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DEVELOPING INTRANASAL/INHALATION THERAPIES FOR THE TREATMENT OF INFLAMMATORY AND INFECTIOUS DISORDERS OF THE PULMONARY SYSTEM

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Overarching Goal
 To develop effective interventions to improve the quality of life of those suffering from Lung Disease



Objective of Research Agenda

- To test therapies for improving pulmonary health in patients with allergic, infectious, and Inflammatory Pulmonary Conditions.



| Level | Example of Evidence |
|-----------------------------------|--|
| Level 1 | Meta-analysis of Homogenous RCTs Randomized Control Trial |
| Level 2 | Meta-analysis of Level 2 or Heterogenous Level 1 Evidence Prospective Comparative Study |
| Level 3 | Review of Level 3 Evidence Case-control Study Retrospective Cohort Study |
| Level 4 | Uncontrolled Cohort Studies Case Series |
| Level 5 | Expert Opinion Case Report Personal Observation |
| Mechanistic Foundational Evidence | Animal Research In Vitro Research Ideas, Speculation |

- Chlorpheniramine Nasal Spray Treatment for Accelerates COVID-19 Clinical Recovery in an Outpatient Setting (ACCROS-I) Trial-I. Submitted LUNG
- Intranasal chlorpheniramine maleate for the treatment of covid-19: Translational and clinical evidence. *Published: Medical Research Archives, [online] 10(4).*
<https://doi.org/10.18103/mra.v10i4.2752>
- A Randomized Control Pilot Trial to Test the Efficacy of Intranasal Chlorpheniramine Maleate with Xylitol for the Treatment of Allergic Rhinitis. *Published: Cureus. 2021 Mar 31;13(3):e14206.*
- Preventing Recurrent Otitis Media by Addressing Nasal Hygiene with a Nasal Spray of Xylitol and Grapefruit seed extract (Xlear®): A Multi-Center Randomized Clinical Trial. *Manuscript pending IRB exempt approval*
- Chlorpheniramine, an Old Drug with New Potential Clinical Applications: A Comprehensive Review of the Literature. *Published: Current Reviews in Clinical and Experimental Pharmacology 2022 Vol. 17 Pages 1-1 DOI: <http://dx.doi.org/10.2174/2772432817666220601162006>*
- Intranasal therapy and COVID-19: A comprehensive literature review. *Published: J Allergy Infect Dis 2021; 2(1):9-16.*
- Chlorpheniramine Nasal Spray Treatment for Accelerates COVID-19 Clinical Recovery in an Outpatient Setting (ACCROS-I) Trial-II. Submitted LUNG
- Evaluation of Patient Experience for a Computationally-Guided Intranasal Spray Protocol to Augment Therapeutic Penetration: Implications for Effective Treatments for COVID-19, Rhinitis, and Sinusitis. *Published; Medical Research Archives, [online] 10(4).*
<https://doi.org/10.18103/mra.v10i4.2774>
- Potential Role of Xylitol Plus Grapefruit Seed Extract Nasal Spray Solution in COVID-19: Case Series. *Published: Cureus 2020 Nov 3;12(11):e11315.*
- Chlorpheniramine Maleate Nasal Spray In COVID-19 Patients: Case Series. *Published; J Clin Exp Pharmacol 10(2): 3.*
- Intranasal therapy and COVID-19: A comprehensive literature review. *Published; J Allergy Infect Dis, 2021, 2, 9 – 16.*
- Effective Nasal Disinfection as an Overlooked Strategy in our Fight Against COVID-19 *Published Ear Nose Throat J. 2021 Mar 26;1455613211002929.*
- Chlorpheniramine Malate Mode of antiviral action against Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV- 2). *Manuscript in preparation*
- In Vitro Analysis of the Anti-viral Potential of Nasal Spray Constituents Xylitol and Grapefruit Extract plus against SARS-CoV-2. *Under Revision: Recent Advances in Anti-Infective Drug Discovery*
- In Vitro Virucidal Effect of Intranasally Delivered Chlorpheniramine Maleate Compound Against Severe Acute Respiratory Syndrome Coronavirus 2 Status: *Published; Cureus 2020 Sep 17;12(9):e10501*
- A Pathophysiological Perspective on COVID-19's Lethal Complication: From Viremia to Hypersensitivity Pneumonitis-like Immune Dysregulation *Published; Infect Chemother 2020 Sep;52(3):335-344*