

「小論文(英語)」採点基準説明書

英文の要点 (キーワード含め)

1. the article deals with how humans evolved and survived before the breakthroughs in modern medicine and how natural-based drugs may lead to the discovery of new medicine
2. scientists have been looking for new drugs for various diseases from chemical compounds found in nature
3. natural products have evolved to structurally serve biological functions, primarily to deter predators or gain a survival advantage in a particular environment and over other competitors
4. proteins found in natural products may look different but in fact have similar structural features and functions across species which in turn can work in people
5. natural products derived from microbes and plants are the biggest resource for drug discovery for modern medicine
6. discovering natural product-based drugs is challenging due to expensive screening technology, its limitations, to ecological and legal considerations for accessing samples sustainably and for maintaining biodiversity
7. new drugs are also needed for a health emergency such as antibiotic resistance which began before the pandemic
8. thousands of microorganisms both on land and sea may be potential sources of drug candidates to combat antibiotic resistance and the pandemic

模範解答

This article relates how natural-based drugs may lead to new medicine. Scientists are searching for new drugs from chemical compounds found in nature. Natural products have evolved to repel predators or to survive in a particular environment. Proteins found in natural products have similar structural features across species which can be applied to people. They are the biggest resource for drug discovery. However, discovering natural product-based drugs is challenging due to expensive screening technology and ecological considerations for accessing samples sustainably and maintaining biodiversity. Still, microorganisms in nature may potentially combat health emergencies such as antibiotic resistance and the pandemic.

I am convinced by this article that we will be able to find new drugs from natural products that are derived from microbes and plants. Humans have evolved and survived even before the discoveries in modern medicine. We have been interacting with our natural world and have created traditional medicine to ward off diseases. The compounds found in natural products have similar structural features and function that are applicable to humans. Although searching for new drugs in nature is challenging, expensive and eco-sensitive, we should continue pursuing in order to overcome health emergencies such as COVID-19 and antibiotic resistance.