“Antiviral Signaling at the Maternal-Fetal Interface”

Research
Dr. Coyne received her PhD from the University of North Carolina at Chapel Hill and performed her postdoctoral training at the University of Pennsylvania in the Department of Microbiology. She joined the University of Pittsburgh as an Assistant Professor in 2007 and is now a full professor in the Department of Pediatrics in the School of Medicine and serves as the director for the Center for Microbial Pathogenesis and Associate Director of the Richard King Mellon Pediatric Research Institute within the UPMC Children’s Hospital of UPMC.

Dr. Coyne’s research program focuses on the mechanisms by which cellular barriers restrict microbial infections and the strategies that microbes have evolved to penetrate these barriers. She is a recognized leader in the field of virus infections of polarized cells, host innate immune signaling, and host-pathogen interactions at the maternal-fetal interface. Dr. Coyne’s work is multidisciplinary and encompasses cell biology, tissue engineering, immunology, and microbiology to dissect the complex dialogue that occurs between virus and host during the course of infection.

Publications
The neonatal Fc receptor is a pan-echovirus receptor. Morosky S, Wells AI, Lemon K, Evans AS, Schamus S, Bakkenist CJ, Coyne CB.

Organotypic models of type III interferon-mediated protection from Zika virus infections at the maternal-fetal interface. Corry J, Arora N, Good CA, Sadovsky Y, Coyne CB.

Type III Interferons Produced by Human Placental Trophoblasts Confer Protection against Zika Virus Infection. Bayer A, Lennemann NJ, Ouyang Y, Bramley JC, Morosky S, Marques ET Jr, Cherry S, Sadovsky Y, Coyne CB.