

### Dr. Zhou Liu goes on cancer research in Huston

After suffering the loss of his two-year old niece to leukemia, cancer had become very personal to Zhou Liu. Then a 15-year old growing up in Indonesia, he decided to make a difference in cancer research. Now in Huston, Dr. Liu has made an important discovery.

In short, his research has described how to destroy two aspects of cancer that make it so deadly. At the same time, he has identified why it can be so difficult to treat.

DNA stores genetic information and messenger RNA carries the template that translates genes into proteins. Two of these proteins are known to make cancer cells aggressive: the “arC” protein, which is implicated in the rapid growth of cancer cells, and the “agcP” protein, which blocks the effectiveness of treatments such as chemotherapy. Basically, cancer cells produce too many of both proteins. Dr. Liu’s research is trying to understand how to control the RNAs that lead to the production of “arC” and “agcP” proteins in cancer cells.

“We’re really excited with what we have discovered, especially when you consider that this research mostly involved students and it was done entirely in Huston,” adds Dr. Liu. “There are only three other cancer research teams in the world looking at the same proteins as we are, and those groups are in the UK, Spain, and Denmark.”

“Despite the discovery, Dr. Liu is quick to point out that a cure for cancer isn’t right around the corner.” These things take years. We think we’ve made a significant contribution, but our findings can only be demonstrated in a test tube, not in the body – at least not yet. If we continue having success with our research, we’ll eventually test our hypotheses in actual cancer cells.”

Dr. Liu remains focused on making a difference in cancer research. “I made a vow 25 years ago, and I’m as committed as ever.”

#### 1. Comprehension exercises (2 points)

1.a. According to the text (0.5 points)

- a. Dr. Liu investigates cancer because he likes it and it is his job.
- b. Dr. Liu investigates cancer because his team is good.
- c. Dr. Liu investigates cancer because a relative of him died when he was a teenager.

1.b. According to the text (0.5 points)

- a. Three more projects are investigating cancer in America.
- b. The studies in Huston describe the possibility of destroying two aspects that make cancer so fatal.
- c. Dr. Liu made the commitment of investigating cancer cells a few years ago.

1.c. Dr Liu’s discovery will cure cancer in a few months.

(Answer ‘True’ or ‘False’ AND write the sentence supporting this idea) (0.5 points)

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1.d. There are two proteins which make cancer cells destructive.

(Answer ‘True’ or ‘False’ AND write the sentence supporting this idea) (0.5 points)

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**2. Do the following grammar exercises according to the instructions given (2 points)**

2.a. Complete the second sentence so that it has a similar meaning to the first one (0.5 points)

- Woman has to do all the work
- All the work

2.b. Rewrite the sentence starting with the words given so that they mean the same (0.5 points)

- There was an increase of nearly 20 %.
- The amount increased

2.c. Complete the second sentence so that it has a similar meaning to the first one (0.5 points)

- What makes models go on unnecessary diets?
- Why

2.d. Write the appropriate verb form of the verb in brackets (0.5 points)

- We won't get a place at University, unless she (to pass) all her exams.

**3. Identify ONLY FOUR words from their definitions (1 point)**

- a process of becoming larger or longer or more numerous
- use of chemical agents to treat or control disease
- totally, completely
- to comment, notice, remark
- any one of a number of individual efforts in a common endeavour
- an event that accomplishes its intended purpose

**4. Write a summary of the text of about 30 – 45 words using your own words (2 points)**

**5. Write a composition of about 100 – 150 words on ONLY ONE of the following topics (3 points)**

5.a. Dying of cancer is worst than a sudden death for the relatives than remain.

5.b. Do you believe in life after death?