



- ★人体不是独立的个体，而是由人体细胞和大量共生的微生物菌群共同构成的超级生物体。
- ★人体很多生理功能需要微生物的共同参与。

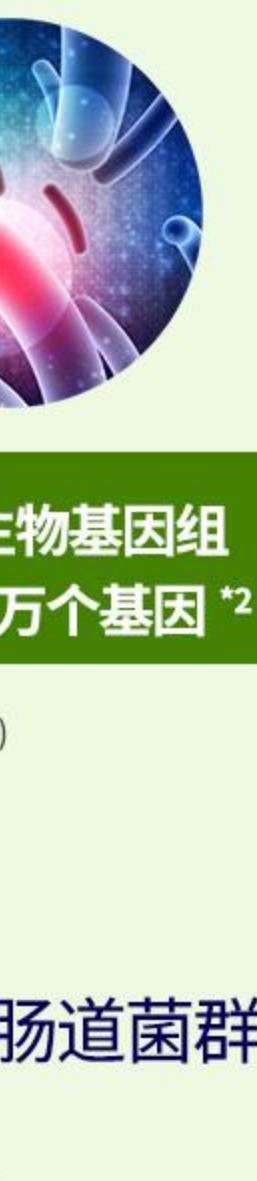
人体的基因分为两类：

**第一基因** ( 先天遗传基因,无法改变 )

A diagram showing a large green circle containing three stylized microorganisms with faces: a blue circle, a green oval, and a yellow triangle. Dashed lines connect this circle to a smaller illustration of a human figure where the gut area is highlighted with a green circle.

附录A

The infographic features a woman's portrait in a green circle on the left, a blue title '对比' (Comparison) in the center, and a blue circle with a pink microorganism illustration on the right. Below the circles, two green boxes contain text: the left box says '人类基因组有约 20,000 到 25,000 基因 \*1' and the right box says '肠道微生物组有 2-4 百万基因'.



# 健康的肠道是 实现理想健康的基础

- ◎ 外层黏液层  
含有微生物群的网络，像一道防火墙，阻止有害微生物入侵
- ◎ 内层黏液层  
含有由肠黏膜分泌的免疫细胞，防止

The infographic consists of three main panels. The top left panel shows a cluster of green beans and orange beans. The top middle panel shows a cross-section of the human digestive system with various green and blue bacteria floating around. The top right panel shows a group of green vegetables like broccoli and carrots. Below these are three circular icons: a yellow one labeled '蛋白质' (Protein) surrounded by wheat stalks, a green one labeled '益生菌' (Probiotics) surrounded by green leaves, and a blue one labeled '益生' (Prebiotics) surrounded by blue leaves.

**三剑客相辅相  
协同增效，提升肠道及**

A cartoon sun with a smiling face, arms, and a green circle in front of it.

