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Secretary of State Hillary Clinton
US Department of State
2201 C Street NW
Washington, DC 20520

Dear Secretary Clinton:

This letter is in support of M-FISys (Gene Codes, Ann Arbor, MI, USA) as a mass disaster screening, matching and human identification tool.

The use of DNA for large-scale human identification was first applied by my colleagues and me in Bosnia-Herzegovina following the conflicts in the Balkans as the former Yugoslavia disintegrated. As a U.S. forensic scientist who helped build and manage one of the world's largest DNA-based identification efforts I have first-hand knowledge of the complexities of data management of large-scale human losses. This work that began in Bosnia, funded in part by the U.S. Department of State, quickly spread to Croatia, Serbia and Kosovo as mass graves were uncovered and remains began to be identified. The condition of the skeletal remains coupled with the complexity of primary, secondary and tertiary mass graves created an environment where DNA was the only tool that could reliably re-associate remains dispersed in multiple mass graves, with each grave often hundreds of miles apart.

Out of the ashes of the events of September 11, 2001 rose new forensic investigative capabilities and tools to handle large-scale human losses. One of the most important of those was the development of M-FISys, which was used by the New York City Office of the Chief Medical Examiner (NY OCME) to help manage the challenge of identifying nearly 3,000 casualties. M-FISys changed the way scientists and managers handled large-scale disasters, and in doing so opened the door to other societies around the world struggling with their own humanitarian crises, such as Guatemala following their 36-year civil war.

The conflict that ravaged Guatemala left nearly 200,000 people dead, many of which were believed to be discarded in unmarked mass graves. As peace accords were signed and hostilities ceased in 1996, the Fundación de Antropología Forense de Guatemala (FAFG) began the process of exhuming and identifying victims from these mass graves. In support of this process the U.S. Department of State once again stepped in to fund the implementation of DNA. At the forefront of FAFG's DNA process lies M-FISys, a powerful, robust software tool that has enabled the FAFG Forensic DNA Laboratory to do what few other institutions can: re-associate human

remains, family tree analysis, screening, matching, and provide automated control of the DNA identification process.

Implementing state-of-the-art technology in post-conflict Guatemala presented us with several challenges, including, the high number of missing persons per family, highly degraded skeletal remains and extraordinarily complex kinship relationships within the 23 separate indigenous populations. In order to delineate these familial relationships and manage the enormous amount of genetic data obtained, we are employing M-FISys throughout our work in Guatemala. In our first comparison of 67 victims to 451 family references, numerous genetic leads were made with 12 identifications confirmed. One particularly difficult case consisted of 42 individuals from one extended family spread over 5 generations, including: 14 missing persons; 12 living family members who donated biological samples for DNA analysis; 13 individuals who were either deceased or unavailable for sample collection; and 3 individuals who we are still trying to contact. Using the tools in M-FISys, we were able to identify 3 of the 14 missing persons by combining immediate and distant relatives, a difficult and complex task given the limited number of familial references available in this case.

The Human ID effort that FAFG is undertaking in Guatemala is an answer to the demand of justice and closure of the thousands of victims and relatives who suffered from the civil war. Up to now these families have seen their demands halted by the lack of will and technical capabilities on part of the State to provide evidence so that the perpetrators of such crimes are judged and their loved ones returned for proper burial. The use of M-FISys has significantly advanced this cause by allowing better management of crucial information, including integration of anthropological and genetic data, making comparisons between ante-mortem and post-mortem data easier, and combining all information into a streamlined process to support identification of human remains.

Based upon previous work with human identification efforts around the world, and current use of M-FISys, I highly recommend the application of M-FISys software to all human identification efforts, from simple, one-person losses, to closed cases such as plane crashes with highly fragmented human remains, to extremely complex cases of large-scale human losses from conflicts and natural disasters.

If I can be of further assistance in assessing the use and application of M-FISys, please do not hesitate to contact me. My US-based cell phone is 202.270.2128, and my e-mail is johndcrews@hotmail.com

Sincerely,

A handwritten signature in black ink that reads "John Crews". The signature is written in a cursive, slightly slanted style.

John Crews