

# Supporting Information for Publication

## The Oligomannose N-glycans 3D Architecture and its Response to the Fc $\gamma$ RIIIa Structural Landscape

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|           |                           |                                |                               |            |
|-----------|---------------------------|--------------------------------|-------------------------------|------------|
| Man 5     | Volume ( $\text{\AA}^3$ ) | Void Volume ( $\text{\AA}^3$ ) | VDW Volume ( $\text{\AA}^3$ ) | Population |
| Cluster 1 | 1353.315                  | 309.918                        | 1043.397                      | 48.6%      |
| Cluster 2 | 1345.942                  | 302.545                        | 1043.397                      | 33.3%      |
| Man 6.1   | Volume ( $\text{\AA}^3$ ) | Void Volume ( $\text{\AA}^3$ ) | VDW Volume ( $\text{\AA}^3$ ) | Population |
| Cluster 1 | 1519.962                  | 346.645                        | 1173.317                      | 41.1%      |
| Cluster 2 | 1526.162                  | 352.845                        | 1173.317                      | 37.5%      |
| Man 6.2   | Volume ( $\text{\AA}^3$ ) | Void Volume ( $\text{\AA}^3$ ) | VDW Volume ( $\text{\AA}^3$ ) | Population |
| Cluster 1 | 1532.160                  | 358.843                        | 1173.317                      | 52.4%      |
| Cluster 2 | 1500.380                  | 327.063                        | 1173.317                      | 39.9%      |
| Man 6.3   | Volume ( $\text{\AA}^3$ ) | Void Volume ( $\text{\AA}^3$ ) | VDW Volume ( $\text{\AA}^3$ ) | Population |
| Cluster 1 | 1509.563                  | 336.246                        | 1173.317                      | 36.1%      |
| Cluster 2 | 1519.858                  | 346.541                        | 1173.317                      | 28.6%      |
| Man 7.1   | Volume ( $\text{\AA}^3$ ) | Void Volume ( $\text{\AA}^3$ ) | VDW Volume ( $\text{\AA}^3$ ) | Population |
| Cluster 1 | 1698.219                  | 383.977                        | 1311.578                      | 46.2%      |
| Cluster 2 | 1695.555                  | 388.641                        | 1311.578                      | 33.1%      |
| Man 7.2   | Volume ( $\text{\AA}^3$ ) | Void Volume ( $\text{\AA}^3$ ) | VDW Volume ( $\text{\AA}^3$ ) | Population |
| Cluster 1 | 1696.598                  | 385.020                        | 1311.578                      | 55.5%      |
| Cluster 2 | 1687.197                  | 375.619                        | 1311.578                      | 31.7%      |
| Man 7.3   | Volume ( $\text{\AA}^3$ ) | Void Volume ( $\text{\AA}^3$ ) | VDW Volume ( $\text{\AA}^3$ ) | Population |
| Cluster 1 | 1684.669                  | 373.121                        | 1311.578                      | 42.6%      |
| Cluster 2 | 1688.432                  | 376.854                        | 1311.578                      | 20.2%      |
| Man 7.4   | Volume ( $\text{\AA}^3$ ) | Void Volume ( $\text{\AA}^3$ ) | VDW Volume ( $\text{\AA}^3$ ) | Population |
| Cluster 1 | 1679.435                  | 367.875                        | 1311.578                      | 46.0%      |
| Cluster 2 | 1673.590                  | 362.012                        | 1311.578                      | 40.8%      |
| Man 8.1   | Volume ( $\text{\AA}^3$ ) | Void Volume ( $\text{\AA}^3$ ) | VDW Volume ( $\text{\AA}^3$ ) | Population |
| Cluster 1 | 1865.909                  | 429.145                        | 1436.764                      | 55.3%      |
| Cluster 2 | 1838.531                  | 401.767                        | 1436.764                      | 38.2%      |
| Man 8.2   | Volume ( $\text{\AA}^3$ ) | Void Volume ( $\text{\AA}^3$ ) | VDW Volume ( $\text{\AA}^3$ ) | Population |
| Cluster 1 | 1844.979                  | 408.215                        | 1436.764                      | 47.5%      |
| Cluster 2 | 1854.854                  | 418.215                        | 1436.764                      | 18.0%      |
| Man 8.3   | Volume ( $\text{\AA}^3$ ) | Void Volume ( $\text{\AA}^3$ ) | VDW Volume ( $\text{\AA}^3$ ) | Population |
| Cluster 1 | 1860.670                  | 423.906                        | 1436.764                      | 36.7%      |
| Cluster 2 | 1868.772                  | 432.008                        | 1436.764                      | 35.9%      |
| Man 9     | Volume ( $\text{\AA}^3$ ) | Void Volume ( $\text{\AA}^3$ ) | VDW Volume ( $\text{\AA}^3$ ) | Population |
| Cluster 1 | 2015.338                  | 438.765                        | 1576.573                      | 38.0%      |
| Cluster 2 | 2026.897                  | 450.324                        | 1576.573                      | 37.2%      |