The purpose of the book is to introduce platelets, and their functional role in thrombotic and cardiovascular disease, justifying the relevance of platelet proteomics research. Focus then shifts to the recent developments on mass spectrometry (MS)-based proteomics. This chapter shows potential applications for platelet proteomics not yet carried out. It includes examples of post-translational modifications (PTMs) analysis in platelets.

The second part of the book focuses on the main research done so far on platelet proteomics. This includes general proteome mapping by non-gel based separation methods (MudPit), analysis of the general platelet proteome and signaling cascades by gel-based separation methods (2-DE), sub-proteome analyses (secretome/releasate, membrane proteins, organelles). Finally, the last section links the platelet transcriptome and application to disease. This section is highly relevant and includes chapters on proteomics, transcriptomics, functional genomics, systems biology, and their applications to platelet-related diseases.

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