

令和3年度入試（令和2年度実施）の情報開示
解答例又は出題意図について

入試の区分	一般選抜（前期日程）
学部学科等	医学部医学科
教科・科目名	外国語 / コミュニケーション英語Ⅱ・コミュニケーション英語Ⅲ・英語表現Ⅰ・英語表現Ⅱ
正解・解答例 又は出題 (面接)意図	<p>1</p> <p>(1) ・ Because, in just a few years after he created the term, methyl groups were found to be able to attach to DNA, or to the proteins that house it, and alter the gene expression. ・ Because, in just a few years after he created the term, something was found that might support his metaphor. ・ Because, in just a few years after he created the term, there was a historical/significant finding that could [possibly] prove his theory.</p> <p>(2) (B) <u>[how / a gene / is / expressed / can / have / drastic consequences]</u> (C) <u>[controls / when / and how / genes / get / turned on]</u> (D) <u>[have / major implications / for / how / we / treat / cancer / and other / aging-related diseases]</u></p> <p>(3) (a) (F) <u>[a tendency / for / a methylation pattern / to remain / or / change]</u> (b) The density of CpG nucleotides in the neighborhood and the activity of enzymes which add or strip methyl groups (c) A low potential is a methylation state that is easy to change, while a high potential is a state that is hard to overcome.</p> <p>(4) (a) Because <u>(some) scientists want to learn to modify this code as a possible therapeutic mechanism.</u></p> <p>(b) ・ Enzymes add methylation to DNA. ・ Proteins actively strip methyl groups from genetic regions.</p>

(5) (a) ②

(b) Aging cells are [less responsive, more rigid to the machinery that regulates their methylation status, and (may be) (far) less adaptive to turn on or off (genes) as needed in response to various environmental stimuli] than stem cells and adult cells.

(c) listen

(d)① long blocks of methylated or un-methylated genetic regions

② independent of / free from

③ responsive / sensitive / adaptive / flexible

④ susceptible / vulnerable / prone / sensitive / receptive / responsive / inclined / affected / liable

(6) (K)[the commitment / a cell / makes / to become / a specific differentiated form]

(7) (L) high energy potential

(M) deviation

(N) addition

(O) low

(P) more

(8) It means that [①due to poor responsiveness to the cellular machinery ② that regulates epigenetic codes, ③aging cells can no longer reliably maintain and convey DNA methylation information and thus, ④fall into states of uncertainty in methylation status / become less adaptive to turn on or off gene expressions in response to various environmental stimuli].

【別解(that 以下)】

- due to poor responsiveness to the cellular machinery, aging cells can no longer reliably maintain and convey DNA methylation information and fall into states of uncertainty (26 words)
- as getting aged, cells become less and less responsive and adaptive to the machinery regulating its DNA methylation and thus can no longer reliably maintain and convey DNA methylation information. (30 words)
- aging cells have become less responsive to the cellular machinery for DNA methylation, and begun to fall into the uncertainty in DNA methylation status; then the aging cells can no longer reliably maintain and convey DNA methylation information in response to environmental signals. (43 words)

	<p style="text-align: center;">2</p> <p>(1) (A) (c) (B) (d) (C) (f) (D) (e) (E) (b)</p> <p>(2) Carson valued being a normal father and having more quality time with his family, as he had no interest in being famous and wanted to spend more time with his family. He also valued spending a quiet life with his children. They were under enormous pressure because people were curious about their potential, and Carson wanted to take some of the pressure off them by moving to a rural area. Carson at some point realized that he could no longer enjoy being a football player as before, and he did not hesitate to put his family first.</p> <p>I think Carson made a great decision. Having a normal family life is something very important. I am sure his children were thrilled when they learned that their father would spend a lot of time with them after retirement and that their new life would be a quiet one. However, if I have had a successful career, I think I would like to continue working in the same field. Family is very important to me as well, but I still would like to remain in the field of medicine as long as possible. I want to keep contributing myself to saving people's lives in any way I can. Therefore, I would like to balance work and family life, and I hope my (future) family will understand my way of life and support me. (226 words)</p>
備 考	