SUPPLEMENTARY TABLE S2. Parameters of bioelectrorheological model

Parameter	Description	Bioelectrorheological Model		Electroporation Model	TTFields	Notes
		Membrane Destabalization (Contributes to Electroporation)	Electrofusion			
*Frequency of Electric Field	At high frequencies shear stress within the membrane decreases and reaches a constant value corresponding to dielectric stress solely	Yes, f = 7 x 10^1 Hz to 3 x10^5 Hz		Yes	Yes 200 kHz	*Ratio of cells susceptible to electroporation: cells susceptible to electrodestruction constant at low frequencies but decreased at higher frequencies (f ≈ 1.0x10^4 Hz), implying both processes are due to different mechanisms and/or involve different molecular structures.
Initial outer cell radius	-	Yes				
Reversibility	Under the applied stress only reversible, nondamaging viscoelastic deformations were developed	Yes		Yes	Yes	
Susceptibility to electroporation	Expression of extensil stress leading to electroporation, increased with frequency, highest at f ≈ 10^5 Hz	Yes				
Induced cell membrane potential	Increased with frequency	Yes				
Susceptibility to destabalization	Dependent on frequency, increases with frequency, varies depending on cell type, f = 10^4 Hz a steep increase in this susceptibility occurred possibly explianed by resonance oscillations of the susceptible structures and from accompanying increase in heat supplied to the system	Yes, highest at f = 10^5 Hz		Yes		
Applied extensil stress	Dependent on frequency, increases with frequency, varies depending on cell type, f = 10^4 Hz a steep increase in this susceptibility occurred possibly explianed by resonance oscillations of the susceptible structures and from accompanying increase in heat supplied to the system	Yes				
Width of the pulse of the alternating field	200 ms for myeloma and 2 s for the N. crassa cells lead to electrodestruction	Yes				
Voltage amplitude	Voltage amplitude at which electrodesturciton begins to be observed	Yes				
Field strength	Of electric field	Yes				
Coefficient of combination α	Describes the unknown part of heat essential in destabilization processes.	Yes				
Viscocity of cellular structures (coefficient of viscocity)	Influenced by membrane proteins and cytoskeletal network. Sigmoidal decrease in the viscosity of structures reactive to the frequency of stress oscillations at f = 10^4 Hz to 10^5 Hz, also affects membrane susceptibility to destabalization	Yes				
Heat energy	Heat energy was mainly responsible for destabilization of the membrane at high frequencies, Joule heat amplified at pore openings, influencing membrane susceptibility	Yes	Yes			
Ionic strength of the external medium	Influence the mechanical susceptibility of Tib9 cells to electroporation	Yes		Yes		
Energy of intermolecular interactions responsible for the integrity of the membrane.	Proportional to yield of electrofusion, thermal chaotic motion may promote mixing of membrane molecules of two neighboring cells remaining at a short distance, affecting electrofusion		Yes			
Density of energy expended	Higher for electrodestruction than electroporation, increases for electroporation with increase of external medium conductivity.	Yes		Yes		
Membrane inertia	Related to membrane viscocity	Yes	Yes			
Cytoplasm and cytoskeletal interaction	Influence membrane viscocity and intertia	Yes				
Initial tension in membrane	In absence of electric field	Yes		Yes		
Density of isothermal work performed against the intermolecular forces and of intrinsic heat	Related to disruptive effects in the membrane and increase in the energy of intermolecular interactions responsible for the integrity of the membrane	Yes	Yes	Yes		
Membrane viscoity	-	Yes	Insignifcant effect			
Complex dielectric permeability	-	Yes				
Complex specific electric conductivity	-	Yes				
Mechanical stress	Theoretically evaluated by including into calculations the dielectric permittivity and electric conductivity of the external and internal medium and the membrane, nonzero magnitude of field frequency, variations of cytoplasmic pressure (bound to cell deformation), and curvature of cell surface.	Yes				
Length of deformed cell along the electric field direction	-	Yes				
Cell membrane thickness	-	Yes				
Solid angle element	-	Yes				
Electrode radius	-	Yes				
Distance between electrodes	-	Yes				
Dielectric permeability	-	Yes				
Dielectric permeability of vacuum	-	Yes				
Surface pressure	-	Yes				
Complex amplitude of extensil stress oscillations	-	Yes				

References	Notes
https://pubmed.ncbi.nlm.nih.gov/2601349/	
https://pubmed.ncbi.nlm.nih.gov/2533955/	Rows 3-7 of this supplemental table are mentioned in Table 3 of main manuscript. Rows 8-35 are additional.
https://pubmed.ncbi.nlm.nih.gov/1387010/	

https://pubmed.ncbi.nlm.nih.gov/8789120/	
https://pubmed.ncbi.nlm.nih.gov/8369458/	