BIOGRAPHICAL SKETCH **SEPTEMBER 2007**

NAME	POSITION TITLE
Lothar Hennighausen, Ph.D.	Chief, Laboratory of Genetics and Physiology

INSTITUTION AND LOCATION	DEGREE	YEAR(s)	FIELD OF STUDY
University of Marburg, Germany	BS	1977	Biology
University of Köln, Germany	Diploma	1979	Biology
University of Köln, Germany	Doctorate	1982	Genetics
Harvard Medical School	Postdoctoral	1983 - 1985	Genetics

Positions

1985 – 1991	National Institute of Diabetes and Digestive and Kidney Diseases Principal Investigator and Group Leader
1992 – 1993	Max-Planck-Institute for Biophysical Chemistry, Göttingen, Germany Visiting Scientist and Humboldt Fellow
1991 – 1997	National Institute of Diabetes and Digestive and Kidney Diseases Chief, Developmental Biology Section
2002 – 2003	Max-Planck-Institute for Biochemistry, Martinsried - München, Germany Humboldt Scholar and Visiting Professor
1997 – present	National Institute of Diabetes and Digestive and Kidney Diseases National Institutes of Health, Bethesda, Maryland Senior Biomedical Research Service Chief, Laboratory of Genetics and Physiology
2007 – present	Mercator Professor, Technical University of Munich, Germany

Prizes, Fellowships and Honored Lecture Invitations (selection)

- Mercator Professorship, Deutsche Forschungsgemeinschaft (2007)
- Distinguished Lecture Series, Center for Cancer Immunology, MD Anderson (2005)
- Seminars in Oncology, Dana Farber/Harvard Cancer Center (2005)
- Equal Employment Opportunity Special Achievement Award, National Institutes of Health (2004)
- Olof Pearson Memorial Lecture, Case Western Reserve University (2003)
- Presidential Lecture, Society for the Study of Reproduction (2002)
- Alexander-von-Humboldt Research Award (2001)
- Keynote Address, Mouse Models for Prostate Cancer, The Jackson Laboratory (2001)
- Keynote Address, American Society for Urology, Houston (2000)
- Keynote Address, Massachusetts Breast Cancer Coalition, Boston University School of Medicine (1996)
- Fellowships from EMBO, Studienstiftung des Deutschen Volkes, Deutsche Forschungsgemeinschaft, and the Alexander-von-Humboldt Foundation
- Honors Program in Molecular Biology, University of Edinburgh (Scotland) (foreign study: 1977-1978)

Professional Experience and Service

- Organizer of conferences and workshops at the NIH and the Jackson Laboratory
- Member, Mouse Model Consortium for Human Cancer
- Teaching at Harvard Medical School, Einstein College of Medicine and the Marine Biology Center at Woods Hole
- Editorial Board (past and present) of *Molecular and Cellular Biology, Molecular Endocrinology, Endocrinology, Cell Growth and Differentiation, Molecular Biology Reports, Transgenic Research. Oncogene* and *Breast Cancer Research*
- Review Panels at the NCI, NIDDK, the DOD Breast Cancer Initiative, the NCI of Canada, the German Leibnitz Society and the Academy of Finland

Dr. Hennighausen has trained more than 50 scientists, who hold positions in Academia and Industry, in investment and consulting firms or established their own enterprises.

Publications (Selected ones out of more than 210)

- Cui, Y., Hosui, A., Sun, R., Shen, K., Gavriloval, O., Chen, W., Cam, M.C., Gao, B., Robinson, G.W. and **Hennighausen**, L. (2007) Loss of signal transducer and activator of transcription 5 leads to hepatosteatosis and impaired liver regeneration. Hepatology, 46, 504-513.
- Klover, P. and **Hennighausen**, L. (2007) Postnatal body growth is dependent on the transcription factors Stat5a/b in muscle: a role for autocrine / paracrine IGF-1. Endocrinology, 148, 1489-1497.
- Cain, J.A., Xiang, Z., O'Neal, J., Kreisel, F., Colson, A.L., Luo, H., **Hennighausen**, L. and Tomasson, M.H. (2007) Myeloproliferative disease induced by *TEL-PDGFRB* displays dynamic range sensitivity to *Stat5* gene dosage. Blood, 109, 3906-3914.
- Buono, K.D., Robinson, G.W., Martin, C., Shi, S., Stanley, P., Tanigaki, K., Honjo, T. and **Hennighausen**, L. (2006) The canonical Notch/RBP-J pathway controls the balance of cell lineages in pregnant mammary epithelium. Developmental Biology, 565-580.
- **Hennighausen**, L. and Robinson, G.W. (2005) Information networks in the mammary gland. Nature Reviews, Molecular Cell Biology, 6, 715-725.
- Cui, Y., Riedlinger, G., Miyoshi, K., Tang, W., Li, C., Deng, C.X., Robinson, G.W. and **Hennighausen**, L. (2004) Inactivation of Stat5 in mouse mammary epithelium during pregnancy reveals distinct functions in cell proliferation, survival and differentiation. Mol. Cell. Biol., 24, 8037-8047.
- Bry, C., Maass, K., Miyoshi, K., Willecke, K., Ott, T., Robinson, G.W. and **Hennighausen**, L. (2004) Loss of connexin 26 in mammary epithelium during early but not during late pregnancy results in unscheduled apoptosis and impaired development. Dev. Biol., 267, 418-429.
- Shillingford, J.M., Miyoshi, K., Robinson, G.W., Grimm, S.L., Rosen, J.M., Neubauer, H., Pfeffer, K. and **Hennighausen**, L. (2002) Jak2 is an essential tyrosine kinase involved in pregnancy-mediated development of mammary secretory epithelium. Mol. Endo. 16, 563-570.
- Miyoshi, K., Shillingford, J.M., Smith, G.H., Grimm, S.L., Wagner, K.U., Oka, T., Rosen, J.M., Robinson, G.W. and **Hennighausen**, L. (2001) Signal transducer and activator of transcription 5 (Stat5) controls the specification and proliferation of mammary alveolar epithelium, J. Cell Biol., 155, 531-542.
- **Hennighausen**, L. and Robinson, G.W. (2001) Signaling pathways in the mammary gland. Developmental Cell, 1, 467-475.
- Gallego, M. I., Binart, N., Robinson, G.W., Okagaki, R., Coschigano, K., Perry, J., Kopchick, J., Oka, T., Kelly, P.A. and **Hennighausen**, L. (2001) Prolactin, growth hormone and epidermal growth factor activate Stat5 in different cell types of the mammary gland and exert overlapping but distinct developmental effects. Developmental Biology, 229, 163-175.
- Wagner K-U., Estefania C., Rucker, E., Riedlinger, G, Broussard, C., Schwartzberg, P.L., Siebenlist, U., **Hennighausen**, L. (2000) Conditional deletion of the bcl-x gene from erythroid cells results in hemolytic anemia and profound splenomegaly. Development, 127, 4949-4958.
- Rucker, E., Dierisseau, P., Wagner, K.-U., Garrett, L., Wynshaw-Boris, A., Flaws, J. and **Hennighausen**, L., (2000). Bcl-x and Bax regulate mouse primordial germ cell survival and apoptosis during embryogenesis. Mol. Endo. 7, 1038-1052.
- Wagner, K.-U., Wall, R.J., St-Onge, L., Gruss, P., Garrett, L., Wynshaw-Boris, A., Li, M., Furth, P.A. and **Hennighausen**, L. (1997) Cre mediated gene deletion in the mammary gland. Nucleic Acids. Res. 25, 4323-4330.
- Liu, X., Robinson, G.W., Wagner, K.-U., Garrett, L., Wynshaw-Boris, A. and **Hennighausen**, L. (1997) Stat5a is mandatory for adult mammary gland development and lactogenesis. Genes and Dev. 11, 179-186.
- Ewald, D., Li, M., Efrat, S., Auer, G., Wall, R.J., Furth, P.A. and **Hennighausen**, L. (1996) Time-sensitive reversal of hyperplasia in transgenic mice expressing SV40 T antigen. Science 273, 1384-1386.
- Robinson, G.W., McKnight, R.A., Smith, G.H. and **Hennighausen**, L. (1995) Mammary epithelial cells undergo differentiation in cycling virgins but require pregnancy for the establishment of terminal differentiation. Development 121, 2079-2090.
- Furth, P.A., St. Onge, L., Boger, H., Gruss, P., Gossen, M., Kistner, A., Bujard, H. and **Hennighausen**, L. (1994) Temporal control of gene expression in transgenic mice by a tetracycline responsive promoter. Proc. Natl. Acad. Sci. U.S.A. 91, 9302-9306.
- Gordon, K., Lee, E., Vitale, J.A., Smith, A.E., Westphal, H. and **Hennighausen**, L. (1987) Production of human tissue plasminogen activator in transgenic mouse milk. BIO/TECHNOLOGY 5, 1183-1187.
- **Hennighausen**, L., Siebenlist, U., Danner, D., Leder, P., Rawlins, D., Rosenfeld, P. and Kelly, T. (1985) High affinity binding site for a specific nuclear protein in the human IgM gene. Nature 314, 289-292.
- **Hennighausen**, L.G. and Sippel, A.E. (1982) Characterization and cloning of the mRNAs specific for the lactating mouse mammary gland. Eur. J. Biochem. 125, 131-141.

Patents

US #6,727,405B1 Transgenic animals secreting desired proteins into their milk

US #6,361,991 Targeting gene expression to living tissue using jet injection

US #6,262,336 Expression of a heterologous protein C in mammary tissue of transgenic animals using the long whey acidic protein gene promoter mammals proteins in milk of transgenic animals

US #5,998,382 Transfer of genes into tissue using jet injection

US # 5,831,141 Expression of a heterogeneous polypeptide in mammary tissue of mammals proteins in milk of transgenic animals

EP #0264166B1 Production of foreign proteins in milk of transgenic animals