An easy-to-use, clearly presented handbook that allows epidemiologists to understand the specifics of research involving biomarkers, and laboratory scientists to understand the main issues of epidemiological study design and analysis.

With the sequencing of the human genome and the mapping of millions of single nucleotide polymorphisms, epidemiology has moved into the molecular domain. Scientists can now use molecular markers to track disease-associated genes in populations, enabling them to study complex chronic diseases that might result from the weak interactions of many genes with the environment. Use of these laboratory generated biomarker data and an understanding of disease mechanisms are increasingly important in elucidating disease aetiology.

This book crosses the disciplinary boundaries between laboratory scientists, epidemiologists, clinical researchers and biostatisticians and is accessible to all these relevant research communities in focusing on practical issues of application, rather than reviews of current areas of research.