Dr. Alberto Acosta

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Dear Dr Acosta:

Please find enclosed for consideration the following manuscript entitled:( **mtDNA Analysis and Genetic History of Native Americans From Colombia** ), (María Claudia Noguera S, Carlos Andrés Barragán, Daniel Uricoechea, Ignacio Briceño Balcázar, Jaime E Bernal V.)

This study aims to analize the genetic diversity of Indigenous populatios of Colombia and their relationship between them and other native populations from América. Previously Please find enclosed for consideration the following manuscript entitled:( mtDNA Analysis and Genetic History of Native Americans From Colombia ), (María Claudia Noguera S, Carlos Andrés Barragán, Daniel Uricoechea, Ignacio Briceño B, Jaime E Bernal V.)

This study analized the genetic structure by characterizing the haplogroups and mtDNA haplotypes, with establishing a complete genetic structure inside Colombian Amerindian groups. Previously different researchers have determinated the presence of the four native american haplogroups among contemporary Native Americans (Horai et al. 1993, Torroni et al. 1993a, 1994, Brown et al. 1998, Malhi et al. 2002, Lewis et al. 2004, Torroni et al. 1992. The study of mitochondrial DNA to contemporary populations according to the origin of the ancient Americans, allows trace a lineage far back in time. Due to the additional advantage in relatively constant rate of mutation, has been possible an aproximation accurate about the migration of the groups in the New World; our research found that there is a slope of the founding haplogroups, from north to south, placing haplogroups A and B, with a higher frequency in the north and C and D in southern Colombia. Mitochondrial DNA studies showed that overall, indigenous populations have frequencies relatively homogeneus by haplogroups, except Guahibo population with a high frequency of haplogroup A, assuming genetic drift and / or founder effect possiblyThis research was made in the context of the research project of Human Expedition (HE) and correlated with the most important and recents studies of mtDNA in the world. We feel this would be of interest to your audience because we feel this would be of interest to your audience because shows full genetic structure of native populations of this country and can explain the migrations inside Colombia in the arrival of different groups from other continents.

In addition to expanding the landscape of the evolution of the species and its prehistory, these studies can facilitated the identification of pathological variants within the natural genetic diversity and new techniques and software will allow deepen the relationship and identification of own mutations or new in the population.

The data models, and methodology used in the research are proprietary and comply with the legal requirements of (Bogotá, Colombia). The institutions involved and the authors of this study have not conflict of interest.

We recomend for this study these three internationals Ph.D. scientists in the field as referee:

* Reviewer A: Verónica Gomes. Ph.D Post doc population genetics at, IPATIMUP, Porto, PORTUGAL. v.gomes@ipatimup.pt
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Thank you for your consideration of my work. Please address all correspondece concerning this manuscript to me by e-mail [mariacnoguera@gmail.com](mailto:mariacnoguera@gmail.com), [m.noguera@javeriana.edu.co](mailto:m.noguera@javeriana.edu.co)

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