**S2 Figure. Probability of reaching EDSS > 4 and EDSS > 6.** A) Probability of reaching an EDSS value > 4calculated using experimental data for the 4 clusters (red - cluster 1, green - cluster 2, blue - cluster 3, black - cluster 4). Cluster-wise simulated data (light brown lines, each line corresponds to one stochastic inflammatory input and the probabilities are counted for the top 10 sets of parameters) and the corresponding experimental datasets (red, green, blue, black). B) Probability of reaching an EDSS value > 6calculated using the experimental values for the 4 clusters (red - cluster 1, green - cluster 2, blue - cluster 3, black - cluster 4). The resulting curve for the discovery cohort was approximated by the Hill equation (x^b/(x^b+a)) with different coefficients for distinct clusters. The inflection point of the Hill curve was the estimated time-point that falls exactly in the middle of the minimum and maximum EDSS values, and it was equal to 119, 25, 338 and 189 months for Cluster 1, 2, 3 and 4, respectively, and it could be used as a characteristic value of the EDSS dynamics.

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