

CURRICULUM VITAE

Nancy Anne Wall

Department of Biology
Lawrence University
Appleton, WI 54912
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PERSONAL

Date of birth April 10, 1961
Nationality United States

EDUCATION

1989-1994 Vanderbilt University, Nashville, TN.
Ph.D., Department of Cell Biology
1986-1988 University of South Carolina, Columbia, S.C.
M.A. biology education
1979-1983 Presbyterian College, Clinton, S.C.
B.S. biology

RESEARCH

1995-present Associate Professor of Biology, Lawrence University. Study of the molecular basis of development using zebrafish embryos as a model system. Interests include not only exploring the fundamental molecular basis of development but also understanding how the molecular basis of development can provide insight into mechanisms of evolutionary change. Current projects are focused on the *vg1/mgdf1* control of left-right asymmetry and the effects of nanoparticles on embryonic development

1994-1995 Postdoctoral research, Vanderbilt University, Dr. Brigid Hogan, mentor. Using the chick embryo as a model system, demonstrated that several of the key genes involved in limb bud development are also expressed in the branchial arches. Additionally, investigated the role of the TGF- β related gene, DVR-4 (BMP-4), in neural development by misexpressing this gene under the control of a heterologous promoter in transgenic mice.

1989-1994 Doctoral dissertation, Vanderbilt University, Dr. Brigid Hogan, advisor. Studied the role of the TGF- β related growth factor, DVR-6 (BMP-6), in embryonic development of the mouse. Emphasis was on the expression and effects of DVR-6 in the developing nervous system. In addition, produced a polyclonal antibody against Hoxb-5(2.1) and used it to study expression and biosynthesis of this homeoprotein *in vivo*.

1989 Research assistant, Medical School of South Carolina, Columbia, S.C. Assisted in research examining the effects of progesterone on pituitary development in hamsters and on growth of MCF-7, breast carcinoma cells.

ADMINISTRATIVE APPOINTMENTS

2006-present Associate Dean of Faculty, Lawrence University.

2004-2006 Biology Department Chair, Lawrence University

PUBLICATIONS

Lui, V.C.; Lui, V.C.H.; Cheng, W.W.; Leon, T.Y.; Lau, D.K.; Garcia-Barcelo, M.M.; Miao, X.P.; Kam, M.K.; So, M.T.; Chen, Y.; Wall, N.A.; Sham, M.H.; Tam, P.K.H. (submitted) Perturbation of Hoxb5 signaling in vagal neural crests down-regulates Ret leading to hypoganglionosis in mice.

Gastroenterology.

Smith, S.B., Wall, N.A., and Hall, D.J. (submitted) The Effects of Parthenolide in a Murine Asthma Model. **Acta Pharmacological Sinica.**

Wall, N.A., Craig, E., Labosky, P.A., and Kessler, D.S. (2000) Mesendoderm induction and reversal of left-right pattern by mouse Gdf1, a Vg1-related gene. **Developmental Biology** 227:495-509.

Wall, N.A. And Hogan, B.L.M. (1995) Expression of bone morphogenetic protein-4 (BMP-4), bone morphogenetic protein-7 (BMP-7), fibroblast growth factor-8 (FGF-8), and sonic hedgehog (SHH) during branchial arch development in the chick, **Mechanisms of Development**, 53:383-392.

Barnes, J., Anthony, C.T., Wall, N.A. and Steiner, M.S. (1995) Bone Morphogenetic Protein-6 Expression in Normal and Malignant Prostate, **World Journal of Urology**, 13(6): 337-343.

Wall, N.A. and Hogan, B.L.M. (1994) TGF β -related genes in development, **Current Opinion in Genetics and Development**, 4:517-522.

Drosdorf, V., Wall, N.A., and Pledger, W.J. (1994) Expression and growth inhibitory effect of DVR-6 suggest a regulatory role in keratinocyte differentiation, **Proceedings of the National Academy of Sciences**, 91:5528-5532.

Wall, N.A., Blessing, M., Wright, C.V.E., and Hogan, B.L.M. (1993) Biosynthesis and *in vivo* localization of the Decapentaplegic-Vg related protein, DVR-6 (Bone Morphogenetic Protein-6), **Journal of Cell Biology**, 120(2):493-502.

Kuratani, S.C. and Wall, N.A. (1992) Expression of Hox 2.1 protein in a restricted population of the cephalic neural crest, **Developmental Dynamics**, 195(1):15-28.

Wall, N.A., Jones, C.M., Wright, C.V.E., and Hogan, B.L.M. (1992) Expression and modification of Hox 2.1 protein in mouse embryos, **Mechanisms of Development**, 37:111-120.

ABSTRACTS

McLeod, E., Gray, L., and Wall, N.A. (2005) PCR mutagenesis of mGDF1 (a Vg1 ortholog?) for functional analysis in zebrafish. **Pew Midstates Science and Mathematics Consortium Undergraduate Research Symposium in the Biological Sciences**

Nyholm, M, Wall, N., and Grinblat, Y. (2005) Zic gene function during zebrafish brain development: upstream and downstream of the *zic2/5* gene pair, **45th Annual Midwest Developmental Biology Meeting.**

Nyholm, M, Samuels, T., Gilhouse, M., Wall, N., and Grinblat, Y. (2004) Functional analysis of *zic2* and *zic5* in zebrafish. **6th International Conference on Zebrafish Development and Genetics.**

Pinckney, H., Carlson, E. and Wall, N.A. (1999) Expression of bone morphogenetic protein-4 (BMP-4), bone morphogenetic protein-7 (BMP-7), fibroblast growth factor-8 (FGF-8), and sonic hedgehog (SHH) in chick lung development. **Pew Midstates Science and Mathematics Consortium Undergraduate Research Symposium in the Biological Sciences.**

Harris, D, Weyers, J. and Wall, N.A. (1997) DNA sequence analysis of the putative chick Evi-1 gene. **Associated Colleges of the Midwest Minority Student Research Symposium.**

Kumar, A. and Wall, N.A. (1997) Utilizing two staining techniques to determine correlation between apoptosis and gene expression in whole chick embryos. **Pew Midstates Science and Mathematics Consortium Undergraduate Research Symposium in the Biological Sciences.**

Barnes, J.D., Anthony, C.T., Wall, N.A., and Steiner, M.S. (1994) Expression of bone morphogenetic protein-6 (BMP-6) in normal rat prostate and in the Dunning rat prostate adenocarcinoma model, **Society for Basic Urologic Research.**

INVITED TALKS

2006 Vanderbilt University, Science Career Symposium, Nashville, TN

2005 Linda Hall Library, Kansas City, MO

2004 Davidson College, Davidson, NC

2001 Vanderbilt University, Science Career Symposium, Nashville, TN

2000 University of Wisconsin, Department of Anatomy, Madison, WI

1998 Winchester Academy, Waupaca, WI

1998 University of Wisconsin-Stevens Point, Department of Biology, Stevens Point, WI

PROFESSIONAL ORGANIZATIONS

Society for Developmental Biology

Project Kaleidoscope, Faculty 21

Association for the Advancement of Science

Association of American University Women