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Roy et al.

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(54) **AUTOMATED INHALATION TOXICOLOGY EXPOSURE SYSTEM AND METHOD**

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(58) **Field of Classification Search** **600/529; 128/202.12, 203.12; 419/15, 17**
See application file for complete search history.

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(57) **ABSTRACT**

In one embodiment, a method includes but is not limited to: conditioning an inhalent environment; exposing a first organism to the inhalent environment for a first-organism duration of time; and exposing a second organism to the inhalent environment for a second-organism duration of time. In one embodiment, a method includes but is not limited to: conditioning an inhalent environment; exposing a first organism to the inhalent environment until a calculated first-organism delivered dosage meets or exceeds a predefined first-organism target dosage; and exposing a second organism to the inhalent environment until a calculated second-organism delivered dosage meets or exceeds a predefined second-organism target dosage. In one embodiment, a method includes but is not limited to: detecting a first organism via a first-organism biochip device implanted in the first organism; and controlling a first-organism dosage in response to the first-organism biochip device. In addition to the foregoing, other method embodiments are described in the claims, drawings, and text forming a part of the present application. In one or more various embodiments, related systems include but are not limited to circuitry and/or programming for effecting the foregoing-referenced method embodiments; the circuitry and/or programming can be virtually any combination of hardware, software, and/or firmware configured to effect the foregoing-referenced method embodiments depending upon the design choices of the system designer. In one embodiment, a system includes but is not limited to: an inhalent manifold; a first independently-controllable exposure unit coupled to said inhalent manifold; a second independently-controllable exposure unit coupled to said inhalent manifold; and an exposure control system operably coupled to either or both said first independently-controllable exposure unit and said second independently-controllable exposure unit.

103 Claims, 4 Drawing Sheets

