrophin.](#) Inventors: LM Kunkel, AP Monaco, EP Hoffman, M Koenig (1993)

### TEACHING:

- |              |  |
|--------------|--|
| 1981-1982    | Lecturer <i>Physics of Music</i> for music majors, Gettysburg College  |
| 1982         | Lecturer <i>Electronic Music Composition</i> , Gettysburg College  |
| 1983         | Lab instructor/teaching assistant <i>Genetics</i> , Johns Hopkins University   |
| 1984         | Lab instructor/teaching assistant <i>Developmental Biology</i> , Johns Hopkins University  |
| 1987-1990    | Small Group Leader, first year medical students<br><i>Genetics</i> , Embryology and Reproduction, Harvard Medical School                     |
| 1990-1992    | Small Group Leader, first year medical students<br><i>Biochemistry</i> , University of Pittsburgh School of Medicine                         |
| 1991-1998    | Course Co-director, instructor, first year medical students<br><i>Human Molecular Genetics</i> , University of Pittsburgh School of Medicine |
| 1992-1998    | Course Co-director, instructor, Human Genetics graduate students<br><i>Molecular Basis of Human Disease</i> , University of Pittsburgh       |
| 1992-1998    | Course Director (1992-94), instructor, Molecular Genetics graduate students<br><i>Advanced Molecular Genetics</i> , University of Pittsburgh |
| 1994-1998    | Director, <i>Clinical Molecular Genetics Training Program</i> , American Board of Medical Genetics certification program                     |
| 1997-1998    | Course Co-director, instructor, <i>Molecular Genetics</i> , interdisciplinary graduate program   |
| 1999-present | Lecturer, <i>Molecular Genetics</i> , core course, 2 <sup>nd</sup> yr graduate students, GWU   |
| 1999-2004    | Lecturer, <i>Medical Genetics</i> , National Institutes of Health  |
| 2000-present | Course Director, <i>Human Molecular Genetics</i> , graduate course, GWU  |
| 2012         | Course Director, <i>Genes and Proteins</i> , 1 <sup>st</sup> year PhD graduate core course, GWU  |

### ADMINISTRATIVE RESPONSIBILITIES:

- |           |   |
|-----------|---|
| 1992-1996 | Research Advisory Committee, Children's Hospital, Pittsburgh, PA  |
| 1992-1997 | Director, Molecular Genetics PhD Training Program, Department of Molecular Genetics and Biochemistry, University of Pittsburgh School of Medicine               |
| 1992-1996 | Curriculum Committee, Department of Human Genetics, University of Pittsburgh School of Public Health  |
| 1992-1996 | Appointments Advisory Committee, Department of Molecular Genetics, University of Pittsburgh School of Medicine  |
| 1994-1998 | Director, Clinical Molecular Geneticist Training Program, American Board of Medical Genetics training program, University of Pittsburgh School of Public Health |
| 1997-1998 | MD/PhD Selection Committee, University of Pittsburgh School of Medicine   |

1997-1998 Curriculum Committee, and Steering Committee, Interdisciplinary training program in Biochemistry and Molecular Genetics, University of Pittsburgh School of Medicine  
 12/98-2016 Director, Research Center for Genetic Medicine, Children's Research Institute, Children's National Medical Center  
 2007-2016 PI, Translational Technologies and Research Core (CNMC CTSA TTR)  
 2012-2016 Program Director, Systems Biology and Biochemistry Graduate Program (PhD granting), George Washington University School of Medicine and Health Sciences

## FUNDING HISTORY:

6/88-6/90 Harvard Medical School; Quantitative electromyography of mdx mouse, \$8,000 PI  
 6/90-5/93 Muscular Dystrophy Association; DMD: association of dystrophin with sodium channels, \$120,000 total direct. PI  
 8/91-7/95 March of Dimes; Pathophysiology of dystrophin deficiency: animal models \$106,000 total direct. PI  
 8/91-7/94 National Institutes of Health, NIAMS; RO1; Molecular basis for periodic paralysis \$596,000 total direct. PI  
 1/91-12/94 National Institutes of Health, NINDS; RO1; Improved diagnosis of the muscular dystrophies, \$507,000 total direct. PI (this was continuously funded to present)  
 9/94-8/97 Goal Foundation; Gene therapy studies in Duchenne muscular dystrophy. \$18,000 total direct. PI  
 4/93-3/96 National Institutes of Health, NINDS; RO1; Automated PCR-based disease gene mapping, \$1,327,000 total direct, PI: Mark Perlin, Carnegie Mellon University  
 co-PI: Eric Hoffman, \$435,000 total direct.  
 7/94-6/97 Muscular Dystrophy Association; Advanced molecular diagnosis and structure/function studies of dystrophinopathies, \$165,000 total direct. PI  
 8/95-7/97 Parent Project: Pathophysiology of dystrophin deficiency. \$300,000 total direct. PI  
 6/97-1/98 Parent Project; Seed money for Duchenne Multidisciplinary Clinic. PI \$55,000 total direct.  
 4/95-3/99 National Institutes of Health, NINDS; RO1; Molecular basis for periodic paralysis \$1,120,000 total direct and subcontract to co-PI Robert Brown, Massachusetts General Hospital. PI  
 7/95-6/00 American Heart Association; Established Investigator Award; Molecular basis of Rippling muscular disease, \$300,000 total direct. PI  
 7/97-6/00 Muscular Dystrophy Association; Factors influencing efficiency of gene delivery to myogenic cells. \$161,000 total direct. PI  
 1/97-12/00 Parent Project; Mouse breeding core facility, Duchenne Muscular Dystrophy Research Facility. \$110,000 total direct. PI  
 9/97-8/00 National Institutes of Health, NINDS; RO1; Molecular basis of spastic paraplegia. \$475,000 total direct. PI  
 12/98-11/02 National Institutes of Health, NICHD; RO1; Molecular genetics of recurrent pregnancy loss. \$1,846,000 total direct. PI  
 4/99-3/02 National Institutes of Health, NINDS; RO1; Molecular genetics of Rett syndrome. \$640,932 total direct. PI  
 1/00-12/02 Friends of Spinal Muscular Atrophy Association; Expression profiling and AAV use in spinal muscular atrophy. \$200,000 total direct. PI  
 10/00-9/02 National Institutes of Health, NIMH; R21; Molecular pathophysiology of clinical variation in spinal cord disease. \$300,000 direct PI  
 4/99-3/04 National Institutes of Health, NIAMS; Program Project A Gene delivery to improve muscle function@; Project IV A Development of targeting ligands for delivery to muscle@. \$670,000 total direct. PI, but transferred to PI to Pittsburgh.  
 10/01-9/04 National Institutes of Health, NINDS, (Georgetown University, Children's National Medical Center), Contract for Spinal Cord Injury Profiling, \$1,800,000 direct. Co Principal PI with Georgetown.  
 10/00-9/05 National Institutes of Health, NHLBI; UO1; Applied genomics in cardiovascular disease.

- \$2,400,000 total direct. Co Principal PI with Hopkins.
- 10/05-9/10 National Institutes of Health, NICHD, Wellstone Muscular Dystrophy Research Center, \$5 million direct. PI
- 10/04-2/07 Department of Defense. Molecular mechanisms of glucocorticoid action in muscle. \$1 million. PI
- 10/05-9/09 Department of Defense. Muscle Research Consortium (Program Project): Duchenne muscular dystrophy. \$5.4 million. PI
- 1/98-12/08 Stichting Porticus Foundation, Post-doctoral training program for the Duchenne Muscular Dystrophy Research Center. \$1,700,000 total direct. PI
- 9/02-6/07 National Institutes of Health. NICHD. DC-Baltimore Center to Improve Child Health Disparities. Pilot project: Polymorphisms in pediatric type 2 diabetes. \$240,000 direct. PI of Project
- 9/03-8/06 National Institutes of Health. NICHD. Contractures: Remodeling of the Myotendinous Junction. R21. \$375,000 total direct. PI
- 5/98-4/09 National Institutes of Health. NICHD. Improving Minority Child Health in Washington, D.C. Project: Exercise intervention in overweight minority teens. \$320,000 total direct. PI of Project.
- 9/00-8/10 National Institutes of Health, NCRR; CRC (Children's National Medical Center), Genetics Core, \$900,000 total direct. PI of Core.
- 6/01-11/11 National Institutes of Health, NINDS/NIAMS, RO1. Functional SNPs associated with muscle size and strength. \$7 million direct total. PI
- 1/91-1/16 National Institutes of Health, NINDS, RO1. Improved diagnostics of the muscular dystrophies. (25 year RO1; average direct costs \$350,000/yr). PI
- 10/05-1/16 National Institutes of Health, NICHD, R24. Molecular and functional outcomes core for rehabilitation medicine. \$800,000/yr direct. PI.
- 1/11-8/16 NIH, NIAMS, P50. Center of Research Translation in Systemic Exon Skipping in Muscular Dystrophy (CORT). \$1 million/yr direct. PI.
- 6/15-5/19 Clark Charitable Foundation. Pilot program in orphan ndrug development and personalized medicine. \$1 million/year direct. PI.
- 9/11-6/16 NIH, NICHD, U54. Pediatric toxicity and efficacy in long-term systemic treatment with anti-sense. Co-principal investigator. \$5 million total direct
- 10/07-9/18 NIH, NHLBI, K12. Genetics and genomic approaches to lung diseases and disorders in Washington DC. PI. \$2.5 million total direct. (transferred PI to Children's)

## **BIBLIOGRAPHY:**

My publications list: <https://scholar.google.com/citations?user=ZL4pyUkAAAAJ&hl=en&oi=ao>

### *Refereed Publications:*

- Hoffman EP, and Corces VG. Correct temperature induction and developmental regulation of a cloned heat shock gene transformed into the *Drosophila* germ line. **Mol Cell Biol** 1984; 4: 2883-2889.
- Simcox AA, Cheney CM, Hoffman EP, and Shearn A. A deletion of the 3' end of the *Drosophila* hsp70 gene increases the stability of the mutant gene product during a recovery from heat shock. **Mol Cell Biol** 1985; 5: 3397-3401.
- Hoffman EP, and Corces VG. Sequences involved in temperature and ecdysterone-induced transcription are located in separate regions of a *Drosophila* heat shock gene, **Mol Cell Biol** 1986; 6: 663-673.
- Hoffman EP, Gerring SL, and Corces VG. The ovarian, steroid-hormone, and heat shock responsive promoters of the *Drosophila* hsp27 gene react very differently to perturbations of DNA sequence. **Mol Cell Biol** 1987; 7: 973-981.

5. Muller U, Donlon TA, Harris P, Rose E, Hoffman E, Bruns GP, and Latt SA. Highly polymorphic DNA sequences in the distal region of the long arm of human chromosome 18. **Cytogenet Cell Genet** 1987; 45: 16-20.
6. Hoffman EP, Monaco AP, Feener CC, and Kunkel LM. Conservation of the Duchenne muscular dystrophy gene in mice and humans. **Science** 1987; 238: 347-350.
7. Chamberlain JS, Grant SG, Reeves AA, Mullins LJ, Stephenson DA, Hoffman EP, Monaco AP, Kunkel LM, Caskey CT, and Chapman VM. Regional localization of the murine Duchenne muscular dystrophy gene on the mouse X chromosome. **Somatic Cell Molec Genet** 1987; 13: 671-678.
8. Koenig M, Hoffman EP, Bertelson CJ, Monaco AP, Feener C, and Kunkel LM. Complete cloning of the Duchenne muscular dystrophy (DMD) cDNA and preliminary genomic organization of the DMD gene in normal and affected individuals. **Cell** 1987; 50: 509-517.
9. Hoffman EP, Brown RH, and Kunkel LM. Dystrophin: the protein product of the Duchenne muscular dystrophy locus. **Cell** 1987; 51: 919-928.
10. Hoffman EP, Knudson CM, Campbell KP, and Kunkel LM. Subcellular fractionation of dystrophin to the triads of skeletal muscle. **Nature** 1987; 330: 754-758.
11. Bonilla E, Samitt CE, Miranda AF, Hays AP, Salviati G, DiMauro S, Kunkel LM, Hoffman EP, and Rowland LP. Duchenne muscular dystrophy: Deficiency of dystrophin at the muscle cell surface. **Cell** 1988; 54: 447-452.
12. Knudson CM, Hoffman EP, Kahl SD, Kunkel LM, and Campbell KP. Evidence for the association of dystrophin with the transverse tubular system in skeletal muscle. **J Biol Chem** 1988; 263: 8480-8484.
13. Hoffman EP, Fischbeck KH, Brown RH, Johnson M, Medori R, Loike JD, Harris JB, Waterston R, Brooke M, Specht L, Kupsky W, Chamberlain J, Caskey CT, Shapiro F, and Kunkel LM. Dystrophin characterization in muscle biopsies from Duchenne and Becker muscular dystrophy patients. **New Eng J Med** 1988; 318: 1363-1368.
14. Hoffman EP, Hudecki M, Rosenberg P, Pollina C, and Kunkel LM. Cell and fiber-type distribution of dystrophin. **Neuron** 1988; 1: 411-420.
15. Watkins SC, Hoffman EP, Slayter HS, and Kunkel LM. Immunoelectron microscopic localization of dystrophin in myofibres. **Nature** 1988; 333: 863-866.
16. Cooper BJ, Winand NJ, Stedman H, Valentine BA, Hoffman EP, Kunkel LM, Scott MO, Fischbeck KH, Kornegay JN, Avery RH, Williams JR, Schmickel RD, and Sylvester JE. The homologue of the Duchenne locus is defective in X-linked muscular dystrophy of dogs. **Nature** 1988; 334: 154-156.
17. Partridge TA, Morgan JE, Coulton GR, Hoffman EP, and Kunkel LM. Conversion of mdx myofibres from dystrophin-negative to dystrophin-positive by injection of normal myoblasts. **Nature** 1989; 337: 176-179.
18. Hoffman EP, Watkins SC, Slayter HS, and Kunkel LM. Detection of a specific isoform of alpha-actinin with antisera directed against dystrophin. **J Cell Biol** 1989; 108: 503-510.
19. Hurko O, Hoffman EP, McKee L, Johns DR, and Kunkel LM. Dystrophin analysis in clonal myoblasts derived from a Duchenne muscular dystrophy carrier. **Am J Hum Genet** 1989; 44: 820-826.
20. Watkins SC, Hoffman EP, Slayter HS, and Kunkel LM. Dystrophin distribution in heterozygote MDX mice. **Muscle Nerve** 1989; 12: 861-868.
21. Hoffman EP, Kunkel LM, Angelini C, Clarke A, Johnson M, and Harris JB. Improved diagnosis of Becker muscular dystrophy by dystrophin testing. **Neurology** 1989; 39: 1011-1017.
22. Bieber FR, Hoffman EP, and Amos JA. Dystrophin analysis in Duchenne muscular dystrophy: Use in fetal diagnosis and in genetic counseling. **Am J Hum Genet** 1989; 45: 362-367.

23. Carpenter JL, Hoffman EP, Romanul FCA, Kunkel LM, Rosales RK, Ma NSF, Dasbach JJ, Rae JF, Moore FM, McAfee MB, and Pearce LK. Feline muscular dystrophy with dystrophin deficiency. **Am J Path** 1989; 135: 909-919.
24. Arahata K, Hoffman EP, Kunkel LM, Ishiura S, Tsukahara T, Ishihara T, Sunohara N, Nonaka I, Ozawa E, and Sugita H. Dystrophin Diagnosis: Comparison of Dystrophin Abnormalities by Immunofluorescent and Immunoblot Analyses. **Proc Natl Acad Sci USA** 1989; 86: 7154-7158.
25. Richards CS, Watkins SC, Hoffman EP, Milsark IW, Schneider NR, Katz KS, Cook JD, Kunkel LM, and Cortada JM. Skewed X inactivation in a female MZ twin results in Duchenne muscular dystrophy. **Am J Hum Genet** 1990; 46: 672-681.
26. Angelini C, Beggs AH, Hoffman EP, Fanin M, and Kunkel LM. Enormous dystrophin in a patient with Becker muscular dystrophy. **Neurology** 1990; 40: 808-812.
27. Sunohara N, Arahata K, Hoffman EP, Yamada H, Nishimiya J, Arikawa E, Kaido M, Nonaka I, and Sugita H. Quadriceps myopathy: forme fruste of Becker muscular dystrophy. **Ann Neurol** 1990; 28: 634-639.
28. Morgan JE, Hoffman EP, and Partridge TA. Normal myogenic cells from newborn mice restore normal histology to degenerating muscles of the mdx mouse. **J Cell Biol** 1990; 111: 2437-2449.
29. Hoffman EP, Morgan JE, Watkins SC, Slayter HS, and Partridge TA. Somatic reversion/suppression of the mouse *mdx* phenotype *in vivo*. **J Neurol Sci** 1990; 99: 9-25.
30. Khurana TS, Hoffman EP, and Kunkel LM. Identification of a chromosome 6 encoded dystrophin related protein. **J Biol Chem** 1990; 265: 16717-16720.
31. Fontaine B, Khurana TS, Hoffman EP, Bruns GAP, Haines JL, Trofatter JA, Hanson MP, Rich J, McFarlane H, Yacek DM, Gusella JF, and Brown RH. Evidence that the genetic defect in hyperkalemic periodic paralysis is in the adult muscle sodium channel alpha-subunit gene. **Science** 1990; 250: 1000-1002.
32. Evans MI, Greb A, Kazazian H, Sacks AJ, Johnson MP, Boehm C, Kunkel LM, and Hoffman EP. In utero fetal muscle biopsy for the diagnosis of Duchenne muscular dystrophy. **Am J OBGYN** 1991; 165: 728-732.
33. Kaido M, Arahata K, Hoffman EP, Nonaka I, and Sugita H. Age-dependent differences of muscle histology in Becker muscular dystrophy. **Muscle Nerve** 1991; 14:1067-1073.
34. Lupski JR, Garcia CA, Zoghbi HY, Hoffman EP, and Fenwick RG. Discordance of the muscular dystrophy phenotype in identical female twins is associated with a new mutation at the DMD locus and non-random X inactivation. **Am J Med Genet** 1991; 40: 354-364.
35. Arikawa E, Hoffman EP, Kaido M, Nonaka I, Sugita H, and Arahata K. The frequency of patients having dystrophin abnormalities in a limb-girdle patient population. **Neurology** 1991; 41: 1491-1496.
36. Naylor EW, Hoffman EP, Paulus-Thomas J, Wessel HB, Reid KS, Mitchell B, and Schmidt BJ. Neonatal screening for Duchenne/Becker muscular dystrophy: Reconsideration based on molecular diagnosis and potential therapeutics. **Screening** 1992; 1: 99-113.
37. Beggs AH, Hoffman EP, Snyder JR, Arahata K, Specht L, Shapiro F, Angelini C, Sugita H, and Kunkel LM. Exploring the molecular basis for variability among patients with Becker muscular dystrophy: Dystrophin gene and protein studies. **Am J Hum Genet** 1991; 49: 54-67.
38. Hoffman EP, Garcia CA, Chamberlain JS, Angelini C, Lupski JR, and Fenwick R. Is the carboxyl-terminus of dystrophin required for membrane association? A novel, severe case of Duchenne muscular dystrophy. **Ann Neurol** 1991; 30: 605-610.



39. Koch MC, Ricker K, Otto M, Grimm T, Hoffman EP, Rudel R, Bender K, Zoll B, Harper PS, and Lehmann-Horn F. Confirmation of linkage of hyperkalemic periodic paralysis to chromosome 17. **J Med Genet** 1991; 28: 583-586.
40. Kuller JA, Hoffman EP, Fries MH, and Golbus MS. Prenatal diagnosis of Duchenne muscular dystrophy by fetal muscle biopsy. **Hum Genet** 1992; 90: 34-40.
41. Hoffman EP, Arahata K, Minetti C, Bonilla E, Rowland LP, Angelini C, Arikawa E, Baba C, Barkhaus PE, Bauserman SC, Butler IJ, Cook JD, Chutkow JG, Cordone G, Evans OB, Garcia C, Gilchrist JM, Glasberg M, Hamada K, Ishihara T, Ishikawa N, Johnsen SD, Kamakura K, Kikumoto O, Kinoshita M, Kumagai K, Marks H, Marks W, Maytal J, Moggio M, Moser E, Nigro MA, Noll W, Nonaka I, Prella A, Reyes MG, Ricci E, Roses AD, Sakuta R, Satoyoshi E, Servidei S, Smith A, Steele M, Subramony SH, Sunohara N, Wang JZ, Wessel HB, Yanagawa T, Munsat T, Hausmanowa-Petrusewicz I, and Sugita H. Dystrophinopathy in isolated cases of myopathy in females. **Neurology** 1992; 42: 967-975.
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**INVITED LECTURES, 1988.**

British Muscular Dystrophy Association, Dystrophin meeting, Cambridge, England.  
 University of Texas Health Science Center at Dallas, Human Molecular Genetics Symposium, Texas.  
 Dana Foundation Fellows Meeting (guest speaker), Baltimore, Maryland.  
 UCLA Symposium, Molecular Biology of Muscle Development, Colorado.  
 American Academy of Neurology, Genetics in Neurology (faculty member), Cincinnati, Ohio.  
 University of Nevada, Departmental Seminar, Reno, Nevada.  
 Muscular Dystrophy Association Board of Directors Annual Meeting, Las Vegas, Nevada.  
 Gordon Conference, Excitation/Contraction Coupling, New Hampshire.  
 Jackson Laboratories, Neurological Mutants in the Mouse, Bar Harbor, Maine.  
 Floating Hospital (New England Medical Center), Grand Rounds, Boston, Massachusetts.  
 University of Pennsylvania Medical School, Departmental Seminar, Philadelphia, Pennsylvania.  
 Cornell University, University-wide Lecture Series, Ithaca, New York.  
 University of Cincinnati Medical School, Departmental Seminar, Cincinnati, Ohio.  
 Miyazaki Medical College, Departmental Seminar, Miyazaki, Japan.  
 Molecular Biology of Human Genes Symposium, Osaka, Japan.  
 Japan Tobacco Company, Departmental Seminar, Tokyo, Japan.  
 Niigata Medical School, Departmental Seminar, Niigata, Japan.  
 Tokyo University, Ministry of Health- Muscular Dystrophy Meeting, Tokyo, Japan.

**INVITED LECTURES, 1989.**

University of Connecticut Health Science Center, Departmental Seminar (Biophysics), Farmington, Connecticut.  
 SUNY Buffalo, Departmental Seminar (Cell Biology), New York.  
 Massachusetts Eye and Ear Infirmary, Departmental Seminar, Boston, Massachusetts.  
 Banbury Symposium: 'Dystrophin', Cold Spring Harbor, New York.  
 American Academy of Neurology, Genetics in Neurology (faculty member), Chicago, Illinois.  
 Columbia University Medical School, Departmental Seminar (Neuroscience), New York.  
 Annual Meeting of Italian Muscular Dystrophy Association, Padova, Italy.  
 Cold Spring Harbor, Molecular Biology of Human Neurologic Disease (faculty member), New York.  
 University of Massachusetts Medical School, Departmental Seminar (Biochemistry), Worcester, Massachusetts.  
 Annual Meeting, European Association of Neuroscience, Symposium speaker, Torino, Italy.  
 Massachusetts General Hospital, Neurology Grand Rounds, Boston, Massachusetts.  
 University of Pennsylvania, Pennsylvania Muscle Institute Seminar, Philadelphia, Pennsylvania.  
 SUNY Stony Brook, Departmental Seminar (Cell and Developmental Biology), Stony Brook, New York.  
 Massachusetts General Hospital, Neuroscience Seminar Series, Boston, Massachusetts.  
 Hahneman University School of Medicine, Departmental Seminar (Molecular Biology), Philadelphia, Pennsylvania.  
 Eric Denhoff Memorial Symposium, Rhode Island Hospital, Providence, Rhode Island.  
 World Federation of Neurology, Symposium speaker, New Delhi, India.  
 Children's Medical Center, Pediatric Grand Rounds, and Genetics Conference workshop, Tulsa, Oklahoma.  
 National Academy of Medicine, Departmental Seminar (Biochemistry), Argentina.  
 National Pediatrics Meeting, Children's Hospital of Buenos Aires, Argentina.  
 University of Chile, Faculty of Medicine, Departmental Seminar (Biophysics), Santiago, Chile.  
 Iberoamerican Cell Biology Conference, Symposium speaker, and Workshop participant, Vina del Mar, Chile.  
 Viennese Workshop on Neuromuscular Disease, Vienna, Austria.  
 Charings Cross Hospital, Departmental Seminar (Biochemistry), London, England.  
 University of Pittsburgh School of Medicine, Departmental Seminar (Molecular Genetics and Biochemistry), Pittsburgh, Pennsylvania.

**INVITED LECTURES, 1990**

Lakeville Hospital, Neurology Grand Rounds (Brown University), Providence, Rhode Island.  
 Massachusetts General Hospital, Neuroscience Seminar Series, Charlestown, Massachusetts.  
 Los Angeles Area MDA Clinic Directors Meeting, Orthopedic Hospital, Los Angeles, California.  
 Long Island Medical Center, Neurology Grand Rounds, Long Island, New York.  
 American Academy of Neurology, Genetics in Neurology (faculty member), Miami, Florida.  
 Ordering the Membrane Cytoskeleton Trilayer, Yale School of Medicine, New Haven, Connecticut.  
 The Fourth Yugoslav Symposium on Neuromuscular Diseases, University of Zagreb, Yugoslavia.  
 V<sup>th</sup> International Congress Inborn Errors of Metabolism, Plenary Session Speaker, Asilomar, California.  
 Michigan MDA Regional Clinic Directors' Conference, East Lansing, Michigan.  
 South Carolina Genetics Conclave, Greenwood, South Carolina.

Cold Spring Harbor, 'Molecular Basis of Human Neurological Disease' (faculty member), New York.  
 Muscular Dystrophy Research '90, Symposium speaker, Venice, Italy.  
 VIIth International Congress of Neuromuscular Disorders, Symposium speaker, and Workshop speaker, Munich, West Germany.  
 University of Pittsburgh, Human Genetics Seminar Series, Pittsburgh, Pennsylvania.  
 Banbury Center, Neurofibromatosis Banbury Conference, Lloyd Harbor, New York.  
 Child Neurology Meetings, Genica-sponsored seminar, Atlanta, Georgia.  
 Cleveland Clinic Foundation, Neurology Grand Rounds, Cleveland, Ohio.  
 Geisinger Medical Center, Weis Center for Biomedical Research, Seminar, Danville, Pennsylvania.  
 Children's Hospital, Neurology Grand Rounds, Detroit, Michigan.  
 Stanford University School of Medicine, Pharmacology Departmental Seminar, California.  
 University of California, San Francisco, Neurology Seminar, California.  
 Medical Center of Indiana University, Neurology Grand Rounds, Indianapolis, Indiana.

### **INVITED LECTURES, 1991**

University of Washington, Medical Genetics Seminar Series, Seattle, Washington.  
 University of Pittsburgh, Biological Sciences Department, Pittsburgh, Pennsylvania.  
 Children's Hospital of New Orleans, Pediatric Grand Rounds, New Orleans, Louisiana.  
 New Orleans Neurological Association, Annual Meeting, New Orleans, Louisiana.  
 Tulane University/Louisiana State University, Neurology Grand Rounds, Louisiana.  
 University of Pittsburgh School of Medicine, Department of Neurobiology, Anatomy and Cell Science, Pittsburgh, Pennsylvania  
 LaValle University School of Medicine, Basic Science Lecture Series, Quebec, Canada.  
 German Association of Human Genetics, Annual Meeting, Symposium Speaker, Ulm, Germany.  
 Georgetown Medical Center-sponsored, "DNA Technology and the Diagnosis of Human Disease", Faculty, Washington, DC.  
 American Academy of Neurology, Genetics in Neurology (faculty member), Boston, Massachusetts.  
 Center for Neuroscience of the University of Pittsburgh, Neuroscience Seminar Series, Pittsburgh, Pennsylvania.  
 University of Pittsburgh School of Medicine, Gene Therapy Seminar Series, Pittsburgh, Pennsylvania.  
 Cold Spring Harbor, 'Molecular Basis of Human Neurological Disease' (faculty member), Lloyd Harbor, New York.  
 Gordon Conference, 'Excitation/Contraction Coupling', Tilton, New Hampshire.  
 Our Lady of the Lake Medical Center, Neurology Grand Rounds, Baton Rouge, Louisiana.  
 Carnegie-Mellon University, Departmental Seminar, Pittsburgh, Pennsylvania.  
 Muscular Dystrophy Association, Gene Therapy conference, Tucson, Arizona.  
 Irish/American Pediatric Society Annual Meeting, Symposium speaker, Pittsburgh, Pennsylvania.  
 1<sup>st</sup> International Meeting on Therapy of Muscle Dystrophies and Related Disorders, Symposium speaker, Sorrento, Italy.  
 Clinical Problems in Child Neurology Symposium, Guest Faculty, University of California San Francisco, California.  
 UCLA-Harbor Medical Center, Neurology Grand Rounds, Los Angeles, California.  
 St. Vincent Hospital, Neurology Grand Rounds, New York City, New York.

### **INVITED LECTURES 1992**

Environmental Mutagen Society Annual Meeting, Symposium speaker, Reno, Nevada.  
 Johns Hopkins University, Departmental Seminar, Biology, Baltimore, Maryland.  
 University of Pittsburgh Medical School, Neurology/Neurosurgery Grand Rounds, Pittsburgh, Pennsylvania.  
 Gettysburg College, Honors Day speaker, Gettysburg, Pennsylvania.  
 American Academy of Neurology, Annual Meeting, Genetics in Neurology (faculty member), San Diego, California.  
 University of Virginia, Physiology Departmental Seminar, Charlottesville, Virginia.  
 International Conference on Biochemistry of Human Diseases (IUBM), Symposium Director, Speaker, Nagoya, Japan.  
 Niigata Medical School, Brain Research Institute, Neurology Departmental Seminar, Niigata, Japan.  
 National Institutes of Neuroscience, Divisional Seminar, Kodaira, Tokyo, Japan.  
 Gordon Conference, Myogenesis, Session Director, Speaker, Tilton, New Hampshire.  
 Duke University Medical Center, Neurology Grand Rounds, Durham, North Carolina.  
 Medical College of Georgia, CME courses, 4 lectures, Augusta, Georgia.  
 University of Arizona Medical School, Neuromuscular Disease Symposium, Tucson, Arizona.  
 Oregon Health Sciences University, 3 departmental seminars: 1. Neurology Grand Rounds; 2. Pediatrics Conference;  
 3. Molecular Genetics Conference, Portland, Oregon.  
 European Neuromuscular Conference, Non-dystrophic myotonia meeting, Ulm, Germany.  
 Albert-Ludwigs-Universitat Freiburg, Human Genetics Departmental Seminar, Freiburg, Germany.  
 University of Wurzburg, Neurology Grand Rounds, Wurzburg, Germany.  
 Neuromuscular Conference, Symposium speaker, Children's Hospital, Detroit, Michigan.  
 Child Neurology Annual Meeting, Symposium speaker, New Orleans, Louisiana.  
 Tulane University Medical School, Louisiana State University, Neurology Grand Rounds, New Orleans, Louisiana.  
 University of Texas Health Sciences Center, Neurology Grand Rounds, Dallas, Texas.

**INVITED LECTURES 1993**

Albert Einstein School of Medicine, Department of Molecular Genetics, Departmental Seminar, Bronx, New York.  
 National Institutes of Health, NINDS, Neurology Grand Rounds, Bethesda, Maryland.  
 New Horizons in Neuromuscular Disease, CME course, San Juan, Puerto Rico.  
 Task Force on Gene Therapy, Muscular Dystrophy Association, Tucson, Arizona.  
 Update on Neuromuscular Disease, CME course, Fairfax, Virginia.  
 New Horizons in Diagnostic Medicine, CME course, Pittsburgh, Pennsylvania.  
 Research Seminar Series, Children's Hospital, Pittsburgh, Pennsylvania.  
 Medical Genetics 1993, American Board of Medical Genetics Review Course, Pittsburgh, Pennsylvania.  
 European Alliance of Muscular Dystrophy Associations, Annual meeting, Keynote speaker, Fredericia, Denmark.  
 University of Linköping, School of Medicine, NeuroClub seminar speaker, Linköping, Sweden.  
 German Muscular Dystrophy Association, Annual meeting, speaker for symposium and workshop, Würzburg, Germany.  
 Second International Conference on Treatment of Muscular Dystrophies, Ischia, Italy.  
 Molecular Defects and Clinical Diagnosis in Dystrophinopathies and Myotonic Dystrophy, International School of Neurological Sciences, San Servolo, Venice, Italy.  
 Society for Neuroscience Annual Meeting, Molecular Basis Neurological Disease Workshop, Washington, DC.  
 University of Florence, Pediatrics, Departmental Seminar, Florence, Italy.  
 Catholic University, Neurology, Departmental Seminar, Rome, Italy.

**INVITED LECTURES 1994**

Italian Ministry of Science (CNR), Symposium on Gene Therapy, Milan, Italy  
 Cornell University Medical School, Department of Microbiology, Departmental Seminar, New York, New York  
 Charing Cross Hospital, Departmental Lecture, London  
 Rehabilitation Institute, Institutional Lecture, Ljubljana, Slovenia  
 Muscular Dystrophy Research Foundation, Robarts Institute, London, Ontario  
 VII International Congress of Neuromuscular Disease, Kyoto, Japan  
 - Workshop Chairman, Speaker, Molecular diagnosis of dystrophinopathies  
 - Speaker, Animal models of neuromuscular disease workshop  
 - Speaker, Surprise Box (late-breaking research), Rippling muscle disease  
 Society of General Physiologists, Ion channels and genetic disease, Woods Hole, Massachusetts  
 Argentinian Society of Neurology, Mar del Plata, Argentina  
 - Patient service seminar  
 - Dystrophinopathy Workshop  
 - Gene Therapy Symposium  
 - Future of Neurology Symposium (ion channelopathies)  
 Parent's Project for Muscular Dystrophy, Orlando, Florida

**INVITED LECTURES 1995**

Duquesne University, Department of Biology, Departmental Seminar, Pittsburgh, Pennsylvania  
 University of Pittsburgh, Neurology Research Seminar, Pittsburgh, Pennsylvania  
 Southeastern Regional Genetics Group, Annual Conference, Workshop Speaker, Atlanta, Georgia  
 Cold Spring Harbor Laboratory, Duchenne muscular dystrophy Workshop, New York  
 University of Calgary, Departmental Seminar (Neuroscience), Alberta, Canada  
 University of Edmonton, Alberta, Canada  
 -Neurology Grand Rounds (ion channelopathies)  
 -Medical Genetics Conference (Duchenne dystrophy carriers)  
 Texas Health Sciences Center at Lubbock, Graduate Student Symposium on Muscular Dystrophy, Lubbock, Texas  
 Wellcome Trust, 2nd International Dog Genetics Meeting, Oxford, England  
 Medical Research Council, Departmental Seminar, Hammersmith Hospital, London, England  
 University of Mainz, Neuropathology and Neurosurgery Conference, Mainz, Germany  
 International Neuromuscular Disease Symposium in honor of Irena Hausmanowa-Petrusewicz, Warsaw, Poland  
 ZMBH Symposium on Molecular Biology of Neurological Disease, Heidelberg, Germany  
 University of Pittsburgh School of Arts and Sciences, Department of Neurobiology Annual Retreat  
 University of Torino, Torino, Italy  
 -Neuroscience Department Seminar (ion channelopathies)  
 -Neurology/Genetics Seminar (muscular dystrophy)  
 INSERM, University of Strasbourg, Strasbourg, France  
 University of Iowa Medical Center, Neurology Seminars, Iowa City, Iowa  
 - Neurology Grand Rounds (muscular dystrophies)  
 - Neurology Research Conference (ion channelopathies)  
 University of Pittsburgh School of Public Health, Department of Human Genetics Seminar, Pittsburgh  
 Case Western Reserve University, Cleveland, Ohio

- Neurology Grand Rounds (ion channelopathies)
- Genetics Departmental Seminar (muscle cytoskeleton and X inactivation)
- CME Course Neuromuscular Disorders (dystrophinopathy molecular diagnostics)

Georgetown University Medical Center, Departmental Seminar, Washington DC  
University of Leiden, Departmental Genetics Seminar, Leiden, Holland

### **INVITED LECTURES 1996**

Stanford University Medical Center, Neurobiology of Disease Seminar Series, Myotonias, Stanford, California

Cornell University School of Veterinary Medicine, Ithaca, New York

- Visiting lecturer, Animal Genetics Course
- Veterinary Medicine Basic Science Lecture Series

Lycoming College, Williamsport, Pennsylvania

- Biology Departmental Seminar, Muscular Dystrophies
- Scholars Seminar, Future of Genetics in Medicine

University of Pittsburgh School of Medicine, Cardiology Research Seminar Series, Pittsburgh, Pennsylvania

Symposium on Recent Advances in Diagnosis and Therapy of Neuromuscular Diseases, Limb-girdle Muscular Dystrophies, Prato, Italy

Experimental Biology Annual Meeting, Symposium on Ion Channel Disorders, Washington DC

University of Tennessee, Neurology Grand Rounds, Sarcoglycan Disorders, Memphis Tennessee

Methodist Hospital, Internist Conference, Myotonias, Memphis Tennessee

Danish Muscular Dystrophy Association, 10th Anniversary National Meeting

- Diagnosis and Therapies of the Muscular Dystrophies (Physician conference)
- Update on Gene Therapy of Duchenne Muscular Dystrophy (Parent/Patient conference)

Muscular Dystrophy Association, Pathophysiology of Duchenne Muscular Dystrophy, Tucson Arizona

Current and Future Management of Duchenne Muscular Dystrophy, Course Director, Speaker, Pittsburgh Pennsylvania

Cyprus Institute of Neurology and Genetics, Institute Seminar Series, Nicosia, Cyprus

New Trends in Neuromuscular Disease, Hyperkalemic periodic paralysis in Quarter Horses, London, England

Liverpool University, Muscle Research Institute Seminar, Liverpool England

Neurology Research Seminar Series, Spastic paraparesis and congenital muscular dystrophy, Pittsburgh Pennsylvania

Workshop on Limb-girdle Muscular Dystrophy, Speaker, Session Chair, Tunisia

Swedish Muscular Dystrophy Association, Linkoping, Sweden

- Update on etiology and therapeutics of muscular dystrophies (scientists/physicians)
- Status of gene therapy (parents/patients)

German Neurogenetics Association, Status of gene therapy in Duchenne dystrophy, Ulm, Germany

6th Colloquium on Neuromuscular Disorders, AFM, Pathophysiology of Duchenne dystrophy, Versailles, France

American Society of Human Genetics, Session Chair, Molecular Basis of Human Disease, San Francisco, California

University of Torino, Neurology Seminar, Advances in Diagnosis and Gene Therapy of the Muscular Dystrophies, Torino, Italy.

European Working Group on Gene Therapy, Annual Meeting, Gene Therapy of Duchenne Dystrophy, Leiden, Holland

### **INVITED LECTURES 1997**

State University of New York at Buffalo, Buffalo, New York

- Howard Hughes Seminar, Ion channelopathies
- Department of Biological Science, X-inactivation

Cell and Gene Therapy Foundation, London, Ontario, Canada

Trinucleotide Repeat Disorders, Cambridge Symposium, RNA Metabolism in Myotonic Dystrophy, Sante Fe, New Mexico

Partners in Research, Keynote Speaker, Interaction of Media and Science, London, Ontario, Canada

American Academy of Neurology, Annual Meeting, Genetics in Neurology, Boston, Massachusetts

MDA/AFM Muscular Dystrophy Gene Therapy Workshop, Muscle Targeting of Synthetic Vectors, Tucson, Arizona

University of Bari, Molecular Genetics of Ion Channel Disorders, Bari, Italy

Child Neurology Society, Annual Meeting, Molecular Genetics of Limb-girdle Dystrophy, Phoenix, Arizona

Parent Project Conference, Conference Organizer, Speaker, Pittsburgh, Pennsylvania

Cornell University, Ithaca, New York

- Molecular Genetics of Animal Disease Course, Periodic paralysis in Quarter Horses
- Department of Genetics Seminar, Abnormalities of X-inactivation in Humans
- Biology Department Career Seminar

Duchenne Parent Project Meeting, 4 seminars to physicians and parents, Rotterdam, Holland

### **INVITED LECTURES 1998**

National Institutes of Neuroscience, Molecular Etiology and Gene Therapy of Muscular Dystrophies, NCNP, Tokyo, Japan

Brain Research Institute, Molecular Etiology and Gene Therapy of Muscular Dystrophies, Niigata University Medical School, Niigata, Japan

Nature Biotechnology Miami Winter Symposium 1998, Navigating the hurdles of gene therapy for muscular dystrophy,

Miami, Florida

University of Miami, Neuroscience Seminar, Molecular Etiology and Gene Therapy of Muscular Dystrophies, Miami, Florida

University of Miami, Departmental Seminar, Physiology, Ion channel disorders, Miami, Florida

Children's Hospital of Michigan, Neurology Grand Rounds, Etiology and Gene Therapy of Muscular Dystrophy, Detroit, Michigan

Diagnosis and Therapy of the Unborn Child, Fetal muscle biopsy, and genetics of recurrent pregnancy loss, Phoenix, Arizona

MAC Research Conference, "Molecular Causes of Polymyositis", Pittsburgh, Pennsylvania

University of Toronto, Toronto, Ontario, Canada

- New Developments in Prenatal Diagnosis and Medical Genetics: "Molecular basis and gene therapy of the muscular dystrophies"

- Pediatric Neurology Grand Rounds: "Ion channel disorders"

- Genetics Conference: "Molecular etiology and therapy of the muscular dystrophies"

Kennedy-Krieger Institute, Johns Hopkins University, "Travels through X-inactivation", Baltimore, Maryland

Duchenne Parent Project and DMDRC Annual Meeting, Course Organizer, Speaker, Pittsburgh, Pennsylvania

Children's National Medical Center, "Travels through X-inactivation", Washington, DC

American Society for Human Gene Therapy, Co-chair, Speaker, Gene Delivery to Muscle, Seattle, Washington

Johns Hopkins University, "Travels through X-inactivation", Baltimore, Maryland

Japanese-American Frontiers of Science Symposium, National Academy of Sciences, Irvine, California

International Congress of Neuromuscular Disorders, Adelaide, Australia

- Plenary session; Molecular genetics of the muscular dystrophies

- Workshop chair/speaker; Molecular pathogenesis

- Workshop chair/speaker; Gene therapy

- Workshop speaker; Fetal muscle biopsy

Telethon National Congress, Plenary speaker, Etiology and gene therapy of the muscular dystrophies. Rome, Italy

### INVITED LECTURES 1999

Israeli Pediatric Neurology Society, Annual Meeting, Nazareth, Israel

- Sarcoglycanopathies

- Gene Therapy of the muscular dystrophies

Stanford University Medical Center, Neurology Grand Rounds, California, Etiology and gene therapy of the muscular dystrophies

University of Florida, Gainesville, Gene Therapy Seminar Series, Vignettes from the DMDRC: Molecular basis of muscular dystrophy, drug screening in animal models, and vector targeting

College of American Pathologists, Annual Meeting, Bethesda, Maryland, Identification and use of genes for diagnosis and therapeutics

University of Maryland School of Medicine, Baltimore, MD. Human genetics seminar series, Travels through X-inactivation

University of California, Los Angeles, California, Human genetics seminar series, Travels through X-inactivation: Manifesting carriers, Rett syndrome, and recurrent pregnancy loss.

George Washington University School of Medicine, Recurrent pregnancy loss; gene therapy of the dystrophies, Washington DC.

AFM/Telethon Italy, Fourth annual meeting on gene therapy of muscular dystrophies, Paris, France.

- AAV and sarcoglycanopathies (DMDRC)

- Gutted adenoviral vectors (DMDRC)

Pennsylvania State University, College Park, Pennsylvania. Exercise physiology seminar series; Muscle disease: Gene identification, and gene replacement

George Washington University, Neuroscience symposium, Ion channel disorders, spastic paraplegia, and Rett syndrome, Washington DC.

American Sports Medicine Society, Presidential Lecture, Muscle genes and dystrophies, Seattle, Washington

National Institutes of Health, Neurology Grand Rounds, NINDS, Muscular dystrophy: genes for etiology, diagnosis, and therapeutics, Bethesda, Maryland

Institute of Myology, AFM (French muscular dystrophy association), Development of international clinical trial network for DMD, Paris, France.

World Muscle Society, Gene therapy of sarcoglycanopathies, Antalya, Turkey.

University of Istanbul, Gene therapy of muscular dystrophies, Istanbul, Turkey.

Periodic Paralysis Association, Molecular diagnosis of Periodic Paralysis, Molecular basis of Periodic Paralysis, Dinner seminar, Las Vegas, Nevada.

University of Maryland, School of Medicine, Department of Physiology, Getting muscle down to the base pair, Baltimore, MD

University of Tromso, Norway Neuromuscular Symposium, Four talks (Gene therapy of muscular dystrophy; Historical aspects of molecular medicine; Ion channel disorders; Dystrophin-associated protein disease), Tromso, Norway

### INVITED LECTURES 2000

National Institute of Aging, NIH, Post-gene applications in the muscular dystrophies. Baltimore, Maryland  
 Frontiers in Medical Genetics, George Washington University, Vignettes of X-inactivation, Washington DC  
 Neurology Grand Rounds, Advances in pathophysiology and therapeutics of the muscular dystrophies, University of Puerto Rico, San Juan, Puerto Rico  
 Visiting Professor, Department of Kinesiology, Post-gene studies of muscle in health and disease, University of Illinois, Chicago, Illinois  
 Neurology Grand Rounds, Recent advances in the muscular dystrophies, Albert Einstein University School of Medicine, New York, New York  
 Center of Excellence (COE) Symposium in Muscular Dystrophies, Molecular pathophysiology and novel therapeutics of the muscular dystrophies, Tokyo, Japan  
 OB/GYN Grand Rounds, Molecular genetics of recurrent pregnancy loss, Georgetown University School of Medicine, Washington DC  
 Myology 2000, AFM, Keynote speaker, Pathophysiology and gene therapy of muscular dystrophy, Nice, France  
 Institute for Human Gene Therapy, Molecular pathophysiology and therapeutics of muscular dystrophy, University of Pennsylvania, Philadelphia, Pennsylvania  
 Catholic University of America, Biology Department Seminar, Washington DC  
 NIH Duchenne muscular dystrophy meeting, High throughput sequencing of dystrophin gene, Expression arrays to address pathophysiology of DMD, National Institutes of Health, Bethesda, MD  
 NIH ICF/Retts syndrome meeting, Genetic mapping and mutation screening of Rett syndrome, National Institutes of Health, Washington DC.  
 DNA Microarray Technology in Biomedical Research, Muscle expression profiling, Amsterdam, Holland  
 NIH Polymyositis meeting, Expression arrays in muscle disease, National Institutes of Health, Bethesda, MD  
 Pathophysiology of muscular dystrophy using microarrays. Ain Amen University, Cairo, Egypt  
 Assuit University Medical School, Four Lectures (Ion channelopathies, Positional Cloning of DMD, Molecular pathophysiology using microarrays, Gene delivery using AAV), Assuit, Egypt  
 Gene Therapy Symposium, Gene delivery in the muscular dystrophies, Tel Aviv, Israel  
 University of Oklahoma Health Science, Decade of Brain Symposium, Post-gene applications in the muscular dystrophies, Oklahoma City, OK  
 Mac Keith Basic Science Lectureship, American Academy of Cerebral Palsy and Developmental Disorders, Toronto, Canada  
 Pediatric Neurology Update, Molecular basis of Rett syndrome, Cornell University Medical Center, New York, New York  
 Novel Therapeutic Approaches to Neuromuscular Disease, Molecular pathophysiology and gene delivery in muscle disease, Pisa, Italy  
 Impact of Molecular Biology on Cardiovascular and Muscle Disease, Pathophysiology of muscular dystrophy using genome-wide approaches, SUNY Downstate Medical Center, New York, New York  
 Transcriptome 2000, Expression profiling of muscle in health and disease, Paris, France

### **INVITED LECTURES 2001**

Neuroscience Seminar Series, Expression profiling in muscle in health and disease, George Washington University, Washington DC.  
 Affymetrix Users Meeting, Vignettes of muscle: 1. Delineation of downstream effectors of disease, 2. Deriving translational profiles after environmental challenge, and 3. Detection of primary gene defects. Bethesda, Maryland.  
 Ion channelopathies, Genotype/phenotype/physiology correlations in ion channel disorders in horse and human, Sheffield University, Sheffield, England  
 MRC/Hammersmith Hospital, Expression profiling to determine downstream effects of environmental and genetic changes. London, England.  
 Great Lakes Muscle Symposium, Downstream effects of exercise and genetic defects in muscle, Buffalo, New York  
 Australia/Asian Human Genetics Meeting, Genome-wide approaches to muscle in health and disease, Cairns, Australia  
 Eastern Physical Medicine Seminars, 1. Muscle disease: What causes it and how do we stop it?; 2. New approaches to medicine via genome-wide approaches. Norfolk, Virginia.  
 Parent Project Conference - Europe, Advances in molecular pathophysiology and clinical trials in DMD. Rome, Italy.  
 Rett Syndrome Research Foundation, Genotype/phenotype correlations in Rett syndrome, Washington DC.  
 Maryland Arthritis Center, Expression profiling in human disease and disease models, Baltimore, MD.  
 American Society of Genetic Counselors, Annual meeting, Post-genomic approaches to human disease, Washington DC.  
 Affymetrix UsersGroup Meeting, Sources of variability: sensitivity, specificity, decrease biological variability, Bethesda, MD.  
 University of Maryland, BioTech Day, Speaker/Panel on Nanotechnology, College Park, MD.  
 USDA Beltsville, Molecular Genetics Seminar, Temporal expression profiling in muscle, Beltsville, MD  
 Genomics of Heart Disease Symposium, Post-genomics of muscle and muscle disease, Montreal, Canada

### **INVITED LECTURES 2002**

National Institutes of Arthritis and Musculoskeletal, Institute seminar, Post-genomics of muscle, Bethesda, MD  
 Johns Hopkins University School of Medicine, Microarray Facility Kick-off Event, Post-genomics of muscle, Baltimore, MD



University of Calgary, Departmental Seminar, Molecular genetics of ion channelopathies, Calgary, Alberta, Canada  
 Transcriptome 2002, Transcriptional profiling of muscle in health and disease, Seattle, WA  
 Functional Genomics of Critical Illness and Injury Symposium, Transcriptional pathways in muscle damage, Bethesda, MD  
 International Neuromuscular Disease Conference 2002, three invited lectures (Sarcoglycanopathies, Translational research in Duchenne dystrophy, Emerging technologies for study of neuromuscular disease), Vancouver, BC Canada  
 SmallTalk 2002: Microfluidics, Microarrays, and Bio-MEMS. Longitudinal profiling in muscle, San Diego CA  
 AFIP Muscle Disease Workshop. Two seminars, Molecular diagnosis, Emerging Technologies, Bethesda MD  
 American Thoracic Society, Overview of clinical applications of the human genome project, Atlanta GE  
 American College of Sports Medicine, Molecular pathways leading to muscle hypertrophy, St Louis, MO  
 Rett Syndrome Research Foundation, annual meeting, Novel genotyping methods and asymptomatic deletions, Baltimore, MD  
 International Endotoxin Society, annual meeting, two talks, Tutorial in post-genomic medicine [2 hrs], ADefinition of muscle remodeling in type II diabetes and exercise, Alexandria, VA  
 American Society of Bone and Mineral Research, annual meeting, Bioinformatics of expression profiling, San Antonio, TX  
 EMBO Workshop on Myogenesis, ATemporal profiling in myogenesis: MyoD targets and data mining, Cambridge, England  
 Child Neurology Society, Satellite symposium on leukodystrophies, Molecular diagnosis of leukodystrophies, Washington DC  
 Child Neurology Society, Annual Meeting, Workshop on Duchenne muscular dystrophy, Translational research in DMD, Washington DC.  
 Department of Sports Medicine, West Virginia University, Muscle vignettes in type II diabetes, exercise, and ALS, Morgantown, WV  
 Seminar Series, Sponsored by Third Wave Technologies, SNP analyses in muscle and brain, Princeton NJ, San Francisco CA, and Princeton, NJ

### **INVITED LECTURES 2003**

Neurology Grand Rounds, Current and future of translational medicine, New York University School of Medicine, New York, New York.  
 AAAS Annual Meeting, Symposium on Genomics, Muscle in mice, humans and computers; Temporal profiling in type II diabetes and regeneration Denver, Colorado  
 Baylor College of Medicine, Physiology Seminar, Profiling at the cell and subcellular level, Houston TX  
 University of Pennsylvania, Pennsylvania Muscle Institute Seminar, Muscle in mice, humans, and computers, Philadelphia PA.  
 Bowdoin College, Howard Hughes Seminar, Paradigm shifts in molecular genetic research, Brunswick, Maine  
 University of Maryland, Symposium opening microarray center, Technical considerations in expression profiling, College Park, MD  
 University of Maryland, Kinesiology Seminar Series, Muscle in humans, mice and computers, College Park, MD

### **INVITED LECTURES 2004**

Neuroscience Seminar, University of California San Francisco, San Francisco, CA  
 American Association of Allergy, Auto-immunity, and Immunology (AAAAI), San Francisco, CA  
 Affymetrix Core Directors' Meeting, Speaker, New Orleans, LA  
 Departmental Seminar, Department of Computer Science, "Signal/noise assessment in microarray data", University of Maryland, College Park, MD  
 Bio-informatics Symposium, Buffalo Center for Biomedical Computing, "Expression profiling to define biochemical pathways", SUNY Buffalo, NY  
 Nobel Symposium on Inflammatory Myopathies, "Biochemical pathways in muscle disease", Karolinska Institute, Stockholm, Sweden  
 Molecular basis of muscle atrophy symposium, University of Massachusetts Amherst, MA.  
 University of Pennsylvania, Muscle Research Institute, Philadelphia PA.  
 Merck Research Laboratories, Research Seminar Series, Muscle pathology group, New Jersey.

### **INVITED LECTURES 2005**

Case Western Reserve University, MD/PhD retreat, Keynote speaker, SNP associations in body type, Columbus, OH  
 Virginia Neurological Association, Molecular Diagnosis of Muscular Dystrophy, Hot Springs, West Virginia  
 George Washington University, Keck proteomics symposium, Washington DC.  
 University of Pennsylvania, Mental Retardation and Developmental Disabilities Seminar Series (MRDDRC), Philadelphia PA  
 Affymetrix Core Directors' Meeting, Featured Speaker, New Orleans, LA  
 Novartis Research Seminar, The genetics of type II diabetes, Boston, MA  
 North Carolina National Society for Genetic Counselors, Keynote speaker, Wake Forest University, Winston-Salem, NC  
 Muscle regeneration and stem cells, Transcriptional pathways in muscle regeneration, FASEB meeting, Tucson AZ  
 Nuclear architecture and human disease, Molecular basis of Emery-Dreifuss Muscular Dystrophy, ACSB, Des Moines, IA  
 US Anti-Doping Agency, Genetics of muscle performance, Chicago, IL

### **INVITED LECTURES 2006**

Tokyo University, Translational Research in Muscular Dystrophies, Tokyo Japan  
 National Institutes of Neuroscience, Translational Research in Muscular Dystrophies, Kodaira Japan  
 Muscular dystrophy national conference, keynote speaker, Ngoya Japan

Children's Hospital of Denver, Neuromuscular rounds, Pediatrics Grand Rounds, Neurology Grand Rounds  
 Brasil

### **INVITED LECTURES 2007**

Boston University Medical Center, Endocrinology Grand Rounds, Boston MA  
 Hershey Medical Center, Neurology Grand Rounds, Penn State University, Hershey PA  
 Children's Memorial Hospital, Translational Research in Muscular Dystrophy, Chicago IL  
 Northwestern University, Neurology Grand Rounds, Chicago IL  
 Gene Discovery Symposium, Ottawa, Canada  
 Eastern Carolina University, Exercise physiology, Greenville SC.  
 Jain Foundation Conference, Dysferlin defects in monocytes. Bermuda.  
 NIH Workshop on Pre-clinical Standards in Mouse Models of Muscular Dystrophy, Washington DC

### **INVITED LECTURES 2008**

New Directions in Muscle Biology, exon-skipping in muscular dystrophy, New Orleans, LA  
 Jain Foundation Conference, Molecular pathogenesis of dysferlin deficiency. San Juan, Puerto Rico  
 Nutrition, Physical Activity, and Metabolism, American Heart Association, Annual Meeting, Invited keynote, Colorado Springs, CO  
 American College of Sports Medicine,  
 High Throughput Biology: Multiplexing. Cambridge Healthtech, Providence, RI  
 Banbury Conference, Cold Spring Harbor Laboratories, Workshop organizer, speaker, Anti-sense mediated splicing drug development, NY  
 Genzyme, Systems biology of glucocorticoids; exon-skipping therapy development. Boston, MA  
 AVI Biopharma, Exon Skipping, Oregon

### **INVITED LECTURES 2009**

National Institutes of Neurology and Psychiatry, 20 yrs of Duchenne research, Tokyo, Japan  
 NIH Workshop, Neonatal Screening in Neuromuscular Disease, Bethesda MD  
 Experimental Biology 2009; two invited talks: Systems Biology of Steroids, Molecular Genetics of Exercise Physiology, New Orleans, LA  
 Muscular Dystrophy Association, Clinic Directors Conference, Exon skipping therapeutics, Las Vegas NV  
 Middle East Neurological Society; two talks; Duchenne muscular dystrophy, Experimental therapeutics. Beirut, Lebanon  
 Children's Hospital of Philadelphia, Human Genetics Seminar, Exon skipping and steroid systems biology. Philadelphia PA  
 American College of Sports Medicine, Genetics of Exercise Response, Seattle, WA  
 University of Sydney, Westmead Children's Hospital, Duchenne dystrophy therapeutics, Sydney, Australia  
 NIMH, annual intramural program retreat, key note speaker, Duchenne dystrophy therapeutics, Gettysburg, PA  
 Jain Foundation Conference, Non-hormonal steroids, Boston MA  
 Prosenza, Inc., Leiden University, Exon skipping and systems biology of steroids, Leiden, Holland  
 Oxford University, Exon skipping and systems biology of steroids, Oxford, UK  
 University of Kentucky, Do projects establish centers, or centers establish projects? Lexington, KY  
 Johns Hopkins University, Pediatrics Grand Rounds, Innovations in drug design. Baltimore MD  
 University of Colorado Denver, Dean's Distinguished Seminar Series, Innovations in drug design. Denver, CO

### **INVITED LECTURES 2010**

Southern California MDA Clinic Director's Conference, UC Davis, Davis, CA  
 NIAMS Intramural Scientific Retreat, Eastern Shore, MD  
 Munroe-Meyer Institute, Rehabilitation Medicine Symposium, Omaha Nebraska  
 Ottawa Conference on New Directions in Biology & Disease of Skeletal Muscle, Ottawa, Ontario, Canada  
 American College of Sports Medicine, Symposium on Epigenetics, Baltimore, MD  
 12<sup>th</sup> International Symposium on Neuromuscular Disease, two invited lectures, Plenary, Symposium, Naples, Italy  
 Jain Foundation Annual Meeting, Seattle, WA  
 Biochemical Outcomes Measures Workshop, Meeting organizer/speaker, London, England  
 NIH/FDA Conference on Antisense Oligonucleotide (AON) Therapies in Neuromuscular Disease, Rockville, MD  
 George Washington University School of Medicine, Grand Rounds, Washington DC  
 Canadian Exercise Physiology Annual Meeting, Toronto, Canada  
 New Zealand Society for Exercise Physiology, Keynote Speaker, Wellington New Zealand  
 Australian Medical and Health Research Congress, Melbourne, Australia  
 World Health Organization, Keynote Speaker, Abu Dhabi, United Arab Emirates  
 TREAT-NMD Stake Holders Workshop, Paris France

### **INVITED LECTURES 2011**

Albert Einstein School of Medicine, Neurology Grand Rounds, Bronx, NY  
 The Genome – the Next 10 yrs. Nature Conference, San Diego, CA  
 SCI-SOS Spinal Cord Injury National Conference, Washington DC

National Institutes of Health Glycomics Conference, Bethesda MD  
 University of Pittsburgh, Human Genetics Retreat, Pymatuning, PA  
 TREAT-NMD International Congress in Neuromuscular Disease, Geneva, Switzerland  
 20<sup>th</sup> Anniversary of National Center for Medical Rehabilitation Research of the NICHD, NIH, Bethesda  
 Recombinant Advisory Committee of the FDA, Oligonucleotide Workshop

## INVITED LECTURES 2012

Myocon, National Conference on Muscular Dystrophies, Chennai, India (two presentations)  
 Progress on muscular dystrophy research, Coimbatore, India  
 Kolar Symposium on Environmental Health, Kolar India  
 University of California, San Diego, Muscle Research Symposium, San Diego CA  
 European Association of Rheumatology, Annual Meeting, Stockholm, Sweden  
 Karolinska Institute, Muscle exercise and inflammation, Stockholm, Sweden  
 American College of Medical Genetics, Annual Meeting, Genetics of Exercise, Charlotte, NC  
 University of Minnesota  
 25<sup>th</sup> Anniversary of the Genetics Lab, St. Petersburg, Russia  
 American College of Sports Medicine, Systems Biology of Exercise, San Francisco, CA  
 Pediatric travel club (national pediatricians), Personalized Genomic Medicine, Washington DC  
 American Physiological Society, Integrative Biology of Exercise, Westminster, CO

*Stopped keeping track - sorry*

## ADVISEES:

1. **Ph.D. Thesis students.**

<b>Tejvir Khurana, M.D., Ph.D.</b> , Harvard Medical School, Neuroscience	1989-90
<b>J. Rafael Gorospe, M.D., Ph.D.</b> , University of Pittsburgh School of Medicine	1990-94
<b>Jianzhou Wang, M.D., Ph.D.</b> , University of Pittsburgh School of Medicine	1990-94
<b>Jianhua Zhou, Ph.D.</b> : University of Pittsburgh School of Medicine	1990-94
<b>Patrick Koty, M.S., Ph.D.</b> , University of Pittsburgh School of Public Health	1992-95
<b>Dietrich Stephan, Ph.D.</b> , University of Pittsburgh School of Public Health	1994-96
* <b>W. Gregory Feero, M.D., Ph.D.</b> , University of Pittsburgh Public Health	1993-96
* <b>David Duggan, Ph.D.</b> , University of Pittsburgh School of Public Health	1994-97
<b>Fan-Li Chou, Ph.D.</b> , University of Pittsburgh School of Medicine	1995-99
<i>Award: Pharmaceutical Sciences Training Grant</i>	
<b>Peter Scacheri, Ph.D.</b> , University of Pittsburgh School of Medicine	1996-99
<i>Award: American Heart Association Fellowship</i>	
<b>Mark Lanasa, M.D./Ph.D.</b> , University of Pittsburgh School of Medicine	1996-00
<b>Laura Goldberg, M.D./Ph.D.</b> , University Pittsburgh School of Medicine	1996-98
<b>Fen-Fen Wu, Ph.D.</b> , University of Pittsburgh School of Public Health	1997-2001
<b>Devin Dressman, Ph.D.</b> , University of Pittsburgh School of Medicine	1997-2002
<b>Po Zhao, Ph.D.</b> , George Washington University	1998-2002
* <b>Javad M. Nazarian, Ph.D.</b> , George Washington University	2001-2004
<b>Shayma Fawwaz, Ph.D.</b> George Washington University	2002-2007
<b>Jinwook Seo, Ph.D.</b> Computer Science, University of Maryland	2002-2005
<b>Stephanie Mitchell, Ph.D.</b> George Washington University	2003-2009
<b>Erica Reeves, Ph.D.</b> George Washington University	2003-2009
<b>Andreas Baudy, Ph.D.</b> George Washington University	2006-2010
<b>Bruce Lerman, Ph.D.</b> George Washington University	2007-2010
<b>Helen Johnston, Ph.D.</b> candidate, George Washington University	2007-2015
<b>Suzanne Christensen, Ph.D.</b> candidate, George Washington University	2008-2012
<b>Whitney Barfield, Ph.D.</b> candidate, Howard University School of Medicine	2009-2015
<b>Gina Many, Ph.D.</b> candidate, University of Maryland	2009-2015
<b>Peter Nghiem, DVM, Ph.D.</b> candidate, George Washington University	2010-2015
<b>Sherry Dagbar, MS, Ph.D.</b> candidate, George Washington University	2010-2013
<b>Jelena Perovanovic, Ph.D.</b> candidate, George Washington University	2010-2016
<b>Jaya Punetha, Ph.D.</b> candidate, George Washington University	2010-2016
<b>Brian Uapinyoying, Ph.D.</b> candidate, George Washington University	2012-present
<b>Michael Ziema, Ph.D.</b> candidate, Binghamton University	2016-present
<b>Runia Roy, Ph.D.</b> candidate, Binghamton University	2016-present
<b>Swati Mummidivarpur, Ph.D.</b> candidate, Binghamton University	2016-present

## \*Awards for best graduate research

2.	<b><u>Postdoctoral</u></b>	
	<b>Cecilia Rojas, Ph.D.</b> , University of Pittsburgh School of Medicine	1990-93
	<i>Award: <u>Pew Foundation Latin Scholars Program, 1990.</u></i>	
	<b>Elena Pegoraro, M.D.</b> : University of Pittsburgh School of Medicine	1992-98
	<i>Award: <u>Telethon Italy Fellowship</u></i>	
	<b>Hisashi Kobayashi, M.D., Ph.D.</b> , University of Pittsburgh School of Medicine	1993-97
	<i>Award: <u>Muscular Dystrophy Association Postdoctoral Fellowship</u></i>	
	<b>Bronwen Nishikawa, Ph.D.</b> , University of Pittsburgh School of Medicine	1994-96
	<i>Award: <u>Muscular Dystrophy Association Postdoctoral Fellowship</u></i>	
	<b>Amelia Morone, Ph.D.</b> , University of Pittsburgh School of Medicine	1994-95
	<b>J. Rafael Gorospe, M.D., Ph.D.</b> : University of Pittsburgh School of Medicine	1994-96
	<b>Jian-Zhou Wang, M.D., Ph.D.</b> : University of Pittsburgh School of Medicine	1994-95
	<i>Award: <u>Mayor Caligiuri Foundation Postdoctoral Fellowship</u></i>	
	<b>Marlene Armitage Dressman, Ph.D.</b> : University of Pittsburgh School of Medicine	1995-96
	<i>Award: <u>Mayor Caligiuri Foundation Postdoctoral Fellowship</u></i>	
	<b>Zeljka Korade, D.V.M., Ph.D.</b> : University of Pittsburgh School of Medicine	1996-99
	<i>Award: <u>Mayor Caligiuri Foundation Postdoctoral Fellowship</u></i>	
	<i>Award: <u>Muscular Dystrophy Association Research Development Grant</u></i>	
	<b>Vanitha Parmanand, M.D.</b> : University of Pittsburgh School of Medicine	1997-98
	<i>Award: <u>South African Research Fellowship</u></i>	
	<b>David Duggan, Ph.D.</b> : University of Pittsburgh School of Medicine	1997-98
	<b>Francesco Martinez Murillo, Ph.D.</b> : University of Pittsburgh School of Medicine	1997-01
	<i>Award: <u>Muscular Dystrophy Association Research Development</u></i>	
	<b>Zivana Tezak-Frigale, Ph.D.</b> : University of Pittsburgh School of Medicine	1997-01
	<b>Gunnar Buyse, M.D., Ph.D.</b> : University of Pittsburgh School of Medicine	1998-2000
	<i>Award: <u>Belgium-American Research Fellowship</u></i>	
	<b>Sherifa Hamed, M.D.</b> : University of Pittsburgh School of Medicine	1998-2000
	<i>Award: <u>Egyptian Government Research Fellowship</u></i>	
	<b>Yi-Wen Chen, Ph.D.</b> Children's National Medical Center	1999-2001
	<b>Marina Bakay, Ph.D.</b> Children's National Medical Center	1999-2003
	<i>Award: <u>DMDRC post-doctoral training grant</u></i>	
	<b>Cinzia Brandoli, Ph.D.</b> Children's National Medical Center	1999-2005
	<b>Cristina Mora, M.D.</b> Children's National Medical Center	1999-2000
	<b>Kristen Hoffbuhr, Ph.D.</b> Children's National Medical Center	1999-2002
	<b>Khaled Bouri, Ph.D.</b> Children's National Medical Center	2000-2005
	<b>Dustin Hittel, Ph.D.</b> Children's National Medical Center	2001-2005
	<b>Annamaria Molon, Ph.D.</b> Children's National Medical Center	2001-2004
	<b>Devin Dressman, Ph.D.</b> Children's National Medical Center	2001-2003
	<b>Joseph Devaney, Ph.D.</b> Children's National Medical Center	2001-2007
	<b>Livia Pasquali, M.D.</b> Children's National Medical Center	2001-2003
	<b>Ksenija Gorni, M.D.</b> Children's National Medical Center	2001-2003
	<b>Carolina Tesa-Rochi, M.D.</b> Children's National Medical Center	2001-2006
	<b>Simone DiGiovanni, M.D.</b> Children's National Medical Center	2001-2004
	<b>Zohair Nanjiani, M.D.</b> Children's National Medical Center	2002-2004
	<b>Gisela Melcon, M.D.</b> Children's National Medical Center	2002-2004
	<b>Paul Pasco, M.D.</b> Children's National Medical Center	2003-2004
	<b>Gustavo Nader, Ph.D.</b> Children's National Medical Center	2003-2007
	<b>Jung Jun Park, Ph.D.</b> Children's National Medical Center	2003-2007
	<b>Chenguang Fan, Ph.D.</b> Children's National Medical Center	2003-2004
	<b>Zuyi Wang, Ph.D.</b> Children's National Medical Center	2003-2009
	<b>Kristy J Brown, Ph.D.</b> Children's National Medical Center	2003-2005
	<b>Julietta Uthurralt, M.D.</b> Children's National Medical Center	2004-2006
	<b>Toshifumi Yokota, Ph.D.</b> Children's National Medical Center	2005-2011
	<b>Akanchha Kesari, Ph.D.</b> Children's National Medical Center	2004-2013
	<b>Monica Hubal, Ph.D.</b> Children's National Medical Center	2005-2009
	<b>Karina Bernetti, M.D.</b> Children's National Medical Center	2006-2007
	<b>Maria-Eugenia Hurtado, M.D.</b> Children's National Medical Center	2007-2013
	<b>Deborah Berry, Ph.D.</b> Children's National Medical Center	2007-2008

2010	<p><b>Chiatogu Onyewu, M.D. Ph.D.</b> Children's National Medical Center</p> <p><b>Joanne Kuo, Ph.D.</b> Children's National Medical Center</p> <p><b>Kitipong Uaesoontrachoon, Ph.D.</b> Children's National Medical Center</p> <p><b>Alyson Fiorillo, Ph.D.</b> Children's National Medical Center</p> <p><b>Sebahattin Cirak, M.D.</b> Children's National Medical Center</p> <p><b>Christopher Heier, Ph.D.</b> Children's National Medical Center</p>	<p>2007-</p> <p>2008-2011</p> <p>2010-2013</p> <p>2011-present</p> <p>2012-2014</p> <p>2015-present</p>
<b>3.</b>	<b><u>Clinical and K12/K08 Fellows</u></b>	
	<p><b>Ngozi Nwokoro, M.D., Ph.D.</b>, Clinical Genetics, University of Pittsburgh School of Medicine</p> <p><b>Raju Modi, M.D.</b>, Cardiology University of Pittsburgh School of Medicine</p> <p><b>Selma Witchel, M.D.</b>, Pediatrics University of Pittsburgh School of Medicine <i>Award: NIH Physician Scientist</i></p> <p><b>Dennis McNamara, M.D.</b>, Cardiology University of Pittsburgh School of Medicine <i>Award: NIH CIDA</i></p> <p><b>Donald Marazzo, M.D.</b>, OB/Gyn University of Pittsburgh School of Medicine</p> <p><b>Kathy Gardner, M.D.</b>, Neurology University of Pittsburgh School of Medicine <i>Award: NIH CIDA</i></p> <p><b>J. Raphael Gorospe, M.D. Ph.D.</b> Medical Genetics Fellow, NIH/NHGRI <i>Award: DMDRC post-doctoral training grant</i></p> <p><b>Sarfraz A. Durrani, M.D.</b> Medical Genetics Fellow, NIH/NHGRI</p> <p><b>Brian Rah, M.D.</b> Cardiology Fellow, George Washington Medical Center</p> <p><b>Diana Escolar, M.D.</b> Pediatric Neurology, NCRR K23 award</p> <p><b>Robert Freishtat, M.D.</b> ER Fellow, Pediatrics, Children's National Medical Center <i>Award: NIH K23</i></p> <p><b>Adeline Vanderver, M.D.</b> Neurology Fellow, Pediatrics, Children's National Medical Center <i>Award: AAN Foundation Clinical Research Training Fellowships</i></p> <p><b>Edina Veszelovszky, M.D.</b> Neonatology Fellow, Pediatrics, Children's National Medical Center</p> <p><b>Christopher Spurney, M.D.</b> Cardiology, Children's National Medical Center</p> <p><b>Perry Payne, JD MD MPH.</b> School of Public Health, George Washington University</p> <p><b>Mathula Thangarajh, M.D.</b> Neurology, Children's National Medical Center</p> <p><b>Andrea Hahn, M.D.</b> Infectious Disease, Children's National Medical Center</p>	<p>1990-91</p> <p>1994-95</p> <p>1994-1998</p> <p>1995-1998</p> <p>1994-1996</p> <p>1996-1999</p> <p>1999-2001</p> <p>2000-2001</p> <p>2000-2001</p> <p>2002-2008</p> <p>2002-2008</p> <p>2003-2008</p> <p>2002-2004</p> <p>2003-2008</p> <p>2008-2010</p> <p>2013-present</p> <p>2014-present</p>
<b>4.</b>	<b><u>Masters</u></b>	
	<p><b>Lisa Schwartz, M.S.:</b> University of Pittsburgh School of Public Health <i>Award: 1992 Graduate School of Public Health Outstanding Research Award</i></p> <p><b>Jocelyn Kenton, M.S.</b>, University of Pittsburgh School of Public Health</p> <p><b>Rita Hoop, M.S.</b>, University of Pittsburgh School of Public Health</p> <p><b>Asa Ljunggren, M.S.</b>, University of Lund, Sweden</p> <p><b>Carina Meyers, MS</b>, University of Pittsburgh School of Public Health</p> <p><b>Nicky Sirianni, MS</b>, University of Pittsburgh School of Medicine <i>Award: Biotechnology Training Grant</i></p> <p><b>Hui Li, MS</b>, George Washington University</p> <p><b>Mamta Giri, MS</b>, George Washington University</p>	<p>1990-92</p> <p>1991-93</p> <p>1992-93</p> <p>1995-96</p> <p>1995-97</p> <p>1996-98</p> <p>2001-2003</p> <p>2011-2012</p>