Notes:

No site associated with T (Arathimos et al. 2019). See also Moore et al.

Changes in epigenetic state are associated with fertility [Reproductive Disease Epigenetics, R. Oliva – Chapter 21 Tollefsbol 2016.]

DNAm is linked to muscle disorders [Epigenetics and Regenerative Medicine: Neural and Skeletal Muscle Perspectives, Chapter 43, Tollefsbol 2016]

Rather than predicting BMI, DNAm may…

(This suggests that associated DNA methylation loci may belong to causal pathways linking BMI and metabolic, cardiovascular and other obesity-related health outcomes) from Reed et al. 2020.

Gender-specific postnatal demethylation and establishment of epigenetic memory (in the liver of male mice) Reizel et al. 2015 ?

Significant DNA methylation differences between cotwins were only observed if the heavier cotwins had excessive liver fat; differentially methylated CpGs included 23 genes known to be associated with obesity, liver fat, type 2 diabetes and metabolic syndrome, and potential novel metabolic genes; significant clustering of differentially methylated genes in vitamin, amino acid, fatty acid, sulfur, and renin–angiotensin metabolism pathways

Ollikainen M, Ismail K, Gervin K, Kyllönen A, Hakkarainen A, Lundbom J, Järvinen EA, Harris JR, Lundbom N, Rissanen A, Lyle R, Pietiläinen KH, Kaprio J. Genome-wide blood DNA methylation alterations at regulatory elements and heterochromatic regions in monozygotic twins discordant for obesity and liver fat. Clin Epigenetics 2015;7:39.

DNA methylation plays a role in exercise-induced gene expression

Barres R, Yan J, Egan B, Treebak JT, Rasmussen M, Fritz T, Caidahl K, Krook A, O’Gorman DJ, Zierath JR. Acute exercise remodels promoter methylation in human skeletal muscle. Cell Metab 2012;15(3):405–11.

NakajimaK,TakeokaM,MoriM,HashimotoS,SakuraiA,NoseH,HiguchiK,ItanoN,ShioharaM,OhT,TaniguchiS.Exerciseeffectsonmeth- ylation of ASC gene. Int J Sports Med 2010;31(9):671–5.

Epigenetic Alterations in Endocrine-Dependent Cancers: Implications of Endocrine Dysfunctions

Chapter 20, Tollefsbol 2016 Medical Epigenetics