The Yellow River Bridge, three kilometers in length, is of vital importance to the Peking-Hankow Railway. Bourgeois engineers considered that on account of its age, it should be dismantled and rebuilt. But Zingorenko, a 60-year old Soviet railway expert, examined the spans one by one and advised that the bridge was serviceable and needed only to be strengthened. The suggestion of the Soviet expert was adopted, the speed of train crossing the bridge is now twice as high as before. The load which the bridge can support is also twice as great as before.

When repairing a certain bridge on the Canton-Hankow railway, Chinese engineers were going to follow the American standard of putting four steel beams in each span. It was the Soviet experts, who, realising that China was short of steel, made minute examinations and calculations and proposed to use two beams instead of four. This represented a huge saving with no loss in safety.

In main construction projects, the Communists rely more on their ability and ruthlessness in organizing masses than on technical know-how. In most cases, the Communists have conspicuously deprived the established experts of their share in major events in the nation. The Huai River Project, which the Communists claim as one of the "greatest epics of modern time," is headed by a Communist Central Committeeman and one-time head of the secret police, Tseng Shan, aided by another Communist guerrilla leader, Tseng Hsi-sheng, a graduate of Whampoa Military Academy and a division commander of the ill-fated New Fourth Army during the war. The Tsengs mobilized, between 1951 and 1952, 4,600,000 workers and peasants in this project (*14*). Here is found an expression of the idea that Communist activity cannot be entirely separated from the Communists' experience in military tactics, from which most of their education was derived. It is no doubt appalling for those "bourgeois scientists," remaining inactive, to watch the wastefulness of the Communist military tactics of "human sea waves."

It is apparent that the Communists have little appreciation of the talents and ability of leading scientists. In fact, these scientists, with their objective method of reasoning, represent a potential threat to Communism. All that stands between the scientists and their eventual euthanasia at the hands of the Communists is their immediate usefulness in technical matters and their congenital nonaggressiveness. Indigenous technology and the scientific approach on the China mainland is in a highly static condition today, and the future of science in this area presumably will be that contained within the general Soviet scientific pattern.

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Bienvenido Maria Gonzalez: 1893-1953

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ON December 30, 1953, death claimed Bienvenido Maria Gonzalez, retired president of the University of the Philippines, at the age of 60, in the San Juan de Dios Hospital in Pasay City. In his death, the Philippines lost a renowned educator, administrator, and scientist.

From his father, Bienvenido acquired an early interest in science and administration. His father was a physician, an eye specialist, and president of the short-lived Universidad Literaria de Filipinas, the first state university in the Philippines during the revolutionary period. His father was also the first director of the civil service appointed by the first governor general of the Philippines, William Howard Taft.

After finishing his elementary education in Manila, Bienvenido attended the College of Agriculture, University of the Philippines, Los Baños, Laguna, where he received the degree of bachelor of agriculture in 1913. In 1914, he was sent as a fellow of the University of the Philippines to the University of Wisconsin. He studied animal genetics under Professor Leon J. Cole and received the degree of master of science in 1915. Returning to America in 1921, he studied at Johns Hopkins University under Professor Raymond Pearl, biometrist, and received his degree of doctor of science in 1923.

His great energy and intensity of purpose enabled Dr. Gonzalez to carry on simultaneously his activities as organizer, administrator, and scientist. As professor of animal husbandry, then dean of the College of

Agriculture, and finally president of the University, Dr. Gonzalez raised the standard of the institution to a high plane. A nonbeliever in the idea that Philippine livestock can be improved through the costly importation of standard improved breeds of animals from temperate countries, Dr. Gonzalez has to his credit the development of the Berkjala breed of swine, the Los Baños Cantonese chicken, and the Philamin breed of beef-draft cattle, in addition to a large number of published contributions. He was responsible for the transfer of the University from Manila to Diliman. Owing to his character and his unflinching attitude in a fight for principle, he created enemies but endeared himself to his numerous friends and admirers, colleagues, and students. His fight against the encroachment of politics in the University ended in his untimely retirement from its presidency.

In the College of Agriculture, Dr. Gonzalez became assistant instructor in animal husbandry on December 13, 1913, and then was promoted through successive grades until, in 1923, he was made head of the department. He was appointed acting dean in 1927, and permanent dean the following year. He was the first Filipino and alumnus of the College to occupy this position, which he held until he was appointed president of the University.

At 25, Dr. Gonzalez was the first alumnus regent of the University of the Philippines. He served in this capacity from 1918 to 1921. His appointment to the presidency of the University on April 29, 1939, made him the first alumnus and scientist to become president of the institution. And, at 46, he became the youngest incumbent for the longest period (except during the Japanese occupation) until his forced retirement on April 22, 1951.

Dr. Gonzalez was a member of a large number of organizations. He was a fellow of the AAAS, 1934; vice chairman of the National Research Council of the Philippines, 1934–1935, 1937, chairman from 1938 until his retirement in 1951; and president of the Society for the Advancement of Research in 1935–1936. He held many positions of trust in a large number of public, private, industrial, commercial, and agricultural organizations too numerous to list here.

President Gonzalez was born on March 22, 1893, in Apalit, Pampanga. He was the son of Dr. Joaquin Gonzalez, of Baliwag, Bulacan, and Florencia Sioco Gonzalez, of Bacolor, Pampanga.

On January 1, 1917, Bienvenido Maria Gonzalez married Concepcion Rafols, of Cebu, who survives him. Surviving him also are their five children: Manuel, married, an engineer; Gonzalo, a lawyer; Eva, an instructor in the department of home economics of the University of the Philippines; Lilia, a student in the Conservatory of Music; and Bienvenido, a student in the College of Business administration.

Endocrine Regulation of the Capillary Resistance*

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THE capillary resistance—that is, the capacity of the capillary wall to resist intracapillary pressure or extracapillary suction—was considered heretofore as a local phenomenon, and the factors influencing it were thought to act only locally. Clinical and experimental work done by three research groups during the last 3 yr has brought convincing evidence that capillary resistance is subject to endocrine control. It is of interest that the three research groups have been working in three countries along three different lines.

Robson and Duthie in England found on the basis of clinical observations a direct relationship between capillary resistance and adrenocortical activity. They postulated that cortisone is responsible for this relationship (*1, 2*). Eichholtz, Staab, and Taugner in Germany made a pharmacological study on cortical extract and claimed that desoxycorticosterone is engaged in the control of the capillary resistance (*3*).

The starting point of our work was different. While studying the effect of various forms of stress (cold, forced muscular exercise, prolonged fast, trauma, ether anesthesia, severe emotional upset) upon the capillary resistance of the albino rat, a typical change was found consisting of four phases: (i) initial rise, (ii) sudden drop, (iii) a period of pathologically low level, (iv) gradual restoration to normal. The entire phenomenon, the second and third phases of which were termed *capillary crisis,* lasts approximately 1 mo. The fact that this capillary response was found to be

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