Curriculum Vitae - Nancy J. Phillips, M.D.

Personal History: Date and place of birth: 9/8/56, New York, New York, USA. U.S. citizen

Education:

1977	B.A.	Mount Holyoke College, South Hadley, MA
1984	M.D.	Medical College of Ohio, Toledo, OH

Postgraduate training and employment:

1997-present	Associate Professor, Department of Pathology, St. Louis University School of Medicine, St. Louis, MO; staff pathologist, St. Louis University Hospital
1990-1996	Assistant Professor, Department of Pathology, St. Louis University School of Medicine, St. Louis, MO; staff pathologist, St. Louis University Hospital
1989-1990	Instructor, Gynecologic Pathology, Washington University School of Medicine, St. Louis, MO (fellowship)
1988-1989	Assistant, Gynecologic Pathology, Division of Surgical Pathology, Department of Pathology, Washington University School of Medicine, St. Louis, MO (fellowship)
1987-1988	Resident, Surgical Pathology, Department of Pathology, Washington University School of Medicine, St. Louis, MO
1985-1987	Postdoctoral fellow, Dr. Joseph M. Davie, Department of Microbiology and Immunology, Washington University School of Medicine, St. Louis, MO
1984-1985	Resident, Anatomic Pathology, Department of Pathology, Washington University School of Medicine, St. Louis, MO
1977-1980	Research assistant, Division of Cell Biology, Children's Hospital Research Foundation, Cincinnati, OH

Certification, licensure, hospital staff privileges:

1988	Missouri license R8H53
1988	Certification in Anatomic Pathology, American Board of Pathology
1990-present	St. Louis University Hospital

Awards:

1983	Alpha Omega Alpha Honor Medical Society
1984	Pathology Award, Microbiology and Immunology Award, Medical College of Ohio
1984	Excellence in Academic Achievement Award, American Medical Women's Association
1985-1987	NIH T32 AI071613-09 training grant for postdoctoral fellowship in lab of J. M. Davie
1998	St. Louis University Pathology Resident’s Teaching Award

Professional Societies:

American Society for Human Genetics
American Association for Cancer Research

U.S. and Canadian Academy of Pathology

Grants held as principal investigator :

1991 Monsanto Corp., used equipment donation, $1,500.00 value

1992 American Cancer Society CRIC institutional grant, $10,000.00, one year

1993 Gynecologic Oncology Group/NCI institutional grant, $12,500.00 direct, one year

1996-1999 American Cancer Society VM-115 "A Novel Tumor Suppressor Gene in Early Ovarian Cancer", $72,000.00 direct costs for one year, non-competitive renewal 1997-1998; $72,000.00 direct costs for one year; $36,000.00 direct costs for one year, non-competitive renewal 1998-1999

1999-2002 Gustavus and Louise Pfeiffer Research Foundation, 75,000.00 direct costs each year for three years

2003 SLU Interim Research Support Fund: $25,000.00.

2005-2008 Susan G. Komen Breast Cancer Foundation, "A candidate breast and ovarian tumor suppressor gene on chromosome 17p13.3", $200,000.00 direct costs over 3 years.

A variety of unsuccessful applications.

Bibliography:

I. Refereed Articles

1. Wee, E., **Phillips, N.,** Babiarz,B., Zimmerman,E. Palate morphogenesis: effects of cholinergic agonists and antagonists on palate rotation in embryo culture. J. Embryol. Exp. Morph. 58: 177-193, 1980.

2. Zimmerman, E., Wee, E., **Phillips, N.,** Roberts, N. Presence of serotonin in the palate just prior to shelf elevation. J. Embryol. Exp. Morph. 64: 233-250, 1981.

3. **Phillips, N.J.,** and Davie, J.M. Idiotope structure and genetic diversity in anti-streptococcal group A carbohydrate antibodies. J. Immunol. 145:915-925, 1990.

4. Gersell, D.J., **Phillips, N.J.,** and Beckerman, K. Chronic chorioamnionitis: a clinicopathologic study of 17 cases. Int. J. Gynecol. Pathol. 10: 217-219, 1991.

5. Stanley, S.L., Foster, L., **Phillips, N.J.** Molecular analysis of carbohydrate antigen-induced monoclonal IgM anti-IgG antibodies (rheumatoid factors). Molec. Immunol. 29 : 453-461, 1992.

6. **Phillips, N.J.,** Ziegler, M.R., Saha, B.K., Xynos, F.P. Allelic loss on chromosome 17 in human ovarian cancer. Int. J. Cancer 54 : 85-91, 1993.

7. Radford, D.M., Fair, K.L., **Phillips, N.J.,** Ritter, J.H., Steinbrueck, T., Holt, M.S., and Donis-Keller, H. Allelotyping of ductal carcinoma-in-situ (DCIS) of the breast: deletion of loci on 8p, 13q, 16q, 17p, and 17q. Cancer Res.55: 3399-3406, 1995.

8. Radford, D.M., **Phillips, N.J.,** Fair, K.L., Ritter, J.H., Holt, M., Donis-Keller, H. Allelic loss and the progression of breast cancer. Cancer Res. 55: 5180-5183, 1995.

9. Radford, D.M., Holt, M.S., Ritter, J.H., **Phillips, N.J.,** Fair, K.L., DeSchryver, K., Schuh, M.E., and Donis-Keller, H.R. Allelic loss on chromosome 8p occurs early in the development of breast carcinoma. Surgical Forum 46: 553-555, 1995.

10. **Phillips, N.J.,** Ziegler, M.R., Radford, D.R., Fair, K.L., Steinbrueck, T., Xynos, F.P., Donis-Keller, H. Allelic deletion on chromosome 17p13.3 in early ovarian cancer. Cancer Res. 56: 606- 611, 1996.
11. **Phillips, N.J.,** Ziegler, M.R., Deaven, L.L. A cDNA from the ovarian cancer critical region of deletion on chromosome 17p13.3. Cancer Letters 102: 85-90, 1996.
12. Poulos, J., Presti, M., **Phillips, N.J.,** Longo,W. Lymphatic Cyst of the Colon. Dis. Colon and Rectum 40: 366-369,1997.
13. Neuschwander-Tetri,B., Ramrakhiani, S., Isley, W., Oki, J., Quiason, S., **Phillips, N.,** Brunt, E. Troglitazone-induced Hepatic Failure. Annals Internal Med. 129: 38-41, 1998.
14. Wang, JC, Radford, DM, Holt, MS, Helms, C, Goate, A, Brandt, W, Parik , M, **Phillips, NJ**, DeSchryver, K, Schuh, ME, Fair, KL, Ritter, JH, Marshall, P, Donis-Keller, H. Sequence-ready contig for the 1.4-cM ductal carcinoma in situ loss of heterozygosity region on chromosome 8p22-p23. Genomics. 60:1-11, 1999.
15. Majumder M., Ghosh AK., Steele R., Zhou XY., **Phillips NJ**., Ray R., Ray RB. Hepatitis C virus NS5A protein impairs TNF-mediated hepatic apoptosis, but not by an anti-FAS antibody, in transgenic mice. Virology. 294: 94-105, 2002.
16. Kelemen PR., Lowe V., **Phillips N.** Positron emission tomography and sentinel lymph node dissection in breast cancer. Clinical Breast Cancer. 3: 73-7, 2002.
17. Alahdab MT, Alvarez Aquino FG, **Phillips NJ**, Hauptman P. Malignant Fibrous Histiocytoma of the Lung Presenting as Bronchial Obstruction in a Heart Transplant Recipient. J. Heart Lung Transpl. 21:1140-1143,2002.
18. Majumder M. Steele R. Ghosh AK. Zhou XY. Thornburg L. Ray R. **Phillips NJ**. Ray RB. Expression of hepatitis C virus non-structural 5A protein in the liver of transgenic mice. FEBS Letters. 555: 528-532, 2003.
19. Thudi KR, Kreikemeier JT, **Phillips NJ**, Salvalaggio PR, Kennedy DJ, Hayashi PH. Cat scratch disease causing hepatic masses after liver transplant. Liver International 27: 145-148, 2007.
20. Collins BT, **Phillips NJ**, Hsueh EC. Fine needle aspiration biopsy of splenic hamartoma with bizarre stromal cells: a case report. Acta Cytol.: in press, 2007.
21.Hsu HY, **Phillips NJ**, Smith M. SecondaryAmyloidosis in The Hydrops Lesion of A Patient with Pellucid Marginal Degeneration. Cornea: 26(8):992-994, 2007.

II. Abstracts:

1. **Phillips, N.J.,** Lutz, C.T., Davie, J.M. Localization of a public idiotope in the anti-streptococcal group A carbohydrate response. Fed. Proc. 46: 487, 1987 (FASEB 1987, presented by **NJP** as poster and published as article #3 above).
2. Ziegler, M., Xynos, F., Gersell, D., **Phillips, N.** Loss of heterozygosity on chromosome 17 in human ovarian carcinoma. Genetics and Molecular Biology of Breast Cancer (Cancer Cells 9): 83A, Cold Spring Harbor Laboratory, 1992 (presented by **NJP** as poster and published as article #6 above)
3. **Phillips, N.J.,** Ziegler, M.R., Radford, D.M., Xynos, F.P. Allelic loss on chromosome 17p13.3 in early ovarian cancer. Am. J. Hum. Genet. 53: 53A, 1993 (presented by **NJP** as poster at 1993 Am. Soc. Human Genetics annual meeting and published as article #10 above).
4. Radford, D.M., Fair, K., Ritter, J.H., **Phillips, N.,** Thompson, A.M., Steinbrueck, T., Holt, M., Wallace, M., Wells, S.A., Donis-Keller, H. Chromosomal regions implicated in

the development of breast cancer. Surgical Forum 1993. (presented by DMR as talk at 1993 Am. College of Surgeons annual meeting and published as part of article #7 above).
5. Radford, D.M., Fair, K., Ritter, J., **Phillips, N.,** Donis-Keller, H. Allelotyping of ductal carcinoma-in-situ (DCIS) of the breast. Proc. Am. Assoc. Cancer Res. 35: 572, 1994 (presented by DMR and published as part of article #7 above).
6. Radford, D.M., Fair, K., Ritter, J., **Phillips, N.,** Donis-Keller, H. Evidence for the early involvement of a tumor suppressor gene on 16q in the development of breast cancer. Soc. Surgical Oncology 47: 109A, 1994 (presented by DMR as talk and published as part of article #7 above).
7. Radford, D.M., Fair, K., **Phillips, N.,** Donis-Keller, H. Chronology of genetic changes in the progression of breast cancer. Proc. Am. Soc. Clin. Oncol. 13: 127, 1994 (presented by DMR and published as article #8 above).
8. **Phillips, N.J.,** Ziegler, M.R. Infrequent HIC-1 germline mutations in ovarian carcinomas. Cancer Genetics and Tumor Suppressor Genes 2: 217A, Cold Spring Harbor Laboratory, 1996 (presented as poster, manuscript in preparation #1 above).
9. Heiberg, E.V., Perman, W.H., **Phillips, N.J.,** Herrmann, V. Dynamic 3D half-Fourier contrast-enhanced MRI of both breasts and axilla in evaluating patients with suspected breast cancer. International Magnetom Vision User Conference 2, Rotterdam, 1997 (presented by EVH).
10. **Phillips, N.J.,** Ziegler, M.R. DPH2L1, positional candidate for an ovarian carcinoma tumor suppressor gene, lacks mutations. Cancer Genetics and Tumor Suppressor Genes 4: 182A, Cold Spring Harbor Laboratory, 1998 (presented as poster, manuscript in preparation #2 above).
11. **Phillips NJ**, Ziegler MR, Bartuski A, Manepalli A. Physical and transcriptional map for the ovarian carcinoma loss of heterozygosity region on chromosome 17p13.3. Cancer Genetics and Tumor Suppressor Genes 6: 146, Cold Spring Harbor Laboratory, 2000 (presented as poster).

Presentations:

I. Invited research presentations at other institutions (excluding abstract presentations):

1987 Washington University, St. Louis, Immunology Seminar - "Idiotope Structure and Genetic Diversity in Anti-streptococcal Group A Carbohydrate Antibodies"
1994 Washington University, St. Louis, Tumor Genetics Group Seminar - "Allelic Deletion on Chromosome 17p13.3 in Early Ovarian Cancer"
1994 Washington University, St. Louis, Surgical Research Seminar - "Allelic Deletion on Chromosome 17p13.3 in Early Ovarian Cancer"
1995 Washington University, St. Louis, Surgical Research Seminar - "Cloning of candidate tumor suppressor genes on 17p13.3 in the ovarian cancer region of deletion"

II. Research presentations at St. Louis University:

1991 - 2001 Pathology - yearly presentation of own ovarian cancer research.
2006 Pathology – Expression analysis of candidate tumor suppressor gene KIAA1401

Teaching:

I. Graduate School:

A. Student supervision: Jialing Dai, 12/95-3/96 laboratory rotation, Xiao-shu Wan, 9/96-12/96 laboratory rotation, Allison Bartuski, 2/99-7/99 part-time lab. rotation (M.D.-Ph.D.

student), Laurice Fischer, summer 2001(M.D. student research elective), Dave Barrett MS1, summer 2003, Patrick Navolanic MS1, summer 2006.
B. Dissertation committee: Jeannette Loutsch, Ph.D. Experimental Pathology 8/96
C. Journal clubs: Pathology, one presentation/ year ; Liver Center, one presentation/ year

II. Medical School preclinical courses:

1991-1992 MS2 curriculum: 1. "special studies" (immunostain, electron microscopy, DNA diagnostics, flow cytometry) methodology in anatomic pathology (one hour lecture) 2. Pathology of the Ovary and Fallopian Tube (one hour lecture)

2001 MS1 clinical genetics small-group tutorials (six three hour sessions) (this format dropped in subsequent years)

1990-present MS1 curriculum: staff gross and microscopic general pathology labs. MS2 curriculum: organize and staff four hour gynecologic gross/ slide lab. and two hour CPC sets

1998-present MS2 curriculum: Pathology of Benign and Malignant Breast Disease (2 one hour lectures, 3 problem-based learning cases (migrated online), 1 four hour gross/ slide lab) (plus gynecologic gross/ slide labs. mentioned above)

2007-present MS2 curriculum: Pathology of the Adrenal (one hour lecture) (plus breast lectures, labs, cases, and gynecology labs, cases.)

III. Undergraduate and high school summer student lab. rotations

1999, Ambarish Manepalli (high school student, summer); 2001, Ebony Tidwell, SLU undergraduate, 1 semester.

IV. Clinical:

A. Supervision of pathology residents, post-sophomore fellows, and medical students in the performance of surgical and autopsy pathology clinical service (prosection, microscopy section review, report preparation, case presentation preparation). All cases have residents involved.

B. Gynecologic and breast pathology senior resident elective: Offered since 2004, 9 upper-level residents have taken 1 month rotations so far, 4 more scheduled through June 2008. Rotation consists of sign-out of all breast and gynecologic internal and consult cases, all breast and gynecologic conferences (~6 per month), and teaching sets of glass slides on various topics in gynecologic and breast pathology.

C. Pathology residency program didactic presentations:
1. "unknowns" case conferences (glass slides or kodachromes provided to residents before the conference): "Rare gynecologic tumors", 3 hours, 1991; "Ovarian tumors", 3 hours, 1992; "Benign and malignant gastrointestinal lesions", 2 hours , 1992; "Benign and malignant endometrium; gestational trophoblastic disease", 4 hours, 1994; "Cervix and vulva", 3 hours, 1995; "Ovarian tumors - difficult differential diagnoses", 3 hours, 1996; "Breast pathology - common and exotic cases", 2.5 hours, 1996; "Gynecologic pathology - classic cases", 2.5 hours, 1996; "Breast pathology - common and exotic cases", 2.5 hours, 1997; "Gynecologic pathology - common and exotic cases", 2.5 hours, 1998; "Gynecologic pathology - common and exotic cases", 2.5 hours, 1999; "Breast atypical

ductal hyperplasia vs. low-grade ductal carcinoma-in-situ", 2 hours, 2000; "Breast pathology, common and exotic cases", 2.5 hours, 2000; "Gynecologic pathology, common and exotic cases", 2.5 hours, 2001; "Breast pathology, common and exotic cases", 2.5 hours, 2002. Gynecologic pathology, 2.5 hr, 2003; "Breast and Gyn. pathology", 2.5 hours 2004, 2005; "Breast pathology", 2.5 hr, "Gynecologic Pathology", 2.5 hr, 2006; "Gynecologic pathology", 2.5 hours, "Breast and gynecologic pathology", 2.5 hr, "Classic cases" (classic examples of common lesions, aimed at students and junior residents), 3 hr, 2007

2.Clinically oriented lectures:

A. "Breast cancer marker studies", 1 hour, 1997, revised 1999, 2002, 2004, 2006, for pathology residents/ faculty, and abbreviated version for medical oncology fellows.

B. "Genetic testing for breast cancer susceptibility", 1 hour, 1998, for pathology residents/ faculty, also repeated for internal medicine residents/ faculty and, with emphasis on ovarian carcinoma risk, to obstetrics and gynecology residents/ faculty.

3. Miscellaneous resident didactic sessions: "General surgical pathology board review", 6 hours/year, 2001 to present; "Gestational trophoblastic disease", 1 hour, 2001; "Breast pathology review", 4 hours, 2001; "Gynecologic pathology review", 3 hours, 2002, "Atypical duct hyperplasia vs. low-grade DCIS – a participatory replay of the Rosai and Schnitt papers", 1 hour, 2003, 2006.

4. Frozen section "unknowns" case conferences: 1 hour/year to 2000; 2 hours/year, 2001-present.

5. Joint Internal Medicine/Pathology Clinicopathologic Conference: 1 hour/year

6. Participation in weekly gross and microscopic pathology "unknowns" case conferences, autopsy conferences, pertinent clinical pathology conferences

D. Interdepartmental clinical case conference presentations (tumor boards):

1. 1990 - present Gynecologic Oncology Tumor Board, weekly, multispeciality (gynecologic oncologists, pathologist, radiation oncologist, medical oncologist, oncology group study nurse/data manager, gynecology and pathology residents)

2. 1992 - present Breast Tumor Board, biweekly, multispeciality (surgeons, medical oncologists, radiologists, pathologist, radiation oncologist, study data manager, residents and fellows from those departments)

3. 1998 – 2003 monthly gynecologic oncology CPC, gynecology residents and staff. (format discontinued)

4. Occasional case conferences for other groups eg. GI, medical oncology, pulmonary - average 1 per month

E. Lectures to clinical residents:

1. Gynecology residents: gynecologic pathology, practical pedigree analysis and testing strategies for hereditary breast/ovarian cancer - as requested by Ob/Gyn chief residents, typically 3 hours/year 1991-1995. (Discontinued due to lack of interest from residents, since pathology is no longer a major test item on CREOG/ACOG testing).

F. Other lectures:

1999 "Prognostic markers in breast cancer", 30 min, for "Update in breast cancer treatment for the community practitioner", CME seminar, organized by St. Louis Univ.

2003 "Immunohistochemical and FISH studies in breast cancer", 1 hour, for Missouri Society of Histotechnology annual continuing education session.

2007 "HER2 testing in breast cancer: methods, controversies, QC" (covering new CAP/ ASCO consensus), 1 hour, for Missouri Society of Histotechnology annual continuing education session.

2007 "Pitfalls in HER2 testing, with updates from ASCO 2007 Breast Cancer Meeting", 45 minutes, for "Review of the ASCO 2007 Breast Cancer Meeting" CME seminar for community oncologists, organized by Washington Univ., St. Louis. (9/29/07, St. Louis MO)

Clinical Service:

1. Surgical Pathology: Sign-out of:

   A. Estimated 1,600 SLUH and outreach general surgical specimens/year. Neuropathology, pediatric pathology, medical renal biopsy pathology, hematopathology are not included in this specimen pool, as these specimens are handled by their own services. Liver biopsy and transplant pathology is grossly over-represented.

   B. 400 - 500 consults/year, mostly gynecologic and breast, many of which get IHC and/or FISH

   C. 10 heart biopsies/year.

   D. Internal consultations and quality assurance review, estimated 600 specimens/ year.

2. Autopsy Pathology: Sign-out of estimated 10 autopsies/ year.

3. DNA Diagnostics Laboratory: Back-up and vacation coverage, 1995-present.

4. Breast tumor immunohistochemical stain/ DNA flow cytometry/ HER2 FISH panel: Services set up by myself in 1997 (breast IHC and flow cytometry for S-phase fraction) and 2003 (HER2 FISH); all interpretation and quality control done by myself for all breast tests until 2003 discontinuation of flow cytometry and 2007 shift of FISH to DNA diagnostics laboratory.

5. Quality Control: A. Troubleshooting and slide review for the medical school immunohistochemistry lab.; generation of needed control tissues for both histology labs.

Collaborative veterinary and human pathology review for SLU researchers:

1. Dr. Ratna Ray, HCV NS5A trangenic mouse project (two co-publications), and miscellaneous unpublished preliminary work. Also a minor amount of human tissue immunohistochemical evaluation.
2. Dr. William Wold, oncolytic adenoviral vector tumor kill in hamster tumors, very recently started, one publication about to be submitted. Large PO1 liver cancer project in view, listed as one of two pathologists for the group,
3. Ad hoc work, little time and few slides involved, for Dr. Ranjit Ray and Dr. Pete Zassenhaus, no publications at this time
4. Unfunded or pending grants, assistance with writing pathology section and listing as co-investigator: Dr. John Chrivia, Dr. Ranjit Ray, Dr. Ratna Ray, Dr. Robert Perman

5. I have been the department's liason with researchers seeking normal or tumor human tissue for projects.

Service to outside research entities:

1990-present Pathology review of St. Louis University patients to be entered on Gynecologic Oncology Group, Am. College of Surgeons, NSABP protocols

1991-present Pathology Committee, Gynecologic Oncology Group (national pathology board that performs quality control review of pathologic material of patients entered on national clinical trials protocols - estimated 800 cancer cases reviewed personally)

1994-1998 Gynecologic Oncology Group Protocol #144 "Molecular genetic analysis of ovarian cancer families", pathology member (protocol chair H. Gallion)

1996 American Cancer Society ad hoc grant proposal reviewer

2005-present Am. J. Gastroenterology ad hoc reviewer

St. Louis University committee service:

1996-1997 Search committee member, Obstetrics and Gynecology chairmanship

2000-2004 Cancer committee member