

## Joint Conference

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### The Resurgence of Pertussis: Facts, Fiction, Myths, and Misconceptions

In 2012 in the U.S., there were 48,277 cases of reported pertussis which was the largest number since 1995. Since 1983 (14 years before DTaP), numbers and rates of reported pertussis started to climb and marked peaks occurred in 2005, 2010, 2012, and 2014. Pertussis Fact #1: “The rate of reported pertussis today is ~20-fold less than in the pre-vaccine era.” Pertussis Fact #2: “Illness in DTaP vaccine failures is less severe than illness in similar aged unvaccinated children.” Possible reasons for the resurgence of reported pertussis are: genetic changes in *B. pertussis*, DTaP vaccines are not as good as DTwP vaccines, greater awareness, and better lab tests. Misconception #1: the resurgence is due to inferiority of DTaP vaccines. Misconception #2: the resurgence is due to genetic changes. Misconception #3: “Immunity following pertussis is lifelong whereas immunity following immunization is short lived. Misconception #4: Pertussis in adolescents and adults is a new phenomenon due to changes in the herd immunity in the vaccine era.” Pertussis Fact #3: “*B. pertussis* contains many proteins that participate in the infection process. In contrast, *B. pertussis* clinical illness is due to just the two factors. PT causes severe diseases in infants. The other factor which causes cough is unknown. Causes of DTaP vaccine failures include: a Th1/Th2 cellular immune response, incomplete antigen package, incorrect balance of antigens, linked-epitope suppression and genetic changes. In summary, (1) DTwP vaccines are better than DTaP vaccines; (2) all vaccine efficacy has been inflated due to case definition and observer bias; (3) the main reasons for DTaP vaccines failure is incomplete antigen package, linked epitope suppression, a Th1/2 response, genetic changes and incorrect antigen balance; (4) the present resurgence has been inflated due to increased awareness and the use of PCR for Dx.

### Biography

James D. Cherry MD, MSC has been a pediatric infectious diseases specialist for 53 years. He is a Distinguished Research Professor at the David Geffen School of Medicine at University of California, Los Angeles. Professor Cherry has published 304 research papers, 108 editorials/commentaries and 282 book chapters. He has given 238 presentations at national and international conferences. The majority of these papers and talks have related to vaccines and vaccine preventable diseases. Professor Cherry is the senior editor of Feigin and Cherry's "Textbook of Pediatric Infectious Diseases" which is now in its 7th edition. He was Chief of the Division of Pediatric Infectious Diseases for 27 years. He has received numerous awards, including the Distinguished Physician Award from the Pediatric Infectious Diseases Society in 2003 and the UCLA Medical Alumni Associations' Medical Science award in 2005.

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