

ANNUAL REPORT FOR YEAR 2017 ON THE WORK OF “BREATHING LIFE LUNG CENTER FOR CHILDREN” IN NICOSIA-CYPRUS

Breathing Life Lung Center continued in 2017 offering tertiary diagnostic services and therapeutic care to children from all over Cyprus with a wide variety of complex lung conditions. These services were primarily provided through the existing facilities of the Center at Makarios Hospital in Nicosia under the supervision of Dr Khalid Wahbi and other allied scientists. The number of incidents served this year has been approximately 3,000.

In September 2017, an agreement was signed between the University of Cyprus and the Ministry of Health of Cyprus which initiated the official collaboration of Academic Physicians employed by the University with Makarios Hospital in Nicosia. This development enabled the clinical placement and training of UCY Medical School students at the Hospital as well as the offer of clinical services and consultations to patients. In this framework as of 18th of September 2017, Professor Yiallourous, Head of the Breathing Life Center between years 2009-2015, resumed the offer of his services to inpatients and outpatients at Makarios Hospital, primarily to sick children with complex respiratory illnesses. During the last three months of 2017 approximately 400 paediatric complex respiratory cases were managed at the Breathing Life Lung Center at Makarios Hospital by Prof Yiallourous and several specialized procedures were performed including flexible bronchoscopies, nasal epithelium biopsies for cilia studies, and 24 hr pH-impedance studies.

In parallel at the premises of the Medical School at Shakoleio Training Center of Clinical Medicine (SEKKI) (<https://www.ucy.ac.cy/medical/en/>) in Nicosia the established Advanced Breathing Lung Function Laboratory for Children continued to offer diagnostic services to patients with the most complex respiratory cases. Several patients have benefited from diagnostic lung function assessment, exhaled nitric oxide measurements and nitrogen washout for the assessment of lung clearance index with the new state-of-the-art nitrogen washout technique (Exhalyzer D, Ecomedics).

In terms of research activity, 2017 has been extremely successful. Under the umbrella of the Medical School and with the support of the Breathing Life Lung Center at Makarios Hospital and the Advanced Breathing Lung Function Laboratory at SEKKI, we have been pursuing research projects in the thematic areas of Childhood Asthma and Allergies, Primary Ciliary Dyskinesia, Cystic Fibrosis and Environmental Health.

Of particular importance was the fact that in 2017, as Project Coordinator we have managed to acquire a large four year LIFE+ European grant (€ 1,939,000) for performing two clinical trials on the effects of desert dust

storms in children with asthma and adults with heart arrhythmias under the title “Mitigating the Health Effects of Desert Dust Storms Using Exposure-Reduction Approaches - MEDEA (LIFE16 CCA/CY/000041).

The other research studies that are currently performed with the contribution of the Breathing Life Lung Center for Children are:

- Lobectomy for Primary Ciliary Dyskinesia patients: a cohort and nested case-control approach (COST- BEAT-PCD)
- Clinical Spectrum of Primary Ciliary Dyskinesia patients with RSPH9 gene mutations: a case series
- Validation of the adult version of the Primary Ciliary Dyskinesia specific HR-QoL questionnaire in Greek language.
- Elicitation of health preferences in Primary Ciliary Dyskinesia patients.
- Prospective observational multi-center study on variability of lung function in stable PCD patients (COST-BEAT-PCD)
- Molecular epidemiology of respiratory pathogens (pseudomonas species) in Cypriot CF and PCD patients