

Amino Acids Glycation Section

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It is a great pleasure and honour to present the following reviews on glycation research to kick-off the new Glycation Section of Amino Acids. We start with an introduction to glycation, describing in brief the history of glycation research and its current standing in research across the scientific disciplines (Rabbani and Thornalley 2010a). There are then reviews on current issues of glycation in food science: ‘Physiological relevance of dietary melanoidins’ by Morales et al. (2010), ‘Glycation products in infant formulas—chemical, analytical, and physiological aspects’ by Pischetsrieder and Henle (2010) and ‘Health effects of dietary Maillard reaction products—The results of ICARE and other studies’ by Tessier and Birlouez-Aragon (2010). New types of glycation of current multi-disciplinary interest are reviewed: ‘Methylglyoxal, glyoxalase 1 and the dicarbonyl proteome’ Rabbani and Thornalley (2010b), ‘Enzymatic repair of early glycation’ by Van Schaftingen et al. (2010), and ‘Advanced Glycation Endproducts: From Precursors to the Receptor RAGE’ by Ramasamy et al. (2010). There are then reviews on the current focus of glycation in biomedical research. Four reviews focus on the important impact of glycation in diabetes and related complications: ‘Lipid glycation modifications in diabetes and atherosclerosis’ by Miyazawa et al. (2010), ‘Glycation and biomarkers of vascular complications of diabetes’ by Beisswenger (2010), ‘Glycation

in diabetic nephropathy’ by Forbes and Cooper (2010), and ‘Early- and advanced non-enzymatic glycation in diabetic vascular complications and search for therapeutics’ by Schalkwijk and Miyata (2010). Finally, the compilation concludes with two reviews on the biomedical importance of glycation in ageing-related disorders: ‘The Pathogenic Role of the Maillard Reaction in the Aging Eye’ by Nagaraj et al. (2010), and ‘Advanced glycation endproducts and their pathogenic roles in neurological disorders’ by Münch et al. (2010). We thank all authors for their commitment and contributions to this compilation and we trust that this will be the start of an expanding and long-standing partnership of Amino Acids with glycation research.

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