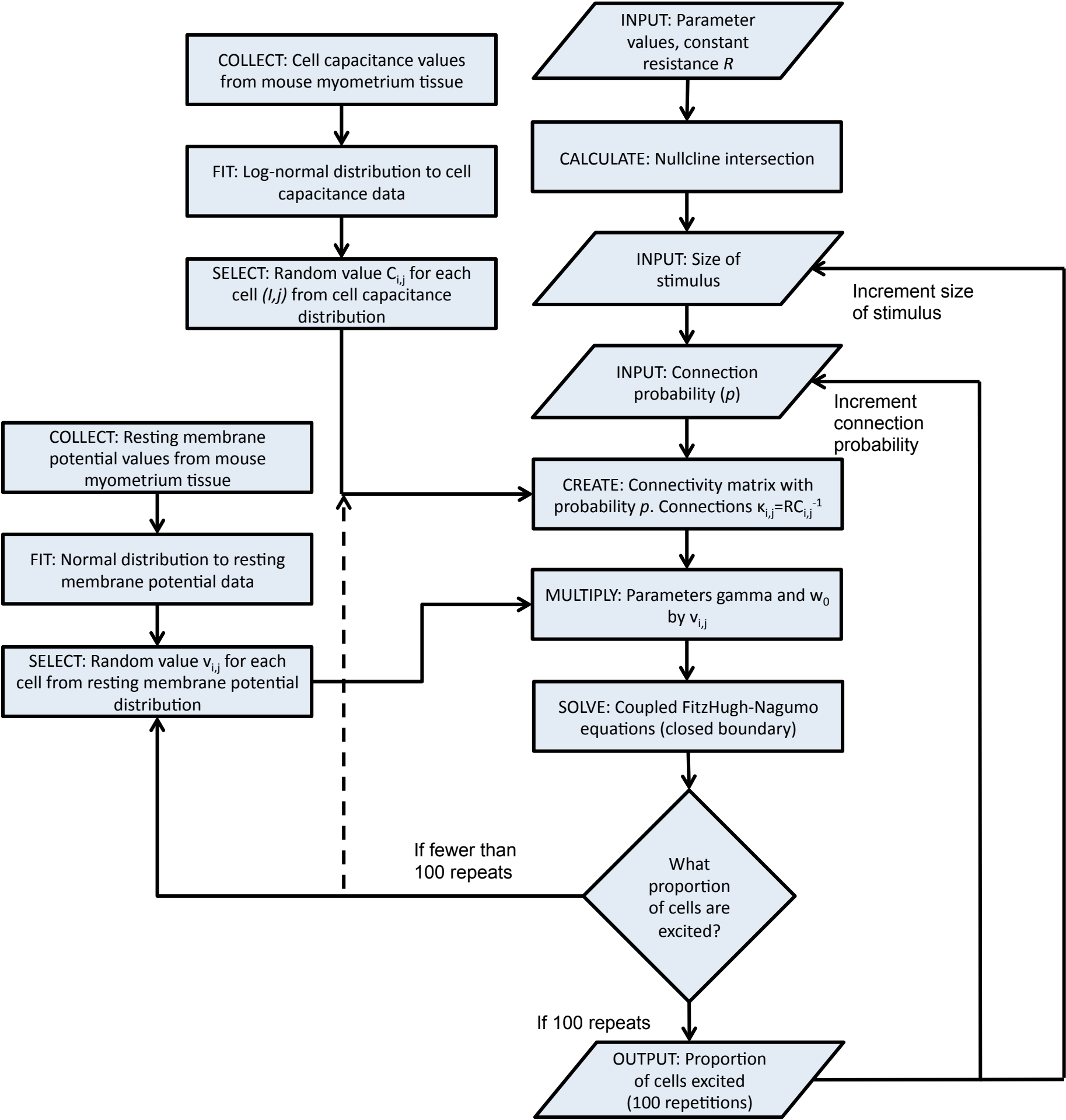
COLLECT: Cell capacitance values from mouse myometrium tissue
FIT: Log-normal distribution to cell capacitance data
SELECT: Random value $C_{i,j}$ for each cell *(I,j)* from cell capacitance distribution
COLLECT: Resting membrane potential values from mouse myometrium tissue
FIT: Normal distribution to resting membrane potential data
SELECT: Random value $v_{i,j}$ for each cell from resting membrane potential distribution
INPUT: Parameter values, constant resistance *R*
CALCULATE: Nullcline intersection
INPUT: Size of stimulus
Increment size of stimulus
INPUT: Connection probability (*p*)
Increment connection probability
CREATE: Connectivity matrix with probability *p*. Connections $\kappa_{i,j}=RC_{i,j}^{-1}$
MULTIPLY: Parameters gamma and w_0 by $v_{i,j}$
SOLVE: Coupled FitzHugh-Nagumo equations (closed boundary)
What proportion of cells are excited?
If fewer than 100 repeats
If 100 repeats
OUTPUT: Proportion of cells excited (100 repetitions)