

## IAPSAP/MPSA 2008 Young Investigator Award

The 2008 IAPSAP/MPSA Young Investigator Award, supported by Agilent, Inc., will be given to Dr. Andreas Ladurner, of the European Molecular Biology Laboratory, Heidelberg, Germany.

Dr. Ladurner earned his Ph.D. in chemistry from the University of Cambridge in 1998. He was awarded a Wellcome Trust International Fellowship at the University of California, Berkeley, and then worked there as a Research



Associate. After serving as an editor for the Nature Publishing Group in New York, he returned to Europe in 2003 to take up his current position as Group Leader in the European Molecular Biology Laboratory in Heidelberg.

Dr. Ladurner has pioneered the identification of protein modules that recognize post-translational modifications in histone proteins. His long-term goal is to decipher how dynamic changes in nucleosome structure contribute to the regulation of gene expression. Using a variety of

biophysical, structural and protein engineering approaches, his work identifies and characterizes protein modules and linear peptide motifs involved in the recognition of chromatin and in chromatin-targeted gene silencing mechanisms. In particular, he analyzes proteins that recognize specific post-translational modifications in histones, has identified a metabolite-binding function in a human histone, and also studies the mechanisms of histone exchange by so-called histone chaperones.

His protein engineering analysis of key components in the RNAi pathway have uncovered the existence of a conserved linear peptide motif which recognizes specific Argonaute proteins. These motifs, termed Ago hooks, mediate distinct biological functions. These range from chromatin silencing in fission yeast, specific forms of DNA transcription in plants and finally repression of protein translation by micro-RNAs in animals. The identification of novel regulatory interactions between proteins and ligands using computational, quantitative and structural approaches continues to reveal fundamentally novel paradigms of biological control in gene expression.

IAPSAP created the Young Investigator Award in 2000 to recognize promising young investigators who are beginning to advance the fields of protein chemistry, protein structure analysis, or proteomics.