Biology of vitamin E

Ciba Foundation symposium 101

1983

Pitman

London
Contents

Symposium on Biology of Vitamin E, held at the Ciba Foundation, London, 8–10 March 1983
The subject for this symposium was proposed by Dr D. P. R. Muller, Professor O. H. Wolff and Professor J. T. Harries
John Harries died shortly after the symposium, on 27th March 1983. His comments in the discussion have been included, edited by David Muller
Editors: Ruth Porter (Organizer) and Julie Whelan

A. T. DIPLOCK (Chairman) Introduction 1

G. W. BURTON, K. H. CHEESEMAN, T. DOBA, K. U. INGOLD and T. F. SLATER Vitamin E as an antioxidant in vitro and in vivo 4
Discussion 14

R. L. WILLSON Free radical protection: why vitamin E, not vitamin C, \( \beta \)-carotene or glutathione? 19
Discussion 37

A. T. DIPLOCK The role of vitamin E in biological membranes 45
Discussion 53

A. T. QUINTANILHA and L. PACKER Vitamin E, physical exercise and tissue oxidative damage 56
Discussion 61

H. J. KAYDEN Tocopherol content of adipose tissue from vitamin E-deficient humans 70
Discussion 85

J. S. NELSON Neuropathological studies of chronic vitamin E deficiency in mammals including humans 92
Discussion 99
D. P. R. MULLER, J. K. LLOYD and O. H. WOLFF Vitamin E and neurological function: abetalipoproteinaemia and other disorders of fat absorption 106
Discussion 117

General discussion Problems of defining vitamin E deficiency 122

Discussion 141

N. N. FINER, K. L. PETERS, R. F. SCHINDLER and G. D. GRANT Vitamin E and retrolental fibroplasia: prevention of serious ocular sequelae 147
Discussion 159

H. M. HITTNER and F. L. KRETZER Vitamin E and retrolental fibroplasia: ultrastructural mechanism of clinical efficacy 165
Discussion 182

M. L. CHISWICK, M. JOHNSON, C. WOODHALL, M. GOWLAND, J. DAVIES, N. TONER and D. SIMS Protective effect of vitamin E on intraventricular haemorrhage in the newborn 186
Discussion 197

C. H. McMURRAY, D. A. RICE and S. KENNEDY Experimental models for nutritional myopathy 201
Discussion 218

M. J. JACKSON, D. A. JONES and R. H. T. EDWARDS Vitamin E and skeletal muscle 224
Discussion 234

Final general discussion Circadian rhythms in clinical studies 240
Roles of lipid peroxidation 241
Vitamin E and ageing 246

A. T. DIPLOCK Chairman's closing remarks 249

Index of contributors 251

Subject index 253