

Dear Sir,

My name is Manar Farouk Mohamed and I am a winner of EAACI short term clinical fellowship 2018, I would like to express my gratitude for EAACI for accepting my proposal and giving me the chance to have this great fellowship. I spent 3 months (September-November), at the Personalized Medicine ,Asthma and Allergy department at Humanitas University and Research Hospital (Milan ,Italy) , under the supervision of **G. Walter Canonica**, and direct supervision of **Enrico Heffler** and **Francesca Racca**.

First I attended the allergy clinic (internship) approximately 3-4 times per week starting from 9 am till 1 pm , and from 2.30 pm till 6 p.m , with almost 10 patients for each clinic complaining from different allergic diseases but mainly asthma and allergic rhinitis, where we had an open discussions about how to determine the asthma phenotypes, severity of asthma , appropriate investigations needed , how to interpret pulmonary function tests ,appropriate treatment for each patient and types of inhalers, correct way of usage, side effects of the treatments and biological therapy that can be used if uncontrolled asthma.

Very interesting cases to see were 3 cases of mastocytosis (as it was my first time to see such cases), 2 cases were cutaneous and the other one was systemic mastocytosis, with open discussion about mastocytosis and mast cell activation syndromes.

Every Wednesday we had a clinical trial day where patients who had sever uncontrolled asthma are enrolled on clinical trials for different newly emerging biological therapies (mepolizumab, benralizumab , dupilumab , Fevipirant ). I was an observer for the history of patients, how to examine patients, doing spirometry , how to prepare and correct injection of biological therapy, and the interesting part was to observe the same patients for many successive visits with recording the improvement in their quality of life , symptoms and spirometry readings. Also there were regular patients receiving Omalizumab for uncontrolled CSU, with improvement in urticaria score and it was also interesting.

I attended as an observer many times in the pulmonary functions lab where they did spirometry with challenge tests, FENO (we don't have in Egypt and it was my first time to see), DLCO, and plathysmography, with interpretation of each technique.

Then I had the opportunity to attend at the lab to see the new test in Italy ALEX (ALLERGEN EXPLORER), WHICH IS BASED ON THE MOLECULAR ALLERGY , I attended 3 times in the lab starting from 9 am till 3 pm, where I didn't only observe the technique of the test starting from adding the collected blood samples to the microarray chips, processing till the interpretations of the results but also **Desideria Descalzi** who is the biologist in the lab gave me the opportunity to help in processing one ALEX test from the start till the end under her supervision, and it was great in order to also understand the technique of tests that we use in our regular work , also I had an open discussion with prof., **Giovanni Melioli**, who is the director of allergy lab in Humanitas university and it was so interesting and valuable about how to choose allergy tests in correlation to their significance and importance for both the patient and the clinician and encouraged me to start thinking to introduce the molecular allergy tests in Egypt for better diagnosis of allergic diseases.

I had the opportunity to attend twice with dr/ **Luca malvezzi** who is an Otolaryngologist doing nasal endoscope for patients with severe allergic rhinitis suspecting of having nasal polyps where he explained the anatomy and the pathology detected and how to interpret the para nasal CT scan.

DR/ Enrico Heffler also showed me twice how to take a nasal smear, stain the sample with interpretation under the microscope and it was so simple and interesting and he gave me an ATLES as a guide for nasal cytology.

More over prof., Canonia and Enrico Heffler gave the opportunity to attend the Highlights which is a conference held annually for the Italian society of allergy, where I attended different lectures for 3 days about the updates in asthma treatment and biological, nasal polyps phenotypes and treatment, asthma in elderly , angioedema, updates in COPD . It was very valuable for me to be updated , listen and learn from great professors from all around Italy and Europe .

Finally, it was a great time to spent wandering around the new techniques in diagnosing , interpretation and treatment of different allergic disease especially bronchial asthma , correcting wrong practices and concepts that I had before, and having good ideas for future studies in Egypt. I have eager to apply what I learnt in Egypt , teach younger residents , for better improvement of our practice in allergy and better outcomes for the patients.

I really appreciate EAACI for this great chance in the acceptance in this fellowship and encourage all the junior members to share in this great step to be better allergologists.