



2017/04/16

[Redacted]

The next topic to discuss is optogenetics
Was what crick was working on before he died and now a real field. Except they are doing it wrong -
01:32:16 pm

MW
😊
01:32:22 pm

[Redacted]

Ed Boyden I/ buds
01:32:58 pm



[Redacted]

MW
Want to meet him
01:40:05 pm

[Redacted]

Anytime just name it
01:40:37 pm



[Redacted]

K
01:40:41 pm

Stress and Protista SUPER INTERESTING

01:41:02 pm

Same as plants less like humans

01:41:09 pm

Protists

01:41:17 pm

Also and for super different reasons I was thinking last week about VOLVOX a lot

I had to update these chapters for this book and I got assigned the ones on single celled brain pathogens and was so fascinated by endosymbionts

01:42:50 pm

My chapters were just dumb and academic and which symptoms and meds etc but VOLVOX are amazing

I think we could make a breakthrough here too

01:43:30 pm

MW

Would you like to talk to ed ?

01:43:39 pm

OC

Hang on. Yes yes I want to maybe this week?

Anyway you will love this

VOLVOX are not very good pathogens but they are super good Trojan horses. They can harbor really yucky other bugs inside them (called endosymbionts) so that when you want to kill them they release the contents of bad bugs and you get really sick from other stuff and treat the other stuff. Like chlamydia etc

01:45:31 pm

This is why ppl w naegleria for quickly (horrible endosymbionts) and also why many folks w malaria also have other diseases when stressed. Not bc they have those diseases but bc the bigger pathogens host them till they need them and then release

BUT

01:46:45 pm

Scientists have been struggling for a while now to figure out how to keep human cells alive in culture bc nothing really works so well and most things are so dirty that they pick up new pathogens or just die

01:47:32 pm

Volvox are clean vanilla hosts and can be super easily adapted to host and incubate human cells

And why this matters? Volvox can live anywhere. They aren't fastidious. On their own they aren't even infectious.

01:48:35 pm

So instead of all this fancy science use the belly of a friend

01:48:51 pm

Plant lab

01:48:59 pm

Loving ok up
Volvox I'm telling you

01:51:35 pm

Look it up

01:51:42 pm

<http://www.sciencemag.org/news/2017/04/new-system-scientists-never-have-write-grant-application-again>

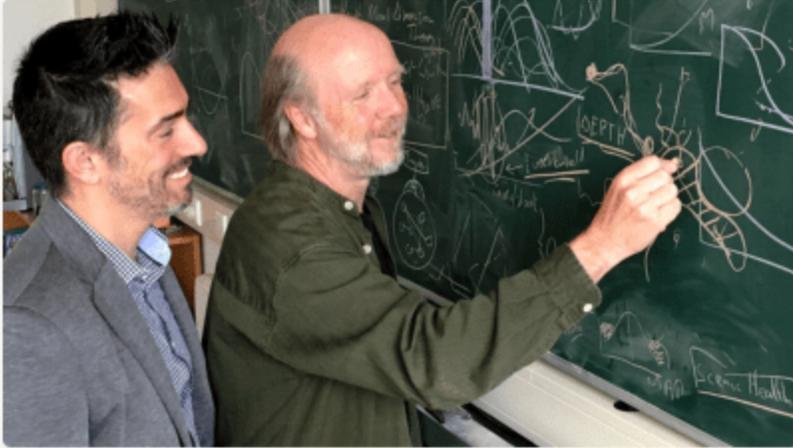
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06:26:43 pm

How long are you in your island?

10:31:08 pm

MW

Tues then New York

10:32:56 pm

2017/04/17

What time in NYC Tuesday

08:26:57 pm

MW

✓ Read

wed 12 noon

08:32:41 pm

✓ Sent