



NAME OF LABORATORY: The Laboratory of Pulmonary

PI: Prof. Lizi Fireman PhD

Director of Department: Dr. Yehuda Schwarz MD

Research Objectives:

- To measure small particles (micro range) and very small particles in the airways as a biomarker to detect early damage of air pollution and exposure to hazardous dust.
- The main methods are based on measuring by high definition the particles with laser devices
- In the biological samples many other mediators can be measured
- From the cell fraction RNA and DNA for many research projects

Main Research topics:

- The use of non-invasive approach to biomonitoring occupational and environmental diseases
- The use of levels of particles in biological samples as a biomarker to early detect damage in the lungs in environmental and occupational exposures.
- Detection of metals in the etiology of idiopathic granulomatous diseases
- Research of artificial stone induced silicosis

Staff: Prof. Lizi Fireman, Dr. Galit Elihau, Jazmin Bloch, Noa Ophir, Hava Frost, Shirin Manzur, Hilda Gulzar

Collaborations:

- Prof. Mordechai Kremer –Head Pulmonary Department Rabin Medical Center
- Prof. Korenstein Tel Aviv University
- Cdx Company - computerization of morphology assessment of cells in the airway
- Pml Company - a mobile laser instrument to rapid measure nano sized particles

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