Cell adhesion comes into play in almost all domains of life. The range of situations in which it occurs, involving organisms, living tissues, microorganisms or single cells, is endless. Cell adhesion is involved in the binding of a cell to a surface, extracellular matrix, or another cell using cell adhesion molecules. It is crucial in the formation and maintenance of coherent multi cellular structures. Cell surface adhesion molecules (integrins, for example) which transmit information from the extracellular matrix to the cell play vital roles in numerous cellular processes. Some of these include: cell growth, differentiation, embryogenesis, immune cell transmigration and response, and cancer metastasis. Also cell adhesion is involved in most of pathological situations.

This book is divided into four parts as follows: Part 1: Fundamentals of Cell Adhesion; Part 2: Methods to Study Cell Adhesion; Part 3: Surface Treatments to Control Cell Adhesion and Behavior; and Part 4: Cell Adhesion in Medicine and Therapy.

A bountiful information is covered in this book which represents the cumulative wisdom of many world-renowned researchers (physicists, materials scientists, chemists and biologists) engaged in unraveling the mechanisms of cell adhesion and how to mitigate or control it. It is quite patent from the topics covered in this book that the subject of cell adhesion is truly interdisciplinary.

This book should be of great interest and value to anyone interested in cell adhesion which is vitally important to human life.
Surface and Interfacial Aspects of Cell Adhesion
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