Is Most of Our DNA Garbage?
By CARL ZIMMER MARCH 5, 2015

1. Summarize the "Onion test."

2. Why does an onion carry around so much more genetic material than a human?

3. The human genome contains around _____, that is, the stretches of DNA that encode _____. But these genes account for only about _____ of the total genome. The other 98.8 percent is known as _____.

4. Recent studies have revealed a wealth of new pieces of noncoding DNA that do seem to be as important to our survival as our more familiar _____. What do some of these molecules guide?

5. If these pieces of noncoding DNA become damaged, what might the consequences be?

6. For Gregory and a group of likeminded biologists, what do they think that supporting the idea of "junk DNA" might lead to? Why did it come about?

7. To these biologists, why does a fully efficient genome not make sense?

8. What led Crick and other scientists to develop a new vision of the genome "junk DNA" during the 1970s. (Summarize the work of Vogel)

9. Explain the *Panglossian paradigm*.

10. Explain what Gould often called *"pluralism"*.

11. What role do transposable elements play in the Human Genome?

12. Rinn studies _____, but not the _____ that our cells use as a template for making _____.

13. Explain the relationship between *hotair* molecules and a protein called *Polycomb*. What does *Polycomb* do?

14. Explain why Rinn calls his theory "*Genomic origami*"

15. According to Chris Ponting what is most likely the functional amount of DNA? _____ +/- _____

16. Why does thinking that ALL of the noncoding DNA has a purpose support bona fide creationists?

17. The blood drenched slides that pack Gregory's lab with their giant genomes only make sense, he argues,

_____.

To him, junk DNA isn't a sign of evolution's failure. It is, _____

_____.