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(54) Title: SYNTHETIC OLIGOSACCHARIDES FOR P. *AERUGINOSA* VACCINE

(57) Abstract: The present invention provides synthetic *Pseudomonas aeruginosa* lipooligosaccharide (LOS)-based oligosaccharides and conjugates containing various *P. aeruginosa* serotype-specific oligosaccharide antigens or various core *P. aeruginosa* oligosaccharide structures or motifs. The invention further provides *P. aeruginosa* LOS-based immunogenic and immunoprotective compositions and antibodies derived therefrom for diagnosing, treating, and preventing infections caused by *P. aeruginosa*.