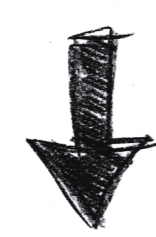


INTRODUCTION

● **Cat allergy** is one of the most common allergies for people around the world. The severity of symptoms is highly variable and is an important risk factor for both rhinitis and asthma.



In most cases, it is a **protein, Fel d 1**, secreted by:

- **Sebaceous glands** → Main responsible for the secretion
- Salivary glands
- Perianal glands



It has been shown that males produce more protein than females, and that it is related to hormonal status (testosterone).

● Considering the high incidence of cat allergy in humans, there is much interest in developing **prevention strategies** for this disease:

- Immunotherapy
- Creation of hypoallergenic cats
- Administration of antibodies in food

Up to now no strategy has been very effective

That is why interest in **sphynx cats** has grown, people think that they could be an alternative to avoid allergies.

● Studies affirm that rexoid breeds such as Devon rex and sphynx have an **altered keratin protein 71 (KRT71)**, which is the probable cause of hair loss.



But they **have sebaceous glands with normal characteristics**

METHODS

A specific **ELISA test** was performed to **detect the concentration** of the Fel d 1 antigen in the different samples.

The samples were coded as follows:

Table 1. Sample coding

Short hair cat		Sphynx cat	
P1	Neutered male	S1	Fertile female
P2	Neutered male	S2	Neutered male
P3	Neutered female	S3	Neutered male
P4	Neutered female	S4	Fertile female
		S5	Neutered female

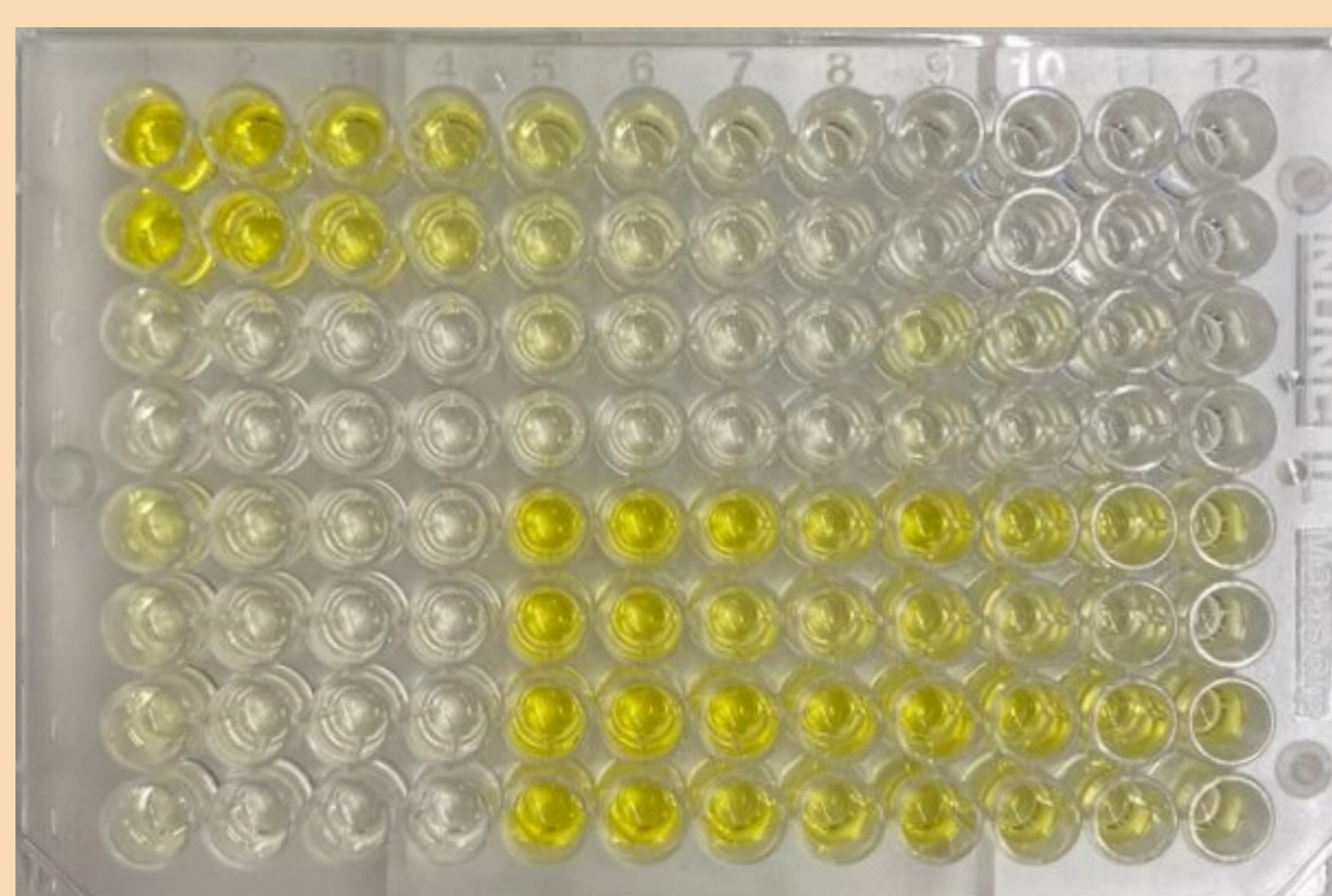


Figure 1. Microtiter plate with stop solution.

RESULTS

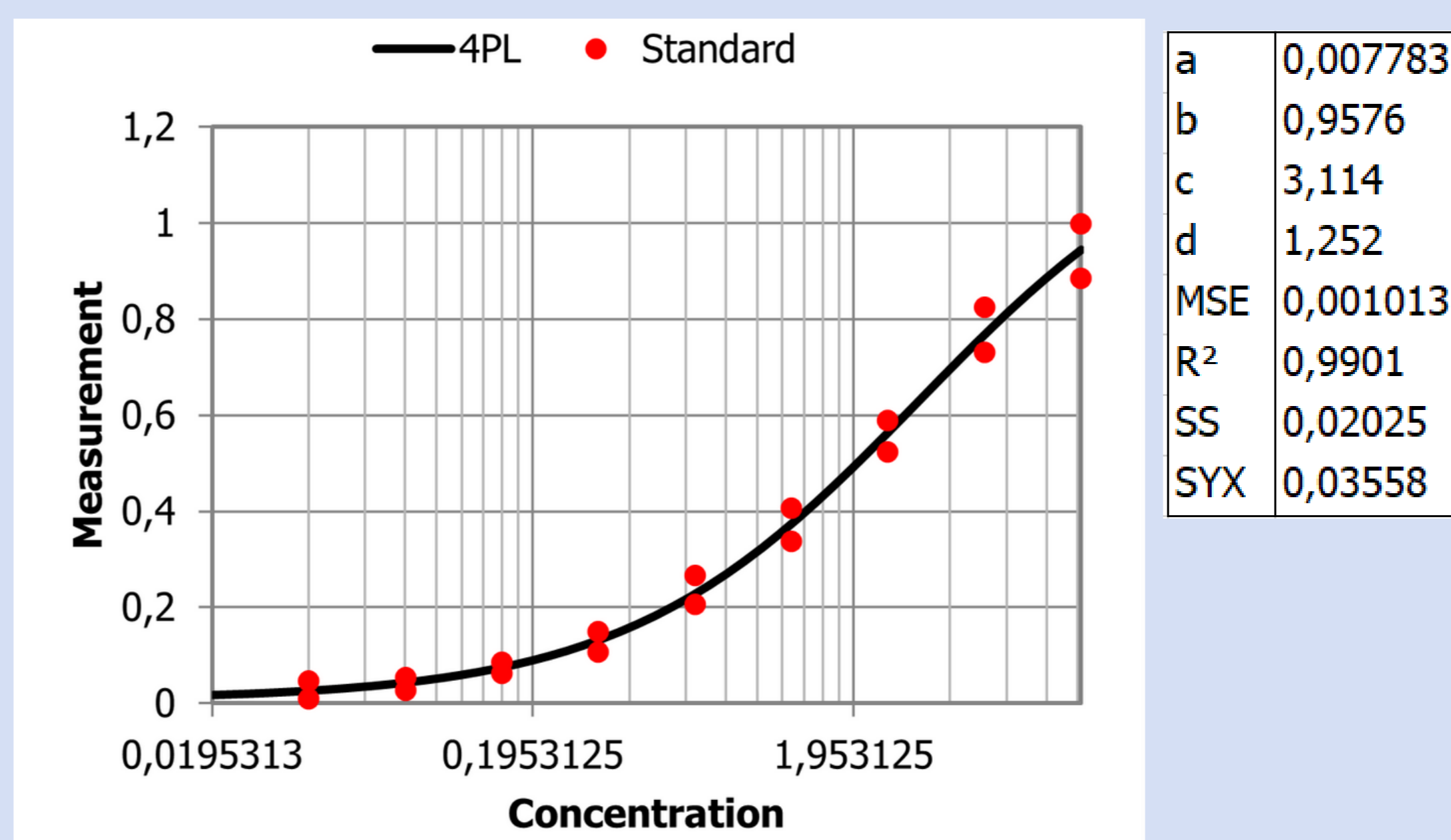


Figure 2. ELISA standard curve.

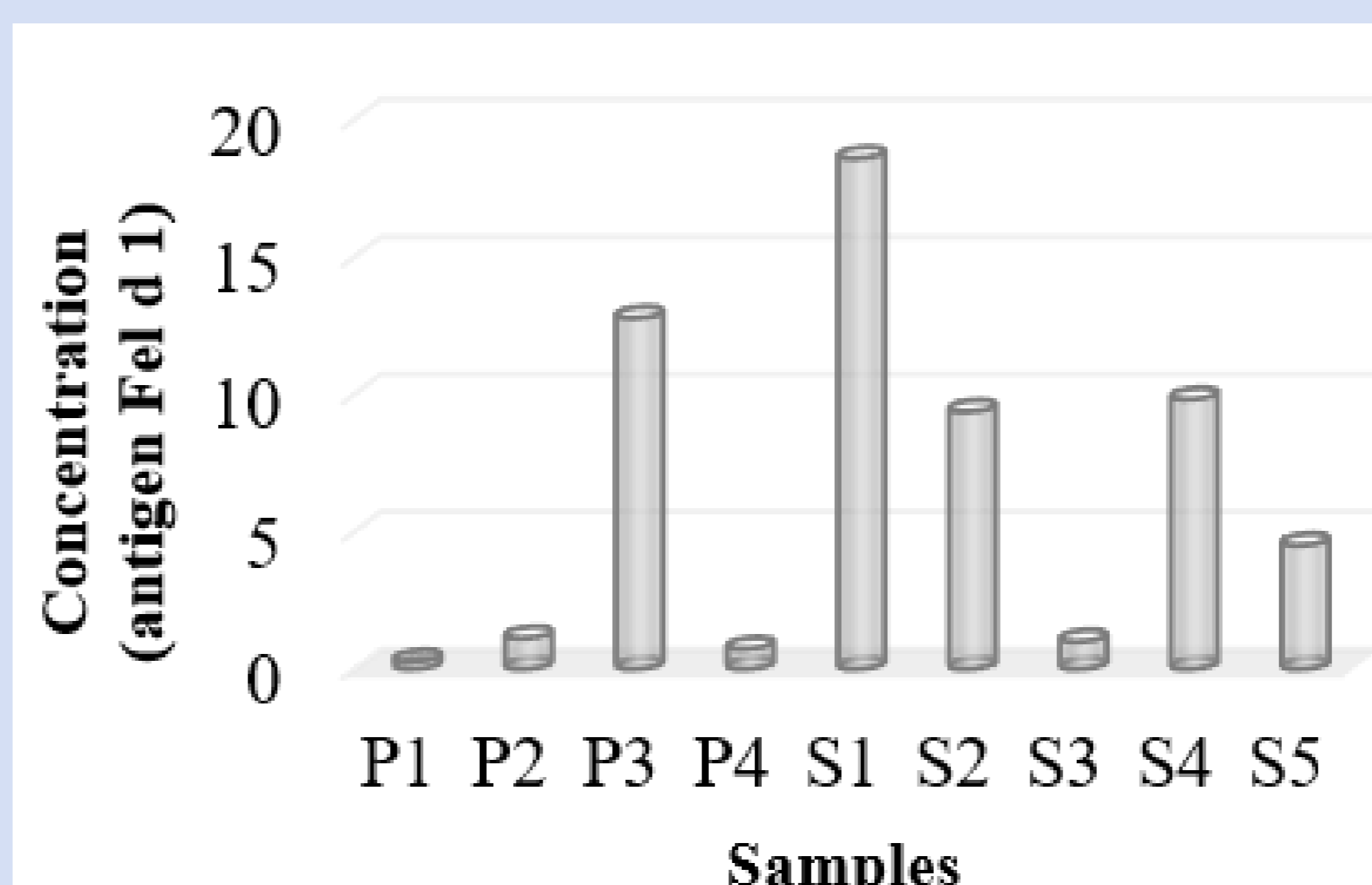


Figure 3. Concentration (Fel antigen of 1) detected in each sample at a 1:2 dilution ratio.

OBJECTIVE

To **determine** if there is sufficient scientific evidence to conclude **if sphynx cats are hypoallergenic**.

HYPOTHESIS

Although **sphynxs** have been at times **promoted** as **appropriate** cats for people with **allergies**, in reality they are **not recommendable**.

MATERIALS

Experimental part: Specific ELISA test

Carried out in the laboratories of the UAB Pathological Anatomy Unit.

- **Animals.** **Nine** cats to collect **samples** from the cutaneous surface of the skin.
- Fel d 1 ELISA kit (6F9/3E4)
- Laboratory material

CONCLUSIONS

Sphynx cats are not hypoallergenic

They secrete Fel d 1 antigen on the skin like short-haired cats

Can cause allergies



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