

Methods in ENZYMOLOGY

Volume 301

Nitric Oxide

Part C

Biological and Antioxidant Activities

Edited by

Lester Packer



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Preface

The discovery that nitrogen monoxide or nitric oxide (NO) is a biologically produced free radical has revolutionized our thinking about physiological and pathological processes. This discovery has ignited enormous interest in the scientific community. When generated at low levels, NO is a signaling molecule, but at high concentration, NO is a cytotoxic molecule. The physiological and pathological processes of NO production and metabolism and its targets, currently areas of intensive research, have important pharmacologic implications for health and disease.

Accurately assessing the generation, action, and regulation of NO in biological systems has required development of new analytical methods at the molecular, cellular, tissue, and organismal levels. This was the impetus for *Methods in Enzymology* Volumes 268 and 269, Parts A and B. Only a few years later this new Volume 301, Part C reflects the amazing continued development of new and important tools for the elucidation of NO action.

In bringing this volume to fruition, credit must be given to experts in various specialized fields of NO research. Our appreciation is to the contributors to this volume who, with those who helped select them, have produced this state-of-the-art volume on NO methodology. The topics included were chosen on the excellent advice of Bruce N. Ames, Joseph Beckman, Enrique Cadenas, Victor Darley-USmar, Bruce Freeman, Matthew Grisham, Barry Halliwell, Louis J. Ignarro, Hiroe Nakazawa, William Pryor, and Helmut Sies. To these colleagues I extend my sincere thanks and most grateful appreciation.

LESTER PACKER

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