Predictive Medicine

By Dr E.P. Diamandis

(During the music scores we will portray a Basil Doumas or group picture of older Athena society meetings)

(10 music scores; all rock)

Part 1

(Entry music score with...Diamandis Productions, etc. #1)

Jack: Hey Basil I have good news for you. It's about the genome.

Basil: Genome? I just had lunch Jack. What kind of food is that?

Jack: It is not food Basil. It is your genetic information. Don't you remember DNA?

The bases, A..C..G..T?

Basil: Bases? acgt? jee I remember something. Is it this fellow Greek the discoverer?

Jack: Not Greek Basil. Crick was the guy and the other one was Watson

Basil: Ok...ok...forgive me for the bad memory. I am getting old you know. So, what's the good news all about? Why would the genome be good news for me?

Jack: The genome is good news for everybody Basil. But you are the lucky one!

Basil: Why? Did I win a genome in the lottery or something? I did not buy any lottery tickets lately.

Jack: No Basil, you do not understand. Do you know how much it cost to sequence one human genome in 2003?

Basil: In Euros or dollars?

Jack: Come on Basil, take a guess

Basil: How about 1,000 euros?

Jack: Be serious Basil. Do you know how many people work on this? Over 25,000 full time, from 10 countries, led by the United States; for 4 years. It was tough then Basil. It cost 3 billion dollars!

(Basil laughing loudly and for a long time)

Basil: I knew the Americans are stupid Jack. But not that stupid! To throw away so much money; for what did you say? Sequence the human genome? Now that I recall, and you kindly reminded me earlier, there are only four bases in the DNA, ACGT; and I suspect what they got for three billion dollars was something like Aagggttacctcaggt.....go on for some time. I could have sung this song for them for a million instead!

Jack: Get back to your senses Basil. This is serious. But we changed the subject now.

Why do you think I said you were lucky?

Basil: I have no clue....Maybe because I am not an American?

Jack: No Basil. It is because you are such a great clinical chemist. You discovered bilirubin and albumin methods, you fought for standardization, you were president of AACC; you put the Athena Society together

Basil: So did you; Conan for CK-MB; electrode methods for calcium; AACC President; brought clinical chemistry to Eretria; Started Athena Society too

Jack: I know Basil. We are like twins, but unfortunately from two different eggs. Only one of us could have been the blessed one. And the AACC Executive voted for you.

Basil: Voted for what. I did not ask them to vote for anything; except "Obama for President"

Jack: Yes, I know. But I owe you an explanation. In order for AACC to make history in genomics and molecular diagnostics, they decided to fund a project to sequence the genome of a prominent Clinical Chemist. And the AACC President, who is here with us tonight, announced the decision. Basil Doumas; It was unanimous!

Basil: Jack, I know the Americans are stupid; But I did not know that the AACC Executive is stupid .Do they have three billion dollars to burn? They always say they have no money and they raise the registration and membership fees every year. Why don't you tell them to invest the money to free registration at the annual meeting and no membership fees for all?

Jack: No Basil. You do not understand again. Did you hear of Next-Gen? It is a new technology. You can sequence the genome with \$50,000 now. And they found this guy, Earl Scherago; Do you know him? He likes you very much, apparently because he never met you. As soon as he heard the name "Doumas" he said he will donate the money. I guess he will make his money back after charging the Abbottts, Beckmans, Siemens, Thermo-Fishers and the Roches a few more bucks at the AACC exhibition. But this should not be our concern. It is a bargain Basil. And do you know who you will join in this historical moment? Only the genomes

of the famous Craig Venter and the Nobelist Watson have been sequenced so far.

Can you imagine eh? Venter-Watson-Doumas! The three Musketeers

(Short music score here # 2)

Basil: What's the catch Jack.

Jack: There is no catch. They were going to get you the DNA from your hair but the experts said that white hair is no good for DNA; so they will come and get a tube of blood from you; that's all. There is only thing you have to do after the sequence is done; within 1 week, you will visit the geneticist (a famous woman Jack; member of the National Academy of Sciences) to tell you what she sees.

The AACC president was adamant. The AACC members are very curious to know where in the DNA sequence your great genius is hiding for so long. They will announce all this in a paper in our beloved journal, *Clinical Chemistry*. Nader Rifai agreed to write the accompanying editorial and your good friend Dave Bruns will write a "perspective" entitled – The first complete DNA sequence of a great clinical chemist: Basil Doumas

(Music score here # 3)

Jack: You will play with history Basil; You will become immortal. Not to mention that you may get some extra perks from this

Basil: What perks Jack?

Jack: Well didn't you hear about predictive medicine?

Basil: No Jack, I didn't. The only predictive thing about me, as you well know, is that I am totally unpredictable.

Jack: Everybody knows that Basil; but here, let us say you know your genomic sequence. Then you go to the doctor and he/she could tell you about your health status

Basil: I am quite healthy Jack. I feel great and I do not need to go to the doctor

Jack: But this is the whole point of predictive medicine Basil. You go to the doctor when you are healthy

Basil: And where do you go when you are sick Jack?

Jack: Directly to the cemetery Basil. Don't you realize that things are changing?

Part 2

(Music theme # 4)

Basil goes home and finds Maria Doumas

(We can show a picture of a home with the name outside – Basil Doumas Home

Then continue filming in the same room or an adjacent room)

(Basil Screaming...)

Basil: Maria, Maria, come here. I have great news for us. I will become immortal .I will be the first clinical chemist with a complete DNA sequence. And you know for how much? Nothing!! AACC and Scherago is paying. Do you know how much it cost to do the same for James Watson? 1 million bucks. These Americans are crazy. God bless the Greeks!

Maria: Who the hell is James Watson Basil? And who gives a sheet about his DNA sequence? or yours, for that matter?

Part 3

(Music score # 5)

Announcement in Clin Chem. Cover with announcement; looks real etc

First complete DNA sequence of a clinical chemist

Along with editorial and perspective announcement

Part 4

(*Music here* # 6)

(Now we have Basil and his doctor)

- Dr. P: Hi Dr. Doumas. I am Dr Predictovopoulos. Of Greek origin; like you. I had the privilege to examine your complete DNA sequence with the assistance of a computer program called "Morbibound". I would love to discuss the findings with you. But first let me tell you that we confirmed that you are a fertile male of Greek origin
- Basil: Oh yeah? Didn't I know that!! Everybody knows that I am Greek, I have 3 children and many grand children.
- Dr. P: That was our control Dr Doumas. Remember? You are a clinical chemist. No assay without control. Wesgard rules, remember? As you could imagine, our

assay would have been rejected if we were to find out that you are either a woman or an infertile cretin!

(Music score # goes here 7)

Basil: Ok...ok go on; what else did you see?

Dr. P: Not much actually; At the beginning at least. We scanned all of your chromosomes and they were fine; except four

Basil: Four? What four? What do you mean?

Dr. P: Do you know Genomics Dr. Doumas? I will come to the point immediately.

Basil: No madam; I knew a few things about bilirubin; Jendrasic-Grof; I knew a few things about albumin; bromcresol green and the like, but I am starting to forget them now

(Doctor jumps with exclamation)

Dr. P: I knew it Dr Doumas. You are starting to forget eh? Do you know what I saw at your apoE locus on chromosome 19? You are homozygous for the variant apoE4, which gives you a very high lifetime chance to develop Alzheimer's disease; Genomics is infallible sir; its all written in the genes. You are forgetting for a reason; and very soon it will get worse. You may even not be able to remember the name of your wife! Or Jack!

(Put music here score # 8)

Dr. P: And sorry for rushing it Dr. Doumas. I have other customers waiting; with these new genomic technologies my business is booming; besides the recession. Let's

get to another region of chromosome 19 now. How old you said you are? 75? And how many times you currently have sex with your wife?

Basil: This shouldn't be your business madam; but since I am always straight I will tell you. Once in a blue moon. But the good news is that I did it last night in this wonderful hotel that Katerina found. Without Viagra mind you.

Dr. P: Well, do it as much as you can Dr Doumas; because that PSA gene on chromosome 19 is getting rusty. In a few months it will be silenced and so will your thing!

Basil: What the heck Dr. Predictavopoulos. The thing was getting rusty anyway .As far as my heart is strong, I do not have to worry!

Dr. P: Your heart is like a stone Dr Doumas. I guarantee you that it will still be beating even at the age of 100. Ask Fred Apple and he will tell you the same; problem is, I am not sure what else will be working then

Basil: You are scaring me Dr. What else did you see?

Dr. P: There was an amazing and very rare base substitution Basil. On chromosome 9. This substitution sends a signal to the kidneys to shut down; but fortunately, at your 80th birthday. Never earlier. So pee as much as you can now before hemodialysis takes over.

(Doumas is trying to walk away)

Basil: I am going Dr. I guess that's enough. That was the last you saw, right?

(Music score #9)

Dr. P: If you were to come last month, Dr Doumas, I would say that's it. But do you know what somebody published in the journal "Nature" last week? They found the divorce gene Dr Doumas! It is on chromosome 11; short arm. When the gene is mutated at codon 129 the husband always walks away. When the gene is mutated at codon 356 the wife vanishes with another man

Basil: Aaaaaahhhhhhhh!!! And what did you see in my gene?

Dr. P: You don't want to know Dr Doumas! But you shouldn't worry too much. As a
Greek, you know that every bad thing has a good side too. And you know what?
You call Jack a brother for a good reason. We just found out that he has the same mutation too!

(Music theme #10)

Epilogue

Here I am Jack; a man who used to be happy and worry-free. Now, I lost my sleep thinking when the Alzheimer's will strike; and when my kidneys will shut down; and I may be alone, with Maria vanishing with another man! This is why Dr Predictavpoulos avoided mentioning whay she saw.

But...wait a minute Jack. Why should I believe all this stupid non-sense? Maybe it is total crap Jack. Maybe it is just bullshit. And you know what Jack? I am starting to really get annoyed with the way you set it up..."you are the lucky one"..."the aacc executive was unanimous"..."Basil Doumas" ...shit Jack; shame on you; you sold me into this crap

and now I suffer. You are a traitor Jack; a Judas; Why didn't you do it to Mitch..or Larry Kricka, or Tom Moyer..You are evil Jack; that,s what you are ...forget about this ..."brotherhood" and the like. That's it.Find another brother!

And what can I say about this guy, Scherago....."he likes you" and the like. "He wants to contribute the money"..."he wants to help aacc make history". Bullshit! Kiss my ass Scherago.i do not need your money.

And what about this quiet foxy guy... Nader Rifai. We used to have a good journal Jack. Good science. Methods with 1 % precision; 0.1% accuracy. Now he publishes all this genomics and proteomics rabbish; and he tricked me dearly. He wanted to..."publish the first genomic sequence of a clinical chemist". Kiss my ass Nader; I don't want your paper. I will make sure AACC fires you for all this crap you are publishing.

And you? Bruns? Lie to all of our readres with this stupid persperctive ... "new era in medicine" ... "predictive medicine" ... it's all crap Dave; you know it and you lied to all these honest people out there. Shame on you Dave.

There is only one thing out of this crap. This moron, Dr Predictavopoulos, said it right; "
your heard is like a stone dr Doumas" [HERE WE WILL RE-PLAY MARIA'S
STATEMENT FROM THE ORIGINAL SHOOTING]... sure is....right Fred? My

troponin could not be detected even with the highest sensitivity troponin assay. And, I do not care about "my thing being rusty" I asked Ruth Jack. You are mute too. And who isn't after 70!

That's it guys. I am telling you for the last time. This genomic stuff is total and absolute crap. It is rabbish; it is a waste of money; it is so stupid and moronic and it is never going to predict anything; it is NEVER (emphatic here) gong to work; trust me!!

After looking at the camera a little weird...

....ooohhhhhh I started feeling bad now...I feel a pain in my strenum,...getting stronger (puts his hands in the chest and try to breath but with difficulty); [Yianni give a few extra seconds here...]

Then he scerams..

Fred, Fred, let's have a troponin...please... M aria...Maria...I am going....

Then he fells down screaming with pain and looks dead for a second

Then, Maria Pavlou walks in and says

My God! He must have had a heard attack!!

After a few seconds of silence. Basil wakes up for a second smiles a bit and says

I told you it was all crap

And then he fells dead again with a rapid move of the head to the side

The End