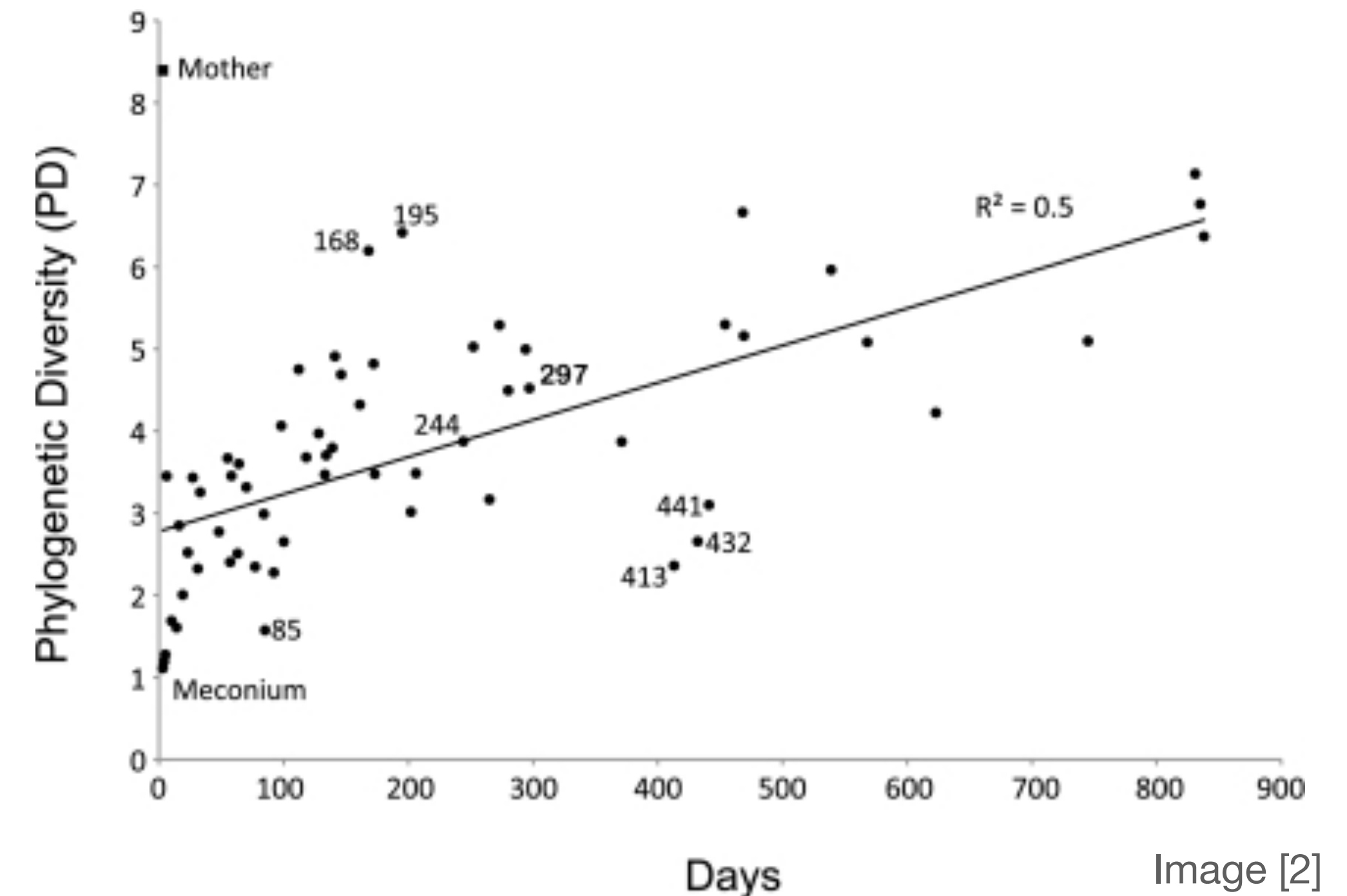


Microbiome Development

- 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.

Probiotics

- “Live microorganisms which when administered in adequate amounts confer a health benefit on the host” [1]
- Generally unknown mechanisms, vary by preparation, species
- Common uses [2]: antibiotic-associated diarrhea, traveler’s diarrhea, BV, infectious mastitis, hypercholesterolemia
- Common adverse effects [2]: GI complaints, rash



[1] Hill C, Guarner F, Reid G, Gibson GR, Merenstein DJ, Pot B, Morelli L, Canani RB, Flint HJ, Salminen S, Calder PC, Sanders ME. Expert consensus document. The International Scientific Association for Probiotics and Prebiotics consensus statement on the scope and appropriate use of the term probiotic. Nat Rev Gastroenterol Hepatol. 2014 Aug;11(8):506-14. doi: 10.1038/nrgastro.2014.66. Epub 2014 Jun 10. PMID: 24912386.

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