genetics resources: a directory

CONNECTICUT DEPARTMENT OF PUBLIC HEALTH

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STATE OF CONNECTICUT

DEPARTMENT OF PUBLIC HEALTH

J. Robert Galvin, M.D., M.P.H. Commissioner



M. Jodi Rell Governor

October 1, 2004

Dear Reader:

I am pleased to present the Connecticut Department of Public Health's new publication, **Genetics Resources: A Directory.**

Advances in genetics hold the promise of great benefits to the health of Connecticut residents. Yet there is a growing need for enhanced genetics knowledge among physicians, other health care providers, and the general public. To help meet this need, the department has developed a genetics resources directory - a timely source for accessing local, regional, and national genetics information. This directory was developed to help Connecticut residents and their medical caregivers access information about the significant role that genes play in human health and disease, and locate services such as genetic testing, treatment, and follow-up.

The Directory begins with an overview of basic genetics, and provides sources for additional information. It also displays clusters of various genetic conditions and lists specialized resources and supports for each condition whenever possible.

We hope you find this Directory a useful tool in your search for genetics information. We welcome your feedback on its utilization and your suggestions regarding future public education efforts in genetics.

Sincerely,

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J. Robert Galvin, M.D., M.P.H. Commissioner



PHONE: (860) 509-7101 FAX: (860) 509-7111 410 Capitol Avenue - MS#13COM, P.O. Box 3340308, Hartford, Connecticut 06134-0308 Affirmative Action/Equal Employment Opportunity Employer

Genetics Resources: A Directory



Connecticut Department of Public Health





ACKNOWLEDGEMENTS

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CT Department of Public Health

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PREFACE

Rapid developments are causing genetics to become an increasingly integral part of medical care. The optimal translation of genetic developments into medical practice is just emerging. Additionally, the communication of genetic information between medical providers and patients, patients and their medical providers, and genetic services and the public will require special caution and counseling because genetics – and genetic information- affects people in unique ways. Such information may predict events that will occur years in the future, or not at all. It may predict the future of other family members, and has the potential impact to challenge, and even stigmatize both individuals and families.¹

This publication, **Genetics Resources: A Directory**, is a product of a multi-year genetics planning initiative at the Connecticut Department of Public Health. The development of the directory was prompted by concern that a lack of general, current genetics knowledge among the public and medical professionals could pose the potential for missed health promotion opportunities. The development of this up-to-date resource for genetics information is an important part of a strategy aimed at increasing genetics 'literacy' for all.

In that light, this directory is intended to assist the general public, affected families, and the medical community to further their knowledge of genetics, genetic conditions, services, and supports – and to make it easier for those searching for such sources to locate and access them. Readers will note that the information and resources included in the Directory extend beyond those relating to the traditional public health genetics efforts in newborn screening to encompass the impact of genetics across the lifespan. You will also note that wherever possible, accompanying the listing relating to a particular diagnosis or genetic condition, are additional sources of information in print and further readings.

It should be noted that this first printing of Connecticut's **Genetics Resources: A Directory**, will require updating and revision as the "genomics revolution" continues its rapid expansion, poses new challenges and the creation of new resources in response to them.

As our planning and preparation for the impacts of genetic developments on the public's health in Connecticut continue, the need for sharing timely, accurate and useful information will grow. Public health will continue to play a critical role in addressing the challenges posed by genetics in the future.

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I. GENETICS THROUGHOUT THE LIFESPAN

Human genetics. Understanding ourselves and our make-up from the most basic of perspectives can be overwhelming. The study of genetics at one time was considered obscure. Even today, with the completion of the Human Genome Project and the related media exposure, the general public's perception about the risk for birth defects or genetic disease is often stated as a "one in-a-million" possibility. Many people believe that this science is remote from their day-to-day lives. The reality, however, is that genomic medicine is here to stay and genetic testing and information will be encountered by all people at some time in their lives.

Genetics is the transfer of information from one generation to the next. The foundation of genetics is genes, which are made up of molecules of DNA (deoxyribonucleic acid). Genes come in pairs, and are packaged in structures called chromosomes, which collectively form an organism's genome.

Every cell in an individual contains every gene in its' entire genome. It was originally believed that humans had approximately 100,000 genes; however, it is now known that the human genome is made up of only about 35,000 genes. Humans have a total of 46 chromosomes in each cell, which like genes, also come in pairs, 23 pairs altogether. One chromosome in each pair comes from an egg from the individual's mother, and the other member of the pair comes from sperm from the individual's father. The joining of egg and sperm at conception results in a fertilized egg with 46 chromosomes, 23 pairs. Of the 23 pairs of chromosomes, 22 pairs are called the autosomes. The 23rd pair are the sex chromosomes, with females having two "X" chromosomes, and males having one "X" chromosome and one "Y" chromosome.

Everything about us, including our health, at least in part, is determined by our genes. Our genetic blueprint not only determines whether or not we or our offspring have a serious genetic disorder, but also determines our chance to develop a chronic disease, or our susceptibility to an infectious disease.

Traditionally, genetic testing and counseling has centered on prenatal and pediatric genetic diagnoses. This is changing and rapidly expanding into other medical fields. However, there are key times throughout the lifespan that genetic issues are likely to be encountered. To begin, patients and families involved in reproductive decision-making face genetic concerns. For example, prior to pregnancy, parental carrier testing is routinely available for a variety of genetic diseases more common in specific ethnic groups. Gamete donors are often asked to submit to a variety of genetic tests. Pre-implantation genetic diagnosis affords couples known to be at risk for genetic disease in the fetus the option of making that diagnosis in fertilized eggs in-vitro prior to transfer to the uterus.

Historically, women 35 years of age or older at the time of expected delivery were the typical prenatal genetics referral. Now, with the growing list of prenatal testing options, all pregnant women and women planning a pregnancy are potential candidates for genetic counseling.

Each year, state newborn screening programs test millions of newborns for disorders that require early detection and medical treatment to prevent serious illness or death. The Connecticut Department of Public Health currently tests for nine disorders through its Newborn Screening Program. Determining which disorders should be included in newborn screening is controversial. The challenge is maintaining the ability to manage test results effectively and provide quality care to patients, while keeping pace with advancing technology and the ability to test for additional conditions.

Genetic evaluation and testing is nothing new for pediatricians and other health care professionals who work with children with birth defects. However, a new challenge is the controversial issue of testing minors for adult-onset conditions.

The identification of susceptibility genes for common adult-onset genetic disease is moving the field of genetic testing and counseling in a new and demanding direction. Diabetes, certain cancers, and Alzheimer's disease are some examples of conditions for which a genetic component has been identified. Understanding and uncovering the genetic basis of "common" diseases is bringing genetics into primary care and into adult medicine, a relatively new area. Additionally, genomic medicine confronts the way we have historically defined health and illness. Pre-symptomatic and susceptibility testing have defined an entirely new concept – people described as "genetically unwell" – healthy individuals who are expected to develop or have an increased risk to develop a disorder. The psychosocial implications of this information are still being explored and represent a continuing challenge to the genetics profession.

Geneticists and the individuals and families they serve, have valid concerns about genetic testing and genomic medicine. They worry about the possible misuse of information about genetic traits or predisposition as a basis for denial of health coverage or employment.

The issue of gene patents is another area of controversy. There are legal and ethical issues posed by storage of DNA samples. Also, genetic information is familial; the test results of one person have implications for other family members. Finally, many genetic conditions remain difficult to treat or prevent, and genetic testing may be limited to providing information only, rather than affecting the clinical course of disease.

Given these concerns, detailed counseling, informed consent, and confidentiality should be key aspects of the genetic testing process. Exciting and stimulating, the study of genetics and genomics continues to bring hope to many individuals and families.

II. GENETIC SERVICES IN CONNECTICUT

BRIDGEPORT HOSPITAL

267 Grant Street Bridgeport, CT 06610 www.bridgeporthospital.com

MATERNAL FETAL MEDICINE Phone: 203-384-3049 Pediatric Phone: 203-384-3574 An outreach site of Yale University School of Medicine

CONNECTICUT DEPARTMENT OF PUBLIC HEALTH

NEWBORN SCREENING PROGRAM 410 Capitol Avenue P.O. Box 340308 Hartford, CT 06134-0308 Phone: 860-509-8081 Fax: 860-509-7720 www.dph.state.ct.us

Commissioner: J. Robert Galvin, MD, MPH Deputy Commissioner: Norma Gyle, RN, PhD

Connecticut State Law mandates that all newborns delivered in Connecticut be screened for selected genetic and metabolic disorders. The Newborn Screening Program consists of three components: testing,tracking, and treatment. The aim of this program is to screen all babies prior to hospital discharge or within the first 4 days of life. The goal is early identification of infants at increased risk for disorders so that medical treatment can be promptly initiated to avert complications and prevent irreversible problems or death.

GREENWICH HOSPITAL

5 Perryridge Road Greenwich, CT 06830 203-863-3000

GENETIC CONSULTATION SERVICE Phone: 203-863-3552 An outreach site of Yale University

PERINATAL GENETIC COUNSELING Phone: 203-863-3917 Fax: 203-863-3467 Email: jodir@greenhosp.org www.greenhosp.org

Norwalk Hospital

Maple Street Norwalk, CT 06856 www.norwalkhosp.org

PERINATOLOGY Phone: 203-855-3588 Fax: 203-852-3610

Stamford Hospital

Shelburne Avenue at West Broad Street Stamford, CT 06904 Phone: 203-325-7000 www.stamhealth.org

MATERNAL FETAL MEDICINE Phone: 203-325-7060 Fax: 203-325-7908

UNIVERSITY OF CONNECTICUT HEALTH CENTER

DIVISION OF HUMAN GENETICS UConn Health Partners 65 Kane Street, MC 7120 West Hartford, CT 06119 Phone: 860-523-6464 Fax: 860-523-6465 www.uchc.edu/genetics

GENERAL GENETICS CONSULTATION SERVICE Phone: 860-523-6464 Fax: 860-523-6465 Provides up-to-date information about the heritability and cause of genetic disorders, such as birth defects, mental retardation and late onset adult diseases, provide evaluation, diagnosis and management of persons with genetic disorders; provides information about the recurrence risk to families with a genetic disorder; and providessupportive counseling

to them and their families.

HEREDITARY CANCER PROGRAM Phone: 860-523-6464 Fax: 860-523-6465 A referral/consultation service, which evaluates families with multiple members with cancer, to assess the likelihood for hereditary cancer. Genetic testing is offered to families with appropriate histories.

Patients also seen at:

Middlesex Hospital 28 Crescent Street Middletown, CT 06457 www.midhosp.org

GAUCHER DISEASE CENTER Phone: 860-523-6464 Fax: 860-523-6465 Established through the National Gaucher Foundation (www.gaucherdisease.org), to work with patients and doctors in diagnosis, management and treatment of Gaucher Disease.

GENETIC INBORN ERRORS OF METABOLISM SERVICE Phone: 860-523-6464 Fax: 860-523-6465 Provides diagnostic evaluation of metabolic disorders that are detected by the Connecticut State Newborn Screening Program or by other evaluations.

OTHER COLLABORATIVE PROGRAMS Phone: 860-523-6464 Fax: 860-523-6465 Hemophilia Huntington Disease **Neurogenetics Program** Neuromuscular Disorders Newborn Cystic Fibrosis Screening Program Education Phone: 860-523-6464 Fax: 860-523-6465 Certified residency in medical genetics, clinical electives/rotations for medical students, residents, genetic counseling students, and graduate fellows, undergraduate, graduate and continuing education.

PRENATAL GENETICS PROGRAM Phone: 860-523-6464 Fax: 860-523-6465 Provides up-to-date information about the inheritance of genetic conditions, about the cause for various birth defects, and the tests that are available to detect whether an individual or couple has a chance to have a child with such a condition. Offers tests to determine whether a pregnancy may be affected by a birth defect or genetic condition.

Patients also seen at:

Middlesex Hospital 28 Crescent Street Middletown, CT 06457 www.midhosp.org

Hartford Hospital Maternal-Fetal Medicine 80 Seymour Street Hartford, CT 06102 www.harthosp.org

CONNECTICUT PREGNANCY EXPOSURE INFORMATION SERVICE Phone: 800-325-5391/860-523-6419 Fax: 860-523-6465 www.docdb.uchc.edu/genetics/Pregnancy Exposure.htm

As a state-funded program that provides up-to-date information on all types of exposures during pregnancy for Connecticut residents or women with Connecticut physicians. This service is a member of The Organization of Teratology Information Services. Located in West Hartford.

Patients with workplace exposures also seen in Occupational and Environmental Reproductive Hazards Clinic UConn Health Center Dowling North Building, 3rd floor Farmington, CT 06032 Phone: 800-325-5391/860-523-6419 www.oehc.uchc.edu/clinser/reprohaz.htm

LABORATORY SERVICES

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Human Genetics Laboratories UConn Health Center 263 Farmington Avenue Butler Building #5 Farmington, CT 06030-6140 Phone: 860-679-2469 Fax: 860-679-3616

YALE UNIVERSITY SCHOOL OF MEDICINE

DEPARTMENT OF GENETICS 333 Cedar Street New Haven, CT 06520 www.info.med.yale.edu/genetics

GENETIC CONSULTATION SERVICE Phone: 203-785-2660 Fax: 203-785-3404 Diagnosis, management and genetic counseling for a broad range of hereditary and genetic-influenced conditions. Ongoing treatment including nutritional treatment, bone marrow and stem cell transplant, pharmacological therapy, and multidisciplinary management.

Patients also seen at:

Bridgeport Hospital 267 Grant Street Bridgeport, CT 06610 Phone: 203-384-3049 www.bridgeporthospital.com

Greenwich Hospital 5 Perryridge Road Greenwich, CT 06830 Phone: 203-863-3552 www.greenhosp.org

Danbury Hospital 24 Hospital Avenue Danbury, CT 06810 Phone: 203-797-7124 www.danhosp.org

GENETIC INBORN ERRORS OF METABOLISM SERVICE Phone: 203-785-2660 Fax: 203-785-3404

STATEWIDE GENETICS SERVICES PROGRAM Phone: 203-785-2660 Fax: 203-785-3404 Part of the State Department of Public Health program to community based medical genetic services with public health planning. OTHER COLLABORATIVE PROGRAMS:

CRANIOFACIAL GENETICS Phone: 203-737-2049 Fax: 203-785-5714

HUNTINGTON DISEASE Phone: 203-785-2661 Fax: 203-785-7673

NEUROFIBROMATOSIS PROGRAM Phone: 203-785-2660 Fax: 203-785-3404 Neurogenetics Clinic Phone: 203-785-4085 Fax: 203-785-5694

CANCER GENETIC COUNSELING PROGRAM Yale Cancer Center 55 Church Street Suite 800B New Haven, CT 06510 Phone: 203-764-8400 Fax: 203-764-8401 www.info.med.yale.edu/ycc

Outreach sites:

Praxair Cancer Center Danbury Hospital 24 Hospital Avenue Danbury, CT 06810 www.danhosp.org

Bendheim Cancer Center Greenwich Hospital 77 Lafayette Place Greenwich, CT 06830 www.greenhosp.org

Whittingham Cancer Center Norwalk Hospital Maple Street Norwalk, CT 06856 www.norwalkhosp.org

Education:

Phone: 203-785-2660 Fax: 203-785-3404 Certified residency in medical genetics, clinical electives/rotations for medical students, residents, genetic counseling students, and graduate fellows, undergraduate, graduate and continuing education. Laboratory training in clinical molecular genetics, clinical biochemical genetics, and clinical cytogenetics

PRENATAL SERVICE Department of Genetics 333 Cedar Street New Haven, CT 06520 Phone: 203-785-2661 Fax: 203-785-7673

Prenatal Outreach Sites:

Lawrence and Memorial Hospital 365 Montauk Avenue New London, CT 06320 www.Imhospital.org

Waterbury Hospital 64 Robbins Street Waterbury, CT06721 www.waterburyhospital.org

LABORATORY SERVICES Biochemical Disease Detection Laboratory Yale University School of Medicine Department of Genetics 333 Cedar Street WWW 313 P.O. Box 208005 New Haven, CT 06520 Phone: 203-785-2662 FAX: 203-785-3535 Email: biochemical.lab@yale.edu

Studies include amino acid analysis (HPLC), total homocysteine (HPLC), organic acid analysis (GC/MS), carnitine and acylcarnitine profiles (electrospray tandem MS), screening for fatty acid oxidation disorders (urine acylglycine profile). **C**YTOGENETICS

(including molecular cytogenetics) Yale University School of Medicine Department of Genetics 333 Cedar Street WWW 333 New Haven, CT 06520

Laboratory Director: 203-785-6317 Administrative Assistant: 203-785-2146 Prenatal laboratory: 203-785-5140 Bone Marrow & Blood laboratory: 203-785-2656 Research Cytogenetics: 203-785-6523

DNA Diagnostics Laboratory Yale University School of Medicine Department of Genetics 333 Cedar Street New Haven, CT 06520 Phone: 203-785-5745 Fax: 203-785-7227

Studies include fragile X testing, adult polycystic kidney disease, Duchenne and Becker muscular dystrophy, Gorlin syndrome, Hemophilia A, medium chain acyldehdrogenase deficiency, multiple endocrine neoplasia, and ornithine transcarbamylase deficiency.

Did You Know...?

Goldfish have more...... chromosomes than humans.

III. UMBRELLA ORGANIZATIONS & REFERENCES

A. CONSUMER ORGANIZATIONS:

GENETIC ALLIANCE

4301 Connecticut Avenue, NW Suite 404 Washington, DC 20008 Phone: 800-336-4363/202-966-5557 Fax: 202-966-8553 Email: info@geneticalliance.org www.geneticalliance.org

The Genetic Alliance is an international coalition comprised of millions of individuals with genetic conditions and over 600 advocacy, research and health care organizations. The staff and board work together to empower individuals and families living with genetic conditions.

MARCH OF DIMES

1275 Mamaroneck Avenue White Plains, NY 10605 Phone: 888-663-4637/914-428-7100 Fax: 914-997-4763 Email: askus@marchofdimes.com www.modimes.org

The mission of the foundation is to improve the health of babies by preventing birth defects and infant mortality. The March of Dimes funds programs of research, community services, education, and advocacy.

In Connecticut: 255 Pitkin Street East Hartford, Ct 06108 Phone: 860-290-5440 Fax: 860-290-5433 Email: CT322@marchofdimes.com www.marchofdimes.com/connecticut

South Division 11 Belden Avenue Norwalk, CT 06850 Phone: 203-849-9800 Fax: 203-847-8060 Email: CT322@marchofdimes.com www.marchofdimes.com/connecticut

NATIONAL ORGANIZATION FOR RARE DISORDERS (NORD)

55 Kenosia Avenue P.O. Box 1968 Danbury CT 06813 Phone: 800-999-6673/203-744-0100 Fax: 203-798-2291 Email: orphan@rarediseases.org www.rarediseases.org

NORD is a unique federation of voluntary health organizations dedicated to helping people with rare "orphan" disease and assisting the organizations that serve them. NORD is committed to the identification, treatment, and cure of rare disorders, through programs of education, advocacy, research, and service.

NATIONAL HEALTHY MOTHERS, HEALTHY BABIES COALITION

121 North Washington Street Suite 300 Alexandria, VA 22314 Phone: 703-836-6110 Fax: 703-836-3470 Email: info@hmhb.org www.hmhb.org

Focuses attention on raising public awareness of the basic components of prenatal care – early care, good nutrition, avoidance of drugs (including tobacco and alcohol), and promotion of breastfeeding.

B. On-Line Resources

ON-LINE MENDELIAN INHERITANCE IN MAN (OMIM)

www.ncbi.nlm.nih.gov/entrez/query/fcgi?db=OMIM This database is a catalog of human genes and genetic disorders authored and edited by Dr. Victor A. McKusick and his colleagues.

GeneTests

www.genetests.org

Information for health professionals about hundreds of genetic tests. Also includes links to disease information and geographic listings of genetic services.

U.S. NATIONAL SCREENING STATUS REPORT

www.genes-r-us.uthscsa.edu/resources/new-born/screenstatus.htm

Lists status of newborn screening in the United States, state by state, including links to additional conditions states are screening for using tandem mass spectrometry. Part of National Newborn Screening and Genetics Resource Center, a cooperative agreement between the Maternal and Child Health Bureau Genetic Services Branch and the University of Texas Health Science Center at San Antonio Department of Pediatrics.

NATIONAL INSTITUTES OF HEALTH

www.nih.gov

U.S. Department of Health and Human Services, A-Z index of NIH health resources, clinical trials, health hotlines, MEDLINE plus, drug information.

NATIONAL LIBRARY OF MEDICINE

www.ncb.nlm.nih.gov

Part of the NIH, the world's largest medical library. Search on health topics, drug information, medical encyclopedia and dictionary, news, directories and other resources. Includes a link to "Genetics Home Reference", a website for consumer information about genetic conditions, disease summaries, gene and chromosome summaries, and a glossary of genetic and medical terms.

National Human Genome Research Institute

www.genome.gov

An on-line listing of information available on the Web for researchers, consumers, support and advocacy groups, health professionals, policy makers and more. Includes links to clinical genetics resources, search engines and family history tools, consumer resources, support groups, legal and ethical issues in genetics, and educational and genetic resources for health professionals such as primary care providers and nurses.

INFORMATION FOR GENETIC PROFESSIONALS

www.kumc.edu/gec/geneinfo.html

Comprehensive on-line service based at University of Kansas Medical Center, provides information for genetic professionals, with clinical, research, and educational resources for genetic counselors, clinical geneticists and medical geneticists. Includes Human Genome Project resources, centers, news and other online sites, educational resources including curricula, lesson plans and activities, courses, books and other publications, videotapes, and computer programs. Also includes listings of upcoming professional meetings in genetics, and information on careers in human genetics

C. PROFESSIONAL GENETICS SOCIETY

American College of Medical Genetics (ACMG)

9650 Rockville Pike Bethesda, MD 20814 Phone: 301-634-7127 Fax: 301-634-7275 Email: acmg@acmg.net www.acmg.net

ACMG is an organization composed of biochemical, clinical, cytogenetic, medical and molecular geneticists, genetic counselors and other health care professionals committed to the practice of medical genetics. The ACMB provides education, resources and a voice for the medical genetics profession. To make genetic services available to and improve the health of the public, the ACMG promotes the development and implementation of methods to diagnose, treat and prevent genetic disease.

Did You Know...?

If typed, the genetic code of a human would fill about 134 complete sets of the Encyclopedia Brittanica.

American Society for Human Genetics

www.ashg.org

The American Society for Human Genetics is a professional organization composed of researchers, academicians, clinicians, laboratory professionals, genetic counselors, and nurses with the principal objectives of sharing research, informing health professionals, legislators, health policy makers and the general public about human genetics, and facilitation interactions amongst all of these groups.

NATIONAL SOCIETY OF GENETIC COUNSELORS (NSGC)

Executive Office 233 Canterbury Drive Wallingford, PA 19086 Phone: 610-872-7608 Fax: call for faxing information Email: FYI@nsgc.org www.nsgc.org

The NSGC is the leading voice, authority and advocate for the genetic counseling profession, with the aim of promoting the genetic counseling profession as a recognized and integral part of health care delivery, education, research and public policy. In addition, the NSGC promotes the professional interests of genetic counselors and provides a network for professional communications. Local and national continuing education opportunities and the discussion of all issues relevant to human genetics and the genetic counseling profession are an integral part of belonging to the NSGC.

NATIONAL COALITION FOR HEALTH PROFESSIONAL EDUCATION IN GENETICS (NCHPEG)

2360 West Joppa Road Suite 320 Lutherville, MD 21093 Phone: 410-583-0600 Fax: 410-583-0520 Email: geneticsinfo@nchpeg.org www.nchpeg.org

A national effort to promote health professional education and access to information about advances in human genetics. NCHPEG members are an interdisciplinary group of leaders from health professional organizations,

consumer and voluntary groups, government agencies, private industry, managed care organizations, and genetics professional societies seeking to capitalize on the collective expertise and experience of members and to reduce duplication of effort.

D. REFERENCE TEXTS:

EMERY AND RIMOIN'S PRINCIPLES AND PRACTICES OF MEDICAL GENETICS

by Connor, J. M., Pyeritz, R., Korf, B., and Rimoin, D.

Churchhill Livingstone, 4th Edition, 2001 Extensive reference on the basic science and clinical applications of medical genetics. For primary care physicians, specialists, and students.

MANAGEMENT OF GENETIC SYNDROMES

by Cassidy, S. B., and Allanson, J. E. Wiley-Liss, 2001

Covering 30 common genetic syndromes. Information on incidence, etiology and pathogenesis, natural history, diagnostic criteria, spectrum of variation, recurrence risk in siblings and offspring, and availability of prenatal diagnosis and diagnostic testing.

SMITH'S RECOGNIZABLE PATTERNS OF HUMAN MALFORMATION

by Jones, K. L.

W. B. Saunders Company, 5th Edition, 1996 Clinical atlas on malformations. Discusses morphogenesis, genetics, genetic counseling and clinical diagnosis.

THE METABOLIC AND MOLECULAR BASES OF INHERITED DISEASE

by Scriver, C. R., Sly W. S., Childs, B., Beaudet, A. L., Valle, D., Kinzler, K. W., and Vogelstein, B. McGraw-Hill, 8th Edition, 2000

The undisputed authority on genetic inheritance, you can explore what is currently known about every inherited disease known to exist.

THE PRACTICAL GUIDE TO THE GENETIC FAMILY HISTORY

by Bennett, R. L. Wiley-Liss, 1999 Excellent and thorough reference, well-organized with complete index and references, especially useful for the primary care physician.

PRACTICAL GENETIC COUNSELING

by Harper, P. S. Arnold Publishers, 5th Edition, 1998 Provides clinicians and other staff members with an updated guide through the profusion of new information and the emerging psychosocial and ethical concerns connected with genetic counseling.

A GUIDE TO GENETIC COUNSELING

by Baker, D. L., Schuette, J. L., and Uhlmann, W. R. John Wiley & Sons, 1998 Defines theory, goals, and core competencies associated with the practice of genetic counseling.

STRUCTURAL FETAL ABNORMALITIES:

THE TOTAL PICTURE by Sanders, R..

C. V. Mosby, 2002 Wonderful reference text of ultrasound diagnosed fetal anomalies.

ULTRASOUND OF FETAL SYNDROMES

by Benacerraf, B. R. Churchhill Livingstone, 1998 Thorough quick reference volume of ultrasound anomalies and possible syndromic etiologies, juxtaposed with ultrasound findings in specific syndromes.

IV. CONSUMER SUPPORT ORGANIZATIONS AND RESOURCES

(alphabetically by condition)

~ ACHONDROPLASIA ~

LITTLE PEOPLE OF AMERICA

5289 NE Elam Young Parkway Suite F-700 Hillsboro, OR 97124 Phone: 888-LPA-2001/503-846-1562 Fax: 503-846-1590 Email: info@lpaonline.org www.lpaonline.org

In Connecticut: District 1 (CT, ME, MA, NH, RI, VT) Phone: 203-641-9760 Fax: none Email: chayim76@yahoo.com www.lpad1.org

ADDITIONAL WEB RESOURCES:

INTERNATIONAL SKELETAL DYSPLASIA REGISTRY AT CEDARS-SINAI HEALTH SYSTEM

www.csmc.edu/medgenetics/3086.asp A referral center for research into the diagnosis, management, and etiology of skeletal dysplasias.

ADDITIONAL LITERATURE:

DWARFISM:

THE FAMILY AND PROFESSIONAL GUIDE

by Scott, C.J., Mayeaux, N, Crandall, R, and Weiss, J. Short Stature Foundation, 1994 Non-fiction

LITTLE PEOPLE: LEARNING TO SEE THE WORLD THROUGH MY DAUGHTER'S EYES

by Kennedy, D. Rodale Books, 2003 Non-fiction

STONES FROM THE RIVER

by Hegi, U. Simon & Schuster, 1994 Fictional story of a woman with a skeletal dysplasia, coming of age just as Hitler's pronouncements begin to threaten the Jewish residents of her town, and all of Germany.

MENDEL'S DWARF

by Mawer, S Penguin Books, 1999

This novel tells the story of Benedict Lambert, a distant relative of Gregor Mendel. Like Mendel, Lambert is a brilliant geneticist. Unlike Mendel, Lambert is a dwarf. The story is a mix of humor and philosophy.

~ ADRENAL DISORDERS ~

NATIONAL ADRENAL DISEASES FOUNDATION

505 Northern Boulevard Great Neck, NY 11021 Phone: 516-487-4992 Fax: 516-829-5710 Email: nadfmail@aol.com www.medhelp.org/www/nadf.htm No Connecticut chapter

ADDITIONAL WEB RESOURCES:

YOUR ADRENAL GLANDS

www.endocrineweb.com/adrenal.htm Information on the anatomy and physiology of the adrenal glands.

~ ALAGILLE SYNDROME ~

ALAGILLE SYNDROME ALLIANCE

10630 SW Garden Park Place Tigard, OR 97223 Phone: 503-639-6217 Fax: none available Email: alagille@earthlink.net www.alagille.org No Connecticut chapter.

ADDITIONAL WEB RESOURCES:

CINCINNATI CHILDREN'S HOSPITAL MEDICAL CENTER PAGE ON ALAGILLE SYNDROME

www.cincinnatichildrens.org/svc/prog/liver/ diseases/alagille-syndrome.htm

Lists explanation, genetics, signs and symptoms, diagnosis, treatment, and prognosis for Alagille syndrome.

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~ ALBINISM AND HYPOPIGMENTATION ~

NATIONAL ORGANIZATION FOR ALBINISM AND Hypopigmentation (NOAH)

P.O. Box 959 East Hampstead, NH 03826 Phone: 800-473-2310/603-887-2310 Fax: 603-887-6049 Email: info@albinism.org www.albinism.org For Connecticut information, call national office.

Hermansky-Pudlak Syndrome Network, Inc.

1 South Road Oyster Bay, NY 11771 Phone: 800-789-9477/516-922-3440 Fax: 516-922-4022 Email: hpsn@juno.com www.medhelp.org/web/hpsn.htm

A special interest group of NOAH.

ADDITIONAL WEB RESOURCES:

INTERNATIONAL ALBINISM CENTER AT THE UNIVERSITY OF MINNESOTA

www.sbs.umn.edu/iac

Web page of a multidisciplinary group of researchers with interests in clinical genetics, molecular biology, ophthalmology, dermatology, and biochemistry, all with a central theme of understanding the cause and effect of albinism and other forms of pigment loss in humans.

ADDITIONAL LITERATURE:

LIVING WITH ALBINISM

BY LANDAU, E. FRANKLIN WATTS, 1999 Children's book, defines disease and discusses cause and associated problems, lifestyle and well-being. A positive book.

TOO WHITE TO BE BLACK AND TOO BLACK TO BE WHITE

by Edwards, L.G. Authorhouse, 2001 Expresses true emotion and life experiences of author, an African American with albinism.

~ ALZHEIMER'S DISEASE ~

ALZHEIMER'S ASSOCIATION

225 North Michigan Avenue Suite 1700 Chicago, IL 60601 Phone: 800-272-3900/312-335-8700 Fax: 312-335-1110 Email: info@alz.org www.alz.org

In Connecticut: 96 Oak Street Hartford, CT 06106 Phone numbers: 866-363-6679/800-356-5502/860-956-9560 Fax: 860-956-9590 Email: see website for multiple board members' email addresses www.alzct.org (with links to 98 support groups)

ALZHEIMER'S FOUNDATION OF AMERICA

322 8th Avenue, 6th floor New York, NY 10001 Phone: 866-232-8484 Fax: 646-638-1546 Email: info@alzfdn.org www.alzfdn.org No Connecticut chapter

ADDITIONAL WEB RESOURCES:

ALZHEIMER'S DISEASE EDUCATION AND REFERRAL CENTER (ADEAR)

www.alzheimers.org

A service of the National Institute on Aging, the ADEAR center is a site that can be used to find current, comprehensive Alzheimer's Disease and resources.

ADDITIONAL LITERATURE:

ALZHEIMER'S EARLY STAGES: FIRST STEPS FOR FAMILY, FRIENDS, AND CAREGIVERS

by Kuhn, D. and Bennett, D.A. Hunter House, 2nd Edition, 2003 Latest information on risk factors, treatment, prevention, medications, financial aspects, and reflections by family members.

LEARNING TO SPEAK ALZHEIMER'S: A GROUNDBREAKING APPROACH FOR EVERYONE DEALING WITH THE DISEASE

by Coste, J.K. Houghton Miiflin, 2003 Provides hundreds of practical tips to ease life for everyone involved with Alzheimer's disease.

Did You Know...?

Sometimes genes "jump" around on a chromosome.

~ AMYOTROPHIC LATERAL SCLEROSIS (ALS) ~

ALS Association

27001 Agoura Road Suite 150 Calabasas Hills, CA 91301 Phone: 800-782-4747, 818-880-9007 Fax: 818-880-9006 Email: alsinfo@alsa-national.org www.alsa.org

In Connecticut: 4 Oxford Road Unit D1 Milford, CT 06460 Phone: 877-257-2281/203-874-5050 Fax: 203-874-7070 Email: als.assoc@snet.net www.alsact.org

ADDITIONAL WEB RESOURCES:

ALS SURVIVAL GUIDE

www.lougehrigsdisease.net

Informational and inspirational site with links to What is ALS, causes, news treatments, and an "Ask the Expert" link, support groups and other useful links.

ADDITIONAL LITERATURE:

AMYOTROPHIC LATERAL SCLEROSIS: A GUIDE FOR PATIENTS AND FAMILIES

by Mitsumoto, H. and Munsat, T.L. Demos Medical Publishing, 2nd Edition, 2001 Medical aspects, rehabilitative management, day-to-day living, end of life issues, resources for families, legal, ethical, and spiritual issues.

~ ASTHMA ~

Allergy and Asthma Network – Mothers of Asthmatics, Inc.

2751 Prosperity Avenue Suite 150 Fairfax, VA 22031 Phone: 800-878-4403/703-641-9595 Fax: 703-573-7794 Email: aanma@aol.com www.aanma.org No Connecticut chapter.

American Lung Association

61 Broadway, 6th floor New York, NY 10006 Phone: 800-586-4872/212-315-8700 Fax: 212-265-5642 Email: no main email address www.lungusa.org

In Connecticut: American Lung Association of Connecticut 45 Ash Street East Hartford, CT 06108 Phone: 800-922-2263/860-289-5401 FAX: 860-289-5405 Email: alaofct@alact.org www.alact.org

American Academy of Allergy Asthma and Immunology

611 East Wells Street Milwaukee, WI 53202 Phone: 800-822-2762/414-272-6071 Fax: 414-276-3349 Email: info@aaaai.org www.aaaai.org No Connecticut chapter.

Asthma and Allergy Foundation of America, Inc.

1233 20th Street NW Suite 402 Washington, DC 20036 Phone: 800-727-8462/202-466-7643 Fax: 202-466-8940 Email: info@aafa.org www.aafa.org No Connecticut chapter.

New England Chapter:

220 Boylston Street Chestnut Hill, MA 02467 Phone: 877-2-ASTHMA/617-965-7771 Fax: 617-965-8886 Email: aafane@aol.com www.asthmaandallergies.org

ADDITIONAL WEB RESOURCES:

GLOBAL INITIATIVE FOR ASTHMA (GINA)

www.ginasthma.com Objectives of GINA include: increase awareness of asthma and its public health consequences, reduce morbidity and mortality, improve management, and increase the availability and accessibility of effective asthma therapy.

ADDITIONAL LITERATURE:

ALLERGIES AND ASTHMA FOR DUMMIES

by Berger, W.E. John Wiley & Sons, 2000 Prevention, treatment, recognition and management of triggers, medications for short and long term relief. Easy to understand. THE HARVARD MEDICAL SCHOOL GUIDE TO TAKING CONTROL OF ASTHMA: A COMPREHENSIVE PREVENTION AND TREATMENT PLAN FOR YOU AND YOUR FAMILY by Fanta, C.H., Cristiano L.M., and Haver, K. Simon & Schuster, 2003 Discussed diagnosis, symptoms individual management plans, current therapies, pros and cons of medications.

~ ATAXIA TELANGIECTASIA ~

Ataxia Telangiectasia Children's Project

6685 Military Trail Deerfield Beach, FL 33442 Phone: 800-543-5728/954-481-6611 Fax: 954-725-1153 Email: info@atcp.org www.atcp.org For local resources, call national office.

A-T MEDICAL RESEARCH FOUNDATION

5241 Round Meadow Road Hidden Hills, CA 91301 Phone: 818-704-8146 Fax: 818-703-8310 Email: gsmith@gspartners.com www.gspartners.com/at No Connecticut chapter.

ADDITIONAL WEB RESOURCES:

ATAXIA TELANGIECTASIA MUTATION DATABASE

www.vmresearch.org/bri_investigators/atm.htm Scientific site with listings of AT mutations associated with cancer, AT polymorphisms, and variants, and nucleotide sequence of AT gene. Includes information on AT.

~ AUTISM ~

AUTISM RESEARCH INSTITUTE

4182 Adams Avenue San Diego, CA 92116 Phone: 619-281-7165 Fax: 619-563-6840 Email: none www.autismresearchinstitute.com No Connecticut chapter.

AUTISM SOCIETY OF AMERICA

7910 Woodmont Avenue Suite 300 Bethesda, MD 20814 Phone: 800-3AUTISM/301-657-0881 Fax: 301-657-0869 Email: see website for specific departments www.autism-society.org

In Connecticut: Autism Society of Connecticut 207 Metacomet Drive Meriden, CT 06450 Phone: 203-235-7659 Fax: none Email: asconn@sbcglobal.net www.autismsocietyofct.org

NATIONAL ALLIANCE FOR AUTISM RESEARCH

Research Park 99 Wall Street Princeton, NJ 08540 Phone: 888-777-6227/609-430-9160 Fax: 609-430-9163 Email: naar@naar.org www.naar.org No Connecticut chapter.

NAAR - New England Office

124 Watertown Street Suite 3B, Box 6 Watertown, MA 02472 Phone: 617-924-3300 Fax: 617-924-3311 Email: newengland@naar.org

ADDITIONAL WEB RESOURCES:

EXPLORING AUTISM: A LOOK AT THE GENETICS OF AUTISM

www.exploringautism.org

Website dedicated to helping families who are living with challenges of autism. A collaborative effort of Autism Genetics Cooperative, a group of researchers and clinicians working to find the genetic causes of autism.

ADDITIONAL LITERATURE:

CHILDREN WITH AUTISM: A PARENT'S GUIDE

by Powers, M.D. and Grandin, T. Woodbine House, 2nd Edition, 2000 Includes chapters on diagnosis and treatment, adjusting to life with an autistic child, finding good education programs, legal rights of the autistic child, becoming an advocate for a child, special problems and needs of the adult with autism. Provides list of resources for autistic individuals in the United States.

FACING AUTISM: GIVING PARENTS REASONS FOR HOPE AND GUIDANCE FOR HELP

By Hamilton, L.M. Waterbrook Press, 2000 A treasury of detailed, helpful information from a mother who carefull investigated all promising treatment approaches.

FAMILY PICTURES: A NOVEL

by Miller, S. Harper, 1999 A fictional story told through the eyes of four family members, the complexity of family relationships is illustrated through their reactions to a family member with autism.

NOBODY NOWHERE:

THE EXTRAORDINARY AUTOBIOGRAPHY OF AN AUTISTIC

by Williams, D. Perennial Currents, 1994 The author details what it is like to grow up autistic and the price one pays for being "high-functioning".

SOMEBODY SOMEWHERE:

BREAKING FREE FROM THE WORLD OF AUTISM by Williams, D. Three Rivers Press, 1995 Sequel to **NOBODY NOWHERE,** the author describes her life as a published author and as a graduate student.

~ BATTEN DISEASE ~

BATTEN DISEASE SUPPORT AND RESEARCH ASSOCIATION

120 Humphries Drive Suite 2 Reynoldsburg, OH 43068 Phone: 800-448-4570/740-927-4298 Fax: 614-445-4191 Email: bdsra1@bdsra.com www.bdsra.org No Connecticut chapter.

New England chapter:

Diane Burl 22 Carver Street Granby, MA 01033 Phone: 413-467-2294 Fax: none Email: none Web: none

ADDITIONAL WEB RESOURCES:

THE NATALIE FUND

www.nataliefund.org

Striving to find a treatment and cure for Batten's Disease. Goals include raising funds for research, enhancing community awareness, and providing information and support for families with affected children.

~ BECKWITH-WIEDEMANN SYNDROME ~

Beckwith-Wiedemann Support Network

2711 Colony Road Ann Arbor, MI 48104 Phone: 800-837-2976/734-973-9721 Fax: 734-973-9721 Email: bwsn@beckwith-wiedemann.org www.beckwith-wiedemann.org

No Connecticut chapter.

~ CANAVAN DISEASE ~

CANAVAN FOUNDATION

450 West End Avenue #10C New York, NY 10024 Phone: 877-4-CANAVAN/212-873-4640 Fax: 212-873-7892 Email: info@canavanfoundation.org www.canavanfoundation.org No Connecticut chapter.

NATIONAL TAY-SACHS AND ALLIED DISEASES Association

2001 Beacon Street Suite 204 Brighton, MA 02135 Phone: 800-906-8723 Fax: 617-277-0134 Email: info@ntsad.org www.ntsad.org

In Connecticut: (Serving the tri-state area) 1202 Lexington Avenue #288 New York, NY 10028 Phone: 888-354-7788/212-431-0431 Fax: 888-354-4884 Email: info@ntsad-ny.org www.ntsad-ny.org

ADDITIONAL WEB RESOURCES:

CENTER FOR JEWISH DISEASES MT. SINAI SCHOOL OF MEDICINE

www.mssm.edu/jewish_genetics/diseases/ canavan.shtml Includes disease description, natural history, genetics and testing information.

MEDICAL COLLEGE OF WISCONSIN HEALTHLINK:

THE FACTS ABOUT CANAVAN DISEASE www.healthlink.mcw.edu/article/921391101.htm

Provides disease description, including screening and diagnosis, signs and symptoms, and research, and links to other informative sites.

~ CANCER ~

American Cancer Society

1599 Clifton Road, NE Atlanta, GA 30329 Phone: 800-227-2345/404-320-3333 Fax: none Email: through website only www.cancer.org

In Connecticut: 372 Danbury Road Wilton, CT 06897 Phone: 203-563-0740 Fax: 203-563-0738

238 West Town Street Norwich, CT 06360 Phone: 860-887-2547 Fax: 860-885-0820

538 Preston Avenue Meriden, CT 06450 Phone: 203-379-4700 Fax: 203-379-5060

CANDLELIGHTERS CHILDHOOD CANCER FOUNDATION

3910 Warner Street P.O. Box 498 Kensington, MD 20895 Phone: 800-366-2223/301-962-3520 Fax: 301-962-3521 Email: info@candlelighters.org www.candlelighters.org No Connecticut chapter.

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ADDITIONAL WEB RESOURCES:

NATIONAL CANCER INSTITUTE'S CANCERNET

www.cancer.gov/cancerinfo/prevention-geneticscauses

Authoritative information about cancer genetics.

HARVARD CENTER FOR CANCER PREVENTION

www.yourcancerrisk.harvard.edu

Personalized estimation of cancer risk and tips for prevention.

GUIDE TO INTERNET RESOURCES FOR CANCER www.cancerindex.org

Nonprofit guide contains over 100 pages and over 4000 links to cancer related information. Site is regularly updated.

ADDITIONAL LITERATURE:

A PRACTICAL GUIDE TO HUMAN CANCER GENETICS

by Hodgson, S.V. and Maher, E.R. Cambridge University Press, 2nd Edition, 1999 Essential overview of the latest developments in human cancer genetics.

COUNSELING ABOUT CANCER:

STRATEGIES FOR GENETIC COUNSELING by Schneider, K.

Wiley-Liss, 2nd Edition, 2001 Comprehensive resource including medical and psychological issues, cancer risk counseling, predisposition testing, essential references.

HEALING LESSONS

by Winawer, S.J. and Taylor, N. Rutledge, 1999 Story of Dr. Sidney Winawer, chief of gastroenterology at Memorial Sloan-Kettering Cancer Center, and his wife, Andrea, dealing with her diagnosis of metastatic stomach cancer.

IT'S NOT ABOUT THE BIKE; MY JOURNEY BACK TO LIFE

by Armstrong, L and Jenkins, S. Berkley Publishing Group, 2001 The story of Lance Armstrong - a world-class athlete nearly struck down by cancer, only to recover and win the grueling and intense Tour de France.

STAYING ALIVE - A FAMILY MEMOIR

by Reibstein, J. Bloomsbury Publishing PLC, 2002 Follows a successful, ethnically mixed family typical in America today over fifty years, atypical only in the diagnosis of breast cancer that hangs like a dark cloud over all the women in the family.

THE TRUTH ABOUT BREAST

CANCER RISK ASSESSMENT

by Hollingsworth, A.B. National Writers Press, 2000 Learn how risk factors are assembled into a personal profile.

~ CARBOHYDRATE-DEFICIENT GLYCOPROTEIN SYNDROME ~

CDG FAMILY NETWORK FOUNDATION

P.O. Box 149 Anamorse, ND 58710 Phone: 800-250-5273 Fax: 972-633-8088 Email: cdgaware@aol.com

~ CEREBRAL PALSY ~

UNITED CEREBRAL PALSY ASSOCIATION

1660 L Street NW Suite 700 Washington, DC 20036 Phone: 800-872-5827/202-776-0406 Fax: 202-776-0414 Email: national@ucp.org

UCP of Eastern Connecticut

Shaw's Cove 6, Suite 101 New London, CT 06320 Phone: 860-447-3889 Fax: 860-447-3789 Email: united.cerebra.palsy@snet.net www.neighborhoodlink.com/org/ucpect

UCP of Greater Hartford

80 Whitney Street Hartford, CT 06105 Phone: 860-236-6201 Fax: 860-236-6205 Email: srne@mindspring.com

UCP OF SOUTHERN CONNECTICUT

94-96 South Turnpike Road Wallingford, CT 06492 Phone: 203-269-3511 Fax: 203-269-7411 Email: ucpasouthernct@yahoo.com

ADDITIONAL WEB RESOURCES:

NATIONAL DISABILITY SPORTS ALLIANCE

www.ndsaonline.org Servicing all individuals with physical disabilities in the areas of sports, fitness, and recreation. Also known as the United States Cerebral Palsy Athletic Association.

THE CEREBRAL PALSY NETWORK

www.geocities.com/Heartland/Plains/8950 A resource for information, sharing, and support.

ADDITIONAL LITERATURE:

CEREBRAL PALSY:

A COMPLETE GUIDE FOR CAREGIVING

by Miller, F. and Bachrach, S.J. Johns Hopkins University Press, 1998 Overview of CP, explains medical procedures, medical and psychological implications, discusses advocacy, list of resources and recommended reading.

MY PERFECT SON HAS CEREBRAL PALSY:

A MOTHER'S GUIDE OF HELPFUL HINTS *by Kennedy, M.* AuthorHouse, 2001 Practical advice based on personal account.

~ CHARCOT-MARIE-TOOTH ~

CHARCOT-MARIE-TOOTH ASSOCIATION

2700 Chestnut Street Chester, PA 19013 Phone: 800-606-2682 Fax: 610-499-9567 Email: CMTAssoc@aol.com www.charcot-marie-tooth.org

In Connecticut (serving Fairfield, CT and Westchester County, NY): Contact Beverly Wurzel Phone: 845-783-2815 Fax: none Email: cranomat@frontiernet.net

ADDITIONAL WEB RESOURCES:

CMTNET

www.users.rcn.com/smith.ma.ultrranet/ CMTneto.html

Repository of information for research and treatment of CMT intended to provide information for the medical and non-medical community.

~ CHROMOSOME ABNORMALITIES ~

(See also Down syndrome, Klinefelter syndrome, Turner syndrome, Fragile X syndrome)

CHROMOSOME DELETION OUTREACH

P.O. Box 724 Boca Raton, FL 33429 Phone: 888-CDO-6880/561-395-4252 Fax: 561-395-4252 call first Email: cdo@worldnet.att.net www.chromodisorder.com No Connecticut chapter.

4p- Support Group

P.O. Box 1676 Gresham, OR 97030 Phone: 503-661-7546 Fax: none Email: fourthchromosome@aol.com www.4p-supportgroup.org No Connecticut chapter.

5P- SOCIETY

P.O. Box 268 Lakewood, CA 90714 Phone: 888-970-0777/562-804-4506 Fax: 562-920-5240 Email: director@fivepminus.org www.fivepminus.org or www.criduchat.org No Connecticut chapter.

Northeastern Regional Family Support Coordinator: Contact Ruthie Liberman Lexington, MA Phone: 781-861-3962

8P DUPLICATION SUPPORT GROUP

The Genetics Center 1 Children's Plaza Dayton, OH 45404 Phone: 937-641-3800/937-641-5645 Fax: 937-463-5325 Email: callif-daleyF@childrensdayton.org www.cmc-dayton.org No Connecticut chapter.

Chromosome 9p- Network

393 North Grass Valley Road Pine Valley, UT 84781 Phone: 435-574-1121 Fax: 435-574-2000 Email: Beverly.udell@9pminus.org www.9pminus.org No Connecticut chapter.

11Q RESEARCH AND RESOURCE GROUP

54 Elmridge Road Pawtucket, CT 06379 Phone: 860-599-4015 Fax: 860-441-6159 Email: david_m_george@groton.pfizer.com www.web.ukonline.co.uk/c.jones/11q/contents.htm

TRISOMY 12P PARENT SUPPORT ORGANIZATION

175 Lawndale Road Mansfield, MA 02048 Phone: 508-339-1680 Fax: 508-339-0504 Email: maguirecb@comcast.net No Connecticut chapter.

IDEAS (ISODICENTRIC 15 EXCHANGE, Advocacy, and Support)

c/o Paul Rivard P.O. Box 4616 Manchester, NH 03108 Phone:, not available Fax: not available Email: info@idic15.org www.idic15.org

No Connecticut chapter.

DISORDERS OF CHROMOSOME 16 FOUNDATION

331 Haddon Circle Vernon Hills, IL 60061 Phone: 847-816-0627 check number Fax: 847-367-4031 Email: kblange1@aol.com www.trisomy16.org/foundation.html No Connecticut chapter.

SUPPORT ORGANIZATION FOR TRISOMY 18, 13 AND RELATED DISORDERS (SOFT)

2982 South Union Street Rochester, NY 14624 Phone: 800-716-7638/716-594-4621 Fax: 716-594-4621 Email: barbsoft@rochester.rr.com www.trisomy.org

Connecticut chapter: 1473 Forbes Street East Hartford, CT 06118 Phone: 860-568-0171 Fax: none Email: norbertonhanel@aol.com

TRISOMY 18 SUPPORT FOUNDATION, INC.

4301 Connecticut Avenue, NW Suite 404 Washington, DC 20008 Phone: 703-878-2369 Fax: 703-878-2369 Email: info@trisomy18support.org www.trisomy18support.org

No Connecticut chapter.

CHROMOSOME 18 REGISTRY AND RESEARCH SOCIETY

6302 Fox Head San Antonio, TX 78247 Phone: 210-657-4968 Fax: 210-657-4968 Email: cody@chromosome18.org www.chromosome18.org

New England Regional Coordinator: Deb Ammann Phone: 631-223-3039 Fax: none Email: debpaul94@optonline.net

22Q AND YOU CENTER

The Department of Clinical Genetics The Children's Hospital of Philadelphia 34th Street and Civic Center Boulevard Philadelphia, PA 19104 Phone: 215-590-2920 Fax: 215-590-3298 Email: lunny@email.chop.edu www.chop.edu/consumer/jsp/division/ generic.jsp?id=74631

No Connecticut chapter.

Ring Chromosome 22 Email Discussion List

14 Westwood Acres Morris, MN 56267 Phone: 320-589-1050 Fax: none Email: r22@maelstrom.stjohns.edu maelstrom.stjohns.edu/archives/r22.htm No Connecticut chapter.

ADDITIONAL LITERATURE:

CHROMOSOME ABNORMALITIES AND GENETIC COUNSELING

by Gardner, RT.J.M. and Sutherland, G.R. Oxford University Press, 2nd Edition, 2003 Second edition of a textbook/reference for genetic counselors and cytogenetic laboratory workers. Presents the theoretical basis of clinical cytogenetics.

~CLEFT LIP/PALATE AND CRANIOFACIAL DISORDERS ~

ABOUTFACE USA

P.O. Box 969 Batavia, IL 60510 Phone: 888-486-1209 Fax: 630-761-2985 Email: info@aboutfaceusa.org www.aboutfaceusa.org Call main office for Connecticut contacts.

American Cleft Palate – Craniofacial

Association

104 South Estes Drive Suite 204 Chapel Hill, NC 27514 Phone: 919-933-9044 Fax: 919-933-9604 Email: info@acpa-cpf.org www.cleftpalate-craniofacial.org No Connecticut chapter.

CHILDREN'S CRANIOFACIAL ASSOCIATION

13140 Coit Road Suite 307 Dallas, TX 75240 Phone: 800-535-3643 Fax: 214-570-8811 Email: csmith@ccakids.com www.ccakids.com

No Connecticut chapter.

CLEFT PALATE FOUNDATION

1504 East Franklin Street Suite 102 Chapel Hill, NC 27514 Phone: 800-242-5338 Fax: 919-933-9044 Email: info@cleftline.org www.cleftline.org

F.A.C.E. (FAMILIES ADVANCING CRANIOFACIAL EXCELLENCE)

P.O. Box 185 Unionville, CT 06085 Phone: 860-673-1829 Fax: 860-673-1829 Email: smilesforchildren@sbcglobal.net www.smilesforchildren.org

FACES: THE NATIONAL CRANIOFACIAL ASSOCIATION

P.O. Box 11082 Chattanooga, TN 37401 Phone: 800-332-2373 Fax: 423-267-3124 Email: faces@faces-cranio.org www.faces-cranio.org No Connecticut chapter.

LET'S FACE IT

P.O. Box 29972 Bellingham, WA 98228 Phone: 360-676-7325 Fax: contact office for faxing information Email: letsfaceit@faceit.org www.faceit.org No Connecticut chapter.

ADDITIONAL WEB RESOURCES:

SMILES

www.cleft.org

A group of dedicated families who have developed a first-hand understanding of the needs of children with cleft lip, cleft palate and craniofacial abnormalities.

WIDE SMILES

www.widesmiles.org

Offers support, inspiration, information and networking for families who may be dealing with the challenges associated with clefting.

ADDITIONAL LITERATURE:

A PARENT'S GUIDE TO CLEFT LIP AND PALATE

by Moller, K.T., Starr, C.D. and Johnson, S.A. University of Minnesota Press, 1990 One parent has said that this book should be required reading for every new parent of a child with a cleft lip or palate.

BABYFACE: A STORY OF HEART AND BONES

by McDermott, J. Penquin Books, 2002 Story of a child with Apert syndrome.

CLEFT LIP AND PALATE: FROM ORIGIN TO TREATMENT

by Wyszynski, D.F. Oxford University Press, 2002 Major advances in the diagnosis and treatment of oral clefts have been made in the past 50 years, and recent genetics and epidemiological studies have led to new theories about the causes of cleft lip and palate. Addressing issues that are relevant to clinicians, researchers and family members, this book is a comprehensive well-illustrated and up-to-date account of the many facets of this common disorder.

~ COFFIN-LOWRY SYNDROME ~

COFFIN-LOWRY SYNDROME FOUNDATION

3045 255th Avenue SE Sammamish, WA 98075 Phone: 425-427-0939 Fax: none Email: cclsfoundation@yahoo.com www.clsf.info No Connecticut chapter.

~ CONGENITAL ADRENAL HYPERPLASIA ~

CARES FOUNDATION, INC. (CONGENITAL ADRENAL

Hyperplasia, Research, Education and Support) 189 Main Street 2nd floor Millburn, MJ 07041 Phone: 866-227-3737/973-912-3895 Fax: 973-912-3894 Email: Kelly@caresfoundation.org www.caresfoundation.org

Connecticut contact: Lynn Torony Phone: 203-264-6898 Fax: 203-264-0529 Email: Itorony@earthlink.net

ADDITIONAL WEB RESOURCES:

CAH EDUCATION AND SUPPORT NETWORK

www.congenitaladrenalhyperplasia.org Includes "What Is CAH?", message boards, medical sites, glossary, and Frequently Asked Questions.

~ CONGENITAL HYPOTHYROIDISM ~

American Foundation of Thyroid Patients

4322 Douglas Avenue Midland, TX 79703 Phone: not available Fax: not available Email: thyroid@flash.net www.thyroidfoundation.org No Connecticut chapter.

THYROID FOUNDATION OF AMERICA, INC.

1 Longfellow Place Suite 1518 Boston, MA 02114 Phone: 800-832-8321 Fax: 617-534-1515 Email: info@allthyroid.org www.allthyroid.org No Connecticut chapter.

ADDITIONAL WEB RESOURCES:

EDUCATING PARENTS OF EXTRA-SPECIAL CHILDREN

www.epeconline.com/Congenital Hypothyroidism.html

A resource of information for adults with special needs and parents of special needs children. Overview of congenital hypothyroidism with links to American Academy of Pediatrics.

~ CORNELIA DE LANGE SYNDROME ~

CORNELIA DE LANGE SYNDROME FOUNDATION

302 West Main Street Suite 100 Avon, CT 06001 Phone: 800-753-2357/800-223-8355 Fax: 860-676-8337 Email: info@cdlsusa.org www.cdlsusa.org

ADDITIONAL WEB RESOURCES:

CDLS ONLINE SUPPORT GROUP

www.cdls-support.org

Free online group focuses on parents, caregivers and families, friends, teachers and other professionals. Includes email group for siblings, and Spanish speaking members.

~ CROHN'S AND COLITIS ~

CROHN'S AND COLITIS FOUNDATION OF AMERICA

386 Park Avenue South 17th floor New York, NY 10016 Phone: 800-932-2423/212-685-3440 Fax: 212-779-4098 Email: info@ccfa.org www.ccfa.org

In Connecticut: Central Connecticut Chapter: P.O. Box 185431 Hamden, CT 06518 Phone: 203-248-4625 Fax: 203-248-7832 Email: ctccff@aol.com

Fairfield/Westchester Chapter Address: 200 Bloomingdale Road White Plains, NY 10605 Phone: 914-328-2874 Fax: 914-328-2946 Email: Westfield@ccfa.org

Northern Connecticut Affiliate P.O. Box 370614 West Hartford, CT 06137

ADDITIONAL WEB RESOURCES:

CROHN'S DISEASE RESOURCE CENTER

www.healingwell.com/ibd

Links to books on Amazon.com as well as resource directory, message boards, chat rooms, products and services, and other organizations.

ADDITIONAL LITERATURE:

THE FIRST YEAR – CROHN'S DISEASE AND ULCERATIVE COLITIS: AN ESSENTIAL GUIDE FOR THE NEWLY DIAGNOSED

by Sklar, J. and Sklar, M. Marlowe & Company, 2002 Covers strategies for necessary lifestyle changes, guidelines and tips for modifying diet, choosing a medical team, discussing the condition with family, current medical research, support, and more.

THE CROHN'S DISEASE AND ULCERATIVE COLITIS FACT BOOK

by the Crohn's and Colitis Foundation Banks, P.A., Present, D.H. and Steiner, P. John Wiley & Sons, 1983 Older text but good general introduction to disease, vast amount of background information and general overview on the nature of the disease, treating the disease, and living with the disease.

~ CYSTIC FIBROSIS ~

THE CYSTIC FIBROSIS FOUNDATION

6931 Arlington Road Suite 200 Bethesda, MD 20814 Phone: 800-344-4823/301-951-4422 Fax: 301-951-6378 Email: info@cff.org www.cff.org

In Connecticut: 185 Silas Deane Highway Wethersfield, CT 06109 Phone: 800-841-2828/860-257-6907 Fax: 860-257-6903 Email: conn@cff.org www.cff.org/connecticut.htm

ADDITIONAL WEB RESOURCES:

CYSTIC FIBROSIS MUTATIONAL DATABASE

www.genet.sickkids.on.ca/cftr

Collection of mutations in CFTR gene to provide CF researchers and other related professionals with up-to-date information about individual mutations.

CYSTIC FIBROSIS.COM

www.cysticfibrosis.com/info/info.htm

CF information, frequently asked questions, "Just for Kids" section, search for CF associations, clinical trials, and other links.

CYSTIC FIBROSIS FOUNDATION GENOTYPING CENTER

www.hopkinsmedicine.org/cfgenotyping

Their mission is to detect CFTR mutations in patients with unusual forms of CF, coordinate collection of genotype/phenotype information, to increase and facilitate communication between CF researchers and clinicians working with patients with non-classical CF.

THE CF PHARMACY

www.cfpharmacy.com

Dedicated to research and development of new cost-effective pharmacological approaches to care and treatment of CF.

ADDITIONAL LITERATURE:

ALEX: THE LIFE OF A CHILD

by Deford, F. Rutledge Hill Press, 1997 Sportswriter Deford's story of his courageous daughter who died at age 8 due to complications of cystic fibrosis.

ALIVE AT 25: How I'M BEATING CYSTIC FIBROSIS by Lipman, A. Longstreet Press, 2002 Candid, honest, inspiring personal account.

Cystic Fibrosis: A Guide for Patient and Family

by Orenstein, D.M. Lippincott, Williams and Wilkins, 2nd Edition, 1997 Clear advice on day-to-day management, school, travel, exercise, nutrition, medications, psychological effects, treatment, complications, long-term issues, and prospects for a cure.

~ CYSTINOSIS ~

Cystinosis Foundation, Inc.

604 Vernon Street Oakland, CA 94610 Phone: 800-392-8458 Fax: 559-222-7997 Email: check website for individual emails www.cystinosisfoundation.org No Connecticut chapter.

Cystinosis Research Network

10 Pine Avenue Burlington, MA 01803 Phone: 866-276-3669/781-229-6182 Fax: 781-229-6030 Email: CRN@cystinosis.org www.cystinosis.org No Connecticut chapter.

ADDITIONAL WEB RESOURCES:

CYSTINOSIS CENTRAL

www.medicine.ucsd.edu/cystinosis/INDEX.htm Up-to-date site including general information, links to other resources, physician information, and research.

~ DEAFNESS/HEARING IMPAIRMENT ~

Alexander Graham Bell Association for the Deaf and Hard of Hearing, Inc.

3417 Volta Place, NW Washington, DC 20007 Phone: 800-432-7543/202-337-5220 Fax: 202-337-8314 Email: agbell2@aol.com www.agbell.org In Connecticut: P.O. Box 565 Bristol, CT 06011 Phone: not available Fax: not available Email: biernat@comcast.net www.agbellct.org

American Hearing Research Foundation

8 South Michigan Avenue Suite 814 Chicago, IL 60603 Phone: 312-726-9670 Fax: 312-726-9695 Email: blederer@american-hearing.org www.american-hearing.org

No Connecticut chapter.

NATIONAL ASSOCIATION OF THE DEAF

814 Thayer Avenue Suite 250 Silver Spring, MD 20910 Phone: 301-587-1788 Fax: 301-587-1791 Email: NADinfo@nad.org www.nad.org

In Connecticut: Connecticut Association of the Deaf Contact Mary Beers Email: catbeers@aol.com

ADDITIONAL WEB RESOURCES:

FINDING GENES FOR NON-SYNDROMIC DEAFNESS

www.people.vcu.edu/~nance/index

Provided by Gallaudet University and the Medical college of Virginia, includes information on causes of deafness, patterns of inheritance, syndromic deafness gene mapping and molecular characterization of genetic deafness, treatment, and research.

ADDITIONAL LITERATURE:

GENETICS AND AUDITORY DISORDERS

by Keats, B.J.B., Popper, A.N. and Fay, R.R. SPRINGER-VERLAG, 2001 Informs reader on many clinical forms of genetic hearing loss, the mutations responsible and the function of proteins encoded by mutant genes.

HEREDITARY HEARING

LOSS AND ITS SYNDROMES

by Gorlin, R.J., Toriello, H.V. and Reardon, W. Oxford University Press, 2nd Edition, 2004 Comprehensive and organized resource.

I'M DEAF AND IT'S OKAY

by Aseltine, L., Mueller, E. and Tait, M. Albert Whitman & Company, 1986 For children ages 4-8

My Sense of Silence: Memoirs of a Childhood with Deafness

by Davis, L.J. University of Illinois Press, 2000 Growing up as a hearing child of deaf parents, a candid, affecting, and often funny memoir.

~ DIABETES ~

AMERICAN DIABETES ASSOCIATION

1701 North Beauregard Street Alexandria, VA 22311 Phone: 800-DIABETES, Fax: call for faxing information Email: ASKADA@diabetes.org www.diabetes.org

In Connecticut: 306 Industrial Park Road Middletown, CT 06457 Phone: 888-DIABETES/203-639-0385 Fax: 860-632-5098 Email: not available

JUVENILE DIABETES RESEARCH FOUNDATION

120 Wall Street 19th floor New York, NY 10005 Phone: 800-533-2873 Email: info@jdrf.org www.jdrf.org

In Connecticut:

NORTH CENTRAL CONNECTICUT AND WESTERN MASSACHUSETTS CHAPTER

18 North Main Street 3rd floor West Hartford, CT 06107 Phone: 860-561-1153 Fax: 860-561-3440 Email: northcentralct@jdrf.org www.jdrf.org/CT/North-Central-CT-Western-MA

FAIRFIELD COUNTY CHAPTER

200 Connecticut Avenue Suite 5H Norwalk, CT 06854 Phone: 203-854-0658 Fax: 203-854-0798 Email: fairfield@jdrf.org www.jdrf.org/chapters/ct/fairfield-county

GREATER NEW HAVEN CHAPTER

2969 Whitney Avenue Hamden, CT 06518 Phone: 203-248-1880 Fax: 203-248-1820 Email: newhaven@jdrf.org www.jdrf.org/chapters/ct/Greater-New-Haven

ADDITIONAL WEB RESOURCES:

CHILDREN WITH DIABETES

www.childrenwithdiabetes.com Online community for kids, families and adults with diabetes.

JOSLIN DIABETES CENTER

www.joslin.org

Harvard Medical School affiliate, an internationally recognized treatment, research, and education institution headquartered in Boston, Massachusetts.

Did You Know...?

Humans are 99.9% identical – only 0.1% of our genetic makeup differs.

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AMERICAN ASSOCIATION OF DIABETES EDUCATORS

www.aadenet.org

A multidisciplinary professional membership organization dedicated to advancing the practice of diabetes self-management, training, and care.

ADDITIONAL LITERATURE:

American Diabetes Association Complete Guide to Diabetes

by the American Diabetes Association, McGraw-Hill/Contemporary Distributed Products, 3rd Edition, 2002 One volume comprehensive home reference on the best self-care techniques, latest medical breakthroughs, and all the information needed to live an active, healthy life with diabetes.

DIABETES FOR DUMMIES

by Rubin, A.L. John Wiley & Sons, 1999 Addresses Type 1 and Type 2 diabetes, discusses causes, symptoms, treatment, and the importance of diet and exercise, finding the right practitioner, building a support team, and how to find help online.

LIVING WITH JUVENILE DIABETES: A PRACTICAL GUIDE FOR PARENTS AND CAREGIVERS

by Puerrung, V. Hatherleigh Press, 2001 Written by a mother of two children with diabetes, provides the latest facts and treatments, tips on exercise and nutrition, recipes, supplies, research trends, and more.

~ DOWN SYNDROME ~

NATIONAL DOWN SYNDROME CONGRESS

1370 Center Drive Suite 102 Atlanta, GA 30338 Phone: 800-232-6372/770-604-9500 Fax: 212-979-2873/770-604-9898 Email: info@ndsccenter.org www.ndsccenter.org In Connecticut:

CONNECTICUT DOWN SYNDROME CONGRESS

P.O. Box 340385 Hartford, CT 06134 Phone: 888-486-8537, 860-257-8882 Fax: call for faxing information Email: admin@ctdownsyndrome.org www.ctdownsyndrome.org

NATIONAL DOWN SYNDROME SOCIETY

666 Broadway Suite 810 New York, NY 10012 Phone: 800-221-4602 Fax: 212-979-2873 Email: info@ndss.org www.ndss.org No Connecticut chapter.

Association for Children with

Down SYNDROME 4 Fern Place Plainview, NY 11803 Phone: 516-933-4700 Fax: 516-933-9524 Email: information@acds.org www.acds.org No Connecticut chapter.

ADDITIONAL WEB RESOURCES:

GROWTH CHARTS FOR CHILDREN WITH DOWN SYNDROME www.growthcharts.com

Down Syndrome: Health Issues www.ds-health.com

News and information for parents and professionals, provided by a pediatrician who is the father of a child with Down syndrome.

RECOMMENDED DOWN SYNDROME SITES ON THE INTERNET

www.ds-health.com/ds_sites.htm Probably the most useful site on Down syndrome.

ADDITIONAL LITERATURE:

BABIES WITH DOWN SYNDROME: A NEW PARENT'S GUIDE

by Stray-Gundersen, K. Woodbine House, 2nd Edition, 1995 A book designed to answer most questions new parents have.

A PARENT'S GUIDE TO DOWN SYNDROME: TOWARD A BRIGHTER FUTURE

by Pueschel, S.M. Paul H. Brooks Publishing Co., 2nd Edition, 2000 Reference book written by a physician parent of a child with Down syndrome.

Keys to Parenting a Child with

DOWN SYNDROME by Brill, M.T. Barron's Educational Series, 1993

TEACHING THE INFANT WITH DOWN SYNDROME: A GUIDE FOR PARENTS AND PROFESSIONALS *by Hanson, M.J.* Pro-Ed, 2nd Edition, 1986

EXPECTING ADAM: A TRUE STORY OF BIRTH, REBIRTH, AND EVERYDAY MAGIC

by Beck, M. Berkley Publishing Group, 2000 Autobiographical tale of academically oriented Harvard couple who discover prenatally that their baby has Down syndrome.

CHOOSING NAIA: A FAMILY'S JOURNEY

by Zuckoff, M. Beacon Press, 2003 Follows the story of a couple struggling with grief and confusion and the decisions they face when they are confronted by abnormal prenatal diagnosis test results.

UNDERSTANDING DOWN SYNDROME: AN INTRODUCTION FOR PARENTS

by Cunningham, C. Brookline Books, 1996 An excellent overview for new parents and professionals.

~ DYSTONIA ~

Dystonia Medical Research Foundation

1 East Wacker Drive Suite 2430 Chicago, IL 60601 Phone: 800-377-3978/312-755-0198 Fax: 312-803-0138 Email: dystonia@dystonia-foundation.org www.dystonia-foundation.org

In Connecticut: Central Connecticut Support Group Contact Larry Stahl 11 Hammick Road West Hartford, CT 06107 Phone: 860-565-2564 Fax: 860-565-1629 Email: artscifi2@aol.com

Stratford Support Group Contact Barbara Benowitz Phone: 203-386-1982

ADDITIONAL WEB RESOURCES:

INTERNATIONAL DYSTONIA ON-LINE SUPPORT GROUP

www.dystonia-support.org

Created by affected individuals, includes links to information about their group, medical descriptions, personal accounts, chat rooms, parents information, and children's email club.

ADDITIONAL LITERATURE:

HOLDING THE HOPE: A PARENT'S GUIDE TO LIVING WITH DYSTONIA

by Ross, K.K. The Dystonia Foundation, 1996 A guide book for families coping with dystonia. Addresses the impact a child's chronic condition may have on the entire family.

THE OFFICIAL PATIENT'S SOURCEBOOK ON DYSTONIA DISORDERS: A REVISED AND UPDATED DIRECTORY FOR THE INTERNET AGE

by Icon Health Publications Icon Health, 2002

Created for patients doing their own education and research. A reference book organized into 3 main parts, basic research techniques to find general information such as guidelines for diagnosis, treatment and prognosis, how to research on specific topics in dystonia, and guide to the latest scientific research.

~ EHLERS-DANLOS SYNDROME ~

EHLERS-DANLOS NATIONAL FOUNDATION

6399 Wilshire Boulevard Suite 200 Los Angeles, CA 90048 Phone: 800-956-2902/323-651-3038 Fax: 323-651-1366 Email: staff@ednf.org www.ednf.org

No Connecticut chapter.

EDS TODAY

P.O. Box 88814 Seattle, WA 98138 Phone: 253-835-1735 Fax: 253-835-1735 Email: info@edstoday.org www.edstoday.org No Connecticut chapter.

ADDITIONAL WEB RESOURCES:

EHLERS-DANLOS SYNDROME

www.orthop.washington.edu/arthritis/types/ ehlersdanlos/01

Website of the University of Washington Orthhopedics and Sportsmedicine Group. Article reviews incidence, risk factors, causes, symptoms, diagnosis, management, treatment, and coping with Ehlers-Danlos syndrome.

~ EPILEPSY ~

EPILEPSY FOUNDATION OF AMERICA

4351 Garden City Drive Landover, MD 20785 Phone: 800-332-1000/301-459-3700 Fax: 301-577-2684 Email: postmaster@efa.org Wwww.epilepsyfoundation.org

In Connecticut:

Epilepsy Foundation CT, Inc. 386 Main Street Middletown, CT 06457 Phone: 800-899-3745/860-346-1924 Fax: 860-346-1928 Email: efct@aol.com www.epilepsyfoundation.org/connecticut

ADDITIONAL WEB RESOURCES:

AMERICAN EPILEPSY SOCIETY

www.aesnet.org

Neurological professional organization seeking to promote interdisciplinary communication, scientific investigation and exchange of clinical information.

EPILEPSY.COM

www.epilepsy.com

Information on diagnosis, treatment, living with epilepsy, news and other resources.

ADDITIONAL LITERATURE:

GROWING UP WITH EPILEPSY: A PRACTICAL GUIDE FOR PARENTS

by Blackburn, L.B. Demos Medical Publishing, 2003 Provides advice on discipline, social development, education, medications and side effects, psychological concerns, and other issues.
HANDBOOK OF EPILEPSY

by Brown, T.R. and Holmes, G.L. Lippincott, Williams and Wilkins, 3rd Edition, 2003 Pocket-sized reference book contains concise up-to-date, clinically oriented information on diagnosis and treatment. Includes guidelines and classification of epilepsy syndromes from the American Academy of Neurology and the American Epilepsy Society.

~ FAMILIAL DYSAUTONOMIA ~

Dysautonomia Foundation, Inc.

633 3rd Avenue 12th floor New York, NY 10017 Phone: 212-949-6644 Fax: 212-682-7625 Email: fdinfo@videobureau.com www.familialdysautonomia.org No Connecticut chapter.

NATIONAL DYSAUTONOMIA RESEARCH FOUNDATION

1407 West 4th Street Suite 160 Red Wing, MN 55066 Phone: 651-267-0525 Fax: 651-267-0524 Email: ndrf@ndrf.org www.ndrf.org

No Connecticut chapter.

ADDITIONAL WEB RESOURCES:

Center for Jewish Diseases Mt. Sinai School of Medicine

www.mssm.edu/jewish_genetics

Follow links to familial dysautonomia. Includes disease description, natural history, genetics and testing information.

~ FANCONI ANEMIA ~

FANCONI ANEMIA RESEARCH FUND, INC.

1801 Willamette Street Suite 200 Eugene, OR 97401 Phone: 541-687-4658 Fax: 541-687-0548 Email: info@fanconi.org No Connecticut chapter.

ADDITIONAL WEB RESOURCES:

FANCONI ANEMIA MUTATION DATABASE

www.rockefeller.edu/fanconi/mutate/

Established as a cooperative effort to accelerate the availability of information. Divided into a public section listing mutations that have already been reported in the literature, and a private section with unpublished data.

FA: HEMOTOLOGY 101

www.dceg.cancer.gov/clinicalhematology101.html Powerpoint slide show on Fanconi Anemia by Dr. Blanche Alter of the National Cancer Institute.

ADDITIONAL LITERATURE:

MOLECULAR MECHANISMS OF FANCONI ANEMIA *by Ahmad, S.* Landes Bioscience, 2004 Medical text book.

~ FATTY OXIDATION DISORDER ~

FOD FAMILY SUPPORT GROUP

805 Montrose Drive Greensboro, NC 27410 Phone: 336-547-8682 Fax: call for faxing information Email: deb@fodsupport.org www.foodsupport.org No Connecticut chapter.

~ FIBRODYSPLASIA OSSIFICANS PROGRESSIVA ~

INTERNATIONAL FOP ASSOCIATION

P.O. Box 196217 Winter Springs, FL 32719 Phone: 407-365-4194 Fax: 407-365-3213 Email: together@ifopa.org www.ifopa.org

No Connecticut chapter.

~ FRAGILE X ~

NATIONAL FRAGILE X FOUNDATION

P.O. Box 190488 San Francisco, CA 94119 Phone: 800-688-8765/925-938-9300 Fax: 925-938-9315 Email: natlfx@fragileX.org www.fragileX.org

In Connecticut:

Fragile X Society of Connecticut 20 Mohegan Drive West Hartford, CT 06117 Phone: 860-233-1904 Fax: not available Email: xfamily@aol.com

FRAXA RESEARCH FOUNDATION, INC.

45 Pleasant Street Newburyport, MA 01950 Phone: 978-462-1866 Fax: 978-463-9985 Email: info@fraxa.org www.fraxa.org No Connecticut chapter.

ADDITIONAL WEB RESOURCES:

GENETIC COUNSELING FOR FRAGILE X SYNDROME: RECOMMENDATIONS OF THE NATIONAL SOCIETY OF GENETIC COUNSELORS www.guideline.gov/summary/summary.aspx?do c_id=2546&nbr=1772

ADDITIONAL LITERATURE:

CHILDREN WITH FRAGILE X SYNDROME: A PARENTS' GUIDE

by Weber, J.D. Woodbine House, 2000 A comprehensive book for parents. Topics include diagnosis, parents' emotions, daily care, family life, education, and how to seek further help and expertise.

FRAGILE X SYNDROME: DIAGNOSIS, TREATMENT, AND RESEARCH

by Hagerman, R.J. and Hagerman, P.J. Johns Hopkins University Press, 3rd edition, 2002 Textbook discusses clinical approaches to diagnosis, epidemiology, molecular genetics, neuropsychology, treatment, genetic counseling, pharmacotherapy, intervention and gene therapy.

~ GALACTOSEMIA ~

PARENTS OF GALACTOSEMIC CHILDREN, INC.

885 Del Sol Street Sparks, NV 89436 Phone: 775-626-0885 Fax: not available Email: mesameadow@aol.com www.galactosemia.org

No Connecticut chapter.

ADDITIONAL WEB RESOURCES:

GALACTOSEMIA RESOURCES AND INFORMATION

www.galactosemia.com Includes general information on galactosemia, galactose content in foods, contact information for other families.

~ GAUCHER DISEASE ~

NATIONAL GAUCHER FOUNDATION, INC.

5410 Edson Lane Suite 260 Rockville, MD 20852 Phone: 800-925-8885/301-816-1515 Fax: 301-816-1516 Email: ngf@gaucherdisease.org www.gaucherdisease.org No Connecticut chapter.

CHILDREN'S GAUCHER RESEARCH FUND

P.O. Box 2123 Granite Bay, CA 95746 Phone: 916-797-3700 Fax: 916-797-3707 Email: research@childrensgaucher.org www.childrensgaucher.org No Connecticut chapter.

OTHER WEB RESOURCES:

GAUCHER DISEASE SUMMARY

www.gaucher.mgh.harvard.edu/summary.html A guide for patients, parents, relatives, and friends provided by the Neurology Service at Massachusetts General Hospital. Includes links to diagnosis, evaluation and treatment summaries, section on living with Gaucher disease, and questions and answers about therapies.

CENTER FOR JEWISH DISEASES MT. SINAI SCHOOL OF MEDICINE

www.mssm.edu/jewish_genetics

Follow links to Gaucher disease. Includes disease description, natural history, genetics and testing information.

ADDITIONAL LITERATURE:

THE OFFICIAL PARENT'S SOURCEBOOK ON GAUCHER'S DISEASE: A REVISED AND UPDATED DIRECTORY FOR THE INTERNET AGE

by Parker, P.M. and Parker, J.N. (eds.) Icon Health, 2002 Informs parents where and how to look for information, also useful for doctors, caregivers, and other health professionals.

~ GLYCOGEN STORAGE DISEASE ~

Association for Glycogen Storage Disease

P.O. Box 896 Durant, IA 52747 Phone: 563-785-6038 Fax: 563-785-6038 Email: maryc@agsdus.org www.agsdus.org

No Connecticut chapter.

THE CHILDREN'S FUND FOR GLYCOGEN STORAGE DISEASE RESEARCH

917 Bethany Mountain Road Cheshire, CT 06416 Phone: 203-272-CURE, 203-272-7744 Email: info@curegsd.org www.curegsd.org

American Liver Foundation

75 Maiden Lane Suite 603 New York, NY 10038 Phone: 800-465-4837/212-688-1000 Fax: 212-483-8179 Email: info@liverfoundation.org www.liverfoundation.org

In Connecticut: 127 Washington Avenue North Haven, CT 06473 Phone: 203-234-2022 Fax: 203-234-1386 Email: ctalf@liverfoundation.org www.ctalf.org

~ GROWTH DISORDERS ~

HUMAN GROWTH FOUNDATION

997 Glen Cove Avenue Glen Head, NY 11545 Phone: 800-451-6434/516-671-4041 Fax: 516-671-4055 Email: hgf1@hgfound.org www.hgfound.org No Connecticut chapter.

MAGIC FOUNDATION FOR CHILDREN'S GROWTH

6645 West North Avenue Oak Park, IL 60302 Phone: 800-362-4432/708-383-0808 Fax: 708-383-0899 Email: mary@magicfoundation.org www.magicfoundation.org No Connecticut chapter.

~ HEART DISORDERS ~

AMERICAN HEART ASSOCIATION

7272 Greenville Avenue Dallas, TX 75231 Phone: 800-242-8721/214-373-6300 Fax: 214-373-0268 Email: inquire@heart.org www.americanheart.org

In Connecticut: 5 Brookside Drive P.O. Box 5022 Wallingford, CT 06492 Phone: 203-294-0088 Fax: 203-294-3577

Congenital Heart Anomalies Support, Education, and Research

2112 North Wilkins Road Swanton, OH 43558 Phone: 419-825-5575 Fax: 419-825-2880 www.chsu.edu/~hfmth006/chaser/ No Connecticut chapter.

Mended Hearts Inc.

7272 Greenville Avenue Dallas, TX 75231 Phone: 888-432-7899/214-706-1442 Fax: 214-706-5245 Email: info@mendedhearts.org www.mendedhearts.org

Connecticut Chapter Marvin Keyser, President Hartford, CT Phone: 860-582-0299 Email: DACBULDOG3@aol.com www.mendedheartsct.org

CHILDREN'S HEART INFORMATION NETWORK

1561 Clark Drive Yardley, PA 19067 Phone: 215-493-3068 Fax: 215-493-3068 Email: mb@tchin.org www.tchin.org No Connecticut chapter.

LITTLE HEARTS, INC.

P.O. Box 171 Cromwell, CT 06416 Phone: 860-635-0006 Fax: 860-635-0006 Email: info@littlehearts.net www.littlehearts.net

ADDITIONAL WEB RESOURCES:

TEXAS HEART INSTITUTE

www.tmc.edu/thi/congenit.html

Congenital Heart Disease Center www.heartcenteronline.com

Provides patient guides on many congenital heart anomalies, includes animated videos of how the heart works.

Did You Know...?

Scientists have been able to study the DNA of 30-milliion-year-old termites and a Neanderthal.

CARDIAC KIDS: A BOOK FOR FAMILIES WHO HAVE A CHILD WITH HEART DISEASE

by Elder, V. and King, A. Tenderhearts Publishing Company, 1984 For parents and children to read together, book explains many of the medical tests a child will experience after being diagnosed with heart disease. It also touches on some of the stress siblings may feel.

HEART DEFECTS IN CHILDREN: WHAT EVERY PARENT SHOULD KNOW

by Wild, C.J. Wiley, 1998 Designed for parents of newly diagnosed children, also a useful resource for families of prenatally diagnosed patients as well.

THE HEART OF A CHILD: WHAT FAMILIES NEED TO KNOW ABOUT HEART DISORDERS IN CHILDREN

by Clark, E.B., Clark, C. and Neill, C.A. Johns Hopkins University Press, 2nd Edition, 2001 Designed for parents of newly diagnosed children, also a useful resource for families of prenatally diagnosed patients as well.

THE PARENT'S GUIDE TO CHILDREN'S CONGENITAL HEART DEFECTS: WHAT THEY ARE, HOW TO TREAT THEM, HOW TO COPE WITH THEM

by Kramer, G.F. and Maurer, S. Three Rivers Press, 2001 Designed for parents of newly diagnosed children, also a useful resource for families of prenatally diagnosed patients as well.

FETAL ECHOCARDIOGRAPHY

by Drose, J.A. W. B. Saunders Company, 1998 An essential reference for anyone involved in fetal echocardiography.

~ HEMOCHROMATOSIS ~

HEMOCHROMATOSIS FOUNDATION, INC.

P.O. Box 8569 Albany, NY 12208 Phone: 518-489-0972 Fax: 518-489-0227 Email: not available www.hemochromatosis.org No Connecticut chapter.

American Hemochromatosis Society

4044 West Lake Mary Boulevard Suite 104, PMB 416 Lake Mary, FL 32746 Phone: 888-655-4766/407-829-4488 Fax: 407-333-1284 Email: mail@americanhs.org www.americanhs.org No Connecticut chapter.

AMERICAN LIVER FOUNDATION

75 Maiden Lane Suite 603 New York, NY 10038 Phone: 800-465-4837/212-688-1000 Fax: 212-483-8179 Email: info@liverfoundation.org www.liverfoundation.org

In Connecticut: 127 Washington Avenue North Haven, CT 06473 Phone: 203-234-6304 Fax: 203-234-1386 Email: ctalf@liverfoundation.org www.ctalf.org

ADDITIONAL WEB RESOURCES:

HEMOCHROMATOSIS INFORMATION SOCIETY www.hemoinfo.org

Online resource with information on condition, treatment, how to get an at-home test kit, links for further information.

LIVING WITH HEMOCHROMATOSIS

by Everson, G. and Weinberg, H. Hatherleigh Press, 2003 Patient guide on signs, symptoms, diagnosis and treatment options, and new areas of research. Also physical, emotional, nutritional and financial issues.

THE IRON DISORDERS INSTITUTE GUIDE TO HEMOCHROMATOSIS

by Garrison, C.D., Phatak, D.D., Weinber, E.D. and Burke, W. Cumberland House Publishing, 2001 Valuable information on diagnosis, treatment, lifestyle, nutrition and genetics.

THE OFFICIAL PATIENT'S SOURCEBOOK ON HEMOCHROMATOSIS

by Parker, J.N. and Parker, P.M. Icon Health, 2002 Tells patients, doctors, caregivers and other health professionals how to look for information on hemochromatosis.

~ HEMOPHILIA ~

NATIONAL HEMOPHILIA FOUNDATION

116 West 32nd Street 11th floor New York, NY 10001 Phone: 800-424-2634/212-328-3700 Fax: 212-328-3777 Email: info@hemophilia.org www.hemophilia.org

New England Hemophilia Foundation

347 Washington Street Suite 402 Dedham, MA 02026 Phone: 781-326-7645 Fax: 781-329-5122 Email: neha@theworld.com www.newenglandhemophilia.org

ADDITIONAL WEB RESOURCES:

BLOODLINE

www.bloodline.net An online resource for hematology education and news.

~ HUNTINGTON'S DISEASE ~

HUNTINGTON'S DISEASE SOCIETY OF AMERICA

158 West 29th Street 7th floor New York, NY 10001 Phone: 800-345-4372/212-242-1968 Fax: 212-239-3430 Email: hdsainfo@hdsa.org www.hdsa.org

Connecticut Chapter: Phone: 860-679-4441

HEREDITARY DISEASE FOUNDATION

1303 Pico Boulevard Santa Monica, CA 90405 Phone: 310-450-9913 Fax: 310-450-9532 Email: cures@hdfoundation.org www.hdfoundation.org No Connecticut chapter.

ADDITIONAL WEB RESOURCES:

THE HUNTINGTON'S DISEASE Association Online www.hda.org.uk

Offers news and information about Huntington's disease for people affected, their families, friends, and health care professionals.

HUNTINGTON'S DISEASE ADVOCACY CENTER www.hdac.org

Chat rooms, research updates, information on living with Huntington's disease, managing symptoms, caregiving, finances, and nursing homes.

HUNTINGTON'S DISEASE: THE FACTS

by Quarrell, O. Oxford University Press, 1999 Pocket guide that offers practical advice, discusses medical facts, genetic aspects and counseling, neuropathology, and support organizations.

FACES OF HUNTINGTON'S

by Leal-Pock, C. Living Hope Inc., 1998 A unique collection of writings which illuminates the many facets of Huntington's Disease.

MAPPING FATE: A MEMOIR OF FAMILY, RISK, AND GENETIC RESEARCH

by Wexler, A. University of California Press, 1996 Personal account of a family dealing with Huntington's Disease.

~ HYDROCEPHALUS ~

NATIONAL HYDROCEPHALUS FOUNDATION

12413 Centralia Road Lakewood, CA 90715 Phone: 888-857-3434/562-402-3523 Fax: 562-924-6666 Email: hydrobrat@earthlink.net www.nhfonline.org No Connecticut chapter.

Hydrocephalus Association

870 Market Street Suite 705 San Francisco, CA 94102 Phone: 888-598-3789/415-732-7040 Fax: 415-732-7044 Email: info@hydroassoc.org www.hydroassoc.org No Connecticut chapter.

Guardians of Hydrocephalus Research Foundation

2618 Avenue Z Brooklyn, NY 11235 Phone: 800-458-8655/718-743-4473 Fax: 718-743-1171 Email: GHRF2618@aol.com www.ghrf.homestead.com/ghrf.html

No Connecticut chapter.

Hydrocephalus Foundation

910 Rear Broadway Route 1 Saugus, MA 01906 Phone: 781-942-1161 Fax: not available Email: Hyfll@netscape.net www.hydrocephalus.org No Connecticut chapter.

ADDITIONAL WEB RESOURCES:

THE HYDROCEPHALUS CENTER

www.patientcenters.com/hydrocephalus

NIH Hydrocephalus LINKS www.nlm.nih.gov/medlineplus/hydrocephalus.html

ADDITIONAL LITERATURE:

HYDROCEPHALUS: A GUIDE FOR PATIENTS, FAMILIES AND FRIENDS

by Toporek, C. and Robinson, K., Lamb, L. O'Reilly Media, Inc., 1999 Addresses selecting a skilled neurosurgeon, treatments, lifestyles, and where to turn for support.

PEDIATRIC HYDROCEPHALUS

by Cinalli, G., Maixner, W.J. and Sainte-Rose, C. Springer-Verlag, 2004 Medical reference text for health care professionals, includes classification, etiology, pathophysiology, genetics, and recent progresses in the field.

~ KLINEFELTER SYNDROME ~

American Association for Klinefelter Syndrome

INFORMATION AND SUPPORT

2945 West Farwell Avenue Chicago, IL 60645 Phone: 888-466-5747/773-761-5298 Fax: 773-761-5298 Email: xxyinfo@aaksis.org www.aaksis.org No Connecticut chapter.

KLINEFELTER SYNDROME AND ASSOCIATES

11 Keats Court Coto De Caza, CA 92679 Phone: 888-999-9428/916-773-1449 Fax: 916-773-1449 Email: help@genetic.org www.genetic.org No Connecticut chapter.

ADDITIONAL WEB RESOURCES:

KLINEFELTER SYNDROME SUPPORT GROUP Home Page

www.klinefeltersyndrome.org

Includes links to various and prenatal diagnosis information, support group information, research studies, medical conferences, and links to other useful websites.

ADDITIONAL LITERATURE:

KLINEFELTER'S SYNDROME: A MEDICAL DICTIONARY, BIBLIOGRAPHY, AND ANNOTATED RESEARCH GUIDE TO INTERNET REFERENCES

by Icon Health Publications Icon Health, 2004 Complete medical dictionary, lists of bibliographic citations, information on Internet resources. Designed for physicians, medical students, medical researchers, and patients.

~ KLIPPEL-TRENNAUNAY-WEBER ~

KLIPPEL-TRENAUNAY SUPPORT GROUP

5404 Dundee Road Edina, MN 55436 Phone: 952-925-2596 Fax: 952-925-4708 Email: ktnewmembers@yahoo.com Web: www.k-t.org No Connecticut chapter.

~ LESCH-NYHAN DISEASE ~

Lesch-Nyhan Syndrome Registry

New York University School of Medicine Department of Psychiatry New Bellevue 18 18E13 Bellevue Hospital New York, NY 10012 Phone: 212-263-6458 Fax: 212-629-9523 Email: Ita1@nyu.edu www.Indinfo.org No Connecticut chapter.

Lesch-Nyhan Syndrome Children's Research Foundation

210 South Green Bay Road Lake Forest, IL 60045 Phone: 847-234-3154 Fax: 847-234-3136 No Connecticut chapter.

ADDITIONAL WEB RESOURCES:

NATIONAL INSTITUTE OF NEUROLOGICAL DISORDERS AND STROKE; LESCH-NYHAN SYNDROME INFORMATION PAGE

www.ninds.nih.gov/health_and_medical/ disorders/lesch_doc.htm

~ LEUKODYSTROPHY ~

UNITED LEUKODYSTROPHY FOUNDATION

2304 Highland Drive Sycamore, IL 60178 Phone: 800-728-5483/815-895-3211 Fax: 815-895-2432 Email: ulf@tbc.com www.ulf.org No Connecticut chapter.

ADDITIONAL LITERATURE:

21st CENTURY COMPLETE MEDICAL GUIDE TO LEUKODYSTROPHIES: AUTHORITATIVE GOVERNMENT DOCUMENTS, CLINICAL REFERENCES, AND PRACTICAL INFORMATION FOR PATIENTS AND PHYSICIANS by PM Medical Health News Progressive Management, 2004 Electronic, thoroughly-researched collection on CD-ROM. For patients, practical information is provided in clearly written education documents. For medical professionals, doctor reference tools and texts had detailed technical information and clinical background material.

~ LUPUS ~

American Autoimmune Related Diseases Association, Inc.

22100 Gratiot Avenue Eastpointe, MI 48021 Phone: 586-776-3900 Fax: 586-776-3903 Email: aarda@aarda.org www.aarda.org No Connecticut chapter.

SLE FOUNDATION, INC.

149 Madison Avenue Suite 205 New York, NY 10016 Phone: 212-685-4118 Fax: 212-545-1843 Email: lupus@lupusny.org www.lupusny.org No Connecticut chapter.

LUPUS FOUNDATION OF AMERICA, INC.

2000 L Street, NW Washington, DC 20036 Phone: 800-558-0121/202-349-1155 Fax: 202-349-1156 Email: info@lupus.org www.lupus.org

Connecticut chapter:

97 South Street Suite 110 West Hartford, CT 06110 Phone: 860-953-0387 Fax: 860-953-0483 Email: CTLFA@aol.com www.lupusct.org

ADDITIONAL WEB RESOURCES:

LUPUS SUITE 101

www.suite101.com/welcome.cfm/lupus Written by a nurse who is also a lupus patient. Provides information, support and help.

THE LUPUS SITE

www.uklupus.co.uk

Information on lupus including symptoms, diagnosis, tests, medications, email list, and surveys.

ADDITIONAL LITERATURE:

COPING WITH LUPUS: A GUIDE TO LIVING WITH LUPUS FOR YOU AND YOUR FAMILY

by Phillips, R.H. Avery Publishing Group, 2nd Edition, 1990 Updated, includes new research, treatments, and information.

THE LUPUS HANDBOOK FOR WOMEN

by Dibner, R. Fireside, 1994 "Must read" book of common sense, advice, basics, tips for daily living, entire chapter on pregnancy.

~ MARFAN SYNDROME ~

NATIONAL MARFAN FOUNDATION

22 Manhassett Avenue Port Washington, NY 11050 Phone: 800-862-7326/516-883-8712 Fax: 516-883-8040 Email: staff@marfan.org/support@marfan.org www.marfan.org No Connecticut chapter.

ADDITIONAL WEB RESOURCES:

NATIONAL INSTITUTE OF ARTHRITIS AND

MUSCULOSKELETAL AND SKIN DISEASES www.niams.nih.gov/hi/topics/marfan/marfan.htm

ADDITIONAL LITERATURE:

CONNECTIVE TISSUE AND ITS HERITABLE DISORDERS: MOLECULAR, GENETIC AND MEDICAL ASPECTS

by Royce, P.M. and Steinmann, B. Wiley-Liss, 1993 Reference text which provides up to date clinical and scientific information for medical specialists treating affected individuals.

~ MENTAL RETARDATION ~

THE ARC (FORMERLY KNOWN AS THE ASSOCIATION FOR RETARDED CITIZENS)

1010 Wayne Avenue Silver Spring, MD 20910 Phone: 800-433-5255/301-565-3842 Fax: 301-565-5342 Email: info@thearc.org www.thearc.org

In Connecticut: (22 chapters listed alphabetically by town)

SARAH SENECA RESIDENTIAL SERVICES

11 Business Park Drive Suite 1 Branford, CT 06405 Phone: 203-315-3770 Email: sarahsenecares@snet.net

FARMINGTON VALLEY ARC, INC.

225 Commerce Drive P.O. Box 1099 Canton, CT 06019 Phone: 860-693-6662 Email: favarh@favarh.org www.favarh.org

TRI-COUNTY ARC, CT

65 Route 66 East Columbia, CT 06237 Phone: 860-228-2070 X103

WECAHR

211 Main Street Danbury, CT 06810 Phone: 203-792-3540 www.wecahr.org

THE ARC OF QUINEBAUG VALLEY

687 Cook Hill Road Danielson, CT 06239 Phone: 860-774-2827

THE ARC OF GREATER ENFIELD

75 Hazard Avenue Unit E Enfield, Ct 06082 Phone: 860-763-5411

SARAH, INC.

246 Goose Lane Suite 101 Guilford, CT 06437 Phone: 203-458-4040

www.sarah-inc.org

SARAH TUXIS RESIDENTIAL SERVICES, INC. 45 Boston Street Guilford, CT 06437 Phone: 203-458-8532 Email: tuxis@cshore.com

www.sarah-tuxis.org

MARC, INC. OF MANCHESTER

376R West Middle Turnpike Manchester, CT 06040 Phone: 860-646-5718 Email: info@marcct.org www.marcct.org

THE ARC OF MERIDEN-WALLINGFORD, INC.

224-226 Cook Avenue Meriden, CT 06451 Phone: 203-237-9975 Email: mwshinc@hotmail.com

www.mwsinc.org

DIRECTIONS, INC.

62 Washington Street Middletown, CT 06457 Phone: 860-347-5099 Email: PDFutures@aol.com

OPTIONS UNLIMITED, INC.

584 West Hill Road New Hartford, CT 06057 Phone: 860-738-1410 Email: optionsunItd@myexcel.com

FRIENDS OF NEW MILFORD, INC. 238 Chesnutland Road New Milford, CT 06776 Phone: 860-355-5343

STAR, INC., LIGHTING THE WAY P.O. Box 470 Norwalk, CT 06851 Phone: 203-846-9581 Web: www.starinc-lightingtheway.org

New LONDON COUNTY ARC 125 Sachem Street Norwich, CT 06360 Phone: 860-889-4435 Email: nlarc@snet.net

THE ARC OF PLAINVILLE 367 New Britain Avenue Plainville, CT 06062 Phone: 860-747-1560

THE ARC OF SOUTHINGTON, INC. 201 West Main Street Plantsville, CT 06479 Phone: 860-628-9220 Email: advocacy@arcsouthington.org www.arcsouthington.org

MARC COMMUNITY RESOURCES, LTD.

12 Fairview Street P.O. box 126 Portland, CT 06480 Phone: 860-342-0700 Email: marcinfo@ucoonect.net www.marcweb.org

LITCHFIELD COUNTY ARC

84-R Main Street Torrington, CT 06790 Phone: 860-482-9364 Email: larc@litchfieldarc.org www.litchfieldarc.org

WATERBURY ARC

1929 East Main Street Waterbury, CT 06705 Phone: 203-575-0707 Email: warc@snet.net

FAMILY OPTIONS

51 Depot Road Watertown, CT 06795 Phone: 860-274-0757

THE ARC OF CONNECTICUT

1030 New Britain Avenue Suite 102 West Hartford, CT 06110 Phone: 860-953-8335 Email: arcct@aol.com www.arcct.com

American Association on

Mental Retardation 444 North Capitol Street NW Suite 846 Washington, DC 20001 Phone: 800-424-3688, 202-387-1968 Fax: 202-387-2193 Email: dcroser@aamr.org www.aamr.org

Connecticut chapter: Region X Contact James T. Morrison Email: marcjamesm@hotmail.com

~ MITOCHONDRIAL DISORDERS ~

UNITED MITOCHONDRIAL DISEASE FOUNDATION

8085 Saltsburg Road Suite 201 Pittsburgh, PA 15239 Phone: 412-793-8077 Fax: 412-793-6477 Email: info@umdf.org www.umdf.org No Connecticut chapter.

New England Chapter of UMDF

39 Bay Farm Drive Plymouth, MA 02360 Phone: 413-593-5920 Fax: none Email: NEngChapter@umdf.org

MITOCHONDRIA RESEARCH SOCIETY

P.O. Box 1952 Buffalo, NY 14221 Phone: see website for individual contacts Fax: not available Email: mitoresearch@mitoresearch.org www.mitoresearch.org No Connecticut chapter.

ADDITIONAL WEB RESOURCES:

MITOCHONDRIAL DISEASE IN PERSPECTIVE: SYMPTOMS, DIAGNOSIS AND HOPE FOR THE FUTURE

www.mitoresearch.org/Quest_6_5.htm

Online lecture covering diagnosis, management and symptoms new research and promising treatments.

ADDITIONAL LITERATURE:

MITOCHONDRIAL DISEASE: MODELS AND METHODS

by Lestienne, P. Springer-Verlag, 1999 Covers molecular aspects of mitochondrial disorders, diagnosis and mutations; discusses role of mitochondria in apoptosis and aging.

~ MOEBIUS SYNDROME ~

MOEBIUS SYNDROME FOUNDATION

P.O. Box 147 Pilot Grove, MO 65276 Phone: 660-834-3406 Fax: 660-834-3407 Email: vmccarrell@mid-mo.net or Moebius@ciaccess.com www.moebiussyndrome.com No Connecticut chapter.

ADDITIONAL WEB RESOURCES:

MOEBIUS SYNDROME

www.moebius1.org Site to promote international awareness, offer information resource links and provide interactive support format. A personal approach.

ADDITIONAL LITERATURE:

My Face

by Abbott, M. and Abbott, B. Forward Face, 1998 Children's book written by mother of affected child.

~ MUCOPOLYSACCHARIDOSIS ~

NATIONAL MPS SOCIETY, INC.

P. O. Box 736 Bangor, ME 04402 Phone: 207-947-1445 Fax: 207-990-3074 Email: info@mpssociety.org www.mpssociety.org

~ MULTIPLE SCLEROSIS ~

NATIONAL MULTIPLE SCLEROSIS SOCIETY

733 3rd Avenue New York, NY 10017 Phone: 800-344-4867/212-986-3240 Fax: 212-986-7981 Email: generalmailbox@nmss.org www.nationalmssociety.org

In Connecticut: Greater Connecticut Chapter 705 North Mountain Road Newington, CT 06111 Phone: 860-953-0601 Email: Igerrol@ctnmss.org www.ctnmss.org

Western Connecticut Chapter 1 Selleck Street Suite 500 Norwalk, CT 06855 Phone: 203-838-1033 Email: Iparizeau@msswct.org www.msswct.org

MULTIPLE SCLEROSIS ASSOCIATION OF AMERICA

706 Haddonfield Road Cherry Hill, NJ 08002 Phone: 800-532-7667 Fax: 856-661-9797 Email: msaa@msaa.com www.msa.com

Connecticut contacts:

Marva Llwellyn Stamford, CT Phone: 203-921-1984

Jeannie Beresford Suffield, CT Phone: 860-668-2792

ADDITIONAL WEB RESOURCES:

ALL ABOUT MULTIPLE SCLEROSIS www.mult-sclerosis.org

Aims to provide accurate and comprehensive medical information about multiple sclerosis written in plain English by people living with the disease. Includes encyclopedia archives of news stories and personal accounts.

ADDITIONAL LITERATURE:

MULTIPLE SCLEROSIS Q & A: REASSURING ANSWERS TO FREQUENTLY ASKED QUESTIONS

by Hill, B.A. and Wojcieszek, J. Avery Publishing Group, 2003 Insightful, informative, and empathic resource, discusses traditional and complementary therapies, explains medical terminology and diagnosis, addresses lifestyle issues.

MANAGING THE SYMPTOMS OF MULTIPLE SCLEROSIS

by Schapiro, R.T. Demos Medical Publishing, 4th Edition, 2003 Symptom by symptom discussion, overview of the disease and relation to patient's total health.

~ MUSCULAR DYSTROPHY ~

MUSCULAR DYSTROPHY ASSOCIATION

3300 East Sunrise Drive Tucson, AZ 85718 Phone: 800-572-1717/520-529-2000 Fax: 520-529-5300 Email: mda@mdausa.org www.mdausa.org

Connecticut contact: Health Services Coordinator Phone: 860-633-4466

MUSCULAR DYSTROPHY FAMILY FOUNDATION

2330 North Meridian Street Indianapolis, IN 46208 Phone: 800-544-1213/317-923-6333 Fax: 317-923-6334 Email: info@mdff.org www.mdff.org No Connecticut chapter.

ADDITIONAL WEB RESOURCES:

PARENT PROJECT MUSCULAR DYSTROPHY www.parentprojectmd.org

Founded by parents of kids with Duchenne and Becker muscular dystrophies, they identify, fund and disseminate information on research, support an international conference, and provide a newsletter. Includes links to information and resources, breaking news, treatments, and emotional issues.

ADDITIONAL LITERATURE:

MUSCULAR DYSTROPHY IN CHILDREN: A Guide for Families

by Siegel, I.M. Demos Medical Publishing, 1999 Text for consumers, includes information on signs and symptoms, medical treatments, psychosocial issues, probable course of disease, and therapies.

MUSCULAR DYSTROPHY: THE FACTS

by Emery, A.E.H. Oxford University Press, 2nd Edition, 2000 Easy to understand language explaining the complexities of muscular dystrophy, including daily life issues.

MOONRISE: ONE FAMILY, GENETIC IDENTITY, AND MUSCULAR DYSTROPHY

by Wolfson, P.

St. Martin's Press, 2003

Written by a mother of a son with Duchenne muscular dystrophy. Personal account through diagnosis, prognosis, and natural history. Explores special education, prenatal diagnosis, and genetics.

~ NEUROFIBROMATOSIS ~

NATIONAL NEUROFIBROMATOSIS FOUNDATION, INC.

95 Pine Street 16th floor New York, NY 10005 Phone: 800-323-7938/212-344-6633 Fax: 212-747-0004 Email: nnff@nf.org www.nf.org No Connecticut chapter.

NNFF Northern New England Chapter

75 McNeil Way Suite 201 Dedham, MA 02026 Phone: 888-585-5316/508-879-5638 Fax: 781-326-4940 Email: nfne.ed@verizon.net

NEUROFIBROMATOSIS, INC.

9320 Annapolis Road Suite 300 Lanham, MD 20706 Phone: 800-942-6825/301-918-4600 Fax: 301-918-0009 Email: info@nfinc.org www.nfinc.org No Connecticut chapter.

NF INC. NEW ENGLAND

9 Bedford Street Burlington, MA 01803 Phone: 781-272-9936 Email: info@nfincne.org www.nfincne.org

ADDITIONAL WEB RESOURCES:

NEUROFIBROMATOSIS RESOURCES

www.neurosurgery.mgh.harvard.edu/NFR Online listing of neurofibromatosis information on the web, including general information, genetics, support, news groups, homepages, and information for clidren and adolescents.

ADDITIONAL LITERATURE:

LIVING WITH GENETIC DISORDER:

THE IMPACT OF NEUROFIBROMATOSIS I. *by Ablon, J.* Auburn House, 1999 A chronicle of the life experiences of adults with Neurofibromatosis I.

NEUROFIBROMATOSIS TYPE I: FROM GENOTYPE TO PHENOTYPE

by Upadhyaya, M. and Cooper, D.N. Academic Press, 1998 Medical reference text written for students through professionals. Includes clinical aspects, gene structure, expression, and mutation, animal models, disease treatment and prevention.

~ NIEMANN-PICK ~

NATIONAL NIEMANN-PICK FOUNDATION, INC.

P.O. Box 49 415 Madison Avenue Fort Atkinson, WI 53538 Phone: 877-287-3672/920-563-0930 Fax: 920-563-0931 Email: nnpdf@idcnet.com www.nnpdf.org No Connecticut chapter.

ADDITIONAL WEB RESOURCES:

Center for Jewish Diseases Mt. Sinai School of Medicine

www.mssm.edu/jewish_genetics Includes disease description, natural history, genetics and testing information.

ADDITIONAL LITERATURE:

THE OFFICIAL PARENT'S SOURCEBOOK ON NIEMANN-PICK DISEASE: A REVISED AND UPDATED DIRECTORY FOR THE INTERNET AGE

by Parker, J.N. & parker, P.M., (eds) loon Health, 2002 Guide to how to look for information online, how to find a doctor, how to locate the atest research.

~ ORGANIC ACIDEMIA ~

ORGANIC ACIDEMIA ASSOCIATION

13210 35th Avenue North Plymouth, MN 55441 Phone: 763-559-1797 Fax: 763-694-0017 Email: oaanews@aol.com www.oaanews.org No Connecticut chapter

~ OSTEOGENESIS IMPERFECTA ~

OSTEOGENESIS IMPERFECTA FOUNDATION, INC.

804 West Diamond Avenue Suite 210 Gaithersburg, MD 20878 Phone: 800-981-2663/301-947-0083 Fax: 301-947-0456 Email: bonelink@oif.org www.oif.org No Connecticut chapter.

CHILDREN'S BRITTLE BONE FOUNDATION

7701 95th Street Pleasant Prairie, WI 53158 Phone: 866-694-2223 Fax: 262-947-0724 Email: info@cbbf.org www.cbbf.org No Connecticut chapter.

ADDITONAL WEB RESOURCES:

THE BONES PAGE

www.geocities.com/CapeCanaveral/Lab/3608 Tips for everyday life, basic information, and links to other resources.

~ PARKINSON'S DISEASE ~

American Parkinson Disease Association

1250 Hylan Boulevard Suite 4B Staten Island, NY 10305 Phone: 800-223-2732 Fax: 718-981-4399 Email: adpa@apdaparkinson.org ww.apdaparkinson.com or org

In Connecticut: APDA Connecticut Chapter 27 Allendale Drive North Haven, CT 06473 Phone: 203-288-0546 Fax: 203-288-0546 Email: gladkt@hotmail.com www.ctapda.com

See Connecticut website for 20 local contacts.

PARKINSON'S DISEASE FOUNDATION, INC.

710 West 168th Street New York, NY 10032 Phone: 800-457-6676/212-923-4700 Fax: 212-923-4778 Email: info@ppdf.org www.pdf.org

No Connecticut chapter

ADDITIONAL WEB RESOURCES:

PARKINSON'S INFORMATION

www.parkinsonsinfo.com Information about Parkinson's disease, a directory or resources, and frequently asked questions.

MICHAEL J. FOX FOUNDATION

www.michaeljfox.org

Dedicated to ensuring the development of a cure for Parkinson's disease within this decade.

ADDITIONAL LITERATURE:

300 TIPS FOR MAKING LIFE WITH PARKINSON'S DISEASE BETTER

by Schwarz, S.P. Demos Medical Publishing, 2002 Tips, techniques, and shortcuts learned from personal experience, arranged in categories of daily activities.

PARKINSON'S DISEASE: A GUIDE FOR PATIENT AND FAMILY

by Duvoisin, R.C. and Sage, J. Raven Press, LTD., 3rd Edition, 1990 In depth information on diagnosis, medications, management, and genetics, and hopes for the future.

Did You Know...?

2003 marked the 50th anniversary of the discovery of the structure of DNA.

~ PHENYLKETONURIA ~

CHILDREN'S PKU NETWORK

3970 Via de la Valle Suite 120 E Del Mar, CA 92014 Phone: 858-509-0767 Fax: 858-509-0768 Email: pkunetwork@aol.com www.pkunetwork.org

No Connecticut chapter.

ADDITIONAL WEB RESOURCES:

NATIONAL PKU NEWS

www.pkunews.org News and information about PKU including personal stories, information for students writing papers, support information, and information on legislation and policies relevant to PKU.

LOW PROTEIN RECIPES

www.lowprotein.com "Successful and sumptuous" low protein recipes put together by a mother of a child with homocystinuria.

NATIONAL COALITION FOR PKU AND ALLIED DISORDERS www.pku-allieddisorders.org

Organization comprised of individuals, metabolic support groups and professionals seeking to improve the identification, treatment, and management of PKU and allied disorders.

ADDITIONAL LITERATURE:

LOW PROTEIN COOKERY FOR PHENYLKETONURIA

by Schuett, V.E. University of Wisconsin Press, 1997 Provides recipes for American style cooking, including instructions for calculating nutrient content, and special circumstances such as kid's parties, etc.

~ PORPHYRIA ~

AMERICAN PORPHYRIA FOUNDATION

P.O. Box 22712 Houston, TX 77227 Phone: 713-266-9617 Fax: 713-871-1788 Email: porphyrus@aol.com www.porphyriafoundation.com No Connecticut chapter.

~ PRADER-WILLI SYNDROME ~

PRADER WILLI SYNDROME ASSOCIATION

5700 Midnight Pass Road Suite 6 Sarasota, FL 34242 Phone: 800-926-4797/941-312-0400 Fax: 941-312-0142 Email: national@pwsausa.org www.pwsausa.org

In Connecticut: Prader-Willi Syndrome Association Connecticut Chapter, Inc. 35 Ansonia Drive North Haven, CT 06473 Phone: 203-239-9902 Fax: none Email: pwsactchapter@yahoo.com

ADDITIONAL WEB RESOURCES:

UNIPARENTAL DISOMY: PRADER-WILLI SYNDROME, ANGELMAN SYNDROME

www.lpch.org/DiseaseHealthInfo/HealthLibrary/genetics/uniparen.html

Brief overview provided by the Lucile Packard Children's Hospital at Stanford.

Did You Know...?

12,000 letters of DNA were decoded by the Human Genome Project every second.

ADDITIONAL LITERATURE:

PRADER-WILLI SYNDROME: DEVELOPMENT AND MANIFESTATIONS

by Whittington, J. and Holland, T. Cambridge University Press, 2004 Based on the largest cohort of studies on Prader Willi syndrome, provides information on the conditions, and management issues in medical, nutritional, psychological, educational, social, and therapeutic needs.

~ PRUNE BELLY SYNDROME ~

PRUNE BELLY SYNDROME NETWORK, INC.

P.O. Box 2092 Evansville, IN 47728 Phone: 310-825-6865 Fax: 310-794-9962 Email: rmoehlmann@prunebelly.org www.prunebelly.org No Connecticut chapter.

~ PSEUDOXANTHOMA ELASTICUM ~

National Association for Pseudoxanthoma Elasticum, Inc.

8764 Manchester Road Suite 200 St. Louis, MO 63144 Phone: 314-962-0100 Fax: 314-962-0100 Email: pxenapee@napxe.org www.napxe.org No Connecticut chapter.

PXE, INTERNATIONAL

4301 Connecticut Avenue NW, Suite 404 Washington, DC 20008 Phone: 203-362-9599 Fax: 202-966-8553 Email: pxe@pxe.org www.pxe.org No Connecticut chapter.

PXE New ENGLAND REGIONAL OFFICE

Gordon & Wendy Wood Hubbard 73 Marnoch Drive Seekonk, MA 02771 Phone: 508-336-7461 Email: PXENewEng@aol.com

~ RETINITIS PIGMENTOSA ~

RETINITIS PIGMENTOSA INTERNATIONAL

P.O. Box 900 Woodland Hills, CA 91365 Phone: 818-992-0500 Fax: 818-992-3265 Email: info@rpinternational.org www.rpinternational.org No Connecticut chapter.

FOUNDATION FIGHTING BLINDNESS

11435 Cronhill Drive Owings Mills, MD 21117 Phone: 888-394-3937/410-568-0150 Fax: 410-363-2393 Email: info@blindness.org www.blindness.org

In Connecticut: Contact Leonard Roberto Phone: 203-268-4031 Email: robbylenn@aol.com

AMERICAN COUNCIL OF THE BLIND, INC.

1155 15th Street, NW, Suite 1004 Washington, DC 20005 Phone: 800-424-8666/202-467-5081 Fax: 202-467-5085 Email: info@acb.org www.acb.org

In Connecticut: Connecticut Council of the Blind Alice Jackson 191 Centrebrook Road Hamden, CT 06518 Email: ajackson212@comcast.net

American Foundation for the Blind

11 Penn Plaza, Suite 300 New York, NY 10001 Phone: 800-232-5463/212-502-7600 Fax: 212-502-7777 Email: afbinfo@afb.net www.afb.org No Connecticut chapter.

ADDITIONAL WEB RESOURCES:

VISIONCHANNEL

www.visionchannel.net/retinitis

Includes overview of retinitis pigmentosa, signs, symptoms, risk factors, treatment, and diagnosis.

ADDITIONAL LITERATURE:

ORDINARY DAYLIGHT:

PORTRAIT OF AN ARTIST GOING BLIND by Potok, A. Bantam, 2003 Story of a gifted painter with retinitis pigmentosa who loses his sight. Depressed and angry, he ultimately discovers it is not the end of the world, it is the beginning.

AMAZING GRACE: AUTOBIOGRAPHY OF A SURVIVOR

by Halloran, G. North Star Publications, 1993 Personal account of blind mother and her son, her unconventional therapies, challenges and triumphs.

~ RETT SYNDROME ~

INTERNATIONAL RETT SYNDROME ASSOCIATION

9121 Piscataway road, 2B Clinton, MD 20735 Phone: 800-818-7388/301-856-3334 Fax: 301-856-3336 Email: irsa@rettsyndrome.org www.rettsyndrome.org No Connecticut chapter.

Rett Syndrome Research Foundation

4600 Devitt Drive Cincinnati, OH 45246 Phone: 513-874-3020 Fax: 513-874-2520 Email: mgriffin@rsrf.org www.rsrf.org

Connecticut contact: Monica Coenraads 67 Under Cliff Road Trumbull, CT 06611 Phone: 203-445-9233 Email: monica@rsrf.org

ADDITIONAL WEB RESOURCES:

THE DRM WEBWATCHER: RETT SYNDROME www.disabilityresources.org/RETT.html

Links to sites for information on Rett syndrome.

ADDITIONAL LITERATURE:

GRIEF DANCERS: A JOURNEY INTO THE DEPTHS OF THE SOUL by Zimmerman, S. Nemo Press, 1996 Mother's story of raising a daughter with Rett Syndrome.

~ SCLERODERMA ~

Scleroderma Foundation

12 Kent Way, Suite 101 Byfield, MA 01922 Phone: 800-722-4673/978-463-5843 Fax: 978-463-5809 Email: sfinfo@scleroderma.org www.scleroderma.org

Connecticut chapter:

TRI-STATE CHAPTER (CONNECTICUT, NORTHERN

New Jersey, South Central and Eastern New York) 62 Front Street Binghamton, NY 13905 Phone: 800-867-0885/607-723-2239 FAX: 607-723-2039 Email: sdtrristate@aol.com www.scleroderma/org/chapter/tristate

MARGARET WHITEHEAD VAN WHY

CONNECTICUT SUPPORT GROUP Contact Mary Mannillo Phone: 860-521-3024

Scleroderma Research Foundation

2320 Bath Street Suite 315 Santa Barbara, CA 93105 Phone: 800-441-2873/805-563-9133 Fax: 805-563-2402 Email: srfcure@srfcure.org www.sclerodermausa.org

No Connecticut chapter.

ADDITIONAL WEB RESOURCES:

SCLERODERMA FROM A TO Z

www.sclero.org

Resource available in multiple languages with links to medical information, support groups, personal accounts, books, message boards, and news.

ADDITIONAL LITERATURE:

THE SCLERODERMA BOOK:

A GUIDE FOR PATIENTS AND FAMILIES by Mayes, M.D. Oxford University Press, 1999 Up-to-date practical information provided by a leading expert in the field, a reliable resource.

SCLERODERMA:

A New Role FOR PATIENTS AND FAMILIES by Brown, M. Scleroderma Press, 2002 Written from the perspective of a patient and family, useful resource on both medical and non-medical issues.

~ SICKLE CELL ANEMIA ~

SICKLE CELL DISEASE ASSOCIATION OF AMERICA

200 Corporate Point Suite 495 Culver City, CA 90230 Phone: 800-421-8453/310-216-6363 Fax: 310-215-3722 Email: scdaa@sicklecelldisease.org www.sicklecelldisease.org

Connecticut chapter:

SOUTHERN REGIONAL

SICKLE CELL ASSOCIATION, INC. 177 State Street, 3rd floor Bridgeport, CT 06604 Phone: 888-745-2327 Email: srsca@sicklecelldisease.org

ADDITIONAL WEB RESOURCES:

SICKLE CELL INFORMATION CENTER, ATLANTA, GA

www.scinfo.org

Provides both the patient and the professional information on news, research updates, and world wide sickle cell resources.

INFORMATION CENTER FOR THALASSEMIA AND SICKLE CELL DISEASE

www.sickle.bwh.harvard.edu

Source of current information on sickle cell, thalassemia, and disorders of iron metabolism. Includes overviews of basic and clinical research, management and new developments in the field.

ADDITIONAL LITERATURE:

SICKLE CELL DISEASE: BASIC PRINCIPLES AND CLINICAL PRACTICE

by Embury, S.H., Hebbel, R.P. and Mohandas, N. Lippincott, Williams & Wilkins, 1994 A synopsis of what is currently know about sickle cell disease, summarizing the core of basic principles and clinical practice. Sickle Cell Disease in Children and Adolescents: Diagnosis, Guidelines for Comprehensive Care, and Care Paths and Protocols for Management of Acute and Chronic Complications by the Sickle Cell Disease Care Consortium.

Did You Know...?

Scientists estimate that humans have only 1/3 more genes than the simple roundworm!

~ SJOGREN'S SYNDROME ~

SJOGREN'S SYNDROME FOUNDATION

8120 Woodmont Avenue Suite 530 Bethesda, MD 20814 Phone: 800-475-6473/301-718-0300 Fax: 301-718-0322 Email: cwilt@sjogrens.org www.sjogrens.org

In Connecticut: State support leader; Isabel Lopez Norwalk, CT Phone: 203-846-1031

ADDITIONAL WEB RESOURCES:

SJS WORLD

www.sjsworld.org

Online community that offers patients and families a place to meet and share experiences, books, chat rooms, medical info, and email groups.

ADDITIONAL LITERATURE:

THE NEW SJOGREN SYNDROME HANDBOOK

by Wallace, D.J., Bromet, E.J. and the Sjogren Syndrome Foundation Oxford University Press, 1998 Updated version of original book to be released soon.

A BODY OUT OF BALANCE: UNDERSTANDING AND TREATING SJOGREN SYNDROME

by Fremes, R., Carteron, N. and Grayzel, A. Avery Publishing Group, 2003 A comprehensive guide that covers all aspects of living with Sjogren syndrome.

THE SJOGREN SYNDROME SURVIVAL GUIDE

by Rumpf, T.P. and Hammitt, K.M. New Harbinger Publications, 2003 Detailed information on how to cope with this condition.

~ SMITH-LEMLI-OPITZ SYNDROME~

SMITH-LEMLI-OPITZ/RSH SYNDROME Advocacy and Exchange

2650 Valley Forge Drive Boothwyn, PA 19061 Phone: 610-485-9663 Fax: not available Email: bhook@erols.com www.members.aol.com/slo97/index.html No Connecticut chapter.

~ SOTOS SYNDROME ~

SOTOS SYNDROME SUPPORT ASSOCIATION

P.O. Box 4626 Wheaton, IL 60189 Phone: 888-246-7772 Fax: not available Email: sssa@well.com www.well.com/user/sssa No Connecticut chapter.

ADDITIONAL LITERATURE:

SOTOS SYNDROME: A HANDBOOK FOR FAMILIES

by Anderson, R.R. and Buehler, B.A. Sotos Syndrome Support Association. Includes description of the condition, medical and developmental evaluations, and glossary. Order through the Sotos Syndrome Support Association.

~ SPINA BIFIDA ~

SPINA BIFIDA ASSOCIATION OF AMERICA

4950 MacArthur Boulevard NW, Suite 250 Washington, DC 20007 Phone: 800-621-3141/202-944-3285 Fax: 202-944-3295 Email: sbaa@sbaa.org www.sbaa.org In Connecticut: Spina Bifida Association of Connecticut P.O. Box 2545 Hartford, CT 06146 Phone: 800-574-6274 Fax: 860-345-2600 Email: sbac@sbac.org www.sbac.org

ADDITIONAL WEB RESOURCES:

CHILDREN WITH SPINA BIFIDA: A RESOURCE PAGE FOR PARENTS

www.waisman.wisc.edu/~rowley/sbkids/index.html Links to spina bifida organizations, articles, websites, online discussion groups, related diagnoses, learning issues, family support, tests, surgeries and treatments, prenatal diagnosis and fetal surgery, and genetics.

ADDITIONAL LITERATURE:

VIEWS FROM OUR SHOES: GROWING UP WITH A

BROTHER OR SISTER WITH SPECIAL NEEDS by Meyer, D.J. and Pillo, C. Woodbine House, 1997 About using a wheelchair. Recommended by a girl with spina bifida.

CHILDREN WITH SPINA BIFIDA: A PARENT'S GUIDE by Lutkenhoff, M. Woodbine House, 1999

SPINABILITIES:

A Young Person's Guide to Spina Bifida by Lutkenhoff, M. and Oppenheimer, S.G. Woodbine House, 1997

Did You Know...?

Identical twins do not have identical fingerprints.

-50-

~ TAY SACHS ~

NATIONAL TAY-SACHS AND ALLIED DISEASES

Association

2001 Beacon Street, Suite 204 Brighton, MA 02135 Phone: 800-906-8723 Fax: 617-277-0134 Email: info@ntsad.org www.ntsad.org

In Connecticut: (Serving the tri-state area) 1202 Lexington Avenue #288 New York, NY 10028 Phone: 888-354-7788/212-431-0431 Email: info@ntsad-ny.org www.ntsad-ny.org

ADDITIONAL WEB RESOURCES:

CENTER FOR JEWISH DISEASES MT. SINAI SCHOOL OF MEDICINE

www.mssm.edu/jewish_genetics

Follow links to Tay-Sachs Disease. Includes disease description, natural history, genetics and testing information.

ADDITIONAL LITERATURE:

TAY-SACHS DISEASE

by Desnick, R.J. and Kaback, M.M. Academic Press, 2001 Highly recommended medical reference text written and edited by recognized leaders in the field.

~ THALASSEMIA ~

COOLEY'S ANEMIA FOUNDATION, INC.

129-09 26th Avenue Suite 203 Flushing, NY 11354 Phone: 800-522-7222/718-321-2873 Fax: 718-321-3340 Email: info@cooleysanemia.org www.cooleysanemia.org In Connecticut: Contact Peter Chieco Phone: 914-232-1808 Email: anemia@optonline.net

ADDITIONAL WEB RESOURCES:

INFORMATION CENTER FOR THALASSEMIA AND SICKLE CELL DISEASE

www.sickle.bwh.harvard.edu

Source of current information on sickle cell, thalassemia, and disorders of iron metabolism. Includes overviews of basic and clinical research, management and new developments in the field.

NORTHERN CALIFORNIA COMPREHENSIVE THALASSEMIA CENTER

www.thalassemia.com

Information for patients, families, health professionals and interested community members to improve the quality of life and survival of thalassemia patients.

ADDITIONAL LITERATURE:

THE THALASSEMIA SYNDROMES

by Weatherall, D.J. and Clegg, J,B, Blackwell Publishers, 4th Edition, 2001 New edition that summarizes the evidence suggesting that the clinical picture of this disorder may result from several different inherited defects of globin synthesis. Includes historical background on the field.

~ TOURETTE SYNDROME ~

TOURETTE SYNDROME ASSOCIATION, INC.

42-40 Bell Boulevard Bayside, NY 11361 Phone: 800-237-0717/718-224-2999 Fax: 718-279-9596 Email: ts@ts-usa.org www.tsa-usa.org

In Connecticut: Connecticut Chapter Phone: 203-912-7310 Email: ts@tsact.org

ADDITIONAL WEB RESOURCES:

TOURETTE-SYNDROME.COM

www.tourette-syndrome.com Comprehensive online community devoted to children and adults with Tourette syndrome.

ADDITIONAL LITERATURE:

TOURETTE'S SYNDROME:

FINDING ANSWERS AND GETTING HELP by Waltz, M. Patient Center Guides, 2001 A consumer guide offering help to families living and dealing with Tourette's.

ICY SPARKS

by Rubio, G.H. Penguin Books, 2001 This book is about a young girl who has Tourette's, but doesn't know it. She grows up in the back hills of Kentucky and no one knows what to make of her.

~ TREACHER COLLINS SYNDROME ~

TREACHER COLLINS FOUNDATION

P.O. Box 683 Norwich, VT 05055 Phone: 800-823-2055/802-649-3050 Fax: not available Email: hopecharkins@hotmail.com www.treachercollinsfnd.org No Connecticut chapter.

ADDITIONAL WEB RESOURCES:

REFLECTIONS ON TREACHER COLLINS SYNDROME

www.treachercollins.org Website written by a pediatric resident with Treacher Collins syndrome. Includes many resource links.

~ TUBEROUS SCLEROSIS ~

TUBEROUS SCLEROSIS ALLIANCE

801 Roeder Road Suite 750 Silver Spring, MD 20910 Phone: 800-225-6872/301-562-9890 Fax: 301-562-9870 Email: info@tsalliance.org www.tsalliance.org

No Connecticut chapter.

ADDITIONAL WEB RESOURCES:

THE CARDIFF-ROTTERDAM TUBEROUS SCLEROSIS MUTATION DATABASE

www.archive.uwcm.ac.uk/uwcm/mg/tsc_db Contains published mutations and polymorphisms in the TSC2 gene.

ADDITIONAL LITERATURE:

TUBEROUS SCLEROSIS COMPLEX: FROM BASIC SCIENCE TO CLINICAL PHENOTYPES

by Curatolo, P., editor Cambridge University Press, 2003 Correlation between new genetic and basic science data and clinical presentation.

~ TURNER SYNDROME ~

TURNER SYNDROME SOCIETY OF THE UNITED STATES

14450 TC Jester Suite 260 Houston, TX 77014 Phone: 800-365-9944/832-249-9988 Fax: 832-249-9987 Email: manager@turner-syndrome-us.org www.turner-syndrome-us.org

In Connecticut: Connecticut Turner Syndrome Society Contact Sandra Gittleman 57 Cianci Drive Southington, CT 06489 Phone: 860-628-8729 Email: barry1157@aol.com

~ UREA CYCLE DISORDERS ~

NATIONAL UREA CYCLE DISORDERS FOUNDATION

4841 Hill Street La Canada, CA 91011 Phone: 800-386-8233/818-790-2460 Fax: 818-952-2184 Email: info@nucdf.org www.nucdf.org No Connecticut chapter.

ADDITIONAL WEB RESOURCES:

UREA CYCLE DISORDERS

www.meadjohnson.com/metabolics/ureacycle.html Detailed overview of the conditions, therapies, and common disorders.

~ VELO-CARDIO-FACIAL SYNDROME ~

Velo-Cardio-Facial Syndrome Educational Foundation, Inc.

708 Jacobsen Hall Upstate Medical University Syracuse, NY 13210 Phone: 315-464-6590 Fax: 315-464-6593 Email: info@vcfsef.org www.vcfsef.org No Connecticut chapter.

NORTHEAST VCFS SUPPORT GROUP

Contact Maureen Anderson 2 Lansing Drive Salem, NH 03079 Phone: 603-898-6332 Fax: not available Email: mladja@aol.com

~ VON HIPPEL-LINDAU SYNDROME ~

VHL FAMILY ALLIANCE

171 Clinton Road Brookline, MA 02445 Phone: 800-767-4845/617-277-5667 Fax: 858-712-8712 Email: info@vhl.org Web: www.vhl.org

In Connecticut: Contact Northeast Chapter Email: northeast@vhl.org

~ WILLIAMS SYNDROME ~

WILLIAMS SYNDROME ASSOCIATION

P.O. Box 297 Clawson, MI 48017 Phone: 800-806-1871/248-244-2229 Fax: 248-244-2230 Email: info@willims-syndrome.org www.williams-syndrome.org

Connecticut contact: Holly Weston 495 Route 87 Columbia, CT 06237 Phone: 2860-228-1020 Email: hweston@williams-syndrome.org

ADDITIONAL WEB RESOURCES:

THE WILLIAMS SYNDROME COMPREHENSIVE WEB SITE

www.wsf.org Includes medical and general information, behavioral issues, research, and information for families.

Did You Know...?

Most leading causes of death have a genetic component.

UNDERSTANDING WILLIAMS SYNDROME: A GUIDE TO BEHAVIORAL PATTERNS AND INTERVENTIONS

By Semel, E. and Rosner, S.R. Lawrence Erlbaum Associates, Inc., 2003 Includes basic information, neurogenetic implications, challenges and interventions.

JOURNEY FROM COGNITION TO BRAIN TO GENE: PERSPECTIVES FROM WILLIAMS SYNDROME

by Bellugi, U. and St. George, M.I. MIT Press, 2001 Presents the work of a team of scientists using a multidisciplinary integrated approach to link genes with human behavior.

~ WILSON'S DISEASE ~

WILSON'S DISEASE ASSOCIATION INTERNATIONAL

1802 Brookside Drive Wooster, OH 44691 Phone: 800-399-0266/330-264-1450 Fax: 509-757-6418 Email: wda@sssnet.com www.wilsonsdisease.org

In Connecticut: Lenore and Russell Sillery 152 Cheese Spring Road Wilton, CT 06897 Phone: 203-762-2372/203-961-9993 Fax: 203-961-9993 Email: Isillery@sillery.com www.sillery.com

ADDITIONAL WEB RESOURCES:

WILSON'S DISEASE RESOURCES AND INFORMATION

www.acsu.buffalo.edu/~drstall/wilsons.html Website by physician who has Wilson's disease.

LOW COPPER DIET FOR WILSON'S DISEASE

www.gicare.com/pated/edtgs17.htm Gastroenterologist's website with detailed nutritional information for Wilson's disease patients.

ADDITIONAL LITERATURE:

WILSON'S DISEASE: A CLINICIAN'S GUIDE TO RECOGNITION, DIAGNOSIS, AND MANAGEMENT by Brewer, G.J. Kluwer Academic Publishers, 2001.

WILSON'S DISEASE FOR THE PATIENT AND FAMILY: A PATIENT'S GUIDE TO WILSON'S DISEASE AND FREQUENTLY ASKED QUESTIONS ABOUT COPPER

by Brewer, G.J. George J. Brewer, MD through Xlibris Publishing Services Provider, 2001

COMMON GENETIC TERMS

Allele: Variant forms of the same gene. Different alleles produce variations in inherited characteristics such as eye color or blood type.

Allelic heterogeneity: A single disorder, trait, or pattern of traits caused by different mutations within a gene.

Allelic variant: An alteration in the normal sequence of a gene, the significance of which may be unclear. Complete gene sequencing often identifies numerous allelic variants (sometimes hundreds) for a given gene.

Amino acid: Any of a class of 20 molecules that are combined to form proteins in living things. The sequence of amino acids in a protein, and therefore protein function, are determined by the genetic code.

Aneuploidy: The occurrence of one or more extra or missing chromosomes leading to an unbalanced chromosome complement.

Anticipation: The tendency in certain genetic disorders for individuals in successive generations to present at an earlier age and/or with more severe manifestations; often observed in disorders resulting from the expression of a trinucleotide repeat mutation that tends to increase in size and have a more significant effect when passed from one generation to the next.

Autosomal: Any of the chromosomes other than the sex-determining chromosomes (X and Y) or the genes on these chromosomes.

Autosomal dominant: A gene on one of the non-sex chromosomes that is always expressed, even if only one copy is present.

Autosomal recessive: Describes a trait or disorder requiring the presence of two copies of a gene mutation at a particular locus in order to express observable phenotype; specifically refers to genes on one of the 22 pairs of non-sex chromosomes.

Background risk: The proportion of individuals in the general population who are affected with a particular disorder or who carry a certain gene; often discussed in the genetic counseling process as a comparison to the patient's personal risk given his or her family history or other circumstances.

Band level: Terminology used in reference to cytognetic analysis. Refers to the total number of stripes, or bands, elicited on each chromosome with staining techniques. Band level is the total number of bands estimated to be present in a haplotype set (23) of chromosomes. When analysis is performed at an early stage of mitosis (prometaphase), chromosomes appear longer, with approximately 700-1200 bands. At a later stage of mitosis (metaphase), chromosomes are more condensed, with approximately 300-600 bands. At higher band levels, the greater resolution increases the ability to identify more subtle chromosomal abnormalities and their breakpoints.

Base pair: The two complementary, nitrogen-rich molecules held together by weak chemical bonds. Two strands of DNA are held together in the shape of a double helix by the bonds between their base pairs. Carrier: An individual who has a recessive, disease-causing allele at a particular locus on one chromosome of a pair and a normal allele at that locus on the other chromosome.

Carrier detection or carrier testing: Testing used to identify usually asymptomatic individuals who have a gene mutation for an autosomal recessive or X-linked recessive disorder.

Carrier frequency: The proportion of individuals in a population who have inherited a single copy of a specific recessive gene mutation.

Cell cycle: The complete series of events from one cell division to the next.

Centromere: The constricted portion of the chromosome at which the chromatids are joined and to which the spindle attaches during mitosis and meiosis.

Chromosome: Structure found in the nucleus of a cell, which contains the genes. Chromosomes come in pairs, and a normal human cell contains 46 chromosomes (23 pairs).

Coding region: Sequence of DNA consisting of a series of nucleotide bases (code) giving rise to the mature messenger RNA that will be translated into the specific amino acids of the protein product.

Codominance: Situation in which two different alleles for a genetic trait are both expressed.

Codon: In DNA or RNA, a sequence of three nucleotides that codes for a certain amino acid or signals the termination of translation (stop or termination codon).

Compound heterozygote: An individual who has two different abnormal alleles at a particular locus, one on each chromosome of a pair; usually refers to individuals affected with an autosomal recessive disorder.

Congenital: Present from birth, not necessarily genetic.

Consultand: The individual (not necessarily affected) who presents for genetic counseling and through whom a family with an inherited disorder comes to medical attention.

Cross over (meiosis): A specialized cell division in which a single diploid cell undergoes two nuclear divisions following a single round of DNA replication in order to produce four daughter cells, each with half the number of chromosomes as the original diploid cell. Meiosis occurs during the formation of gametes from diploid organisms and at the beginning of haplophase in those organisms that alternate between diploid and haploid generations.

Crossing over: The exchange of a segment of DNA between two homologous chromosomes during meiosis leading to a novel combination of genetic material in the offspring.

Cytogenetics: The study of the structure, function, and abnormalities of human chromosomes.

De novo gene mutation: An alteration in a gene that is present for the first time in one family member as a result of a mutation in the egg or sperm cell that led to that person's conception.

Deletion: Absence of a segment of DNA; may be as small as a single base or large enough to encompass one or more entire genes. Large deletions involving a whole segment of a chromosome may be detected by routine examination of the chromosomes; intermediate deletions involving a few genes may be detected by using fluorescent in situ hybridization (FISH); smaller deletions involving a portion of a gene may only be detected by analyzing the DNA.

Deoxyribonucleic acid: DNA. The molecules inside cells that make up the genes, that carry genetic information from one generation to the next.

Derivative chromosome: Term used to denote an abnormal chromosome consisting of segments from two or more chromosomes joined together as the result of a translocation, insertion, or other rearrangement.

Diploid: The normal number of chromosomes in a somatic cell; in humans, 46 chromosomes (22 pairs of autosomes plus two sex chromosomes).

Direct DNA analysis: Molecular genetic testing used to detect a genetic alteration associated with a specific disorder; direct DNA analysis is possible only when the gene, genes, or genomic region associated with a disorder is known.

Disease causing mutation: A gene alteration that causes or predisposes an individual to a specific disease.

DNA banking: The process through which DNA is extracted from any of a number of possible cell sources and stored indefinitely by freezing or refrigerating for future testing; done when a specific test is not presently available or when the decision to have testing has not been made.

Double heterozygote: An individual who has two different gene mutations at two separate genetic loci.

Embryo: An animal in the early prenatal stages of growth and differentiation, specifically refers to the developing human during the first trimester of pregnancy.

Euploid: Any chromosome number that is a multiple of the haploid number.

Exon: The protein-coding DNA sequence of a gene. Each exon codes for a specific portion of the complete protein. In some species (including humans), a gene's exons are separated by long regions of DNA (called introns) that have no apparent function.

False paternity: The situation in which the alleged father of a particular individual is not the biological father.

False positive: A test result which indicates that an individual is affected and/or has a certain gene mutation when he or she is actually unaffected and/or does not have the mutation; i.e., a positive test result in a truly unaffected individual.

Familial: Describes a trait that is observed with higher frequency within the same family, whether the etiology is genetic or environmental, or a combination of the two.

Family history: The genetic relationships and medical history of a family; when represented in diagram form using standardized symbols and terminology, usually referred to as a pedigree. A record of a person's current and past illnesses, and those of his or her parents, brothers, sisters, children, and other family members. A family history shows the pattern of certain diseases in a family, and helps to determine risk factors for those and other diseases.

Fertility: The capacity to conceive or to induce conception. It may refer to either the male or female.

Fetus: An animal in the early prenatal stages of growth and differentiation, specifically refers to the developing human during the second and third trimesters of pregnancy.

Fibroblast: A connective tissue cell that makes and secretes collagen proteins.

First-degree relative: Parent, sibling, or offspring of an individual. A relative that shares one half of the persons genes.

Flanking marker: An identifiable, polymorphic region of DNA located to the side of a gene, but not within the gene itself. Used in linkage analysis to track the coinheritance of the gene in question.

Fluorescent in situ hybridization: (FISH) A cytogenetic technique used to identify the presence of specific chromosomes or chromosomal regions.

Gametogenesis: The meiotic process by which mature eggs and sperm are formed. Oogenesis refers specifically to the production of ova (eggs) and spermatogenesis to the production of sperm.

Gene: The functional and physical unit of heredity passed from parent to offspring. Genes are pieces of DNA, and most genes contain the information for making a specific protein.

Gene expression: The detectable effect of a gene.

Gene product: Genes are transcribed into segments of RNA (ribonucleic acid), which are translated into proteins. Both RNA and proteins are products of the expression of the gene.

Gene therapy: Treatment of a genetic disorder by the insertion of usually genetically altered genes into cells especially to replace defective genes or to provide a specialized disease fighting function (as the destruction of tumor cells).

Genetic predisposition: Increased susceptibility to a particular disease due to the presence of one or more gene mutations, and/or a combination of alleles (haplotype), not necessarily abnormal, that is associated with an increased risk for the disease. Also refers to a family history that suggests an increased risk for the disease.

Genetic testing: Analyzing DNA to look for a genetic alteration that may indicate an increased risk for developing a specific disease or disorder.

Genomics: The study of the complete DNA sequence, containing all coding and non-coding genetic information and supporting proteins, in the chromosomes of an individual or species. The study of the sequence, structure, and function of the genome. The comprehensive analysis of all the genes, and their interactions, of an organism.

Genotype: The genetic constitution of an organism or cell; also refers to the specific set of alleles inherited at a locus.

Genotype-phenotype correlation: The association between the presence of a certain mutation or mutations (genotype) and the resulting physical trait, abnormality, or pattern of abnormalities (phenotype).

Germline: The cell line from which egg or sperm cells (gametes) are derived.

Germline mosaicism: Two or more genetic or cytogenetic cell lines confined to the precursor cells of the egg or sperm; also called gonadal mosaicism.

Germline mutation: The presence of an altered gene within the egg and sperm (germ cell) such that the altered gene can be passed to subsequent generations.

Haploid: Half the diploid or normal number of chromosomes in a somatic cell; the number of chromosomes in a gamete (egg or sperm) cell, which in humans is 23 chromosomes, one chromosome from each chromosome pair.

Heterozygote: With respect to a particular trait or condition, an individual who has inherited two different alleles, usually one normal and the other abnormal, at a particular locus.

Homologous chromosomes: A pair of particular chromosomes, normally one inherited from the mother and one from the father, containing the same genetic loci in the same order.

Homozygote: With respect to a particular trait or condition, an individual who has inherited identical alleles at a particular locus.

Imprinting: A phenomenon in which the disease phenotype depends on which parent passed on the disease gene. This is determined by the process by which maternally and paternally derived chromosomes are uniquely chemically modified leading to different expression of a certain gene or genes on those chromosomes depending on their parental origin.

Infertility: Incapable of or unsuccessful in achieving pregnancy over a considerable period of time (as a year) in spite of determined attempts by heterosexual intercourse without contraception.

Inheritance pattern: The manner in which a particular genetic trait or disorder is passed from one generation to the next. Autosomal dominant, autosomal recessive, X-linked dominant, X-linked recessive, multifactorial, and mitochondrial inheritance are examples.

Insertion: A chromosome abnormality in which material from one chromosome is inserted into another chromosome; or a mutation in which a segment of DNA is inserted into a gene or other segment of DNA, potentially disrupting the coding sequence.

Intrafamilial variability: Variation in clinical presentation of a particular disorder among affected individuals within the same immediate or extended family.

Intron: Non-coding sequence of DNA removed from mature messenger RNA prior to translation. DNA initially transcribed to messenger RNA consists of coding sequences (exons) and non-coding sequences (introns); introns are spliced out of the messenger RNA prior to translation, leaving only the exons to ultimately encode the amino acid product.

Inversion: A chromosomal rearrangement in which a segment of genetic material is broken away from the chromosome, inverted from end to end, and re-inserted into the chromosome at the same breakage site. These may be balanced, with no loss or gain of genetic material, or unbalanced, with missing or extra genetic material.

Karyotype: A photographic representation of the chromosomes of a single cell, arranged in pairs based on their banding pattern and size according to a standard classification.

Kindred: An extended family; term often used in linkage studies to refer to large families.

Linkage analysis: Indirect DNA analysis. The use of several DNA sequence polymorphisms (normal variants) that are near or within a gene of interest to track the inheritance of a disease-causing mutation in that gene within a family.

Linkage disequilibrium: In a population, co-occurrence of a specific DNA marker and a disease at a higher frequency than would be predicted by chance alone.

Locus: The physical site or location of a specific gene on a chromosome.

Locus heterogeneity: A single disorder, trait, or pattern of traits caused by mutations in genes at different chromosomal loci.

Lyonization: In females, the phenomenon in which one X chromosome (either maternally or paternally derived) is randomly inactivated in early embryonic cells, with fixed inactivation in all descendant cells; first described by the geneticist Mary Lyon.

Mapped gene: A gene or phenotype whose relative position on a segment of DNA or on a chromosome has been established.

Marker: An identifiable segment of DNA with enough variation between individuals that its inheritance and co-inheritance with alleles of a given gene can be traced; used in linkage analysis.

Marker chromosome: A small chromosome, usually containing a centromere, occasionally seen in tissue culture, often in a mosaic state. A marker chromosome may be of little clinical significance however may create an imbalance for whatever genes are present. Clinical significance, particularly if found in a fetal karyotype, is often difficult to assess.

Maternal contamination: The situation which occurs in prenatal testing in which a fetal sample becomes contaminated with maternal cells, which can confound interpretation of the results of genetic analysis.

Meiosis: Specialized cell division in which a single diploid cell undergoes two nuclear divisions following a single round of DNA replication in order to produce four daughter cells, each that contain half the number of chromosomes as the original diploid cell. Meiosis occurs during the formation of gametes from diploid organisms.

Messenger RNA: RNA that serves as a template for protein synthesis.

Microdeletion syndrome: A syndrome caused by a chromosomal deletion spanning several genes that is too small to be detected under the microscope using conventional cytogenetic techniques. Other methods of DNA analysis can sometimes be employed to identify the deletion.

Mitochondrial inheritance: Mitochondria, cytoplasmic organelles that produce the energy source ATP for most chemical reactions in the body, contain their own distinct genome; mutations in mitochondrial genes are responsible for several recognized syndromes and are always maternally inherited.

Monosomy: The presence of only one chromosome from a pair; partial monosomy refers to the presence of only one copy of a segment of a chromosome.

Mosaicism: The post-fertilization occurrence of two or more cell lines with different genetic or chromosomal constitutions within a single individual or tissue.

Multifactorial inheritance: The combined contribution of one or more often unspecified genes and environmental factors, often unknown, in the causation of a particular trait or disease.

Mutation: Any alteration in a gene from its natural state; may be disease causing or a benign, normal variant.

New mutation: An alteration in a gene that is present for the first time in one family member as a result of a mutation in a germ cell (egg or sperm) of one of the parents or in the fertilized egg itself.

Non-disjunction: The failure of homologous chromosomes or chromatids to segregate during mitosis or meiosis, with the result that one daughter cell has both of a pair of parental chromosomes or chromatids, and the other has none.

Nonsense mutation: A single base pair substitution that prematurely codes for a stop in amino acid translation (stop codon).

Nucleotide: A molecule consisting of a nitrogenous base (adenine, guanine, thymine, or cytosine in DNA; adenine, guanine, uracil, or cytosine in RNA), a phosphate group, and a sugar (deoxyribose in DNA; ribose in RNA). DNA and RNA are polymers of many nucleotides.

Obligate carrier or obligate heterozygote: An individual who may be clinically unaffected but who must carry a gene mutation based on analysis of the family history; usually applies to disorders inherited in an autosomal recessive and X-linked recessive manner.

Oncogene: A gene that normally directs cell growth. If altered, an oncogene can promote or allow the uncontrolled growth of cancer. Alterations can be inherited or caused by an environmental exposure to carcinogens.

Oncosuppressor gene: Also called a tumor suppressor gene. Genes in the body that can suppress or block the development of cancer.

Paracentric inversion: A chromosomal inversion in which the breakpoints are confined to one arm of a chromosome; the inverted segment does not span the centromere.

Parentage testing: The process through which DNA sequences from a particular child and a particular adult are compared to estimate the likelihood that the two individuals are related; DNA testing can reliably exclude but cannot absolutely confirm an individual as a biological parent.

Pedigree: A diagram of the genetic relationships and medical history of a family using standardized symbols and terminology.

Penetrance: The proportion of individuals with a mutation causing a particular disorder who exhibit clinical symptoms of that disorder; a condition is said to have complete penetrance if clinical symptoms are present in all individuals who have the disease-causing mutation, and to have reduced or incomplete penetrance if clinical symptoms are not always present in individuals who have the disease-causing mutation.

Pericentric inversion: A chromosomal inversion in which the breakpoints occur on both arms of a chromosome and therefore the inverted segment spans the centromere.

Phenotype: The observable physical and/or biochemical characteristics of the expression of a gene; the clinical presentation of an individual with a particular genotype.

Pleiotropy: Multiple, often seemingly unrelated, physical effects caused by a single altered gene or pair of altered genes.

Point mutation: An alteration in DNA sequence caused by a single nucleotide base change, insertion, or deletion.

Polygenic: Genetic condition resulting from the combined action of alleles of more than one gene (e.g., heart disease, diabetes, and some cancers). Although such disorders are inherited, they depend on the simultaneous presence of several alleles; thus the hereditary patterns usually are more complex than those of single-gene disorders.

Polymerase chain reaction (PCR): A method of creating copies of specific fragments of DNA. PCR rapidly amplifies a single DNA molecule into many billions of molecules.

Polymorphism: Natural variations in a gene, DNA sequence, or chromosome that have no adverse effects on the individual and occur with fairly high frequency in the general population.

Polyploidy: An increase in the number of haploid sets (23) of chromosomes in a cell. Triploidy refers to three whole sets of chromosomes in a single cell (in humans, a total of 69 chromosomes per cell); tetraploidy refers to four whole sets of chromosomes in a single cell (in humans, a total of 92 chromosomes per cell).

Preimplantation diagnosis: A procedure used to genetically test one cell removed from early embryos conceived by in vitro fertilization. Typically performed to identify specific genetic abnormalities, and then transferring to the mother's uterus only those embryos determined not to have inherited the condition in question.

Premutation: In disorders caused by trinucleotide repeat expansions, an abnormally large allele that is not associated with clinical symptoms but that can expand into a full mutation when transmitted to offspring (full mutations are associated with clinical symptoms of the disorder).

Prenatal diagnosis: Testing performed during pregnancy to determine if a fetus is affected with a particular disorder. Chorionic villus sampling (CVS), amniocentesis, periumbilical blood sampling (PUBS), ultrasound, and fetoscopy are examples of procedures used either to obtain a sample for testing or to evaluate fetal anatomy.

Presymptomatic testing: Testing of an asymptomatic individual in whom the identification of a gene mutation indicates development of findings related to a specific diagnosis at some future point. A negative result excludes the diagnosis.

Private mutation: A distinct gene alteration observed in a single family.

Proband: The affected individual through whom a family with a genetic disorder is ascertained; may or may not be the consultand (the individual presenting for genetic counseling).

Rearrangement: A structural alteration in a chromosome, usually involving breakage and reattachment of a segment of chromosome material, resulting in an abnormal configuration, may be balanced or unbalanced. Examples include inversion and translocation.

Recessive: A gene which will be expressed only if there are 2 copies or, for a male, if one copy ispresent on the X chromosome.

Reciprocal translocation: A segment of one chromosome is exchanged with a segment of another chromosome of a different pair.

Recombination: The exchange of a segment of DNA between two homologous chromosomes during meiosis leading to a novel combination of genetic material in the offspring.

Recurrence risk: The likelihood that a trait or disorder present in one family member will occur again in other family members in the same or subsequent generations.

Reflex testing: Follow-up testing automatically initiated when certain test results are observed in the laboratory; used to clarify or elaborate on primary test results.

Restriction fragment length polymorphism (RFLP) analysis: Fragment of DNA of predictable size resulting from cutting of a strand of DNA by a given restriction enzyme. DNA sequence mutations that destroy or create the sites at which a restriction enzyme cuts DNA change the size and number of DNA fragments resulting from digestion by a given restriction enzyme.

Ring chromosome: Abnormal chromosomes in a circular configuration.

Risk assessment: Calculation of an individual's chance of having inherited a certain gene mutation, of developing a particular disorder, or of having a child with a certain disorder based upon analysis of multiple factors including genetic test results, family medical history, and/or ethnic background.

Robertsonian translocation: The joining of two acrocentric chromosomes at the centromeres with loss of their short arms to form a single abnormal chromosome; acrocentric chromosomes are the Ychromosome and chromosome numbers 13, 14, 15, 21, and 22.

Screening: Testing designed to identify individuals in a given population who are at higher risk of having or developing a particular disorder, or carrying a gene for a particular disorder.

Second-degree relative: A relative with whom one quarter of an individual's genes is shared (i.e., grandparent, grandchild, uncle, aunt, nephew, niece, half-sibling).

Segregation: The separation of the homologous chromosomes and their random distribution to the gametes at meiosis.

Sensitivity: The frequency with which a test yields a positive result when the gene mutation in question is actually present in the individual being tested.

Somatic mutation: Alterations in DNA that occur after conception. Somatic mutations can occur in any of the cells of the body except the germ cells (sperm and egg) and therefore are not passed on to children.

Specificity: The frequency with which a test yields a negative result when the gene mutation in question is not present in the individual being tested.

Sporadic: Denoting either a genetic disorder that occurs for the first time in a family due to a new mutation or the chance occurrence of a non-genetic disorder or abnormality that is not likely to recur in a family.

Stem cells: Relatively undifferentiated cells from which other types of cells can develop.

Substitution: A type of mutation due to replacement of one nucleotide in a DNA sequence by another nucleotide or replacement of one amino acid in a protein by another amino acid.

Telomere: The segment at the end of each chromosome which has a specialized structure and is involved in chromosomal replication and stability.

Transcript: A sequence of RNA produced by transcription from a DNA template. **Transcription factor:** A protein that binds to regulatory regions and helps control gene expression.

Transfer RNA: Small RNA molecules that bond with amino acids and transfer them to the ribosomes, where proteins are assembled according to the genetic code carried by mRNA.

Translation: The process of forming a protein molecule at a ribosomal site of protein synthesis from information contained in messenger RNA.

Translocation: A chromosome alteration in which a whole chromosome or segment of a chromosome becomes attached to or interchanged with another whole chromosome or segment. These may be balanced, with no loss or gain of genetic material, or unbalanced, with extra or missing genetic material.

Trinucleotide repeat: Sequences of three nucleotides repeated in tandem on the same chromosome a number of times. A normal, polymorphic variation in repeat number with no clinical significance commonly occurs between individuals; however, repeat numbers over a certain threshold can, in some cases, lead to adverse effects on the function of the gene, resulting in genetic disease.

Trisomy: The presence of a single extra chromosome, yielding a total of three chromosomes of that particular type instead of a pair. Partial trisomy refers to the presence of an extra copy of a segment of a chromosome.

Trisomy rescue: The phenomenon in which a fertilized ovum initially contains 47 chromosomes but loses one of the trisomic chromosomes in the process of cell division such that the resulting daughter cells and their descendants contain the normal number of chromosomes.

Uniparental disomy: (UPD) The situation in which both members of a chromosome pair, or segments of a chromosome pair, are inherited from one parent and neither is inherited from the other parent. Uniparental disomy can result in an abnormal phenotype in some cases.

UPD testing: Testing used to identify whether specific chromosomes are maternally or paternally derived; can aid in confirming the clinical diagnosis of certain disorders for which UPD is a possible underlying etiology.

Variable expression: Variation in clinical features (type and severity) of a genetic disorder between individuals with the same gene alteration, even within the same family.

X-linked dominant: Describes a dominant trait or disorder caused by a mutation in a gene on the X chromosome.

X-linked lethal: A disorder caused by a dominant mutation in a gene on the X chromosome that is observed almost exclusively in females because it is almost always lethal in males who inherit the gene mutation.
X-linked recessive: A mode of inheritance in which a mutation in a gene on the X chromosome causes the phenotype to be expressed in males who are hemizygous for the gene mutation or in females who are homozygous for the gene mutation. Carrier females, who have only one copy of the mutation, do not usually express the phenotype, although differences in X-chromosome inactivation can lead to varying degrees of clinical expression in carrier females.

Zygosity testing: The process through which DNA sequences are compared to assess whether individuals born from a multiple gestation (twins, triplets, etc.) are monozygotic (identical) or dizygotic (fraternal); often used to identify a suitable donor for organ transplantation or to estimate disease susceptibility risk if one sibling is affected.

Sources:

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