Results

Feature selection

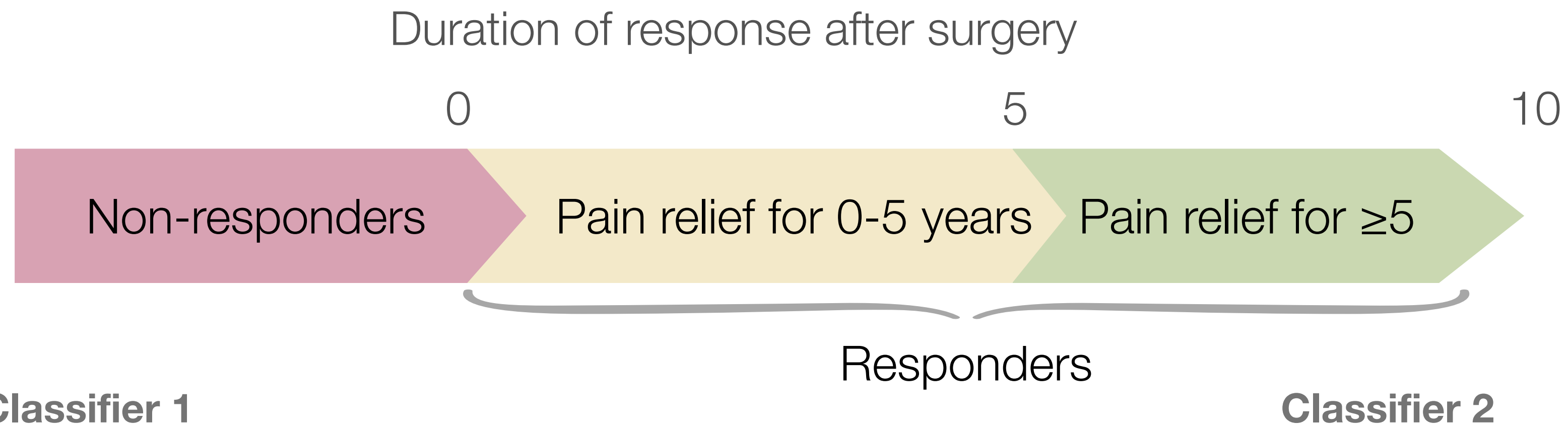| Feature	PC1 Weight
MVD history	0.398374
GK history	0.388326
Diabetes	0.374363
Liver/GI disease	0.364386
Triggers	0.340846
Pain description	0.336244
Attack frequency	0.274016
Pain side (laterality)	-0.14505
Autoimmune comorbidities	-0.13085
Thyroid comorbidities	-0.12024
Sex	-0.11771
Other neurosurgery	-0.11459
Pain duration	0.112751
Age	-0.11199
Respiratory comorbidities	-0.08006
Urogenital comorbidities	0.039214
Cancer	-0.021
Dyslipidemia	0.002584
Psychiatric comorbidities	1.62E-27
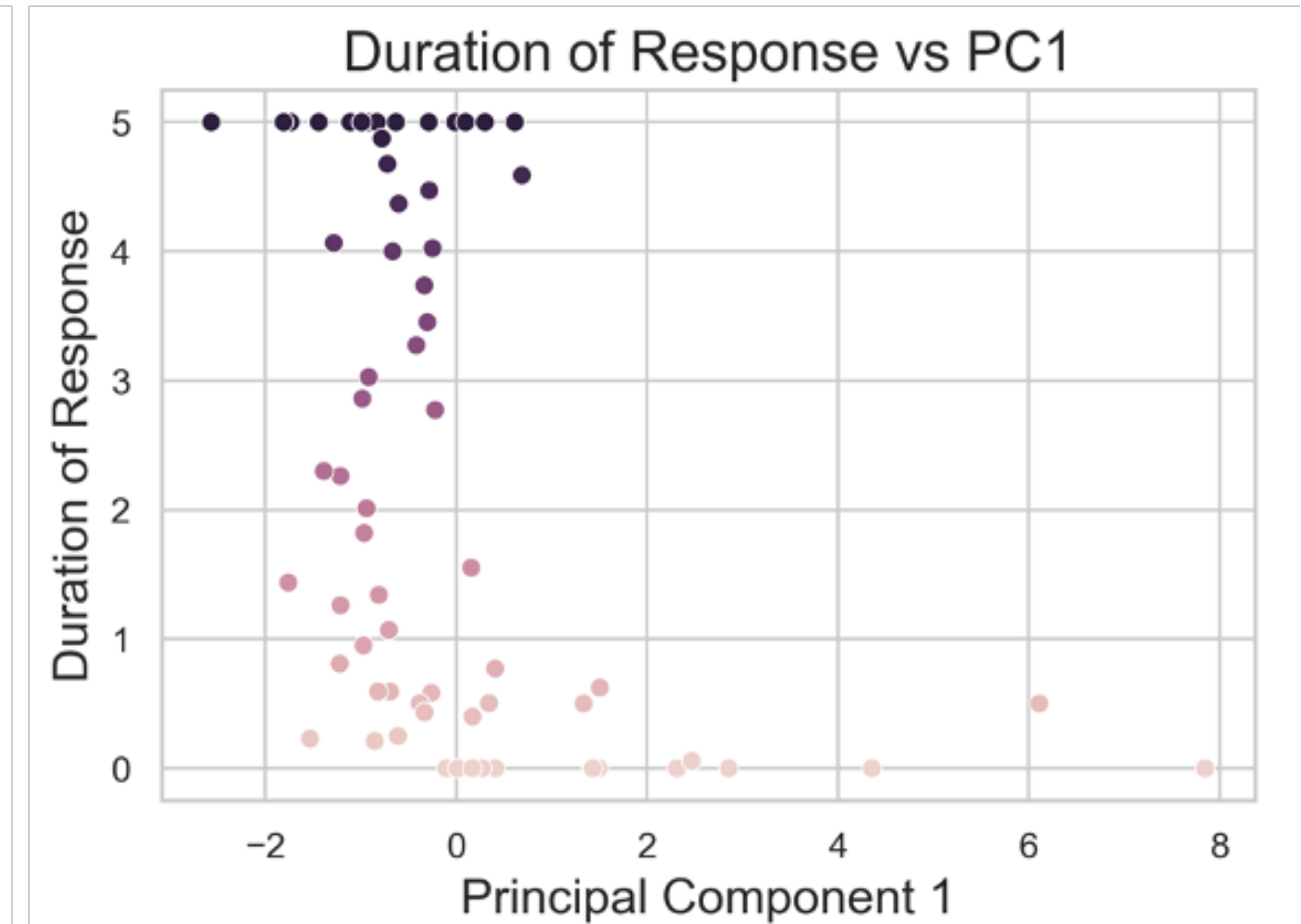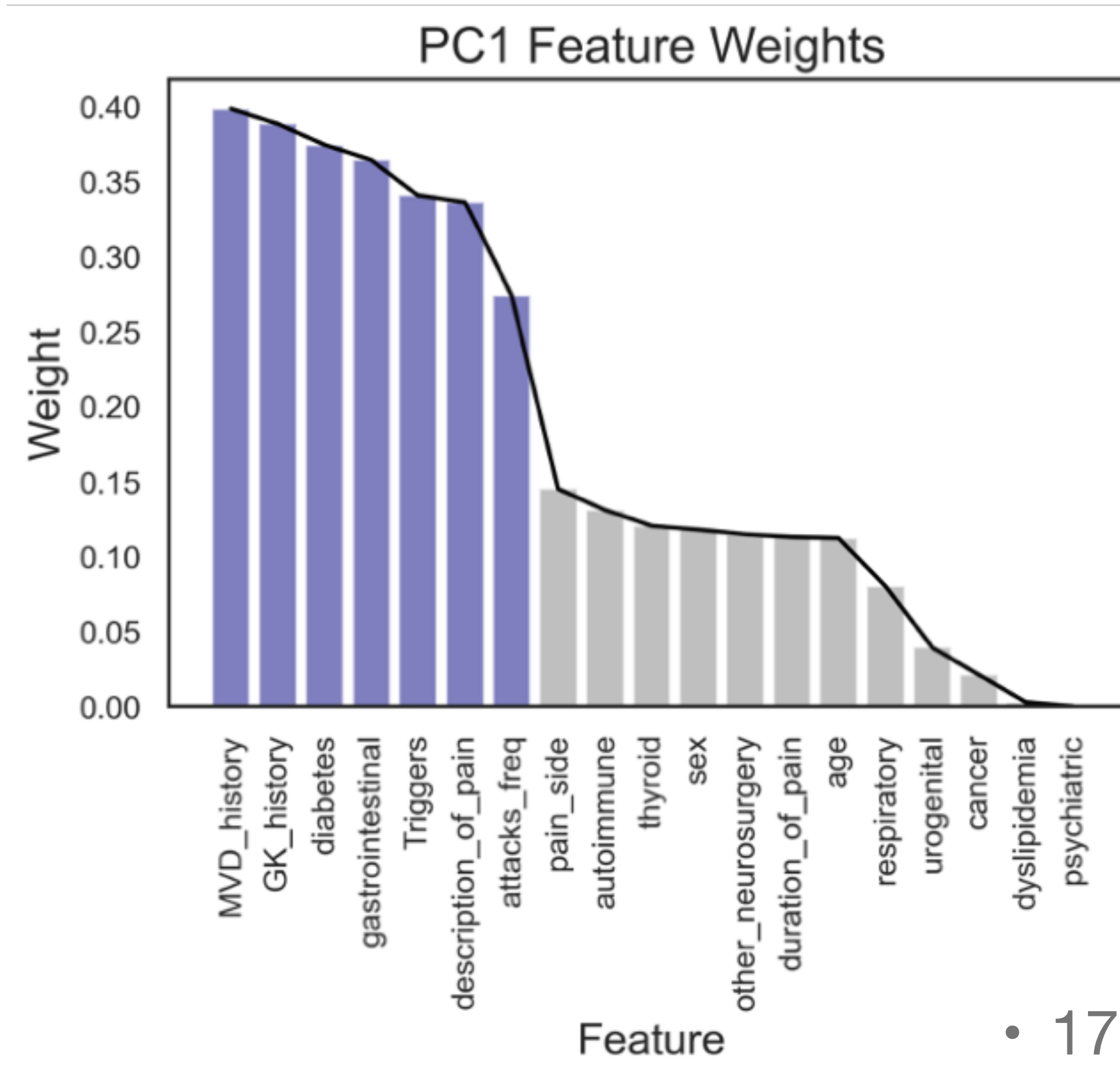
- 17 PCs to explain 95% of variance in data.

- PC1 vs Duration of response r = -0.51
[-0.67 – -0.31] (p = 0.0002)

Results

Supervised ML tasks

Duration of response after surgery

| 0 | 5 | 10 |

Non-responders | Pain relief for 0-5 years | Pain relief for ≥5

Responders

Classifier 1

- Responders vs. Non-responders

- Classification accuracy - 86%

Classifier 2

- Pain relief for <5 Years vs. Pain relief for ≥5 years

- Classification accuracy - 77%