

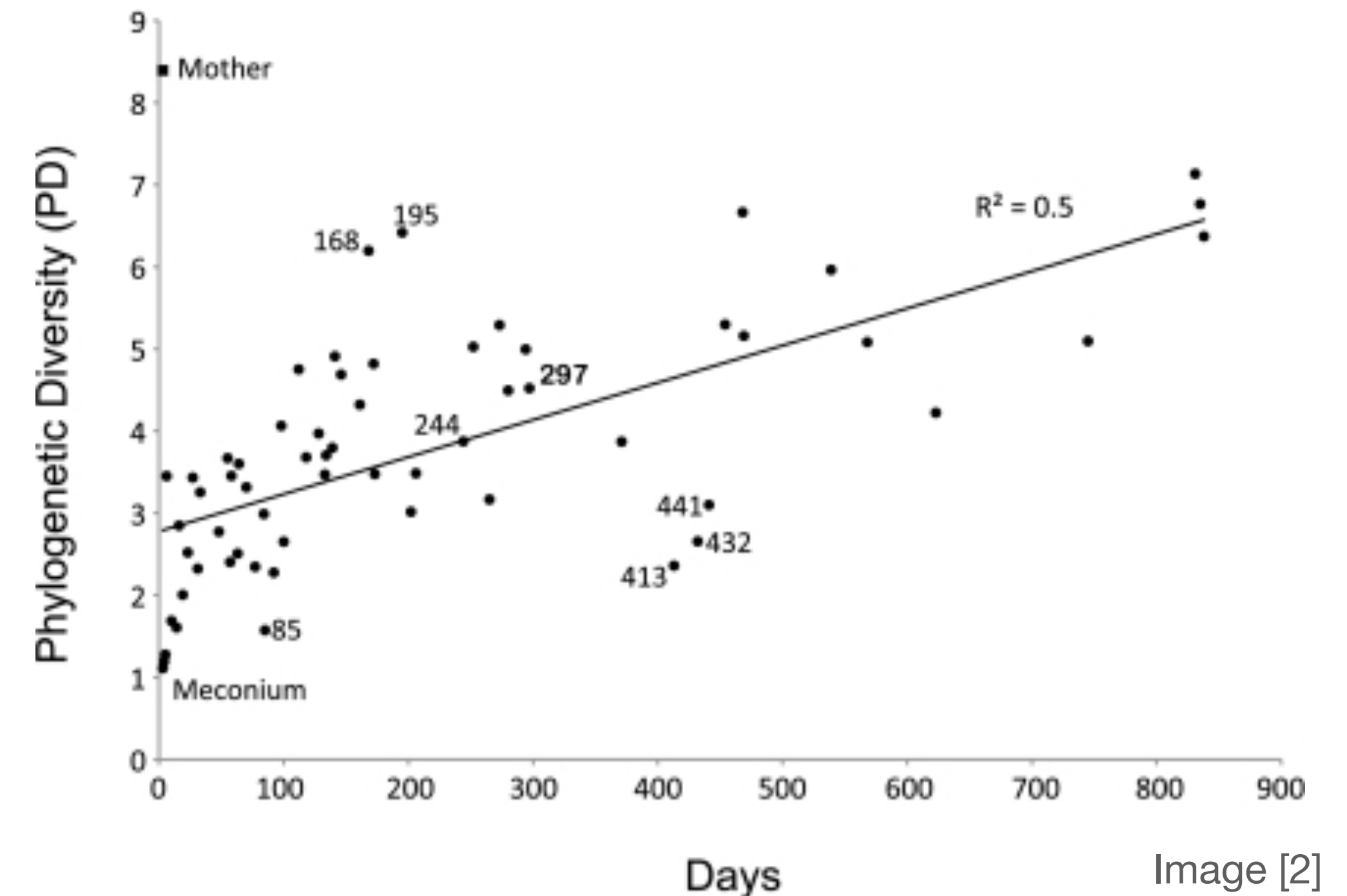
Human Microbiome

- Average adult human gut flora [1]
 - 10^{13} - 10^{14} total microbes
 - > 100 species
- Perform commensal functions
 - Maturation and regulation of immune system (esp. gut)
 - Breakdown otherwise indigestible compounds
 - Inhibition of pathogen binding to epithelium



Microbiome Development

- Develops ~ 20 minutes after birth [1]
- Depends on mode of delivery [1]
 - Vaginal → resembles birthing parent's vaginal flora
 - C-section → resembles birthing parent's skin flora
- Gut microbiome begins to resemble that of adult in ~ 1-3 years [1]



[1] DynaMed. Probiotics. EBSCO Information Services. Accessed July 11, 2021. <https://www.dynamed.com/drug-review/probiotics>

[2] Koenig JE, Spor A, Scalfone N, Fricker AD, Stombaugh J, Knight R, Angenent LT, Ley RE. Succession of microbial consortia in the developing infant gut microbiome. Proc Natl Acad Sci U S A. 2011 Mar 15;108 Suppl 1(Suppl 1):4578-85. doi: 10.1073/pnas.1000081107. Epub 2010 Jul 28. PMID: 20668239; PMCID: PMC3063592.