

Un ravissant souvenir de mon stage chez le laboratoire de Jérôme Lejeune

A delightful memory from my stay at Jérôme Lejeune's laboratory

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For Number 2 of Volume 2 of AnFaMed we asked Prof. Máximo Drets to write a review article on the origins of clinical genetics and cytogenetics in Uruguay. He wrote the article starting with the development of world cytogenetics, followed by the development of cytogenetics in Uruguay [1]. The direct contact with French researchers, specifically with Jérôme Lejeune, founder of modern human cytogenetics, and with his pupil, Roland Berger, was of utmost importance for Uruguayan scholarship holders. One of the first to be benefited, was Dr. Drets who worked as a collaborator in Lejeune's laboratory, acquiring sufficient knowledge to be able to lead local development of human genetics. Several anecdotes of historical interest were not included in the original article; one of them is now published in the editorial space covering historical aspects.

Black spot

At the beginning of April 1966 we were informed that Lejeune had travelled to Denmark to give a lecture on his cytogenetical research.

During his visit he learned that Denmark researchers had associated a TV screen to the microscope, so that instead of taking photographs of the metaphasic images of cells, they draw sketches of them on thin cellophane sheets which were easily attached to the TV screen by electrostatic charge.

This simple procedure avoided many photographs of the metaphasic chromosomes of the trisomic study, thus accelerating diagnosis and lowering costs of each study by reducing number of photographs and time needed to study each patient.

Lejeune, on returning to Paris, immediately sought advice from three of the best engineers of the Faculty of Sciences. These engineers not only

constructed a system adapting the photomicroscope to the TV camera with the use of a special tube, they also designed an electronic command system.

In spite of the correct mechanical and optical functioning of the system, the image of metaphasic chromosomes appeared with a black spot in the middle of the screen (see figure 1). This extremely surprised the engineers, who could not explain the black spot and were not able to remove the defective image. At the same time Prof. Lejeune repeatedly protested exclaiming "*C'est la tache qui me gene*"¹

Several days after, I had the opportunity to talk with Prof. Lejeune particularly about the new TV system he wanted to install in his laboratory. However, the defective image that the engineers could not eliminate had considerably disappointed Lejeune.

¹ "It is the spot that bothers me."

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Due to the fact that I was very familiar with optical instruments, specially microscopes, I asked Lejeune if the adapting tube of the TV camera to the photomicroscope had been constructed at the Faculty of Sciences and he said that it was. I also asked him if the connecting tube had been painted with black matte paint inside and he replied no. Then, I said, that is probably the reason for the black spot. Although Lejeune was not convinced by my technical explanation, he immediately started to dismount the whole system. He took out the connecting tube and covered its interior with a thin sheet of black paper. When he finished reassembling the whole instrument with its connections, Lejeune was deeply surprised to find that the spot had disappeared magically from the TV screen, showing complete and perfect metaphase chromosomes.

The engineers returned the following day to the laboratory, and were surprised to see the TV screen without the black spot. Amazed, they asked Lejeune: “*¿Qu’est qu’il a devenue avec la tache, cher professeur Lejeune?*”²

He simply pointed at me with a finger and answered “*¡C’est M. Drets qui l’a fait le disparaître!*”³.

Soon after I met my colleague, Dr. Cantú Garza, who had witnessed what had happened, and I

² “What has become of the spot, dear Professor Lejeune?”

³ “It was Mr. Drets who made it disappear.”

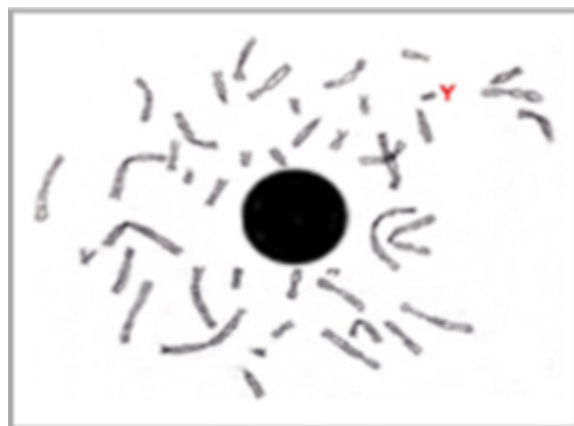


Figure 1. Prof. Lejeune: “C’est la tache qui me gêne”.

“It is the spot that bothers me”

commented that sometimes we, the “underdeveloped Latin Americans”, know things that great researchers cannot even imagine.

The episode I have described occurred a few days after my arrival at Paris. Having had the chance to honour my homeland, made me feel very proud.

Referencias

1. Drets M. Los orígenes de la genética y la citogenética humana clínica en Uruguay. *An Facultad Med (Univ Repúb Urug)* [Internet]. 2015 [consultado 2016 jul 26];2(2):8-33. Disponible en: <http://www.anfamed.edu.uy/index.php/rev/article/view/174/76>