Eribulin was provided for testing by Eisai. Testing was supported by NCI NO1CM42216.

Initial testing of eribulin documented its potent cytotoxic activity, with complete responses (CRs) or maintained complete responses (MCR) observed for multiple tumor types. In vitro testing was performed using DIMSCAN, a semiautomatic fluorescence-based digital image microscopy system that quantifies viable cell activity, with complete responses (CRs) or maintained complete responses (MCR) observed for multiple tumor types.

**ERIBULIN IN VITRO ACTIVITY**

- **ERIBULIN IN VITRO & IN VIVO TESTING METHODS**
  - In vitro: In vitro testing was performed using DIMSCAN, a semiautomatic fluorescence-based digital image microscopy system that quantifies viable cell activity, with complete responses (CRs) or maintained complete responses (MCR) observed for multiple tumor types.
  - In vivo: Standard PPTP methods for in vivo testing were employed (http://pptp.nchresearch.org/documents/detailedAnalysisMethods.pdf).
  - Eribulin was tested in vivo using intraperitoneal (IP) administration on a Q4D x 2 schedule. Testing was also performed using a Q4D x 3 schedule. Eribulin doses were 1 mg/kg and 0.5 mg/kg.
  - For comparison, vincristine was tested at 1 mg/kg weekly x 6.

**ERIBULIN IN VIVO ACTIVITY**

- **In vivo results and conclusions**
  - Eribulin demonstrated high level antitumor activity against 3 of 4 sarcoma xenografts.
  - High-level activity for eribulin was observed using doses and schedules that produce systemic exposure below that which is achievable in humans.
  - Future preclinical studies with eribulin will examine the agent in combination with other cytotoxic agents, and clinical trials are currently being planned.

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