

CONTENTS

Contributors	vii
--------------------	-----

Cell Biology of Aluminum Toxicity and Tolerance in Higher Plants

Hideaki Matsumoto

I. Introduction	1
II. Aluminum Toxicity	2
III. Al Tolerance	25
IV. Concluding Remarks	36
References	37

Gonadal Development in Mammals at the Cellular and Molecular Levels

Sarah Mackay

I. Introduction	47
II. Genes and Gene Products	55
III. Signals, Growth Factors, Hormones, and Receptors	63
IV. Cell Adhesion Molecules	71
V. Intermediate Filaments and Cytoskeleton	76
VI. Extracellular Matrix Molecules	78
VII. Concluding Remarks	83
References	88

The *Chlorella* Hexose/H⁺-Symporters

Widmar Tanner

I. Introduction	101
II. Sugar Uptake by <i>Chlorella kessleri</i> : <i>In Vivo</i> Studies	102
III. Identification of the Transport Protein and the Corresponding Gene (HUP1)	123
IV. The HUP1 Transport Protein: <i>In Vitro</i> Studies	131
V. Open Questions	133
VI. Conclusions	134
References	136

Mechanisms of Early Neural Crest Development: From Cell Specification to Migration

Chaya Kalcheim

I. Introduction	143
II. Specification of Neural Crest Cells	146
III. Delamination of Neural Crest Progenitors from the Neural Tube	154
IV. Control of Neural Crest Migration	164
V. Summary and Perspectives	178
References	182

Regulation and Expression of Metazoan Unconventional Myosins

Anna M. Sokac and William M. Bement

I. Introduction	197
II. The Myosin Superfamily	199
III. Unconventional Myosin Regulation	227
IV. Concluding Remarks	285
References	287

Index	305
-------------	-----