



# 1st INTERNATIONAL CANCER SCIENCE CONGRESS 2023

**“Personalized cancer care: from omics technologies to complementary medicine”**

## ABSTRACT

Include: Authors (underline the presenter), Affiliations, Abstract (200 words), and short biography (200 words) in word doc file (no pdf); font Times Roman 12 (see instructions and template attached below).

Please, upload your Abstract and send a copy to:

- [beatrice.garavaglia@uniupo.it](mailto:beatrice.garavaglia@uniupo.it)
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**Deadline: 28 August 2023**

## TEMPLATE/EXAMPLE OF ABSTRACT AND CV OF THE PRESENTER

(Overwrite on the template below and save the file as **Name-Surname-Abstract ICSC2023**)

### **The role of Autophagy in inflammatory cytokines-induced Epithelial to Mesenchymal Transition in Cancer**

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(200 words, times new roman 12, space 1)

The peculiar hallmark distinguishing malignant from benign tumors is the capability of the former to invade the extracellular matrix and metastasize to near and distant organ. This process implies an epigenetic change in the expression of genes that leads to a reversible phenotypic change of the cancer cells from epithelial-like to mesenchymal-type known as Epithelial-to-Mesenchymal Transition (EMT). The tumor microenvironment plays a pivotal role in this process, the major players being the pro-inflammatory cytokines IL-6 and IL-8 released by Cancer Associated Fibroblasts (CAFs), immune cells (M2 macrophages) and cancer cells themselves.

Autophagy, a lysosome-driven catabolic process for degradation of self-constituents, participates in the stress response for maintaining cell homeostasis. It has been shown that autophagy is down-regulated during cell locomotion, while it is induced when cells arrest their migration.

We found that pro-inflammatory cytokines promote cancer cell migration following down-regulation of autophagy in the migratory cells. We have also investigated at molecular level the mechanisms through which the cytokines modulate autophagy.

Our data highlight the role of autophagy in cancer cell EMT and migration, offering opportunities for therapeutical interventions to prevent invasion and metastasization.

### **Biography (200 words)**

Ciro Isidoro is full Professor of Pathology at the School of Medicine of Università del Piemonte Orientale (Novara, Italy). He received his doctoral degree in Biological Sciences from the University of Torino (Italy) and his doctoral degree in Medicine and Surgery from the University of Piemonte Orientale (Novara, Italy). He is Visiting Professor at the Faculty of Medicine, Siriraj Hospital, of Mahidol University (Bangkok, Thailand), Visiting Professor at the Department of Cell Biology of the Oklahoma City University Health Sciences Center (US), and Professeur Honoraire at the Faculté de Medecine et de Pharmacie de l'Université de Franche-Comté, Besancon (France). He is member of the Scientific board of the « Integrative Cancer Research Center of the Georgia Institute of Technology » (Atlanta, US).  
Ciro Isidoro has co-authored > 190 peer-reviewed original articles published in international journals. He serves as Editor in Chief of the Journal of Traditional and Complementary Medicine and Associate Editor of Autophagy, Molecular Carcinogenesis, BMC Cancer, and other journals. His fields of expertise include the subjects “autophagy regulation in cancer” and “mechanisms of anticancer activity of dietary products”.

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### **APPLICATION FOR AWARD (indicate with X)**

- ***“Best Oral/Short Communication” Award***
- **CIB FELLOWSHIPS (indicate the University affiliation of the CIB UO)**
- ***“Distinguished Young Cancer Investigator” Award***