

CONTENTS Vol. 147, No. 1

Editorial

New Editor-in-Chief of *JB* K. Miyazono 1

JB Reflections and Perspectives

Glycosphingolipids as mediators of phenotypic changes associated with development and cancer progression Y. Igarashi and R. Kannagi 3

Akira Kobata: a man who established the structural basis for glycobiochemistry of N-linked sugar chains T. Endo 9

JB Minireviews—Quality Control of the Cellular Protein Systems

Mechanism and components of endoplasmic reticulum-associated degradation* J. Hoseki, R. Ushioda and K. Nagata 19

Stress-sensing mechanisms in the unfolded protein response: similarities and differences between yeast and mammals K. Kohno 27

JB Review

Bone morphogenetic protein receptors and signal transduction* K. Miyazono, Y. Kamiya and M. Morikawa 35

Regular Papers

Protruding masticatory (superfast) myosin heads from staggered thick filaments of dog jaw muscle revealed by X-ray diffraction M. Yamaguchi, S. Takemori, M. Kimura, Y. Tanishima, T. Nakayoshi, S. Kimura, T. Ohno, N. Yagi, J.F.Y. Hoh and Y. Umazume 53

A lentiviral vector encoding two fluorescent proteins enables imaging of adenoviral infection via adenovirus-encoded miRNAs in single living cells Y. Kato, S.Y. Sawata and A. Inoue 63

Role of Nrf2 and p62/ZIP in the neurite outgrowth by carnosic acid in PC12h cells K. Kosaka, J. Mimura, K. Itoh, T. Satoh, Y. Shimojo, C. Kitajima, A. Maruyama, M. Yamamoto and T. Shirasawa 73

Purification and some properties of wild-type and N-terminal-truncated ethanolamine ammonia-lyase of *Escherichia coli* K. Akita, N. Hieda, N. Baba, S. Kawaguchi, H. Sakamoto, Y. Nakanishi, M. Yamanishi, K. Mori and T. Toraya 83

Structure and reaction mechanism of human nicotinamide phosphoribosyltransferase R. Takahashi, S. Nakamura, T. Nakazawa, K. Minoura, T. Yoshida, Y. Nishi, Y. Kobayashi and T. Ohkubo 95

Crystal structure of peroxiredoxin from *Aeropyrum pernix* K1 complexed with its substrate, hydrogen peroxide T. Nakamura, Y. Kado, T. Yamaguchi, H. Matsumura, K. Ishikawa and T. Inoue 109

Atypical kinetics of cytochromes P450 catalysing 3'-hydroxylation of flavone from the white-rot fungus *Phanerochaete chrysosporium* N. Kasai, S. Ikushiro, S. Hirose, A. Arisawa, H. Ichinose, Y. Uchida, H. Wariishi, M. Ohta and T. Sakaki 117

*These papers are the Featured Articles of the month and are available free online at <http://jb.oxfordjournals.org/>

Characteristic amino acid distribution around segments unique to allergens	N. Asakawa, N. Sakiyama, R. Teshima and S. Mitaku	127
Generation of a recombinant single-chain variable fragment (scFv) targeting 5-methyl-2'-deoxycytidine	M. Ohshima, T. Tadakuma, H. Hayashi, K. Inoue and K. Itoh	135
Hypoxemia induces expression of heme oxygenase-1 and heme oxygenase-2 proteins in the mouse myocardium	F. Han, K. Takeda, M. Ono, F. Date, K. Ishikawa, S. Yokoyama, Y. Shinozawa, K. Furuyama and S. Shibahara	143