### Bird Eye View of Protein Subcellular Localization Prediction

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Table 1. Comparative performance of available subcellular localization methods.

| Method            | Sensitivity | Specificity | Accuracy | MCC     | Coverage | Absolute True | F1 Value |
|-------------------|-------------|-------------|----------|---------|----------|---------------|----------|
| DeepPred-SubMito  | -           | -           | 0.79     | 0.49-0.99 | -        | -             | -        |
| SubMito-XGBoost   | -           | -           | 97.7-98.9 | -       | -        | -             | -        |
| mRNALoc           | 62.67-96.28 | 65.34-99.79 | 65.19-99.70 | 0.14-0.95 | -        | -             | -        |
| SCLpred-EM        | -           | -           | 0.75-0.86 | -       | -        | -             | -        |
| BUSCA             | -           | -           | -        | -       | 0.49     | -             | -        |
| SubMitoPred       | 71.88-85.37 | 71.19-95.18 | 71.23-94.37 | 0.21-0.68 | -        | -             | -        |
| pLoc-mEuk         | -           | -           | 84.34    | -       | 84.34    | 78.78         | -        |
| ERPred            | 79.84       | 81.58       | 81.42    | 0.42    | -        | -             | -        |
| DeepLoc           | -           | -           | 78-92    | 0.45-0.83 | -        | -             | -        |
| SubNucPred        | 72.22-86.49 | 75.44-88.60 | 75.40-88.89 | 0.33-0.64 | -        | -             | -        |
| LocTree3          | -           | -           | 81.96    | -       | 86-96    | -             | -        |
| PlantLoc          | -           | -           | 80.80    | -       | -        | -             | -        |
| iLoc-Hum          | 79.30       | 94.99       | 76.31    | -       | -        | -             | -        |
| iLoc-Animal       | -           | -           | -        | -       | 0.45     | -             | -        |
| iLoc-Plant        | -           | -           | 71.70    | -       | -        | -             | -        |
| iLoc-Euk          | -           | -           | 79.06    | -       | -        | -             | -        |
| iLoc-Virus        | -           | -           | 78.20    | -       | -        | -             | -        |
| iLoc-Gpos         | -           | -           | 93.12    | -       | -        | -             | -        |
| iLoc-Gneg         | -           | -           | 91.40    | -       | -        | -             | -        |
| MARSpred          | 98.33       | 92.50       | 96       | 0.92    | -        | -             | -        |
| SCLpred           | 0.34-0.93   | 0.39-0.93   | -        | 0.68-0.92 | -        | -             | -        |
| AtlasSubP         | 91.00       | 97.90       | -        | 0.89    | -        | -             | -        |
| Euk-mPLoc2.0      | -           | -           | 64.17    | -       | -        | -             | -        |
| PSORTb 3.0        | -           | -           | 97.90-98.30 | 0.79-0.85 | -        | -             | -        |
| YLoc              | -           | -           | 48.00-58.00 | -     | -        | 0.37-0.67     | -        |
| SubChlo           | -           | -           | 67.18-89.69 | -     | -        | -             | -        |
| MultiLoc2         | 81.90-89.40 | -           | 77.90-88.90 | -     | -        | -             | -        |
| AAIndexLoc        | 19.00-87.00 | 29.00-83.00 | 74.50-77.30 | 0.23-0.79 | -        | -             | -        |
| Euk-mPLoc         | -           | -           | 67.40    | -       | -        | -             | -        |
| Hum-mPLoc 3.0     | -           | -           | 63.00    | -       | -        | -             | 0.65     |
| Gpos-PLoc         | -           | -           | 82.70    | -       | -        | -             | -        |
| Gneg-PLoc         | -           | -           | 87.30    | -       | -        | -             | -        |
| Virus-PLoc        | -           | -           | 80.00-89.20 | -     | -        | -             | -        |
| ProLoc-Go         | -           | -           | 88.10-88.30 | -     | -        | -             | -        |
| ProLoc            | -           | -           | 56.37-72.82 | -     | -        | -             | -        |
| SherLoc           | 81.00-94.00 | 29.00-96.00 | 85.30-96.20 | 0.48-0.92 | -        | -             | -        |
| MitPred           | 56.36       | 100         | 93.06    | 0.72    | -        | -             | -        |
| BaCellLo          | -           | -           | 39.40-99.50 | -     | 50.7-97.7 | -             | -        |
| HSLpred           | -           | -           | 84.90    | 0.80    | -        | -             | -        |
| PSLpred           | -           | -           | 86.80-95.20 | 0.84-0.95 | -        | -             | -        |
| ESLpred           | -           | -           | 88.00    | 0.69-0.91 | -        | -             | -        |

Note: Performance mentioned here is range of performance for that particular method. ‘-’ represents that method does not use that matrix for the performance.