

SUPPLEMENTARY TABLE S2. ATTRIBUTES CALCULATED FOR EACH NODE, USED IN CLUSTER ANALYSIS\*

<i>Attribute</i>	<i>Definition</i>
Average shortest path length	It is the length of a shortest path between $n$ and any other node. If $n$ is an isolated node, its value is zero.
Betweenness centrality	It is computed as follows: $C_b(n) = \sum_{s \neq n \neq t} (\sigma_{st}(n) / \sigma_{st})$ <p>where <math>s</math> and <math>t</math> are nodes in the network different from <math>n</math>, <math>\sigma_{st}</math> denotes the number of shortest paths from <math>s</math> to <math>t</math>, and <math>\sigma_{st}(n)</math> is the number of shortest paths from <math>s</math> to <math>t</math> that <math>n</math> lies on.</p>
Closeness centrality	It ranges between 0 and 1. It is the reciprocal of the average shortest path length and is computed as follows: $C_c(n) = 1 / \text{avg}(L(n, m))$ <p>where <math>L(n, m)</math> is the length of the shortest path between two nodes <math>n</math> and <math>m</math>. The closeness centrality of each node is a number between 0 and 1 and it is a measure of how fast information spreads from a given node to other reachable nodes in the network.</p>
Clustering coefficient degree	See definition of cluster coefficient in Table 2. It is the number of edges of a node.
Eccentricity	It is the maximum non-infinite length of a shortest path between $n$ and another node in the network.
Radiality	It is computed by subtracting the average shortest path length of a node $n$ from the diameter of the connected component plus 1. The radiality of each node is divided by the diameter of the connected component and it is a number between 0 and 1.
Stress Topological coefficient	It is the number of shortest paths passing through a node. For a node $n$ with $k_n$ neighbors it is computed as follows: $T_n = \text{avg}(J(n, m)) / k_n$ <p>Where <math>J(n, m)</math> is the number of neighbors shared between the nodes <math>n</math> and <math>m</math>, plus one if there is a direct link between <math>n</math> and <math>m</math>. It is a relative measure for the extent to which a node shares neighbors with other nodes.</p>
Neighborhood connectivity	It is defined as the average connectivity of all neighbors of a node, where the connectivity of a node is the number of its neighbors.

\*With modification from <http://med.bioinf.mpi-inf.mpg.de/netanalyzer/help/2.7/index.html#attributes>.