

16th Annual World Congress on

PEDIATRICS

&

3rd Annual World Congress on

PEDIATRIC NUTRITION, GASTROENTEROLOGY & CHILD DEVELOPMENT

March 21-22, 2018 | New York, USA



Lawrence Dean Frenkel

University of Illinois College of Medicine, USA

The pathogenesis of microcephaly resulting from congenital *Zika virus* infection: Why is our baby's head small?

The main pathogens associated with congenital infection and afflictions, with a focus on *Zika virus*, which are often manifesting with microcephaly, are briefly reviewed. Aspects of maternal infection are noted. The epidemiology and manifestations of infections in non-pregnant hosts, the pregnant woman, and in the fetus are described. The pathology of microcephaly is reviewed in detail with a discussion of the neuropathogenesis of congenital *Zika virus* infection. Further, the innate and adaptive immune mechanisms in the pregnant woman and fetus, including changes at the maternal-fetal interface and induction of fetal tolerance will be described. Finally, hypotheses which might explain why: Some infants are not infected in the presence of primary maternal infection, while others acquire subclinical infection, but still others are severely afflicted, are discussed. These hypotheses include pathogen strain differences, tropism to developing fetal tissues, the role of various subsets of maternal immunity, and aspects of fetal immune responses.

Biography

Lawrence Dean Frenkel is an Academic Pediatrician, infectious disease specialist, and Immunologist who has devoted himself to clinical care, teaching, research and advocacy for children as well as to service to his colleagues, for over four decades. He has graduated from the State University of New York at Buffalo in 1965, with a BA degree in Chemistry. He has received his MD degree in 1969 from the Georgetown University School of Medicine and did a Residency in Pediatrics at The New York Hospital/Cornell medical Center. He has served in the US Public Health Service as Associate Medical Officer of the Clinical Center, National Institutes of Health. Thereafter, he did a Fellowship in Immunology, Allergy and Pediatric Infectious Diseases at Georgetown. His past academic and clinical appointments include: Director of the Pediatric Infectious Diseases Division at the Medical College of Ohio, Director of the Division of Immunology, Allergy, and infectious Diseases and Director of the Pediatric Aids Program at the UMDNJ-Robert Wood Johnson Medical School, and Professor and Chairman of Pediatrics at the University of Illinois College of Medicine-Rockford. He was invited to visit, present research, teaches, and lecture in over 50 countries. He has presented and published over 150 peer-reviewed papers and is himself an Editor and reviewer for a score of renowned publications.

lfrenkel@uic.edu

Notes: