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Philip S Crooke* (philip.s.crooke@vanderbilt.edu), Department of Mathematics, Vanderbilt University, Nashville, TN 37240, and **Derek Smith, Jeffrey D Blume, William D Dupont** and **Fritz F Parl**. *Models for Individual Breast Cancer Risk*.

Breast cancer is a leading cause of death among women in the United States. The American Cancer Society estimates that 295,240 new cases of breast cancer among women (2,360 among men) have been diagnosed and 40,430 deaths have occurred from the disease during 2014. In this talk, we proposed two models for individual breast cancer risk. The models are based on genetic and/or phenotypic information of the individual woman. The genetic component of the models involves information about genes that encode enzymes in the estrogen metabolism pathway. The phenotypic component includes information about the woman's use of hormone replacement therapy, BMI, family history, etc. (Received February 02, 2015)