allergen derived from the microbiota in the mites, are also present in the feces. Bacterial endotoxin is found in gram-negative bacteria, acting on TLR4 and acting as an adjuvant to allergies.

Method: Three species of mites (*D. farinae*, *D. pteronyssinus*, and *T. putrescentiae*), known to cause allergies, are cultured in same condition(autoclaved media, 80%RH, 25°C)and analyzed for microbiota of each species. Using the next generation sequencing that complements the existing Sanger sequencing, we analyze the difference of microbiome according to the dust mite species and measure the level of endotoxin.

Results: Three species of mites, *D. farinae*, *D. pteronyssinus*, and *T. putrescentiae*, grew under the same conditions had different patterns of microbiota depending on species. The *D. pteronyssinus* grown in the aseptic medium were unusually bacterium-free in contrast to the other two species. The concentration of endotoxin derived from the extract of mites was confirmed and the results corresponded to the distribution of the microbiota.

Conclusion: The microbiota of three species of mites grown under the same conditions is different. Endotoxin, derived from microbiota, is an adjuvant of allergens and affects allergic reaction. Endotoxin concentrations were high in *D. farinae* and *T. putrescentiae*, which corresponded to the distribution of microbiota, but endotoxin concentrations were very low in *D. pteronyssinus* with few bacteria.

1037 | Validation of air sampling technique for control of Fel d1 levels in cat allergen exposure chamber

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Background: Cat allergen can cause a significant allergic response in affected patients. Monitored exposure to cat allergen, Fel d1, can provide a better understanding of patients' allergic responses in a controlled environment. However, controlling the allergen level in the chamber remains challenging. Previous work evaluated the use of fans and blanket shaking as a means to aerosolize the cat dander. It was found that blanket shaking provided more consistent levels of airborne Fel d1 over a period of time. The purpose of this study is to standardize and validate the blanket shaking technique to provide controlled levels of Fel d1 in the chamber for future cat allergen exposure studies.

Method: The Natural Exposure Chamber, with a volume of 520 ft^2 (14.7 m^3), was designed and built to accommodate two neutered cats and 1 to 2 subjects at a time. To quantitate Fel d1 levels, three surface swabs, using glass fiber filters (Milipore), were collected from the chamber walls and floor. Air samples at 4 L/min were collected at four different locations in the chamber using portable air sampling pumps (Gilian 5000) with glass fiber filters. Fel d1 collected on the filters was quantified using ELISA (Indoor Biotechnologies).

Results: Two variations of blanket shaking were performed. The first procedure collected dander for cumulative sampling times of 15, 30, 45 and 60 minutes while the second procedure collected four 15-minute samples at 15, 30, 45 and 60 minute time points. In both cases the cats' blanket was shaken for 1 minute every 15 minutes just before sampling start. The average of all the tests performed show stabilized air concentrations of Fel d1 in the cat chamber with 44.12 ± 39.34 ng/m^3 in the first procedure and 39.17 ± 24.36 ng/m^3 in the second procedure.

Conclusion: The obtained results demonstrate controlled levels of Fel d1 in the Exposure Chamber validating the air sampling techniques which will be used for future clinical studies.

1038 | Prevalence of skin sensitisation to pollen of salsola oppositifolia in the east coast of Spain

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Background: The first aim of this study was to know de prevalence of skin sensitisation to pollen of *Salsola oppositifolia* in patients with pollinosis residing in the area of Cartagena, in the East Coast of Spain. A secondary objective was to describe the different patterns of skin sensitisation to pollen of *Salsola oppositifolia*.

Method: Six hundred and thirty five patients (51.8% males and 48.2% females, mean age 30.2 years old, range 3 to 82 years old) were included.

All of them referred respiratory symptoms (Rhinitis, conjunctivitis or bronchial asthma) and had skin prick tests positive with any pollen.

Patients were skin prick tested with a battery of common pollens in our area, including three species of Chenopodiaceae: *Chenopodium album*, *Salsola kali* and *Salsola oppositifolia*.

Results: Three hundred and forty tree (54%) patients were sensitised to pollen of any Chenopidaceae species: 255 (40.2%) to *Chenopodium album*, 245 (38.6%) to *Salsola kali* and 220 (34.6%) to *Salsola oppositifolia*.

The prevalence of skin sensitisation to pollen of *Salsola oppositifolia* was 34.6% in the population studied and 64.1% in patients sensitised to Chenopodiaceae pollen.

Patients sensitised to pollen of *Salsola oppositifolia* showed different patterns of skin sensitisation: 139 (63.2%) were sensitized to the three Chenopadiaceae species studied; 41 (18.6%) to two species: 21 (9.5%) to *Salsola kali* and *oppositifolia* and 20 (9.1%) to *Chenopodium album* and *Salsola oppositifolia*; 40 (18.2%) were sensitised only to *Salsola oppositifolia*. 36 (16.4%) out of the last group were also sensitised to olive pollen.