## **Chapter 4: Centenarians: The Older You Get, the Healthier You Have Been**

Chapter 4 of the provided book delves into the intriguing and sometimes confounding stories of centenarians—those remarkable individuals who live to or past the age of 100. It humorously starts by recounting the lifestyles of various centenarians who attributed their long lives to habits ranging from daily shots of bourbon to cracking open a beer every afternoon, even mentioning a daily routine of bacon consumption. These anecdotes serve to challenge conventional wisdom about the key to a long, healthy life, suggesting instead that the longevity of such individuals might owe more to genetics or sheer luck rather than their daily habits.

The discussion shifts to a more scientific examination of centenarians, specifically the findings from studies on Ashkenazi Jewish centenarians that indicate these individuals might not necessarily lead healthier lives than the general population. These studies suggest that genetics play a significant role in longevity, especially as one ages, with certain familial links indicating a higher likelihood of reaching century status. This brings up the possibility that while healthy habits are important, genetic predisposition towards longevity is a significant factor that cannot be overlooked.

The chapter further explores specific genes linked to longevity, such as the APOE gene, which is associated with Alzheimer's disease risk and cholesterol management. Another notable gene is FOXO3, involved in cellular repair tasks and metabolism regulation, which can be influenced by lifestyle choices like diet and exercise. These insights point towards a blend of genetic predisposition and lifestyle choices in achieving longevity.

Lastly, the narrative emphasizes the importance of understanding that resisting chronic diseases and maintaining good health into old age might be achievable through strategic lifestyle changes and medical interventions aimed at delaying aging at a cellular level. The centenarians, with their diverse backgrounds and habits, ultimately serve as a natural experiment in longevity, underscoring the multifaceted nature of aging and suggesting that while we cannot change our genetics, there might be paths through which we can mimic their longevity through smart, health-conscious living.