

## ZULF'S ELEMENTARY DESCRIPTION OF BIOLOGY AT GENETIC LEVEL

ZULFIKAR MOINUDDIN AHMED

I have encountered racial hatred in America sporadically over the past decade for the first time. I have never encountered it between 1987-2008 at all. I won't go into the sordid details.

I am most disturbed to find that this *Bill Gates* is of the view that non-white people have piss, shit and cockroach serum in their blood.

I will quickly outline the basics of molecular biology of human beings to assist others similarly challenged in their understanding of how human biology works.

The first thing to understand is that all elements of the physical human body is *encoded* into the genome. This is roughly 3 billion DNA pairs long or 6 depending on the accounting. This is also referred to as the *genotype* of the human being.

Genes are subsequences of DNA in the genetic code. Most important are *protein-coding genes*. These are instructions to manufacture proteins, i.e. sequences of amino acids forming linear molecules. The human genome has an unknown number of protein-coding genes, and the rough current estimate is 20,000. In the physical body there are more varieties of proteins. Some hundreds of thousands of proteins and RNA constitute the biological body. They are combinations in various ways of the coded proteins from genes. These form the *proteome* of the human being.

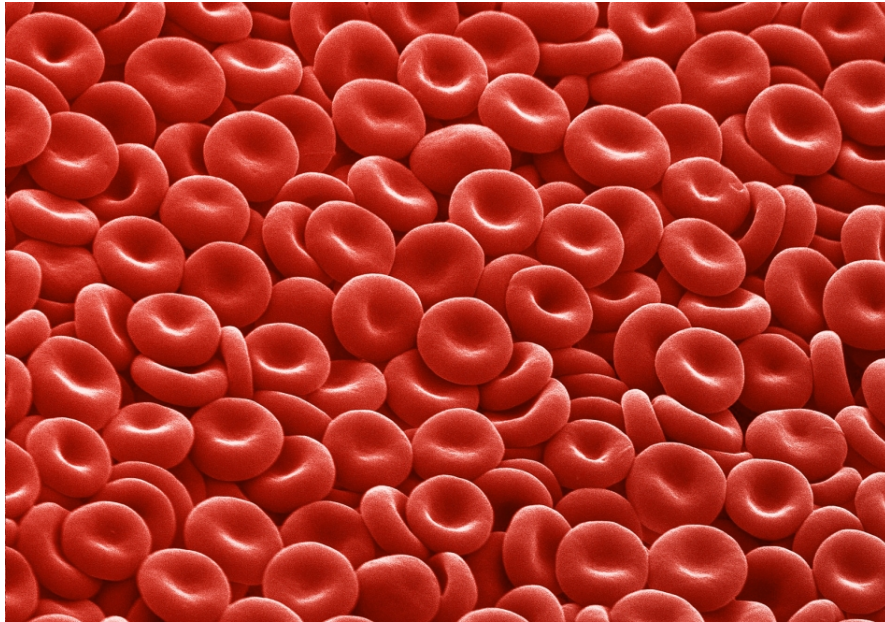
Biological functioning can be abstractly seen as networks of structural RNA and proteins that respond to *signals*. Upon environmental, developmental, and genetic signals, we have large network of proteins and structural RNA respond in coordinated fashion. This is the way of molecular life of the human being.

In particular, the genetic code of human beings determine the *blood* content of human beings. The mixture is complex and the functioning is quite sophisticated for all human beings. Those who do not appreciate the knowledge of molecular biology of human beings have, sometimes, silly ideas about what is in one man's blood versus another's. Well, the genetic code in common,  $G_c$ , is 99.9% of genome of all human beings on planet Earth, past, present, and future. And therefore it will be quite remarkable for people who think they have some knowledge of whether one man's blood has more fragrant material than another's to be right about this. Human blood is not so easy to distinguish and analyse as all that.

Certainly, people who say that some man's blood has disgusting poisonous material like piss, shit and cockroach serum, as white racial people seem to think, are going to be quite far from being right. In fact, this is quite obvious. If a man is healthy, there is nothing poisonous coded in his genetic code at all. His birth marked evolutionary success and that is why he lived at all.

## 1. RED BLOOD CELLS

Some people like Bill Gates have 'alternative theories' of various sorts of differences in blood composition. Fine so he wants to challenge the 'monolithic theory' of established science. Let's look at electron microscope picture of red blood cells of human beings.



Ah, looks quite interesting, little disklike structures. Now why do these disklike structures not look anything like the electron microscope pictures of cockroach serum (which is not mammal blood), piss, or shit? All human beings have close-ups of red blood cells like this. You will note quickly that this is not how the close-ups look for Bill Gates' alternative theory.

## 2. RED BLOOD CELLS ARE PRESENT IN ALMOST EVERY VERTEBRATE

I will just quote here from Wikipedia. Vertebrate red blood cells consist mainly of hemoglobin, a complex metalloprotein containing heme groups whose iron atoms temporarily bind to oxygen molecules ( $O_2$ ) in the lungs or gills and release them throughout the body. Oxygen can easily diffuse through the red blood cell's cell membrane.

In short all mammals that breathe air have red blood cells, and they are quite ancient, around 535 million years ago they evolved. How is Bill Gates going to produce an alternative theory where different humans with 0.1% maximal genetic difference will have red blood cells that differ? That's almost impossible. These high school educated illiterate people are just impossibly stupid and ignorant.

How will he prove that there are shit-piss-cockroach serum in anyone's blood? That's absurd and ludicrous.

He might mean that even though the red blood cell is every human being's blood there are other things that differ where they are some sort of thing for white people and piss-shit-cockroach serum for non-whites. That would require him to show some evidence. What is the basis of this theory, the rationale? Perhaps he has

some rationale that is not blind denigrating irrational hatred that is stupid and ignorant?

### 3. NEW ARGUMENT THAT OUGHT TO BE VERY STRONG

White blood cells are 535 *million* years old in evolutionary history. What is the probability that in the past 75,000 years, they changed so that they differ between say Africans and Europeans? The answer is so miniscule that any theory of difference is dead on arrival. They will not differ. Now if you have irrational hopes, you can do lots of experimental checks but I am a scientific genius of world class level and I would not even bother because there will be *nothing there*. It's not a good scientific theory, and that is why I am better than the technical 'open minded' scientific theorists. Nature does not conform to human prejudices. Once nature says "These red thingies are pretty good for transporting oxygen in these vertebrates" nature will not change its mind in puny 75,000 years and say, "Oh man, I made a dreadful error 535 million years ago." Nature will instead say, "Whatever, I did it and I'm always right so these mammal thingies have to deal." And that is why there is nothing there.

In order to understand what sort of things do change, we find a wonderful work of 2011 [2]. In a human and great ape cohort, we measured the red blood cell (RBC) levels of the most abundant types of plasmalogens. Total RBC plasmalogen levels were lower in humans than bonobos, chimpanzees, and gorillas, but higher than orangutans. Plasmalogens are ether phospholipids required for normal mammalian developmental, physiological, and cognitive functions. They have been proposed to act as membrane antioxidants and reservoirs of polyunsaturated fatty acids as well as influence intracellular signaling and membrane dynamics. Plasmalogens are particularly enriched in cells and tissues of the human nervous, immune, and cardiovascular systems. Humans with severely reduced plasmalogen levels have reduced life spans, abnormal neurological development, skeletal dysplasia, impaired respiration, and cataracts. Plasmalogen deficiency is also found in the brain tissue of individuals with Alzheimer disease.

In other words, red blood cells between our closest cousins differ in some ways. Fine, our red blood cells carry some things differently than chimpanzees, bonobos, and orangutans. How much are they going to differ between ethnicities within human beings? It's not going to be even scientifically meaningful.

What are the chances of finding any difference at all between human red blood cells by ethnicity, let alone something so outrageous as fragrant red blood cells for white people and shit-piss-cockroach serum red blood cells for non-white a la Bill Gates? You see, if things were so different, then why is 2011 cutting edge research just finding all manner of subtle differences between red blood cells of species? Why aren't chimpanzee red blood cells made of milk and honey and bonobo made of diesel? You see these morons who want to believe these sorts of differences do not understand how subtle are the works of nature. They cook up things based on what seems disgusting and what seems fragrant and then they pretend they have figured it all out about differences and then they don't do any work to prove anything and ra ra racist chants.

### REFERENCES

- [1] [https://en.wikipedia.org/wiki/Red\\_blood\\_cell#Vertebrates](https://en.wikipedia.org/wiki/Red_blood_cell#Vertebrates)

- [2] Moser et. al., Human and great ape red blood cells differ in plasmalogen levels and composition, *Lipids in Health and Disease* 2011, 10:101