



Bio of Dr. Shifeng Xue

Department of Biological Sciences, National University of Singapore

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Dr. Shifeng Xue's work in molecular biology has not only expanded the understanding of embryonic development but has also provided profound insights into human congenital disorders. Having grown up in Singapore, Dr. Xue, at the age of 37, stands as a testament to the boundless possibilities that passion and perseverance can unfold in the realm of science. Her journey into the scientific arena commenced in secondary school, where an early fascination with the intricacies of the natural world ignited a spark.

Dr. Xue's path was driven by a pivotal lab experience in her university studies. Watching fish and frog embryos develop from eggs during a lab class left an indelible mark on her, akin to witnessing the inception of life itself. This transformative moment shaped her decision to delve into understanding the orchestration of genes in embryonic development and disease.

She eventually transitioned from working with animals to a focused exploration of human congenital disorders. One of her remarkable achievements involves the identification of genetic mutations causing individuals to be born without a nose, unravelling a profound understanding of the gene's role in early embryonic development.

However, the path to success has not been devoid of challenges. Dr. Xue acknowledges her ongoing hurdles of charting impactful research directions, and overcoming the inherent difficulties of public speaking in large conferences.

Envisioning the future of the science industry, Dr. Xue anticipates a landscape dominated by the integration of big data and AI. She highlights the groundbreaking strides made by AI, such as AlphaFold, in predicting protein structures, foreshadowing a plethora of applications that could revolutionize scientific methodologies.

Translating her complex research into layman's terms, Dr. Xue employs a vivid analogy—our bodies as versatile restaurants with DNA as the recipe book. Each cell, she explains, “reads a specific page and specializes in cooking a particular dish. What tells them which page to read and stops them from peeping at other pages?” That is her area of expertise.

Discovering the ‘L’Oreal For Women in Science’ program was a natural progression for Dr. Xue, influenced by her admiration for past winners and a desire to elevate the visibility of her own work. Encouraging young girls to pursue science, she dispels the notion that science is reserved for an elite few, asserting that enthusiasm and dedication are the true prerequisites for success.

In her career, Dr. Xue has imbibed valuable lessons, urging fellow scientists to remain open to new ideas, regardless of seniority. Her guiding philosophy— “One step at a time. Start small but aim big. Celebrate the small victories.” — encapsulates her approach to both research and life.

Beyond the laboratory, Dr. Xue finds solace in spending time with her family, a cherished respite from her scientific endeavors. Her weekends are now dedicated to discovering new playgrounds for her child.

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