

平成26年度広島大学AO入試【総合評価方式】

医学部医学科

小論文問題冊子

平成25年11月14日(木)

自 13時00分

至 15時00分

答案作成上の注意

- 1 指示があるまで、問題冊子・解答用紙を開いてはいけない。
- 2 問題冊子は、表紙が1枚、問題紙が7枚、下書用紙が4枚ある。
下書用紙は使っても使わなくてもよい。
- 3 解答用紙(冊子)は、表紙が1枚、解答用紙が5枚ある。
解答は、すべて解答用紙に書くこと。
- 4 受験番号を解答用紙の表紙と解答用紙5枚のそれぞれ所定の場所に
書くこと。
- 5 試験終了後、問題冊子は持ち帰ってもよい。

【課題 1】

次の英文は、アンダーソン・クーパー氏とサンジェイク・グプタ氏およびソライダ・サンボリン女史の CNN 番組での対談である。以下の問いに答えなさい。

アンダーソン・クーパー氏 : 米国 CNN のニュースキャスター(アンカー)。
サンジェイク・グプタ氏 : 医療担当主任記者。神経外科医。
ソライダ・サンボリン女史 : 米国 CNN のニュースキャスター(アンカー)。

問 1) アンジェリーナ・ジョリーは、なぜ自分の乳房を切除することを決断したのか。また、それを行ったことにより、情動的にどのような変化があったのか。日本語で、簡潔にまとめなさい。

問 2) 現在、いろいろな疾患で遺伝子診断が行われるようになっている。本事例のように、まだ発症していない患者において、遺伝子診断の結果を基に予防的に外科手術等の介入を行うことの是非について、あなたの意見を 600 字以内で述べなさい。

問 3) 患者の遺伝子診断を行うことは、今後、医学研究においてどのような影響を与えるか。また、遺伝子診断を行う場合、患者に対しては、どのような対応が必要となるか。あなたの意見を 600 字以内で述べなさい。

As well known for her beauty as she is for her acting, the 37-year-old Angelina Jolie is a very public figure who's been fighting a private battle for the past three months, a battle against the same cancer that took her mother's life when she was 56 years old.

"I carry a 'faulty' gene," Jolie writes in the *New York Times*, "which sharply increases my risk of developing breast cancer and ovarian cancer." Jolie's mother died in 2007 after a seven-and-a-half-year battle with ovarian cancer. Doctors tested Jolie and determined she has an 87 percent chance of developing breast cancer and a 50 percent chance of ovarian cancer.

She writes: "Once I knew that this was my reality, I decided to be proactive and to minimize the risk as much I could. I made a decision to have a preventative double mastectomy. I started with the breasts, as my risk of breast cancer is higher than my risk of ovarian cancer, and the surgery is more complex." It was a three-step process for Jolie who had reconstructive surgery after her breast tissue was removed. "On a personal note, I do not feel any less of a woman," Jolie writes. "I feel empowered that I made a strong choice that in no way diminishes my femininity."

Beyond movies and magazine covers, Jolie is also a humanitarian and has visited refugee camps all over the world for the United Nations. Jolie continued on her work despite her surgeries. In March, right after her second surgery, she took this trip to eastern Congo with Channel 4 News to bring attention to sexual violence in war zones. The next month, she showed up on the red carpet wearing a long black cape.

She writes: "I wanted to write this to tell other women that the decision to have a mastectomy was not easy, but it is one I am very happy that I made. I can tell my children that they don't need to fear they will lose me to breast cancer."

-----注釈

breast cancer	: 乳がん
ovarian cancer	: 卵巣がん
double mastectomy	: 両乳房切除手術
reconstructive surgery	: 再建手術

Well, Zoraida Sambolin, coanchor of CNN's "Early Start," was diagnosed with breast cancer just five weeks ago—with a very early form of breast cancer. She hasn't been tested for the breast cancer gene mutations, but she's decided, like Angelina Jolie, to have a double mastectomy. She hadn't shared her news with colleagues or the public until this morning, and says that Jolie's openness empowered her to go public about her own decision. Zoraida joins me now, along with chief medical correspondent Dr. Sanjay Gupta.

Anderson Cooper Sanjay, Angelina Jolie's surgery was preventative. She didn't have breast cancer; she had a genetic mutation. How common is a double mastectomy in cases like hers?

Dr. Sanjay Gupta Well, it's...it's becoming increasingly common, Anderson, n...no question about it, as...as the testing has certainly gotten more sophisticated. If the decision is to go ahead and do the operation to remove both breasts, it's usually done fairly quickly—you know, withi...within a month or so. But there are other options. Some...some people may say, "Look, I'm going to just be more vigilant about getting studies to...to...to look at the breasts and see if anything...any cancer is developing." Some people may go onto medication to try and delay onset of cancer.

But one thing that's worth pointing out is, even since I trained, Anderson, is that the reconstructive techniques surrounding this are so much better. So someone goes to sleep under a general anesthesia knowing that they're going to have the...the mastectomy, but then they wake up with the reconstruction already done. So it...it's...it's changed a lot, Anderson.

-----注釈

medication	: 薬物療法、投薬
general anesthesia	: 全身麻酔

Cooper Interesting. Zoraida, Angelina Jolie's announcement prompted you to make your own revelation today. Explain the...the process for that.

Zoraida Sambolin One of the big questions was, how am I going to talk about this? You know, I'm on the air every day; I'm going to be going out for a while; I've chosen to have a double mastectomy. And she dealt with a couple of key things that were critical for me. Also, I have two kids—have a 9-year-old daughter and a 14-year-old boy—and in large part, my decision was made for them. Because I want to be here for them, and I want them to have me also. I want to see them grow up.

And then, you know, I had...I had some real struggles with the whole issue of femininity and sexuality. And she talked about that this morning, and I felt like she gave me a voice, and...and she gave me an opportunity that I wouldn't have had otherwise to actually begin this dialogue.

Cooper And, Sanjay, the...the test to find out if you have a gene that...the...the gene for this—it's very expensive. Insurance companies don't often cover it.

Gupta Some insurance companies'll cover it if you are considered high risk—so, if you have a strong family history, if you've had other cancers that may be something that may be related. But that...that may change as well. The test's about \$4,000, so it's by no means cheap, and that...that plays a role in people's decision making as well. Under the Affordable Care Act, that...that may change. So preventive tests, which this is considered one of them—again, the breast cancer genetic diagnosis—it should be covered. There may be some insurance companies that will be still grandfathered in and not be forced to do this. But yeah, I think cost absolutely has played a role so far in this, Anderson.

-----注釈

grandfather in

: ~に新しい法律・規制の適応を免除する

Cooper Are you...are you scared?

Sambolin Yes. I mean, you know, I'd...I'd say that at the beginning, I was really scared and I was in a really dark place, because I allowed myself to go to worst-case scenario. Since then, I will say that a couple of really great things happened. One is right here at CNN. You know, there's a woman here who works for the medical team, and I reached out to her, and she helped me immediately come up with a plan. And she told me: "You know, we're going to conquer this. You're strong, and...and this is not going to be a problem, and you need to treat it for what it is and move forward and...and have, you know, a lot of forward thinking."

Cooper We wish you the best. Thank you so much for being on.

Sambolin Oh, no. I appreciate the opportunity. Thank you.

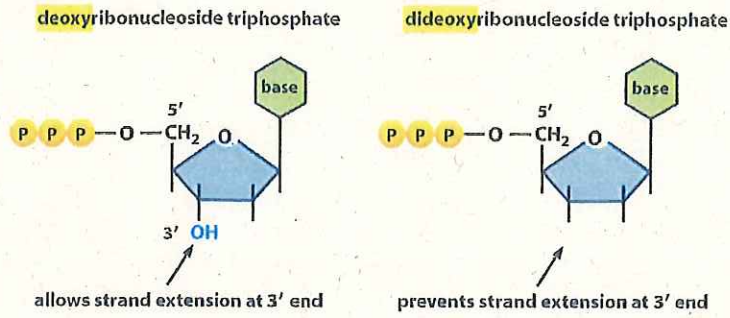
(May 15, 2013)

出典：ENGLISH EXPRESS, 8, Aug., 2013.

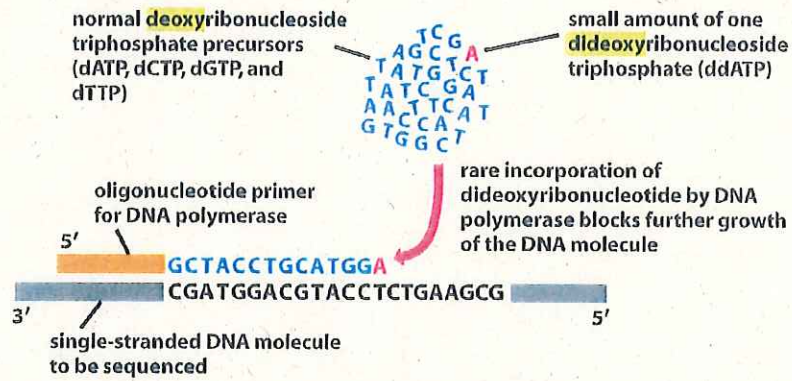
【課題2】

次の図は、F. Sangerらが1977年に発表し、現在広く使われているDNA塩基配列の決定方法を示している。図を参考にして、この方法を説明しなさい。

A: Materials



B: Basic reaction



C: Nucleotide sequence determination

