MEDICINE

Lung Cancer Cells Grown

➤ LUNG CANCER can be studied in the laboratory under controlled conditions for the first time.

Dr. Relda Cailleau of the Cancer Research Institute, University of California Medical Center, San Francisco, has grown lung cancer cells in test tubes. Scientists can, therefore, now study the specific physical and chemical behavior of human lung cancer.

Dr. Cailleau has found that the cancer cells have an abnormal number of chromosomes, averaging 79 chromosomes instead of the 46 normally found in tissue cells.

Chromosomes are the hair-like fibers appearing in the nucleus of a cell when it divides or reproduces. They contain the genes that control inherited characteristics.

The cancerous tissue, removed from a human lung in January, 1959, was first grown in covered dishes. Part of the tissue, containing 200 to 300 cancer cells, was later placed in a special flask which was filled with a nourishing liquid.

After about a month, the cells suddenly began to multiply. Since then, Dr. Cailleau has been transferring some of the still-malignant cells to a new flask every two weeks for further study.

Although many kinds of cells are being grown in laboratory flasks, cultures of human lung cancer are extremely rare. One reason is that it is difficult to tell whether the cells that finally grow are cancer tissue cells or normal cells that are often mixed in with them.

• Science News Letter, 79:36 January 21, 1961

MEDICINE

Amoebic Infections Test Called Promising

➤ PRELIMINARY STUDIES of a test for amoebic infections, the scourge of travelers to tropic and semitropic countries, have shown promise.

The test involves the usual serologic procedure in which substances from cultures of amoebae, known as antigens, are mixed with the blood serum of the subject to be tested. If the subject has an amoebic infection, he will have developed antibodies to the amoeba. The reaction between the amoebic antigen and the antibodies gives a positive test.

In previous blood tests for amoebic infections the antigen was produced from a culture in which the amoebae and bacteria normally found in the intestinal tract were grown together. Thus antigens of both bacteria and amoebae were in the test material. If the subject also had antibodies to the bacteria, a false positive test was likely to occur.

The new test was developed by Dr. John F. Kessel and William P. Lewis of the University of California at Los Angeles Medical School. An antigen prepared in a culture free from intestinal bacteria is used, helping to make the test more specific for amoebic infections.

Samples of blood from Indonesia, Mexico, Australia, South Africa and the Los Angeles area were used in preliminary evaluation of the new test.

Among 62 cases with amoebic dysentery or other proved symptoms of infection, only one blood test was negative. Blood serum from 48 persons with no symptoms of infection was negative with the exception of that from one person who had recently traveled in Mexico.

• Science News Letter, 79:36 January 21, 1961

SCIENCE NEWS LETTER

VOL. 79 JANUARY 21, 1961 NO. 3

Edited by WATSON DAVIS

The Weekly Summary of Current Science, published every Saturday by SCIENCE SERVICE, Inc., 1719 N St., N.W., Washington 6, D. C., NOrth 7-2255. Cable Address: SCIENSERVC.

Subscription rates: 1 yr., $5.50; 2 yrs., $10.00; 3 yrs., $14.50; ten or more copies in one package to one address, 7½ cents per copy per week; single copy, 15 cents, more than six months old, 25 cents. No charge for foreign postage.

Change of address: Three weeks notice is required. When ordering a change please state exactly how magazine is addressed. Your new address should include postal zone number if you have one.

Printed in U.S.A. Second class postage paid at Washington, D. C. Established in mimeograph form March 13, 1922. Title registered as trademark, U. S. and Canadian Patent Offices. Indexed in Reader's Guide to Periodical Literature, Abridged Guide, and the Engineering Index. Member Audit Bureau of Circulation.

SCIENCE SERVICE

The Institution for the Popularization of Science organized 1921 as a non-profit corporation.

Board of Trustees—Nominated by the American Association for the Advancement of Science: William W. Rubey, U. S. Geological Survey; Wallace R. Brode; Douglas Whitaker, Rockefeller Institute for Medical Research. Nominated by the National Academy of Sciences: Harlow Shapley, Harvard College Observatory; Philip Bard, Johns Hopkins University; Henry Allen Moe, John Simon Guggenheim Memorial Foundation. Nominated by the National Research Council: Leonard Carmichael, Smithsonian Institution; John R. Dunning, Columbia University; Benjamin H. Willier, Johns Hopkins University. Nominated by the Journalistic Profession: Michael J. Ogden, Providence Journal-Bulletin; O. W. Riegel, Washington and Lee University; Lee Hills, Detroit Free Press. Nominated by the Scripps Estate: Edward J. Meeman, Memphis Press-Scimitar; Frank Ford, Washington, D. C.; Charles E. Scripps, Cincinnati, Ohio.

Officers—President, Leonard Carmichael; Vice President and Chairman of Executive Committee: Charles E. Scripps; Treasurer: Wallace R. Brode; Secretary: Watson Davis.

Staff—Director: Watson Davis. Writers: Gloria Ball, Ann Ewing, Lillian Levy, Faye Marley, Jane Marye, Tove Neville, Marjorie Van de Water, Judy Viorst, Burrell Wood. Science Youth Division: Joseph H. Kraus, Shirley Moore, Dorothy Schriver, Leslie Watkins. Photography: Fremont Davis. Production: Priscilla Howe, Marcia Nelson. Syndicate Sales: Hallie Jenkins. Librarian: Margit Friedrich. Interlingua Division in New York: Alexander Gode, 80 E. 11th St., GRamercy 3-5410. Advertising Manager: Fred A. Moulton, MEtropolitan 8-2562.