

2010年4月入学第2回 長浜バイオ大学大学院

バイオサイエンス研究科 博士課程前期課程

一般入学試験（英語）

【注意事項】

1. 問題1部、解答用紙3枚を配付。事前に受験番号が記入されているので、確認すること。
2. 解答用紙は1問につき1枚を使用すること。解答の際、必ず設問番号を最初に記入すること。
3. 解答用紙の下欄に科目名、学籍番号、氏名の記入は不要。
4. 試験時間は、10:00～11:30（90分）。
5. 電子辞書等の使用および試験時間中の途中退室は不可。
6. 解答用紙は、ホッチキス止めをしているのではずさないこと。
7. 問題用紙、解答用紙は、入学試験終了後全て回収。

次の問 1～問 3 に答えなさい。

問 1 以下の英文を全文和訳しなさい。

Everyone responds to drugs differently. The way a person responds to a drug is affected by many factors, including genetic makeup, age, body size, the use of other drugs and dietary supplements, the consumption of food, the presence of diseases (such as kidney or liver disease), storage of the drug, and the development of tolerance and resistance. For example, a large person generally needs more of a drug than a smaller person needs for the same effect. Whether people take a drug as instructed also affects their response to it. These factors may affect how the body absorbs the drug, how the body breaks down and eliminates the drug, or what effects the drug has on the body.

Because so many factors affect drug response, doctors must choose a drug appropriate for each person and must adjust the dose carefully. This process is more complex if the person takes other drugs and has other diseases, because drug-drug and drug-disease interactions are possible. A standard or average dose is determined for every new drug. But the concept of an average dose can be like "one size fits all" in clothing. It may fit a range of people well enough, but it may fit almost no one perfectly. For some drugs, however, the dose does not have to be adjusted, because the same dose works well in virtually everyone.

[引用 MERCK MANUALS]

問2 以下の英文を全文和訳しなさい。

The Japanese government is attempting something that seems revolutionary, at least in Japan: to let people outside the bureaucracies observe its budgetary decision-making process and, even more radical, to involve the public in that process.

In hearings that started on 11 November and continue this week, working groups of non-government specialists and public representatives are grilling bureaucrats about 220 major government projects and weighing budget requests against their own estimates of their value. The groups have recommended cuts that are sometimes slight, sometimes deep and sometimes total. Just how much impact those recommendations will have on the finance ministry's 2010 budget decision, usually finalized by the end of December, is not yet clear.

単語

the bureaucracies 官僚社会

budgetary 予算上の

grill 尋問する

bureaucrat 官僚

finalize 完成させる

[引用 Editorials in Nature 462: 389, 2009.]

問 3 以下の英文を全文和訳しなさい。

Pfizer Inc. will spend up to \$115 million for rights to an Israeli biotech company's experimental drug and its promising technology for making that drug and others in carrot cells.

The world's biggest drugmaker said Tuesday its deal with Protalix BioTherapeutics Inc. involves a "groundbreaking" technology, the first to use plant cells to make protein-based drugs, that would be safer than the animal cells now used by biotech companies.

The deal also gives Pfizer worldwide rights, except in Israel, to sell a genetically engineered drug called taliglucerase alfa to treat a rare inherited condition called Gaucher's disease. Caused by deficiency of a particular enzyme, it damages the liver and bone marrow, sometimes leading to death.

"Either one, on their own, would be great," said David Simmons, head of Pfizer's established products business, referring to the technology and the drug covered by the deal.

Dr. David Aviezer, chief executive of Protalix, said his company expects by month's end to complete its submission of data to the U.S. Food and Drug Administration, from which it is seeking approval to sell taliglucerase alfa. The drug produces the enzyme -- a type of protein that triggers a biochemical reaction -- that's deficient in Gaucher's patients.

注) inherited condition: 遺伝性疾患
Gaucher's disease: ゴーシェ病
bone marrow: 骨髄

[引用 “Pfizer Inks Deal for New Drugmaking Technology”, New York Times, December 1, 2009]