

**Name:**

Virginie Uhlmann

**Job:**

Research group leader at the European Bioinformatics Institute (EMBL-EBI)

**What do I do?**

I am interested in the shape of living things, in particular how cells change their shape when they get sick.

My job involves “teaching” computers to describe the shape of the cells they see. They can then very quickly scan through thousands of images from different experiments and tell biologists what the cells look like, saving lots of time.

**Me in 3 (three words to describe me)**

- Interdisciplinary
- Creative
- Resilient

**Fascinating facts about me**

I am the happy owner of a small parrot (cockatiel) called Stuart, who has been waking me up in the morning with improvised songs for the past 6 years. I am also an avid rock climber – coming from a small village in the Swiss mountains, I used to spend most of my free time climbing in the Alps.



## Skills I use in my job:



**Problem-solving** – As a scientist, I use my problem-solving skills every day in order to progress in my research projects



**Creativity** – Research is all about exploring new ideas: I need to be creative in order to find the best ways to do so



**Teamwork** – My research group is composed of five people, and we all work together as a team to advance our research



**Communication** – I work with lots of different kinds of scientists, such as mathematicians and biologists, and therefore have to make sure I communicate in an efficient and understandable way





Use the images above to help you describe an owl to the computer. Can you find a description that fits them all?

Example:

**Scientist:** "An owl has a beak"

**Computer:** "What does a beak look like?"

**Scientist:** "It is yellow and is located between the owl's eyes."

If we use the example description above, only one of the images is an owl.

## Can you describe an owl?

To be able to "teach" computers how to recognise an object in an image, I first have to think of creative ways to describe this object. It sounds easy, but is it really?

Play this game with a friend. One of you is the scientist and one of you is the computer.

**Scientist:** you have to explain to the computer how to recognise an owl.

**Computer:** you have to pretend you have never seen an owl, or a bird, or anything in the outside world, but you can ask questions.

### Alternatively...

#### Why not make this a drawing challenge?

The "scientist" describes a picture in front of them and the "computer" draws it. BUT you can't use body part words such as wing, or arm you have to describe it.

Why don't you create your own description challenge?