

EPIDEMIC GENETIC DISEASE, with Claude La-berge, M.D., of the Human Genetics Laboratory, Université Laval, Québec.

Tyrosinemia is an hereditary disease which can be traced back to a French couple who migrated to North America more than 300 years ago. One in 24 to one in 41 in a particular region in Quebec are carriers of the disease trait, and this is spreading. (No trace of the disease has been recorded in the United States.) Dr. La-berge charts the diagnosis and treatment of this disease to describe the dynamics of genetic diseases, how the diseases are approached today and how they may be overcome in the future. (16 minutes) (in color) **0512310**

GENETIC COUNSELING FOR CHROMOSOME ABNORMALITIES: AUTOSOMAL CHROMOSOMES, with Frederick Hecht, M.D., Associate Professor of Medical Genetics and Pediatrics, Crippled Children's Division, University of Oregon Medical Center, Portland, Oregon.

The parents of children with non-sexual chromosomal abnormalities are interviewed by several people who are involved in training physicians in genetic counseling at the University of Oregon. This program is of particular value to general physicians.

(13 minutes) (in color)

0712706

GENETIC COUNSELING FOR CHROMOSOME ABNORMALITIES: SEX CHROMOSOMES, with Frederick Hecht, M.D., Associate Professor of Medical Genetics and Pediatrics, Crippled Children's Division, University of Oregon Medical Center, Portland, Oregon.

The general physician learns eight characteristics of effective genetic counseling from this telecast. Particular attention is given to several different sex chromosomal abnormalities.

(17 minutes) (in color)

0712605

GENETIC MEDICINE: A MEDICAL FACILITY OF THE FUTURE, with Claude Laberge, M.D., Human Genetics Laboratory, Faculté de Médecine, Université Laval, Québec.

Dr. Laberge shows the steps that are now being taken to use the advances in molecular biology and biochemical genetics for curing human hereditary diseases. The advances include determining the structure of genetic material; understanding protein synthesis and deciphering the genetic code. Dr. Laberge demonstrates how this information will lead to a new branch of medicine; and how it will go far beyond the present use of merely counseling patients. (16 minutes) (in color)

0712407

GROWTH AND DIFFERENTIATION OF HUMAN LYMPHOCYTES: PART I

"Nucleic Acid Synthesis." Arnold D. Rubin, M.D., Associate in Medicine, Mount Sinai School of Medicine, demonstrates the techniques for extracting nucleic acid from lymphocytes, focusing on RNA metabolism. (19 minutes) **0703912**

GROWTH AND DIFFERENTIATION OF HUMAN LYMPHOCYTES: PART II, ABNORMAL NUCLEIC ACID SYNTHESIS IN LEUKEMIA

Arnold D. Rubin, M.D., Associate in Medicine, Mount Sinai School of Medicine, New York, conducts an investigation of abnormal growth patterns of lymphocytes taken from patients with lymphoproliferative disorders.

(20 minutes)

0704713

HUMAN CYTOGENETICS

"Indications for Cytogenetic Testing" — LCDR Thomas R. Birdwell, MC, U.S.N., Head, Cytogenetics Division, U.S. Naval Hospital, San Diego, Calif., presents some of the indications for primary amenorrhea, investigation of female and male sterility, differential diagnosis of congenital defects in the newborn, differential diagnosis of chronic myelocytic leukemia, investigation of intersex, family counseling, and genetic prognosis. (14 minutes) **0803707**

IDENTIFICATION AND GROUPING OF CHROMOSOMES

LCDR Thomas R. Birdwell, MC, U.S.N., Head, Cytogenetics Division, Department of Pathology, U.S. Naval Hospital, San Diego, Calif., discusses the features of the model chromosome and then demonstrates the technique of identifying and grouping chromosomes in karyotypes.

(16 minutes)

0903501

INBORN ERRORS OF METABOLISM:

MECHANISM AND DIAGNOSIS

Charles R. Scriver, M.D., of the DeBelle Laboratory for Biochemical Genetics at Montreal Children's Hospital in Montreal, P.Q., Canada, describes the current techniques for managing genetic diseases. (13 minutes) (in color) **0909804**

INBORN ERRORS OF METABOLISM:

TREATMENT

Charles R. Scriver, M.D., of the DeBelle Laboratory for Biochemical Genetics at the Montreal Children's Hospital in Montreal, Canada, places the problems of hereditary disorders in their proper perspective. Dr. Scriver divides his therapeutic discussion into "genetic engineering" and "environmental engineering."

(15 minutes) (in color)

0909605