## 鹿大「進取の精神」支援基金 平成30年度 留学生受入推進事業 研究留学生受入推進プロジェクト 報告書

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2. 受入留学生 (国・大学・学年・氏名)	(1) バングラデシュ・チッタゴン獣医動物科学大学・修士2年 Mohammad Bayazid Bostami
	(2) バングラデシュ・チッタゴン獣医動物科学大学・修士2年 Towhida Kamal
3. 留学生受入期間	2018年10月~2019年3月
4. プログラム研究分野	獣医臨床遺伝学、臨床寄生虫学、獣医細胞診

### 5. 本プログラムの目的と概要と成果(申請者/日本語)

「世界の家猫に潜在する高頻度遺伝子疾患に関する分子疫学調査研究」を通じて、バングラデシュの Chittagong Veterinary and Animal Sciences University (チッタゴン獣医動物科学大学) と鹿児島大学との研究交流を深めるとともに、その他のアジア(特にインドネシア)の獣医系大学との多角的共同研究を通じて、研究・学生交流をグローバルに展開していくことを目的に、同大学院の2名の修士過程学生(Bostami さんおよび Kamal さん)を中心に本事業を実施した。

バングラデシュの家猫集団から得た DNA を用いて、数種の遺伝子疾患(赤血球ピルビン酸キナーゼ欠損症、多発性嚢胞腎、GM1 ガングリオシドーシス、サンドホフ病、など)に関わる分子疫学調査を実施する他、Bostami さんはアレキサンダー病の犬の原因遺伝子変異の検索ならびに Kamal さんは過剰驚愕症の猫の原因遺伝子変異の検索およびバングラデシュのカモの血液由来 DNA を用いた住血寄生原虫の分子疫学調査を実施した。

その結果、バングラデシュ家猫集団の中に、赤血球ピルビン酸キナーゼ欠損症、多発性嚢胞腎およびGM1ガングリオシドーシスのキャリアを見いだすことができた。さらに、過剰驚愕症の猫においては、候補となる変異を同定することに成功した。今後、本研究室のメンバーによって、各実験を完了させて論文作成まで進めて行きたいと考えている。なお、この2名の学生は、本事業期間に同大学に戻って講師採用の面接を受けて採用されることが決まった。今後は、同大の教員(講師)として、本学との共同研究を継続しさらに展開して行く予定である。

# 6. 鹿児島大学での研究活動と成果(Student/English or Japanese)

### (1) Mohammad Bayazid Bostami

During the period of the Shinshu project, I engaged myself in my research work. I have achieved many research activities at the Laboratory of Clinical Pathology, Kagoshima University. I was very happy and delighted to work as a member at this well-decorated laboratory. Infrastructures of this lab and ongoing research performed by doctoral students were really appreciable.

I have worked with both Osamu Yamato sensei and Akira Yabuki sensei to complete my research work. I have conducted my research on two dogs suspected with Alexander disease and hopefully I have got satisfactory result. This finding has provoked my will power to do more research work in my future life. I have also acquired a lot of research techniques and experienced hospital-related activities. Among these activities, I learned some different staining techniques including May-Grunewald's Giemsa, H&E, PAS, Grocott's methanamine silver, Masson's trichrome stains, etc. I also learned immunocytology, cytology, immunohistochemistry, biopsy sample collection method, fine needle aspiration biopsy, paraffin block preparation of tissue samples, microtone machine handling, etc. Hopefully, I would be able to do above-mentioned activities in my own country.

In addition, I also have joined Japanese language class, and I am very happy to join this class every morning during my stay in Japan. Now, I am able to communicate the basic conversation for daily life

in Japanese. It is very useful for daily life and make a friendship with Japanese people. Japanese peoples are really good and surprisingly very much co-operative that I have not seen before. I have learnt from Japanese people how to maintain rules and regulation, cleanliness and how to help other peoples too. I have visited many places in Japan like Ibusuki park, Ikoma-Kogen flower garden, Kaimondake, and I also went to Oita prefecture to play cricket between Kagoshima cricket team and Oita cricket team. I enjoyed a lot in Japan. I won't express my feelings about Japan and Japanese peoples. In a word I would like to say that I love Japan and this was the best spending time in my life till now.

Finally, I would like to express the heartiest gratitude and deep sense of obligation to my respectable and considerate supervisor, Professor Osamu Yamato sensei for selecting me as an international research student, and also giving me the chance to go Bangladesh to attend my job examination during this short period of time. And it's my pleasure to inform that I have got the job as a lecturer in my home university. By getting this job, my dream has become true. I am very grateful to Associate Professor Akira Yabuki sensei because he taught me a lot of things that obviously will be very helpful to build up my career life. Yabuki sensei is a hardworking man, have enough will power, very much friendly, and smiley faced person. I am feeling proud to be a student of his. I am also feeling that I am a very fortunate person that I have got a chance to do work in this modern laboratory. Yamato and Yabuki sensei, both will be remained in my mind as a well-wisher mentor throughout my life. Special thanks to Md Shafiqul Islam, as a tutor for guiding me and providing me valuable advice and information during my research work. Fortunately, if I have a chance I will choose Kagoshima University, especially this clinical pathology laboratory to continue my doctoral degree as a PhD student. Pray for me.

Thank you very much.









### (2) Towhida Kamal

I am MS fellow of parasitology at the department of the pathology and parasitology in the Faculty of Veterinary Medicine, Chittagong Veterinary and Animal Sciences University. Two of our professors of our university successfully had completed their PhD degree under the supervision of Yamato sensei so far, and two of our teachers are on the run under his supervision. I came to know about this lab and Yamato sensei from our professors, and I found myself very much interested to work in this lab. When I was informed by Mohammad Shafiqul Islam (currently, PhD fellow) that Kagoshima University has the program for international research students as well as the scholarship by the Spirit of Enterpraise Foundation at Kagoshima University. I was so intrigued to join this program as a part of my last semester in the master degree.

After joining the clinical pathology laboratory, I had chance to study in genetic diseases by molecular technique and diagnosis of different diseases by cytology and immunocytochemistry under the supervision of Dr. Yamato sensei and Dr. Yabuki sensei, respectively. I also got lots of supports from the doctoral students and post-doctoral researcher during my work in the lab continuously. The research and scientific environtment in this clinical pathology lab is ideal for researchers. The research environment in this lab make me able to understand about the post-doctoral life. I strongly believe that this experience will help me to prepare myself for the next higher studies.

I conducted two types of researches about molecular genetic survey of blood parasites about ducks in Bangladesh, and case study of a cat suspected with Startle disease respectively. I have got satisfactory results about them. I am preparing the manuscripts about those issues to submit to the scientific journals.

Besides my lab work, I also had a chance to visit some amazing places in Kagoshima such as the unique Sakurajima, Kagoshima Aquarium, Kagoshima History Museum, Ibusuki Park, Marine Port, Sukishimoda Waterfall, and Ecoma flower garden in Kobayashi. The natural beauty of Kagoshima really amazed me.

Additionally, I attended a Japanese language class which was available for the research students. I enjoyed a lot and learned many things about language, Japanese culture from the class. I could meet many learners from different countries. It was very interesting and interactive place indeed.

During this six months, I got exposure of a very advance research environment, increased my confidence on diagnosing different diseases by cytology, got one satisfactory result on my research work which can be published in a good scientific journal, has completed my master program, most

importantly got government job (Lecturer, the Department of Pathology and Parasitology, CVASU) in my home university, and learnt how to get accustomed with new environments, new people, new culture. I think comparing with the time, my achievements are countable. For all of my achievements during the six months, I want to Yamato Sensei acknowledge and Kagoshima University authority for choosing me for this scholarship and allowing me to go back to my country two times: once for attending master second semester final examination and again to attend a job interview. I am greatly indebted to all the person who helped me directly or indirectly to make my life easier during my stay in Japan.



To my understanding, this is really a great chance for me to complete my master program perfectly, and I can spread my acquired knowledge to my students for their better understanding. If my fortune favours me, I will try my best to apply for my doctoral degree in this clinical pathology laboratory under Kagoshima University. I will strongly recommend this program to my contemporaries and also my juniors to develop themselves and also to continue the stronger bond between two universities.



Thank you very much.