SHORT REPORT about the purpose and main outcome of the exchange visit Dragana Zgonjanin, PhD, from Serbia to the United Arab Emirates

In accordance with ISFG Fellowship Review Board's decision to award me an ISFG Short-Term Fellowship and reimburse all my trip's expenses from Serbia to the United Arab Emirates in October 2017, I am submitting herewith the short report of the purpose and main outcome of my exchange visit to General Department of Forensic Sciences and Criminology, Dubai Police General Head Quarters, Dubai, United Arab Emirates.

My visit to DNA Laboratory General Department of Forensic Sciences and Criminology, Dubai Police General Head Quarters, Dubai, United Arab Emirates, took place from **30 October to 7 November 2017.**

This visit has allowed me to familiarize myself with the work, well trained experts in the DNA profiling field in order for me to explore their ability in the field of forensic investigation, especially in forensic DNA profiling. I had an extraordinary opportunity to explore a range of different critical cases which have been resolved using newly developed technology. Taking into consideration all stages of case processing, starting from sampling the cases from the delivered material, through the system for automatic isolation (EZ1 Advanced XL, AutoMate Express DNA Extraction System, Hamilton), PCR amplification, quantification DNA and capillary electrophoresis on Applied Biosystem 3500 Genetic Analyzer. DNA experts' dedication, commitment, respect for principles and standards resulted in a newly validated work flow which is helps them maintain high rate of exporting reports within a very short time without any backlog.

Since research and development played an important role in the application of forensic DNA techniques, therefore I think that recently in-house developed multiplex assay, RM-Yplex [1], for male DNA profiling is of paramount importance. Our mutual collaboration and implementation of this kit resulted in publication of two papers [2,3]. During this visit we continued our collaborative work on implementation of RM-Yplex in 5 rape cases with over 60 individual samples using novel multiplex has been developed and optimized for the simultaneous amplification of all 13 RM Y-STR markers [1]. This visit provided us with the opportunity to familiarize ourselves with the recently in-house developed multiplex assay, RM-Yplex, for male DNA profiling. With the immense gratitude I would like to convey my experience in applying newly designed RM-Yplex, by distinguished Major Dr. Rashed Alghafri. The kit was working great and showed great results as expected such promising tool will help you introducing a high discriminating male profiling assay which could be applied with relatively reduced cost. In addition, another important feature regarding the outstanding application of this kit is that RM-Yplex proved to be useful for solving cases with male biological DNA.

Taking into account that our collaboration, General Department of Forensic Sciences and Criminology, Dubai Police General Head Quarters, Rashed Alghafri, PhD, Head of Biology and DNA Section and Institute of Forensic Medicine, Clinical Center of Vojvodina, Dragana Zgonjanin, PhD, Forensic DNA expert started in 2015, we highly believe that this collaboration is relevant and mutual visit of these two laboratories is essential for further training.

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