Part One: Reading

In the following selection, the writer sheds light on the controversy concerning Thomas E. Starzl’s results in organ transplantation. When you are through with the reading, answer the questions that follow.

Graft and Host, Together Forever

1 Two dogs run into the office. A minute or so later, Thomas E. Starzl follows them in. While his pets nap, his assistant provides him with daily paper work. He then settles into recounting a story, a compelling narrative of a field that has come full circle: organ transplantation without a lifetime of anti-rejection drugs.

2 The 80-year-old Starzl, a transplant surgeon and researcher at the University of Pittsburgh, where he has an institute named after him, is legendary for his groundbreaking work over the past five decades. He was the first person to perform human liver transplants. He developed new techniques for transplant surgery, helped to make kidney transplantation viable and was one of the first researchers to try xeno-grafts—in the 1960s he placed monkey kidneys in six patients.

3 Crucially, he experimented with, combined and developed drugs to suppress the immune system, thereby preventing organ rejection. He advocated widespread use of these immunosuppressants, and because of these drugs, the number of transplants has grown every year for the past several decades. The drugs permit transplants and save lives, yet they also have debilitating and sometimes deadly side effects because the weakened immune system cannot fight viruses or cancers. Transplant specialists have considered the chemicals to be a necessary evil; freed from their influence, the patient’s immune system would rebound and reject the foreign organ.

4 In 1992, Starzl observed something that convinced him to rethink the way immunosuppressants are used. He had brought together many of his former patients, including some he had operated on in the 1960s. He learned that some of them had stopped taking their drugs long ago and were doing just fine. Starzl tested these patients, hoping to see something consistent; he observed donor cells in various tissues and blood.

5 This phenomenon is called microchimerism, a condition in which a small number of cells from two individuals coexist in one body. Twins can be microchimeric as well, for the same reason. For Starzl, these shared cells are the key to tolerance—acceptance of the graft by the host. His hypothesis, essentially, is that the body gradually adopts the grafted organ, paving the way for a total acceptance on a larger scale.

6 Still, Fritz Bach of Harvard Medical school observes that microchimerism, the mechanism explaining tolerance, is not convincing to many in Starzl’s field. “The microchimerism idea and data have never gained approval; I think most individuals do not believe the concept as explaining tolerance,” he sums up.

7 “His hypothesis is in dispute—the evidence isn’t there,” concurs David Sutherland of the University of Minnesota, who believes microchimerism is a consequence of non-rejection, rather than a cause. “Why some people don’t reject when they stop taking immunosuppression medication is not understood.”

8 In addition, Starzl is legendary for his campaigns, for approaches he has advocated despite their controversy—or, as some of his colleagues describe, despite their lack of supporting evidence. His xenografts in the 1960s were one such passion, and their ultimate failure earned Starzl criticism.
9 Whether microchimerism proves to be the mechanism engendering tolerance, no one disputes the influence Starzl has and continues to have on his field—and his gift for communicating his vision in a compelling narrative. Sutherland compares Starzl with the Russian writer Dostoyevsky. “He has that sense of how to bring things together, and he is doing that now,” he says. “He just does things. He targets, achieves, and moves the field forward.”
10 Ron Shapiro, a colleague of Starzl at Pittsburgh, agrees. “The interesting thing is that everyone thinks he is crazy, but when he moves on to the next thing, the first thing he says becomes conventional wisdom,” he says. “Everyone knows he is very smart. But he is actually a little smarter than that.” Future organ recipients certainly hope that assessment of Starzl is right.

Questions

A. Answer each of the following in 1-4 sentences of your own.
1. Identify four main achievements that made Starzl gain his high reputation. (Score: 01)
2. What does the writer mean by “a necessary evil” in Paragraph 3? (Score: 01)
3. On what grounds do Starzl’s opposers argue against his hypothesis? (Score: 01)
4. What do you infer from Sutherland’s and Shapiro’s opinions towards Starzl? (Score: 01)
5. Justify the writer’s reference to future organ recipients at the end of the selection. (Score: 01)

B.
1. What function does Paragraph 2 serve? Justify. (Score: 01)
2. Identify two different types of audience, other than the general reader, who might find interest in the selection. State the interest that each type has. (Score: 01)
3. How does the writer achieve credibility? Illustrate. (Score: 01)

C. What does each of the pronouns, bold-typed in the selection, refer to? (Score: 01)
1. their (Paragraph 3)
2. some (Paragraph 4)
3. their (Paragraph 8, Sentence 1)
4. their (Paragraph 8, Sentence 2)

D. Paraphrase Sentence 2, Paragraph 6, “The microchimerism…he sums up.” (Score: 01)

E. Pick words from Paragraphs 2, 3 and 4 that almost have the same meaning as the following: (Score: 01)
1. can be done
2. subdue; hold back
3. supported
4. previous

Part Two: Writing (Score: 09/20)

Some believe that science and technology have proved to be efficient in many domains (medical, agricultural, industrial, etc.); however, others believe that they (science and technology) have resulted in a number of negative effects. Argue for or against to show where you stand.

Develop your point of view in an essay of 250-300 words. Make sure that, in your introduction, you put your reader in the general atmosphere of your topic and clearly provide a thesis statement, and that each of your body paragraphs starts with a topic sentence which you back up with relevant supporting details. Draft, revise, and proofread your essay. Your writing will be assessed for ideas, language and style, and tidiness.

(Score: 05 for ideas and organization, 03 for language and style, and 01 for tidiness and legible handwriting)
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<tr>
<th>Part of the Q</th>
<th>Answer</th>
<th>Mark</th>
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| Competencies: | - Utilize reading strategies  
- Develop literal and interpretive comprehension of written discourse  
- Produce transactional writing |      |
| I-A-1         | Starzl was the first surgeon to perform human liver transplants. Moreover, he was the first to develop new ways for transplant surgery. Also he was one of the pioneers to develop drugs that subdue the immune system to secure non-rejection. In addition, he worked on kidney transplants and was the first to try xeno-grafts.  
N.B. Students should provide any 4 of the above listed achievements.  
0.25 on each | 01   |
| I-A-2         | The drugs that surgeons use to suppress the immune system are considered “a necessary evil” because any transplant cannot be performed without using them. Also, there is always the possibility of the body rejecting the planted organ. However, these chemicals may have deadly effects, for they increase the risk of infection, cancer, and other illnesses.  
0.5 on justifying why it is necessary / 0.5 on justifying why it is evil | 01   |
| I-A-3         | Opponents of Starzl’s hypothesis see that it lacks evidence. They argue that microchimerism is a result of the body’s failing to reject the donor’s cells. They add that some patients’ bodies accept the cells even in cases where immunosuppressants are not used. | 01   |
| I-A-4         | Starzl has had a fair share of criticism and praise from experts like Sutherland and Shapiro. Sutherland claims that Starzl’s hypothesis is unfounded and lacking evidence. At the same time both Sutherland and Shapiro confirm that Starzl is an influential, intelligent and distinguished figure for his groundbreaking work and unconventional methods.  
0.5 on criticism / 0.5 on praise | 01   |
| I-A-5         | The writer refers to future organ recipients at the end of the selection in order to emphasize the need to approve the microchimerism hypothesis, to give hope for patients who need transplants to live longer, and to stress the need of reconsidering the role of immunosuppressants. | 01   |
| I-B-1         | The paragraph provides background information about Starzl: his age, his career as a surgeon, his workplace, and his achievements in the field of organ transplantation. | 01   |
| I-B-2         | Two types of audience:  
a. Organ recipients/ patients because it provides them with the latest results about transplantation and gives them hope for possible medication in the future.  
b. Doctors/ Surgeons/ Researchers are interested in such selection because it widens their scope of learning.  
N.B. Any other well justified type of audience (religious people, NGOs, etc.) is acceptable.  
0.5 on each | 01   |
The writer achieves credibility by using different types of evidence:
1- Specific dates (Paragraph 2: 1960; Paragraph 4: 1992)
2- Experts’ opinion/testimonials (Paragraph 6: Bach’s opinion; Paragraph 7: Sutherland’s opinion)
3- Scientific facts (Paragraph 5)

**N.B. Students should provide any 2 of the above listed types of evidence 0.5 on each**

<table>
<thead>
<tr>
<th>I-C-1</th>
<th>Their: chemicals</th>
<th>0.25</th>
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<tbody>
<tr>
<td>I-C-2</td>
<td>Some: patients</td>
<td>0.25</td>
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<tr>
<td>I-C-3</td>
<td>Their: approaches</td>
<td>0.25</td>
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<tr>
<td>I-C-4</td>
<td>Their: xenografts</td>
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In Paragraph 6 of “Graft and Host, Together Forever”, the writer quotes Bach who says that the concept of microchimerism has not been accepted since many do not see the idea of microchimerism as justifying the acceptance of the graft by the host.

| I-D | In Paragraph 6 of “Graft and Host, Together Forever”, the writer quotes Bach who says that the concept of microchimerism has not been accepted since many do not see the idea of microchimerism as justifying the acceptance of the graft by the host. | 01 |
| I-E-1 | Viable | 0.25 |
| I-E-2 | Suppress | 0.25 |
| I-E-3 | Advocated | 0.25 |
| I-E-4 | Former/past | 0.25 |

II-A Ideas and organization 05

II-B Language and style 03

II-C Tidiness and legible handwriting 01