# 61 Juniperus Ashei (MC) Pollen Utilized as an Allergen in The Biogenics Chamber: Comparison of Natural and Controlled Exposure

Daniel A. Ramirez, MD, Charles P. Andrews, MD, Robert L. Jacobs, MD
Biogenics Research Chamber, LLC., San Antonio, Texas

Abstract

### Introduction

Pollinosis challenge chambers have been utilized over the past several years to study the effectiveness of medications in controlling signs and symptoms of allergic rhinoconjunctivitis. Chamber studies and natural studies differ significantly and have often been compared to each other when reporting the results of studies. This study was initiated as part of an initiative to introduce a highly controlled environment to simulate sigs and symptoms of allergic rhinoconjunctivitis in sensitive populations. Concerns have been raised about the validity of chamber studies when compared to natural studies of pharmacologic efficacy. This study was conducted at the Biogenics Research Chamber. From our previous validation experiments it was determined that priming exposures with a pollen density of 12,000 grains/m³ would be required.

### Materials and Methods

Pollen challenge chambers have been utilized over the past several years to study the effectiveness of medications in controlling signs and symptoms of allergic rhinoconjunctivitis. Chamber studies and natural studies differ significantly and have often been compared to each other when reporting the results of studies. This study was initiated as part of an initiative to introduce a highly controlled environment to simulate signs and symptoms of allergic rhinoconjunctivitis in sensitive populations. Concerns have been raised about the validity of chamber studies when compared to natural studies of pharmacologic efficacy. This study was conducted at the Biogenics Research Chamber. From our previous validation experiments it was determined that priming exposures with a pollen density of 12,000 grains/m³ would be required.

### Study Timeline

- **Natural Exposure - Mountain Cedar Season**
  - Dec. 2009 - January 2010
  - 28 Patients: TNSS diaries
  - Chamber exposures
    - Pollen concentration: 12,000 grains/m³
    - Pollen count: 12,000 grains/m³

- **Chamber Exposures**
  - Aug. – Sept. 2010
  - Pollen Concentration: 12,000 grains/m³

### Results

- **TNSS Diaries**
  - Chamber exposures
  - Pollen concentration: 12,000 grains/m³

### Conclusions

- **TNSS Diaries**
  - Chamber exposures
  - Pollen concentration: 12,000 grains/m³

### References