



## **EDITORIAL NOTE**

### **Science and education on the 75<sup>th</sup> anniversary of Escola Paulista de Medicina, Universidade Federal de São Paulo**

**HELENA B. NADER**

**Full Professor, Biomedical Sciences**

**Molecular Biology Division, Biochemical Department**

**Escola Paulista de Medicina, Universidade Federal de São Paulo**

Education, like everything else in the 1930's in the State of São Paulo was dominated by a deep feeling of loss, once the State had been overpowered in defense of the Constitution by a revolution that erupted at that time in Brazil. With that situation as a background, in June of 1933 there started the history of a vanguard private medical school named Escola Paulista de Medicina (EPM), founded by idealists – 31 physicians and 2 engineers – to fulfill the needs of the State and Country for medical education.

As it is said, a long journey starts by one step. And so it happened. In 1936, this School created the Hospital São Paulo, the first teaching hospital in the Country and in 1939 a School of Nursing (Escola Paulista de Enfermagem). Research began in 1948 at the laboratory of Pharmacology and Biochemistry. In January 1956, EPM became a Federal Institution. In the mid 60's this innovative medical school led a forefront undergraduate program in biomedical sciences to strengthen research in those areas that culminated with the establishment of a graduate program in 1970. In the subsequent decades, the School acted not only as a leader in clinical practice, but also in education and research, promoting 5 undergraduate programs and 31 graduate programs. In December 1994, the federal medical school was transformed in a University dedicated to health sciences, named Universidade Federal de São Paulo (UNIFESP). In the past 4 years the University got expanded to new frontiers both of knowledge and campi, being now responsible for 28 undergraduate courses and 40 graduate programs.

The history of the success of EPM can be explained by the strong scientific and geographic interaction of the basic and professional Departments, highly qualified faculty, diversified research groups and strong involvement of undergraduate students in research programs.

The present issue of Anais da Academia Brasileira de Ciências is dedicated to celebrate 75 years of EPM contributions to health sciences research. Different aspects of medical and biomedical sciences are reviewed by researchers that play a leading role in their fields of specialty. Thus, this issue contains reviews in various aspects of cell signaling, such as the role of calcium ions in neurodegeneration and aging, effects of growth factors in cell differentiation, function of G-protein-coupled receptors, proteoglycans as receptor or co-receptor for different ligands and the activation of downstream pathways.

The importance of human neutrophil alloantigen systems, precursors of a novel mononuclear phagocyte with immuno-regulatory properties, effect of dietary fat in the function of white adipose tissue, the concept of functionalomics in pharmacological studies, kinin and portal hypertension, medulla oblongata and arterial blood pressure, biological roles of glycosphingolipids of some pathogenic and opportunistic fungi and trypanosomatids are also reviewed.

This issue also shows that translational medicine can be depicted in antifungal and antitumor models of bioactive protective peptides, on biological activities of tellurium compounds, the use of FRET peptides and plant proteinase inhibitors of proteolytic enzymes of clinical importance, regenerative medicine and the understanding the neuro-immune-endocrine physiology of the skin.

Finally, some topics of medical relevance as data on surveillance programs for emergent pathogens and antimicrobial resistance, paradoxical sleep deprivation, visual impairment and blindness, prenatal assistance to pregnant women with infectious diseases and prevention of communication disorders are discussed.

These reviews cover only a small part of the large and significant contribution of EPM/UNIFESP for the advancement of science in its 75 years of existence fostering excellence in education, research and medical assistance.