

Papers of Robert D. Lange, M.D.

**Manuscript Collection No. 64
of the
John P. McGovern Historical Collections and Research Center
Houston Academy of Medicine - Texas Medical Center Library
1133 John Freeman Blvd.
Houston, Texas 77030**

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I. Introduction

Dr. Lange donated a portion of his ABCC material to the Harris County Medical Archive in April of 1986. The contribution consists of lantern slides, publications and a set of 35 mm slides. The print and photographic materials in this small collection complement each other well. Most of the 46 lantern slides are of the original illustrations printed in the publications in his collection. Artists, photographers, and historians may find the images on the lantern slides informative and inspirational. The 35 mm color slides have become part of the ABCC Photograph Collection and will be separately cataloged.

Dr. Lange served with the Atomic Bomb Casualty Commission from 1951-1953 in the Department of Medicine. Scientists investigating radiation and the relationship to leukemia and hematology will be interested in the research Dr. Lange conducted at ABCC. Dr. Lange worked closely with Dr. William C. Moloney, the former ABCC Chief of the Department of Medicine. Dr. Moloney's personal journal, with photographs describing his two years at ABCC is also part of the Archive's ABCC Collection. The collection is open for research. Individuals interested in using the collection should contact the Director of the Historical Research Center or the Coordinator for the ABCC Collections.

II. Biography

Robert D. Lange was born in Redwood Falls, Minnesota on January 24, 1920. He attended high school at North St. Paul High School in St. Paul, Minnesota. After graduated in 1937 he went to the Macalester College, St. Paul, Minnesota. In 1941 he received his Bachelor of Science. From 1941 to 1944, he studied medicine at Washington University, St. Louis, Missouri. Robert D. Lange received the Jackson Johnson Scholarship all throughout medical school. He was the recipient of the Jackson Johnson Book Prize awarded to the graduating senior with the highest academic average at Washington University Medical School in 1944. Dr. Lange completed an internship in internal medicine at Barnes Hospital, St. Louis, Missouri, 1944-1945. Then Dr. Lange went on to serve as Assistant Resident in Medicine, University of Minnesota Hospital, Minneapolis, 1945-1946. He continued his postgraduate studies as a Fellow and Instructor in Medicine under Dr. C.V. Moore, Division of Hematology, Washington University School of Medicine, 1948-1951.

Dr. Lange served active duty in the United States Army as a Major at the Walter Reed Army Institute of Research, Washington, D.C. He was involved in the active reserves and remains so, 1942-1956, 1956-present. He was promoted to Colonel in 1969, and presently attached to the 489 Civil Affairs Company, Knoxville, Tennessee. Dr. Lange served in the Department of Medicine of the ABCC from 1951-1953. In 1953, he and his family returned to the United States. He immediately joined the academic world. He taught at these medical schools the University of Minnesota, Washington University and the Medical College of Georgia. In 1964, Knoxville, Tennessee became home for the Lange family. There Dr. Lange began his long association with the University of Tennessee. His first appointment was Research Professor at the University of Tennessee Memorial Research Center in 1964. He was promoted to a full professor in 1970. Over the years Dr. Lange accepted a number of chairmanship and directorship appointments with the University's Memorial Research Center and Center for Health Sciences.

Dr. Lange has written extensively in the area of hematology. His bibliography includes: 71 abstracts, 25 book chapters, 156 journal articles. From 1974-1977, Dr. Lange served on the editorial board of *Experimental Hematology*. He has written reviews for the following premier journals in medicine and the field of hematology: *American Journal of Pediatric Hematology/Oncology*; *Archives of Internal Medicine*; *Biochemical Medicine*; *Blood*, *Journal of Hematology*; *Experimental Hematology*; *Journal of Clinical Investigation*; *Journal of Laboratory and Clinical Medicine*; *New England Journal of Medicine*.

Dr. Lange has been a very active faculty member at the University of Tennessee. He has trained thirteen post doctoral fellows and graduate students. Dr. Lange been successful in obtaining grants and other external support for research. Most recently he was awarded \$942,513 from the National Aeronautics and Space Administration for a ten-year study - "Regulation of erythropoiesis in rats during space flight." Some of the funded organizations have been: National Institutes of Health, National Science Foundation, American Cancer Society, Atomic Energy Commission, Physicians Medical Education and Research Foundation, John A. Hartford Foundation, Biomedical Research Support, McDonnellDouglas Corporation, and National Aeronautics and Space Administration.

Dr. Lange has been an exchange visitor of the United States Academy of Science since 1968. He has delivered forty lectures to selected hospitals, medical schools, and research institutes throughout the United States and several foreign countries.

The Physicians Recognition Award from the American Medical Association was presented to Dr. Lange in 1969, 1972 and 1979. His honors included membership on Pi Phi Epsilon, Sigma X, Alpha Omega Alpha.

Dr. Lange has been very active as a physician, administrator and professor. He has medical licensure in the state of Tennessee and board certification from the American Board of Internal Medicine. He is a member or fellow in fifteen societies. They are: American Federation of Clinical Research (Emeritus), Society of Experimental Biology and Medicine, Central Society for Clinical Research, Southern Society for Clinical Investigation, American Society of Hematology (Emeritus), International Society of Hematology (Fellow) American College of Physicians (Fellow), Knoxville Society of Internal Medicine, American Association for the Advancement of Science, American Association of University Professors, Knoxville Academy of Medicine, Tennessee Medical Association, American Medical Association, International Society of Experimental Hematology, Society of Research Administrators. Dr. Lange has served on ten committees as a member and officer. These include: Chairman, Southern Blood Club, 1970; Chairman, Erythropoietin Workshop, American Society of Hematology Meeting, 1970, Chairman, National Heart and Lung Institute Erythropoietin Subcommittee of the American Society of Hematology, 1971. Now a member of this committee. A member of the Program Committee, Tennessee regional Meeting, American College of Physicians, 1971. Chairman, Oak Ridge Associated Universities/Oak Ridge National Laboratories Committee on Human Studies, 1975; A member of the UT Hospital's Executive Committee (ex-officio), Bylaws Committee, Graduate Committee, Planning Committee, and Professional Library Services Committee, 1977-; Chairman, Library Committee, Knoxville Academy of Medicine, 1978; Chairman, Human Participation Committee, Oak Ridge Associated Universities and Oak Ridge National Laboratory, 1978; Member, ad hoc Erythropoietin Committee, National Heart, Lung, and Blood Institute, National Institutes of Health, 1978-present.

Dr. Lange became Professor Emeritus in the Department of Medical Biology College of Medicine, University of Tennessee Medical Center in 1985. He is still on active staff at University Hospital, Knoxville, Tennessee. Mrs. Lange volunteers at a medical library and their son resides in Houston, Texas and daughter in Atlanta, Georgia. In November of 1995 Dr. Lange, Mrs. Lange and their daughter visited the Houston Academy of Medicine-Texas Medical Center Library.

III. ORGANIZATION

The Robert D. Lange Collection contains publications and reprints from the Atomic Bomb Casualty Commission, The Journal of the Hiroshima Medical Association, Blood, The Journal of Hematology, Texas Reports on Biology and Medicine. Unique to this collection are the 46 lantern slides.

As stated in the introduction, Dr. Lange's 35 mm slides have been rehoused and will be cataloged as single items and in sets. The bibliographic records and holdings are in a machine readable format. The finding aids for the photographs are the following: traditional card files and computerized bibliographic records in online catalogs. All of the slides are color. Recorded are some of the recreational activities that early ABCC employees enjoyed.

The collection is arranged in two series:

I. Publications and Reprints

II. Lantern Slides

In the first series the ABCC Technical reports are filed by the numeric code given by the issuing agency. Placed second are the publications and third the reprints. The lantern slides arrived with no organization. Each plate was examined and placed in protective sleeves. A comprehensive arrangement has been established for the lantern slides. All hinges, staples, and paper clips were removed. An archival bond was interleaved to keep related documents and attachments together. If required documents on acidic paper were photocopied onto archival bond paper and the originals discarded. Some fragile documents were placed in envelopes to maintain their integrity and to help contain possible contaminants.

Series Description

I. Publications and reprints 10 folders

These reports were published by the ABCC and leading scientific journals. They date from 1954 to 1966. All have Dr. Lange as an author. Some include Dr. William Moloney.

II. Lanterns Slides

46 glass lantern slides

The damage to any lantern slide is note in the inventory entry. Legends, notes and subjects contents were used to construct individual slide inventory labels. The labels provide a brief description of the illustration. Slides 1-12 were published in Technical Report 25-59 "Leukemia... "First article and Journal of the Hiroshima Medical Association., Vol. XV, no. 5, 1962.Slides 13-18 provides the following information: patient names in initials, age, sex, occupation, radiation history, the year of onset, representative hematological data. Slides 19-24 are all numbered 5032. Slides 25-27 are all numbed 7906. Slides 28-31 illustrate data. Slides 32-46 are of the post bombing scenes. The scenes in the plates can be found in other formats in the ABCC Collection.

IV. Inventory

SERIES I Publications and Reprints

Box 1

Folder 1 Technical Report 23-59

Folder 2 Technical Report 25-59

Folder 3 Technical Report 30-59

Folder 4 The Journal of the Hiroshima Medical Association Vol. XV, no. 5, 1962.

Folder 5 The Journal of the Hiroshima Medical Association Vol. XV, no. 10, 1962.

Folder 6 Adrenal function as measured by thorn tests, of heavily irradiated adults seven years after exposure to an atomic bomb */ by Robert D. Lange, M.D., Takashi Fujii, M.D. June 30, 1953.

Folder 7 Reprint: Leukemia in Atomic Bomb Survivors I. General Observation / by Robert D. Lange, M.D. William C. Moloney, M.D. and Tokuso Yamawaki, M.D. Blood, The Journal of Hematology. Vol. IX, June, 1954.

Folder 8 Reprint: Leukemia in Atomic Bomb Survivors II. Observations on Early Phases of Leukemia / by William C. Moloney and Robert D. Lange. Blood, The Journal of Hematology. Vol. IX, July, 1954.

Folder 9 Reprint: Cytologic and Biochemical Studies on the Granulocytes in Early Leukemia Among Atomic Bomb Survivors / by William C. Moloney and Robert D. Lange. Texas Reports on Biology and Medicine. Vol. 12, no. 4 pp. 887-897, Winter, 1954.

Folder 10 Reprint: Refractory Anemia Occurring in Survivors of the Atomic Bombing in Nagasaki, Japan / by Robert D. Lange, Stanley W. Wright, Masanobu Tomonaga, Hirotami Kurasaki, Shigeru Matsuo and Haruji Matsunaga. Blood, The Journal of Hematology. Vol. X, no. 4, April, 1955.

SERIES II Lantern Slides

Box 1 Slides placed in the order they appear in print. Plates printed in - Technical Report 25-59, "Leukemia ..." first article and Journal of the Hiroshima Med. Assoc., Vol. XV, no. 5, 1962

Slide 1 Figure I. Hiroshima exposed population. Map, chart, data and symbols. Color highlights.

Slide 2 Figure II. Nagasaki exposed population. Map, chart, data and symbols. Color highlights.

Slide 3 Figure III. Hiroshima and Nagasaki combined. Data and symbols. Color highlights.

Slide 4 Figure IV. Distribution of exposed and non exposed cases by age and sex. Data and symbols. Color and tone highlights. [Tape fraying at the bottom.]

Slide 5 Figure V. Types of Leukemia occurring in 124 exposed and non exposed individuals. Data and symbols. Color and tone highlights. [Tape fraying on the side.]

Slide 6 Figure VI. Distribution of exposed and non exposed cases by year of onset. Data and symbols. Color and tone highlights.

Slide 7 Table III. Type of Leukemia related to distance from hypocenter radiation complaints and sex. Slides printed in Technical Report 23-59. Patient radiation history plates printed in Journal of the Hiroshima Med. Assoc., Vol. XV, no. 10, 1962.

Slide 8 Iwanaga, Yoshiaboro. Slide of cells. No. 11/19

Slide 9 Morita, Chieko. Slide of Cells. No 10/6

Slide 10 Katayama, Kiyoshi. Slide of Cells. No 14/8

Slide 11 Chiba, Taneo. Slide of Cells. No 2/1(?) [Tape torn]

Slide 12 Atomic Bomb Casualty Commission. Slide of Cells. No. 8/4/84. The slides below provide the following information: Patient name in initials, age, sex, occupation, radiation history, year of onset, representative hematological data.

Slide 13 P.T. - C.T.* No. 1 In the publication C.T. is reported as T.C. and the age differs.

Slide 14 P.T. - M.C. No. 5

Slide 15 P.T. - F.H. No. 3/5

Slide 16 P.T. - K.K. No. 7/13

Slide 17 P.T. - M.S. No. 17/9/8

Slide 18 P.T. - I.Y. No. 18/9/10 [crack on glass at the top left hand corner] The red tape on the following slides are broken on top left hand corner and is starting to become detached. All are numbered 5032. Some of Emulsion is curling and fading.

Slide 19 Leukemia rates by distance from hypocenter and radiation complaints

Slide 20 Average Leucocyte count by years.

Slide 21 Leukemia in exposed persons - number and rate by presence of radiation symptoms and distance from hypocenter

Slide 22 Leukemia Type Incidence.

Slide 23 Leukemia Cases Verified at ABCC Estimated Year of Onset.

Slide 24 Leukemia Cases from Listing of September 1953. The following slides are bonded with silver tape. All are numbered 7906 and black is becoming faded and spotty.

Slide 25 Ionization (Large symbol)

Slide 26 Estimated Early Medical Effects Expressed as Percentages of Working Force Affected.
Slide 27 Observable Symptoms of Radiation Sickness The following are bonded with black tape. Charts, bar graphs with text and numbers.

Slide 28 Figure I. Case No. 9SI [Tape broken on bottom]

Slide 29 Figure II. Case No. 95SI

Slide 30 P.T. O.J.

Slide 31 P.T. O.M. Lantern slides of bombing scenes. Prints of scenes maybe in other parts of the ABCC Collections; as photoprint or printed in publications. The slides bear wear and some of the emulsion is bubbling and fading.

Slide 32 Pre-Atomic Bombing - Municipal Office - PostAtomic Bombing. (Hiroshima) [Bottom right hand side of glass is cracked]

Slide 33 Scene of rendering medical attention.

Slide 34 Scene of damaged bridge. [Tape scratched]

Slide 35 Scene of two men standing by monument among rubble. [Top tape torn-right hand corner]

Slide 36 Scene of destroyed buildings. A few poles, chimneys, trees and a couple of building remain standing. The mountains are in the background.

Slide 37 Scene of fallen trees and a destroyed bus or truck [Tape is becoming detached]

Slide 38 Scene of destroyed buildings / homes with fallen trees and pots in the road. [Tape is broken]

Slide 39 Scene of a destroyed forest and stone wall.

Slide 40 Scene of fallen damaged boards. Perhaps once a building. [Top lt. hd. corner the glass is broken]

Slide 41 Scene of destroyed homes and road way. (Rt. hd. corner cracked)

Slide 42 Scene of destroyed homes in front of standing homes. [Tape is silver]

Slide 43 Scene of destroyed roofs. (The bottom corner of the glass plate is cracked and broken.)

Slide 44 Scene of destroyed buildings, burned street car, standing structures and people in the distance. [The tape is torn and becoming detached. The bottom corner of the slide is cracked and exposed.]

Slide 45 Scene of pole turned over. Destruction along a street car track. A street car, people, poles and mountains are in the distance. [Tape is silver]

Slide 46 Scene of destroyed street car tracks. Structures, poles and trees remain standing in the background. The people are walking, standing and one is riding a bike.

Index

This index refers to key words and phrases in the text and inventory of the collection.

Alpha Omega Alpha

American Association for the Advancement of Science

American Association of University Professors

American College of Physicians

American Federation of Clinical Research

American Medical Association (AMA)

American Society of Hematology

Atomic Bomb Casualty Commission (ABCC)

Barnes Hospital (St. Louis, Missouri)

Blood

Central Society for Clinical Research Fujii, Takashi.

Grants

Granulocyte

Hematology

International Society for Clinical Investigation

International Society of Experimental Hematology

Jackson Johnson Book Prize

Jackson Johnson Scholarship

Knoxville Academy of Medicine

Lange, Robert D.

Lantern Slides

Leukemia

Malcalester College (St. Paul, Minnesota)

Matsunaga, Haruji.

Matsuoke, Shigeru.

Medical Biology

Medical College of Georgia

Moloney, William C.

Moore, C.V.

National Aeronautics and Space Administration (NASA)

National Institutes of Health (NIH)

National Science Foundation (NSF)

Physicians Recognition Award

Pi Phi Epsilon

Refractory Anemia

Sigma X

Slides

Society of Experimental Biology and Medicine

Society of Research Administrators

Southern Society for Clinical Investigation

Tennessee Medical Association

Tomonaga, Masanobu.

United States. Army

University of Minnesota Hospital (Minneapolis, Minnesota)

University of Tennessee Center for the Health Sciences (Knoxville, Tenn)

University of Tennessee Medical Center at Knoxville (Knoxville, Tenn)

University Memorial Research Center (Knoxville, Tenn)

Walter Reed Army Institute of Research (Washington, D.C.)

Washington University (St. Louis, Missouri)

Wright, Stanley W.

Yamawaki, Tokuso.