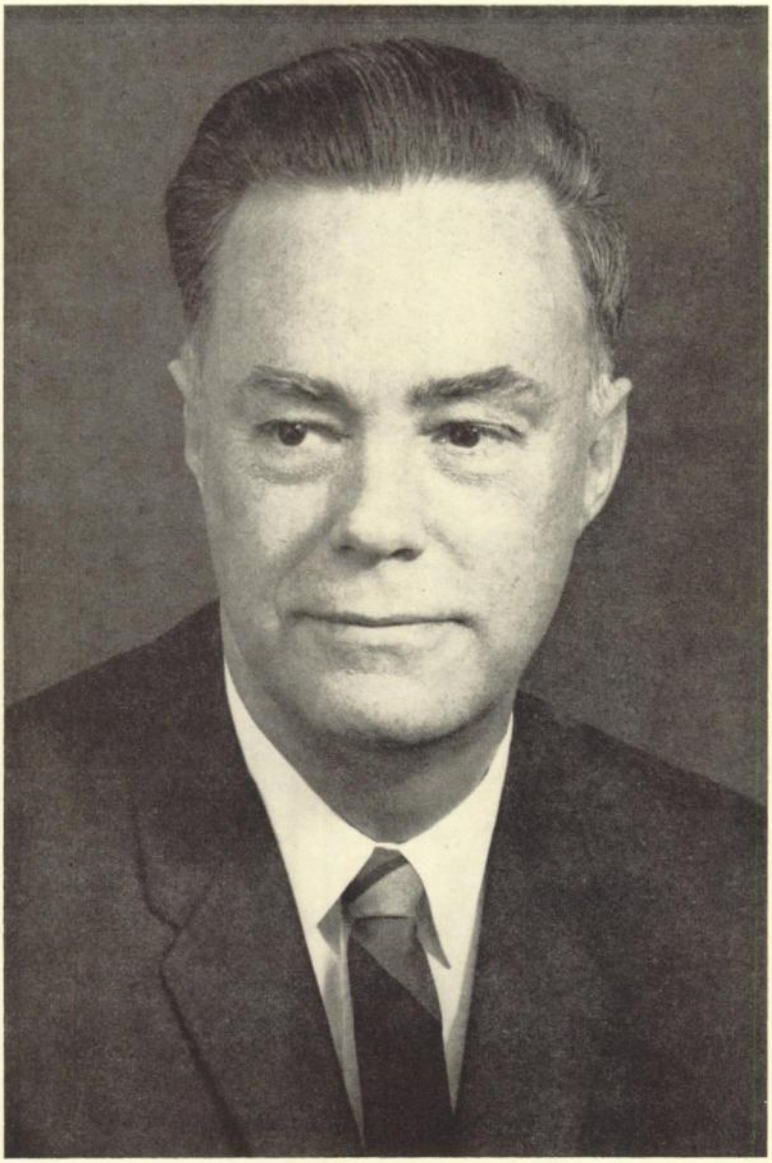

RUSSELL H. MORGAN, M.D.
CALDWELL LECTURER, 1970

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*INTRODUCTION OF CALDWELL LECTURER, 1970**

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CHICAGO, ILLINOIS

> *"An honorable and revered friend, speaking of the favorable reception of my volumes, even in the circles of fashion and elegance, said to me, 'You have made them all talk Johnson.'—Yes, I may add, I have Johnsonized the land; and I trust they will not only talk, but think, Johnson."*
> From Boswell's *LIFE OF JOHNSON*

I am honored to have been chosen to present the Caldwell Lecturer to you this evening. I believe that I am beginning to occupy with him the biographical relationship of Boswell to his Johnson. In February 1967 I had the privilege of presenting a record of his distinguished scientific contributions when he received the Gold Medal of the American College of Radiology. In August 1969 I shared with Dr. Paul C. Hodges the joy of presenting him for the Honorary Degree of Doctor of Science, bestowed upon him by The University of Chicago. Next month I will introduce him as the recipient of the Grubbe Medal of the Chicago Medical Society at a meeting of the Chicago Roentgen Society; and this evening I have the pleasure of introducing Dr. Russell Hedley Morgan for the Caldwell Lecture of the American Roentgen Ray Society.

Dr. Morgan is Professor and Chairman of the Department of Radiology, The Johns Hopkins University School of Medicine; Radiologist-in-Chief, The Johns Hopkins Hospital and Professor and Chairman of the Department of Radiological Sciences, The Johns Hopkins University School of Hygiene and Public Health. He is a meticulous and dedicated scientist, a careful and imaginative administrator, a gifted statesman with a distinguished record of service to Radiology, and, I am delighted to say, a great and good friend.

He developed the photoelectric timing concept and mechanism for the automatic control of roentgenographic exposure. His other major contributions have concerned themselves predominantly with many aspects of the theoretical basis of diagnostic radiology. Many of his basic contributions have resulted in substantial technical advances by himself or others. His major theoretical work has been concerned with the analysis of the physical factors controlling the diagnostic quality of roentgen images. He studied screen intensification systems and their

* Presented at the Seventy-first Annual Meeting of the American Roentgen Ray Society, Miami Beach, Florida, September 29–October 2, 1970.

limitations; this basic investigation led ultimately to the development of fluoroscopic screen intensifiers and the application of television techniques to diagnostic roentgenology. Throughout his career both his theoretical and technical work have had as a major basis the protection of the patient from unnecessary radiation. He has been nationally and internationally active in the development of radiation protection standards. His most recent scientific contributions have related to theoretical considerations of visual perception and to investigations of information theory. He has applied modulation transfer function analysis to roentgenographic systems and has devised a new and widely accepted theory of threshold visual perception.

He has been responsible for the training of a truly distinguished group of young radiologists whose efforts now and in the future will bestow honor on him as well as on themselves. His position as a statesman representing the radiological sciences in both national and international councils marks an additional area of distinguished performance. He serves on the International Commission of Radiation Protection and is Vice-president of the National Council of Radiation Protection and Measurement. He was the Chairman of the National Advisory Committee on Radiation, appointed by the Surgeon General of the Public Health Service, which presented three significant and far-reaching reports to the nation. These reports and his other continuing activities on the federal scene have had a significant impact on Public Health action in relation to the control of radiation hazards in the United States and in relation to protecting and improving health through the radiological sciences.

To paraphrase Boswell, I wish I could Morganize the land, and I trust you will not only talk, but think, Morgan. Now, like Boswell with Johnson, in his presentation of the Caldwell Lecture we have the opportunity to experience the "exuberant variety of his wisdom and wit"—Dr. Russell Morgan.

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