

# Contents

*Symposium on Reversible protein acetylation, held at the Novartis Foundation, London, 6–8 May 2003*

*Editors: Gregory Bock (Organizer) and Jamie Goode*

*This symposium is based on a proposal made by Dalia Cohen*

- Eric Verdin** Chair's introduction 1
- Yanming Wang, Wolfgang Fischle, Wang Cheung, Steven Jacobs, Sepideh Khorasanizadeh and C. David Allis** Beyond the double helix: writing and reading the histone code 3  
*Discussion* 17
- Gunnar Schotta, Monika Lachner, Antoine H. F. M. Peters and Thomas Jenuwein** The indexing potential of histone lysine methylation 22  
*Discussion* 37
- Danesh Moazed, Adam D. Rudner, Julie Huang, Georg J. Hoppe and Jason C. Tanny** A model for step-wise assembly of heterochromatin in yeast 48  
*Discussion* 56
- Anastasia Wyce, Karl W. Henry and Shelley L. Berger** H2B ubiquitylation and de-ubiquitylation in gene activation 63  
*Discussion* 73
- Ronen Marmorstein** Structural and chemical basis of histone acetylation 78  
*Discussion* 98
- Louis C. Mahadevan, Alison L. Clayton, Catherine A. Hazzalin and Stuart Thomson** Phosphorylation and acetylation of histone H3 at inducible genes: two controversies revisited 102  
*Discussion* 111
- Eric Verdin, Frank Dequiedt and Herb Kasler** HDAC7 regulates apoptosis in developing thymocytes 115  
*Discussion* 129

- Timothy A. McKinsey and Eric N. Olson** Dual roles of histone deacetylases in the control of cardiac growth 132  
*Discussion* 141
- David Ciccone and Marjorie Oettinger** Chromatin modifications as clues to the regulation of antigen receptor assembly 146  
*Discussion* 158
- General discussion I** Histone modification in X inactivation 163
- Jeffery J. Kovacs, Charlotte Hubbert and Tso-Pang Yao** The HDAC complex and cytoskeleton 170  
*Discussion* 178
- Melanie Ott, Alexander Dorr, Claudia Hetzer-Egger, Katrin Kaehlcke, Martina Scholz, Peter Henklein, Phil Cole, Ming-Ming Zhou and Eric Verdin** Tat acetylation: a regulatory switch between early and late phases in HIV transcription elongation 182  
*Discussion* 193
- Wei Gu, Jianyuan Luo, Chris L. Brooks, Anatoly Y. Nikolaev and Muyang Li** Dynamics of the p53 acetylation pathway 197  
*Discussion* 205
- Warner C. Greene and Lin-feng Chen** Regulation of NF- $\kappa$ B action by reversible acetylation 208  
*Discussion* 218
- General discussion II** p300 and DNA repair 223
- Stephen B. Baylin** Reversal of gene silencing as a therapeutic target for cancer: roles for DNA methylation and its interdigitation with chromatin 226  
*Discussion* 234
- Shaowen Wang, Yan-Yan Neale, Marija Zeremski and Dalia Cohen** Transcription regulation by histone deacetylases 238  
*Discussion* 245
- Peter Atadja, Meier Hsu, Paul Kwon, Nancy Trogani, Kapil Bhalla and Stacy Remiszewski** Molecular and cellular basis for the anti-proliferative effects of the HDAC inhibitor LAQ824 249  
*Discussion* 266

<b>Paul A. Marks, Victoria M. Richon, Wm Kevin Kelly, Judy H. Chiao and Thomas Miller</b>	Histone deacetylase inhibitors: development as cancer therapy	269
	<i>Discussion</i>	281
<b>General discussion III</b>	PML-RAR $\alpha$ hypermethylation in leukaemia	285
<b>Index of contributors</b>		289
<b>Subject index</b>		291