

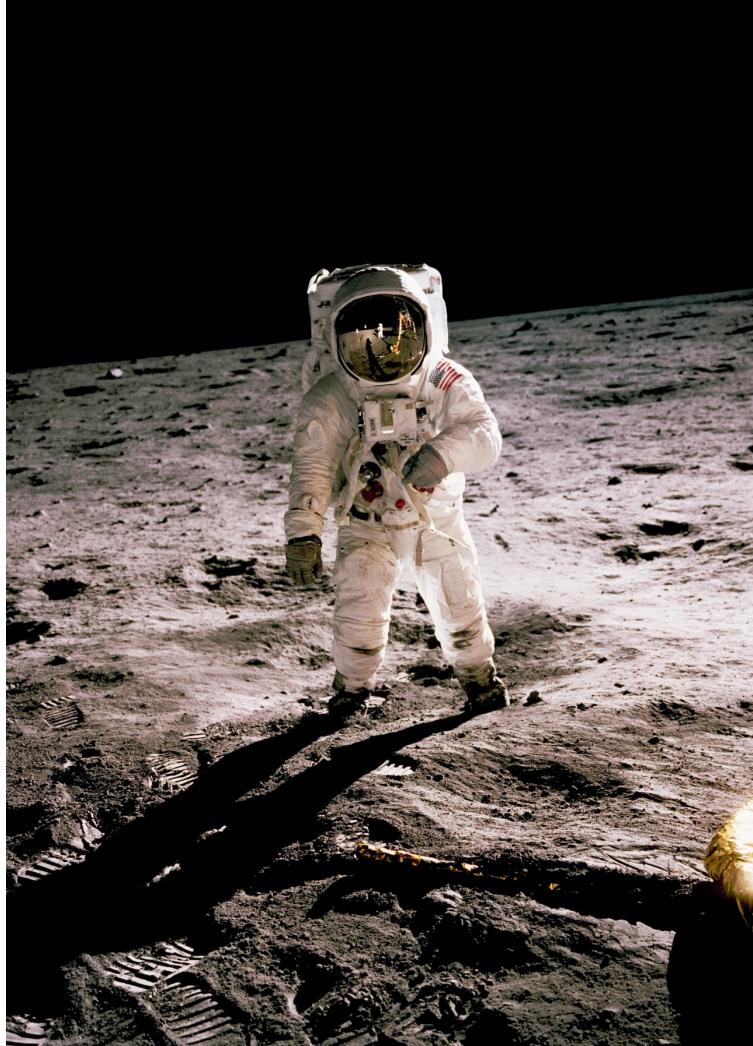


What a die, a clothing store and precision medicine have in common?

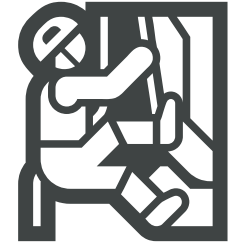
Guillaume Desachy, AstraZeneca

UK Maths Week
Nov. 9th, 2021

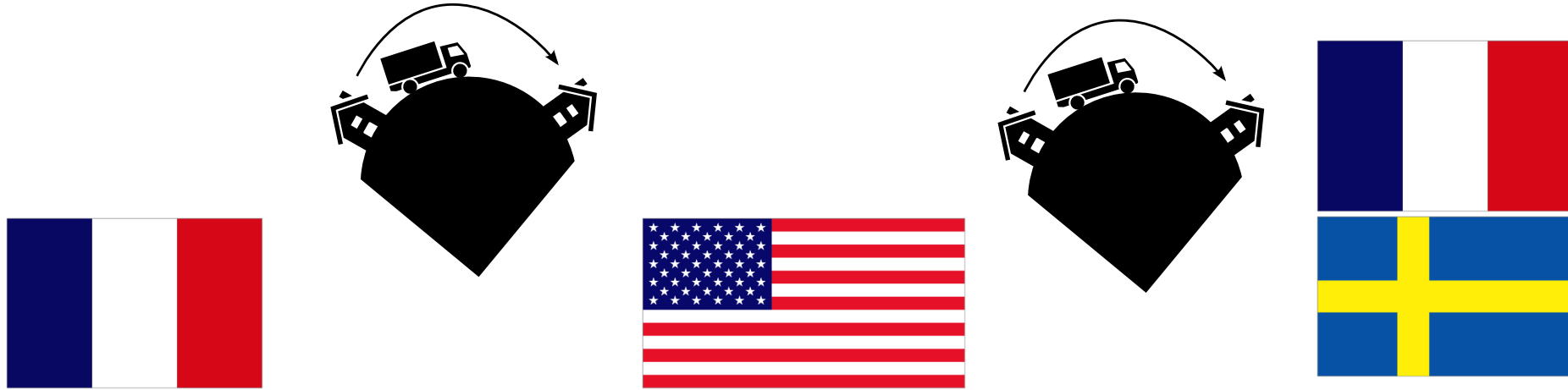
What was I dreaming of at your age?



Who was I actually at your age?



Who am I today? Statistician @ AstraZeneca



Maths & Statistics



UCSF

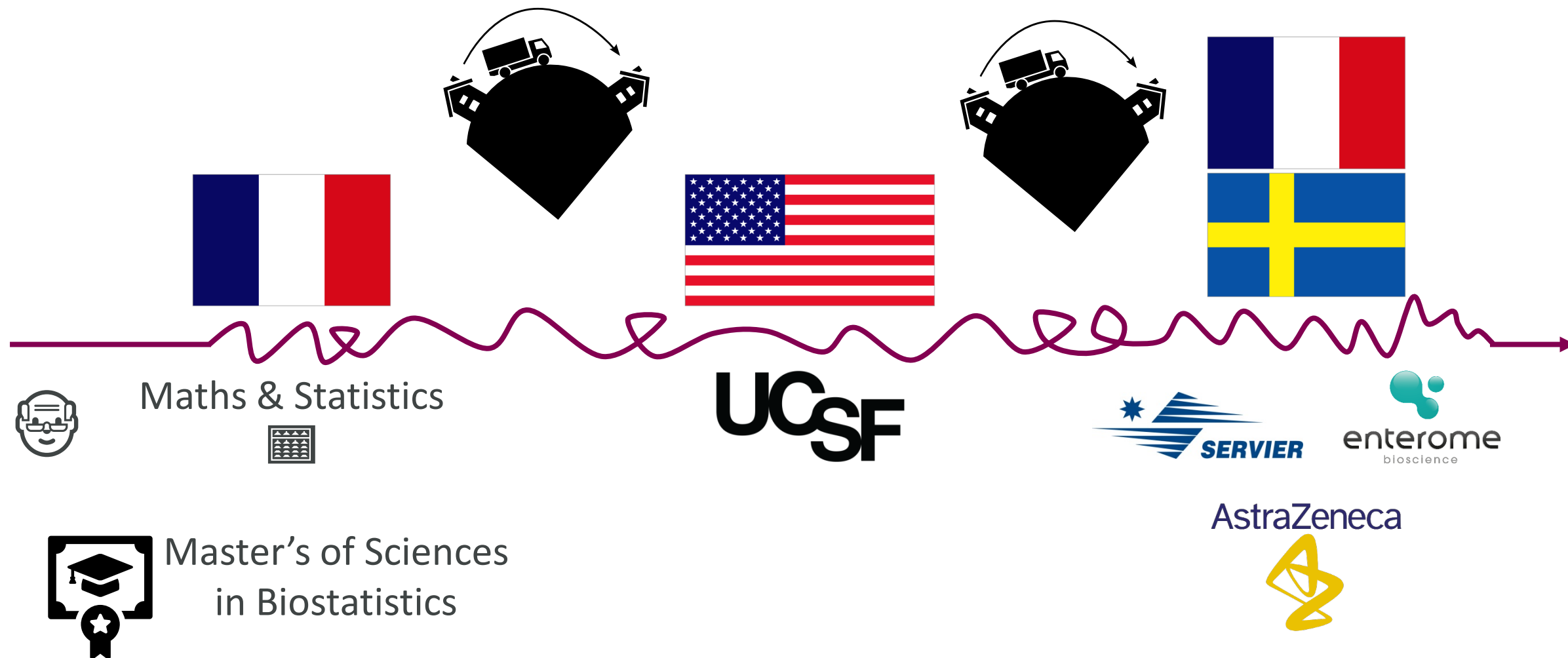


Master's of Sciences
in Biostatistics

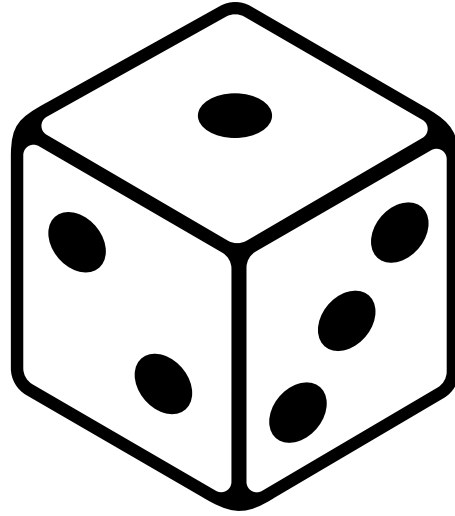
AstraZeneca



Who am I today? Statistician @ AstraZeneca

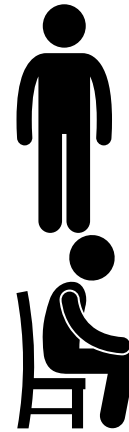


Enough about me, let's have a few of you roll a die!

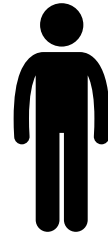


If > 3 , you stand up

If ≤ 3 , you sit down



How did it go? Are $\sim 1/2$ of you standing? 🤔



You can now all sit 😊



Let's imagine a clothing store with just one-size-fits-all tops! 



One-size-fits-all?

Does not work for clothes and does not work for medicines.

The 5Rs of **precision medicine**:

The Right patient

The Right medicine

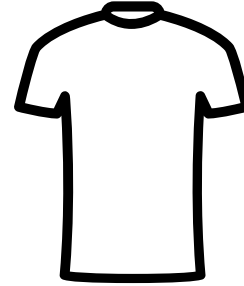
The Right time

The Right dose

The Right route



What do I do in all of this? Do you remember the clothing store?



Develop a new T-shirt



#1: Invite the 7.8 billion people on Earth and have them all try the new T-shirt



Not possible!

#2: Invite the right subset of people 🤩

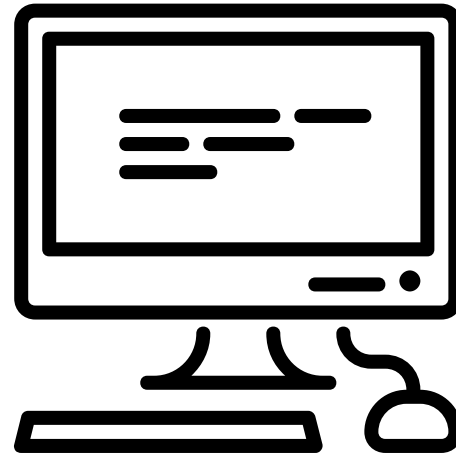


What do I really do?

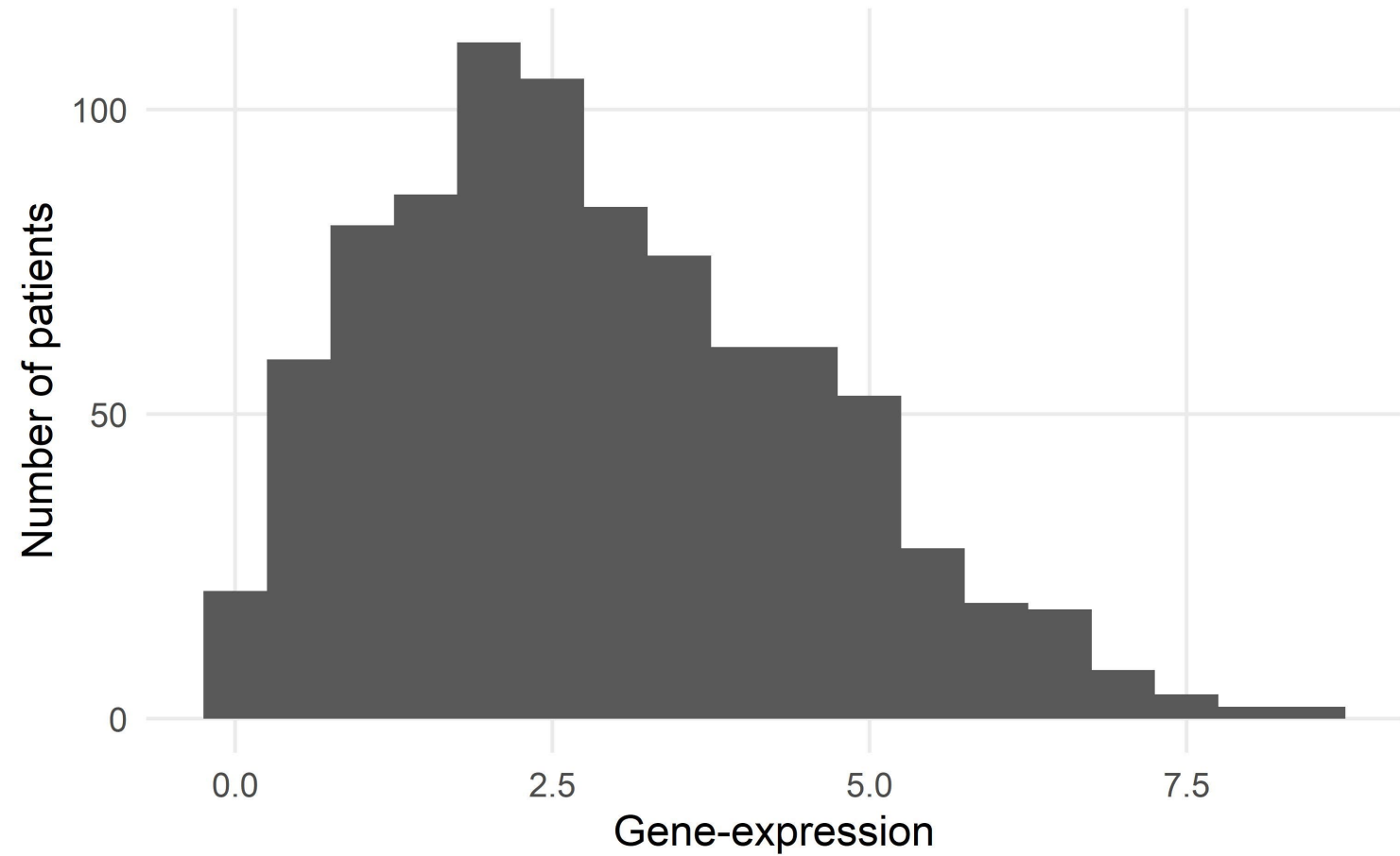
I help building studies to find new medicines.

Right number of patients

Right population of patients



What do I also do? I help refining the right population of patients.



What do I also do? I help refining the right population of patients.



1.2



2.8



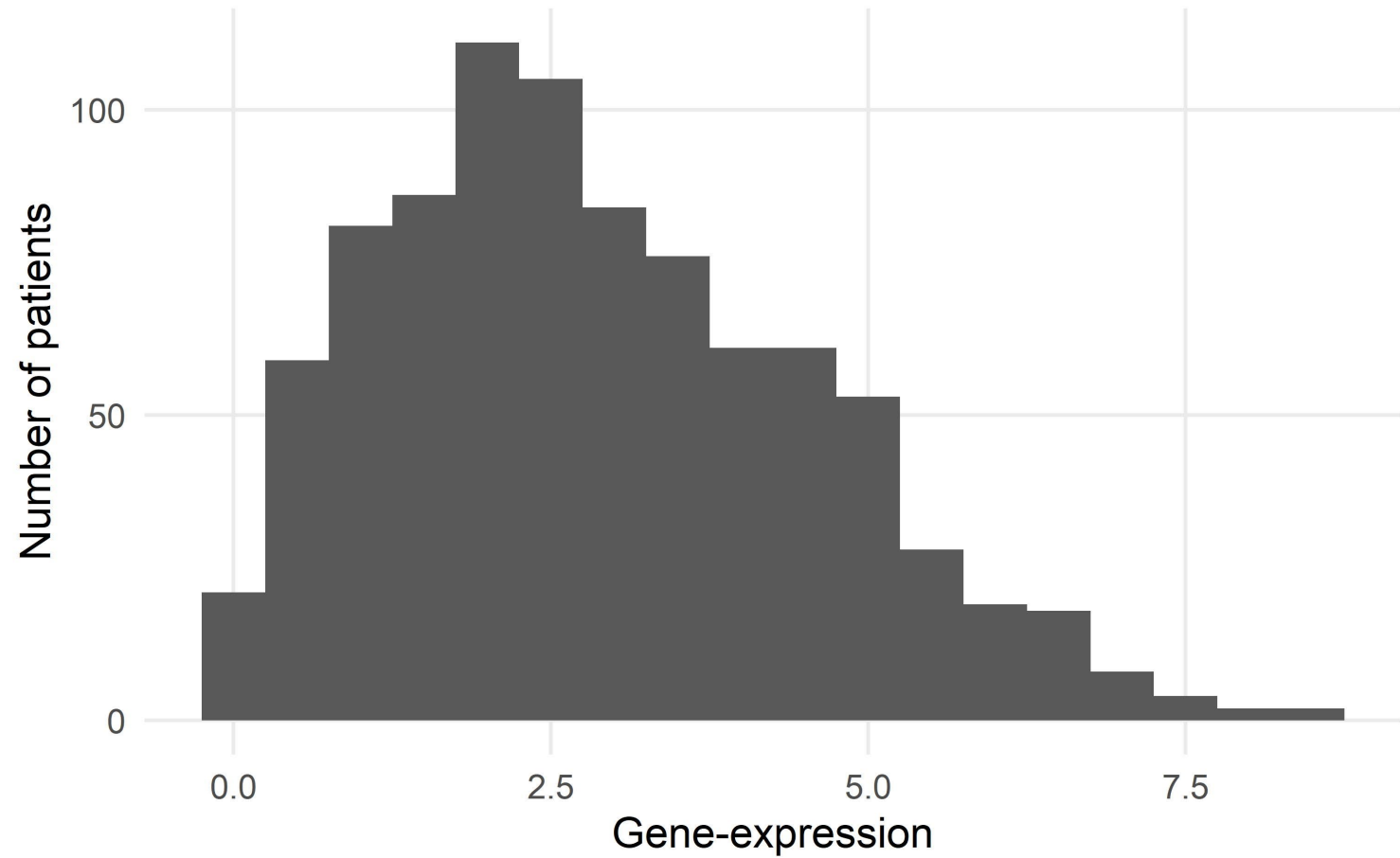
4.8



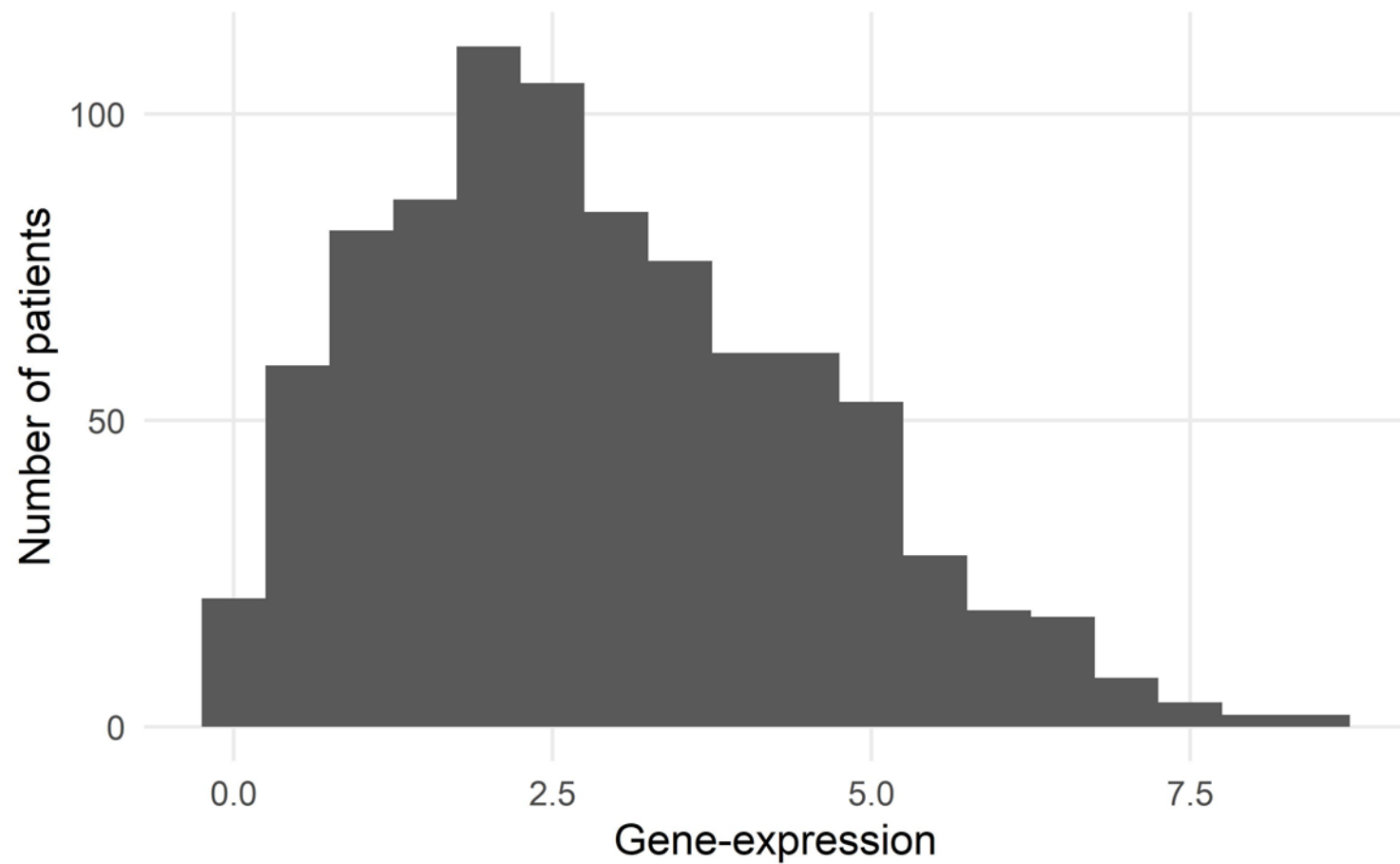
0.7



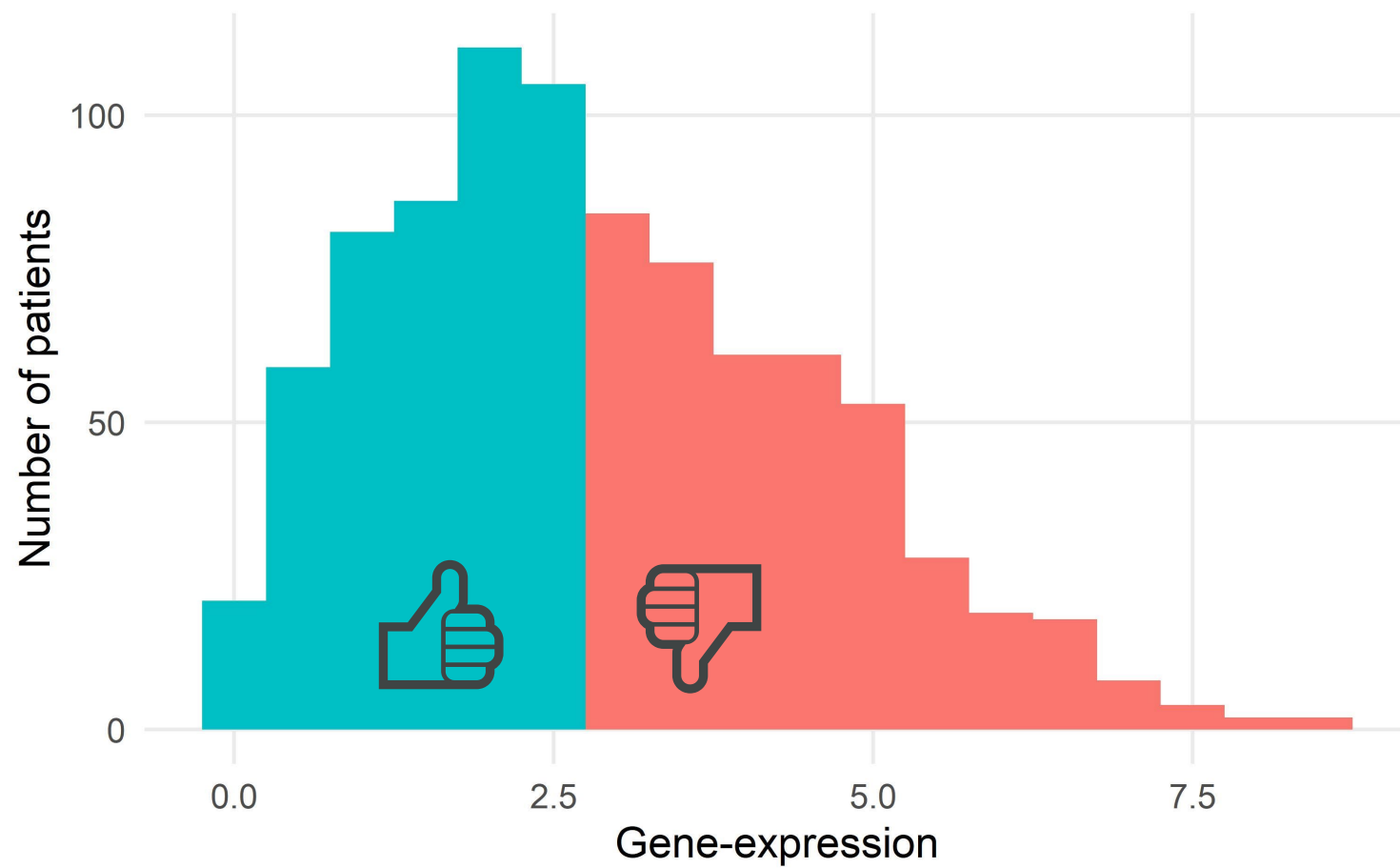
2.7



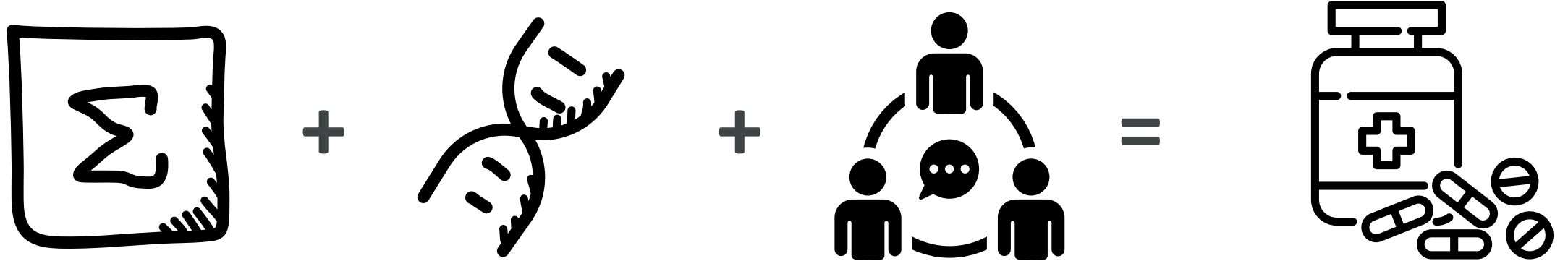
What do I also do? I help refining the right population of patients.



What do I also do? I help refining the right population of patients.



How is it that we do it?



One last thing!

**Whatever you end up doing,
only one thing matters: to have fun!**



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