The follow paper focus on dna methylation prediction with a various types of application. Each of them use different ML method. These papers show the potential of ML usage in biology & medical in the future

Paper Title	Abstract	Conferences	Year
Hierarchical Ridge Regression for Incorporating Prior Information in Genomic Studies	2 layers of ridge regression	Journal of Data Science	2021/1
Interpretable machine learning prediction of all-cause mortality	implementing explainable ai	commun med	2022
A machine learning approach utilizing DNA methylation as an accurate classifier of COVID-19 disease severity	using ML to help diagonase covid	sci report	2022
https://www.nature.com/articles/s41467-021-24710-8?fbclid=lwAR0c40pv1hhX46FEBYY5JaTg_T_o5UGEmVYvQbrHOyKWWlrsGiy9iUwgRivE	predict Alzheimer severity	Nature conference	aug 2019
Machine Learning-Based DNA Methylation Score for Fetal Exposure to Maternal Smoking Development and Validation in Samples Collected from Adolescents and Adults	predict offspring health	Environment al Health Perspe	Septe mber 2020
Machine Learning Approaches for the Estimation of Biological Aging The Road Ahead for Population Studies	calculating biological age for diagonose	frontiers in medicine	2019/7
Machine learning workflows to estimate class probabilities for precision cancer diagnostics on DNA methylation microarray data	predict cancer with Random Forest, ELNET, SVM	Nature Protocols	2020/1

Estimating Biological Age from Physical Activity using Deep Learning with 3D CNN	using 3d image to predict death	BIBM	2019
Ensemble Learning of Convolutional Neural Network, Support Vector Machine, and			
Age Prediction ARAMIS Contribution to the Predictive Analytics Competition 2019	using brain cell mri image predict age	Frontiers in Psychiatry	2019
Challenge			