



Coronavirus and Genetics: in no way a miracle
Coronavirus y Genética: no hay milagro que valga
Coronavírus e Genética: não há milagre

Ángel GÓMEZ MORENO¹

*FORTHCOMING ARTICLE FOR A SPECIAL MONOGRAPHIC ISSUE OF
MIRABILIA*

ON “WAR AND DISEASE IN MIDDLE AGES AND ANTIQUITY”

Antonio CORTIJO, Vicent MARTINES, Armando Alexandre dos SANTOS (orgs.).

Mirabilia 30 (2020/1)

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<https://www.revistamirabilia.com>

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Jan-Jun 2020/ISSN 1676-5818

Coronavirus and Genetics: in no way a miracle²

Ángel GÓMEZ MORENO³

To Steven G. Symmes (1952-2016), beloved friend

May 1, 2020

[Remarks on my article: [“Coronavirus, Population Genetics, and Humanities”](#), *Mirabilia 30* (2020/1), Special issue on “*War and Disease in Middle Ages and Antiquity*”.]

Lacking confirmatory tests, I present the result of my analysis of some public domain data that reveals the relationship between SARS-CoV-2 (coronavirus) and the male haplogroup (Y-DNA) R1b. Current statistics of COVID-19 (coronavirus-associated disease) prove that its incidence is much higher in areas where R1b reaches higher percentages. In my previous article, I developed a formula: *the higher the frequency of R1b, the greater the incidence, proven or probable (real or potential), of COVID-19*. The distribution of this haplogroup is almost exclusively European. More precisely, R1b is known to be the quintessential haplogroup of the peoples of Western Europe.

While Genetics deals with the study of DNA, Population Genetics uses data provided by geneticists to study human migrations from Prehistory onwards; thus, new light is shed on processes such as the evolution of cultures, or the formation and expansion of languages, either extinct or alive. While Population Genetics has slowly but inexorably gained proselytes among experts in the social sciences, Genetics is a fundamental discipline for all fields of life and health sciences, playing a primary role in the fight against diseases.

Given the fact that Genetics will be more and more prevalent in our lives, it is important to become acquainted with its basic metalanguage: words as *mitochondrial*, *autosome*, *allele*, *haplotype*, and particularly *haplogroup*, which refers to a genetic pattern characteristic of members of a human society with centuries, if not millennia, of

² Only friendship helps to understand the involvement of both Prof. Charles B. Faulhaber (University of California, Berkeley) and Prof. Elena del Río (University of Georgia, Atlanta) in the present essay. Their remarks were so valuable that almost all of them have been introduced in the final version.

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common life. The haplogroup derives from the haplotypes, i. e. the genetic configuration inherited from our parents.

For the record, while I have absolute confidence in geneticists, I would only suggest – with the prudence and humility with which the novice addresses the expert – that they pay attention to the role played by the haplogroup R1b in a process that begins with the advent of the coronavirus, continues with the development of the disease, and ends with the cure or death of the patient. The most important issue is to determine whether there is an objective reason for the coronavirus to have caused the greatest havoc in “R1b Europe”, as crucial lessons may be drawn from the demonstration that it affects males carrying the R1b haplogroup more than individuals of other haplogroups.

In the aforementioned process, the mass-media, given its ability to modulate and shape public opinion, has a mission of utmost importance. The genetic factor has not been considered in the comparison and assessment of the results obtained by the political and health authorities of each nation in the struggle against coronavirus. When the figures are positive, a phrase is used in which the word *miracle* is linked to a name *Greek miracle*, *Portuguese miracle*, or *German miracle*. Although here I will deal with these three cases, in the last few days (April 28-29), the *Austrian miracle*, which I dealt with in my previous article, has again come up. Let's start with the *Greek miracle*.

The *New York Times* of April 28 included an article by Iliana Magra (“Greece has defied the odds in the Pandemic”) that showed Greek society interpreting the proclaimed victory against the coronavirus in an epic-patriotic sense. Rather than merely celebrating their achievements in confronting the coronavirus, Greeks have activated a will for national regeneration that – they hope – will act as a powerful spur for the future. Since the genetic factor has not been taken into account by the specialists, the only possible assumption is that the Greek people have managed to defeat the coronavirus against all odds.

In the case of Greece, the low incidence of the disease corresponds – simply inverting the formula expressed at the beginning – to the low frequency of R1b, whose average in the country is 11.5%, even more so when we consider there are areas in Greece where this haplogroup does not even reach 10%. Also, to be taken into account is the high frequency of other haplogroups characteristic of Eastern Europe and the Middle East: J2 (21%), I2 (9.5%) and G (6.5%); Slavic R1a (11.5%); and



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North Africa, as E1b1b (21%). The variety of haplogroups, their high frequency as well as Greece's remoteness from "R1b Europe" are reason enough for COVID-19 to be less harmful in Greece.

In relation to these data, let me note, again, that "R1b Europe" is initially made up of four nations: Ireland (81%), Spain (69%), Great Britain (67%) and Belgium (61%). To these two more nations should be added, pinpointing certain regions: The first is France, thanks to the extremely high frequency of R1b in the long strip that runs along the Atlantic coast, from the Pyrenees, through Brittany, and reaching up to Normandy (ranging 80%-90%). The second is Italy, specifically Lombardy and the North (where R1b is above 60%). Portugal does not fall into this group because its R1b only reaches 56%, 13 points below neighboring Spain.

Following the formula laid out at the beginning, Portugal, with 2,450 infections per million (all figures as of May 1) maps at some distance from the countries and regions most affected by the coronavirus, Spain being the first. The explanation of the fact, however, differs depending on who interprets the data and the part of Portugal to which we refer: Northern or Southern (in the South, between Lisbon and Faro, COVID-19 has fewer infections). In any case, in Portugal or elsewhere in the world, the genetic factor matters as much as the management of the pandemic itself, and even more so if we take into account the high frequency of the haplogroup E1b1b, which seems to be refractory to COVID-19 and reaches 14% in Portugal. Other apparently virus-resistant haplogroups present in Portugal are J2 (9.5%) and G (6%), both of Eurasian origin. We have already considered the strength of these very haplogroups in Southern Italy and Greece, reflected in the low incidence of COVID-19 there.

Now, let us look at the *German miracle*. The map of COVID-19 in Germany coincides point by point with that of R1b in Eupedia: 36% in the North and the East; 47% in the West, and 48.5% in the South (Wikipedia states that, in Bavaria, R1b reaches 50%). How should we interpret these percentages in contrast to the incidence of the pandemic? In my opinion, they show how unfair it is to confront the efficient and diligent Germans with the clumsy and lazy Spaniards, an injustice to all those courageous people fighting this virus in Spain whose symptoms, according to some unofficial voices, could only be compared to those of a mild flu. In this regard, I would like to invite all of you to notice the results of an experiment that shifts the focus to the German-Polish border.



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With its 1,960 infections per million and 6,623 deaths, Germany gives an inferiority complex to those nations where R1b is more prevalent. However, if we compare its figures with those of Poland (with 335 infections per million and 644 deaths) everything changes. We should keep in mind that Poland's population is 38.5 million, while Germany's is 81 million. Hence, if the genetic factor were to be excluded, the death toll in Germany should be 1,355, which means that there are actually 5,268 more deaths than a simple calculation of proportionality would expect. That is the result of the sudden decline of R1b in Poland, which cannot surpass 12% R1b. Should we work, then, on a "Polish miracle" or rather stop using the expression?

As we see, the analysis of the incidence of COVID-19 must start from the simple fact that the criteria adopted by each nation are so diverse and unstable as to lose any comparative value. The worst thing is that Genetics is ignored in these and other cases, when it can shed light on the problem and provide a definite solution. Genetics offers an explanation for the difference between Lombardy and Croatia. Although the distance between Milan and Zagreb is 520 km, less than that from Madrid to Seville, between the Italian region and the new country, as well as between both Spanish cities, a true genetic abyss opens up. Both are indeed European, but while the former is properly Western, the other is identified by its own inhabitants as a Slavix country (the white, red and blue colors of the Pan-Slavic flag say it all). It is enough to see that in northern Italy, between Tuscany and the Alps, R1b exceeds 60% in many places. The contrast with Croatia, where R1b reaches only 8.5%, explains the 7,506 new infections in Lombardy versus the 509 cases in Croatia.

Sometimes the thaumaturgy is not expressed by means of one of the so-called "miracles" pointed out, but rather as a feeling of amazement (the root of the word is the same of the classical Greek verb θαυμάζειν, 'to be amazed' or 'to marvel at'). A couple of weeks ago, Irish experts were amazed at the high incidence of COVID-19 in Ireland, "when compared to similar nations." The similarity with other countries – Denmark, Norway, Finland, Slovakia and Croatia – refers only to the number of inhabitants, because in fact that are not similar at all genetically, as shown by the 81% of Rb1 in Ireland and 3.5% in Finland. On the other hand, Ireland, which has shifted between optimism and pessimism, is now facing reality with increasing numbers reaching 4,233 infections per million inhabitants.

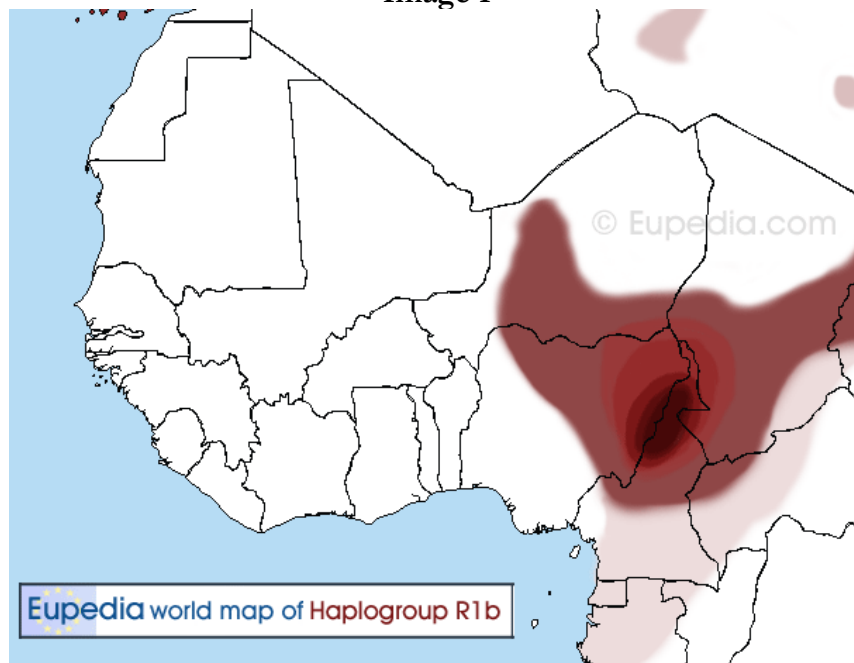
Need we elaborate further? We could indeed multiply the number of "miracles" to

accommodate cases such as that of Syria, a country that, in a state of complete destruction and in the absence of medicines, food, and drinking water, has only 2.4 infections per million; or that of Mongolia, with 11.5 cases per million (will it account for the effectiveness of Asia, so many times proclaimed in relation to the evolution of the pandemic in South Korea?). In short, overcrowding or lack of prophylaxis has not caused the figures to soar, not even in India, which is at 25.5 cases per million, or Indonesia, which has reached 38 cases per million.

In the very heart of Africa, we can focus on two countries: Nigeria, with almost 200 million inhabitants with a land mass the equivalent to one and a half times Spain's, has only 9 infections per million; and, undoubtedly the most striking case, Zambia, where HIV spread to half of the population, but currently presents only 6 cases per million of COVID-19. There are many more examples that prove the initial formula right, but these will suffice. Finally, to expose the contrast once again, let me recall the terrifying numbers of infections in La Rioja (12,411 per million), Madrid (9,182), and Castilla-La Mancha (7,754). If this review causes a re-assessment of some *idées reçues*, I shall be satisfied.

Addendum (May 5 2020)

Image 1





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Hausa tribes, distributed throughout Northeastern Nigeria on the shores of the Lake Chad, have very high percentages of R1b. This fact is remarked in [all surveys on Hausa culture](#) and shows up in any Y-DNA R1b haplogroup world map.

In the last weeks, the mass-media have pointed out a sudden and unexpected increase in the mortality rates among Hausas, but nobody risked a reasonable explanation to the tragedy (as sample, we may see a [BBC report](#) on the issue. Yesterday, however, the agencies informed that COVID-19 seems responsible for most deaths, again showing its predilection for R1b haplogroup. In this regard, I call your attention to one of the main headlines in TV News Channel (May 4-2020): “Mass deaths in Kano linked to COVID-19”. We must keep in mind that Kano is the main city in Northern Nigeria and, due to the Chadian war, houses most of the former inhabitants of the Lake Chad area.
