| STANDARDS.5: VALIDATION TESTING: | Auth | 2nd | Note |
|--|------|-----|----------|
| Group 1: Identification and Description | | | |
| Model Name and No: short and long descriptions complete | | | |
| Code verified and runs correctly. See STANDARDS.4VERIF | | | |
| Diagrams represent the key elements of the system | | | |
| Reference to Publication describing the model | | | - |
| Context and Purpose of model defined | | | |
| Group 2. Data for Validation testing. FIGURES and NOTES describe validation | | | |
| Experimental data available, and described. Reproducible? | | | |
| The data are defined, figures and parameter sets (All matched) | | | |
| Data figures: Titles appropriate | | | |
| Data figures: axes labeled with symbol, name and units | | | |
| Figures use very short tab labels fitting topic. | | | |
| Graphs use same colors and line types for same variable in every figure. | | | |
| Ontology consistent in notation of .mod, Figures and Notes and Par sets | | | |
| | | | |
| Notation consistent with diagrams, code, Website, publication | | | |
| Parameters sets: Description and rationale for each set of data | | | |
| Optimization re data or other model: Opt Choice, par set, Notes | | | |
| Loops: purposes and settings; par set | | | |
| Group 3. Validation evaluation: | | | |
| Initial and boundary conditions in accord with physiology? | | | |
| List Data provided and fitted by model, and sources. | | | |
| Balance checks. (Mass, charge, osmotic, energy) | | | |
| RMS error and CV for all data sets. Different data sets comparable? | | | |
| Show fits of data in Figures, and optimization results | | | |
| Notes defining contents of each situation, figure or par set | | | |
| Parameters estimated and evaluated against literature or other | | | |
| Parameter correlations not near 1 | | | |
| Parameters omitted from optimization? | | | |
| Sensitivity functions. How to plot. Why useful. Notes. Use same colors. | | | |
| Residuals random or systematic? | | | |
| | | | |
| Group 4. Uncertainty Quantification: See STANDARDS-UQ for detail 1. Parameters and Variables chosen re sensitivities to critical parameters | | | |
| 2. Define measures of uncertainty for system overall behavior | | | |
| 3. Make choices for contour maps and pdfs of projected results | | | |
| Group 5: Scientific Publication: See STANDARDS-PUB for detail | | | |
| Summary of the Validation criteria and success | | | |
| Weaknesses in validation; parameters/model components undefined | | | |
| Define future expts, model revisions, commentary and responses | | | |
| benne ruture expts, model revisions, commentary and responses | | | <u> </u> |