

MEMORIAL RESOLUTION

KAO LIANG CHOW

(1918 - 1998)

Kao Liang Chow died on August 29, 1998, at the age of 80, and thus came to an end a six-decade-long highly distinguished career in the Neurosciences. Born in Tianjin, China on April 21, 1918, he was the fifth child in a family of ten. Chow received his BS from Yenjing University in Beijing, and a PhD in Psychology from Harvard in 1950 under Karl Lashley. "Chow," as he was called by all who knew him, trained and acquired his scientific personality in the early years of behavioral neuroscience, and in the latter half of his career was an important pioneer in the golden era of neuroscience research which blossomed from the 1970's to the current day. He published a remarkable series of papers relating specific behavioral defects to ablations of primate cortical "association" areas, as well as important anatomic studies of the thalamocortical system. He enjoyed deep respect and affection from his colleagues, was among those who were most successful in securing continuing external support for his multi-faceted research work, and trained literally dozens of pre- and post-doctoral fellows who today are leaders in a variety of scientific fields throughout the world.

Kao Liang Chow was a "scientist's scientist," and a model for those of us who struggle to integrate the demands of a research career with the existence of life outside the lab. He left his native mainland China in the late 1940's, and began his training in behavioral psychology with Karl Lashley, including significant time at the Yerkes Primate Institute in Georgia. He received his PhD from Harvard in 1950. When later he came to Stanford, he did so as one of the first non-clinical members of the faculty of a clinical department (Neurology), validating Stanford's plan to marry scientific excellence to first-rate clinical medicine. He was instrumental in establishing an interdepartmental PhD Program in Neuroscience here at Stanford, serving as its first director. His research focused on the anatomy and plasticity of function of the visual system, including studying the effects of sensory deprivation and epileptiform activity on development of neuronal receptive field properties. Chow became Professor Emeritus in 1983, but continued to be an active participant in research and training activities until his death.

Chow brought a unique perspective to everything that he did, and demanded excellence of himself as well as of those he trained. Unusual in this complex world,

Chow taught---by example as well as by instruction---the virtue of simplicity. He was a firm believer that one could learn about complex issues by designing simple experiments and using straightforward techniques. At the same time, Chow was a critical judge, warning against easy over-interpretation and confused discussion. His focus centered on the scientific question being posed by his research, never permitting the many innovative technologies which emerged throughout his scientific life to obscure the importance of this basic principle. Over the years any who worked with him became more and more impressed by the simplicity - and elegance - that characterized his approach to scientific research, as well as his approach to life.

Chow's career was characterized by a focus on understanding the relationship between brain structure and function. His goal in the laboratory was always to see the larger picture, whether he started with brain lesion approaches(as in the early parts of his career) or with single cell recordings (especially throughout the 70's and 80's). He was a consummate brain anatomist as well as a skilled electrophysiologist; his research integrated surgical(brain lesioning), behavioral, cell recording, and histological methodologies in masterful combination. And he manipulated both techniques and concepts like an orchestral maestro -- as a conductor who hears the many parts of a symphony and blends them to make a beautiful whole. Indeed, it is easy to see Chow's life as a symphony in which numerous simple melodies interwove to create a beautifully complex (and sometimes inscrutable) tapestry. He taught his students by his own example, and they related to him as a friend and a teacher of both science and humanity. He integrated the strengths of Eastern and Western cultures, and had a remarkable grasp of subjects ranging from Chinese painting to baseball. Chow was a creative and critical thinker who constantly challenged established neuroscience doctrines. During the days immediately before his death, he was looking forward to returning to the laboratory, so that he could attend our weekly meetings and continue to teach by asking challenging questions.

Margaret, Chow's wife of nearly 40 years, was a perfect partner, together with Chow appreciating the beauty of the Stanford area, exploring the arts, music, fine dining and an appreciation for the wonderful life they enjoyed together. Anyone who worked in Chow's laboratory enjoyed the warmth and hospitality of Margaret and Chow's home, and saw the obvious love they shared and the pleasure they took in their life together. On the occasion of Chow's retirement from full-time academic life, in 1985, dozens of his former trainees and colleagues gathered at Stanford to celebrate his

life and to give the many whose careers he nourished a chance to pay tribute to their mentor. Chow is also survived by five brothers and two sisters, many of whom played prominent roles in academia and government in China.

Chow's life and work serve as a model that has gained in importance, especially as the scientific enterprise has become so complicated and politicized. Chow's legacy goes beyond the excellence of his research production and publication, and beyond the accomplishments of his trainees. Chow showed that scientific excellence and integrity can co-exist with personal peace and fulfillment. For that example, all who knew him will be forever grateful. He is missed, and his influence will live on in those fortunate enough to have known him and worked with him.

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