A *Semblanza* for the RegPep26/2027 Named Prize Lectureship

Professor Gong Ju (鞠躬)

The name as destiny (short statement)

In the annals of modern neuroscience, few scholars have embodied their life's mission as literally as Professor Gong Ju. Born in Shanghai in 1929 into an intellectual family, he was given the name "鞠躬" (Jū Gōng) by his father, the renowned writer and translator Suo Fei. The name means "to bow deeply" - a gesture of ultimate respect and dedication. It was his father's earnest wish that his son would "bow to the nation and serve it with utmost devotion" .

A century later, as we prepare to gather in Beijing for RegPep26, we find that Ju Gong has not merely kept this promise; he has defined it. He is one of the founding fathers of modern neuroanatomy in China, a breaker of half-century-old dogmas, and a man whose moral clarity illuminated every corner of his long life .

This *Semblanza* is written to honor his nomination for a special Named Prize Lectureship at our upcoming meeting - a tribute to a scientist who proved that the deepest bows to truth yield the highest peaks of discovery.

Foundational Statements:

1. The Pioneer: Rewriting Neuroendocrine Doctrine

In the 1980s, the scientific consensus held that the anterior pituitary - the "master gland" controlling growth, metabolism, and reproduction—was regulated exclusively by blood-borne neurohormones (the 体液 theory). The idea of direct nerve fibers controlling the anterior pituitary was considered heretical; it had been a closed chapter for nearly 50 years .

Working at the Fourth Military Medical University (FMMU) in Xi'an, often with rudimentary "homemade" instruments crafted in a tiny 4-square-meter office, Professor Ju looked through his microscope and saw what others had missed . He observed nerve fibers not just passing through the anterior pituitary, but forming typical synaptic connections with glandular cells.

In defiance of established doctrine, he proposed the **"Hypothesis of Neuro-Humoral Dual Regulation of the Anterior Pituitary."** It was a paradigm shift. Initially met with skepticism, his evidence - meticulous electron microscopy and immunohistochemistry - was irrefutable. He demonstrated Substance P-immunoreactive nerve fibers in the pars distalis of macaques and rats, proving direct neural involvement

in hormone secretion . This work earned him election to the Chinese Academy of Sciences (CAS) in 1991 and recognition from giants like Professor Béla Halász of the Hungarian Academy of Sciences during the International Congress of Endocrinology .

2. The Healer: Defying Spinal Cord Injury

If his work on the pituitary made him a world-class scientist, his work on spinal cord injury (SCI) cemented his legacy as a humanitarian. For decades, severe spinal contusion meant a lifetime of paralysis. Traditional surgical wisdom dictated waiting for swelling to subside.

Professor Ju rejected this passivity. Drawing on his deep understanding of neuroanatomy and degeneration, he proposed a radical intervention: **early-stage neurosurgery for acute spinal cord contusion.** In 2002, partnering with the Kunming General Hospital of PLA, he treated 30 of the most severe complete paralysis patients. The results were so dramatic they seemed impossible.

- **The Protocol:** Surgery performed as soon as 2 days post-injury.
- **The Outcome:** Within three months, 80% of these "hopeless" patients were walking independently with crutches .

This was not merely a technical breakthrough; it was a restoration of dignity. Professor Ju had opened a new frontier in a field where many feared to tread, bringing hope back to the battlefield and the emergency room .

3. The Mentor: The Fire of Honesty

To understand Professor Ju, one must look past the awards (Ho Leung Ho Lee Prize, Military Scientific Achievement Awards) and look at his students. He was a taskmaster of ethics. His most repeated maxim was severe: *"Honesty is the bottom line of scientific research. Those who are dishonest are not qualified to do science"* .

He had a unique ritual for incoming graduate students. Before any lab work began, he would make them watch the film *Madame Curie*. He wanted them to internalize not just the science, but the selfless sacrifice for knowledge. When violations of scientific integrity occurred, he was merciless yet merciful - expelling students to protect the sanctity of science, but often omitting the scandal from their permanent records to save their futures .

Even into his late 80s and 90s, "Gong Ju" was a familiar figure in the lab. He famously waited outside the lab at 1:00 AM for a student to finish an experiment, insisting on analyzing the results immediately. He was the first in the department and the last to leave, embodying his own philosophy: *"The life of a scientist lies in the relentless pursuit of the next level."*

4. The Man: Humility in Grandeur

Despite his monumental status, Professor Ju remained remarkably humble. He famously rejected titles like "Giant" or "Master," stating simply: *"I have no great achievements. I have only lit a single candle"* .

He is a testament to the strength of the "indigenous" Chinese scientist. Having never earned a formal PhD abroad and with only brief visiting scholarships (Karolinska Institute, Salk Institute), he proved that brilliance of mind and strength of will know no geographic bounds . Yet, he was a global citizen, serving as the first Chinese editor on the board of the prestigious journal *Neuroscience* .

As we prepare for RegPep26 in 2027, a century after his birth, the Chinese neuroscience community stands on the shoulders of this giant. He taught us to bow to facts, not authority; to serve the patient, not the ego; and to work with the patience of a candle burning steadily against the dark.

5. Conclusion: The Bow that Built a Legacy

The RegPep26/2027 **Professor Gong Ju Named Prize Lectureship** will honor those who embody the spirit of Ju Gong: **Innovation that shatters dogma, compassion that restores movement, and integrity that lights the path for others.**

In the quiet corridors of the FMMU, there is a feeling that Ju Gong is still there - reviewing a slide, correcting a translation, or waiting for a student to finish an experiment.

For those of us who follow, we can do no better than to pause, reflect, and offer a deep bow of gratitude.

Biographical Fast Facts

- **Born:** November 22, 1929, Shanghai
- **Education:** Hsiangya Medical College (1952); Peking Union Medical College (Advanced Training)
- **Election:** Academician, Chinese Academy of Sciences (1991)
- **Key Contributions:**
  - *Neuroendocrinology:* Neural-Humoral Dual Regulation of Anterior Pituitary
  - *Spinal Cord Injury:* Early-stage surgical intervention for contusion
- **Key Roles:** Founder of first Neurobiology Department in Chinese medical college; Editor of *Neuroscience*