

Ads by Google

Custom Gene Synthesis
5 Free DNA Sequencing Reactions
With Every Synthetic Gene Order
www.genewiz.com

GenOmics Sequencing-Spain
Roche Plus FLX+, Illumina Hiseq...
Proven Track Record! High Quality.
WWW.lifesequencing.com

PCR Cloning >98% Results
Best Results and the Lowest Price.
Simple to use. Try a Free sample!
www.mclab.com

Treat With AFINITOR®
For MDs: Read Phase III Trial
Results for AFINITOR® (everolimus)
www.afinitor.com/global

Biology Research Reagents
2000+ Proteins, Antibody, Kits, cDNA,
Save Time, Save Cost, Save Trouble
www.SinoBiological.com

Mini Cell Scrapers
Fit into 24-well, 48-well & 96-well
Save cells for Westernblot and FACS
www.leapbio.com

Biomarker Services
Gene Expression Biomarker Discovery
Assay Development + Testing Service
www.genebiomarkers.com

Microarray GEX Services
Get Highest Quality from your
Agilent Certified Service Provider
www.IMG.M.com/Microarray

News-Medical.Net on Facebook

Like

3,581 people like News-Medical.Net.

Facebook social plugin

Latest News

- Zuellig Pharma, ADEC Solutions enter new KPO joint venture
- Proact supplies storage systems to Sint Franciscus hospital
- Schering Plough pharma reps win complete victory in Nationwide Collective Law Suit
- Anisotropic encoding of three-dimensional space by place and grid cells
- Researchers use SNAP technology to assess fetal gene expression in amniotic fluid
- Study: Early morning smokers more likely to

<< [Glove with special fingertip can improve wearer's sense of touch](#) | [WSU receives \\$3M NIH grant for student development program](#) >>

Read in | [English](#) | [Español](#) | [Français](#) | [Deutsch](#) | [Português](#) | [Italiano](#) | [日本語](#) | [한국어](#) | [简体中文](#) | [繁體中文](#) | [العربية](#) | [Dansk](#) | [Nederlands](#) | [Filipino](#) | [Finnish](#) | [Ελληνικά](#) | [עברית](#) | [हिन्दी](#) | [Bahasa](#) | [Norsk](#) | [Русский](#) | [Svenska](#)

EWS protein detects and corrects DNA damage in Ewing's sarcoma

Published on August 5, 2011 at 12:53 AM · No Comments

Recommend 12 Share 1 0

Researchers from the CRG have discovered that ultraviolet light affects the function of the protein EWS, the mutation of which is responsible for Ewing's sarcoma. The results, to be published on 5th August in the journal *Molecular Cell*, indicate that the EWS protein has a protective effect on DNA.

The genetic circuits altered in cancer processes include the activation or inhibition of various genes and proteins. In the case of Ewing's sarcoma, EWS protein alterations induce changes in the expression of various genes, thus affecting the ability to detect and correct DNA damage.

The genetic material contains all of the information necessary for the proper functioning of cells. This material may become damaged but the cell has sophisticated mechanisms to detect and repair this damage. When the genetic material in our cells is exposed to ultraviolet light one of the strands of the DNA molecule may break. The work presented by the CRG researchers describes the effects of ultraviolet radiation on the Ewing's Sarcoma protein and its role in the response to genetic damage. "We now know that EWS plays a crucial role in cell maintenance and contributes to the response to genetic damage. Alterations in this response, such as those which occur in Ewing's sarcoma, make the cells more susceptible to DNA damage, which may contribute to the development of a tumor", explains Juan Valcárcel, group leader at the CRG and principal investigator of the study.

The group's findings indicate that during normal response to DNA damage, the EWS protein stops being joined to the genes it regulates and relocates to structures located within the cell nucleus known as nucleoli. This relocation results in changes in the expression of the genes regulated by EWS, and these changes are important for an appropriate response to DNA damage.

<http://www.crg.eu>

Be the first to rate this post

Posted in: [Medical Science News](#) | [Medical Condition News](#)

Tags: [Cancer](#), [Cell](#), [DNA](#), [Ewing's Sarcoma](#), [Protein](#)

[Permalink](#) | [Comments \(0\)](#)

Related Posts

- [New research provides insight into mechanism behind cardiac development](#)
During embryonic development, cells migrate to their eventual location in the adult body plan and be...
- [CSL Biotherapies to supply Afluria influenza vaccines from newly licensed packaging facility](#)
CSL Biotherapies, a subsidiary of CSL Limited, one of the world's leading manufacturers of influenza...
- [Pregnant women should supplement vitamin D](#)
Pregnant women should take steps to ensure they have adequate vitamin D in their diet, or they and e...