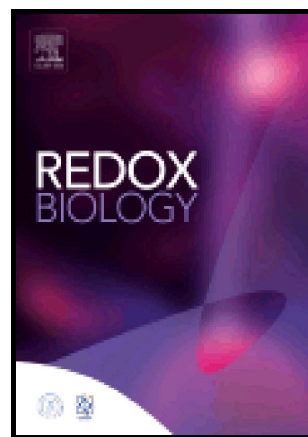


# Author's Accepted Manuscript

Antioxidant response elements: Discovery, classes, regulation and potential applications

Azhwar Raghunath, Kiruthika Sundarraj, Raju Nagarajan, Frank Arfuso, Bian Jinsong, Alan P. Kumar, Gautam Sethi, Ekambaram Perumal



[www.elsevier.com/locate/redox](http://www.elsevier.com/locate/redox)

PII: S2213-2317(18)30227-1  
DOI: <https://doi.org/10.1016/j.redox.2018.05.002>  
Reference: REDOX919

To appear in: *Redox Biology*

Received date: 22 March 2018  
Revised date: 25 April 2018  
Accepted date: 5 May 2018

Cite this article as: Azhwar Raghunath, Kiruthika Sundarraj, Raju Nagarajan, Frank Arfuso, Bian Jinsong, Alan P. Kumar, Gautam Sethi and Ekambaram Perumal, Antioxidant response elements: Discovery, classes, regulation and potential applications, *Redox Biology*, <https://doi.org/10.1016/j.redox.2018.05.002>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting galley proof before it is published in its final citable form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

**Antioxidant response elements: Discovery, classes, regulation and potential applications**

Azhwar Raghunath<sup>a</sup>, Kiruthika Sundarraj<sup>a</sup>, Raju Nagarajan<sup>b</sup>, Frank Arfuso<sup>c</sup>, Bian Jinsong<sup>d</sup>, Alan P Kumar<sup>d,e,f,g\*</sup>, Gautam Sethi<sup>d\*</sup>, Ekambaram Perumal<sup>a\*</sup>

<sup>a</sup>Molecular Toxicology Laboratory, Department of Biotechnology, Bharathiar University, Coimbatore 641 046, Tamilnadu, India

<sup>b</sup>Department of Biotechnology, Indian Institute of Technology Madras, Chennai 600 036, Tamilnadu, India

<sup>c</sup>Stem Cell and Cancer Biology Laboratory, School of Biomedical Sciences, Curtin Health Innovation Research Institute, Curtin University, Perth WA, 6009, Australia

<sup>d</sup>Department of Pharmacology, Yong Loo Lin School of Medicine, National University of Singapore, 117600, Singapore

<sup>e</sup>Cancer Science Institute of Singapore, National University of Singapore, Singapore

<sup>f</sup>Medical Science Cluster, Yong Loo Lin School of Medicine, National University of Singapore, Singapore

<sup>g</sup>Curtin Medical School, Faculty of Health Sciences, Curtin University, Perth WA, Australia

csiapk@nus.edu.sg

ekas2009@buc.edu.in.

gautam.sethi@tdt.edu.vn;

phcgs@nus.edu.sg

\* **Correspondence to:** Cancer Science Institute of Singapore, National University of Singapore, Singapore 117599, Singapore Telephone: +65-65165456; Fax: +65-68739664;

\* **Correspondence to:** Molecular Toxicology Laboratory, Department of Biotechnology, Bharathiar University, Coimbatore 641 046, Tamilnadu, India. Telephone: 91-422-2428293; Fax: 91-422-2425706.

\* **Correspondence to:** Department of Pharmacology, Yong Loo Lin School of Medicine, National University of Singapore, Singapore 117600. Telephone: (65) 65163267; Fax: (65) 68737690.

## Abstract

Exposure to antioxidants and xenobiotics triggers the expression of a myriad of genes encoding antioxidant proteins, detoxifying enzymes, and xenobiotic transporters to offer protection against oxidative stress. This articulated universal mechanism is regulated

Download English Version:

<https://daneshyari.com/en/article/8286382>

Download Persian Version:

<https://daneshyari.com/article/8286382>

[Daneshyari.com](https://daneshyari.com)