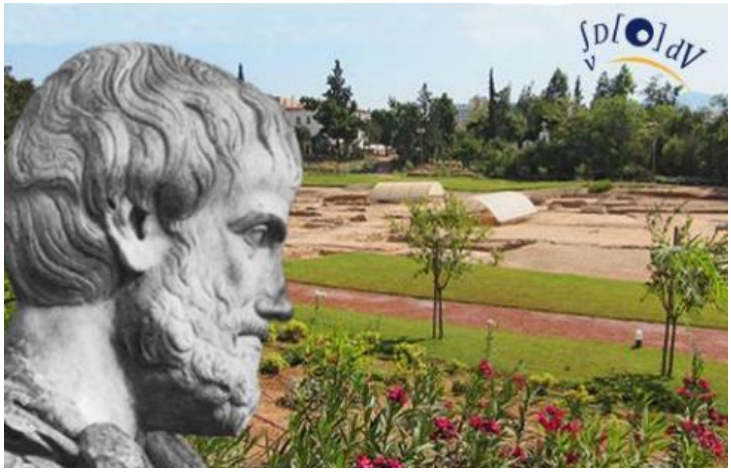
6th International Advanced Research Workshop on *In Silico* Oncology and Cancer Investigation – The CHIC Project Workshop

Athens, Greece, 3-4 November 2014

Call for Papers



Scope

In silico medicine, an emergent scientific and technological domain based on clinically driven and oriented multiscale biomodeling, appears to be the latest trend regarding the translation of mathematical and computational biological science to clinical practice through massive exploitation of information technology. The term *multiscale* refers to several scales or levels of the manifestation of life such as the molecular, the cellular, the tissue, the organ, and the body system scales addressed concurrently. The overarching idea is to view disease as a hypercomplex and multiscale *natural phenomenon* amenable to modeling and simulation. *In silico* (i.e., on the computer) experimentation for each individual patient using their own multiscale biomedical data is expected to significantly improve the effectiveness of treatment in the future, since reliable computer predictions could suggest the optimal treatment scheme(s) and schedules(s) for each separate case. Clinically driven complex multiscale cancer models can produce rather realistic spatio-temporal simulations of concrete clinical interventions such as radio-chemotherapy applied to individual patients. Clinical data processing procedures and computer technologies play an important role in this context. Following clinical adaptation and validation within the framework of clinicogenomic trials, models are expected to enhance individualized treatment optimization. The latter constitutes the long term goal of the emergent scientific, technological and medical discipline of *in silico* oncology. Treatment optimization is to be achieved through experimentation *in silico* i.e. on the computer. Moreover, provision of insight into tumour dynamics and optimization of clinical trial design and interpretation constitute short- and mid-term goals of this new domain. Researchers working either in the area of *in silico* oncology (as viewed from the *clinical*, the *basic science*, the *technology* and/or the *legal and ethical* perspectives) or in the broader cancer research domain yet with an interest in computational oncology are invited to submit short papers.

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Venue

The Crowne Plaza Athens City Centre Hotel (http://www.cpathens.com/)

Important Dates

Paper submissions due : **September 20**, 2014.
Notification of acceptance: **October 10**, 2014.
Camera ready papers due: **October 20**, 2014

Instructions for Authors

Authors should submit a **four**-page manuscript in double-column format including authors' names, affiliations, and a short abstract. The IEEE-EMBS format should be followed (MS Word template ieeeconf_A4.dot for A4 paper)
http://embs.papercept.net/conferences/support/word.php#wordtemplates
All correspondence including manuscript submission should be addressed to **gestam@central.ntua.gr**
and *cc* to **dimdio@esd.ece.ntua.gr** . Further information is available at **http://6th-iarwisoci.iccs.ntua.gr/**

Sponsors

The workshop is sponsored by the European Commission, Seventh Framework Programme (FP7/2007-2013), Virtual Physiological Human Initiative through the large scale integrating EU-US project CHIC (http://chic-vph.eu/ , Grant Agreement No 600841). CHIC stands for "**Computational Horizons in Cancer (CHIC): Developing Meta- and Hyper-Multiscale Models and Respositories for *In Silico* Oncology**"
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