
TOE
has been around
for a while and
people

1
00:00:02,930 --> 00:00:01,670
what really fundamentally is the

2
00:00:05,090 --> 00:00:02,940
difference between neurons and other

3
00:00:07,190 --> 00:00:05,100
cells of course evolutionarily they're

4
00:00:09,230 --> 00:00:07,200
reusing Machinery that has been around

5
00:00:11,089 --> 00:00:09,240
for a very long time since the time of

6
00:00:13,850 --> 00:00:11,099
bacteria basically right so our multi

7
00:00:16,369 --> 00:00:13,860
our unicellular ancestors had a lot of

8
00:00:18,050 --> 00:00:16,379
the same machinery and and even I mean

9
00:00:21,349 --> 00:00:18,060
of course axons are very can be very

10
00:00:22,790 --> 00:00:21,359
long but but uh there are sort of

11
00:00:24,650 --> 00:00:22,800
intermediate structures right there are

12
00:00:27,230 --> 00:00:24,660
tunneling nanotubes and things that

13
00:00:29,089 --> 00:00:27,240

allow cells to connect to maybe five or

14
00:00:31,189 --> 00:00:29,099
ten diameter cell diameters away right

15
00:00:33,110 --> 00:00:31,199
so so not terribly long but but also not

16
00:00:35,209 --> 00:00:33,120
immediate neighbors necessarily so that

17
00:00:37,430 --> 00:00:35,219
kind of architecture has been around for

18
00:00:38,389 --> 00:00:37,440
a while and people like growl so well

19
00:00:39,170 --> 00:00:38,399
look at

20
00:00:41,510 --> 00:00:39,180
um

21
00:00:43,910 --> 00:00:41,520
but a very brain-like electrical

22
00:00:47,150 --> 00:00:43,920
signaling in bacterial Colony so this is

23
00:00:50,150 --> 00:00:47,160
you know I think I think Evolution began

24
00:00:52,610 --> 00:00:50,160
to reuse this toolkit specifically of