Norman Kaplan, Ph.D.

Education:
1966 - B.S. (Mathematics) Case Institute of Technology
1967 - M.S. (Statistics) Stanford University
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Research has focused on studying the properties of family based tests for linkage and association between marker and disease loci. These tests, which are based on nuclear family data with parents or their unaffected siblings, are important because they are not sensitive to population stratification. Extensions have been developed for more complex data structures such as extended pedigrees. Additional generalizations have also been implemented for detecting linkage and association between markers and quantitative trait loci. A two-stage strategy was developed for combining case-control data and family data when testing for association. This strategy could be useful when evidence of association is used to fine map disease genes. Future work will focus on developing more powerful family based tests and generalizing the case-control test for use with extended pedigrees with multiple affecteds.

Relevant publications

Kaplan, N.L., Martin, E.M., and Weir, B.S. Power studies for transmission/disequilibrium tests with multiple alleles. Am. J. Hum. Genet. .60, 691-702, 1997.

Martin, E.R. and Kaplan, N.L A Monte Carlo procedure for two-stage tests with correlated data. Genet Epidem 18:48-62, 2000

Monks, S. A. and Kaplan, N. L. Removing the size restrictions from family-based tests of association for a quantitative trait locus Am J Hum Genet 66: 576-592 2000

Martin ER, Monks SA, Warren LL, Kaplan NL A test for linkage and association in general pedigrees: the pedigree disequilibrium test (PDT). Am J Hum Genet (in press)

Last updated: 5/2/2000
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