

Down Syndrome From Understanding The Neurobiology To Therapy Progress In Brain Research

In recent years, the molecular analysis of chromosome 21 has progressed so rapidly that the current level of sophistication in understanding the organization of its genes and DNA sequences perhaps exceeds that of any other chromosome. This book explores the fundamental nature of this condition's pathology as related to the structure and expression of genes that are known to be critical in the development of Down Syndrome. It recounts the impressive advances made toward a complete physical mapping of chromosome 21. It also discusses how individual genes in this chromosome have been isolated and their effects relevant to aspects of Down Syndrome are being studied in both cellular and in vivo models. This text provides a comprehensive account of the most up-to-date research in this area, and offers a general overview of the advances in molecular analysis techniques that are revolutionizing the entire field of chromosomal mapping.

A long-awaited book from developmental disorders expert John Morton, *Understanding Developmental Disorders: A Causal Modelling Approach* makes sense of the many competing theories about what can go wrong with early brain development, causing a child to develop outside the normal range. Based on the idea that understanding developmental disorders requires us to talk about biological, cognitive, behavioral and environmental factors, and to talk about causal relationships among these elements. Explains what causal modelling is and how to do it. Compares different theories about particular developmental disorders using causal modelling. Will have a profound impact on research in the fields of psychology, neuroscience and medicine.

Using positive, readable language, this book helps parents understand Down syndrome

Understanding Down Syndrome is the second in a series of Just Like You books aimed at teaching kids to accept the differences in special needs kids and to include them.

Teaching Children with Down Syndrome about Their Bodies, Boundaries, and Sexuality

Theology and Down Syndrome

Toward an Understanding of Possibility

Understanding a Down Syndrome Diagnosis

Understanding the Lived Experience of Dementia in Individuals with Down Syndrome

Cliff Cunningham deals with the early reactions and feelings that parents may have and how the family adapt and cope when a child is diagnosed with Down syndrome. He explores the mental, motor and social development of children with the condition, from birth to adulthood.

Down syndrome (DS), caused by the triplication of chromosome 21, is the most common genetic cause of intellectual disability (ID). Individuals with DS commonly exhibit unique neuropsychological profiles that emerge during specific developmental stages across the lifespan, often characterized by early developmental delay, cognitive strengths and weaknesses, behavior and mental health issues, and age-related cognitive decline, frequently resulting in early-onset Alzheimer's disease. These profiles are unique compared to other individuals with ID and reflect the genetic mechanisms and neuroanatomic features underlying the distinct neuropsychological phenotype associated with DS. This Special Issue aims to highlight the recent advancements in understanding the neuropsychological phenotype associated with DS across the lifespan. The lifespan perspective will cover four developmental stages: (1) early childhood; (2) school age; (3) young adulthood, and (4) older adulthood. Authors contributed cutting-edge original research studies and comprehensive reviews that address a broad range of topics related to DS, including early developmental trajectories, cognitive functioning, language, adaptive skills, behavior and mental health, assessment and diagnosis, age-related cognitive decline, and medical issues related to the neuropsychological phenotype and neuroimaging.

This paper offers a description of Down syndrome, and gives current information about research on identifying specific factors that influence the risk of conceiving a child with Down syndrome. It explores early, even prenatal, detection and the implications of that knowledge. It also presents factors that maximize the life potential for the child and its family.

The Neurobiology of Aging and Alzheimer Disease in Down Syndrome provides a multidisciplinary approach to the understanding of aging and Alzheimer disease in Down syndrome that is synergistic and focused on efforts to understand the neurobiology as it pertains to interventions that will slow or prevent disease. The book provides detailed knowledge of key molecular aspects of aging and neurodegeneration in Down Syndrome by bringing together different models of the diseases and highlighting multiple techniques. Additionally, it includes case studies and coverage of neuroimaging, neuropathological and biomarker changes associated with these cohorts. This is a must-have resource for researchers who work with or study aging and Alzheimer disease either in the general population or in people with Down syndrome, for academic and general physicians who interact with sporadic dementia patients and need more information about Down syndrome, and for new investigators to the aging and Alzheimer/Down syndrome arena. Discusses the complexities involved with aging and Alzheimer's disease in Down syndrome Summarizes the neurobiology of aging that requires management in adults with DS and leads to healthier aging and better quality of life into old age Serves as learning tool to orient researchers to the key challenges and offers insights to help establish critical areas of need for further research

Down Syndrome

Choosing Down Syndrome

A Study of a Genetic Disorder

Experiences of a Young Down's Syndrome Student in a Music Classroom

A Guide to Emotional and Behavioral Strengths and Challenges

A Practical Guide for Parents and Carers

This thoroughly updated second edition of *MENTAL WELLNESS IN ADULTS WITH DOWN SYNDROME* is upbeat and accessible in tone, yet encyclopedic in scope. The size of the book reflects both the breadth of the authors' knowledge--acquired as cofounders of the first medical clinic dedicated solely to the care of adults with Down syndrome--and the number of psychosocial issues and mental disorders that can affect people with Down syndrome. It's the go-to guide for parents, health practitioners, and caregivers who support teens and adults with Down syndrome. *MENTAL WELLNESS* emphasizes that understanding and appreciating both the strengths and challenges of people with Down syndrome is the key to promoting good mental health. It shows readers how to distinguish between bona fide mental health issues and common characteristics of Down syndrome--quirks or coping strategies. For example, although talking to oneself can be a sign of psychosis, many adults with Down syndrome use self-talk as an effective problem-solving strategy. The second edition includes new chapters on sensory issues (written by Dr. Katie Frank) and regression, expanded and now separate chapters on communication, concrete thinking, and visual memory, and an extensively updated chapter on Alzheimer's disease citing abundant new research. Other chapters cover a range of conditions and assessment and treatment options: What Is Normal? Self-Esteem & Self-Image Self-Talk Grooves & Flexibility Life-Span Issues Social Skills Mood & Anxiety Disorders Obsessive-Compulsive Disorder Psychotic Disorders Eating Refusal Challenging Behavior Self-Injurious Behavior Autism Tics, Tourette Syndrome & Stereotypies While it's not inevitable that people with Down syndrome will experience mental health problems, certain biological differences and environmental stressors can create greater susceptibility. Assessment and treatment options are detailed for each condition. With this guide, caregivers will be able to foster good mental health and troubleshoot challenging mental health issues.

The purpose of this qualitative descriptive study was to obtain information from adolescent siblings of children with Down syndrome (CWDS) regarding their perceptions of living with a child who has Down syndrome (DS).

Twenty-three adolescents between 12 and 19 years of age who lived with a child who had DS and additional health problems including cardiac, endocrine, gastrointestinal, hematological, neurological, and behavioral conditions were interviewed individually. After examining the tape recorded interviews, major themes revealed both positive and negative aspects of living with a child with DS who has major health problems. However, overall the adolescents reflected more positive experiences than negative experiences. In addition, most adolescents interviewed said they would not change anything about their experience. One interesting finding was that most participants did not believe the child with DS would ever live independently, perhaps because of the additional health problems these CWDS have. Information gained from this study provides information for nurses and families to help better understand adolescent sibling perceptions about living with a CWDS so more appropriate and individualized nursing interventions can be provided for siblings and their families. This information can assist nurses in supporting similar families gain better coping skills, learn more about the impact of DS on families, and provide information on stress management and nursing interventions to support family growth and development especially for adolescents who have the added responsibility of caring for and living with a CWDS.

While the struggle for disability rights has transformed secular ethics and public policy, traditional Christian teaching has been slow to account for disability in its theological imagination. Amos Yong crafts both a theology of disability and a theology informed by disability. The result is a Christian theology that not only connects with our present social, medical, and scientific understanding of disability but also one that empowers a set of best practices appropriate to our late modern context.

Out of all the 22 pair of autosomal chromosomes that each and every human being possesses at the time of their birth apart from sex chromosomes, what if one of the chromosome from any one of the pair goes missing? What if one chromosome is added extra? What is the fundamental mechanism that takes place behind this mutation? What leads to the causes and symptoms of these underlying genetical disorders? This book answers all the questions in today's parent's frantic life cycle that mostly opt for a late pregnancy which might lead to the birth of a genetically abnormal child. Trisomy 21 also called as Down syndrome is one of the frequently occurring genetic disorders (birth ratio 1:800) for parent's age greater than 35, which you can learn about in details offered in this book.

From Understanding the Neurobiology to Therapy

Intellectual Disabilities in Down Syndrome from Birth and throughout Life: Assessment and Treatment

Down Syndrome in Children and Infants

Understanding And Guiding Patients With Down Syndrome For New Parents

Neuropsychological Phenotype Across the Lifespan

Understanding the Characteristics and Causes of Down Syndrome

Down syndrome (DS) is the most common example of neurogenetic aneuploid disorder leading to mental retardation. In most cases, DS results from an extra copy of chromosome 21 (HSA21) producing deregulated gene expression in brain that gives raise to subnormal intellectual functioning. The topic of this volume is of broad interest for the neuroscience community, because it tackles the concept of neurogenomics, that is, how the genome as a whole contributes to a neurodevelopmental cognitive disorders, such as DS, and thus to the development, structure and function of the nervous system. This volume of Progress in Brain Research discusses comparative genomics, gene expression atlases of the brain, network genetics, engineered mouse models and applications to human and mouse behavioral and cognitive phenotypes. It brings together scientists of diverse backgrounds, by facilitating the integration of research directed at different levels of biological organization, and by highlighting translational research and the application of the existing scientific knowledge to develop improved DS treatments and cures. Leading authors review the state-of-the-art in their field of investigation and provide their views and perspectives for future research Chapters are extensively referenced to provide readers with a comprehensive list of resources on the topics covered All chapters include comprehensive background information and are written in a clear form that is also accessible to the non-specialist

Genetics and Neurobiology of Down Syndrome provides a thorough review of the genetic etiology and mechanisms of trisomy 21. The author discusses the history of the syndrome, along with the clinical features and health consequences, including physical features, cognitive, and neurologic symptoms. Genetic counseling on pros and cons of prenatal screening and testing and associated ethical issues are explored. This unique book also covers the societal and demographic aspects as well as the future direction of therapeutic development.

Reviews genetic etiology and mechanisms of trisomy 21 Discusses prenatal screening and genetic counseling, including ethical aspects Explores link between Down Syndrome and susceptibility to Alzheimer's and early brain aging Covers cognitive and neurological symptoms and other health consequences Identifies future therapeutic developments

Parents of children with Down syndrome and other intellectual disabilities are accustomed to paying close attention to their child's physical, cognitive, and emotional development. This proactive approach should also include their child's sexual development, which for many parents may not seem as obvious or urgent, especially to those with young children. Drawing on her unique background as both a sexual educator and mother of a child with Down syndrome, the author blends factual information and practical ideas for teaching children with Down syndrome about their bodies, puberty, and sexuality. This book gives parents the confidence to speak comfortably about these sometimes difficult subjects. In an easy-to-read, non-clinical style, the book covers relevant issues and concerns for children of all ages, such as: Labelling & explaining private body parts; Identifying & expressing emotions; Respecting personal space; Teaching self-care & hygiene; Understanding norms of privacy; Understanding gender identity; Showing appropriate levels of affection. It also covers later issues that affect teenagers and young adults, including: Anticipating and understanding puberty; Dealing with periods, bras for girls; Experiencing erections, wet dreams for boys; Relating to the opposite sex; Sharing parental values about sexuality; Explaining sexual relationships; Preventing sexual abuse; Understanding how Down syndrome affects puberty & fertility rates. Each chapter highlights important points with key messages, teaching activities, parental pauses, and anecdotes, all of which prompt readers to stop and consider concepts or values associated with a particular topic. The final chapter covers the special concerns of parents who are now teaching teenaged or adult children about sexuality for the first time. It concludes with extensive appendices containing invaluable teaching materials and illustrations of body parts and functions.

The purpose of this manual is to provide an educational genetics resource for individuals, families, and health professionals in the New York - Mid-Atlantic region and increase awareness of specialty care in genetics. The manual begins with a basic introduction to genetics concepts, followed by a description of the different types and applications of genetic tests. It also provides information about diagnosis of genetic disease, family history, newborn screening, and genetic counseling. Resources are included to assist in patient care, patient and professional education, and identification of specialty genetics services within the New York - Mid-Atlantic region. At the end of each section, a list of references is provided for additional information. Appendices can be copied for reference and offered to patients. These take-home resources are critical to helping both providers and patients understand some of the basic concepts and applications of genetics and genomics.

A New York, Mid-Atlantic Guide for Patients and Health Professionals

Just Like You

Neurobehavioural Specificity

An Introduction for Parents

Mothers' and Infants' Effects

Proceedings of the Sixth Annual National Down Syndrome Society Symposium, Held in New York, New York, December 7-8, 1989

Down SyndromeFrom Understanding the Neurobiology to TherapyElsevier

Progress in Clinical and Biological Research, Volume 384 The Phenotypic Mapping of Down Syndrome and Other Aneuploid Conditions Proceedings of a National Down Syndrome Society Conference Held in New York, January 14 and 15, 1993 Charles J. Epstein, Editor In the last decade, considerable progress in the phenotypic mapping of Down syndrome and other syndromes caused by aneuploidy has been made, answering many perplexing questions and raising new ones. Of primary concern is the relationship between the individual components of the Down syndrome phenotype and the specific genes that give rise to them. In its continuing role of supporting basic research through scientific conferences, the National Down Syndrome Society brought together a panel of experts from genetics, molecular, and cellular biology to explore the genotype—phenotype correlations of Down syndrome and other aneuploid conditions. The Phenotypic Mapping of Down Syndrome and Other Aneuploid Conditions discusses approaches to understanding the genetics and the underlying mechanisms of the different phenotypic characteristics of Down syndrome, as well as animal models of trisomy 21 relevant to phenotypic mapping of Down syndrome. Since the precedents for phenotypic mapping go far beyond human chromosome 21, the book also covers several other aneuploid states in addition to Down syndrome itself, thereby presenting the latest information about state-of-the-art approaches to phenotypic mapping. The text is divided into the following sections: General Approach to Phenotypic Mapping in Aneuploidy Phenotypic Mapping of Down Syndrome Phenotypic Mapping of Animal Models Phenotypic Mapping in Conditions Other than Trisomy 21 The Phenotypic Mapping of Down Syndrome and Other Aneuploid Conditions is essential reading for medical and human geneticists as well as other scientists working in the fields of Down syndrome and related conditions. In addition, clinicians caring for individuals with Down syndrome and other syndromes resulting from aneuploidy will find this book of interest.

Recent Advances in Alzheimer Disease Research is a book series focusing on contemporary research on Alzheimer's disease epidemiology, pathophysiology, diagnosis and therapy. The series features reviews by experts in neuroscience and aims to provide current information in the field to both researchers and clinicians. Down syndrome is a chromosomal disorder affecting more than 5.8 million individuals worldwide. Down syndrome can be viewed as a complex multi-system disorder as it manifests into significant physical, psychological, and cognitive abnormalities in affected persons. With aging, most adults with Down syndrome develop the clinical and neuropathological hallmarks of Alzheimer's disease. Unfortunately, no extant treatments have proven beneficial for cognitive dysfunction for either Down syndrome or Alzheimer's disease. An incomplete understanding of the common pathogenic mechanisms that link these two disorders has limited researchers' progress to this end. Common Pathogenic Mechanisms between Down syndrome and Alzheimer's Disease: Steps toward Therapy is a novel attempt to fill this void, by summarizing the work of world-renowned scientists in the field of Alzheimer's disease and Down syndrome, and thus providing an unprecedented opportunity to attract attention to Down syndrome as a tool for understanding the common molecular mechanisms that underlie Alzheimer's disease and to develop new therapies for similar neurodegenerative disorders of the brain. The book covers the fundamental pathophysiology and molecular mechanisms behind the incidence of Alzheimer's disease in Down syndrome affected individuals as well other key topics such as diagnosis and management, in vivo brain imaging studies, and progressive neurodegeneration of the monoaminergic system. The book concludes with a review of recent clinical trials of drugs designed to mitigate cognitive dysfunction in aging adults with Down syndrome and establishes a scientific warrant for the increased testing of candidate pharmacotherapies. Common Pathogenic Mechanisms between Down syndrome and Alzheimer's Disease: Steps toward Therapy is a useful reference clinicians involved in treating Down syndrome patients as well as for neuroscience researchers seeking to understand the influence of a specific case of aneuploidy on Alzheimer's disease incidence and its progression at the molecular level.

Functional neurogenomics is the interface between neurosciences knowledge and Omics sciences data. It characterizes, identifies, and analyzes expression of genes involved in the function of several structures of brain and cognition. Its major goal is to understand the main pathways of brain function, plasticity, and the etiopathogenesis of brain diseases. We have done an integrate analysis of global brain gene expression linked to cognitive disability in Down syndrome. It is a new approach to better understand the control of complex brain networks of gene expression involved in this syndrome. The objective of the chapter is to present computationally simulate data of global expression of 108 genes associated with cognitive disability and neuroplasticity from DNA microarray experiments of postmortem brain from normal controls and patients with Down syndrome. Some genes that were studied are involved in metabolic process and also promote hippocampal plasticity; interventions reawaken the neural plasticity may permit improved cognition. One of the striking findings was that some of the causes of dysregulation appear to result in the brain being trapped in an immature state of synaptic development. Understanding the functional neurogenomics of Down syndrome brain, emerge a new scenario to partially overcome cognitive disability through new prospective genomic therapies.

A Guide for Parents and Professionals

Facts about Down Syndrome

Understanding of Illness in Children and Young People with Down's Syndrome

Phenotypic Mapping of Down Syndrome

Understanding Genetics

Common Pathogenic Mechanisms between Down Syndrome and Alzheimer`s Disease Steps toward Therapy

Offers help and advice to parents and carers of children with Down Syndrome. Covers current medical knowledge, the special care of babies and young children, education and training, emotional and sexual development, integration into society.

Risk Factors for Down Syndrome Birth: Understanding the Causes from Genetics and Epidemiology.

The material in this publication is intended to provide a general overview of Down syndrome and select, reliable resources.

An argument that more people should have children with Down syndrome, written from a pro-choice, disability-positive perspective. The rate at which parents choose to terminate a pregnancy when prenatal tests indicate that the fetus has Down syndrome is between 60 and 90 percent. In Choosing Down Syndrome, Chris Kaposy offers a carefully reasoned ethical argument in favor of choosing to have such a child. Arguing from a pro-choice, disability-positive perspective, Kaposy makes the case that there is a common social bias against cognitive disability that influences decisions about prenatal testing and terminating pregnancies, and that more people should resist this bias by having children with Down syndrome. Drawing on accounts by parents of children with Down syndrome, and arguing for their objectivity, Kaposy finds that these parents see themselves and their families as having benefited from having a child with Down syndrome. To counter those who might characterize these accounts as based on self-deception or expressing adaptive preference, Kaposy cites supporting

evidence, including divorce rates and observational studies showing that families including children with Down syndrome typically function well. Himself the father of a child with Down syndrome, Kaposy argues that cognitive disability associated with Down syndrome does not lead to diminished well-being. He argues further that parental expectations are influenced by neoliberal ideologies that unduly focus on the supposed diminished economic potential of a person with Down syndrome. Kaposy does not advocate restricting access to abortion or prenatal testing for Down syndrome, and he does not argue that it is ethically mandatory in all cases to give birth to a child with Down syndrome. People should be free to make important decisions based on their values. Kaposy's argument shows that it may be consistent with their values to welcome a child with Down syndrome into the family.

Proven and Effective Instructional Techniques for Parents and Professionals

The Neurobiology of Aging and Alzheimer Disease in Down Syndrome

Genetics and Neurobiology of Down Syndrome

Women's Understanding and Perception of Serum Screening for Down's Syndrome

Understanding the Perspectives of Adolescent Siblings of Children with Down Syndrome who Have Multiple Health Problems

Molecular Genetics of Chromosome 21 and Down Syndrome

Editorial Advisor, Helen Bynum is a freelancer historian and author. --Book Jacket.

In every human body there is a nucleus, which contains 23 pairs of chromosomes. Genes are arranged on the chromosomes and are grouped into chromosomes. Typically, the nucleus of each cell contains 23 pairs of chromosomes, half from each parent. Down syndrome occurs when an individual has a full or partial extra copy of chromosome 21. The additional genetic material from the extra chromosome causes the characteristic features associated with Down syndrome. A few of the most noticeable traits of Down syndrome are intellectual disability, characteristic facial features, and a higher risk of heart disease, leukemia, and early-onset Alzheimer's disease. Down syndrome is caused by a numerical chromosomal abnormality, and individuals with Down syndrome are born with an extra chromosome. Chromosomes are bundles of genetic material, and chromosomes are found in every cell of the body. Down syndrome is a full-body condition, and it affects every part of the body. Down syndrome is a lifelong condition, and it is not curable. Down syndrome is a complex condition, and it is important to understand the range of perspectives, including the biology, psychology, speech and language, health care, and social competence of both children and adults with Down Syndrome. All the information is gathered and placed in the context of the neuro-genetic science that is developing around this area.

Research on the multiple aspects of cognitive impairment in Down syndrome (DS), from genes to behavior to treatment, has made tremendous progress in the last decade. The study of congenital intellectual disabilities such as DS is challenging since they originate from the earliest stages of development and both the acquisition of cognitive skills and neurodegenerative pathologies are cumulative. Comorbidities such as cardiac malformations, sleep apnea, diabetes and dementia are frequent in the DS population, as well, and their increased risk provides a means of assessing early stages of these pathologies that is relevant to the general population. Notably, persons with DS will develop the histopathology of Alzheimer's disease (formation of neuritic plaques and tangles) and are at high risk for dementia, something that cannot be predicted in the population at large. Identification of the gene encoding the amyloid precursor protein, its localization to chromosome 21 in the 90's and realization that all persons with DS develop pathology identified this as an important piece of the amyloid cascade hypothesis in Alzheimer's disease. Awareness of the potential role of people with DS in understanding progression and treatment as well as identification of genetic risk factors and also protective factors for AD is reawakening. For the first time since DS was recognized, major pharmaceutical companies have entered the search for ameliorative treatments, and phase II clinical trials to improve learning and memory are in progress. Enriched environment, brain stimulation and alternative therapies are being tested while clinical assessment is improving, thus increasing the chances of success for therapeutic interventions. Researchers and clinicians are actively pursuing the possibility of prenatal treatments for many conditions, an area with a huge potential impact for developmental disorders such as DS. Our goal here is to present an overview of recent advances with an emphasis on behavioral and cognitive deficits and how these issues change through life in DS. The relevance of comorbidities to the end phenotypes described and relevance of pharmacological targets and possible treatments will be considerations throughout.

Visions for the 21st Century

A Causal Modelling Approach

Risk Factors for Down Syndrome Birth: Understanding the Causes from Genetics and Epidemiology

Functional Neurogenomics: A New Approach to Study Cognitive Disability in Down Syndrome Brain

An Introduction for Parents and Carers

Mental Wellness in Adults with Down Syndrome

This book covers recent research with neurobiological and cognitive features of Down syndrome. There has been notable progress in understanding the psychobiological concomitants of Down syndrome. New data have pinpointed selective neurological defects, and recent research has revealed that it is possible to work with the supposedly intractable, irreversible deficits accompanying Down syndrome. Surprising improvements in cognitive functions, including language, can be shown by children and even adolescents. The topics include: early concept learning in infants with Down syndrome (Jennifer Wishart); the emergence of language skills (Lars Smith), early lexical development (Caroline Mervis), and developmental asynchrony of language development in Down syndrome (Jon Miller); the use of computers with speech output to promote language use (Laura Meyers); differences between Down syndrome and normally developing children in the use of a number concept (Rochel Gelman); the neuropsychological status of older Down syndrome individuals (Krystyna Wisniewski); neuropathological (Thomas Kemper), psychobiological (Siegfried Peuschel), and neurophysiological (Eric Courchesne) aspects of Down syndrome; and the relation between Down syndrome and Alzheimer's disease (Michael Thase). The Psychobiology of Down Syndrome is included in the series Issues in the Biology of Language and Cognition, edited by John C. Marshall, and is sponsored by the National Down Syndrome Society. A Bradford Book.

This engrossing volume explores Down syndrome and disability in the cultural context of school. Some of the issues addressed include literacy and language, friendship, behavior, and the cultural construction of disability. The author ends with a call for the elimination of segregated schooling.

Providing a comprehensive survey of the clinical, educational, developmental, psychosocial, and transitional issues relevant to people with Down syndrome, this book addresses the needs of family members, caregivers, and professionals alike. Edited in association with the National Down Syndrome Society, this up-to-date treatment incorporates the newest developments concerning sexuality, inclusion, transition into adulthood, and legislation, as well as a discussion of the Human Genome Project and the sequencing of chromosome 21.

Downs

The History of a Disability

Schooling Children with Down Syndrome

Reimagining Disability in Late Modernity

Understanding the Communicative Cues of Infants with Down Syndrome

A Qualitative Research Study