11th International Workshop

IMMUNOTHERAPY 2014:

CHRONIC INFLAMMATION IN CANCER AND AUTOIMMUNITY: REVISITING THE LINKS

www.immunotherapy2014.cim.co.cu/IT-2014

Organized by:

National Institute of Oncology and Radiobiology

CIM Centro de Inmunología Molecular

Latin-American Association of Immunology

Cuban Society of Immunology

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11th International Workshop IMMUNOTHERAPY 2014:
Chronic inflammation in cancer and autoimmunity: revisiting the links

**What is the eleventh immunotherapy workshop about?**

Immunotherapy 2014 opens the second decade in a series of biannual international workshops in Havana, Cuba, organized by the Center of Molecular Immunology (CIM), the Latin-American Association of Immunology (ALAI), the Cuban Society of Immunology and the National Institute of Oncology and Radiobiology. This particular edition is coincident with the 20th anniversary of the host institution, the Center of Molecular Immunology. The main goal of these meetings has been to promote intensive discussions on how to build a bridge between basic science and clinical immunotherapy. Presentations and discussions have covered different topics on immune system regulation, tumor immunology and inflammatory disorders, seen not as isolated phenomena, but integrating them into a systemic vision. Experimental and clinical cancer immunotherapy updates have also been key topic of these workshops.

**What distinguishes IT-meetings from others in the same field?**

All oral presentations at IT-workshops are by invitation only and therefore of very high quality. A main distinctive feature of our conference is that we always leave ample time for animated discussion. This characteristic has, in fact, become the main attractor for frequent attendees. In our tradition, participants are encouraged to send their ideas about the scientific discussion topics, and thus can actively influence on the final structure of the workshop. IT-2014 will therefore allow for an intensive exchange of ideas. There will be specialized workshops with oral presentations, followed by a discussion time. These discussions will also be strongly “future-oriented”, i.e. they will be focused on future research that should and can be done.

Prior to the workshop, we will encourage all the participants to contribute with specific questions for these sessions (through our web site) and to actively take part in the discussions.
What will be the particular focus of IT-2014?

IMMUNOTHERAPY MEETINGS in Havana started in the mid-nineties precisely under the idea to explore the links between cancer immunotherapy and autoimmune diseases. At that time it was widely recognized that clonal deletion or anergy were not enough to explain tolerance to self, and that competent lymphocyte clones with receptors recognizing self-epitopes were common. Zinkernagel's experiments demonstrating the requirement of an inflammatory context for antigen presentation appeared in 1991, Matzinger’s review on the “Danger Theory” was published in 1994, and Sakaguchi’s experiments describing Regulatory T Cells, in 1995. They were all highly relevant for cancer immunotherapy although the critical experiments came from the study of autoimmune diseases. Our IMMUNOTHERAPY MEETING in 1996 captured this possibility of cross fertilization between two separated fields of research, gathering top scientists active in cancer research together with those active in autoimmunity research.

The following two decades attempted to translate these and other concepts to the clinics. We have hence witnessed the application of several monoclonal antibodies in the oncology practice. Immunotherapy began to be recognized as a valid therapeutic option, with IL-2, interferon and allogeneic bone marrow transplantation being the first wave of clinically impactful treatment approaches.

Subsequently, active vaccination targeting human cancers in the preventative (e.g. the HPV vaccine Gardasil™ for cervical cancer) and therapeutic settings (e.g. Provenge™ for prostate cancer) have been approved by the US FDA. More recently, an appreciation of immunosuppressive, check-points and counter-regulatory circuits has led to novel approaches to overcome these blockades, best exemplified by the clinical success of the anti-CTLA4 antibody. However, the overall clinical impact on solid tumors is still limited and several large clinical trials with therapeutic cancer vaccines have not shown clinical responses. The basic scientific foundations on which many of these therapies were built are now being challenged. 21st century data on the complexity of regulatory loops controlling the immune response, on their local character, on the dual roles of several mediators in immunity/inflammation versus tolerance, on the plasticity of immune cell phenotypes, on the senescence of the immune system, and on the molecular heterogeneity of tumors can account for the total or partial failure of many of these approaches which was in fact seen in the clinical trials.

Almost 20 years later, we believe it is time now to revisit the overlapping themes between cancer and autoimmunity. We call upon scientists around the globe to analyze the chronic “local” inflammation associated with solid tumors and different autoimmune disorders, in
the context of the current landscape of fundamental immunology; to discuss their
similarities and differences; to present cross-fertilizing ideas for novel immunotherapeutic
approaches. These are the bold and ambitious goals for the meeting we are announcing
here, to take place in Havana, in November 2014.

MAIN TOPICS FOR PRESENTATIONS AND DISCUSSIONS
IT-2014 will address the following questions:

**Immune regulatory circuits**

1. How is the balance between tolerance and (auto)immunity regulated in different
   pathologic microenvironments?
2. Are the inflammatory pathways in cancer and autoimmunity close relatives?
3. Why does programmed contraction of the adaptive immune response operate in
cancer and fail in chronic autoimmune disease?
4. What is the hierarchy of the control loops of the immune system?

**Natural and Acquired resistance to immune therapy.**

5. How does disease heterogeneity in cancer and autoimmunity influence the outcome
   of spontaneous and induced immune responses?
6. Could we transform the local chronic inflammation, which enables tumor
   progression, into an autoimmune/anti-tumor response?
7. What can we learn, from autoimmunity and atherosclerosis, about the dynamics of
   the vascular-stromal network in tumor progression?
8. How do immunogenic cell death and antigen spreading influence clinical outcome
   and resistance to therapy?

**Therapeutic approaches to achieve long-term control.**

9. Are personalized and/or combined immunotherapies leading us to the long-term
   control of cancer and autoimmune diseases?
10. What is the role of “non-personalized” cancer vaccines and immunotherapeutic
    strategies in the control of cancer at a population/public health level?
11. Which is the role of immune-senescence in cancer and autoimmunity? Is this
    process reversible?
12. Shall we target cell metabolism to treat cancer and autoimmune diseases?
13. How, when and where should the immune responses be evaluated to successfully
    monitor clinical outcomes of therapies?
14. What are the statistical challenges of evaluating long-term control in cancer and autoimmunity?

**High throughput technologies and molecular engineering in the search of predictive biomarkers and novel therapeutics**

15. Will high throughput analysis help to define single biomarkers or to establish the role of complex networks in pathological processes?

16. Where are we going with targeted immunotherapies: improved biologics or drugs against novel targets?

17. Will protein engineering significantly impact therapeutics beyond the use of humanized antibodies?

**Call for presentations**

If you are willing to attend the meeting, we would highly appreciate receiving a confirmation by **March 30th, 2014**. Submission of abstracts for oral presentations by email or on-line ([www.immunotherapy2014.cim.co.cu/IT-2014](http://www.immunotherapy2014.cim.co.cu/IT-2014)) should be done before **August 31st, 2014**.

**Registration, Travel and Accommodation**

The registration fee for scientists interested in attending the workshop is **250 Euros** (early registration: before September 15th, 2014) or **300 Euros** (late registration: after September 15th, 2014). Registration fee includes attendance to all sessions, final program, abstract book, coffee breaks, lunches, and welcome and farewell receptions. Travel and accommodation expenses are covered by the participants.

**Note:** Instructions for payment, registration and accommodation will be given shortly

**Passports and Visas**

Participants are advised to check on their individual requirements before attending IT-2014 meeting. Visa applications should be filled at the nearest Cuban Embassy in the country in which you are resident.

**Note:** Special procedures apply for US citizens. Upon contact with IT-2014 organizing committee you will directly receive all the instructions regarding travel to Cuba.
Letters of Invitation
Letters of invitation to attend IT-2014 meeting will be issued upon request by the participants.

Liability and Insurance
The IT-2014 Organizing Committee will not assume any responsibility whatsoever for damage or injury to persons or property during the meeting period. Participants are advised to arrange their own personal travel and health insurance.