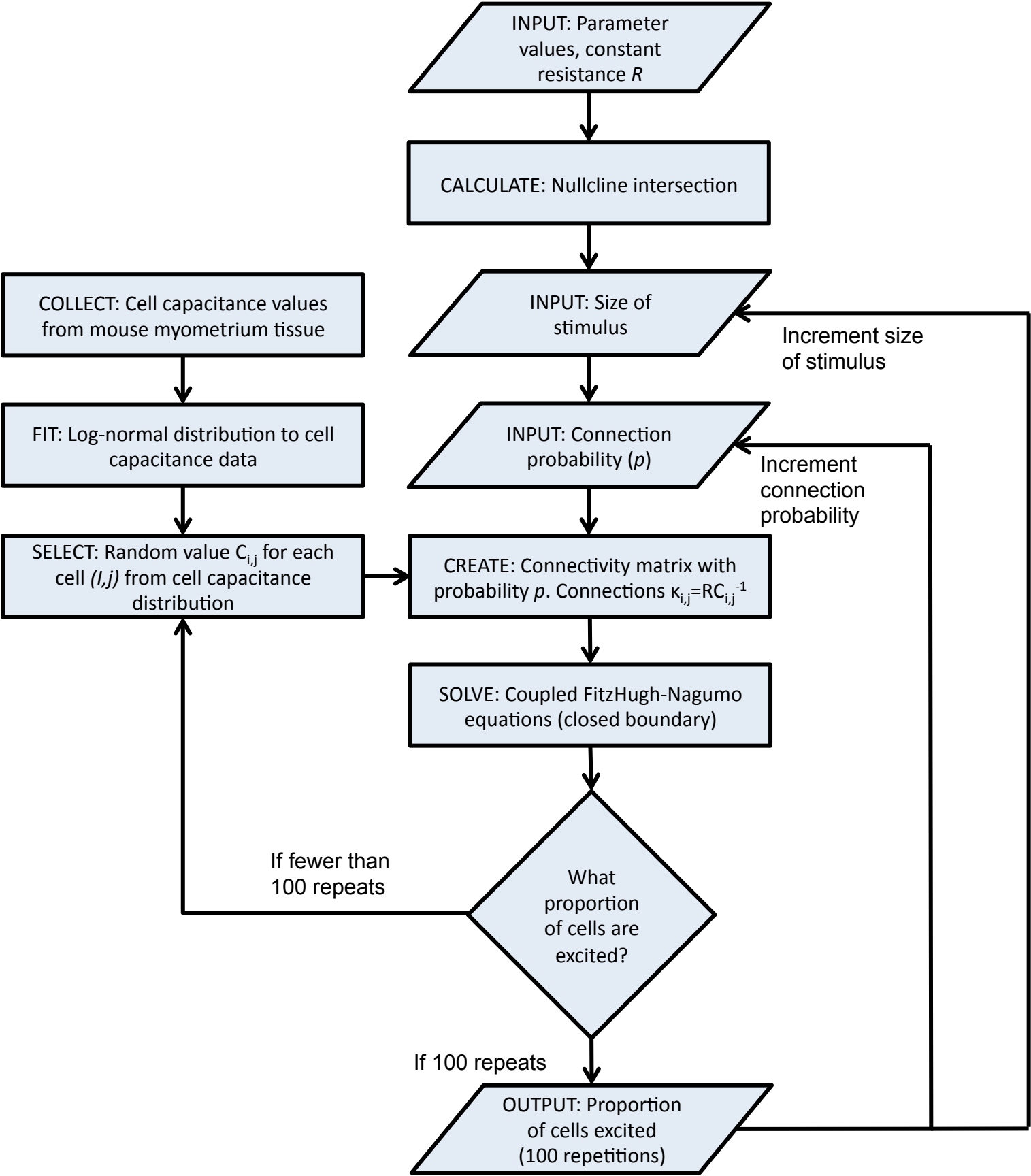
INPUT: Parameter values, constant resistance R
CALCULATE: Nullcline intersection
INPUT: Size of stimulus
Increment size of stimulus
INPUT: Connection probability (p)
Increment connection probability
COLLECT: Cell capacitance values from mouse myometrium tissue
FIT: Log-normal distribution to cell capacitance data
SELECT: Random value $C_{i,j}$ for each cell (I,j) from cell capacitance distribution
CREATE: Connectivity matrix with probability p. Connections $\kappa_{i,j}=RC_{i,j}^{-1}$
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)