

***The Atacama Desert: A Crossroads
between Astrobiology and Cancer
Research***

**5th-6th June, 2012, Hotel del Desierto,
Antofagasta, Chile**

Contributors

International:

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Program

Day 1

9 am-9.15 am: **Welcome**

Luis Alberto Loyola

9.15 am-9.45 am: **How to become cancerous?**

Gareth Owen

9.45 am-10.15 am: **Desert Astrobiology and Cancer**

Chris McKay

10.15 am-10.45 am: **New Perspectives on Cancer Research**

Pauline Davies

10.45 am-11.15 am: Coffee Break

11.15 am-11.45 am: **Multicellularity & Cancer**

Dirk Schulze-Makuch

11.45 am-12.15 n: **Role of *Trypanosome cruzi*'s calreticulin in the antitumoral effect of parasitic infection**

Arturo Ferreira

12.15 n-12.45 n: **Arsenic increases cell proliferation by activation of the sodium-proton exchanger 1 (NHE1)**

Marco Ramírez

13.00-14.00 Lunch Break

14.15-14.45: **Lessons on Astrobiology and Cancer prevention we may have learned from Atacama**

Benito Gómez

14.45-15.15: **Adaptations of microorganisms to the extreme environment of the Atacama Desert**

Jacek Wierzchos

15.15-15.45: **Phototrophs of the Atacama Coastal Range: Potential for the biopharmaceutical industry**

Armando Azúa

15.45-16.15: **Searching for new anticancer compounds through an ecosystemic approach**

Cristina Dorador

16.15-17.00: ***Public Q&A***

Day 2

9.00 am-9.30 am: **Cancer as Metazoa 1.0**
Paul Davies

9.30 am-10.00 n: **The possible involvement of the biogeochemical (per)chlorate cycle in Precambrian adaptation to molecular oxygen**
John Coates

10.00-10.30 am: **Cancer & antioxidants**
Jorge Escobar

10.30 am-11.00 n: **Single-cell detection of Warburg metabolism with a FRET biosensor**
L. Felipe Barros

11.00 am-11.30 am: Coffee Break

11.30 am-12.00 n: **New strategy for an old target in cancer treatment**
Alfonso Gonzalez

12.00 n-12.30 n: **RNA technology to treat & diagnose Cancer**
Luis Burzio

12.30 n-13.00 n: **Rational manipulation of the immune system to attack tumoral cells.**
Flavio Salazar

13.00 n-14:00 Lunch Break

14.15-16.45: Round table: **Astrobiology, Cancer, and Beyond.**
Moderators: Paul Davies & Gareth Owen.

16.45-17.00: **Closure**