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

	STANDARDS.4. VERIFICATION:	Auth	2nd	Note
Group 1: Conservation, Balances		x		
	Unitary Balance: (units on all variables and parameters		xy	
	Mass balance: (list constituents whose conservation is checked)			xyz
	Other balances: Charge, Osmotic , Thermodynamics.			
Group 2.Verification Steps. Checking Math and Numerics of Model				
	All terms defined			
	Numerical Solutions check analytic. Why Methods chosen. In notes.			
	Analytic solutions built into code?			
	Equation formats in similar styles, aligned for easy checking			
	Dependence on time step defined for particular parameter values			
	Dependence on space step defined for particular parameter values			
	Optimizer and loop parameters provided			
	Different solvers gives same results for ODEs			
	Different solvers gives same results for PDEs			
	Implicit eqns solved by iteration? Calculation done how?			
	Commentary on checks or missing checks			
	Solution times chosen; delta t chosen; comments			
	List variables computed in the MML code that are serving as checks			
Group 3: Verification in Data analysis				
	Data available, described and adequate as test			
	Data units matched by model			
	Multiple data sets available			
	Behavioral analysis: Can cover a wide range of situations?			
	Sensitivity analysis defined for conditions that fit data			
Group 4. Validation methods: See STANDARDS-VALID for detail				
	1. Justify initial and boundary conditions in accord with physiology			
	2. List Data provided and fitted by model, and sources.			
	3. Show fits of data in Figures, and optimization results			
	4. Notes defining contents of each situation, figure or par set			
	5. Parameters estimated and evaluated against literature or other			
Group 5. Uncertainty Quantification: See STANDARDS-UQ for detail				
	1. Parameters and Variables chosen			
	2. Define Measures of uncertainty			
	3. Plots or contour maps of projected results			
	4. Methods verified for full range of Monte Carlo ranges used			
Group 6: Scientific Publication: See STANDARDS-PUB for detail				
	1. Summary of verification tests in publication?			
	2. Any failures in verification			
	3. Website for public dissemination of verification methods or tests			

Rev 15.08.01 JBB