Author's response to reviews

Title: Large differences in global transcriptional regulatory programs of normal and tumor colon cells

Authors:

David Cordero (dcordero@iconcologia.net)
Xavier Sole (x.sole@iconcologia.net)
Marta Crous-Bou (mcrous@iconcologia.net)
Rebeca Sanz-Pampiona (rebecasanz@iconcologia.net)
Laia Pare-Brunet (lpare@iconcologia.net)
Elisabet Guino (e.quino@iconcologia.net)
David Olivares (dolivares@iconcologia.net)
Antoni Berenguer (toniberenguer@iconcologia.net)
Cristina Santos (csantos@iconcologia.net)
Ramon Salazar (ramonsalazar@iconcologia.net)
Sebastiano Biondo (sbiondo@bellvitgehospital.cat)
Victor Moreno (v.moreno@iconcologia.net)

Version: 2
Date: 30 April 2014

Author's response to reviews:

Please find enclosed our manuscript entitled “Large differences in global transcriptional regulatory programs of normal and tumor colon cells” that we would like to publish as a Research Article in PLOS Computational Biology. We think our article will be of interest to the readers of the journal and its conclusions should encourage further research in the area.

In this work we have inferred gene regulatory networks from expression data for colon cancer cells and adjacent normal mucosa obtained from the same patients. We observe important differences between these networks and analyze them from a network topology point of view and also from a functional point of view. Though the tumor network is much smaller and shows an important loss of regulated genes and transcriptional relationships, some new genes appear with relevant connections, and the network cluster analysis identifies several cancer pathways and other relevant metabolism pathways.

To our knowledge, this is the first study in which a large sample of colon cancer patients and paired adjacent mucosa have been compared at network regulatory level. Our results may have important applications, since they may be used to understand complex mechanisms acting in colon cancer development and progression.

We are very grateful for your attention.

Yours sincerely,
Victor Moreno, MD PhD
Director, Cancer Prevention and Control Program
e-mail: v.moreno@iconcologia.net