

# CURRENT PRACTICES IN SAFETY PHARMACOLOGY

ALAN S. BASS,<sup>1</sup> PETER K. S. SIEGL,<sup>2</sup> GARY A. GINTANT,<sup>3</sup>  
DENNIS J. MURPHY,<sup>4</sup> AND ROGER D. PORSOLT<sup>5</sup>

<sup>1</sup>*Schering-Plough Research Institute, Kenilworth, New Jersey*

<sup>2</sup>*Merck Research Laboratories, West Point, Pennsylvania*

<sup>3</sup>*Abbott Laboratories, Abbott Park, Illinois*

<sup>4</sup>*GlaxoSmithKline Pharmaceuticals, King of Prussia, Pennsylvania*

<sup>5</sup>*Porsolt & Partners Pharmacology, Boulogne-Billancourt, France*

## Contents

- 1 Introduction
- 2 Regulatory Guidelines Governing Safety Pharmacology
  - 2.1 Introduction
  - 2.2 Regulatory Strategy for Safety Pharmacology
  - 2.3 Recommended Core Safety Pharmacology Studies
  - 2.4 Follow-Up or Supplemental Safety Pharmacology Studies
  - 2.5 Conditions Under Which Safety Pharmacology Studies Are Unnecessary
  - 2.6 Application of Good Laboratory Practice (GLP)
  - 2.7 Dose Levels or Concentrations of Test Substance
  - 2.8 Timing of Safety Pharmacology Studies in Relation to Clinical Development
  - 2.9 Test Systems and Route of Administration
  - 2.10 Duration of Studies
  - 2.11 Integrated Risk Assessment
  - 2.12 Summary
- 3 *In Vivo* Cardiovascular Safety Pharmacology
  - 3.1 Introduction
  - 3.2 Consideration of Study Design