Technology: Prodrugs of proton pump inhibitors

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The VA has joint interest with The Regents of the University of California on this patent

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Abstract: Prodrugs of the pyridyl methyl sulfanyl benzimidazole type proton pump inhibitor drugs have a hydrolyzable arylsulfonyl or heteroaryl sulfanyl group attached to the benzimidazole nitrogen. The prodrugs of the invention hydrolyze under physiological conditions to provide the proton pump inhibitors with a half life measurable in hours, and are capable of providing sustained plasma concentrations of the proton pump inhibitor drugs for longer time than presently used drugs. The generation of the proton pump inhibitor drugs from the prodrugs of the invention under physiological conditions allows for more effective treatment of several diseases and conditions caused by gastric acid secretion.