

# G. N. Ramachandran

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Inside every living cell are tiny molecules called **proteins** that perform essential functions, such as building tissues, transporting oxygen, and fighting disease. But have you ever wondered how scientists discovered the complex shapes of these microscopic molecules? One of the scientists who made a groundbreaking contribution to this field was **G. N. Ramachandran**.

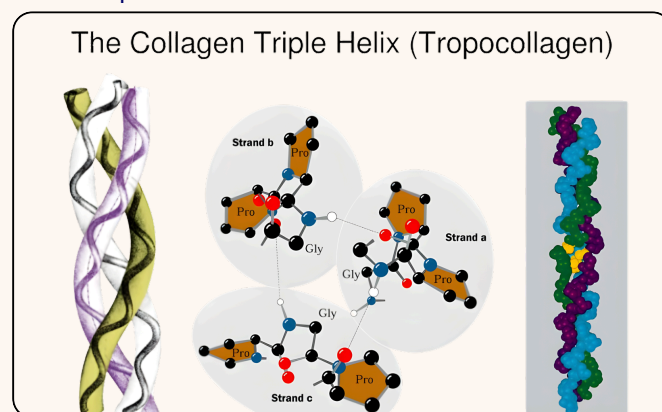
Gopalasamudram Narayana Ramachandran, often called **G. N. Ramachandran**, was born in 1922 in Tamil Nadu, India. From an early age, he showed great interest in physics and mathematics. After completing his studies, he began researching how the structure of molecules affects their function in living organisms.

Ramachandran made his most famous contribution while studying **proteins and their three-dimensional structures**. Proteins are made of long chains of amino acids that fold into specific shapes. Understanding these shapes is important because a protein's function depends on how it folds.

In the 1960s, Ramachandran and his team developed an important scientific tool known as the **Ramachandran Plot**.

This plot helps scientists understand the possible angles and shapes that protein chains can take while folding. By mapping these angles, researchers can determine whether a protein structure is realistic.

Today, the Ramachandran Plot is widely used in **structural biology, bioinformatics, and molecular biology**. Scientists around the world rely on it when studying proteins, designing medicines, and understanding diseases. It remains one of the most important tools in protein research.



Ramachandran also played a key role in developing scientific research in India. He established important research programs and helped train many young scientists who later made significant contributions in science and medicine.

His work shows that major discoveries can come from careful thinking and strong curiosity about nature's smallest structures. By helping scientists understand how proteins fold and function, **G. N. Ramachandran's work continues to influence modern biology, medicine, and biotechnology**.

His story reminds students that even the tiniest molecules can hold big scientific mysteries waiting to be solved.