



# CORPORATE OVERVIEW

**MOLECULAR**<sup>™</sup>  
TESTING LABS

# Corporate Overview

*Molecular is headquartered in Vancouver*

*Washington, with billing operations in Boise Idaho.*

*We are CLIA certified/licensed in all 50 states and*

*have been CAP accredited since 2013.*

## NOTEABLE CREDENTIALS:

- *BCBS Preferred Laboratory*
- *HIPAA Covered Entity*
- *FSS/GSA Awarded*
- *COFEPRIS Awarded*
- *Veteran Owned Business*
- *Green Business Certified*



# CORPORATE OVERVIEW

MOLECULAR is a CLIA and CAP accredited, state-of-the-art, esoteric and reference laboratory. We specialize in high-complexity, molecular testing with an extensive portfolio of services including infectious disease, toxicology, targeted sequencing, single nucleotide polymorphism (SNP) genotyping, Next-Generation Sequencing (NGS), and high resolution immune profiling. MOLECULAR offers a variety of clinical trial services comprising of assay development, trial site training, investigator support, and customized reporting.

We apply the maximum level of control to obtain the most consistent and highest quality results. MOLECULAR is founded on three guiding principles – COMPLIANCE, INNOVATION and PARTNERSHIP.

**2. Compliance**

**1. Innovation**

**3. Partnership**





# COMPLIANCE



REQUIREMENTS



STANDARDS



POLICIES



GOVERNANCE



RULES



REGULATIONS



LAW



TRANSPARENCY

# DIAGNOSTIC CAPABILITIES:

Infectious Disease

Women's Health

Genetics

Toxicology

Clinical Trials

Environmental

COVID-19



# SOFTWARE CAPABILITY

## Laboratory Information Management System (LIMS)

- **ZANO is a state-of-the-art system with capabilities far beyond available off-the-shelf products for molecular laboratories.**

## Laboratory Reporting

- Molecular has developed laboratory DNA reporting capability which is superior to available reporting content.
- The report is user friendly for providers for both predictive assessments and treatment options.
- Not currently offered outside of Molecular

## Data Management Program

- The MTL Information Technology (IT) infrastructure has a fully validated data management system. The trials' data are 21 CFR part 11 as well as 21 CFR part 58 compliance. Our laboratory maintains comprehensive disaster recovery plans to ensure data security.

# COVID-19 Validation & Specifications

## Collection Devices

- *Oropharyngeal*
- *Nasopharyngeal*
- *Anterior Nares*

## Platforms

- *ThermoFisher*
- *Hologic Panther*

## Description

MTL will provide Customer with real time Polymerase Chain Reaction ("PCR") testing for the novel Coronavirus ("SARS-CoV-2"), from its laboratory operation in Vancouver, Washington utilizing samples obtained with test kits provided by MTL. Samples should be collected by clinicians authorized by Customer. Testing will be performed using ThermoFisher V2 PCR kits on ThermoFisher platforms.

## Laboratory Approval

Testing kits with nasopharyngeal, nasal midturbinate, and oral pharyngeal swabs have received FDA Emergency Use Authorization. Laboratory operations are located in Washington State, which has assumed regulatory jurisdiction from the FDA. MTL is cleared to perform testing by the State of Washington for SARS-CoV-2.

MTL's overall laboratory operations are CAP-accredited and CLIA-certified. MTL will maintain current accreditation and certification for the duration of agreement.

## Turnaround Time

Test results will be available within 24-48 hours of receipt of samples. In rare cases when test results are inconclusive, the sample will need to be retested. Re-tested sample results will be available within 72 hours of the original sample receipt.

## Results

Test results are posted online via a web portal for Customer.

Nasal swab

Sputum

# Types of Samples for COVID-19 Testing

Oropharyngeal swab

Nasopharyngeal swab

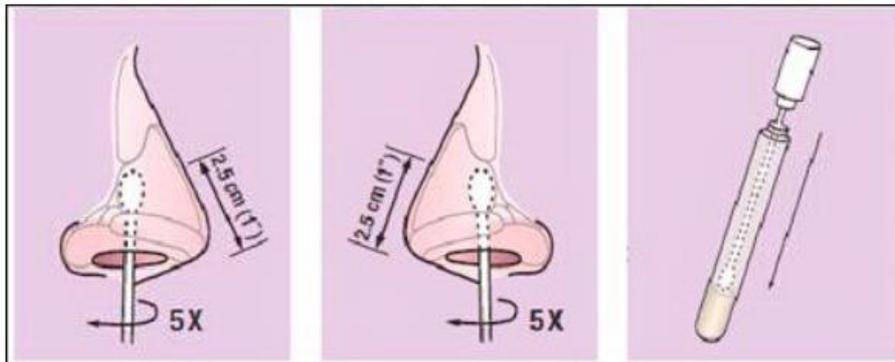
Saliva

verywell

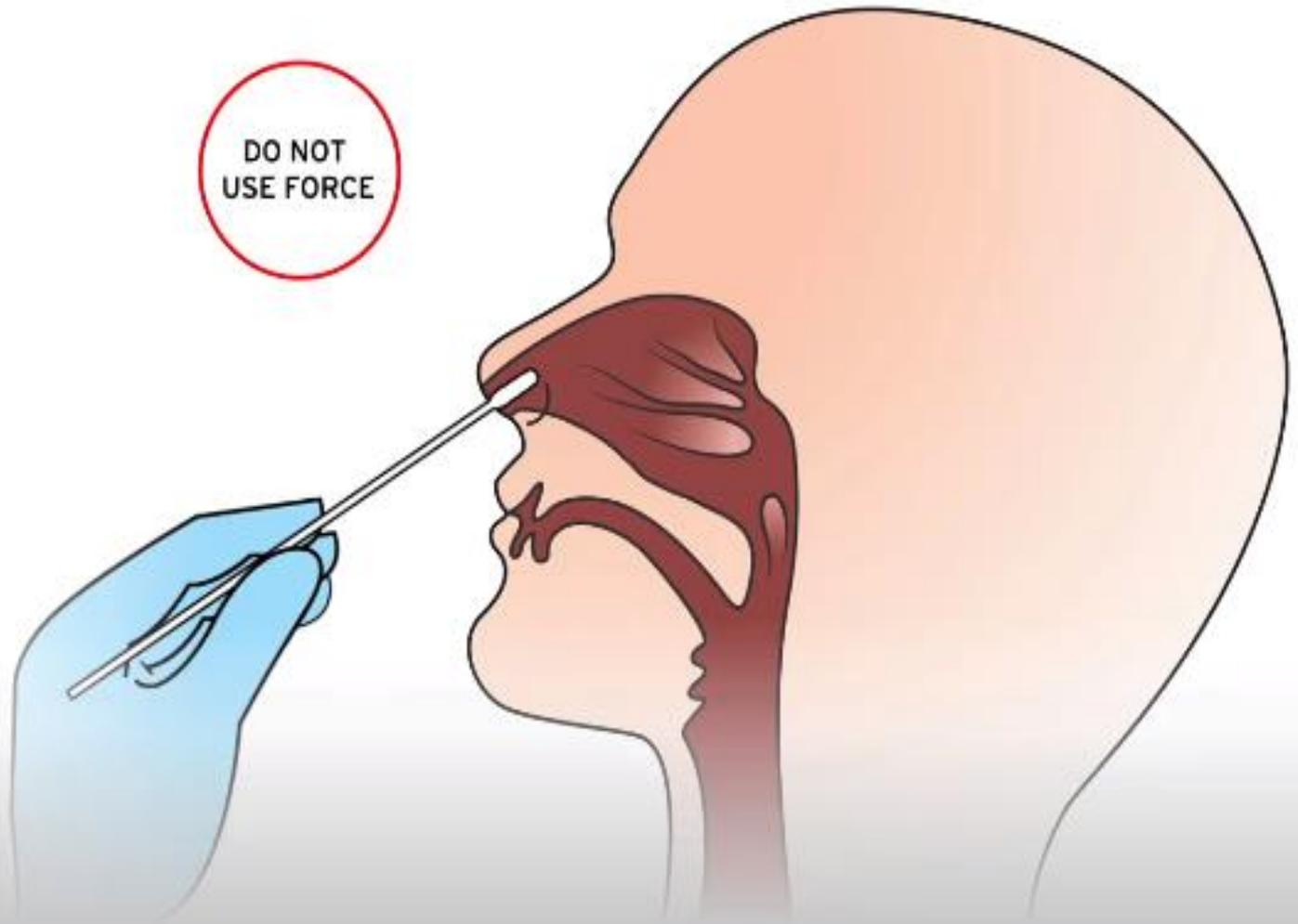
**MOLECULAR**  
TESTING LABS

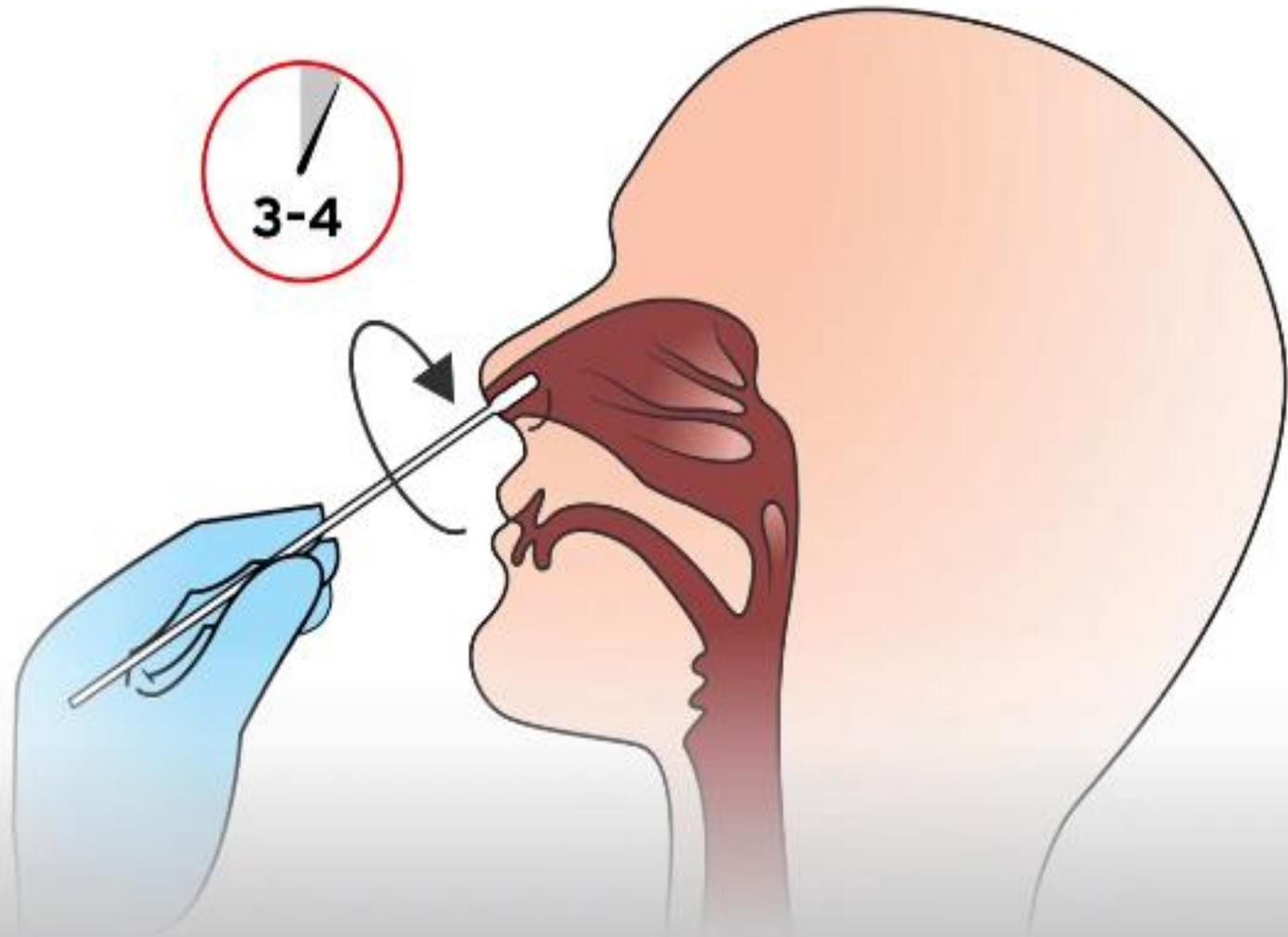
## Nasal swab

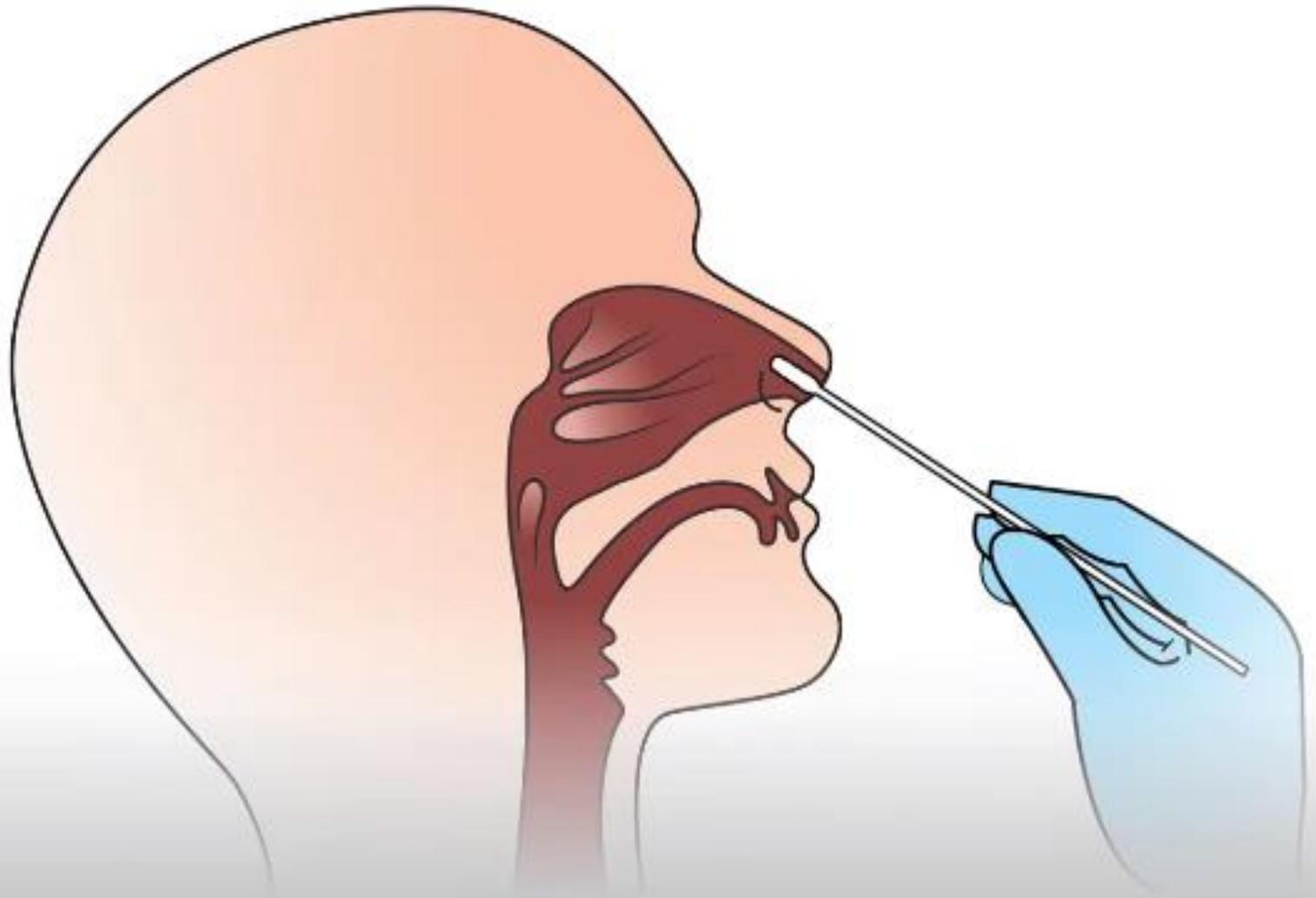
1. Remove sterile swab from packaging.
2. Insert swab into nostril 1/2 to 1 inch from the edge and roll the swab 5 times.
3. Insert **same swab** into second nostril and roll swab 5 times.
4. Return swab to container and label appropriately.
5. Label the tube with the patient's full name, date of birth, identification number, date and time of collection, initials of the person collecting the specimen and the specimen source.
6. **The specimen source is required for processing.**
7. Maintain sterility and forward promptly at room temperature.



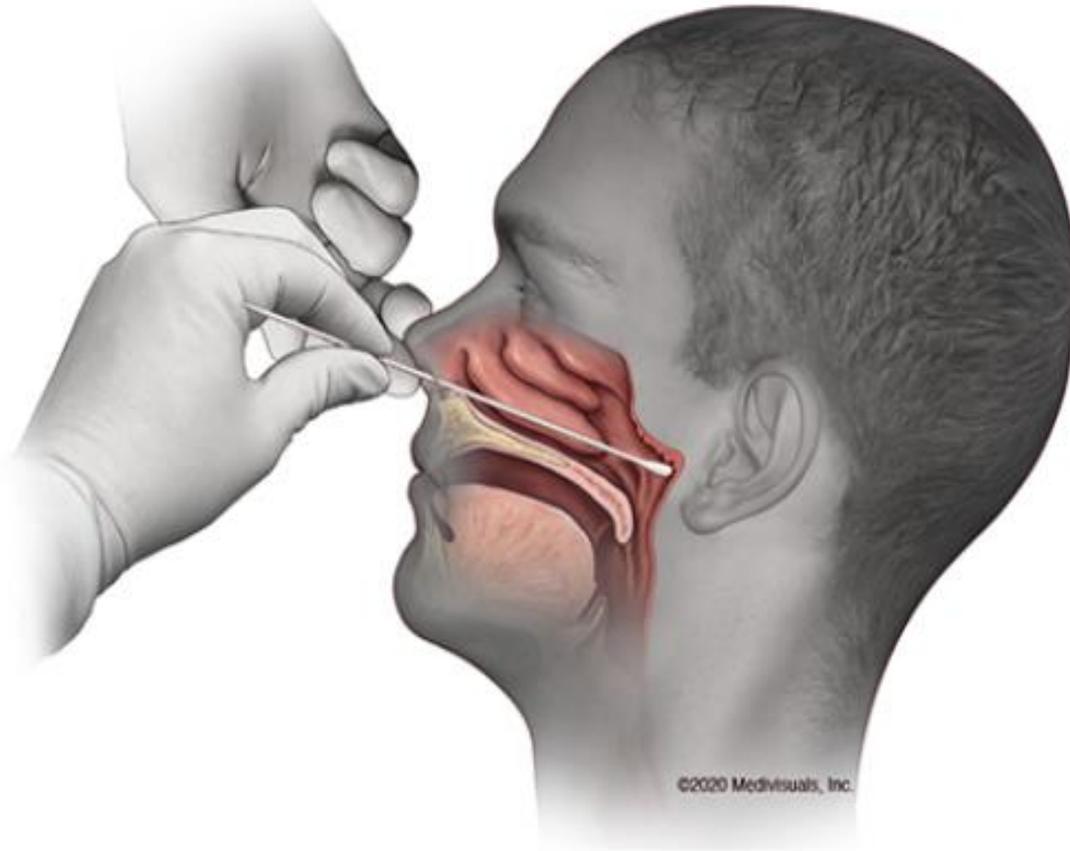
DO NOT  
USE FORCE







*Nasopharyngeal swab*



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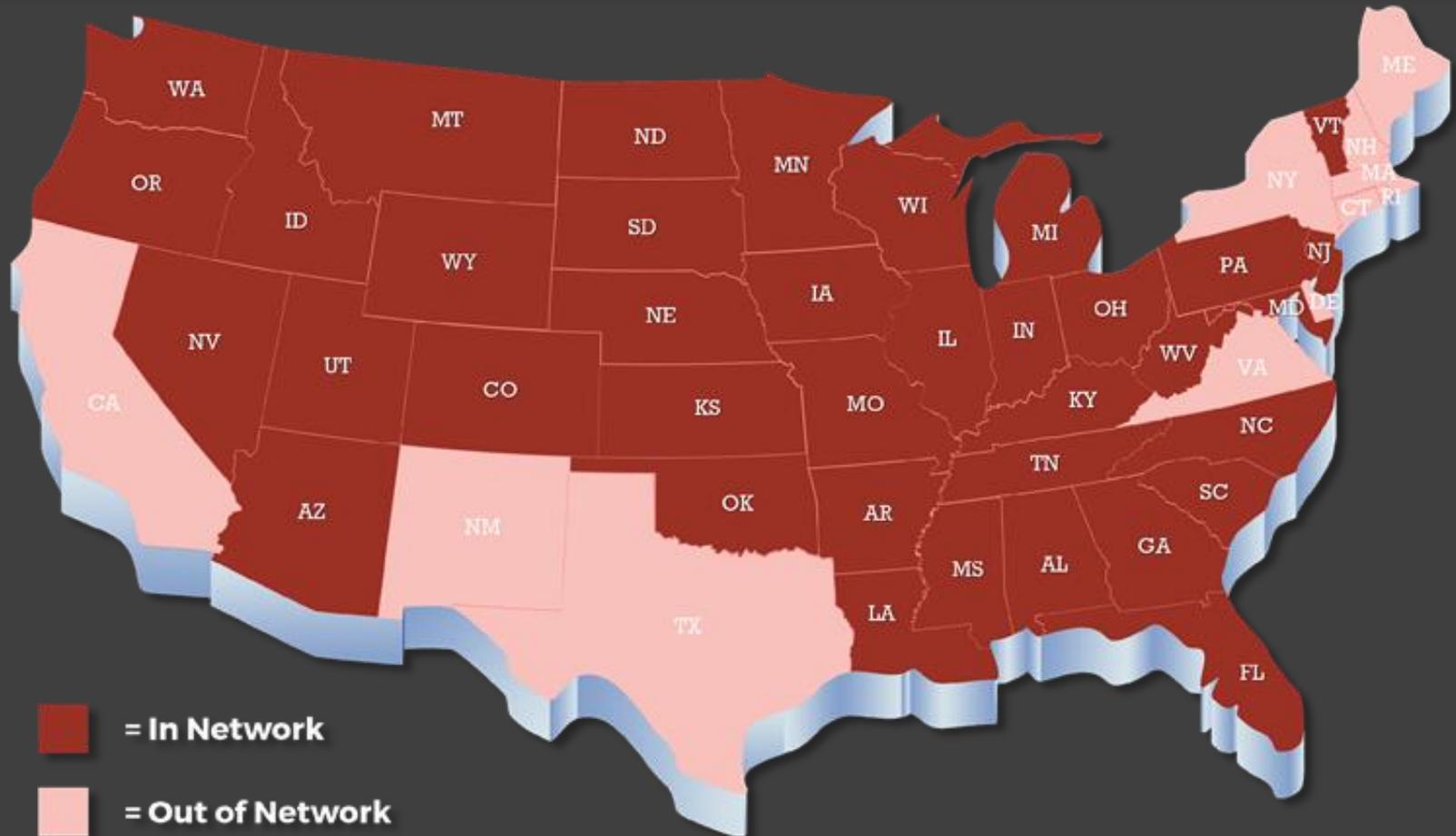
SWAB



The image features a large window with a grid pattern, through which a sunset or sunrise is visible. The sky transitions from a deep blue at the top to a bright orange and yellow near the horizon. In the foreground, the silhouettes of five business professionals are visible. On the left, a man and a woman are looking at a document together. In the center, two men are shaking hands; the man on the right is holding a briefcase. On the right, a woman and a man are also looking at a document. The floor is highly reflective, mirroring the silhouettes and the light from the window. The word "PARTNERSHIP" is written in large, white, bold, sans-serif capital letters across the lower portion of the image, centered horizontally.

**PARTNERSHIP**

# Coverage



-  = In Network
-  = Out of Network

# PARTNERSHIP WITH INSTITUTIONS

- Beacon – extended an agreement by Beacon
- CDC
- Memorial Sloan Kettering
- Mayo Clinical Labs
- CEPHEID
- Fluidigm
- Becton Dickenson
- Roche
- BIO-RAD
- Dynex
- ARUP
- Hologic
- Thermo Fischer
- WISCONSOIN DHS

# PARTNERSHIP WITH EMRs





**Meta-Analysis of AKT1 rs2494732 Genotype and the Risk of Psychotic Adverse Effects by Cannabis Use**  
 Department of Anesthesia and Geriatrics, Department of Laboratory Science, Brigham Young University, Provo, UT

**INTRODUCTION**  
 Cannabis use has become increasingly common in the United States, and its use is associated with an increased risk of psychotic adverse effects (PAEs). The AKT1 rs2494732 polymorphism has been associated with an increased risk of PAEs in individuals who use cannabis. This meta-analysis was conducted to evaluate the association between AKT1 rs2494732 genotype and the risk of PAEs in individuals who use cannabis.



Fig. 1. Frequency of AKT1 rs2494732 in the general population (n=1000)

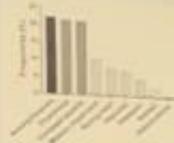


Fig. 2. Number of studies included in the meta-analysis (n=30)



Fig. 3. Odds ratio for AKT1 rs2494732 genotype and the risk of PAEs (n=30)



Fig. 4. Odds ratio for AKT1 rs2494732 genotype and the risk of PAEs, stratified by study design (n=30)

Study	AA	GG	AG	OR
Chen et al. (2018)	100	100	100	1.0
Smith et al. (2019)	150	150	150	1.5
Johnson et al. (2020)	200	200	200	1.2
Lee et al. (2021)	250	250	250	1.5
Kim et al. (2022)	300	300	300	1.2
Wang et al. (2023)	350	350	350	1.5
Chen et al. (2024)	400	400	400	1.2
Smith et al. (2025)	450	450	450	1.5
Johnson et al. (2026)	500	500	500	1.2
Lee et al. (2027)	550	550	550	1.5
Kim et al. (2028)	600	600	600	1.2
Wang et al. (2029)	650	650	650	1.5
Chen et al. (2030)	700	700	700	1.2
<b>Total</b>	<b>3500</b>	<b>3500</b>	<b>3500</b>	<b>1.3</b>

**CONCLUSION AND DISCUSSION**  
 1. The AKT1 rs2494732 polymorphism is associated with an increased risk of PAEs in individuals who use cannabis. This association was observed in both case-control and cohort studies.  
 2. Although all study results showed an association between AKT1 rs2494732 genotype and the risk of PAEs, the magnitude of the association varied across studies. This may be due to differences in study design, population characteristics, or cannabis use patterns.  
 3. The association between AKT1 rs2494732 genotype and the risk of PAEs was stronger in individuals who used cannabis more frequently and for a longer duration of time.  
 4. The results of this meta-analysis suggest that individuals who are carriers of the AKT1 rs2494732 polymorphism may be at an increased risk of PAEs if they use cannabis. This finding has important implications for clinical practice and public health.  
 5. Limitations of this study include the potential for publication bias, heterogeneity among studies, and the lack of information on the mechanism of action of AKT1 rs2494732.

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King Hussein Cancer Center  
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**MEASURES**  
 Lina Alghamdi, MD  
 Nadeen Al-Hadi, MD



