





Special Issue Reprint

Advanced Techniques for the Analysis of Protein and RNA

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Proteins and RNAs are vital components of cellular machinery, playing diverse roles from structural functions to regulating signaling pathways and cellular processes. Their involvement is especially critical during development and in response to environmental stimuli, influencing growth, differentiation, immune responses, and other key biological activities. Enhancing the detection of proteins and RNAs, including mRNA and microRNA, is crucial for deepening our understanding of cellular dynamics and their roles in health and disease. Recent advancements in analytical techniques, such as mass spectrometry, immunoassays, and biosensors, have significantly expanded our knowledge of protein and RNA functions and interactions. These technologies are revolutionizing healthcare and environmental science by enabling precise diagnosis, monitoring, and treatment of various diseases, thereby improving global quality of life. In the Special Issue of Chemosensors titled "Advanced Techniques for the Analysis of Proteins and RNAs," nine studies showcase cutting-edge methodologies in biosensing, enzymatic assays, chromatography, and colorimetric and fluorescent assays. Highlights include the development of a HiBiT biosensor for YAP/TAZ proteins in cancer research, an impedimetric biosensor for biomarker detection, peptide-based assays for protein quantification, and chromatographic sensors for assessing food freshness. These studies collectively advance the field of protein and RNA analysis, offering valuable insights and methodologies poised to drive further research and innovation.



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