EAACI Clinical Fellowship Final Report

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Clinical Fellowship Title: "Pediatric Allergology Internship"

Duration: 3 months (September-November 2016)

Host Institution: Centre de l'Asthme et des Allergies, Hôpital Armand-Trousseau – APHP, Paris,

France

Host Supervisor: Pr. Jocelyne Just (Director of the "Centre de l'Asthme et des Allergies")

First of all, I would like to thank EAACI for giving me this extraordinary opportunity of expanding my knowledge as well as gain clinical and scientific experience at the "Centre de l'Asthme et des Allergies", at the Armand-Trousseau Pediatric Hospital, the Pediatric and Perinatal Reference Hospital of East Paris, under the supervision of Professor Jocelyne Just, pediatric pneumo-allergologist and director of the center.

I started my fellowship in September 2016 and I was given full access to all clinical settings and activities developed by the Center during 3 months, accompanying different health professionals who constitute a highly trained multidisciplinary team, namely medical doctors (pediatricians and pneumologists specialized in allergy field), nurses trained in pediatrics and allergy, a psychologist, a nutritionist, a social assistant as well as residents and medical students.

In the first day my schedule was discussed to adjust the best way the objectives initially proposed, in a five-day week distribution according to the activities available.

As a 4th year Allergy and Clinical Immunology resident my expectations of a specialized pediatric allergy unit, that could help to develop my growing capacities, were fully fulfilled.

I will now try to give a more detailed description of my clinical fellowship.

The Center main specializations are respiratory and food allergies and it devises its clinical activities in five different sectors: outpatient consultancy, CPP, day hospital, bronchial endoscopy unit and therapeutical education.

Every morning I attended outpatient consultancy or CPP. The outpatient consultancy concerned mainly follow-up patients but also new ones referred from other clinicians, hospitals or clinics, ranging from first weeks of age to adolescents. It has general allergology consultations as well as severe asthma and food allergy specific ones. I was able to observe 172 pediatric patients with diverse pathologies like asthma, rhinitis, conjunctivitis, atopic dermatitis, urticaria, food allergies, FPIES and more rarely drug and venom hymenopter hypersensitivity. I realized that the majority of patients benefiting from SLIT where actually

under it, contrary to my country where unfortunately only a small portion is receiving IT due to the inexistence of any financial support, which makes difficult for families to initiate or maintain this allergy keystone therapy. I would like to express a very special thanks to Dr. Bénédicte Michaud and Dr. Ariane Nemni who were always interested in sharing with me all their knowledge and experience with most enthusiasm and kindness.

CPP functions only during the morning and consists of a small day hospital that runs in the nurse operating room, where a team composed by a doctor and nurse can perform some selected investigation procedures related to respiratory, food or drug allergy, namely prick and prick-to-prick tests as well as blood collection to molecular allergy diagnosis; nevertheless the main purpose is to receive patients submitted to food oral immunotherapy protocols who came mostly for supervised up-dosing and check-up. I was able to participate in this oral immunotherapy investigation procedure in 47 patients with milk, egg and peanut allergy, an opportunity I considered exceptional as it is not yet considered a standardized method nor performed regularly in clinical context.

The day hospital works all day, with patients being received early in the morning by nurses and residents who perform the clinical history and physical examination before starting the procedures they came for, namely food challenges and severe asthma evaluation including respiratory functional exploration, CT scan, pulmonary scintigraphy and bronchoscopy when indicated, as well as SCIT or OIT initiation and biologics administration. Every afternoon I was able to take part in the discussion of a total of 181 patients before their discharge, ranging from linear allergy cases to severe respiratory diseases, complex multiple food allergies, severe atopic dermatitis and vernal conjunctivitis among others. Every case was discussed by all medical team present that day, including a senior doctor and residents, as well as a psychologist, nutritionist or social assistant when justified. I found very interesting to know that in Paris, city hall services could perform home evaluation in search of allergens like mites, mold or cockroach after solicitation by the hospital. In specific situations parents and/or child were also called to clarify some questions or take part of the follow-up and treatment decisions. Besides this, all parents and older children attending the day hospital are offered one therapeutical education session in that afternoon, where they can also share with the doctor available and other parents/patients their doubts, fears, experiences or difficulties including any questions. I would like to express my great thanks to all who enriched me with those highly interesting and important discussions, especially Pr. Jocelyne Just, Dr. Nathalie Lambert and Dr. Mélisande Bourgoin-Heck.

Twice a week bronchoscopies were performed in special selected cases like severe asthma phenotyping in order to provide the best treatment, or to clarify other differential diagnosis. I had the chance to visualize those precise procedures in 22 patients, including bronchial biopsies and aspirates, an opportunity I recognize as unique, considering it is not a frequent procedure in my country for various reasons, especially in children. I would like to state a special thanks to Dr. Nathalie Lambert, who I had the chance to accompany during the 3 months, and among others situations, introduced me to this delicate world in which both children as parents need reassurance, which she was able to give starting with simple strategies and evolving to more complex techniques when needed such as hypnosis, which was an inaugural experience to me.

Therapeutical education, a national public health initiative of great importance to this Center, is separated in two programs, "Food Allergy School" and "Breath School" that occur every month consisting in small groups meetings destined to children and/or parents, distributed in different sections according to age specificities. It's a measure of sensibilization, information and learning proposed to a better comprehension of the disease, ameliorating daily life and reinforcing the autonomy of both parents and children. Some of the themes discussed are how to act in the quotidian and how to deal and solve problems facing unusual circumstances. Selected patients, particularly children with severe or multiple food allergy and moderate-to-severe asthma are proposed to participate, as well as everyone who manifests interest. In those personalized sessions, a specialized team composed by a pediatric nurse, doctor, nutritionist, psychologist, social assistant, respiratory physiotherapist, teacher and vocal professional among others offer their know-how and experience. Those professionals dedicate their time, often volunteering, to the creation of interactive and appealing educational activities like games, respiratory exercises with straws and soap bubbles, storytelling and theater simulations always adapted to age range. This is proven to reduce hospitalizations, emergency services assistance and school or work absenteeism.

They also organize every year a special day titled "Breath Adolescents Day" dedicated to adolescents with asthma. I had the chance to enthusiastically participate in this singular and unique experience where various activities are proposed by the "Breath School" team, inviting also diverse professionals and public figures teenagers can meet, interact, and practice with, like musicians, singers and even an apnea medalist from National French Apnea Team. At the end of the day, teenagers came home with the feeling that, despite their chronic disease, they can have a "normal" life like their peers, and even explore and surpass their physical and mental limits in such impressive ways without health restrictions. This sensibilizes them also to the importance of being responsible in order to achieve the best control of their disease, and in that way, of their future.

The meticulous organization allied to all the possibilities offered by this extremely complete therapeutic education program was really an incredible eye-opening experience to me. This allowed me to return to my department in Portugal fully enriched and with the conviction that a lot can and has to be done in this domain and that the first steps could be done by me. I would like to express my sincere gratitude to pediatric nurse Nadine Laufer who accepted always with great amability and pleasure my participation in all activities and gave me the remarkable felling that every singular contribution can be important.

Concerning scientific activities, this center is integrated in Allergology and Clinical Immunology University education, and in numerous projects in collaboration with INSERM (National Institute of Health and Medical Research), related to the impact of the environment in the development of allergic diseases. Besides the fact that this provided me a constant scientific and investigational ambience, I was also offered the possibility to actively participate in various reunions and meetings, inside and outside the Hospital perimeter. I've already referred the "Breath Adolescents Day" above, and also regarding the Therapeutical Education purpose, I was offered the possibility to attend the "6th Journey of Therapeutical Education – JETSSAP", organized by APHP "Assistance Publique - Hôpitaux de Paris" directed to all professionals who take part of those different nationally integrated programs. I considered it

very interesting, because it was not only about pediatric patients, but also to everyone affected with chronic diseases along with elderly, who also have considerably particularities often underestimated or ignored.

Additionally, I was invited to attend a meeting conducted in Paris, titled "Objective 2017: the control of pediatric asthma" where themes like difficult and severe asthma, the importance of phenotyping to the therapeutic strategy, chronic cough and specific asthma diagnostic tools were presented and discussed by several specialists in the field.

Integrated in the regular department activity, every Friday morning, all medical staff as well as the head-nurse, nutritionist, psychologist and social assistant were assembled to expose and debate the most complexes, difficult and interesting clinical cases they follow at the Center for joint decision, in addition to scientific presentations concerning for instance the development of new biologics. I was involved in the discussion of 51 patients, and presented the case of a 6-year old boy with non-allergic severe asthma, atopic dermatitis, chronic urticaria and multiple food allergies.

In the last fellowship day I attended the "Journey of the Allergology Department" dedicated to the new residents, where several professionals from the "Centre de L'Asthme et des Allergies" presented different themes concerning allergy as well as ongoing and future scientific, clinical and therapeutic educational projects they could participate in.

The idea of going abroad to make contact with different methods of work, thinking, as well as diverse cultural environments, always seduce me. EAACI Fellowship along with the "Centre de l'Asthme et des Allergies" of the Hôpital Trousseau at Paris, provided me a lifetime enriching experience both at professional and personal levels that I will never forget. I will always see its ending with nostalgia, and I strongly recommend the participation in the EAACI Fellowship or similar projects to everyone. It's an unparallel opportunity of personal development, professional and technical qualities improvement as well as intercultural growth.

Again I would like to express my deepest acknowledgments to EAACI and especially to Pr. Jocelyne Just who accepted me with real enthusiasm since the first mail we exchange. I will always see her has a role model of passion, excellence and empathy, being truly interested in what I could bring new with my own foreign juvenile experience. I'm also grateful to everyone who crossed with me in Paris and contributed to the construction of this amazing experience. That way, I thank all the residents for the warm welcome, and I could never forget Clémence Beri, the Center psychologist for all the care, sympathy and assistance which contributed to fulfill a total feeling of integration both at the hospital and in this incredible multicultural capital it is Paris.

Furthermore I need to thank all the support from my home institution colleagues, particularly my supervisor Dr. Daniela Malheiro who was the great supporter of this adventure, as well as my department director Dr. José Pedro Moreira da Silva who made possible to carry on this project. They were all interested in the new knowledge, perspectives and working experiences I could bring and that could reinforce our own department with its

implementation after my return. The possibility to establish close professional relations between both services and countries will also be of great clinical and scientific benefit.

Finally, a renewed appreciation to all the professionals I acknowledged above, as I will always carry with me each of their distinct contribution to my own personal growth as well as my professional development.