Preface

The original experiment in the field of proteomics identified proteins contained in SDS-PAGE gel bands by digesting those proteins with the enzyme trypsin and sequencing the resulting peptides by collision-induced dissociation in a tandem mass spectrometer. Although the reasons for selecting any particular gel band for identification varied, a common reason was because a change had been seen in the abundance of that band under different experimental conditions. While these experiments were certainly quantitative proteomics, the quantitative information came from the gel through the pattern of protein staining that was seen. In 2000, we wrote one of the first books describing this identification experiment on a practical level.

The goal of this book is to describe a new type of quantitative proteomics experiment called selected reaction monitoring that has seen growing use over the past several years. The selected reaction monitoring experiment leverages several developments in the fields of genomics, information technology, and mass spectrometry. The result is a robust and powerful method to measure the abundance of a protein in complex samples, with high specificity and sensitivity.

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A Replacement for Western Blot Analysis

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