These tables are the in-house checklists used for the UW Model Repository at www.physiome.org

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | STANDARDS.7.PUBLICATION | Auth | 2nd | Note |
| Group 1: Identification, Description, and role of MODEL in the field | |  |  |  |
|  | Purpose: to present REPRODUCIBLE SCIENCE with this advancement |  |  |  |
|  | What is the special contribution of the model |  |  |  |
|  | Was model used in experiment design? Analysis? Validation? UQ? |  |  |  |
|  | Context for this work in the field. The science advanced. |  |  |  |
|  | Novel or confirmatory? |  |  |  |
|  | Acknowledgments. Authorship criteria. |  |  |  |
| Group 2: Technical aspects of the paper | |  |  |  |
|  | Abstract, Intro, Methods, Results, Discussion, Acknowledgment, Appendices |  |  |  |
|  | Every figure has axes labeled with symbol, name, units. Clean. No clutter |  |  |  |
|  | Graphs use same colors and line types for same variable in every figure. |  |  |  |
|  | Ontology consistent in notation of .mod, Figures, Notes, Par sets, Website |  |  |  |
|  | Equations complete and match notation |  |  |  |
|  | Parameter and Variable notation: symbol, name, units, description |  |  |  |
|  | Tables of all parameters, initial conditions, steady state or equilibrium condn |  |  |  |
|  | Parameter influences: Loops: purposes and settings; par set FIGURES? |  |  |  |
|  | Optimization re data or other model: description, par set, Notes |  |  |  |
|  | Graphs; confidence limits, data symbols consistent |  |  |  |
|  | OPEN SOURCE site identified (DATA, MODEL in Project file) |  |  |  |
|  | Parameter files and notes for each Figure in the paper? Tested by running? |  |  |  |
| Group 3. The Modeling and the analyses | |  |  |  |
|  | Model completely defined, with rationale, provenance, |  |  |  |
|  | Verification methods: See STANDARDS-VERIF for detail |  |  |  |
|  | Validation methods: See STANDARDS-VALID for detail |  |  |  |
|  | Assessment of validation process and adequacy of data and analysis |  |  |  |
|  | Model variants defined, invalidated, or not invalidated (=working hypoth) |  |  |  |
|  | Comparing with past work: the novelty (doubts and confidence level) |  |  |  |
|  | Uncertainty Quantification: See STANDARDS-UQ for detail. |  |  |  |
|  | Were predictions testable? |  |  |  |
|  | Reproducibility of Modeling and Data analysis |  |  |  |
|  | Discussion of contribution to science |  |  |  |
|  | Future needs defined? |  |  |  |
| Group 4. Scientific Publication | |  |  |  |
|  | Journal choice, OPEN SOURCE, freely downloadable |  |  |  |
|  | Site for Supplements, data, code, project files, |  |  |  |
|  | The REP, REPRODUCIBLE EXCHANGE PACKAGE, and the storage site |  |  |  |
|  | Website for public dissemination, commentary and responses |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
| NOTE | Checklists to be checked by Author and 2 checkers |  |  |  |

Updated 16.08.11 aug 11, 2016