ÉCOLES NORMALES SUPÉRIEURES

CONCOURS D'ADMISSION - SESSION 2012

Filière BCPST

COMPOSITION DE LANGUE VIVANTE ÉTRANGÈRE

Épreuve commune aux ENS de Cachan, Lyon et Paris

Durée : 2 heures

L'usage de toute calculatrice est interdit. L'usage de dictionnaire est interdit.

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Parmi les sujets proposés, le candidat doit traiter celui correspondant à la langue vivante étrangère qu'il a choisie lors de son inscription.

Toute copie, rédigée dans une langue qui ne correspondrait pas au choix apparaissant dans le dossier d'incription définitif du candidat, sera considérée comme nulle.

Sujets proposés:

- \bullet Allemand
- Anglais
- Espagnol

ANGLAIS

I. VERSION (12 points)

An Engineered Doomsday

Scientists have long worried that an influenza virus that has ravaged poultry and wild birds in Asia might evolve to pose a threat to humans. Now scientists have shown how that could happen. In the process they created a virus that could kill tens or hundreds of millions.

Unless the scientific community and health officials can provide more persuasive justifications than they have so far, the new virus in the Netherlands ought to be destroyed. In the future, it is imperative that any such experiments be rigorously analyzed for potential dangers before they are undertaken, not after the fact, as is happening in this case.

The research was done by scientists in Rotterdam, who sought to discover how likely it is that the "bird flu" virus might mutate into a form highly transmissible to humans. Thus far the virus has infected close to 600 humans and killed more than half of them, a fatality rate that far exceeds the 2 percent rate in the 1918 influenza pandemic that killed as many as 100 million people.

Working with ferrets, the researchers found that a mere five genetic mutations allowed the virus to spread through the air while maintaining its lethality. A separate study at the University of Wisconsin, about which little is known publicly, produced a virus that is thought to be less virulent.

These findings led to an unprecedented request from an American federal advisory board that the researchers and the two scientific journals that plan to publish the studies omit any details that might help terrorists figure out how to unleash a devastating pandemic.

Defenders of the research claim the engineered virus can be used to test whether existing antiviral drugs and vaccines would be effective against it and, if they come up short, design new drugs and vaccines.

However, the consequences, should the virus escape, are too devastating to risk.

New York Times (editorial), January 7, 2012.

II. QUESTIONS (8 points, 100 mots minimum par question)

- 1. "However, the consequences, should the virus escape, are too devastating to risk." Explain.
- 2. Are some scientific truths better left unsaid?