

Wednesday, May 16/2012

Recording from ISCs.  
Bath: Slice Ringer  
VC near resting potential  
Interval = 10ms.

Animal ① P7

pretreated with 100  $\mu$ M BAPTA-AM + 0.01% of pluronic acid for in  
HEPES-ACSF for 45 min

cell ① 0001 mid-tum. with imaging.  $V_{hold} = -89$  mV. wrong setting TMB # for analysis  
0.001 UTP puff  $\rightarrow$  current  $+1064.7$  pA

cell ② 0002 another mid-tum., with imaging.  $V_{hold} = -89$  mV.

0003 UTP puff  $\rightarrow$  current  $+935.2$  pA

cell ③ 0004 Apex, imaging  $\oplus$ ,  $V_{hold} = -85$  mV.

0005 UTP puff  $\rightarrow$  small current. check  $R_g$  - clogged.

Remove clog.  $\rightarrow$  re-record. not used

0006 record again.  $V_{hold} = -90$  mV.

0007 UTP puff  $\rightarrow$  current.  $+1585.6$  pA

Cell ④ 0008 another Apex. imaging  $\ominus$ .  $V_{hold} = -89$  mV.

0009 UTP  $\rightarrow$  current.  $+1620.1$  pA

Animal ② P7

pretreated with DMSO 1ml + 0.01% pluronic acid in HEPES ACSF

cell ① mid-tum 0010. with imaging.  $V_{hold} = -95$  mV.

0011 UTP  $\rightarrow$  current.  $+2008.6$  pA

Animal ③ P7.

pretreated with DMSO + 0.01% pluronic acid

cell ① mid-tum 0012 with imaging.  $V_{hold} = -85$  mV

0013 UTP  $\rightarrow$  current.  $+1136.8$  pA

cell ② another mid-tum 0014, with imaging.  $V_{hold} = -75$  mV. do not use

cell ③ Apex 0015, with imaging.  $V_{hold} = -86$  mV

0016 UTP  $\rightarrow$  current.  $+2950.7$  pA

cell ④ another Apex. with imaging. lost cell after 3min  
0017

Thursday, May 17 /2012

Recording from ISCs,  
Bath: Slice Ringer  
VC near resting potential.  
Internal: KMeS

Animal ① Pf.

pre-treated with BAPTA-AM 100 μM + 0.01% pluronic acid in HEPES-ACSF  
for 45 min.

cell ① mid-turn 0000. imaging ②.  $V_{hold} = -90$  mV.  
0001 UTP puff → current  $540.3$  pA.

TAB cell #'s

1

cell ② Another mid-turn 0002 imaging ②.  $V_{hold} = -90$  mV.  
0003 UTP puff → current  $1314.0$  pA

2

cell ③ Apex 0004. imaging ②.  $V_{hold} = -90$  mV.  
0005 UTP → current  $812.4$  pA.

3

cell ④ Another Apex 0006. imaging ②.  $V_{hold} = -95$  mV  
0007 UTP → current  $1006.6$  pA

4

Animal ② Pf.

pre-treated with DMSO + 0.01% pluronic acid in HEPES-ACSF  
for 45 min

cell ⑤ mid-turn 0008 with imaging,  $V_{hold} = -91$  mV.  
0009 UTP → current  $> 4000$  pA

5

cell ⑥ Another mid-turn 0010 with imaging.  $V_{hold} = -92$  mV.

6

cell ⑦ Apex 0012. imaging ②.  $V_{hold} = -91$  mV.  
0013 UTP → current  $854.1$  pA

7

cell ⑧ Another Apex 0014. imaging ②.  $V_{hold} = -88$  mV  
0015 UTP → current  $2070.5$  pA

8

Tuesday, May 22/2012

Recording from ISC's, VC near resting potential.  
Bath: Sorensen Ringer  
Internal = KMeS.

Animal ① Pb.

pre-treated with BAPTA-AM 100  $\mu$ M + 0.01% pluronic acid in HEPES-ACSF  
for 45 min.

TPB cell #

1

cell ① mid turn 0000 with imaging.  $V_{hold} = -85$  mV  
0001 UTP  $\rightarrow$  current: 375.5 pA

cell ② Another mid turn 0002 with imaging.  $V_{hold} = -89$  mV.

2

0003 UTP  $\rightarrow$  current: 1012.1 pA

cell ③ apex. 0004 with imaging.  $V_{hold} = -83$  mV  
0005 UTP  $\rightarrow$  current 325.4 pA

3

cell ④ another apex 0006 with imaging.  $V_{hold} = -85$  mV.  
0007 UTP  $\rightarrow$  current: 552.9 pA

4

Animal ② Pb.

pre-treated with DMso 1 ml + 0.01% pluronic acid in HEPES-ACSF  
for 45 min

5

cell ① 0008. mid, with imaging.  $V_{hold} = -93$  mV.  
0009 UTP  $\rightarrow$  current 1696.3 pA

6

cell ② 0010 Apex. with imaging.  $V_{hold} = -90$  mV.

0011 UTP  $\rightarrow$  current. 3054.9 pA

cell ③ 0012 another apex, with imaging,  $V_{hold} = -90$  mV  $\rightarrow$  1st cell.  
discard cell but keep imaging

6

same apex 0013.  $V_{hold} = -88$  mV.

7

0014 UTP  $\rightarrow$  current. 1785.6 pA

Animal ③ Pb.

pre-treated with BAPTA-AM 100  $\mu$ M + 0.01% pluronic acid in HEPES-ACSF  
for ~~45 min~~ 1 hr

8

cell ① mid 0015, with imaging.  $V_{mid} = -89$  mV.

0016 UTP  $\rightarrow$  very small current 12.6 pA

cell ② mid 0017. with imaging.  $V_{mid} = -85$  mV

0018 UTP  $\rightarrow$  very small current 13.4 pA

9

cell ③ Apex 0019, with imaging.  $V_{hold} = -82 \text{ mV}$ .  $\rightarrow$  lost cell later  
keep imaging

0020 same apex.  $V_{hold} = -85 \text{ mV}$ .

0021 UTP  $\rightarrow$  current 276.1 pA

[10]

cell ④ another apex 0022, with imaging.  $V_{hold} = -79 \text{ mV}$

[11]

0023 lost cell before UTP puff.

Animal ④ pt

pretreated with DMSO 1 ml + 0.01% pluronic acid in HEPES-A61A  
for 45 min.

cell ⑤ midturn 0024 with imaging.  $V_{hold} = -67 \text{ mV}$

[12]

0025 lost cell

cell ⑥ Another midturn 0026 with imaging.  $V_{hold} = -92 \text{ mV}$

[13]

cell ⑦ apex 0027 imaging  $\oplus$ .  $V_{hold} = -90 \text{ mV}$ .

0028 UTP  $\rightarrow$  current 1500.9 pA

[14]

cell ⑧ another apex 0029. with imaging.  $V_{hold} = -89 \text{ mV}$

[15]

0030 UTP  $\rightarrow$  current. 1224.0 pA

(all)

animal ④

Friday, May 25/2012

Regarding from ISCs, VC ~~is~~ near resting potential  
Bath = Slice Ringer  
Internal = KMeS.

Animal ① P9.

pretreated with BAPTA-AM 100  $\mu$ M + 0.01% pluronic acid in HEPES-ACUF  
for 45 min.

TAB cell #

cell ① midturn 0000, with imaging,  $V_{hold} = -90$  mV.

0001 UTP  $\rightarrow$  current 597.4 pA

①

cell ② Apex 0002 with imaging.  $V_{hold} = -87$  mV.

0003 UTP  $\rightarrow$  small current 98.1 pA

②

cell ③ another apex 0004, with imaging.  $V_{hold} = -90$  mV.

0005 UTP  $\rightarrow$  large current 4118.03 pA

③

Animal ② P9.

pre-treated with DMSO 1  $\mu$ l + 0.01% pluronic acid in HEPES-ACUF  
for 45 min

cell ④ 0006, midturn, with imaging,  $V_{hold} = -90$  mV

0007 UTP  $\rightarrow$  large current 5706.2 pA

④

cell ⑤ 0008, another midturn, with imaging.  $V_{hold} = -95$  mV.

baseline drifts.

0009 UTP  $\rightarrow$  large current 9025.3 pA

⑤

cell ⑥ 0010, apex, with imaging,  $V_{hold} = -91$  mV

0011 UTP  $\rightarrow$  current 2048.7 pA

⑥

cell ⑦ 0012, another apex, with imaging,  $V_{hold} = -95$  mV.

0013 UTP  $\rightarrow$  current 3602.9 pA

⑦

Wednesday, May 30th / 2012

Recording from ISC r.  
Bath = Slice Ringer

VC near resting potential.  
Interval = 1M.s.

Animal ① P7.

pre-treated with Thapsigargin  $2 \mu\text{M}$  in HEPES-ACSF for 45 min.

cell ① mid-turn 0000, with imaging.  $V_{\text{hold}} = -90 \text{ mV}$ .  
0001 UTP puff  $\rightarrow$  almost no current.  $1.6 \text{ pA}$

Cell #

1

cell ② another mid-turn 0002. with imaging.  $V_{\text{hold}} = -88 \text{ mV}$   
0003 UTP  $\rightarrow$  small current.  $41.1 \text{ pA}$

2

cell ③ Apex 0004. with imaging.  $V_{\text{hold}} = -90 \text{ mV}$   
0005 UTP  $\rightarrow$  current  $\Sigma 36.1 \text{ pA}$

3

cell ④ another Apex 0006. with imaging.  $V_{\text{hold}} = -86 \text{ mV}$   
0007 UTP  $\rightarrow$  current  $\Sigma 44.2 \text{ pA}$

4

0008 same prep. change to ATP puff  $\rightarrow$  large current.  
 $1389.4 \text{ pA}$

Thursday, May 31st / 2012

Recording from ISCs, VC near resting potential  
Bath: Slice Ringer. Internal = KMe's.

Animal ① PF

pre-treated with Thapsigargin 2  $\mu$ M in HEPES-ACSF for 45 min.

cell ① 0000 midturn, with imaging.  $V_{hold} = -88$  mV.

0001 UTP  $\rightarrow$  small current 21.1 pA

0002 ATP  $\rightarrow$  large current 1659.8 pA

[1]

cell ② 0003 another mid-turn, with imaging,  $V_{hold} = -86$  mV.

0004 UTP  $\rightarrow$  small current 59.9 pA

0005 ATP  $\rightarrow$  large current 1383.5 pA

[2]

cell ③ Apex 0006, with imaging.  $V_{hold} = -78$  mV

0007 UTP  $\rightarrow$  small current 50.3 pA

0008 ATP  $\rightarrow$  large current 2279.2 pA

[3]

cell ④ another apex 0009, with imaging.  $V_{hold} = -79$  mV.

0010 UTP  $\rightarrow$  small current. 64.7 pA

0011 ATP  $\rightarrow$  large current 4517.8 pA

[4]

Animal ② PB

pre-treated with Thapsigargin 2  $\mu$ M in HEPES-ACSF for 45 min.

cell ① midturn 0012 with imaging.  $V_{hold} = -79$  mV  $\rightarrow$  lost cell.

still keep imaging

same prep 0013,  $V_{hold} = -80$  mV

0015 UTP  $\rightarrow$  small current 63 pA

0016 ATP  $\rightarrow$  current 391.5 pA, (second puff)

[5]

cell ② another midturn ~~0016  $\rightarrow$  lost~~.

0017  $\rightarrow$  lost. only keep imaging

cell ③ Apex 0019 with imaging,  $V_{hold} = -75$  mV

baseline drifts a lot  $\rightarrow$  discard

0020 UTP puff  $\rightarrow$  small current ~~lost~~

0021 ATP  $\rightarrow$  lost cell?

cell ④ Apex 0022. baseline still drifts keep imaging

another

$\downarrow$  discard.