**RANDOM FOREST CLASSIFIER**

**FLUX ONLY :**

**Target Variable: Cancer Stage**

MCC: 0.0

Validation score: 0.19324754836140035

CONFUSION MATRIX:

Confusion Matrix, without normalization

[[ 0 0 0 0 0 1 0]

[ 0 0 0 0 0 21 0]

[ 0 0 0 0 0 21 0]

[ 0 0 0 0 0 7 0]

[ 0 0 0 0 0 15 0]

[ 0 0 0 0 0 10 0]

[ 0 0 0 0 0 8 0]]

CLASSIFICATION REPORT:

|  |  |
| --- | --- |
| PRECISION | 0.01 |
| RECALL | 0.12 |
| F1-SCORE | 0.03 |
| SUPPORT | 83 |

**Target Variable: Primary Tumour Site**

MCC: 0.0

Validation scores: 0.1464607531673471

CONFUSION MATRIX:

Confusion Matrix, without normalization

[[ 0 0 0 0 0 8]

[ 0 0 0 0 0 18]

[ 0 0 0 0 0 1]

[ 0 0 0 0 0 20]

[ 0 0 0 0 0 5]

[ 0 0 0 0 0 31]]

CLASSIFICATION REPORT:

|  |  |
| --- | --- |
| PRECISION | 0.14 |
| RECALL | 0.37 |
| F1-SCORE | 0.20 |
| SUPPORT | 83 |

**GENES ONLY:**

**Target Variable: Cancer Stage**

MCC: -0.05831870731089837

Validation score: 0.23611476969161976

CONFUSION MATRIX:

Confusion Matrix, without normalization

[[ 0 0 1 0 0 0 0]

[ 0 2 19 0 0 0 0]

[ 0 3 16 1 1 0 0]

[ 0 2 5 0 0 0 0]

[ 0 7 8 0 0 0 0]

[ 0 1 8 0 1 0 0]

[ 0 2 6 0 0 0 0]]

CLASSIFICATION REPORT:

|  |  |
| --- | --- |
| PRECISION | 0.09 |
| RECALL | 0.22 |
| F1-SCORE | 0.12 |
| SUPPORT | 83 |

**Target Variable: Primary Tumour Site**

MCC: -0.0032631744810075834

**Validation Score:** 0.3204603314933011

Confusion Matrix, without normalization

[[ 0 1 0 0 0 7]

[ 0 3 0 0 0 15]

[ 0 0 0 0 0 1]

[ 0 6 0 0 0 14]

[ 0 0 0 0 0 5]

[ 3 3 0 0 0 25]]

CLASSIFICATION REPORT:

|  |  |
| --- | --- |
| PRECISION | 0.19 |
| RECALL | 0.34 |
| F1-SCORE | 0.23 |
| SUPPORT | 83 |

**CLINICAL DATA:**

**Target Variable: Cancer Stage**

MCC: 0.31531443859130326

**Validation score:** 0.33461331521103815

CONFUSION MATRIX:

Confusion Matrix, without normalization

[[ 0 0 1 0 0 0 0]

[ 0 12 7 2 0 0 0]

[ 0 3 14 0 0 3 1]

[ 0 0 4 3 0 0 0]

[ 0 1 10 1 1 1 1]

[ 0 0 2 1 1 6 0]

[ 0 1 5 0 1 0 1]]

CLASSIFICATION REPORT:

|  |  |
| --- | --- |
| PRECISION | 0.46 |
| RECALL | 0.45 |
| F1-SCORE | 0.42 |
| SUPPORT | 83 |

**Target Variable: Primary Tumour Site**

MCC: 0.12936449937689687

**Validation Score:** 0.24859245922220302

CONFUSION MATRIX:

Confusion Matrix, without normalization

[[ 0 2 0 1 0 5]

[ 1 6 0 2 0 9]

[ 0 0 0 0 0 1]

[ 2 3 0 2 0 13]

[ 0 1 0 0 0 4]

[ 2 1 0 3 0 25]]

CLASSIFICATION REPORT:

|  |  |
| --- | --- |
| PRECISION | 0.32 |
| RECALL | 0.40 |
| F1-SCORE | 0.33 |
| SUPPORT | 83 |

**ALL DATA SETS:**

**Target Variable: Cancer Stage**

MCC: 0.03198066887440015

**Validation score:** 0.30347567991780516

CONFUSION MATRIX:

Confusion Matrix, without normalization

[[ 0 0 1 0 0 0 0]

[ 0 8 12 1 0 0 0]

[ 0 7 12 1 0 1 0]

[ 0 2 5 0 0 0 0]

[ 0 6 8 0 1 0 0]

[ 0 3 6 0 0 1 0]

[ 0 2 5 0 1 0 0]]

CLASSIFICATION REPORT:

|  |  |
| --- | --- |
| PRECISION | 0.28 |
| RECALL | 0.27 |
| F1-SCORE | 0.21 |
| SUPPORT | 83 |

**Target Variable: Primary Tumour Site**

MCC: 0.027419965017741264

**Validation Score:** 0.28682049383780883

CONFUSION MATRIX:

Confusion Matrix, without normalization

[[ 0 2 0 1 0 5]

[ 0 6 0 0 0 12]

[ 0 0 0 0 0 1]

[ 1 4 0 0 0 15]

[ 0 1 0 0 0 4]

[ 4 4 0 1 0 22]]

CLASSIFICATION REPORT:

|  |  |
| --- | --- |
| PRECISION | 0.22 |
| RECALL | 0.34 |
| F1-SCORE | 0.26 |
| SUPPORT | 83 |