**Supplemental table 1.** **Most frequently cited references in the ten largest document co-citation clusters ranked by citation counts.** Citations is the number of citation of the publication in the network. Burst quantifies the surge of the citation for a specific period of time. Betweenness centrality quantifies the importance of the publication’s position in the cluster. Sigma combines betweenness centrality and burst rate to provide an indication of the transformative strength of the publication in the network.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Cluster ID and label** | **Citations** | **Burst** | **Centrality** | **Sigma** | **Cited reference** |
| Cluster #0 (Parkinson's disease) | 378 | 138.24 | 0.05 | 1316.60 | (1) |
| 287 | 105.63 | 0.01 | 1.93 | (2) |
| 192 | 69.14 | 0.04 | 18.34 | (3) |
| 166 | 67.26 | 0.01 | 1.55 | (4) |
| 156 | 57.93 | 0.00 | 1.00 | (5) |
| 111 | 40.26 | 0.01 | 1.57 | (6) |
| 109 | 48.76 | 0.00 | 1.22 | (7) |
| 107 | 41.09 | 0.03 | 3.22 | (8) |
| 104 | 41.92 | 0.00 | 1.21 | (9) |
| 102 | 37.71 | 0.01 | 1.54 | (10) |
| Cluster #1 (Gaucher disease) | 100 | 36.97 | 0.00 | 1.13 | (11) |
| 84 | 40.75 | 0.01 | 1.31 | (12) |
| 73 | 35.56 | 0.08 | 15.28 | (13) |
| 69 | 35.67 | 0.02 | 1.89 | (14) |
| 64 | 30.58 | 0.14 | 62.55 | (15) |
| 56 | 26.36 | 0.02 | 1.56 | (16) |
| 55 | 26.62 | 0.05 | 4.14 | (17) |
| 51 | 26.32 | 0.02 | 1.63 | (18) |
| 49 | 25.95 | 0.03 | 2.16 | (19) |
| 48 | 24.32 | 0.08 | 6.23 | (20) |
| Cluster #2 (Replacement therapy) | 168 | 79.65 | 0.02 | 4.09 | (21) |
| 115 | 52.32 | 0.27 | 219699.69 | (22) |
| 82 | 39.02 | 0.08 | 22.94 | (23) |
| 66 | 32.64 | 0.01 | 1.58 | (24) |
| 65 | 31.33 | 0.39 | 32501.36 | (25) |
| 63 | 30.36 | 0.01 | 1.26 | (26) |
| 60 | 26.45 | 0.03 | 2.05 | (27) |
| 53 | 26.5 | 0.01 | 1.22 | (28) |
| 51 | 24.44 | 0.01 | 1.32 | (29) |
| 50 | 25.9 | 0.00 | 1.06 | (30) |
| Cluster #3 (Human spleen) | 18 | 12.27 | 0.06 | 2.12 | (31) |
| 18 | 11.67 | 0.00 | 1.01 | (32) |
| 14 | 9.26 | 0.02 | 1.23 | (33) |
| 12 | 8.11 | 0.07 | 1.76 | (34) |
| 12 | 7.99 | 0.01 | 1.11 | (35) |
| 12 | 8.19 | 0.01 | 1.07 | (36) |
| 12 | 8.2 | 0.00 | 1.03 | (37) |
| 11 | 7.08 | 0.00 | 1.01 | (38) |
| 10 | 6.84 | 0.01 | 1.09 | (39) |
| 10 | 6.7 | 0.01 | 1.04 | (40) |
| Cluster #4 (Molecular analysis) | 124 | 59.72 | 0.06 | 27.09 | (41) |
| 102 | 48.9 | 0.15 | 891.75 | (42) |
| 86 | 45.37 | 0.17 | 1041.83 | (43) |
| 85 | 40.79 | 0.01 | 1.48 | (44) |
| 80 | 40.56 | 0.01 | 1.77 | (45) |
| 79 | 41.01 | 0.01 | 1.29 | (46) |
| 61 | 28.62 | 0.01 | 1.35 | (47) |
| 60 | 30.02 | 0.02 | 1.93 | (48) |
| 58 | 27.2 | 0.02 | 1.73 | (49) |
| 55 | 28.63 | 0.01 | 1.25 | (50) |
| Cluster #5 (Kupffer cells) | 41 | 25.37 | 0.37 | 2974.81 | (51) |
| 37 | 21.47 | 0.01 | 1.35 | (52) |
| 36 | 23.17 | 0.06 | 4.28 | (53) |
| 34 | 22.88 | 0.10 | 7.98 | (54) |
| 30 | 17.4 | 0.00 | 1.03 | (55) |
| 21 | 12 | 0.00 | 1.03 | (56) |
| 19 | 12.21 | 0.02 | 1.26 | (57) |
| 18 | 11.34 | 0.02 | 1.30 | (58) |
| 17 | 11.32 | 0.02 | 1.27 | (59) |
| 17 | 9.91 | 0.00 | 1.04 | (60) |
| Cluster #6(Human glucocerebrosidase) | 79 | 35.81 | 0.16 | 220.66 | (61) |
| 58 | 30.06 | 0.01 | 1.22 | (62) |
| 36 | 20.55 | 0.01 | 1.34 | (63) |
| 23 | 12.7 | 0.01 | 1.19 | (64) |
| 22 | 13.3 | 0.00 | 1.00 | (65) |
| 21 | 12.2 | 0.01 | 1.08 | (66) |
| 16 | 8.83 | 0.02 | 1.23 | (67) |
| 15 | 8.91 | 0.03 | 1.33 | (68) |
| 14 | 7.06 | 0.03 | 1.21 | (69) |
| 14 | 8.89 | 0.00 | 1.01 | (70) |
| Cluster #7 (Sphingolipid precursors) | 57 | 26.53 | 0.02 | 1.57 | (71) |
| 55 | 27.15 | 0.01 | 1.44 | (72) |
| 45 | 24.28 | 0.02 | 1.67 | (73) |
| 41 | 22 | 0.11 | 10.59 | (74) |
| 38 | 17.79 | 0.06 | 2.66 | (75) |
| 35 | 18.96 | 0.01 | 1.20 | (76) |
| 23 | 14.05 | 0.01 | 1.20 | (77) |
| 21 | 11.84 | 0.06 | 2.06 | (78) |
| 20 | 11.54 | 0.01 | 1.16 | (79) |
| 19 | 11.52 | 0.00 | 1.00 | (80) |
| Cluster #8(Pharmacological chaperone) | 73 | 30.24 | 0.03 | 2.43 | (81) |
| 64 | 32.03 | 0.07 | 8.30 | (82) |
| 61 | 29.69 | 0.00 | 1.09 | (83) |
| 56 | 26.94 | 0.03 | 2.46 | (84) |
| 51 | 19.69 | 0.04 | 2.25 | (85) |
| 44 | 18.76 | 0.01 | 1.23 | (86) |
| 43 | 22.79 | 0.01 | 1.16 | (87) |
| 41 | 18.65 | 0.00 | 1.06 | (88) |
| 40 | 21.08 | 0.02 | 1.62 | (89) |
| 36 | 16.15 | 0.01 | 1.12 | (90) |
| Cluster #9 (Glucosylceramide beta-glucosidase) | 23 | 13.67 | 0.00 | 1.02 | (91) |
| 21 | 12.48 | 0.06 | 2.03 | (92) |
| 15 | 8.28 | 0.01 | 1.04 | (93) |
| 14 | 8.31 | 0.00 | 1.02 | (94) |
| 12 | 5.9 | 0.06 | 1.38 | (95) |
| 10 | 6.17 | 0.02 | 1.16 | (96) |
| 10 | 6.16 | 0.00 | 1.00 | (97) |
| 8 | 5.29 | 0.03 | 1.16 | (98) |
| 8 | 5.13 | 0.03 | 1.14 | (99) |
| 7 | 4.7 | 0.02 | 1.07 | (100) |

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