

Tekst 10

Pigged out



1 **A**N INFINITE supply of organs would be
a transplant surgeon's dream. And some
surgeons think they have found a way to
make that dream come true: by husbanding pigs
5 not for their chops but for their hearts, livers,
lungs and even their neurons. This could
instantly solve the vexing shortage of spare
human parts – commodities that, in tribute to the
surgeons' success, are in increasingly short
10 supply. Seductive though such a solution may
be, it has a risk intrinsic to all seductions: the
risk of disease. For such "xenotransplants"
would be an open invitation for hitherto
unknown animal diseases to transfer themselves
15 to people.

2 Transplant patients, of course, are already at
risk from diseases. Organs from corpses are not
always healthy, and the drugs that patients must
take to prevent rejection of their new organs
20 make them vulnerable to infections that those
with robust immune systems do not usually get.
But these illnesses are, at least, known human
illnesses, and are unlikely to unleash an
epidemic in the general population. Animal
25 diseases are not so predictable. Many viruses are
harmless in their regular hosts (and therefore
difficult or impossible to detect) but devastating
if they switch to a new one. And, while most
introductions of species – be they rabbits or
30 viruses – to new environments fail, it only takes
one success to decimate the local population of
vegetables. Or people.

3 Most of those interested in xeno-
transplantation are considering pigs, rather than
35 baboons or chimpanzees, because pigs are easier
and cheaper to rear, and because harvesting pigs
for organs is thought to pose fewer ethical

difficulties. But many of them also harbour an
erroneous belief that pigs, unlike primates, pose
40 a small risk of passing infections to people. This
belief rests on two (contradictory) pillars: first,
that parasites adapted to pigs would have a hard
time adapting to humans, and, second, that
because pigs and people have lived together for
45 so long, any parasites likely to switch have
already done so.

4 Neither argument is cause for comfort. Little
is understood about how diseases swap between
species, or the conditions that make it easy for
them to do so. Besides, organ transplantation
50 provides a new intimacy and longevity to the
association. People and pigs already share
numerous diseases – influenza is simply the
most notorious – and the most recent evidence
55 suggests that retroviruses (viruses that pigs
carry harmlessly within their genes) suddenly
become active and lively when put directly into
human cells. Viruses of this kind (they are
related to HIV, the virus that causes AIDS) are
60 adept at evolving and adapting to new hosts.

5 The science of xenotransplantation is still far
from being effective, yet a number of small
clinical trials are already under way. In
America, guidelines are due to be finalised
65 soon. As the science advances, the clamour to
allow xenotransplants will grow. Without them,
some patients will certainly die. But with HIV
and mad-cow disease both freshly arrived in the
human population, to allow any further
70 xenotransplants without a far clearer idea of the
potential risks – and a strong, international
system in place for monitoring recipients –
would be folly indeed.

'The Economist'

■ Tekst 10 Piggled out

“commodities that, in tribute to the surgeons’ success, are in increasingly short supply”
(regels 8-10)

1p **37** Leg uit wat het verband is tussen “surgeons’ success” en “short supply”.

1p **38** ■ How could the sentence “Seductive though ... disease.” (lines 10-12) also begin?

- A Above all, seductive...
- B And anyway, seductive...
- C Therefore, seductive...
- D Yet, seductive...

Volgens alinea 2 zou het gevaarlijk kunnen zijn om dierenorganen te transplanteren naar mensen.

1p **39** Welke oorzaak wordt gegeven?

1p **40** ■ Which of the following statements is in accordance with the writer’s views as expressed in paragraph 3?

- A Diseases could more easily spread to humans from primates than from pigs.
- B Pigs are more acceptable as donors than primates, which are relatively scarce.
- C Public protest against xenotransplantation is likely to be strong.
- D Supporters of transplantation of pig organs have their arguments mixed up.

1p **41** Citeer uit de tekst het zinsgedeelte waarnaar “the association” (regels 51-52) verwijst.

2p **42** Welke twee voorwaarden wil de schrijver verbinden aan het toestaan van xenotransplantatie?