Microbial enzymes, especially fibrinolytic enzymes produced via microbial fermentation (using bacteria and fungi), offer significant health benefits by dissolving blood clots. This process is crucial for preventing thrombosis and cardiovascular diseases. These enzymes are highly specific to fibrin, minimizing side effects compared to traditional treatments. Their cost–effectiveness and environmentally friendly production via large–scale fermentation make them accessible for widespread medical use. Therefore, microbial enzymes represent a promising avenue for preventing and treating cardiovascular diseases, warranting further research to fully exploit their potential.