

News Release

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GRCSW FORMS THIRD MAJOR LABORATORY - MOLECULAR SCIENCES - TO BEGIN  
STUDY OF PHYSICAL AND CHEMICAL NATURE OF LIFE

An eminent faculty of 11 molecular scientists -- whose research will be directed toward new understanding of the principles of life, was named today by the Graduate Research Center of the Southwest, in Dallas.

Establishment of the Laboratory of Molecular Sciences added a third major field of fundamental research and advanced education within the Southwest Center for Advanced Studies, which is the parent Center's academic arm and major activity. The new laboratory will combine disciplines of physics, chemistry, biology, medicine and engineering for study of the physical and chemical nature of living things.

Additional staff appointments, also announced today, bring the initial research group to a total of 18. Five professorial appointments were made, two from the United States, two from West Germany, and one from England. Within five years, the total staffing is expected to grow to 300, including faculty, research associates, research scientists and technicians. The full organization will include Divisions of Genetics, Biochemistry, Biophysics, Cell Biology, and Development.

First element of the Laboratory of Molecular Sciences will be its Division of Genetics, headed by Prof. Carsten Bresch of the Institute for Genetics, University of Cologne, West Germany. Author of a recent text in molecular genetics, Professor Bresch has made outstanding contributions to

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understanding of bacteriophage (a virus, enzyme, or other bacteria-killing agent, which infect bacteria in the way other viruses affect man) and pox virus.

The four additional professorial appointments are:

\*-Prof. Royston C. Clowes, now at Hammersmith Hospital, London. A distinguished expert in microbial genetics, specializing in the study of extrachromosomal DNA (DNA is deoxyribonucleic acid, the basic hereditary material).

\*-Prof. Walter Harm, first to accept appointment at the Center and now at work in Dallas, from the University of Cologne. One of the world's leading experts in ultra-violet photobiology. (Photobiology broadly refers to transformation of radiant starlight, from the Sun, into chemical energy which enables the cell to thrive. Professor Harm's special field is ultra-violet mutations, including damage and means of repair).

\*-Prof. Daniel L. Harris, from the University of Chicago, Department of Physiology. Recipient of the Quantrell Award at the University of Chicago for his distinguished teaching. A pioneer in cell physiology and biochemistry (biochemistry is application of principles of chemistry to study of composition of living plants and animals and their life processes).

Professor Harris, who has been at the Center on a part-time schedule since May, will both conduct research in the Division of Genetics and be the Laboratory of Molecular Sciences executive officer. He will present a lecture course surveying the field of molecular biology during the coming winter, at the Center or at one of the teaching institutions in the Dallas area.

\*-Prof. Claud S. Rupert, now associate professor at Johns Hopkins University. Holder of a United States Public Health Service Career Development Award. Professor Rupert has just been awarded the Finsen Medal for his outstanding contributions to the field of photobiology.

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Two associate professorships were announced:

\*-Associate Prof. John Jagger, now a research biophysicist at Oak Ridge National Laboratory, Oak Ridge, Tenn., and lecturer in biology at the University of Tennessee. A recognized world leader in biophysics, who has made significant contributions in the effects of ultra-violet radiation on bacteria and viruses. (Ultra-violet rays are energetic, invisible rays beyond the violet end of the spectrum).

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"In Professors Harm, Rupert and Jagger, the Center has the highest concentration of experts in ultra-violet photobiology anywhere in the world," said Professor Harris in connection with the appointments.

\*-Associate Prof. Wolfram Heumann, now at the School of Technology, Braunschweig, West Germany, is the world's only expert on the genetics of free-living bacteria.

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Four assistant professors were appointed:

\*-Assistant Prof. Herbert Gutz, now at the Technical University of Berlin, where he is conducting a wide research program in the genetics of yeast.

\*-Assistant Prof. Rudolph L. Hausman, now Rockefeller Fellow of Natural Sciences, Albert Einstein School of Medicine, Yeshiva University, New York. He has made significant contributions to the mechanism of infection of host cells by bacterial viruses.

\*-Assistant Prof. Dimitrij Lang, physicist, Hygiene Institute, Frankfurt am Main, West Germany. One of the world's most skilled in electron microscope studies (the electron microscope employs high voltages to drive an electron beam through vacuum, to magnify an object by as much as 200,000 times; it has revealed cell structure in minute detail and shown new parts, particularly in the outer membrane of the cell).

\*-Visiting Assistant Prof. Winfried Krone, Anthropology Institute, University of Freiburg, West Germany. His work is in the difficult field between biochemistry and human genetics; the field has profound implications for medicine, particularly the chronic childhood diseases.

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Six Research Associates were also named in the Division of Genetics staff. Dr. Edwin B. Horowitz, from New Mexico Highlands University, Las Vegas, N.M., has already joined the staff. He is<sup>a</sup> doctoral graduate of the University of Chicago.

Klaus Haefner

Research Associate will come from the University of Berlin, and Karl J. A. Muller from the University of Munich, where he is a doctoral candidate. From the University of Cologne, Wolfgang Michalke, Hildegard Olligs, and Gert Wusthoff will join the research associate group in the coming spring and summer.

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One research scientist, Jurgen Wiemann, now a doctoral candidate at Cologne, has also accepted a staff appointment.

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"The Division of Genetics was first to be organized with the Laboratory," said Professor Harris, "because this field of science has been successful in describing biological phenomena in molecular terms, and because it centers on the study of the gene.

"The gene is the fundamental unit of self-reproduction; further, it carries the information necessary for elaboration of all other substances and attributes of an organism.

"Increasingly, geneticists must turn their inquiry toward the fascinating aspects of the control of gene activity and of the relationship of these controls to the development and maintenance of an organism. Biology is just beginning to enter this challenging field of regulation. Only the close collaboration of diverse disciplines will ultimately bring us to an understanding of such biological phenomena as differentiation, cancer, aging, and the interrelationship of a virus and its host cell.

"Of all biologists, molecular geneticists are in the shortest supply and greatest demand."

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The Laboratory of Molecular Sciences was planned in a series of conferences in Dallas and Europe, beginning here February 24-25, 1964.

Summer, 1965, will bring a series of faculty lectures on the fundamentals of genetics at several regional teaching centers. Laboratory summer courses will be offered, beginning in 1966. Seminars and international conferences will also be scheduled.

The Laboratory will offer assistance to regional universities in

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planning new doctoral programs. Major emphasis will be placed on post-doctoral study, both for young scientists (research associates) who wish to complete qualifications for university teaching or research positions, and for the scientists who are now university faculty members or industrial research leaders.

The new Laboratory joins the Center's Laboratories of Earth and Planetary Sciences, formed in April, 1962, and headed by Prof. Francis S. Johnson, and the Laboratory of Computer Sciences, activated in October, 1963, and headed by Prof. Carl F. Kossack.

Total faculty and staff of the Center is now more than 200. Research and academic activities are now being moved to the Founders Building at the Center's permanent campus site, 18 miles north of central Dallas. The initial building will be formally opened Thursday, October 29.

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