A Hippocampal astrocyte  

GFAP-GFP  

Best1  

Merge  

10 μm

B  

C Current density (pA/pF)  

Voltage (mV)

-60 -40 -20 0 20 40

D Bergman glia  

GFAP-GFP  

Best1  

Merge  

10 μm

E

F Current density (pA/pF)  

Voltage (mV)

-60 -40 -20 0 20 40

G

Length Constant \( (\lambda) \) = \( \sqrt{\frac{r_m}{r_i}} \) = \( \frac{R_m}{\rho} \times \frac{a}{2} \)

Voltage error, \( \Delta V(\chi) = V_{\text{max}} \left( e^{\chi/\lambda} \right) \)

Distance \( \chi \): 50 μm  
\( V_{\text{max}} \): -80 mV  
\( \Delta V(\chi) \): -40 mV at 50 μm

Estimated \( \lambda \): 72.1 μm