

Volume 38

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Advances in  
**Pediatrics**<sup>®</sup>

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# Advances in Pediatrics®

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Gastrointestinal Syndromes Associated With Food Sensitivity, by Roy Proujansky, Harland S. Winter, and W. Allan Walker  
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 Aluminum: A Pediatric Overview, by Alan B. Gruskin  
 Behavioral Alterations in Iron Deficiency, by Betsy Lozoff  
 Pathogenesis of the Anemia of Chronic Renal Failure: The Role of Erythropoietin, by Manju Chandra, Melinda McVicar, and Gisela K. Clemons  
 Osteogenesis Imperfecta: Comprehensive Management, by Joan C. Marini  
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 Advances in Understanding the Pathogenesis of Persistent Diarrhea in Young Children, by Joel M. Andres  
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## **Volume 36**

Peroxisomal Diseases, by Hugo W. Moser  
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 Hypertension in Childhood, by J. Williamson Balfe, Leo Levin, Noboru Tsuru, and James C. M. Chan  
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 Gaucher's Disease: Advances and Challenges, by Brian M. Martin, Ellen Sidransky, and Edward I. Ginns  
 A Perspective of Epstein-Barr Virus Diseases, by James F. Jones  
 Milk Protein Quantity and Quality and Protein Requirements During Development, by Niels C. R. Røihä.  
 Cocaine Abuse: Historical, Epidemiologic, and Clinical Perspectives for Pediatricians, by Steven E. Krug  
 The Disenfranchised Father, by Robert E. Fay  
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## Volume 37

- Fetal Hemoglobin, Sickling, and Sickle Cell Disease, *by Samuel Charache*  
Balloon Valvuloplasty and Angioplasty of Stenotic Lesions of the Heart  
and Great Vessels in Children, *by P. Syamasundar Rao*  
Recurrent Childhood Myoglobinuria, *by Ingrid Tein, Salvatore DiMauro,  
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Vitamin E and Neurologic Deficits, *by Ronald J. Sokol*  
Human Immunodeficiency Virus Type 1 Infections in Children, *by Susan  
Cecelia Hutto*  
Anabolic Steroid Abuse, *by Gregory L. Landry and William A. Primos, Jr.*  
The Kidney in Systemic Diseases: Part I—Infectious, Hematologic, and  
Malignant Liver and Metabolic Diseases, *by Uri Alon, Sudhir K. Anand,  
and James C. M. Chan*  
Perinatal Grief and Mourning, *by James A. Menke and Richard E. Mc-  
Cleod*  
Transplantation Immunity: Basic Principles and Future Projections, *by Ri-  
chard Hong*  
Pathology of Transplant Rejection and Immunosuppressive Therapy: Part  
I—Graft-vs.-Host Disease and Organ Rejection, *by Gholam Reza Hafez  
and Enid F. Gilbert-Barness*  
Pathology of Transplant Rejection and Immunosuppressive Therapy: Part  
II—Pathologic Effects of Immunosuppressive Therapy, *by Enid F.  
Gilbert-Barness and Lewis A. Barness*  
Advances in Pediatric Liver Transplantation, *by Peter F. Whittington*  
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Advances in pediatric diagnoses and treatment occur in many directions. This year's selections are especially representative of articles pertinent to clinicians and investigators.

Just a few years ago, biotin deficiency was considered a rare phenomenon. Wolf and Heard clearly define the deficiency of the biotinidase enzyme which produces dependency on the vitamin. If not recognized in the neonate, results are frequently devastating.

The hematopoietic growth factors, recently identified, have exploded in applications to common as well as to rare diseases. Holbrook and Christensen explain the development, identification, and usefulness of these exciting natural substances.

Rowley, Gonzalez-Crussi, and Shulman have had extensive experience with, and have been critical and careful observers of, Kawasaki disease. In a concise few pages, they summarize all that is known of pathogenesis, treatment, epidemiology, and prognosis of this increasingly common childhood illness. It is unlikely that a more useful source of information on this disease will become available until the etiology is determined.

In the age of sophisticated laboratory techniques, Charnas and Gahl show that careful clinical observation can lead to significant genetic information. Lowe's syndrome, a complex metabolic abnormality, has significant implications for the family and diagnostician. Five years ago, in volume 33 of *Advances in Pediatrics*,<sup>®</sup> Gahl published the landmark article on cystinosis, which included not only important genetic information but also significant success in treatment of another rare disease causing renal tubular acidosis.

With the emphasis on surfactant and similar drugs for the treatment of respiratory distress in the premature and newborn, Watchko and Mayock evaluate the physics and mechanics of the ventilatory pump. Better understanding of its applicability should lead to better treatment and better understanding of the disease process.

It may be surprising to some, but McVicar, Margouleff, and Chandra document the spontaneous disappearance of many fetal masses which might have been thought to require surgery. This state-of-the-art discussion of imaging procedures is an aid to those receiving confusing information from the imager.

Pavlakakis, Gould, and Zito describe not only their own experience but also a thorough review of strokes in children. They present a logical step-by-step workup and treatment when available. They indicate new techniques which will become commonplace in this decade. One common area of stroke appearance is in children with sickle cell anemia, previously included in a chapter on neurological complications of that disease by the senior author, Pavlakakis, et al. (*Advances in Pediatrics*,<sup>®</sup> volume 36). Even

though not commonly seen otherwise, the techniques and treatment described here can be extremely helpful.

It may be that a completely satisfactory definition of pediatric brain death will never be developed. Ashwal and Schneider have considered this problem in detail and provide sensitive and sensible guidelines with much authoritative background. These data will be helpful when dealing with common delicate problems.

Infectious diseases may be very new, like human immunodeficiency viral disease (see Hutto's chapter in *Advances in Pediatrics*,<sup>®</sup> volume 37) or not just discovered but still new. Cytomegalovirus fits the latter category. Gehrz discusses the increasing prevalence of this devastating disease and provides information on an effective treatment. He also presents challenging ideas about its significance in causing other diseases.

In volume 36 of *Advances in Pediatrics*<sup>®</sup> Markowitz and Kaplan warned of the recurrence and new symptomatology of rheumatic fever. In this volume, Kendig and Inselman, who have extensive experience with tuberculosis, report on its re-emergence as a serious problem. They indicate some of the bases for its increasingly frequent occurrence and decry the cavalier attitude some take toward its detection.

Common infectious diseases of children include urinary tract infections. Leung and Robson clarify recently developed diagnostic techniques and document their treatment and follow-up regimens.

Whether anorexia and bulimia are becoming more common or are simply being recognized more easily, their characteristics are troublesome and related. Laue, Gold, Richmond, and Chrousos discuss the relationships of these two conditions and especially their pathophysiologic implications. The hormonal abnormalities, their relation to affective disorders and malnutrition, and possible solutions to these enigmas are challenges seeking answers.

In our busy and sometimes callous world, procedures by doctors cause pain. Scanlon decries the pain that is caused to newborns. He discusses methods of prevention with clarity and consideration. Most important, he makes us aware.

The code word for this decade appears to be "ownership," whether it's one's diet, drug use, or pain management. Kavanagh and coworkers apply this technique—a combination of self hypnosis and sublimation—to the treatment of burned children. The results appear to be nothing less than fantastic.

Emphasis on ethics is increasing in medical practice and medical curricula. Ledbetter has taught ethics as a discipline and is now Director, Department of Maternal, Child and Adolescent Health of the American Academy of Pediatrics. He summarizes opinions of many chairmen of pediatric departments and includes personal observations and definitions.

Berlin summarizes advances in pediatric pharmacology over the past 2 years. This is Berlin's fifth contribution in 9 years. This year's contribution is so significant that it should be read and digested by all who care for children.

Advances in pediatric information are occurring at a rapid rate. Selection of articles to be included in this series by the editorial board can be improved by more input from you, the readers. Let us hear your suggestions.

*Lewis A. Barness, M.D.*

# Contents

Contributors . . . . .	vii
Preface . . . . .	xi

## **Biotinidase Deficiency**

<i>By Barry Wolf and Gregory S. Heard.</i> . . . .	<b>1</b>
Life and Biotin . . . . .	1
Biotin and Biotin-Dependent Carboxylase Metabolism . . . . .	2
Disorders of Biotin Metabolism . . . . .	4
Carboxylase Deficiencies . . . . .	4
Biotinidase Deficiency . . . . .	4
Clinical Features of Biotinidase Deficiency . . . . .	5
Profound Deficiency . . . . .	5
Partial Deficiency . . . . .	7
Incidence and Mode of Inheritance . . . . .	7
Biochemical Features of Biotinidase Deficiency . . . . .	9
Characteristics of the Normal Enzyme . . . . .	9
Biochemical Diagnosis . . . . .	9
Biochemical Abnormalities . . . . .	10
Pathophysiologic Considerations of Biotinidase Deficiency . . . . .	11
Treatment of Biotinidase Deficiency . . . . .	12
Prenatal Diagnosis . . . . .	13
Neonatal Screening . . . . .	13
Differential Diagnosis . . . . .	14
Conclusion . . . . .	16
Acknowledgment. . . . .	16

## **Hematopoietic Growth Factors**

<i>By Suzanne T. Holbrook and Robert D. Christensen.</i> . . . .	<b>23</b>
Hematopoietic Progenitor Cells . . . . .	23
Interleukins . . . . .	26
Interleukin-1 . . . . .	26
Interleukin-2 . . . . .	27
Interleukin-3 . . . . .	27
Interleukin-4 . . . . .	28
Interleukin-5 . . . . .	29
Interleukin-6 . . . . .	30
Interleukin-7 . . . . .	31

Interleukin-8 . . . . .	32
Interleukin-9 . . . . .	33
Colony-Stimulating Factors . . . . .	33
Granulocyte-Macrophage Colony-Stimulating Factor . . . . .	33
Macrophage Colony-Stimulating Factor . . . . .	35
Granulocyte Colony-Stimulating Factor . . . . .	35
Erythropoietin . . . . .	36
<b>Kawasaki Syndrome</b>	
<i>By Anne H. Rowley, Frank Gonzalez-Crussi, and Stanford T. Shulman . . . . .</i>	<b>51</b>
Clinical Features . . . . .	52
Laboratory Features . . . . .	55
Epidemiologic Considerations . . . . .	56
Etiologic Considerations . . . . .	58
Cardiovascular Manifestations . . . . .	59
Pathologic Features . . . . .	62
Therapy and Management . . . . .	64
Conclusions . . . . .	68
<b>The Oculocerebrorenal Syndrome of Lowe</b>	
<i>By Lawrence R. Charnas and William A. Gahl . . . . .</i>	<b>75</b>
Historic Overview . . . . .	76
Clinical Manifestations . . . . .	76
Growth . . . . .	76
Neurologic Complications . . . . .	78
Ocular Involvement . . . . .	81
Renal Disease . . . . .	83
Musculoskeletal Complications . . . . .	86
Sexual Development . . . . .	88
Laboratory Findings . . . . .	88
Composite Case History . . . . .	92
Heterozygotes . . . . .	93
Ocular Involvement . . . . .	93
Renal Impairment . . . . .	95
Nervous System Manifestations . . . . .	95
Genetics and Incidence . . . . .	95
Gene Mapping . . . . .	96
Genetic Counseling . . . . .	96
Diagnosis . . . . .	97
Postnatal . . . . .	97
Prenatal . . . . .	98



Management and Therapy . . . . .	98
Basic Research . . . . .	100
The Future . . . . .	101
Research . . . . .	101
Parent Support Group. . . . .	102
Acknowledgments . . . . .	102
<b>The Ventilatory Pump: Neonatal and Developmental Issues</b>	
<i>By Jon F. Watchko, Dennis E. Mayock, Thomas A. Standaert, and David E. Woodrum . . . . .</i>	<b>109</b>
Neonatal Thorax . . . . .	110
Respiratory Muscles—The Diaphragm . . . . .	112
Endurance Properties of the Diaphragm . . . . .	113
Diaphragmatic Contractile Properties and Proteins . . . . .	118
Extrinsic Factors Affecting Diaphragmatic Contractile Function . . . . .	119
Respiratory Muscles—The Accessory Muscles of Respiration . . . . .	121
Central Neural Failure Associated With Ventilatory Insufficiency. . . . .	123
Summary . . . . .	126
<b>Diagnosis and Imaging of the Fetal and Neonatal Abdominal Mass: An Integrated Approach</b>	
<i>By Melinda McVicar, Donald Margouleff, and Manju Chandra . . . . .</i>	<b>135</b>
Overview: Relative Incidence of Causes of Neonatal Abdominal Mass . . . . .	136
Prenatal Detection of Renal Causes of Neonatal Abdominal Mass . . . . .	138
Differential Diagnosis and Sonographic Imaging of Neonatal Abdominal Mass . . . . .	139
Renal Scintigraphy and Diagnostic Imaging of Neonatal Abdominal Mass . . . . .	139
Renal Neonatal Abdominal Mass With Cystic Sonographic Appearance. . . . .	143
Renal and Adrenal Neonatal Abdominal Masses With Solid Sonographic Appearance . . . . .	145
Summary and Conclusion . . . . .	146
Acknowledgments . . . . .	146
<b>Stroke in Children</b>	
<i>By Steven G. Pavlakis, Robert J. Gould, and Joseph L. Zito. . . . .</i>	<b>151</b>
Embryologic Development . . . . .	153
Vascular Malformation and Aneurysm. . . . .	154