

CURRICULUM VITA

Name: LINDA MARIE HENDERSHOT

Place of Birth: Marion, Ohio

Citizenship: USA

Office Address: St. Jude Children's Research Hospital
Department of Tumor Cell Biology
332 N. Lauderdale
Memphis, Tennessee 38105
Tel: (901) 595-2475
FAX: (901) 595-2381
Email: linda.hendershot@stjude.org

ACADEMIC DEGREES:

B.S.	1975	Eastern Kentucky University (Biology)
Ph.D.	1983	University of Alabama at B'ham (Microbiology)

PROFESSIONAL APPOINTMENTS:

1975-76	Technician, University of Kentucky Medical Center, Lexington, KY
1976-78	Laboratory Supervisor, Thomas Hunt Morgan Institute of Genetics, Lexington, KY.
1978-83	NIH Predoctoral Trainee, University of Alabama at Birmingham, Birmingham, AL (1981-1983 completed at the University of Chicago)
1983-85	Postdoctoral Fellow, Cellular Immunobiology Unit, University of Alabama at Birmingham, Birmingham, AL
1985-87	Instructor, Department of Microbiology, University of Alabama at Birmingham, Birmingham, AL
1987	Research Assistant Professor, Department of Microbiology, University of Alabama at Birmingham, Birmingham, AL
1987-92	Assistant Member, Department of Tumor Cell Biology, St. Jude Children's Research Hospital, Memphis, TN
1989-95	Assistant Professor (Affiliated), Department of Biochemistry, University of Tennessee, Memphis, TN
1992-2002	Associate Member, Department of Tumor Cell Biology, St. Jude Children's Research Hospital, Memphis, TN
1995-2003	Associate Professor (Affiliated) Department of Biochemistry, University of Tennessee, Memphis, TN
2002-	Full Member, Department of Genetics and Tumor Cell Biology, St. Jude

2003- Children's Research Hospital, Memphis, TN
Full Professor (Affiliated), Department of Molecular Sciences, University of
Tennessee Health Sciences Center, Memphis, TN

AWARDS AND OTHER PROFESSIONAL ACTIVITIES:

1983-1985 NIH Post-doctoral Trainee
1985 Visiting Scientist, International Laboratory for Research on Animal
Diseases, Nairobi, KENYA
1996-1999 Reviewer, NSF, Cell Biology
1997 Visiting Scientist, University of Regensburg, Regensburg, GERMANY
1999 Co-organizer Keystone Symposium, "Protein Folding, Modification and
Transport in the Early Secretory Pathway"
2000 Recipient Student Government Association Executive Council's Excellence in
Teaching Award
2001 Visiting Scientist, Nara Institute of Science and Technology, Nara, JAPAN
2002-2005 Secretary/Treasurer, Cell Stress Society International
2002 Visiting Scientist, Radiation Effects Research Foundation, Hiroshima, JAPAN
2003 Recipient Student Government Association Executive Council's Excellence in
Teaching Award
2003 Rudin-Kase Dean's Lecture, Mt. Sinai Medical School
2006 Recipient of 1st annual St. Jude Faculty Mentoring award
2007 Co-organizer FASEB Summer Research Conference, "Unfolded Proteins in the
Endoplasmic Reticulum to Disease"
2009 Organizer FASEB Summer Research Conference, "Unfolded Proteins in the
Endoplasmic Reticulum to Disease"
2010 Special subcommittee NIH Division of Basic and Integrative Biology
2010 Special subcommittee NIH Cell Biology
2011 Reviewer, NIH NIDDK intramural program
2016-2020 NIH, Permanent Member of MBPP study section

PROFESSIONAL SOCIETY MEMBERSHIP:

American Association for the Advancement of Science
American Society for Cell Biology
American Society for Biochemistry and Molecular Biology
Cell Stress Society International - Secretary/Treasurer (2002-2005)

PUBLICATIONS

1. Cash P, **Hendershot L**, Bishop DHL. The effects of glycosylation inhibitors on the maturation and intracellular polypeptide synthesis induced by Snowshoe Hare Bunyavirus. *Virology* 103:235-240, 1980.
2. **Hendershot L**, Levitt D. Differential regulation of membrane and secretory μ chain synthesis in human B cell lines. *J Exp Med* 156:1622-1632, 1982.
3. **Hendershot L**, Levitt D. Analysis of surface μ chain expression in human lymphoblastoid cell lines that do not produce light chains. *J Immunol* 132:502-507-507, 1984.
4. **Hendershot L**, Levitt D. The effects of mycoplasma contamination on immunoglobulin biosynthesis in B lymphoblastoid cell lines. *Infect and Immun* 49:36-39, 1985.
5. Bole D, **Hendershot LM**, Kearney JF. Post-translational association of immunoglobulin heavy chain binding protein with nascent heavy chains in nonsecreting and secreting hybridomas. *J Cell Biol* 102:1558-1566, 1986.
6. Mahan SM, **Hendershot L**, Black SJ. Control of trypanodestructive antibody responses and parasitemia in mice infected with *Trypanosoma (Duttonella) vivax*. *Infect and Immun* 54:213-221, 1986.
7. **Hendershot L**, Bole D, Köhler G, Kearney JF. Assembly and secretion of heavy chains that do not associate post-translationally with immunoglobulin heavy chain binding protein. *J Cell Biol* 104:761-767, 1987 (Highlighted in JCB 50 year anniversary section "From the Archive").
8. **Hendershot L**, Bole D, Kearney JF. Immunoglobulin heavy chain binding protein: Its role in immunoglobulin transport. *Immunol Today* 8:111-114, 1987.
9. Pollok BA, Anker R, Eldridge P, **Hendershot L**, Levitt D. Molecular basis of the cell surface expression of immunoglobulin μ chain without light chain in human B lymphocytes. *Proc Natl Acad Sci USA* 84:9199-9203, 1987.
10. **Hendershot LM**, Kearney JF. A role for human heavy chain binding protein in the developmental regulation of immunoglobulin transport. *Mol Immunol* 25:585-595, 1988.
11. **Hendershot LM**, Ting J, Lee AS. Identity of the immunoglobulin heavy chain binding protein with the 78,000 dalton glucose regulated protein and the role of post-translational modifications in its binding function. *Mol Cell Biol* 8:4250-4256, 1988.
12. Kerr WG, Cooper MD, Feng L, Burrows PD, **Hendershot L**. Mu heavy chains can associate with a pseudo-light chain complex (ψ L) in human pre-B cell lines. *Int Immunol* 1:355-361, 1989.
13. Ma J, Kearney JF, **Hendershot L**. Association of transport-defective light chains with immunoglobulin heavy chain binding protein. *Mol Immunol* 27:623-630, 1990.
14. **Hendershot L**. Immunoglobulin heavy chain and binding protein complexes are dissociated *in vivo* by light chain addition. *J Cell Biol* 111:829-837, 1990.
15. Kerr WG, **Hendershot LM**, Burrows PD. Regulation of μ - and δ -chain expression in human B-lineage cells. *J Immunol* 146:3314-3321, 1991.
16. Freiden PJ, Gaut JR, **Hendershot, LM**. Interconversion of three differentially modified and assembled forms of BiP. *EMBO J* 11:63-70, 1992.
17. Privitera E, Kamps MP, Hayashi, Y, Inaba T, Shapiro L, Raimondi SC, Behm F, **Hendershot L**, Carroll AJ, Baltimore D, Look AT. Different molecular consequences of the 1;19

- chromosomal translocation in childhood B-cell precursor acute lymphoblastic leukemia. *Blood* 79: 1781-1788, 1992.
18. Gaut JR, **Hendershot LM**. Mutations within the nucleotide binding site of immunoglobulin-binding protein inhibit ATPase activity and interfere with release of immunoglobulin heavy chain. *J Biol Chem* 268:7248-7255, 1993.
 19. Gaut JR, **Hendershot LM**. The immunoglobulin-binding protein *in vitro* autophosphorylation site maps to a threonine within the ATP-binding cleft but is not a detectable site of *in vivo* phosphorylation. *J Biol Chem* 268:12691-12698, 1993.
 20. **Hendershot LM**, Valentine VA, Lee AS, Morris SW, Shapiro DN. Localization of the gene encoding human BiP/GRP78, the endoplasmic reticulum cognate of the HSP70 family, to chromosome 9q34. *Genomics*, 20:281-284, 1994.
 21. **Hendershot LM**, Wei J-Y, Gaut JR, Lawson B, Freiden PJ, Murti KG. *In vivo* expression of BiP ATPase mutants results in disruption of the endoplasmic reticulum. *Mol Biol Cell* 6:283-296, 1995.
 22. Fitts MG, Metzger DW, **Hendershot LM**, Mage RG. The rabbit B cell antigen receptor is noncovalently associated with unique heteromeric protein complexes: possible insights into the membrane IgM/IgD coexpression paradox. *Mol Immunol* 32:753-759, 1995.
 23. Wei J-Y, **Hendershot LM**. Characterization of the nucleotide binding properties and ATPase activity of recombinant hamster BiP purified from bacteria. *J Biol Chem* 270:26670-26676, 1995.
 24. Wei J-Y, Gaut JR, **Hendershot LM**. *In vitro* dissociation of BiP:peptide complexes requires a conformational change in BiP after ATP binding but does not require ATP hydrolysis. *J Biol Chem* 270:26677-26682, 1995.
 25. **Hendershot LM**, Wei J-Y, Gaut JR, Melnick J, Aviel S, Argon Y. Inhibition of immunoglobulin folding and secretion by dominant negative BiP ATPase mutants. *Proc Natl Acad Sci USA* 93:5269-5274, 1996.
 26. Wang X-Z, Lawson B, Zinszer H, Sanjay A, Mi LJ, Boorstein R, Kreibich G, **Hendershot LM**, Ron D. Signals from the stressed endoplasmic reticulum induce C/EBP homologous proteins (CHOP/GADD153). *Mol Cell Biol* 16:4273-4280, 1996.
 27. Morris JA, Dorner AJ, Edwards CA, **Hendershot LM**, Kaufman RJ. BiP ATPase activity is required to protect cells from ER stress but is not required for the secretion of selective proteins. *J Biol Chem* 272:4327-4334, 1997.
 28. Brewer JW, Cleveland JL, **Hendershot LM**. A pathway distinct from the mammalian unfolded protein response regulates expression of endoplasmic reticulum chaperones in non-stressed cells. *EMBO J* 16:7207-7216, 1997.
 29. Lièvre J-P, Rizzuto R, **Hendershot LM**, Meldolesi J. BiP, the chaperone protein of the ER lumen, plays an important role in the storage of the rapidly exchanging pool of Ca^{2+} . *J Biol Chem* 272:30873-30879, 1997.
 30. Lawson B, Brewer JW, **Hendershot LM**. Geldanamycin, an HSP90/GRP94 specific drug, induces increased transcription of ER chaperones via the ER stress pathway. *J Cell Physiol* 174:170-178, 1998.
 31. Hamman BD, **Hendershot LM**, Johnson AE. BiP maintains the permeability barrier of the ER membrane by sealing the luminal end of the translocon pore before and early in translocation.

- Cell* 92:747-758, 1998.
32. Skowronek MH, **Hendershot LM**, Haas IG. The variable domain of non-assembled Ig light chains determines both their half-life and binding to the chaperone BiP. *Proc Natl Acad Sci USA*, 95:1574-1578, 1998.
 33. Hellman R, Vanhove M, Lejeune A, Stevens FL, **Hendershot LM**. BiP association with nascent chains *in vivo* is dependent on their rate and stability of folding and not simply on the presence of sequences that can bind to BiP. *J. Cell Biol.*, 144:21-30, 1999.
 34. Minegishi Y, **Hendershot LM**, Conley ME. Novel mechanisms control the folding and assembly of lambda5/14.1 and VpreB to produce an intact surrogate light chain. *Proc Natl Acad Sci USA*, 96:3041-3046, 1999.
 35. Lee Y-K, Brewer JW, Hellman R, **Hendershot LM**. BiP and Ig light chains cooperate to control the folding of heavy chains and to ensure the fidelity of immunoglobulin assembly. *Mol. Biol. Cell*, 10:2209-2219, 1999.
 36. Brewer JW, **Hendershot LM**, Sherr CJ, Diehl AJ. Mammalian unfolded protein response inhibits cyclin D1 translation and cell cycle progression. *Proc Natl Acad Sci USA*, 96, 8505-8510, 1999.
 37. Bertolotti A, Zhang Y, **Hendershot LM**, Harding HP, Ron D. Dynamic interactions between BiP and the ER stress receptors IRE1 and PERK in the unfolded protein response. *Nature Cell Biology*, 2:326-332, 2000.
 38. Creemers JWM, van de Loo J-WHP, Plets E, **Hendershot LM**, Van de Ven WJM. Binding of BiP to the proprotein processing enzyme LPC prevents aggregation but slows down maturation. *J. Biol. Chem.*, 275:38842-38847, 2000.
 39. Vanhove M, Usherwood Y-K, **Hendershot LM**. Unassembled Ig heavy chains do not cycle from BiP *in vivo*, but require light chains to trigger their release. *Immunity*, 15:105-114, 2001 (Faculty of 1000, 1 recommendation).
 40. Shen Y, Meunier L, **Hendershot LM**. Identification and characterization of a novel ER DnaJ homologue, which stimulates BiP's ATPase activity *in vitro* and is induced by ER stress. *J. Biol. Chem.* 277:15947-15956, 2002.
 41. Ma Y, Brewer JW, Diehl JA, **Hendershot LM**. Two distinct stress signaling pathways converge upon the CHOP promoter during the mammalian unfolded protein response. *J. Mol. Biol.*, 318:1351-1365, 2002.
 42. Shen J, Chen X, **Hendershot LM**, Prywes R. ER stress regulation of ATF6 localization by dissociation of BiP/GRP78 binding and unmasking of Golgi localization signals. *Dev. Cell*, 3:99-111, 2002 (selected for mini-review; Faculty of 1000 - 2 recommendations).
 43. Marcu MG, Doyle M, Bertolotti A, Ron D, **Hendershot LM**, Neckers L. Heat shock protein 90 modulates the unfolded protein response by stabilizing IRE1 α . *Mol. Cell Biol.*, 22:8506-8513, 2002.
 44. Chung KT, Shen Y, **Hendershot LM**. BAP, a newly identified protein, enhances the ATPase activity of mammalian BiP by serving as a nucleotide exchange factor. *J. Biol. Chem.*, 277:47557-47563, 2002.
 45. Meunier L, Usherwood Y-K, Chung K-T, **Hendershot LM**. A sub-set of chaperones and folding enzymes form multi-protein complexes in the ER to bind nascent proteins. *Mol. Biol. Cell*, 13: 4456-4469, 2002.

46. Ma Y, **Hendershot LM**. Delineation of the negative feedback regulatory loop that controls protein translation during ER stress. *J. Biol. Chem.*, 278:34864-34873, 2003.
47. Ma Y, **Hendershot LM**. Herp is dually regulated by both the ER stress-specific branch of the UPR and a branch that is shared with other cellular stress pathways. *J. Biol. Chem.* 279:13792-13799, 2004.
48. Tessitore A, Martin MP, Mann L, Ingrassia A, Sano R, Ma Y, **Hendershot LM**, d'Azzo A. Endoplasmic reticulum stress response mediates neurodegeneration in GM1-gangliosidosis. *Mol. Cell*, 15:753-766, 2004.
49. Shen Y, **Hendershot LM**. ERdj3, a stress-inducible ER DnaJ homologue, serves as a co-factor for BiP's interactions with unfolded substrates. *Mol. Biol. Cell*, 16:40-50, 2005.
50. Alder N, Shen Y, Brodsky JL, **Hendershot LM**, Johnson, AE. The molecular mechanisms underlying BiP-mediated gating of the sec61 translocon. *J. Cell Biol.*, 168:289-399, 2005 (highlighted) (Faculty of 1000 - 1 recommendation)
51. Gray M, Mann M, Nitiss J, and **Hendershot LM**. Activation of the UPR is necessary and sufficient for reducing topoisomerase II α protein levels and decreasing sensitivity to topoisomerase targeted drugs. *Mol. Pharmacology*, 68:1699-1707, 2005.
52. Dudek J, Greiner M, Müller A, Kappl R, **Hendershot LM**, Kopsch K, Nastainczyk W, Zimmermann, R. ERj1p plays a basic role in protein biogenesis at the endoplasmic reticulum. *Nature Struct. Mol. Biology*, 12:1008-1014, 2005.
53. Senderek J, Krieger, M, Stendel C, Moser M, Breitbach-Faller N, Rudnik-Schöneborn S, Wolf NI, Harting I, North K, Smith J, Muntoni F, Brockington M, Quijano-Roy S, Renault F, Herrmann R, **Hendershot LM**, Schröder JM, Lochmüller H, Topaloglu H, Voit T, Weis J, Ebinger F, Zerres K. Mutations in BAP/SIL1 cause Marinesco Sjögren syndrome, a cerebellar ataxia with cataract and myopathy. *Nature Genetics*, 37:1312-1314, 2005 (highlighted).
54. Pirot, P, Ortis, F, Cnop, M, Ma, Y, **Hendershot, LM**, Eizirik, DL, and Cardozo, AK. Transcriptional regulation of the endoplasmic reticulum (ER) stress gene Chop in pancreatic insulin producing cells. *Diabetes*, 56:1069-1077, 2007.
55. Shen Y, **Hendershot LM**. Identification of ERdj3 and OBF-1/BOB-1/OCA-B as direct targets of XBP-1 during plasma cell differentiation. *J. Immunol.*, 179:2969-2978, 2007.
56. Okuda-Shimizu Y, **Hendershot LM**. Characterization of an ERAD pathway for non-glycosylated BiP substrates, which requires Herp. *Mol. Cell*, 28:544-554, 2007.
57. Awad W, Estrada I, Shen Y, **Hendershot LM**. Characterization of BiP mutants that are unable to interact with resident ER DnaJ family members provides insights into inter-domain interactions in BiP. *Proc. Natl. Acad. Sci, USA*, 105:1164-1169, 2008.
58. Petrova K, Oyadomari S, **Hendershot LM**, Ron D. Regulated association of misfolded endoplasmic reticulum proteins with p58^{IPK}/DNAJc3. *EMBO J.*, 27:2862-2872, 2008.
59. Jin Y, Awad W, Petrova K **Hendershot LM**. Regulated release of ERdj3 from unfolded proteins by BiP. *EMBO J.*, 27:2873-2882, 2008.
60. Jin Y, Zhang M, **Hendershot LM**. ERdj3, a luminal ER DnaJ homolog binds directly to unfolded proteins in the mammalian ER: identification of critical residues. *Biochemistry*, 48:41-49, 2009.
61. Feige MJ, Groscurth S, Marcinowski M, Shimizu Y, Kessler H, **Hendershot LM**, Buchner J. An unfolded C_H1 domain controls the assembly and secretion of IgG antibodies. *Mol. Cell*,

- 34:569-579, 2009 (highlighted in *Mol. Cell*; Faculty of 1000 - 2 recommendations).
62. Shimizu Y, Meunier L, **Hendershot LM**. pERp1 is dramatically upregulated during plasma cell differentiation and contributes to the oxidative folding of immunoglobulin. *Proc Natl Acad Sci USA*, 106:17013-17018, 2009.
 63. Vembar S, Jin Y, Brodsky JL, **Hendershot LM**. The mammalian Hsp40 ERdj3 requires its Hsp70 interaction and substrate-binding properties to complement various yeast Hsp40-dependent functions. *J. Biol. Chem.* 284:32462-32471, 2009.
 64. Ma Y, Shimizu Y, Mann MJ, Jin Y, **Hendershot LM**. Plasma cell differentiation initiates a limited ER stress response by specifically suppressing the PERK-dependent branch of the UPR. *Cell Stress & Chap*, 15:281-293, 2010.
 65. Masciarelli S, Bertolotti M, Fagioli C, Fra A, Ron D, **Hendershot LM**, Sitia R. The CHOP transcription factor contributes to IgM polymerization and secretion in plasma cells. *Mol. Immunol*, 47:1356-1365, 2010.
 66. Vembar SS, Jonikas MC, **Hendershot LM**, Weissman JS, Brodsky JL. J domain co-chaperone specificity defines the role of BiP during protein translocation. *J. Biol. Chem.* 285:22484-22494, 2010.
 67. Pereira ER, Liao N, Neale GA, **Hendershot LM**. Transcriptional and Post-transcriptional Regulation of Proangiogenic Factors by the Unfolded Protein Response. *PLoS One* e12521, 2010.
 68. Shimizu Y, Okuda-Shimizu Y, **Hendershot LM**. Ubiquitylation of an ERAD substrate occurs on multiple types of amino acids. *Mol. Cell*, 40:917-926, 2010 (Faculty of 1000 - 3 recommendations).
 69. Santiago T, Kulemzin SV, Reshetnikova ES, Chikaev NA, Volkova OY, Mechetina LV, Taranin AV, Najakshin AM, **Hendershot LM**, Burrows PD. FCRLA is a resident endoplasmic reticulum protein that associates with intracellular immunoglobulins, IgM, IgG and IgA. *Internl. Immunol.*, 23:43-53, 2011.
 70. Khan SN, Cox JV, Nishimoto, SK, Chen Q, Fritzler MJ, **Hendershot LM**, Weigert M, Radic M. Intra-Golgi formation of IgM-glycosaminoglycan complexes in autoreactive B cell hybridomas. *J. Immunol.*, 187:3198-3207, 2011.
 71. Lai W*, Otero JH*, **Hendershot LM**, Snapp E. ERdj4 is a soluble endoplasmic reticulum DnaJ family protein that interacts with ERAD machinery. *J. Biol. Chem.*, 287:7969-7978, 2012.
 72. Howes J, Shimizu Y, Feige MJ, **Hendershot LM**. C-terminal mutations destabilize Sil1/BAP and can cause Marinesco-Sjögren Syndrome. *J. Biol. Chem.*, 287:8552-8560, 2012.
 73. Mann MJ, Liao N, Pereira ER, **Hendershot LM**. UPR-induced resistance to etoposide is downstream of PERK and independent of changes in topoisomerase II levels. *PLoS ONE*, e47931, 2012.
 74. Shenkman M, Groisman B, Ron E, Avezov E, **Hendershot LM**, Lederkremer GZ. A shared ER-associated degradation pathway involving EDEM1 for glycosylated and nonglycosylated proteins. *J. Biol. Chem.*, 288:2167-2178, 2013.
 75. Feige MJ, **Hendershot LM**. Quality control of integral membrane proteins by assembly-dependent membrane integration, *Mol. Cell*, 51:297-309, 2013 (highlighted in *Nature Reviews: Mol. Cell. Biol.*). *The quality control mechanisms that oversee the assembly and*

integration of multimeric protein complexes remain poorly understood. Using the $\alpha\beta$ T cell receptor as a model, we found that unassembled α chain subunits completely enter the ER lumen where their transmembrane (TM) segment is recognized by luminal chaperones and targeted for degradation. Assembly with the CD3 subunits is required to promote membrane integration of the α chain TM segment, stabilizing the α subunits so it can pair with the β chain. For the TCR α chain, both complete ER import and subunit assembly depend on the same pivotal residue in its TM region. These results were extended to several other multimeric protein complexes revealing unexpectedly that subunit assembly can drive the integration of membrane proteins instead of these events occurring in the opposite manner.

76. Preston AM, **Hendershot LM**. Identification of a second mechanism of translational control during the unfolded protein response that targets mTOR. *J. Cell Sci*, 126:4253-4261, 2013.
77. Behnke J, **Hendershot LM**. The large Hsp70 Grp170 binds to unfolded protein substrates in vivo with a regulation distinct from conventional Hsp70s. *J. Biol. Chem.*, 289:2899-2907, 2014.
78. Pereira ER, Frudd K, Awad W, **Hendershot LM**. ER stress and hypoxia response pathways interact to potentiate HIF-1 transcriptional activity on targets like VEGF. *J. Biol. Chem.*, 289(6):3352-3364, 2014 (Journal cover). *Both ER stress and hypoxia lead to the transcription up-regulation of VEGF-A expression through the up-regulation of distinct transcription factors (ATF4 and HIF-1 α respectively). We found that physiological ER stress coupled with mild hypoxia had a synergistic effect on VEGF expression. This did not occur through the combination of the two transcription factors binding to the VEGF promoter. Instead ER stress led to a potentiation of HIF-1 activity leading to enhanced binding of HIF-1 to the VEGF promoter and increased expression of HIF-1 transcription as well as other HIF-1 targets. ATF4 was irrelevant cells experiencing both stresses simultaneously. These data reveal an unexpected interaction between two important cytoprotective responses that are likely to have significant consequences in environmentally compromised tissues and tumor cells, which we found to have regions where both stress responses were activated.*
79. Leitman J, Shenkman M, Gofman Y, Ben-Tal N, **Hendershot LM**, Lederkremer GZ. Herp recruits and compartmentalizes HRD1 and misfolded proteins for ERAD. *Mol. Biol. Cell*, 25:1050-60, 2014.
80. Feige MJ, Gräwert MA, Marcinowski M, Hennig J, **Hendershot LM**, Buchner J. The structural analysis of shark IgNAR antibodies reveals evolutionary principles of immunoglobulins. *Proc. Natl. Acad. Sci., USA*, 111:8155-8160, 2014.
81. Otero J, Lizak B, **Hendershot LM**. Dissection of structural and functional requirements that underlie the interaction of ERdj3 with substrates. *J. Biol. Chem.*, 289:27504-27512, 2014.
82. Ichhaporia V, Sanford T, Howes J, Marion TN, **Hendershot LM**. Sil1, a nucleotide exchange factor for BiP, is not required for antibody assembly or secretion. *Mol. Biol. Cell*, 26:420-429, 2015. *Antibody assembly is absolutely dependent on the ATPase activity of the molecular chaperone BiP. We previously identified Sil1 as the nucleotide exchange factor for BiP. In this study we used a mouse model in which the Sil1 gene is disrupted as well as lymphoblastoid lines obtained from individuals with Marinesco-Sjorgren syndrome, an autosomal recessive disease characterized by mutations in Sil1. We examined the effects of*

Sil1 loss on antibody production both in vivo and ex vivo. Surprisingly, we found that although loss of Sil1 in humans and mice cause serious multisystem defects, there was absolutely no effect on the magnitude or kinetics of antibody production nor was a different chaperone system used to compensate for Sil1 loss.

83. Feige MJ, Behnke J, Mittag, T, **Hendershot LM**. Dimerization-dependent folding underlies assembly control of the clonotypic $\alpha\beta$ T cell receptor chains. *J. Biol. Chem.*, 290:26821-26831, 2015.
84. Preissler S, Chambers JE, Crespillo-Casado A, Avezov E, Miranda E, Perez J, **Hendershot LM**, Harding HP, Ron D. Physiological modulation of BiP activity by trans-protomer engagement of the interdomain linker. *eLife*, 4:e08961, 2015.
85. Joo JH, Wang B, Frankel E, Ge L, Xu L, Iyengar R, Li-Harms XJ, Wright C, Shaw TI, Lindsten T, Green DR, Peng J, **Hendershot LM**, Kilic F, Sze JY, Audhya A, Kundu M. Non-canonical role of ULK/ATG1 in ER-to-Golgi trafficking is essential for cellular homeostasis. *Mol. Cell*, 62:491-506, 2016.
86. Behnke J, Mann MJ, Scruggs F-L, Feige MJ, **Hendershot LM**. Members of the Hsp70 family recognize distinct types of sequences to execute ER quality control. *Mol. Cell*, 63:739-752, 2016 (preview in *Mol. Cell*). *We developed an in vivo peptide expression system to determine the binding preferences for members of the ER Hsp70 superfamily in their authentic cellular environment. Our study revealed an unanticipated diversity in recognition sequences for these chaperones. BiP and pro-folding co-chaperones recognized hydrophobic sequences that occurred often in the two clients we queried. They were similar to the types of sequences identified previously in vitro peptide binding screens for BiP and bacterial DnaK and DnaJ proteins. However Grp170 and pro-degradation co-chaperones recognized a distinct type of sequence that was predicted to be highly aggregation prone. These sequences occurred more rarely and were absent from the domains that remained unfolded in the absence of assembly and which constituted the focus of ER quality control. Our data established a sequence-encoded interplay between protein folding, aggregation, and degradation and highlighted the ability of clients to co-evolve with chaperones.*

BOOK CHAPTERS AND REVIEWS

1. Burrows PD, Kubagawa H, Nishimoto N, Kerr WG, Borzillo GV, **Hendershot LM**, Cooper MD. Differences in human B cell differentiation. In: Mechanisms of lymphocyte activation and immune regulation III. Edited by S. Gupta Plenum Press, New York, 1991.
2. Gaut JR, **Hendershot LM**. The modification and assembly of proteins in the ER. *Curr Opin Cell Biol* 5:589-595, 1993.
3. **Hendershot LM**. Maximizing immunoglobulin assembly and secretion. In: Fundamental and Clinical Immunology, pp. 192, 1993.
4. Wei, J-Y, **Hendershot LM**. Protein folding and assembly in the endoplasmic reticulum. In: Stress-inducible Cellular Responses. Edited by U. Feige, R.I. Morimoto, I. Yahara, and B.S. Polla, Birkhauser/Springer Publishers, pp. 41-55, 1996.
5. Hightower LE, **Hendershot LM**. Molecular Chaperones and the Heat Shock Response at Cold

- Spring Harbor. *Cell Stress & Chaperones*, 2:1-11, 1997.
6. Brewer JW, **Hendershot LM**. Early events in the biosynthesis of secretory pathway proteins: role of molecular chaperones. In: *Molecular Chaperones in the Life Cycle of Proteins: Structure, Function, and Mode of Action*. Edited by A. Fink and Y. Goto, Marcel Dekker, Inc, New York, pp. 415-434, 1997.
 7. Lee Y-K, Brewer JW, Vanhove M, **Hendershot LM**. Control of protein folding and assembly in the mammalian endoplasmic reticulum. In: *SAAS Bull: Biochem & Biotech*, Edited by S.K. Ballal, 12:31-36, 1999.
 8. **Hendershot LM**. Giving protein traffic the green light. News and Views. *Nature Cell Biology*, 2:E105-106, 2000.
 9. **Hendershot LM**, Bulleid NJ. Protein-specific chaperones: The role of hsp47 begins to gel. Dispatch. *Current Biology*, 10:R912-R915, 2000.
 10. Ma Y, **Hendershot LM**. The unfolding tale of the unfolded protein response. Minireview. *Cell*, 107:827-830, 2001.
 11. Ma Y, **Hendershot LM**. The ER as a sensor for cellular stress. *Cell Stress & Chaperones*, 7:222-229, 2002.
 12. Ma Y, **Hendershot LM**. The stressful road to antibody secretion. News and Views. *Nature Immunology*, 4:310-311, 2003.
 13. **Hendershot LM**, Sitia R. Antibody synthesis and assembly. In: *Molecular Biology of B cells*. Edited by F.W. Alt, T. Honjo and M.S. Neuberger, Elsevier Science, pp. 261-273, 2004.
 14. Ma Y, **Hendershot LM**. ER chaperone functions during normal and stress conditions. *J. Chem. Neuroanatomy*, 28:51-65, 2004.
 15. **Hendershot LM**. BiP is a master regulator of ER function. Dean's Lecture, *Mt. Sinai Journal of Medicine*, 71:289-297, 2004.
 16. Ma Y, **Hendershot LM**. The role of the unfolded protein response in tumorigenesis: friend or foe? *Nature Reviews Cancer*, 4:966-977, 2004.
 17. Shen Y, Chung K, **Hendershot LM**. Protein folding in the endoplasmic reticulum via the HSP70 family. In: *Handbook of Protein Folding*. Edited by J. Buchner and T. Kiefhaber, Wiley/Verlag, Vol. 4, pp. 563-603, 2005.
 18. Brewer JW, **Hendershot LM**. Building an Antibody Factory: A Job for the Unfolded Protein Response. *Nature Immunology*, 6:23-29, 2005.
 19. Lee AS, **Hendershot LM**. UPR and Cancer. *Cancer Biology and Therapy*, 5:721-722, 2006.
 20. Mann MJ, **Hendershot LM**. UPR Activation Alters Chemosensitivity of Tumor Cells. *Cancer Biology and Therapy*, 5:736-740, 2006.
 21. Shimizu Y, **Hendershot LM**. Organization of the Functions and Components of the Endoplasmic Reticulum. In: *Molecular aspects of the stress response: Chaperones, membranes and networks*. Edited by P. Csermely and L.Vigh, Landes Bioscience, Vol. 594, pp. 37-44, 2006.
 22. Richter K, **Hendershot LM**, Freeman BC. The cellular world according to Hsp90. *Nature Structural and Molecular Biology*, 14:90-94, 2006.
 23. Liao N, **Hendershot LM**. The unfolded protein response: contributions to development and disease. In: *Cell Stress Proteins*. Edited by S.K. Calderwood, Kluwer & Plenum, pp. 57-88, 2007.

24. Okuda-Shimizu Y, Shen Y, **Hendershot LM**. Quality control in the endoplasmic reticulum. In: *The Handbook of Cell Signaling*. Edited by R. Bradshaw and E. Dennis, Elsevier, Inc., pp. 2471-2476, 2009.
25. Shimizu Y, **Hendershot LM**. Oxidative folding: cellular strategies for dealing with the resultant equimolar production of reactive oxygen species. Forum Review, *Antioxidants & Redox Signaling*. 11;2317-2331, 2009.
26. Feige MJ, **Hendershot LM**, Buchner J. How antibodies fold. *TIBS*, 35:189-198, 2010 (Journal cover).
27. Otero J, Lizak, B, **Hendershot LM**. Life and death of a BiP substrate. *Sem Cell & Dev Biol*, 21:472-478, 2010.
28. Feige MJ, **Hendershot LM**, Buchner J. Response to Corcos: Exceptions to the Rules. *TIBS*, 35:594, 2010.
29. Feige MJ, **Hendershot LM**. Disulfide bonds in ER protein folding and homeostasis. *Curr. Opin. in Cell Biol.*, 23:167-175, 2011.
30. Pereira ER*, Preston AM*, **Hendershot LM**. UPR activation in cancer cells: a double-edged sword. In: *ER stress in health and disease*. Edited by P. Agostinis and A. Samali, Springer Dordrecht Heidelberg, pp. 383-412, 2012.
31. **Hendershot LM**. "Chaperone systems of the endoplasmic reticulum", in Houry, W.A. (ed.), *Protein Homeostasis*, The Biomedical & Life Sciences Collection, Henry Stewart Talks Ltd, London (online at <http://hstalks.com/bio>), 2012.
32. **Hendershot LM**, Feige MJ, Buchner J. Acidification activates Erp44 – a molecular litmas test for protein assembly. *Mol. Cell*, 50:779-781, 2013.
33. Behnke J, Feige MJ, **Hendershot LM**. BiP and its nucleotide exchange factors Grp170 and Sil1: Mechanisms of action and biological functions. *J. Mol. Biol.*, 427:1589-1608, 2015.

INVITED LECTURES and PRESENTATIONS

- University Southern California, Los Angeles, CA, Oct 23, 1986.
 University of Texas at Galveston, Galveston, TX, Jun 17, 1987.
 Pembroke State University, Pembroke, NC, Jan 24, 1988.
 Dow Chemical, Midland, MI, May 5, 1989.
 7th International Congress on Immunology, Mini Symposium "Heat Shock Response", Berlin, FRG, Jul 30 - Aug 5, 1989.
 University of Alabama at Birmingham, Birmingham, AL, Oct 12, 1989.
 American Society for Cell Biology, Mini Symposium "Protein export from the endoplasmic reticulum", Houston, TX, Nov 7, 1989.
 FASEB Summer Research Conference "Protein Folding in the Cell", Copper Mt., CO, Jun 24 - Jun 29, 1990.
 University of Massachusetts Medical School, Worcester, MA, Oct 26, 1990.
 American Society for Microbiology (SE), Symposium "Protein Folding" Clearwater, FL, Nov 2, 1990.
 Georgia State University, Atlanta, GA, Apr 5, 1991.

Cold Spring Harbor Symposium "Stress Proteins and the Heat Shock Response", Cold Spring Harbor, NY, Apr 29 - May 2, 1991.
Memphis State University, Memphis, TN, Dec 5, 1991.
University of Alabama at Birmingham, Microbiology Dept., Birmingham, AL, Mar 31, 1992.
Banbury Conference (Molecular Chaperones), Cold Spring Harbor, NY, Apr 4 - 7, 1993.
Gordon Conference (Proteins), Tilton, NH, Jun 13 - 18, 1993.
UAB Symposium on Lymphopoiesis, Birmingham, AL, Aug 29 - 31, 1993.
Tulane University, New Orleans, LA, Dec 13, 1993.
American Society for Cell Biology, New Orleans, LA, Dec 14, 1993.
Mayo Clinic, Rochester, MN, Mar 15, 1994.
Cold Spring Harbor Symposium "Biology of Heat Shock Proteins & Molecular Chaperones", Cold Spring Harbor, NY, May 4 - 8, 1994.
Rush-Presbyterian Medical Center, Chicago, IL, June 20, 1994.
Duke University Medical Center, Durham, NC, Sept 13, 1994.
Loyola University Medical Center, Chicago, IL, Sept 23, 1994.
University of Nebraska Medical Center, Omaha, NE, Nov 17, 1994.
University of Kentucky, Lexington, KY, May 8, 1995.
INSERM 25, Paris, FRANCE, Aug 10, 1995.
University of Heidelberg, Heidelberg, GERMANY, Aug 17, 1995.
University of Regensburg, Regensburg, GERMANY, Aug 18, 1995.
Istituto di Ricovero e Cura a Carattere Scientifico, Milano, ITALY, Aug 21, 1995.
AMC, Amsterdam, THE NETHERLANDS, Aug 23, 1995.
University of Tennessee Knoxville, Knoxville, TN, Sept 6, 1995.
New York University, Skirball Institute, New York, NY, May 1, 1996.
American Assoc. for Cancer Research "Inducible Genomic Responses", Stevenson, WA, Jun 8 - 12, 1996.
Johns Hopkins University, Baltimore, MD, Sept 26, 1996.
Keystone Symposia "B Lymphocytes in Health and Disease", Steamboat Springs, CO, Jan 10 - 16, 1997.
Keystone Symposia "Protein Folding, Modification, and Transport in the Early Secretory Pathway", Taos, NM, Mar 3 - 9, 1997.
Keystone Symposia "Processing of Peptide Hormones, Neurotransmitters, Growth Factors and Viral Proteins", Taos, NM, Mar 3 - 9, 1997.
International Conference on Dynamics and Regulation of the Stress Response, Kyoto JAPAN, Mar 9 - 12, 1998.
Vanderbilt University, Nashville, TN, Apr 7, 1998.
University of Tennessee, Memphis, Memphis, TN, Apr 13, 1998.
University of Alabama, Birmingham, Dept. Cell Biol., Birmingham, AL, Apr 16, 1998.
Cold Spring Harbor Symposium "Molecular Chaperones and the Heat Shock Response", Cold Spring Harbor, NY, May 6 - 10, 1998.
HSP Research Institute, Kyoto, JAPAN, Jul 10, 1998.
Osaka University, Osaka, JAPAN, Jul 15, 1998.
Nara Institute of Science and Technology, Nara, JAPAN, Jul 21, 1998.

Kyoto University, Kyoto, JAPAN, Jul 28, 1998.
S.A.A.S. Annual Meeting, Memphis, TN, Feb 1, 1999.
Keystone Symposia "Protein Folding, Degradation and Molecular Chaperones", Copper Mt., CO, Apr 10 - 16, 1999.
Keystone Symposia "Protein Folding, Modification and Transport in the Early Secretory Pathway", Copper Mt., CO, Apr 10 - 16, 1999 (Co-Organizer).
University of Tennessee, Dept. Micro & Immunol. Memphis, Memphis, TN, Apr 28, 1999.
Kyowa Research Institute, Tokyo, JAPAN, Aug 6, 1999.
Cold Spring Harbor Symposium "Molecular Chaperones and the Heat Shock Response", Cold Spring Harbor, NY, May 3 - 7, 2000.
State University of New York, Brooklyn, NY, May 10, 2000.
Ohio University, Athens, OH, May 31, 2000.
Alpha One Antitrypsin Deficiency and Other Conformational Diseases Conference, Arlie House, VA, Jun 27 - 30, 2000.
University of Louisville, Louisville, KY, Jul 13, 2000.
Gordon Conference "Biological Regulatory Mechanisms" Holderness, NH, Jul 30 - Aug 4, 2000.
Infigen, DeForest, WI, Jan 31, 2001.
Nara Institute of Science and Technology, Nara, JAPAN, Jun 11, 2001.
Rhodes College, Memphis, TN, Sept 13, 2001.
University of Tennessee, Memphis, Dept. Physiology, Memphis, TN, Oct 4, 2001.
3rd International Workshop on the Molecular Biology of Stress Responses, Mendoza, ARGENTINA, Oct 10 - 13, 2001.
Moffitt Cancer Center, Tampa, FL, Feb. 12, 2002.
Washington University, St. Louis, MO, Apr. 22, 2002.
4th Annual NIH-Johns Hopkins University Workshop on Protein Trafficking (Keynote speaker), Annapolis, MD, May 2, 2002.
University of Missouri at Kansas City, Kansas City, MO, Nov 21, 2002
University of Tennessee Health Science Center, Dept. Mol. Sciences, Memphis, TN, Dec 9, 2002.
American Society of Cell Biology, 42nd annual meeting, Mini-symposium co-chair "Protein Folding and Quality Control in the ER", San Francisco, CA, Dec 17, 2002.
University of Texas, Southwestern, Dallas, TX, Feb 6, 2003.
Eppley Cancer Institute, University of Nebraska, Omaha, NB, Feb 13, 2003.
Keystone Symposia "Conformation Diseases", Session chair, Taos, NM, Mar 2003.
Rudin-Kase Dean's Seminar, Mt. Sinai Medical School, New York, NY, Mar 19, 2003.
University of Geneva, Geneva, SWITZERLAND, Apr 14, 2003.
Ludwig-Maximilians-Universität Munchen, Munich, GERMANY, Apr 16, 2003.
University of Missouri at Columbia, Columbia, MO, Apr 25, 2003.
Gordon Research Conference "Molecular Therapeutics of Cancer", Oxford, UK, Jul 12-18, 2003.
First International Congress on Stress Responses in Biology and Medicine, Quebec, CANADA, Sept 9-14, 2003.
University of Alabama at Birmingham, Birmingham, AL, Sept 30, 2003.
University of Chicago, Chicago, IL, Oct 23, 2003.
Molecular Machines in Protein Folding and Protein Transport, Munich, GERMANY, Nov 19-21,

2003.

Midwest Stress Response and Chaperone Meeting (Keynote talk), Evanston, IL, Jan 10, 2004.

University of Massachusetts, Amherst, MA, Mar 2, 2004.

University of Indiana, Indianapolis, IN, Apr 19, 2004.

Role of Mis-folding and Mis-processing in Disease, NIDDK, Bethesda, MD, May 4-5, 2004.

Cold Spring Harbor Symposium "Molecular Chaperones and the Heat Shock Response", Cold Spring Harbor, NY, May 5 - 9, 2004.

Gordon Research Conference "Preprotein processing, trafficking, and secretion", New London, NH, July 11-15, 2004.

FASEB Conference "Protein folding in the Cell", Saxons River, VT, Jul 31-Aug 4, 2004.

HSP90 Chaperone Machine, EMBO workshop, Gwatt, SWITZERLAND, Oct 25-29, 2004.

Tulane University, New Orleans, LA, Oct 25, 2004.

American Society of Cell Biology, 44th annual meeting, Career Discussion and Networking Lunch, Washington, DC, December 6, 2004.

Keystone Symposia "B Cell Development, Function, and Disease" Steamboat Springs, CO, Mar 28 - Apr 3, 2005.

International Symposium of the Korean Society for Life Science, Pusan, KOREA, Apr 8-9, 2005.

Dong-Eui University, Pusan, Korea, Apr 12, 2005.

University of California, Los Angeles, May 13, 2005.

University of Miami, Miami, FL, Aug 11, 2005.

Université Libre de Bruxelles, Brussels, BELGIUM, Sept 29, 2005.

Institute for Research in Biomedicine, Bellinzona, SWITZERLAND, Oct 4, 2005.

ER Stress and Cancer Workshop, Division of Cancer Biology, NCI, NIH, Oct 17-18, 2005.

Japanese Biochemical Society, Kobe, JAPAN, Oct 19-22, 2005.

University of Alabama at Birmingham, Microbiology Retreat, Alumni speaker, Nov 11-13, 2005.

Gladstone Institute, San Francisco, CA, Dec 15, 2005.

4th Annual Joint Ph.D. Student Workshop from IFOM, San Raffaele Scientific Institute, National Institute for the Study and Cure of Tumors, and Institute of Pharmacology Research, Keynote speaker, Lake Garda, ITALY, Jan 23-25, 2006.

DiBiT/San Raffaele Scientific Institute, ITALY, Jan 26, 2006.

Institute of Cytology and Genetics, Novosibirsk, RUSSIA, Feb 20, 2006.

5th International Workshop on the Molecular Biology of the Stress Response, Concepcion, CHILE, Mar 21-26, 2006.

Cell Culture Engineering Meeting, Keynote address, Whistler, British Columbia, CANADA, Apr 23-28, 2006.

Wake Forest University, Winston-Salem, NC, May 31, 2006.

Annual Meeting of the Endocrine Society, Boston, MA, Jun 24-27, 2006.

University of Pittsburgh, Pittsburgh, PA, Sept 25, 2006.

HSP90 Chaperone Machine, EMBO workshop, Seeon, GERMANY, Sept 30-Oct 4, 2006.

Post-transcriptional Regulatory Mechanisms Course, Guest Lecturer, University of Alabama at B'ham, Birmingham, AL, Oct 10, 2006.

Clinical Fellows Basic Science Meeting, University of Tennessee Cancer Institute, Memphis, TN, Nov 6, 2006.

37th International Symposium of the Princess Takamatsu Cancer Research Fund, "Cancer Cells and Their Microenvironment", Tokyo, JAPAN, Nov 14-17, 2006.

University of Texas, M. D. Anderson Cancer Center, Smithville, TX, Mar 30, 2007.

University of Utrecht, Utrecht, THE NETHERLANDS, May 24, 2007.

Gordon Research Conference "Molecular Therapeutics of Cancer", Session Chair, Colby-Sawyer College, New London, NH, Jul 22-27, 2007.

FASEB Summer Research Conference, "Unfolded Proteins in the Endoplasmic Reticulum to Disease" Co-organizer, Indian Wells, CA, Jul 29-Aug 2, 2007.

3rd International Congress on Stress Responses in Biology and Medicine (Plenary speaker), Budapest, HUNGARY, Aug 23-26, 2007.

8th Conference on Protein Expression in Animal Cells, Angra Dos Reis, BRAZIL, Sept 16-20, 2007.

Albert Einstein College of Medicine, Yeshiva University, Bronx, NY, Oct. 24, 2007.

6th International Workshop on the Molecular Biology of Stress Responses, Bangkok, THAILAND, Mar 25-29, 2008.

Texas A&M University Health Science Center, College Station, TX, Apr 9, 2008.

Cold Spring Harbor Symposium "Molecular Chaperones and the Heat Shock Response", Cold Spring Harbor, NY, Apr 30 – May 4, 2008.

University of Bergen, Bergen, NORWAY, May 8, 2008.

University of Massachusetts, Amherst, MA, May 28, 2008.

University of Tennessee Health Science Center, Memphis, TN, Cancer Biology seminar series, Oct 2, 2008.

Post-transcriptional Regulatory Mechanisms Course, Guest Lecturer, University of Alabama at B'ham, Birmingham, AL, Oct 30, 2008.

The 2nd Woods Hole Symposium on Heat Shock Proteins in Biology and Medicine, Woods Hole Marine Biology Laboratory, MA, Nov 3-6, 2008.

TU Muenchen, Munich, GERMANY, Dec 11, 2008.

Max-Planck Institute of Immunobiology, Freiberg, GERMANY, Dec 16, 2008.

Protein Misfolding and Misprocessing in Disease (Keynote speaker), NIDDK, Bethesda, MD, Jan 27-28, 2009.

Amgen, Thousand Oaks, CA, Feb 2, 2009.

Cincinnati Children's Hospital Research Foundation, Cincinnati, OH, Feb 11, 2009.

CHDI Workshop on Stress Response in Huntington's Disease, New York, NY Mar 17-18, 2009.

Society of Toxicology annual meeting (Symposium speaker), Baltimore MD, March 19, 2009.

Dartmouth College, Hanover, NH, Apr 1, 2009.

Mass General Hospital, Harvard University, Boston, MA, May 20, 2009.

EMBO Conference on Cellular Protein Homeostasis in Disease and Ageing, Dubrovnik, CROATIA, May 23-28, 2009.

FASEB Summer Research Conference, "From Unfolded Proteins in the Endoplasmic Reticulum to Disease" (Organizer), Vermont Academy, Saxtons River, VT, Jun 7-12, 2009.

Gordon Research Conference "Stress Proteins in Growth, Development and Disease", Proctor Academy, Andover, New Hampshire, Jun 28 - Jul 3, 2009.

University of Utrecht, Utrecht, THE NETHERLANDS, Aug 25, 2009.

Kyoto University, Kyoto, JAPAN, Oct 5, 2009.
4th International Congress on Stress Responses in Biology and Medicine, Sapporo, JAPAN, Oct 6-9, 2009.
University of Arkansas, Little Rock, AR, Feb 11, 2010.
University of Iowa, Carver College of Medicine, Iowa City, Iowa, Feb 17, 2010.
University of Idaho, Moscow, ID, Apr 8, 2010.
University of Edmonton, Edmonton, CANADA, Apr 29, 2010.
AACR Educational Session on “Chaperones as Therapeutic Targets: Beyond HSP90, (Chairperson), Washington DC, Apr 17, 2010.
International Workshop of Stress Responses, Seorak, South Korea, Jun 1-4, 2010.
24th Symposium of the Protein Society (Plenary talk), San Diego, CA, Aug 1-5, 2010.
International Symposium on Protein Community “Life of a Protein”, Nara, JAPAN, Sept 13-16, 2010.
EMBO Meeting on ER, Girona, SPAIN, Oct 3-8, 2010.
The 3rd Woods Hole Symposium on Heat Shock Proteins in Biology and Medicine (Plenary talk), Woods Hole Marine Biology Laboratory, MA, Nov 8-11, 2010.
University of Copenhagen, Copenhagen, DENMARK, Jan 10, 2011.
University of Pennsylvania, Philadelphia, PA, Feb 24, 2011.
Oregon Health Sciences University, Portland, OR, Apr 26, 2011.
22nd Meeting of the European Society for Animal Cell Technology (Keynote speaker), Vienna, AUSTRIA, May 15-18, 2011.
FASEB Summer Research Conference, “From Unfolded Proteins in the Endoplasmic Reticulum to Disease”, Vermont Academy, Saxtons River, VT, Jun 12-17, 2011.
Gordon Conference “Stress Proteins in Growth, Development, and Disease”, Lucca, ITALY, July 17-22, 2011.
McGill University, Montreal, CANADA, Aug 19, 2011.
5th International Congress CSSI, Quebec City, Quebec, CANADA, Aug 21-25, 2011.
Quality Control, Folding, and Degradation of Proteins in the Endoplasmic Reticulum, Monte Verita, Ascona, SWITZERLAND, Sept 11-16, 2011.
Georgia Health Sciences University, Augusta, GA, Oct 26, 2011.
University of Arizona, Tucson, AZ, Nov 4, 2011.
University of Tennessee Health Sciences Center, Memphis, TN, Nov 14, 2011.
International Cell Stress Workshop, Porto Alegre, BRAZIL, May 26-30, 2012.
University of Sao Paulo, BRAZIL, May 31, 2012.
FASEB Summer Research Conference, “Protein Folding in the Cell”, Vermont Academy, Saxtons River, VT, Jul 29 – Aug 3, 2012.
Aegean Conference on Tumor Microenvironment and Cellular Stress: Signaling, Metabolism, Imaging and Therapeutic Targets, Crete, GREECE, Oct 4-9, 2012.
24th Annual Meeting of the Korean Society for Molecular and Cellular Biology, Seoul, KOREA, Oct 10-12, 2012.
Millennium, Boston, MA, Nov 7, 2012.
ER and Redox Club Meeting, Warwick, UK, Apr 18-20, 2013.
ASBMB symposium, “The multitasking ER”, Arlie House, VA, May 1-3, 2013.

EMBO Chaperone Meeting, "The Biology of Molecular Chaperones, Santa Margherita di Pula, Sardinia, ITALY, May 16-23, 2013.

FASEB Summer Research Conference, "From Unfolded Proteins in the Endoplasmic Reticulum to Disease", Vermont Academy, Saxtons River, VT, Jun 16-21, 2013.

Gordon Conference "Stress Proteins in Growth, Development, and Disease", West Dover, VT, July 7-12, 2013.

NIDDK, NIH, Bethesda, MD, Jan 16, 2014.

University of Memphis, Memphis, TN, March 6, 2014.

Cellular Protein Quality Control in Health, Aging, and Disease, German Society of Biochemistry and Molecular Biology, Mosbach, GERMANY, Mar 27-29, 2014.

Cold Spring Harbor Symposium "Molecular Chaperones and the Heat Shock Response", Cold Spring Harbor, NY, Apr 29 – May 3, 2014.

NIH Workshop on "UPR and Cancer Progression", Bethesda, MD, Jun 5-6, 2014.

FASEB Summer Research Conference, "Protein Folding in the Cell", Vermont Academy, Saxtons River, VT, Jul 20-25, 2014 (Keynote speaker).

University of Michigan, Ann Arbor, MI, Nov 6, 2014.

New England Biolabs, Ipswich, MA, Jan 22, 2015.

8th Annual Pfizer Frontiers in Human Disease Symposium, New York, NY, Apr 29-30, 2015.

European Chaperone Meeting, "The Biology of Molecular Chaperones, CRETE, May 8-13, 2015.

11th Calreticulin Workshop, "Unfolding the complexities of ER Chaperones in Health and Disease", New York City, New York, May 15-18, 2015.

FASEB Summer Research Conference, "From Unfolded Proteins in the Endoplasmic Reticulum to Disease", Vermont Academy, Saxtons River, VT, Jun 14-19, 2015 (Keynote speaker).

Gordon Conference "Stress Proteins in Growth, Development, and Disease", Lucca, ITALY, Jul 5-10, 2015.

Cold Spring Harbor Symposium "Protein Homeostasis in Health and Disease", Cold Spring Harbor, NY, Apr 18 – Apr 22, 2016.

ER Stress Symposium, Galway, Ireland, May 14-19, 2016.

12th Annual CBI Symposium, University of Illinois, Urbana, IL, Aug. 26, 2016 (Keynote speaker).

EMBO Conference "Structure and function of the endoplasmic reticulum", Girona, SPAIN, Oct 23-27, 2016.

University of Pennsylvania, Philadelphia, PA Jan 10, 2017.

Case Western University, Cleveland, OH, Mar 26-27, 2017.

ER and Redox Meeting, Homburg, GERMANY, Apr 26-29, 2017.

Cancer, Cell Death & Therapy, Saint-Malo, FRANCE, May 10-12, 2017.

Kenji Kohno Symposium, Nara, JAPAN, June 3-5, 2017.

Gordon Conference "Stress Proteins in Growth, Development, and Disease", Sunday River Resort, ME, Jul 9-14, 2017.

JOURNAL EDITORIAL BOARD

Cell Stress and Chaperones (1997 -)

PLoS ONE (2012 -)
Science Reports (2015 -)
Frontiers in Molecular Biosciences (2015 -)

Ad Hoc REVIEWER (Journals)

Biochemistry, Biochemica et Biophysica Acta, Blood, Brain Research, Cancer Research, Cell, Cell Chemical Biology, Clinical Immunology, Developmental Cell, EMBO Journal, eLife, European Journal of Biochemistry, European Journal of Immunology, Experimental Cell Research, FASEB Journal, FEBS Letters, Gene, Genomics, International Immunology, Immunity, Immunology, Journal of Biological Chemistry, Journal of Cell Biology, Journal of Cellular Biochemistry, Journal of Cellular Physiology, Journal of Cell Science, Journal of Exp. Medicine, Journal of Immunology, Molecular Biology of the Cell, Molecular Brain Research, Molecular Cell, Molecular and Cellular Biology, Molecular Microbiology, Nature, Nature Cell Biology, Nature Medicine, Nature Structural & Mol. Biol., Nature Reviews Mol. Cell Biol., PLoS, Proc. Natl. Acad. Sci., USA, Science, Science Reports, Traffic, Trends in Biological Sciences, Trends in Immunology

REVIEWER (Grants)

NIH MBPP permanent study section member (2016 – 2020)

Ad hoc:

National Science Foundation (NSF), 1991- 1998, regular reviewer Cell Biology Section 1998 -
Veteran's Administration (VA)
American Cancer Society (ACS), Personnel A, 1995-1996
National Institutes of Health (NIH), Molecular Cytology, 1996-8
National Institutes of Health (NIH), Membrane Biology and Protein Processing, 2005-
United States-Israeli Binational Science Foundation, 1996-
United States-Israeli Binational Agricultural Research and Development Fund
Israeli Science Foundation
Fonds National de la Recherche Scientifique
Wellcome Foundation
Italian Telethon Reviewer
NIH HLBP Program Project, Boston University, 2001
Lottery Health Research, New Zealand
Health Research Board, Ireland, 2004
Science Foundation of Ireland, 2005
Reviewer, NCI Program Project, Stanford University, 2003
Ad Hoc Reviewer, NIH, Membrane Biology and Protein Processing, 2005
Reviewer, NIH, Targeting Disease Caused by Protein Misfolding or Misprocessing, 2006

NIH, Basic Mechanisms of Cancer Therapeutics, 2006, 2009, 2010, 2011, 2012
NIH HLB intramural program, 2007
NIH Special Emphasis Panel, 2009
Human Frontiers Science Program, 2011
NIH NIDDK Ad hoc reviewer for The Board of Scientific Counselors session, 2011
NIH P01, 2012
NIH Director's Early Independence Award, 2013
NIH P09, 2014

INSTITUTIONAL COMMITTEES

Safety Committee (1987-1988)
Education Committee (1988-1992)
Animal Committee (1989-1991)
Memphis State University, Department of Biology, Faculty Search Committee (1989-1990)
Post-doctoral Training Committee (1991-1992)
Graduate Student Evaluation Committee, UT Department of Biochemistry (1990-1993)
Memphis State University, Department of Biology, Search Committee for Chairman (1993)
Post-doctoral Training Grant (1994-), P.I. (1997- 8)
Post-doctoral Training Committee (1995-2004), Vice Chair (1996- 8), Chair (1998-2000)
U.T. Dept. Biochemistry, Graduate Admissions Committee (1998-2000)
Promotion of Nonfaculty Research Personnel (1999-2004)
Faculty Appointments and Promotions Committee (1999-2002)
SJCRH, Department of Immunology, Search Committee for Chairman (2001-2005)
SJCRH, Predoctoral Student Advisory Committee (2001-2)
SJCRH, Search Committee for Research Liaison (2002)
SJCRH, Department of Pharmaceutical Sciences, Search Committee for Chairman (2002-2003)
Faculty Appointments and Promotions Committee (2003-2010), Chair (2006-2010)
SJCRH, Strategic Planning Group, Facilitator for Basic Research (2003)
SJCRH, Strategic Advisory Committee (2003-2005)
Clinical Protocols and Scientific Research Committee (2005-2006)
Graduate Education Oversight Committee (2006-)
Academic Programs Oversight Committee (2007-2008)
Task Force to Develop Formal Faculty Mentoring Program (2009-2010)
Task Force to Develop Curriculum for a Potential Graduate Program (2010-2011)
SJCRH, Department of Cancer Biology, Search Committee for Chairman (2011-2014)
SJCRH, Protein Production Task Force (2014-2015)
SJCRH, Strategic Planning Group #14 "Basic laboratory Education and Training" (2014-2015)
SJCRH, St. Jude Graduate School Curriculum committee (2014 -)
SJCRH, Department of Chemical Biology, Search Committee for Chairman (2016-)

POSTDOCTORAL FELLOWS AND CLINICAL FELLOWS

- Bettina Ault, M.D. (1988-1990), *Currently*: Associate Professor Department of Pediatrics, University of Tennessee, Memphis, TN.
- James R. Gaut, Ph.D. (1989-1994), *Currently*: Director Environmental Health and Safety, St. Jude Children's Research Hospital, Memphis, TN.
- Gigi Ray, Ph.D. (1993-1994), *Currently*: Lecturer, Department of Chemistry, Georgia State University, Atlanta, GA.
- Marc Vanhove, Ph.D. (1997- 1998), *Currently*: Research Scientist, Thrombogenics, Leuven, Belgium.
- Joseph Brewer, Ph.D. (1995-1999), *Currently*: Associate Dean for Research, Liberty University, Lynchburg, VA
- Young-Kwang Lee, Ph.D. (1997-1999)
- Kyung Tae Chung, Ph.D. (1999-2003), *Currently*: Dean of College of Nursing and Health Sciences, Dong-Eui University, Pusan, Korea.
- Laurent Meunier, Ph.D. (2000-2003), *Currently*: Director, BioCellChallenge, Marseille, France.
- Yanjun Ma, Ph.D. (2002-2005), *Currently*: Clinical Oncologist, Nashville, TN
- Yuichiro Shimizu, Ph.D. (2004-2010), *Currently*: Staff Scientist, Chugai Pharmaceutical CO, Shizuoka, Japan
- Ying Shen, Ph.D. (2004-2008), *Currently*: Staff Scientist, Regeneron Pharmaceuticals, Tarrytown, NY.
- Yuki Shimizu, Ph.D. (2004-2009)
- Beata Lizak, Ph.D. (2008-2012), *Currently*: Assistant Professor, Budapest, Hungary
- Amanda Preston, Ph.D. (2008-2012), *Currently*: Director of Microscopy Facility, UTHSC, Memphis, TN
- Cliff Toleman, Ph.D. (2009-2012), *Currently*: Post-doctoral Fellow, Duke University, Durham, NC
- Joel Otero, Ph.D. (2009-2014), *Currently*: Sr. Research Technologist, SJCRH, Memphis, TN
- Matthias Feige, Ph.D. (2010-2015), *Currently*: Assistant Professor, TUM, Munich, Germany
- Jyoti Sinha, Ph.D. (2012-2014)
- Greg Poet, Ph.D. (2015-)
- Kristine Pobre, Ph.D. (2015-)

GRADUATE STUDENTS

- Jueyang Wei (1991-1996), *Currently*: Ophthalmological Surgeon, St. Augustine, FL
- Yanjun Ma (1997-2002), *Currently*: Clinical Oncologist, Nashville, TN
- Ying Shen (1998-2004), *Currently*: Staff Scientist, Regeneron Pharmaceuticals, Tarrytown, NY
- Walid Awad (2003-4)
- Yi Jin (2003-2008), *Currently*: Post-doctoral Fellow, UIC, Chicago, IL
- Nan Liao (2004-2007), *Currently*: Scientist, Amylin Pharmaceuticals Inc., San Diego, CA
- Ethel Periera (2007- 12), *Currently*: Post-doctoral Fellow, Harvard University, Boston, MA
- Tyler Sanford (2009- 12)

Julia Behnke (2010-2015)
Viraj Ichhaporla (2012-)
Christina Oikonomou (2014-)
Rachael Wood (2015-)

UNDERGRADUATE STUDENTS

Christine Dietz (2001- 2002)
Heidi Rademacher (2002-2003)
Emily Furlow (2004-5)
Jennifer Howes (2008)
Karen Frudd (2012)
Fei-lin Scruggs (2013-)

VISITING RESEARCH SCHOLARS:

Frank Striebel, TUM, Munich, Germany (2005)
Yukio Kimata, NAIST, Nara, Japan (2005-2006)
Silvia Masciarelli, DIBIT, Milan, Italy (2006)
Moritz Marcinowski, TUM, Munich, Germany (2006)
Kyung Tae Chung, Pusan, Korea (2011-2012)

Outside Examiner for Ph.D. Thesis

Allison Skalet, University of Pennsylvania, Philadelphia, PA, Feb, 2005.
Ether Obeng, University of Miami, Miami, FL, Aug 10, 2005.
Chantal Christis, University of Utrecht, Utrecht, The Netherlands, May 25, 2007.
Bhupinder Pal, University of Melbourne, Melbourne, Australia, Feb, 2009.
Viorica Lastun, University of Utrecht, The Netherlands, Aug, 2009.

TEACHING

Molecular Cell Biology Course Coordinator - St. Jude, Fall, 1989.
Cell Biology Course, Lecturer (6-7 lectures) - University of Tennessee, spring semester, 1991-2004.
Molecular Biology Course, Lecturer (3 lectures) - University of Tennessee, spring semester, 1994-2001.
Nominated for Student Government Association Executive Council's Excellence in Teaching Award, 1993.
Recipient of Student Government Association Executive Council's Excellence in Teaching Award, 2000.

Recipient of Student Government Association Executive Council's Excellence in Teaching Award, 2003.

St. Jude Graduate Student Work-in-progress seminar (co-organizer) 2006 - 2009.

St. Jude Graduate Student Journal Club for Molecular Oncology and Development track (co-organizer) 2006 - 2009.

GRANT SUPPORT

Past:

- IN-66T (ACS) "Regulation of Membrane and Secretory μ Production", 07/01/80 - 06/30/81, \$5000.
- NIH AI23526 "Developmental Regulation of Ig Transport and Expression", 04/01/87 - 06/30/89; P.I. Linda M. Hendershot, 75% effort; direct costs for 01 year - \$37,500.
- NIH P01 AR20614 "Mott Cells and Their Relationship to Autoimmune Diseases", 01/01/87 - 12/31/88; P.I. Linda M. Hendershot, 20% effort; direct costs for 01 year - \$45,873.
- NIH R01 GM43576 "Biochemical and Functional Characterization of BiP/GRP78", 07/01/89 - 06/30/95; P.I. Linda M. Hendershot, 75% effort, direct costs for 01 year \$128,343.
- NIH R01 GM54068 "Role of Molecular Chaperones in Ig Biosynthesis", 04/01/96 - 03/31/00; P.I. Linda M. Hendershot, 45% effort, direct costs for 01 year - \$134,096.
- NCI T32 CA09346 "Training in the Biology of Cancer", 02/07/95 - 11/30/99; P.I. Linda M. Hendershot, 10% effort, direct costs for 01 year - \$182,294.
- NIH R13 DK55362-01 "Conference on Protein Folding/Transport in the Secretory Pathway", 01/15/99 - 12/31/99; P.I. Linda M. Hendershot.
- NIH R01 GM54068 "Role of Molecular Chaperones in Ig Biosynthesis", 04/01/00 - 03/31/04; P.I. Linda M. Hendershot, 50% effort, direct costs for 08 year - \$198,000.
- NCI P01 CA23099 "Studies of Childhood Solid Tumors", 07/01/02 - 06/30/07; P.I. Peter Houghton, Project 4 (co-project leader), 20% effort, direct costs for 01 year - \$70,655.
- NIH R01 GM54068 "Role of Molecular Chaperones in Ig Biosynthesis", 04/01/04 - 03/31/09; P.I. Linda M. Hendershot, 35% effort, direct costs for 09 year - \$225,000.
- NIH R13 AG034711-01 "From Unfolded Proteins in the ER to Disease", 06/07/09 - 06/12/09; P.I. Linda M. Hendershot, direct costs - \$40,000.
- NCI P01 CA23099 "Studies of Childhood Solid Tumors", 07/01/07 - 06/30/12; P.I. Linda M. Hendershot, 5% effort, direct costs for year 31 - \$1,085,602
- Project 3 "Unfolded Protein Response in Drug Sensitivity and Resistance (Project Leader), 20% effort, direct costs for year 31 - \$233,074.
- NIH R03 AI097733-01A1 "Novel mechanisms of TCR Quality Control", 04/01/12 - 03/31/14; P.I. Linda M. Hendershot, 10% effort, direct costs for year 1 - \$50,000.

Current:

- NIH R01 GM54068 "Role of Molecular Chaperones in Ig Biosynthesis", 07/01/15 - 06/30/19; P.I. Linda M. Hendershot, 35% effort, direct costs for year 18 - \$240,000.

