

**Summary of integrative structure determination of CLOCK-BMAL1 bound to the native Por nucleosome (PDB ID: 9A3P | pdb\_00009a3p, PDB-Dev ID: PDBDEV\_00000210 )**

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| <b>1. Model Composition</b>                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <a href="#">1.1. Entry composition</a>                            | <ul style="list-style-type: none"> <li>- Histone H3.1: chain(s) A, E (139 residues)</li> <li>- Histone H4: chain(s) B, F (106 residues)</li> <li>- Histone H2A: chain(s) C, G (133 residues)</li> <li>- Histone H2B: chain(s) D, H (128 residues)</li> <li>- DNA (147-MER): chain(s) I (147 residues)</li> <li>- DNA (147-MER): chain(s) J (147 residues)</li> <li>- Circadian locomotor output cycles protein kaput: chain(s) K, M (375 residues)</li> <li>- Basic helix-loop-helix ARNT-like protein 1: chain(s) L, N (384 residues)</li> </ul> |
| <a href="#">1.2. Datasets used for modeling</a>                   | <ul style="list-style-type: none"> <li>- 3DEM volume, EMDB: <a href="#">EMD-17160</a></li> <li>- Crosslinking-MS data, PRIDE: <a href="#">PXD033181</a></li> <li>- Experimental model, PDB: <a href="#">pdb_00006t93</a></li> <li>- Experimental model, PDB: <a href="#">pdb_00004f31</a></li> <li>- Experimental model, PDB: <a href="#">pdb_00008osl</a></li> </ul>                                                                                                                                                                             |
| <b>2. Representation</b>                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <a href="#">2.1. Number of representations</a>                    | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <a href="#">2.2. Scale</a>                                        | Atomic                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <a href="#">2.3. Number of rigid and flexible segments</a>        | 0, 22                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>3. Restraints</b>                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <a href="#">3.1. Physical principles</a>                          | Information about physical principles was not provided                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <a href="#">3.2. Experimental data</a>                            | <ul style="list-style-type: none"> <li>- 1 unique CrossLinkRestraint: DSSO, 59 crosslinks</li> <li>- 1 unique EM3DRestraint: None</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>4. Validation</b>                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <a href="#">4.2. Number of ensembles</a>                          | 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <a href="#">4.3. Number of models in ensembles</a>                | Not applicable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <a href="#">4.4. Number of deposited models</a>                   | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <a href="#">4.5. Model precision</a>                              | Not available                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <a href="#">4.6. Data quality</a>                                 | EMD-17160: resolution is 4.90 Å                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <a href="#">4.7. Model quality: assessment of atomic segments</a> | <ul style="list-style-type: none"> <li>- Clashscore: 2.34</li> <li>- Ramachandran outliers: 43</li> <li>- Sidechain outliers: 29</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                       |

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| <a href="#"><i>4.8. Fit to data used for modeling</i></a>   | <ul style="list-style-type: none"> <li>- Satisfaction of crosslinks: 0.00%</li> <li>- 3DEM q-score(s): 0.12</li> <li>- 3DEM atom inclusion score(s): 0.82</li> </ul> |
| <a href="#"><i>4.9. Fit to data used for validation</i></a> | Fit of model to information not used to compute it has not been determined                                                                                           |
| <b>5. Methodology and Software</b>                          |                                                                                                                                                                      |
| 1. <a href="#"><i>5.1. Method name</i></a>                  | MDFF with distance and map restraints                                                                                                                                |
| <a href="#"><i>5.2. Method type</i></a>                     | MDFF                                                                                                                                                                 |
| <a href="#"><i>5.5. Software</i></a>                        | <ul style="list-style-type: none"> <li>- <a href="#">ChimeraX/Isolde</a> (version Not available)</li> <li>- <a href="#">Coot</a> (version 0.9.6)</li> </ul>          |