

DOES WHERE YOU LIVE ACTUALLY MATTER?

READERS SUMMARY:

1. WANT TO KNOW WHY I AM TRAVELING SO MUCH LATELY?
2. IS THERE A HEALTH REASON FOR IT?
3. HOW DID I GET THE IDEA?
4. AM I ACTUALLY CONSIDERING ACTING UPON MY OWN N-1 DATA?
5. IS THIS REPRODUCIBLE IN HUMANS?

Many of my forum members and FB friends have noticed that I have been doing lots of traveling the last three months. Many of my close friends think they know why I am actually doing it but they would be wrong. I have been thinking about a bio hack for about 5 years now, on how humans adapt to dissimilar environments epigenetically from where their genome was created. I have often wondered if our ability to rapidly and dramatically alter our way of life may create an environmental mismatch in our cellular structure that could hurt us. I have strongly believed for many years that where we live directly has a positive or negative impact upon our health. I used to believe the effect was a cognitive one based upon beliefs or desires. I no longer am biased like that based upon what the early results my N=1 have revealed. Sometimes we need to explore ourselves and our beliefs to better understand our world.



Said another way.....It always amazes me how many conquests mankind has had in exploring our universe and yet fails to explore their own inner space where we actually live. We often allow ourselves too easily get caught up in the business of modern life. In this thought process, we

overlook the profound, by giving way to the mundane. We need to examine our own inner landscape more closely. Remember, we are human be-ings.....not human do-ings first and foremost!

Today begin to examine and discover all you can be or might be. ***Go within.....or go without.*** That thought is what got me to think outside the box about where I live and where I should live. I wondered if where I am now, is congruent with my biology.

AN EXAMPLE TO CONSIDER:

The most obvious example of this is a the NYC family who lives in Manhattan seeks the enclave of the Hamptons as soon as the summer hits in NYC. Many of you might believe they just go to the Hamptons to be surrounded by people of their own ilk, but I do not. As a child, I had friends who went through this seasonal migration and they all reported a dramatic improvement in their sense of well being and in their health.

My own family used to do this sort of migration but on a far less luxury scale. We spent our summers when I was young in Far Rockaway Beach bungalows when I was kid. My grandparents treated us to this for about 15 years and it was about the best times I had as a kid.

My entire family always reported feeling great out there too.

My childhood was pretty stressed in our household and I always remember how that seemed to disappear when we hit the beach the day after school ended. When we returned to the city many of the things that were not so good also seemed to

return. Back then I never understood why this might have happened. Even today, I am not sure I fully get it, but I think I might have an idea why now. As I got older and more wise, I realized that there might be a biologic reason tied to evolutionary principles. So for the last five years I have been thinking about how I might test this theory out on myself in a classic $N=1$ experiment.

With the advent of www.23andme.com testing and a detailed knowledge of my own trans-generational epigenetic history, I began to reconstruct my health from memory and my medical records from my childhood to 20 years to look for a trend.

In early 2012, I believe I found a trend whose variables were temperature, barometric pressures, latitude and longitude, and the presence of ocean water. So I decided to begin a 6 month bio-hack on myself as I traveled across landscapes to test each variable on my labs and in how I felt as I journaled it all. Once I am done I plan to really analyze it to see if there are any biologic benefits to thinking about where I should live long term to improve my health and longevity.

I also want to know if this is a long adapted affect or is it something that I can build in seasonally like other mammals do when they also are forced to migrate because of environmental changes. In the beginning of this thought experiment, I believed that humans evolved in an area of quick rapid changes relatively close to the equator in the East African rift zone.

The changes that we might have faced there over short periods may have allowed us to move among several climates quite rapidly compared to other mammals. I believe access to water and the rapid encephalization of our frontal lobes filled with dopamine may have fueled our ability to break the normal cycle of mammalian migrations. Human ancestors have evolved for about 4-4.5 million years before we really got the idea to travel a lot.

We know that modern humans, *Homo sapiens*, evolved in Africa up to 200,000 years ago and reached the Near East around

125,000 years ago. This is what really got me thinking about how humans might be quite different than other mammals. We may have evolved the ability to rapidly change our epi-genome and still maintain the integrity of our genome as we make those moves to improve survival and reproduction success. We know other mammals closely related to us, like chimps and gorillas have massive changes behaviorally and biochemically when they are moved from the wild or to zoo's around the world. I wondered to myself do humans have the same Achilles heel in their epi-genome too? ***Does where we live affect our biology to our benefit or detriment?***

This last half of 2012, I have done two educational consults with two of my members that seem to sense they have the same affinity for certain climates that I sensed as a kid. One lives currently in the northeast of North America now but this was mismatched to their childhood stomping grounds and where they really felt best from a health stand point. The other one was living in Australia for over 25 years but came from a Northern European ancestry. They both have had massive health issues since they moved, and both reported that when they returned for visits to their land of birth and ancestry they had amazing role reversals in their health for periods that spanned their visits and lasted close to a month after their return. They never thought to test themselves to see if these feelings of wellness were just from their beliefs of a good childhood experience or might it also reflected in their labs physiologically? It did however occur to me, a dedicated quantified self tester! I became very intrigued with this idea because I experienced it myself unbeknownst to them.

So I decided to look into this phenomena myself. I decided to do my own version of what they had found observationally when we spoke in their consults. I have not told either one of them that they were the reason I decided to execute on this idea to see where it may lead me, but I guess they will know once they read this.

SO WHAT DID I DO?

I decided to test some key variables on myself. I used temperature, pressures, ocean presence, sunlight, darkness, and depth (altitude) as my first variables to test myself.

Mind you all, this is not meant to be a research protocol with perfect controls for these variables. I am not interested in causation, I am interested in finding out trends about my epigenetic switches and my hormones to remain well as I age. This was done to see if any patterns could be detectable in my labs as I force dramatic and rapid change on my body and mind. Obviously, this created some interesting problems for my family, job, and social life so I decided to throw caution to the wind and add those variables to the mix too to see if they had an effect upon me.

Over the last six months I have stayed within a 6 hour time zone window and I have gone above and below the equator many times and at times at extreme latitudes and longitudes to access the effects on my biology to see where I am best adapted to living a long healthy life.

One of the more interesting parts of the bio hack began when I renewed vows with my wife at the equator. Many people may not know this, but at the equator we have an equatorial bulge barometric pressure. Annual temperatures do not vary much at the equator, but barometric pressures do. At the poles there is massive variation in temperature and massive changes in barometric pressures. This implied to me that life at the equator may be built to deal with less biologic complexity than life at the poles. This also implied to me that if we come from a genetic lineage in Northern Europe we maybe better built to live at extremes of weather than we would at the equator. It also means that those at the equator may not be able to handle epi-genetic change as well. This insight may give many African Americans a new spin on why they suffer from strokes, CVA's and hypertension so much more than other races.

I wondered how our thyroid and brain physiology would have to

adapt to these epigenetic signals and how efficient it was?

Throughout the entire test I ate a strict Epi-paleo Rx template and the carbs varied to light cycles of the regions I was in as my own sort of control. I know some of you are wondering about it so let me put it out there now.

RESULTS:

They early results for me are in.....and no, I won't be discussing them here in any great detail just yet because I am not done yet testing. But I will tell you this; I have found a pretty amazing trend in my own biology that has totally intrigued me now. It has transfixed me for the last 6 months and now I am taking the thought experiment on a pretty wild ride to see how important it might be for me. My latest trip was quite North into the freezing cold and I went down a hole in the ground to see how avoiding light and temperature and EMF (levee 30) would affect my brain function and my dopamine levels. I think geopathic stressors is a lot bigger player than I thought when I wrote the Quilt document.

I may have to move it up on the Quilt document in importance.

EMF seems to have a massive effect on mitochondrial function and especially on cognitive function. What I found astounded me and I will be moving soon because of it. I became super productive and my cognitive abilities rose dramatically when I cut EMF underground. The further North I went, the better I got especially, if it was below sea level. It also seems to be independent of sunlight amounts or temperature. So far temperature has had a marginal effect for me above 36.1658° N.

When I moved further west of 86.7844° W I also noticed it had a direct biologic effect on some of my labs. The more east of it I went the more dramatic the effect was. Latitude within the northern hemisphere was a bigger deterrent of my biology response than changes in longitude. So it also appears I need to extend out the testing on time zones to see how big a deal this is. I bet it is bigger the further I move east of 86.7844° W the worse it will affect me based upon what I

have found so far.

This all has surprised me, so I thought I would share the really early results of this self experiment. I expect we will be talking about it on the forums, my FB Dr. page (www.facebook.com/drjackkruse) and on twitter (@DrJackKruse).

I found when I went underground anywhere, I fared best mentally and biochemically on testing. The biggest underground benefit was within a cities limits. The worst place I found was in a plane prior to landing and when we landed at the gate. I think I know precisely why this is the case too. I am now wondering how badly EMF of our modern wired world really may be for me? The results were so startling that it may cause me to alter how I live from here on out.

The further south I went the worse I got mentally and biochemically, but I got stability in both cognition and in my labs the higher my altitude got the closer I got to the equator. Below the equator the effects so far have been mixed and not well tested because it is hard to get below the equator easily now in my life. This likely will be part of future experiment to see if the hemisphere we live in also has an effect on our biology. Based upon what I have found early on this bio hack, I bet it has a massive effect. I also do not think going to the south pole will equal the results in the North pole for several reasons now. I bet the main reason for it is the giant hole in the ozone layer that sits over parts of Australia and Antarctica now. One thing is clear, my curiosity was piqued by educational consults to see if there was some biologic effect to where we live. I now think it really does matter. What I need to assess is how much does it matter and should we act upon what we find? The jury is out on that one now but I no longer think about this aspect of life as a given. We must always challenge our beliefs about things.

I thought I would just give you a quick hitting blog to let

you know what I have been up too lately. It has been fun for sure, but tiring too. But what I have found is nothing short of startling to me, at least. It has got me thinking a lot more about many core beliefs we might have about biology that we need to re consider. I hope you enjoyed this small peak into my last six months and as things progress I will let you all know how it goes. Right now I am packing for a trip south tomorrow.....I have to find out what things are like in a dark hole south now. I really liked how it went when I did it up North!!!

TRUTH BOMB ALERT FOR GEEKS AND NON GEEKS:

A narrow mind will be your most harmful thing you'll ever own.....

Be a voice, and not an echo.....in your sphere of influence.

The greatest enemy of knowledge is not ignorance. It is the illusion of knowledge. What I am learning is that accepting that my epi-genome maybe a loaded gun, and my home and lifestyle might be the trigger of the gun that could damage me. ***Our home sites and lifestyle can't change us, but it might reveals who we really are meant to be.*** Sometimes the wrong choices bring us to the right places. Those choices are made because of how the environment might influence our dopamine levels in our brain. Embrace your now, you never know where it will bring you unless you live it.

Always do what you are afraid to do. Knowledge comes to us by doing something new everyday, but we attain wisdom by letting go and pruning something everyday as well. Cultivate the garden of creativity in your head and think a bit and change your template if you are not getting the results you want. I am not sure if this is reproducible in everyone who reads it, but I think this is worthy of discussion in your own mind. What say you? Drop a comment and let's chat.....