**Features: gene embeddings**

**AUROC**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *Positive class* | Sampling method | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Average | STD |
| *Befree – curated (363)* | 1. Random Undersampling (1:2) | .79 | .79 | .84 | .78 | .77 | .84 | .77 | .79 | .85 | .79 | 0.8 | 0.029 |
| 1. SMOTE oversampling | .78 | .79 | .79 | .78 | .77 | .84 | .77 | .79 | .85 | .79 | 0.8 | 0.028 |
| *BeFree (401)* | Random Undersampling (1:2) | 0.79 | 0.8 | 0.85 | 0.79 | 0.86 | 0.84 | 0.82 | 0.82 | 0.84 | 0.81 | 0.82 | 0.025 |
| SMOTE oversampling | 0.81 | 0.8 | 0.85 | 0.79 | 0.86 | 0.86 | 0.82 | 0.82 | 0.84 | 0.81 | 0.83 | 0.025 |
| *Curated (70)* | 1. Random Undersampling (1:2) | 0.83 | 0.85 | 0.87 | 0.82 | 0.9 | 0.87 | 0.96 | 0.85 | 0.93 | 0.78 | 0.87 | 0.053 |
| 1. SMOTE oversampling | 0.78 | 0.85 | 0.87 | 0.82 | 0.9 | 0.87 | 0.96 | 0.85 | 0.93 | 0.78 | 0.86 | 0.059 |
| *Svensson’s genes (139)* | 1. Random Undersampling (1:2) | 0.78 | 0.91 | 0.89 | 0.86 | 0.92 | 0.76 | 0.83 | 0.89 | 0.87 | 0.92 | 0.86 | 0.057 |
| 1. SMOTE oversampling | 0.79 | 0.91 | 0.89 | 0.86 | 0.92 | 0.76 | 0.83 | 0.89 | 0.87 | 0.92 | 0.86 | 0.055 |

Average overall: .85

Average std: .045

**Features: all module scores**

AUROC:

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *Positive class* | Sampling method | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Average | STD |
| *Befree – curated (363)* | 1. Random Undersampling (1:2) | .84 | .81 | .83 | .81 | .79 | .83 | .78 | .80 | .84 | .80 | 0.81 | 0.02 |
| 1. SMOTE oversampling | .83 | .81 | .83 | .81 | .79 | .83 | .78 | .80 | .84 | .80 | 0.81 | 0.02 |
| *BeFree (401)* | Random Undersampling (1:2) | 0.83 | 0.81 | 0.84 | 0.82 | 0.86 | 0.82 | 0.83 | 0.84 | 0.83 | 0.83 | 0.83 | 0.014 |
| SMOTE oversampling | 0.83 | 0.81 | 0.84 | 0.82 | 0.86 | 0.82 | 0.83 | 0.84 | 0.83 | 0.83 | 0.83 | 0.014 |
| *Curated (70)* | 1. Random Undersampling (1:2) | 0.87 | 0.88 | 0.95 | 0.85 | 0.93 | 0.87 | 0.94 | 0.88 | 0.93 | 0.86 | 0.9 | 0.037 |
| 1. SMOTE oversampling | 0.86 | 0.88 | 0.95 | 0.85 | 0.93 | 0.87 | 0.94 | 0.88 | 0.93 | 0.86 | 0.9 | 0.038 |
| *Svensson’s genes (139)* | 1. Random Undersampling (1:2) | 0.77 | 0.9 | 0.77 | 0.85 | 0.92 | 0.82 | 0.87 | 0.9 | 0.86 | 0.91 | 0.86 | 0.055 |
| 1. SMOTE oversampling | 0.78 | 0.9 | 0.88 | 0.85 | 0.92 | 0.82 | 0.87 | 0.9 | 0.86 | 0.91 | 0.87 | 0.044 |

Average overall: .863

Avg std: .033