

# Untitled

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Study the effect of promoter, coding, and cg content on mutation rate. For promoters and coding windows, remove those that have “n/a” as gene names, for coding also remove utr5. Also have Noonan Roadmap brain union as a categorical variable only use synonymous mutations to estimate coding mutation rates for cases

```
load("../analysis/161119_mutation_rate_calibration_with_Noonan_brain_roadmap_union_1bp_overlap_using_sy
```

## 258 control

```
control_model_258_summary
```

##	Estimate	Std. Error	z value	Pr(> z )
## (Intercept)	0.26026351	0.1012956	2.5693462	1.018906e-02
## coding	0.11201464	0.1005227	1.1143219	2.651411e-01
## promoter	0.02038928	0.1375587	0.1482224	8.821672e-01
## cg	-1.94061738	0.2281548	-8.5057032	1.804982e-17
## epi	-0.47578490	0.1019272	-4.6678884	3.043111e-06

## manuscript cases

```
ASD_model_manuscript_summary
```

##	Estimate	Std. Error	z value	Pr(> z )
## (Intercept)	0.02456091	0.07788773	0.3153374	7.525055e-01
## coding	-1.27417892	0.12788682	-9.9633323	2.205440e-23
## promoter	-0.18842989	0.09327561	-2.0201409	4.336877e-02
## cg	-0.48325218	0.16683725	-2.8965484	3.772924e-03
## epi	-0.05623625	0.06391059	-0.8799208	3.789022e-01

## manuscript control

```
control_model_693_summary
```

##	Estimate	Std. Error	z value	Pr(> z )
## (Intercept)	-0.2296226	0.06008929	-3.821356	1.327201e-04
## coding	0.3651675	0.05103813	7.154797	8.379686e-13
## promoter	-0.1057078	0.07020794	-1.505639	1.321598e-01
## cg	-0.9055296	0.12971112	-6.981126	2.928242e-12
## epi	0.2131422	0.04624039	4.609437	4.037599e-06

## scherrer cases, partly overlapped with manuscript cases

ASD\_model\_Scherer\_summary

##	Estimate	Std. Error	z value	Pr(> z )
## (Intercept)	-0.1361703	0.10948927	-1.243686	2.136150e-01
## coding	-1.1154635	0.16873438	-6.610766	3.823358e-11
## promoter	-0.3780944	0.13797180	-2.740374	6.136928e-03
## cg	-0.7155675	0.23606260	-3.031261	2.435342e-03
## epi	0.1150488	0.08707799	1.321216	1.864293e-01