
BIOGRAPHICAL SKETCH

NAME	POSITION TITLE
Nancy Ellen Davidson, M.D.	Professor of Oncology

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)*

INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
Wellesley College, Wellesley, MA	B.A.	1975	Molecular Biology
Harvard Medical School, Boston, MA	M.D.	1979	Medicine
University of Pennsylvania, Philadelphia, PA		1979-80	Intern, Internal Medicine
Johns Hopkins Hospital, Baltimore, MD		1980-82	Resident, Internal Medicine
National Cancer Institute, Bethesda, MD		1982-85	Medical Staff Fellow

A. Position and Honors

- 1985-1987 Guest Worker, Medical Breast Cancer Section, Medicine Branch, National Cancer Institute, Bethesda, Maryland
- 1985-1986 Research Assistant Professor, Department of Pharmacology, Uniformed Services University of Health Sciences, Bethesda, Maryland
- 1986-1999 Assistant and Associate Professor of Oncology, The Johns Hopkins University School of Medicine, Baltimore, Maryland
- 1994-present Director, Breast Cancer Research Program, The Johns Hopkins Oncology Center, Baltimore, Maryland
- 1995-present Breast Cancer Research Chair in Oncology, The Johns Hopkins University School of Medicine, Baltimore, Maryland
- 1997-present Joint Appointment, Department of Biochemistry and Molecular Biology, Johns Hopkins Bloomberg School of Public Health, Baltimore, Maryland
- 1999-present Professor of Oncology, The Johns Hopkins University School of Medicine, Baltimore, Maryland

Phi Beta Kappa (1974); Sigma Xi (1975); American Society of Clinical Oncology Young Investigator Award (1986-87); American Cancer Society Clinical Oncology Career Development Award (1988-91); Merck Clinician Scientist Award (1989-90); Susan G. Komen Foundation Award (1987); Research Award, American Cancer Society - Maryland Chapter, (1998); Brinker International Award for Breast Cancer Research, (1999); Wellesley College Alumnae Achievement Award, (2000); William L. McGuire Memorial Lecture (2001)

External Committees:

- Member, Reproductive Endocrinology Study Section, National Institutes of Health (1993-1997)
- Member, Board of Directors, American Society and Clinical Directory (1996-1999)
- Co-Chair, Progress Review Group for Breast Cancer, National Cancer Institute (1997-1998)
- Chair, Breast Committee, Eastern Cooperative Oncology Group (1997-2002)
- Member, Board of Directors, American Association of Cancer Research (2002-Present)

Editorial Boards:

Journal of Clinical Oncology (1993-1995), Cancer Research (1995-present), The Breast Journal (1995-present), The Breast (1996-present), American Journal of Medicine (1997-present), Clinical Cancer Research (1999-present)

B. Selected peer-reviewed publications (1998-present)

- Nass, S.J. Hahm, H.A. and Davidson, N.E. Breast cancer biology blossoms in the clinic. *Nature Medicine*, 4:761, 1998.
- Lapidus, R.G., Nass, S.J., and Davidson, N.E. The loss of estrogen and progesterone receptor gene expression in human breast cancer. *J. Mammary Gland Biol. Neoplasia*, 3:85, 1998.
- Ferguson, A.T., Lapidus, R.G., and Davidson, N.E. Demethylation of the progesterone receptor CpG island is not required for progesterone receptor gene expression. *Oncogene*, 17:577, 1998.
- Lapidus, R.G., Nass, S.J., Butash, K.A., Parl, F.F., Weitzman, S.A., Graff, J.G., Herman, J.G. and Davidson, N.E. Mapping of ER gene CpG island methylation by methylation specific PCR. *Cancer Res.*, 58:2515, 1998.
- Hahm, H.A. and Davidson, N.E. Apoptosis in the mammary gland and breast cancer. *Endocrine-Related Cancer*, 5:199, 1998.
- Kottke, T., Blajeski, A.L., Martins, M., Mesner, Jr., P.W., Davidson, N.E., Earnshaw, W.C. Armstrong, D.K. and Kaufmann, S.H. Comparison of paclitaxel, 5-fluoro-2-deoxyuridine-, and epidermal growth factor-induced apoptosis: evidence for EGF-induced anoikis. *J. Biol. Chem.*, 274:15927, 1999.
- Davidson, N.E., Hahm, H.A., McCloskey, D.E., Woster, P.M. and Casero, Jr., R.A. Clinical aspects of cell death in breast cancer: the polyamine pathway as a new target for treatment. *Endocrine-Related Cancer*, 6:69, 1999.
- Recht, A., Gray, R., Davidson, N.E., Fowble, B.L., Solin, L.J., Cummings, F.J., Falkson, G., Falkson, H.C., Taylor, IV, S.G. and Tormey, D.C. Local-regional failure ten years following mastectomy and adjuvant chemotherapy with or without tamoxifen without irradiation: experience of the Eastern Cooperative Oncology Group. *J. Clin. Oncol.*, 17:1689, 1999.
- Nass S.J., Ferguson A.T., El-Ashry, D., Nelson, W.G. and Davidson, N.E. Expression of DNA methyltransferase (DMT) and the cell cycle in human breast cancer cells. *Oncogene*, 18:7453, 1999.
- McCloskey, D.E., Woster, PM, Casero, Jr. R.A. and Davidson, N.E. Effects of the polyamine analogs CPENSpm and CHENSpm in human prostate cancer cells. *Clinical Cancer Res.*, 6:17, 2000
- Wolff, A.C. and Davidson, N.E. Primary systemic therapy in breast cancer. *J. Clin. Oncol.*, 18:1558, 2000.
- Jackisch, C., Hahm, H.A., Tombal, B., McCloskey, D., Butash, K., Davidson, N.E. and Denmeade, S.R. Delayed micromolar elevation in intracellular calcium precedes induction of apoptosis in thapsigargin-treated breast cancer cells. *Clin Cancer Res.*, 6:2844, 2000.
- Davidson, N.E. Combined endocrine therapy for breast cancer - new life for an old idea? *J. Natl. Cancer Inst.*, 92:859, 2000.
- Hahm, H.A., Armstrong D.K., Chen, T-L., Grochow, L.B., Goodman, S.N., Davidson, N.E. and Kennedy, M.J. Novobiocin in combination with high-dose chemotherapy for the treatment of advanced breast cancer: a phase 2 study. *Biology of Blood and Marrow Transplantation*, 6:335, 2000.
- Nass, S.J., Herman, J.G., Gabrielson, E., Iversen, P.W., Parl, F.F., Davidson, N.E. and Graff, J.R. Aberrant methylation of the estrogen receptor and E-cadherin 5' CpG islands increases with malignant progression in human breast cancer. *Cancer Res.*, 60:4346, 2000.
- Yang X, Ferguson A.T., Nass, S.J., Phillips D.L., Butash K.A., Wang S.M., Herman J.G., Davidson, N.E. Transcriptional activation of estrogen receptor α in human breast cancer cell by histone deacetylase inhibition. *Cancer Res.*, 60:6890, 2000.

Hahm, H.A., Dunn, V.R., Butash, K.A., Devereux, W.L., Woster, P.M., Casero, R.A., Jr., and Davidson, N.E. Combination of standard cytotoxic agents with polyamine analogs in the treatment of breast cancer cell lines Clin. Cancer Res., 7:391, 2001.

Evron, E., Dooley, W.C., Umbricht, C.B., Rosenthal, D., Sacchi, N., Gabrielson, E., Soito, A.B., Hung, D.T., Ljung, B-M., Davidson NE and Sukumar, S. Detection of breast cancer cells in ductal lavage fluid bymethylation-specific PCR. The Lancet 357:1335, 2001.

Yan, L., Yang, X., and Davidson, N.E. Role of DNA methylation and histone acetylation in steroid receptor expression in breast cancer. J. Mammary Gland Biol. Neoplasia 6:183, 2001.

Yang, X., Yan, L., and Davidson, N.E. DNA methylation in breast cancer. Endocrine-Related Reviews 8:115, 2001.

Dees, E.C and Davidson, N.E. Ovarian ablation and adjuvant therapy for breast cancer. Seminars in Oncology 28:322, 2001.

Armstrong, D.K. and Davidson, N.E. Dose intensity for breast cancer. Oncology 15:701, 2001.

Yang, X., Phillips, D.L., Ferguson, A.T., Nelson, W.G., Herman, J.G., and Davidson, N.E. Synergistic activation of functional estrogen receptor α by DNMT and HDAC inhibitor in human estrogen receptor α -negative breast cancer cells. Cancer Res., 61:7025, 2001.

Davidson, N.E. Ovarian ablation as adjuvant therapy for breast cancer. J. Natl. Cancer Inst. Monograph, 30:67-71, 2001.

Wolff, A.C. and Davidson, N.E. Use of SERMs for the adjuvant therapy of early-stage breast cancer. Ann N Y Acad Sci. 9490:80-88, 2001.

Davidson, N.E. and Levine, M.E. Breast Cancer Consensus Meetings: vive la difference? J Clin Oncol, 20: 1719, 2002.

Davidson. N.E. and Helzlsouer, K.J. Good news about the oral contraceptive pill. N Engl J Med, 346:2078, 2002.