



María Luisa likes a fish

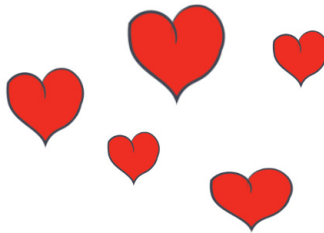
María Jesús Molina Cimadevila

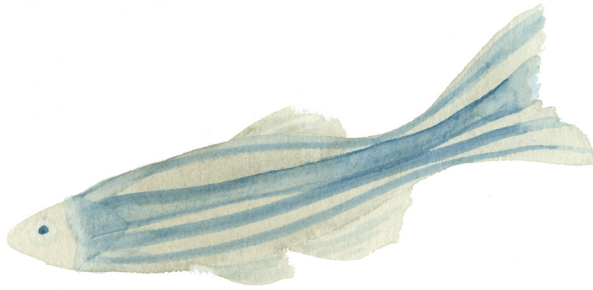
aprende con
DANIO



Maria Luisa likes a fish

*Likes? That is an understatement
She adores it, she loves it. She cannot live without it.*



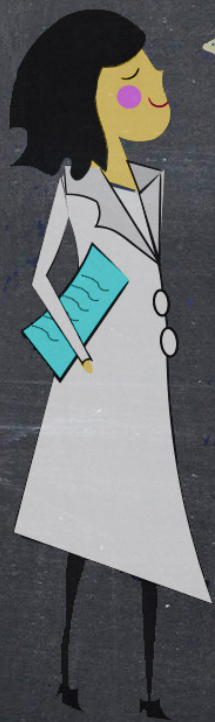


This fish is called
DANIO

Danio rerio

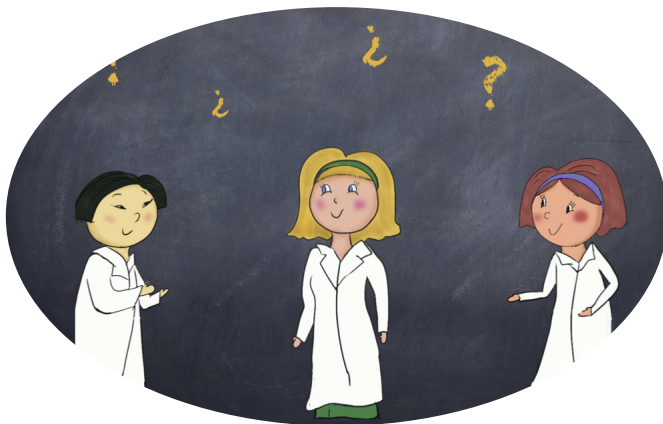
*It is not the cutest fish at the store.
It is not the cutest fish in the sea.
But she does not care.*

*She only has eyes for it because...
She learns a lot from it*



*Maria Luisa is a research scientist.
She studies a very bad disease
called cancer.*

*And Danio helps her,
he helps her a lot*

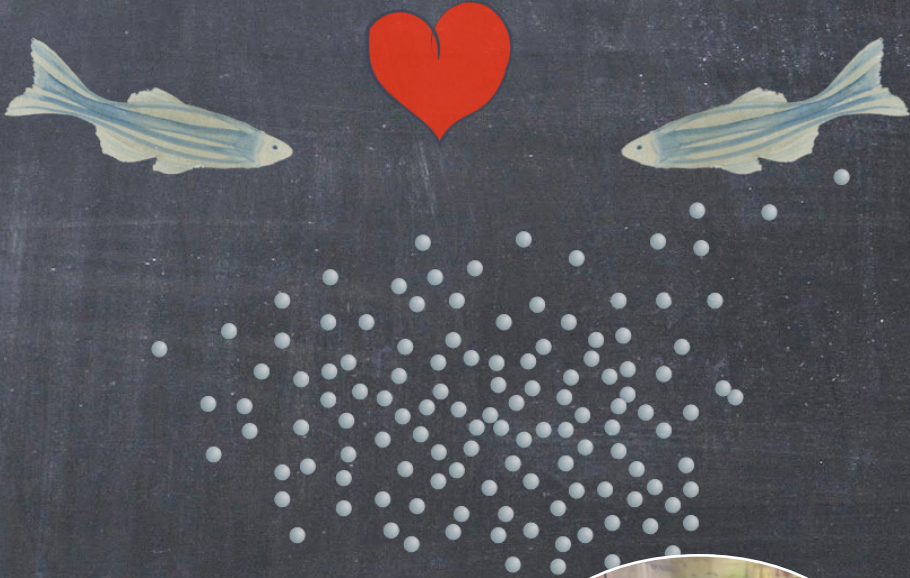


But It is not only her who it helps...

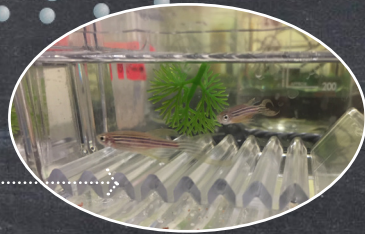
*There are scientists all over the world who ask
Danio how to treat cancer, Alzheimer, epilepsy ...
And they also ask that to other animals
such as rats and mice, even worms and flies!*

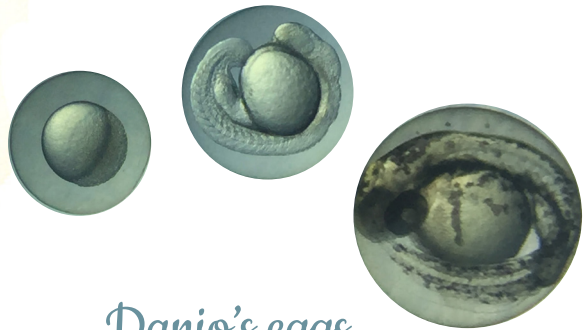


*At dawn...
Danio dances regueton at a
marble beach*



*And it lays many,
many eggs*



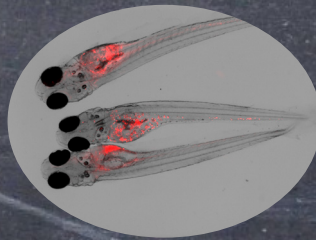


*Danio's eggs
are transparent*

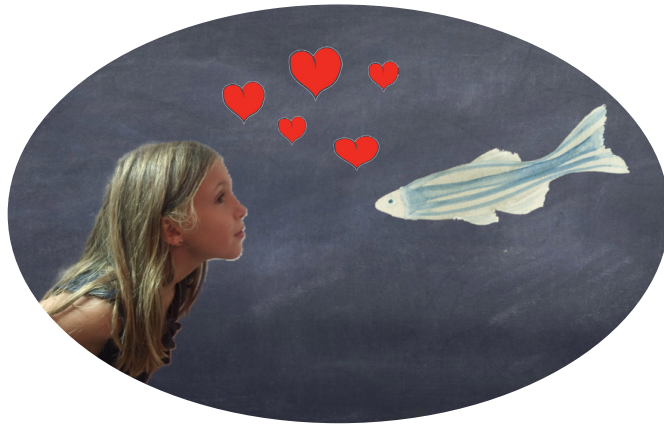
*and you can see
how a living being
is created without
magic glasses.*



*Maria Luisa sometimes makes fish
colourful by using jellyfish essence
so that fish help her to better
understand diseases.*



That's why Maria Luisa likes this fish.



*And what about you?
Do you like Danio?*

This tale is based on a true story. Real as life itself



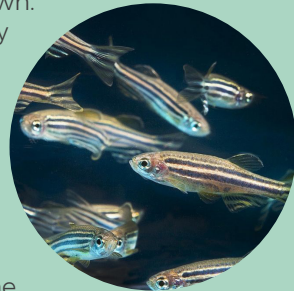
Dr. Maria Luisa Cayuela Fuentes manages a laboratory in the Instituto Murciano of Biosanitary Investigation Arrixaca where they investigate cancer and aging as well as rare diseases that only few people suffer. They take the zebrafish as a model to develop their research task (<http://www.telomerasa.imib.es/>).

She loves fishes and they show her how she can treat diseases. Cancer is a terrible and quite complex disease. We cannot treat many types of cancer or some of these rare diseases yet so we need to learn how to do it.

Maria Luisa cannot face such a challenge on her own. Scientific knowledge is a common task made by **researchers** all around the world.

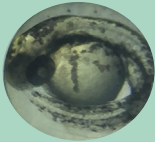
Animals play a key role in scientific investigation. We must express our gratitude to them. The use of animals for scientific purpose is heavily regulated and there are excellent scientists who assure their welfare.

Danio, Danio rerio, the zebrafish is one of the animals used by scientists to learn biomedicine.



Zebrafishes are very useful as experimental model because they lay a lot of eggs.

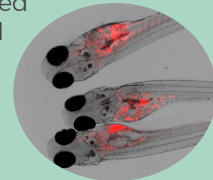
These eggs are transparent. so we can see live how life is created. Imagine we could watch a pregnant lady belly with magic glasses and we could see the baby development. That way we would be able to check if everything is ok.



We have a book in every single cell and this book talks about us. It is written with a molecule called DNA and each sentence would be a gene. We have read the whole book but we do not understand some chapters. We need to understand these chapters because they are key to treat a lot of diseases. We use genetic engineering tools to understand how the genes work and to perform slight changes on them.

We usually use the jellyfish green fluorescent protein to detect where some genes are expressed and we get green fishes, and also red or yellow and even rainbow ones.

That's why María Luisa makes fish colourful by using jellyfish essence to better understand how to treat cancer.



Thanks for making science for everyone

*Our gratitude to
all the animals who
help us to learn*



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