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(54) **COMPOSITION AND METHODS FOR PREDICTING NECROTIZING ENTEROCOLITIS IN PRETERM INFANTS**

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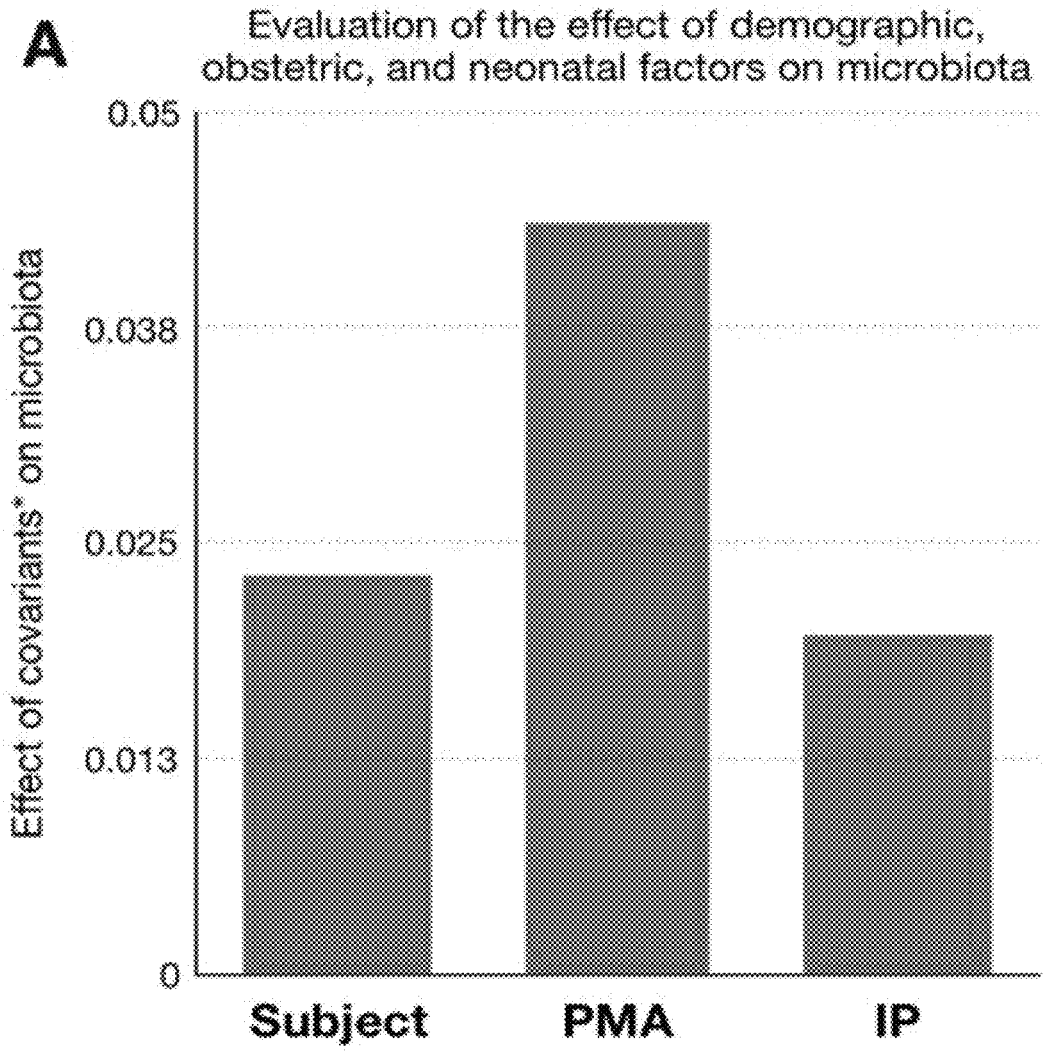
(57) **ABSTRACT**

A correlative finding between increased Clostridiales and/or Bifidobacteriales bacterial abundance in the gut and intestinal barrier maturation of preterm neonates at-risk for development of necrotizing enterocolitis (NEC) is disclosed. These findings form the basis for the methods of identifying preterm infants at risk for developing necrotizing enterocolitis (NEC), the methods of treating such infants, as well as the methods of characterizing intestinal permeability in preterm infants disclosed herein.