## **CURRICULUM VITAE**

# Anne Dilley, Ph.D., M.P.H.

Epidemiologist with over 30 years of experience in both government and pharmaceutical industry settings. Expertise in epidemiological methodology, pharmacoepidemiology, conduct of insurance claims and electronic medical record database studies, registry design and implementation, and meeting regulatory requirements for post-authorization safety studies. Successful initiation of numerous government and industry academic collaborations. From 2010-2020, established, managed, and led an epidemiology function providing epidemiological strategy, support, and contributions across a large drug development and post-market portfolio.

## **EDUCATION**

1994	Doctor of Philosophy, Epidemiology Emory University, Atlanta, Georgia
1989	Master of Public Health, Epidemiology University of California at Los Angeles, Los Angeles, California
1979	California Multiple Subject Instructional Credential, Clear Certificate University of California at Los Angeles, Los Angeles, California
1977	Bachelor of Arts, English University of Maryland, College Park, Maryland

## **PROI**

DESSIONAL EXPERIENCE		
10/20 – present	Independent Consultant/Senior Epidemiologist. Positioned to contract through Epidemiologic Research and Methods, LLC Provide epidemiologic expertise and consultation for clients in the pharmaceutical/biotechnology industry. Manage the efforts and deliveries of junior consultants.	
7/10 – 9/20	Senior Director, Head of Epidemiology (8/13-9/20); Director, Head of Epidemiology (7/10-8/13). Biogen, Research & Development, Cambridge, Massachusetts  Head of Epidemiology, R&D Global Analytics and Data Sciences. Established, led and managed a functional team of 12 doctoral level epidemiologists to provide epidemiologic expertise and substantive research to support drug development and post-market programs across multiple therapy areas. Provided strategic guidance to six data analysts in the Observational Analytics function who supported the epidemiology function in large claims and HER database studies.	
9/04 – 6/10	Associate Director, Epidemiology. GlaxoSmithKline, Research & Development, World Wide Epidemiology, Collegeville, Pennsylvania Epidemiologist providing support to drug development programs in urology, women's health, and hematologic oncology.	

8/03 – 9/04	Associate Director, Epidemiology. Wyeth Research, Global Safety Surveillance and Safety Epidemiology, Collegeville, Pennsylvania Epidemiologist providing support to drug programs and post market activities in hematology and cardiovascular diseases.
1/96 – 8/03	Epidemiologist (GS 14). Centers for Disease Control and Prevention, National Center for Infectious Diseases, Hematologic Diseases Branch, Atlanta, Georgia  Lead epidemiologist for research programs in women's bleeding disorders. Project Officer and Principal Investigator for CDC funded cooperative agreements with academic collaborators.
11/94 - 12/95	Visiting Instructor. Department of Epidemiology, Rollins School of Public Health of Emory University, Atlanta, Georgia  Funded on a Cooperative Agreement between Emory University and CDC to provide epidemiologic support for a congressionally mandated program for prevention of complications in people with bleeding disorders
3/92 - 12/93	Project Coordinator. Fetal Growth and Development Study. Department of Epidemiology, Rollins School of Public Health of Emory University, Atlanta, Georgia
6/91 - 3/92	Research Assistant. Department of Epidemiology, Rollins School of Public Health of Emory University, Atlanta, Georgia
6/88 - 12/88	Research Assistant. Los Angeles County Department of Health Services, Toxics Epidemiology Program, Los Angeles, California
1979 - 1987	Elementary School Teacher, Woods Edge Elementary School, Oakland, California; Pasadena Unified School District, Pasadena, California High School Mathematics Teacher, Immaculate Heart High School, Los Angeles, California

# UNIVERSITY APPOINTMENT AND TEACHING ACTIVITIES

# Rollins School of Public Health of Emory University

1994-2010	Adjunct Faculty, Department of Epidemiology
1994-2003	<ul><li>Instructor. Programming in SAS for Epidemiologic Analyses</li><li>Instructor. Pediatric and Perinatal Epidemiology</li><li>Instructor. Reproductive Epidemiology</li></ul>

#### RESEARCH HISTORY

## Principal Investigator/Project Officer/Study Lead

von Willebrand Disease and Gynecological Problems in Reproductive Aged Women

Treatment and Management of Women with Bleeding Disorders: A Clinical Trial of Oral Contraceptives, Stimate, and Tranexamic Acid

Genetic Attributes of Thrombosis Epidemiology (GATE) Study

Thrombosis and Genes (TAG) Prevalence Study: A Longitudinal Cohort

The Role of the Hemostatic System in Legg-Perthes Disease

The Hemostatic System in Adverse Pregnancy Outcomes: Thrombosis, Recurrent Fetal Loss, Intrauterine Growth Restriction

Hemostasis of Pregnancy Epidemiology (HOPE) Study: A Case Series

Surveillance of Inhibitors in Hemophilia

Global Longitudinal Overactive Bladder Evaluation (GLOBE study): A Prospective Cohort Study

Patient Profile and Economic Burden of Preterm Labor in a Large Clinic Population

Characteristics and Related Surgical Histories of Women with Endometriosis: A Retrospective Data Analysis in a Large Clinic Population

Infectious Diseases and Cardiovascular Events in Patients with Chronic Lymphocytic Leukemia: A Collaborative Cohort Study

Patient preference studies (Descrete Choice Experiment) in MS for specified treatment regemens

Patient Preference study (Best/Worse Scaling) in Alzhemier's Disease

Inception and implementation of Spinal Muscular Atrophy (SMA) Disease Registry

#### **Database Studies - Examples**

## Epidemiology Packages - Disease Understanding

Designed, implemented, and analyzed comprehensive database studies of patients with the following diseases:

Overactive Bladder, Preterm Labor, Endometriosis, Chronic Lymphocytic Leukemia, Follicular Lymphoma, Multiple Sclerosis, Systemic Lupus Erythematosus, Hemophilia, Spinal Muscular Atrophy, Alzheimer's Disease, and multiple neurological conditions

Analyses included co-morbidities, concomitant medications, treatments, outcomes of interest, case/control comparisons, longitudinal patient journey

## Treatment patterns

Designed, implemented, and analyzed large database studies to determine treatment patterns for:

Cycles of chemotherapies Antiemetics Monoclonal antibody regimens Multiple Sclerosis Therapies Neuropathic Pain

#### **MEMBERSHIPS**

Society for Epidemiologic Research International Society of Pharmacoepidemiology Delta Omega Honorary Society for Public Health

#### **PUBLICATIONS**

- 1. Hooper WC, **Dilley A**, Ribiero MJA, Austin H, et al. A racial difference in the prevalence of the Arg506 ->Gln mutation. Thrombosis Research, 1996;81(5):577-81.
- 2. Austin H, Hooper WC, **Dilley A**, Drews C, et al. The prevalence of two genetic traits related to venous thrombosis in whites and African-Americans. Thrombosis Research, 1997;86(5):409-15.
- 3. **Dilley A**, Austin H, Hooper WC, Lally C, et al. The relationship of three genetic traits to venous thrombosis in an African-American population. American Journal of Epidemiology, 1998;147(1):30-35.
- 4. Hooper WC, **Dilley A**, Austin H, Wenger N, et al. Absence of mutations at APC cleavage sites ARG<sup>306</sup> in factor V and ARG<sup>336</sup>, Arg<sup>562</sup> in factor VIII in African-Americans. Letter, Thrombosis and Haemostasis, 1998;79:236.
- 5. **Dilley A**, Austin H, Hooper C, El-Jamil M, et al. The prevalence of the prothrombin 20210 G→A variant in blacks: Infants, patients with venous thrombosis, patients with myocardial infarction, and control subjects. Journal of Laboratory and Clinical Medicine, 1998;132(6):452-455.
- 6. Phillip CS, **Dilley A**, Saidi P, Evatt B, Austin H, et al. Deletion polymorphism in the angiotensin-converting enzyme gene as a thrombophilic risk factor after hip arthroplasty. Thrombosis and Haemostasis, 1998;80:869-73.
- 7. **Dilley A**, Crudder S. von Willebrand disease in women: The need for recognition and understanding. Observations from the CDC. Journal of Women's Health and Gender-Based Medicine, 1999;8(4):443-45.
- 8. Hooper WC, Lally C, Austin H, Benson J, **Dilley A**, et al. The relationship between polymorphisms in the endothelial cell nitric oxide synthase gene and the platelet GPIIIa

- PLA<sup>1</sup>/PLA<sup>2</sup> polymorphism with myocardial infarction and venous thromboembolism in African-Americans. Chest, 1999;116:880-86.
- 9. **Dilley A,** Austin H, El-Jamil M, Hooper C, et al. Genetic factors associated with thrombosis in pregnancy in a United States population. American Journal of Obstetrics and Gynecology, 2000;183(5):1271-77.
- 10. Austin H, Hooper WC, Lally C, **Dilley A**, et al. Venous Thrombosis in relation to fibrinogen and factor VII genes among African-Americans. Journal of Clinical Epidemiology, 2000;53:997-1001.
- 11. Hooper WC, Lally C, Austin H, Renshaw M, **Dilley A**, et al. The role of the t-PA I/D 4G/5G polymorphisms in African-American adults with a diagnosis of myocardial infarction or venous thromboembolism. Thrombosis Research, 2000;99:223-30.
- 12. Eldridge J, **Dilley A**, Austin H, Wolstein L, et al. The role of protein C, protein S, and resistance to activated protein C in Legg-Perthes disease. Pediatrics, 2001;107:1329-34.
- 13. **Dilley A**, Drews C, Miller C, et al. von Willebrand disease and other inherited bleeding disorders in women with diagnosed menorrhagia. Obstetrics & Gynecology, 2001;97:630-36.
- 14. **Dilley A**, Hooper WC, El-Jamil M, et al. Mutations in the genes regulating methylenetetrahydorfolate reductase (MTHFR C $\rightarrow$ T677) and cystathione  $\beta$ -synthase (CBS G $\rightarrow$ A919, CBS T $\rightarrow$ C833) are not associated with myocardial infarction in African-Americans. Thrombosis Research, 2001;103:109-15.
- 15. Miller C, **Dilley A**, Richardson L, et al. Population differences in von Willebrand factor levels affect the diagnosis of von Willebrand disease in African-American women. American Journal of Hematology, 2001;67:125-29.
- 16. Hooper WC. El\_Jamil M. **Dilley A**, et al. The relationship between the tissue plasminogen activator Alu I/D polymorphism and venous thromboembolism during pregnancy. Thrombosis Research 2001;102(1):33\_7.
- 17. Hooper WC, Dowling NF, Wenger NK, **Dilley A**, et al. Relationship of venous thromboembolism and myocardial infarction with the renin-angiotensin system in African-Americans. American Journal of Hematology 2002;70:1-8.
- 18. **Dilley A**, Drews C, Lally C, et al. A survey of gynecologists concerning menorrhagia: perceptions of bleeding disorders as a possible cause. Journal of Women's Health and Gender-Based Medicine 2002;11(1):39-44.
- 19. **Dilley A**, Benito C, Hooper WC, et al. Mutations in the factor V, prothrombin, and MTHFR genes are not risk factors for recurrent fetal loss. The Journal of Maternal-Fetal and Neonatal Medicine 2002;11:176-82.
- 20. Miller CH, **Dilley A**, Drews C, Richardson L, Evatt B. Changes in von Willebrand factor and factor VIII levels during the menstrual cycle. Letter to the Editor. Thrombosis and Haemostasis 2002;87:1082-3.
- 21. Drews CD, **Dilley A**, Evatt B, et al. Screening questions to identify women with von Willebrand Disease. Journal of American Medical Women's Association, 2002; 57(4):217-8.

- 22. Philipp CS, **Dilley A**, Miller C, et al. Platelet functional defects in women with unexplained menorrhagia. Journal of Thrombosis and Haemostasis, 2003;(3):477-84.
- 23. Dowling N, Austin H, **Dilley A**, et al. The epidemiology of venous thromboembolism in Caucasians and African-Americans: The GATE Study. Journal of Thrombosis and Haemostasis, 2003;1:80-7.
- 24. Kirtava, A, Drews CD, Lally C, **Dilley A**, et al. Medical, reproductive, and psychosocial experiences of women diagnosed with von Willebrand disease receiving care in hemophilia treatment centers: a case-control study. Haemophilia, 2003;9:292-7.
- 25. Miller CH, Haff E, Platt SJ, Rawlins P, Drews CD, **Dilley A**, et al. Measurement of von Willebrand factor activity: relative effects of ABO blood type and race. Journal of Thrombosis and Haemostasis, 2003;(10):2191-7.
- 26. **Dilley A**, Hooper WC, Austin H, et al. The  $\beta$  fibrinogen G-455-A polymorphism is a risk factor for Legg-Perthes Disease. Journal of Thrombosis and Haemostasis, 2003;1(11):2317-21.
- 27. Kirtava A, Crudder S, **Dilley A**, et al. Trends in Clinical Management of Women with von Willebrand Disease: A Survey of 75 Women Enrolled in Hemophilia Treatment Centers in the United States. Haemophilia, 2004;10(2):158-61.
- 28. Philipp CS, Faiz A, Dowling N, **Dilley A**, et al. Age and prevalence of bleeding disorders in women with menorrhagia. Obstetrics & Gynecology, 2005;105(1):61-66.
- 29. Philipp CS, Miller CH, Faiz A, **Dilley A**, et al. Screening women with menorrhagia for underlying bleeding disorders: the utility of the platelet function analyzer and bleeding time. Haemophilia, 2005;11:497-503.
- 30. Miller CH, De Staercke C, Benson J, Hooper WC, **Dilley A**, et al. Elevated factor VII as a risk factor for recurrent fetal loss: Relationship to factor VII gene polymorphisms. Thrombosis and Haemostasis, 2005;93:1089-94.
- 31. Stewart WF, Minassian VA, Hirsch AG, Kolonder K, Fitzgerald M, Burgia K, Cundiff GW, Blaivas J, Newman D, Lerch VR, **Dilley A**. Predictors of Variability in Urinary Incontinence and Overactive Bladder Symptoms. Neuroulogy and Urodynamics, 2010;29:328-35.
- 32. Hirsch AG, Minassian VA, **Dilley A**, et al. Parity is not associated with urgency with or without urinary incontinence. International Urogynecology Journal and Pelvic Floor Dysfunction, 2010;21(9):1095-1102.
- 33. Minassian VA, Steward WF, Hirsch AG, Koldner K, Fitzgerald M, Burgio K, Cundiff GW, Blaivis J, Newman D, Dilley A. The role of urgency, frequency, and nocturia in defining overactive bladder and adaptive behavior. Neurourology and Urodynamics, 2011;30(3):406-11.
- 34. Viscidi, E, Wang, N, Juneja, M, Bhan, I, Prada, C, James, D, Lallier, S, Makepeace, C, Laird, K, Eaton, S, **Dilley, A**, Hall, S. The incidence of hydrocephalus among patients with and without spinal muscular atrophy (SMA): Results from a US electronic health records study. Orphanet Journal of Rare Diseases, 2021;16(1), 207.