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Editorial

Biological functions of the arylhydrocarbon receptor: Beyond induction of cytochrome P450s—Introduction to this special issue

The arylhydrocarbon receptor (AHR) has been known for a long time as a receptor mediating the actions of dioxin mainly based on the studies on the action mechanism of dioxin (aka TCDD) to induce several detoxification enzymes, particularly the cytochrome P450s.

Recently a number of new developments have occurred in this area that indicates that the Ah receptor has a broader biological role. The AHR is involved not only in mediating the toxic actions of pollutants, but also in development, regulating cell differentiation and cycling, hormonal and nutritional homeostasis, coordination of cell stress responses (including inflammation and apoptosis), immune responses and aging and cancer promotion.

Yet many scientists, even in the field of toxicology may be unaware of these recent developments. The current special issue of *Biochemical Pharmacology* is therefore a timely and comprehensive update on the broader role of AHRs in cellular function providing scientists in fields beyond toxicology to become aware of these new developments and their potential.

The Guest Editors of this special issue would like to thank the editorial and administrative staff of BCP for their help in producing this volume.

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