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(54) Title: PROBE FOR SELECTIVELY CHARACTERIZING ENZYMES INVOLVED IN XENOBIOTIC METABOLISM AND METHOD OF MAKING AND USING THE SAME

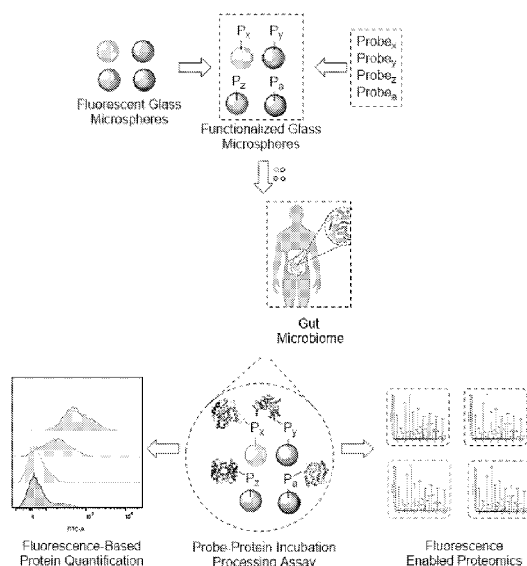


FIG. 30

(57) Abstract: Activity-based probes that can be used to selectively identify and characterize enzymes that are involved in different phases of xenobiotic metabolism in a host and its microbiota population(s) are described. The activity-based probes described specifically label only their target active enzymes involved in xenobiotic metabolism and therefore provide a measurement of true protein functional activity rather than transcript or protein abundance. The activity-based probes also provide multimodal profiling of these active enzymes. Methods for preparing the activity based probes and exemplary methods for their use also are disclosed.

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