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Correspondence

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KEYWORDS

Japanese colonial period;
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The doctoral program established by the Taipei Imperial University (TIU) during the Japanese colonial period followed the Japanese Imperial University system in its training and certification, emphasizing research and publication. Among them, the students received the doctoral training in various specialized classrooms within the Faculty of Medicine, submitted their dissertations, and passed the review of the Faculty of Medicine to receive a doctoral degree in medicine from the TIU. Research on Taiwan medical history during the Japanese colonial period focuses primarily on the training of physicians by the medical educational institution and the later research development of the TIU Faculty of Medicine.^{1,2} The TIU Faculty of Medicine, established in 1936, followed the Japanese Imperial University model, emphasizing experimentation and research, and possessing a well-established professor and teaching assistant system. Leading scholars in various medical fields established laboratories within the Faculty of Medicine, attracting the students and practicing physicians for academic training in medicine, thus fostering a research atmosphere. However, the related research lacks specific data on the training of doctoral students and the issuance of doctoral degrees at that time. For example, did the

dental classroom participate in the doctoral training program? This is intriguing, but no relevant documentation has been unearthed. Fortunately, an old newspaper report indicates that Dr. Tai-San Shih (Fig. 1A), the first president of the Taiwan Academic Dental Association after the World War II, stated that he held a doctoral degree in medicine from the TIU. This article followed this line of thought, and through the historical research, reconstructed the story of Dr. Shih's doctoral research.

Our online search revealed that the National Taiwan University Library holds Dr. Tai-San Shih's memoirs. Analyzing the contents of his memoirs, we summarized his academic career as follows. Dr. Shih was born in Taichung, Taiwan in 1904. After graduating from the high school, he studied the dentistry in Japan, graduating from the Kyushu Dental College in 1931 (Fig. 1B) and returning to Taiwan to open his dental clinic. In 1937, he began to study the bacteriology at the Bacteriological Laboratory of Hsinchu Prefecture Health Department. In 1938, he enrolled in the doctoral program at the TIU Faculty of Medicine, conducting the research in Professor Magara's laboratory. He received the guidance from three professors: Takeda (specializing in bacteriology), Magara (specializing in

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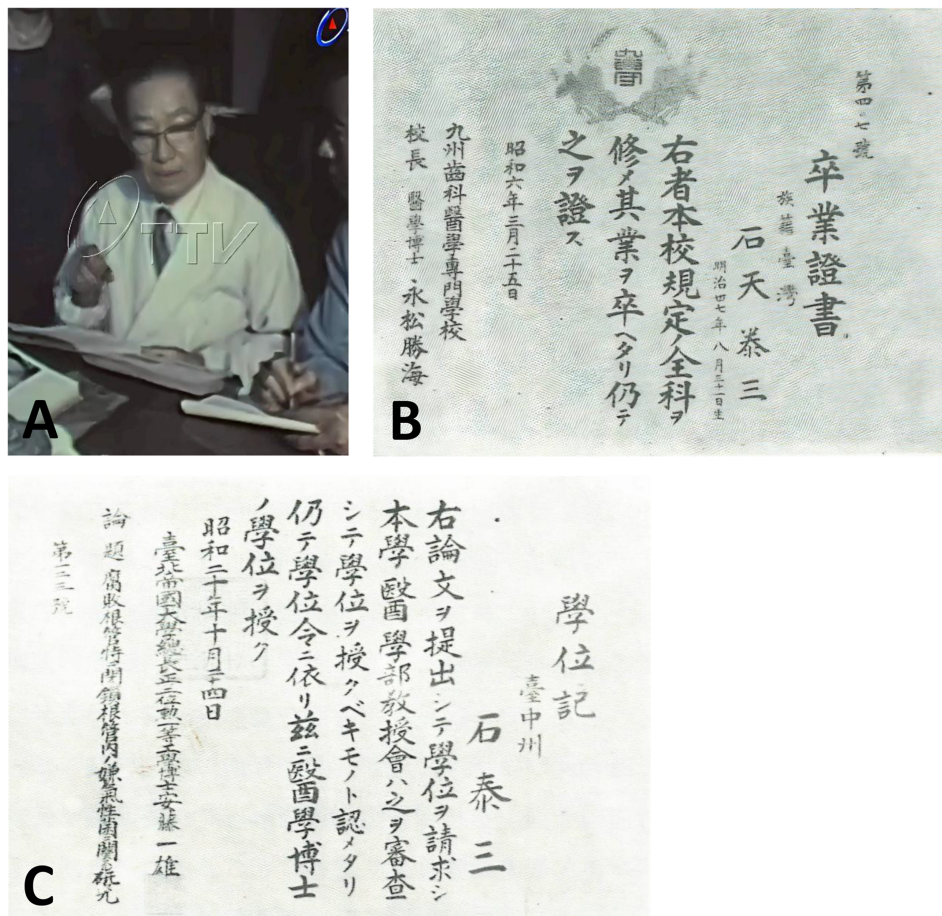


Figure 1 Dr. Tai-San Shih and his degree certificates. (A) News footage of Dr. Shih in 1972. (B) The Kyushu Dental College degree certificate, 1931. (C) The Taipei Imperial University (TIU) certificate of doctoral degree in medicine (degree number 123), 1945. The photograph in (A) was available from the website of Taiwan Television Enterprise, Ltd. (TTV) audiovisual cultural assets. The photographs in (B) and (C) were available from Dr. Tai-San Shih's memoirs collected in the National Taiwan University Library.

anaerobic bacteria), and Ohashi (specializing in dentistry). After seven years of research, he finally submitted his dissertation in 1945. It was approved by a review committee composed of Professor Magara as the chief reviewer, and Professor Kawaishi (specializing in surgery) and Professor Ohashi as the associate reviewers, thus earning his doctoral degree in medicine (degree number 123) in 1945 (Fig. 1C).

Looking back on Dr. Shih's research at the TIU, he initially discussed with Professor Ohashi, who was also a dentist, and decided to focus his research on anaerobic bacteria in decayed root canals, especially the closed root canals. At that time, there were only two scholars in Japan specializing in anaerobic bacteria: Professor Hosoya of the Tokyo Imperial University (specializing in bacilli) and Professor Magara of the TIU (specializing in cocci). On Professor Ohashi's recommendation, Dr. Shih received guidance from Professor Magara. Dr. Shih's research lasted approximately seven years, from April 1938 to the spring of 1945. During that time, he ran his dental clinic in Hsinchu. He would wake up at 5:30 am every morning, leave Hsinchu for Taipei at 6:10 am, skip breakfast, arrive at his research laboratory around 8:00 am, and stay there until noon. He would then have lunch at the Taipei

Station. The station cafeteria's one-dollar set meal included a variety of dishes, including premium sashimi and soup. In the afternoon, he would take the 12:30 pm semi-express train from Taipei Station back to Hsinchu, and arrive home around 3:00 pm, where many patients were waiting at his dental clinic. Dr. Shih treated about 60–70 patients every day. When he finished treating them and could finally breathe a sigh of relief, it was already past 10:30 pm. Then, he would work on dental laboratories and compile papers, which always lasted until around 1:00 am. Dr. Shih lived like this every day for seven years. The reward for this hard work was (1) completing the classification of partial anaerobic streptococci and partial anaerobic staphylococci, (2) discovering two new bacteria in the field of dentistry, (3) identifying the dental pathogens, and (4) successfully detecting a new type of generalized anaerobic streptococci. Therefore, Professor Magara was very pleased with his work. Finally, Dr. Shih's degree application was approved on May 18, 1945. One day, he met Professor Tsung-Ming Tu at Taichung Station. Professor Tu congratulated Dr. Shih, mentioning that he was the first native Taiwanese who had received a medical doctorate in dentistry from the TIU, and it was truly a joyous occasion.

In 1939, the Dental Classroom was established at the TIU Faculty of Medicine. It was the 24th specialized classroom within the Faculty of Medicine, with two professors of surgery taking turns teaching oral surgery course, while Professor Ohashi was responsible for the dental course. The Dental Classroom at the TIU was the first formally named teaching and research institution in dentistry. It was not only a teaching institution for the dental courses and clinical internships for the medical students, but also an academic research institution in the field of dentistry. Of the nine imperial universities before the World War II, only four had a Dental Classroom. By the end of the World War II, the Dental Classroom at the TIU had accumulated considerable resources in the dental education and research.^{3–5} Through the story of Dr. Shih's doctoral research, we confirmed that the Dental Classroom at the TIU had already possessed the research capacity for doctoral training in medicine. Under a co-supervised model, it participated in the medical doctoral training of a dentist and achieved the substantial research results. It also demonstrates the exemplary role of a local dentists engaged in the medical academic research at that time.

Declaration of competing interest

The authors have no conflicts of interest relevant to this article.

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References

1. Chang HJ. *Fifty years of Taiwan's medical public health under Japanese colonial rule (revised edition)*. Taipei, Taiwan: National Taiwan University, 2015 [In Chinese].
2. Chang HJ. *National Taiwan University College of Medicine (1945-1950)*. Taipei, Taiwan: National Taiwan University, 2013 [In Chinese].
3. Cheng FC, Wang LH, Ozawa N, Chang JYF, Liu SY, Chiang CP. Dental education and special dental practitioner-cultivating system in Taiwan during the Japanese colonial period. *J Dent Sci* 2022;17:920–7.
4. Cheng FC, Wang LH, Ozawa N, Chang JYF, Liu SY, Chiang CP. Development of dental education for medical students in

Taiwan during the Japanese colonial period. *J Dent Sci* 2022;17:903–12.

5. Cheng FC, Wang LH, Chiang CP. The dental clinical internship for the medical students during the Japanese colonial period in Taiwan. *J Dent Sci* 2025;20:1276–9.

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