

Visit of Professor Shereen Mahmoud Kamel Abd El Aziz to the University of Palermo

Thanks to the COMMO VII Erasmus+ KA171XYZ mobility project, the Bi.N.D. Department had the pleasure of hosting Professor Shereen Mahmoud Kamel Abd El Aziz, an esteemed expert in Clinical Pathology from the Faculty of Medicine at Cairo University. During her visit, Professor Abd El Aziz delivered a series of seminars for the Postgraduate School of Clinical Pathology, focusing on advanced diagnostic techniques such as fluorescence microscopy and electrophoresis in the context of autoimmune diseases.



Professor Shereen Mahmoud Kamel Abd El Aziz with a seminar audience and during the speech.

Her visit was marked by a spirit of collaboration and scientific exchange. Professor Abd El Aziz demonstrated great professionalism and warmth, quickly establishing a positive rapport with faculty and students alike. Her presence contributed meaningfully to the academic environment and laid the groundwork for future collaborative initiatives.

At the Institute of Pathology, hosted by Professor Balistreri, Professor Abd El Aziz toured the Balistreri's laboratory and engaged in discussions on diagnostic biomarkers for autoimmune diseases. The conversation extended to endothelial dysfunction and related pathologies, with a focus on molecular pathways involved in maintaining vascular homeostasis. Techniques such as RFLP genotyping, SYBR Green and TaqMan-based gene expression analysis, RNAscope in situ hybridization, and ELISA were discussed in detail.



Professor Shereen Mahmoud Kamel Abd El Aziz, together with Prof. Candore, Prof. Balistreri and other young researchers at the Pathology Institute.

Professor Abd El Aziz also visited the Laboratory of Immunopathology and Immunosenescence, led by Professor Candore. During the visit, the doctors from Candore's team provided a guided tour of the various research facilities within the complex and engaged in in-depth discussions with several faculty members and researchers. Professor Abd El Aziz was introduced to ongoing studies focusing on aging, longevity, and centenarians, with special emphasis on immunosenescence, inflammaging, and age-related diseases. Additionally, Professor Kamel Abd was briefed on the laboratory's primary projects, highlighting two key areas of mutual interest: the investigation of phytochemicals as potential nutraceutical agents and research on autoimmunity, a field in which both Professor Kamel Abd and Professor Candore possess extensive expertise.

In the Biology section of Bi.N.D., Professor Corrado and her team presented their work on extracellular vesicles (EVs) in cancer biology. Topics included the role of colon cancer-derived EVs in liver metastasis, the anti-inflammatory and antioxidant properties of lemon-derived nanovesicles, and the effects of natural compounds such as xanthohumol and nobiletin on endothelial activation. The group also discussed the combined use of escin, bromelain, *ginkgo biloba*, and *Salvia miltiorrhiza* (EBGS) in modulating platelet adhesion during coagulation.



Professor Shereen Mahmoud Kamel Abd El Aziz, together with Prof. Corrado, and a young researcher at Biology Institute, one of the Bi.N.D. structures.

At the CLADIBIOR laboratory of the Paolo Giaccone University Hospital, Professor Caccamo's team shared their research on immune responses to *Mycobacterium tuberculosis* and colorectal cancer. Discussions centered on the application of high-definition confocal microscopy to study cell interactions within the tumor microenvironment and tuberculous granulomas. The team also presented their work on innate lymphoid cells in colon carcinoma and lymphocyte profiling during tuberculosis infection, with implications for novel diagnostic and therapeutic strategies.

Professor Meraviglia and her group at CLADIBIOR further enriched the exchange by presenting their studies on $\gamma\delta$ T cells in malignancies such as glioblastoma multiforme, hepatocellular carcinoma, and colorectal cancer. They also explored the role of the immune microenvironment in the progression from monoclonal gammopathy of undetermined

significance (MGUS) to multiple myeloma (MM), receiving valuable feedback from Professor Abd El Aziz.



Professor Shereen Mahmoud Kamel Abd El Aziz, together with Prof Caccamo, young researchers, Prof. Dieli, director of CLADiBioR Laboratory at AOUP Paolo Giaccone, Prof. Meraviglia, and Prof. Scazzone.

Her visit concluded with tours of the cellular and molecular biology laboratories at ISMETT and the Clinical Pathology Unit at the Civico Hospital, further strengthening institutional ties and fostering opportunities for future collaboration.



Professor Shereen Mahmoud Kamel Abd El Aziz, during her visit to Civico Hospital (left), together with Prof. Caccamo and Dr. La Manna, and Dott. Aronica, director of Clinical Pathology Unit at the Civico Hospital and Dr. Gervasi, and at ISMETT (right), together with Dott. Amico and Prof. Caccamo.

The University of Palermo expresses its sincere gratitude to Professor Shereen Mahmoud Kamel Abd El Aziz for her enriching contributions and looks forward to continuing academic cooperation.