

Seminars in Genetics and Molecular Cell Biology

Nico Dantuma

Department of Cell and Molecular Biology,
Karolinska Institute, Stockholm

Chromatin remodeling-assisted ubiquitylation in the DNA damage response

The ubiquitin ligase RNF8 regulates DNA damage signaling through ubiquitylation of histone H2A. We found that RNF8 mediates local chromatin unfolding at DNA damage sites through the recruitment of the chromatin remodeler CHD4. Interestingly, catalytically active CHD4 is required for efficient ubiquitin conjugation at sites of DNA damage as well as for the recruitment of the tumor suppressor BRCA1. We propose that this new mechanism of chromatin remodeling-assisted ubiquitylation is important for creating a local chromatin environment that is permissive to the assembly of checkpoint and repair machineries at DNA lesions.

Tuesday, November 29, 2011 at 5.00 p. m.

Institute for Genetics,
Zülpicher Str. 47 a, Lecture hall, 4th floor

Host: Thorsten Hoppe, Institute for Genetics,
University of Cologne

www.sfb635.uni-koeln.de