

## Immunomodulators team

Immunomodulators team was formed in 1984 under the leadership of Dr. Grigore Ghyka and was constant concern to obtain and study cytokines (interferon, interleukin-2) and attempts to use them to treat viral or malignant skin diseases. Laboratory preparation of interferon-alpha (Ginterferon) was continued successfully in the treatment of herpes keratitis, vaginal papillomavirus, skin epithelioma in collaboration with specialized clinical units.

The research topics approached by the Immunomodulators team until 1992 had as subjects:

- Using native preparations of human interferon and human interleukin-2 (concentrate conditioned medium) in viral or tumor diseases
- Study of immunomodulatory activity of interferon alpha on cultured lymphocytes
- The study of stimulatory effects of the native human IL-2
- Methodologies for activity evaluation of interferon alpha preparations and native human IL-2

Since 1992, after the premature disappearance of Dr. Grigore Ghyka, the team is taken by Dr. Cornel Ursaciuc, continuing his predecessor research studies to evaluate the therapeutic effects of interferon and interleukin-2 in epithelioma. The team will broaden the study of antitumoral immunomodulators by assessing the hypericin effects, an inhibitor of protein kinases with antiproliferative effects, this research is also the subject of a contract with the University of Leuven, Belgium during the years 1994-1996 (Biomed 1 Program of the CEE: *Protein Phosphatases and malignant Transformation*).

After the year 2000, the team has studied interleukin-4, his immunomodulatory and anti-inflammatory effects and the interrelationship with interleukin-2. In the last years, the team was engaged in evaluation studies of the immune response in inflammatory and autoimmune syndromes, current research topics involving assessing the role of regulatory T-lymphocytes and NK cells in malignant tumors and systemic and organ autoimmune diseases. The researches in recent years are sustained together with Immunodiagnostic team by direct leadership of Dr. Cornel Ursaciuc, or by creating partnerships or contracts with other research units in the country or abroad.

At present the main directions of research are pursued in common with immunodiagnostic team and involves:

- The investigation of immunomodulatory factors of tumor development: NK-CD56<sup>bright</sup> and NK-CD56<sup>dim/neg</sup> subpopulations and tetraspanin family of glycoproteins (TS)
- bioinformatics system based on artificial intelligence to monitor immune system in correlation with metabolic processes of the human body
- The study of innovative therapies in infantile hemangiomas.

**The current structure of Immunomodulators team:**

1. Dr. Cornel Ursaciuc - MD, CSII, PhD, team leader
2. Bioch. Adriana Narcisa Munteanu – specialist biochemist, CS
3. Bioch. Ioana Ruxandra Pîrvu – biochemist, ACSS
4. As. Silvia Sorca - AMP



Dr.  
Cornel Ursaciuc



Bioch. sp.  
Adriana Munteanu



Bioch.  
Ioana Pîrvu



As.  
Silvia Sorca

**Alumni:**

Călugăru Anca - biologist  
Ciotaru Luminița - biologist  
Cotroceanu Cristina - biochemist  
Ionescu Ioana - MD  
Kosma Ecaterina - biologist  
Moise Mihaela - MD  
Moldovan Ioana - MD  
Niculescu Ștefana - MD  
Popescu Iulia - chemist  
Radu Eugen - MD  
Savi Ileana - biologist  
Stănescu Theodor - biologist