“Amazingly, the genomic and biochemical complexity of the microbiota exceeds that of the brain. Studies of the brain-gut-microbiota axis have been described as a paradigm shift in neuroscience. Increasing evidence points to appropriate diversity in the gut microbiota that is essential not only for gut health but also for normal physiologic functioning in other organs, especially the brain. An altered gut microbiota in the form of dysbiosis at the extremes of life, both in the neonate and in the elderly, can have a profound impact on brain function. Such a dysbiosis might emerge for a variety of reasons, including the mode of birth delivery, diet, and antibiotic and other drug exposure.”