

SCIENCE WORKSHOPS OF COLLABORATING ENTITIES

NIT MEDITERRÀNIA DE LES INVESTIGADORES EUROPEAN RESEARCHERS' NIGHT

OCEANOGRÀFIC

- *Science for marine life*

In this workshop of the Oceanogràfic Foundation we will delve into the fascinating world of research with sea turtles, whales and dolphins. During a very special day we will discover how whales communicate and breathe, and we will open the doors of science to learn how we study these animals and why it is important to know more about them. We will also reveal the secret history of sea turtles, their main characteristics and threats, and we will learn how we can all help to protect these animals. Finally, after learning the secrets of sea turtles, we can become veterinarians for a day and detect the main diseases of the turtles that enter the ARCA del Mar recovery centre.

PRÍNCIPE FELIPE MUSEUM

- *Chemistry in action*

In “Chemistry in action” we have selected the most surprising experiences to show you the magic of chemistry: balloons that react violently when they come into contact with a flame, liquids at cryogenic temperatures that drive machines from another time, candles that mysteriously go out, liquids that change colour in a surprising way and clocks that work with orange juice.

- ***Drug discovery***

Come and discover the medicines of the future, with intelligent nanoparticles and fewer side effects.

- ***What is your DNA?***

The youngest ones will be able to learn, through play and manipulation, that each living being has different genetic information, as well as identify which four bases form its sequence. In addition, with the help of the researchers who will make this workshop possible, they will also learn that DNA has two chains and that both are complementary.

- ***Chemistry is cool***

The public will see how everything that happens to us every day has a chemical explanation behind it, even magic! Through characters like Snow White, Elsa and many more, you will carry out experiments and discover the science behind them.

- ***Journey to the centre of the cell***

Nanomedicines, like therapeutic polymers, cross many biological barriers to reach their destination. You will see how they are able to travel inside the cell to exert the drug's activity.

- ***Diabetes research***

We will take a short tour of diabetes where you can learn with "Coco" which are the organs that are affected by this disease and observe samples of them through a microscope; guess how much sugar is in the food you eat and become familiar with the goals and techniques we use in our lab.

- ***What is a biobank on rare diseases for?***

Explain the route followed by biological samples and their associated data during the donation process, from when a donor is identified until they are processed and stored in a biobank as a future bioresource that will be used in research projects, with special attention to the peculiarities of research in rare diseases. Human cell lines will be used as an example: fibroblasts from skin biopsy and lymphocytes from peripheral blood.