

Gene Scissor

Prof:

The Gene scissor CRISPR/Cas9 is a really good method. Well decided!

Simon:

What a stupid name.

Professor:

"laughs" yes you are right, it is really bulky. You could also name it gene scissor?.

This is how you could imagine the whole thing.

Emma:

But why does it have such a complicated name? There is usually always something behind it.

Professor:

Yes it does. If you want to describe it shortly you can say that CRISPR/Cas9 searches the genome for a certain information and then precisely cuts there.

Emma:

So you can cut at a very specific position? How useful.

Professor:

That's exactly the way it is. So let's start with that, shall we?

Simon:

Yes, please!

Narrator:

The professor walks around the lab and gets a lot of things, he takes small containers from the refrigerator, from the freezer and mixes these things, he always looks at a piece of paper on which many details are written, how he has to mix everything together.

Professor:

So now we add this to our cells.

Amira:

But that was already so much stuff but no cells?

Professor:

No, I first had to get all the things together before I can give this to the cells. Now

I apply this to the cells and then the genetic scissor can work.

Narrator:

No sooner said than done. The professor takes a plate from a cupboard and the different vessels and then gives the different liquids onto the plate.

Professor:

So now we have to wait.

Narrator:

The professor tells the children that it all takes some time and he will contact them when it is ready. After a few days he reports that he is ready.

They all meet again in the laboratory.

Simon:

Wow this is taking a long time.

Professor:

That's true, the cells need time to build in the new information and have to grow again. That needs a while. Then let's take a look at it all under the microscope.

Narrator:

The professor takes a plate from the cupboard and puts it under the microscope, bends over it, puts around on a few wheels and nods contentedly.

Amira:

Do you see anything? May we take a look too?

Professor:

Yes the exchange worked very well. Of course here take a look.

Amira:

Wow, there are so many cells.

Simon:

No wonder it took so long, there are so many of them

Emma:

But how do we know if they can break down our plastic?

Professor:

So I guess we'll feed them, what do you say?

Emma: Simon: Amira: Yes, please!

Narrator:

The professor puts some of the plastic and a little from the other plate and all children observe the whole process attentive.

Professor:

That also takes a little time now.

Narrator:

Everyone waited curious for something to be seen.

Simon:

Look, something is happening! Something is coming off. Is that blue underneath?

Amira:

Yes, and white!

Emma:

Plastic, white, blue. I know that from somewhere.

Simon:

What was the name of that company again? MAXI Plastic?

Amira:

Yes, exactly. Maybe they thrown the plastic in the Obersee.

Emma:

Professor can we show the company our plastic-degrading cell? Maybe they can use them instead of the plastic in the Obersee.

Professor:

I like the idea. Talk to the company and show them pictures of the plate here.

Narrator:

The professor points to the plate with the dismantled plastic. The children say thank you and drive directly to MAXI Plastic to present them their idea. At the reception of the company they tell their story and the responsible researcher, also take a look at the idea of the three.

Professor Maier:

Wow, that sounds really good. We could really use this in our environmental plan.

Do you want to tell me which university professor helped you?

Emma:

Professor Kalski from the university of Bielefeld. Here is his number.

Prof Maier:

Thanks! Then I will get in touch with him.

Narrator:

MAXI Plastic actually takes over the cell to break down the plastic that they cannot use. The three children are very proud of themselves especially when

they found their story in the newspaper.