# Supplementary Information

# Cellular processes involved in Jurkat cells exposed to nanosecond pulsed electric field

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**1. Tables**

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**Table S1** RMSD value average analysis

| Proteins | Model[a] | 0 v[b] | 0.01 v[b] | 0.05 v[b] | 0.5 v[b] |
|---|---|---|---|---|---|
| SUGP1 | 1.761 | N.D | N.D | N.D | N.D |
| DHX16 | 0.5759 | 0.6216 | 0.5533 | 0.5988 | 9.31 |
| FUS | 1.029 | 0.9463 | 0.9185 | 0.853 | 7.352 |
| HNRNPR | 1.517 | N.D | N.D | N.D | N.D |
| DHX15 | 0.3965 | 0.4047 | 0.5067 | 0.3902 | 7.83 |
| NAA38 | 0.6192 | N.D | N.D | N.D | N.D |
| SKIV2L2 | 0.4343 | N.D | N.D | N.D | N.D |
| PLRG1 | 0.6941 | 0.6674 | 0.4666 | 0.7016 | 3.635 |

**Table S2** RMSF value average analysis

| Proteins | Model[a] | 0 v[b] | 0.01 v[b] | 0.05 v[b] | 0.5 v[b] |
|---|---|---|---|---|---|
| SUGP1 | 0.6416 | N.D | N.D | N.D | N.D |
| DHX16 | 0.2550 | 0.3628 | 0.2882 | 0.2725 | 3.601 |
| FUS | 0.3450 | 0.4874 | 0.4925 | 0.5140 | 5.702 |
| HNRNPR | 0.6293 | N.D | N.D | N.D | N.D |
| DHX15 | 0.2026 | 0.2220 | 0.2545 | 0.1973 | 4.479 |
| NAA38 | 0.2504 | N.D | N.D | N.D | N.D |
| SKIV2L2 | 0.2165 | N.D | N.D | N.D | N.D |
| PLRG1 | 0.2569 | 0.3955 | 0.2617 | 0.3194 | 1.531 |

Note:

a: compared with MD “protein in water”

b: compared with MD “protein in electric field”

N.D: none data

**Table S3** Rg value average analysis

| Proteins | Model[a] | 0 v[b] | 0.01 v[b] | 0.05 v[b] | 0.5 v[b] |
|---|---|---|---|---|---|
| SUGP1 | 3.436 | N.D | N.D | N.D | N.D |
| DHX16 | 2.512 | 2.662 | 2.579 | 2.598 | 10.46 |
| FUS | 2.646 | 2.641 | 2.611 | 2.722 | 8.217 |
| HNRNPR | 2.911 | N.D | N.D | N.D | N.D |
| DHX15 | 2.945 | 2.999 | 2.960 | 2.949 | 8.709 |
| NAA38 | 1.473 | N.D | N.D | N.D | N.D |
| SKIV2L2 | 3.251 | N.D | N.D | N.D | N.D |
| PLRG1 | 2.235 | 2.414 | 2.266 | 2.322 | 4.388 |

Note:

a: compared with MD "protein in water"

b: compared with MD "protein in electric field"

N.D: none data

**Table S4** RMSD value of protein model and MD-optimized protein model

| Proteins | Model[a] | 0.01 v[b] | 0.05 v[b] | 0.5 v[b] |
|---|---|---|---|---|
| SUGP1 | 13.456 | | | |
| DHX16 | 4.386 | 18.3 | 19.9 | 99.847 |
| FUS | 10.472 | 8.809 | 10.604 | 32.637 |
| HNRNPR | 14.815 | | | |
| DHX15 | 1.978 | 2.201 | 1.797 | 73.054 |
| NAA38 | 5.226 | | | |
| SKIV2L2 | 1.775 | | | |
| PLRG1 | 4.558 | 3.714 | 3.332 | 31.329 |