



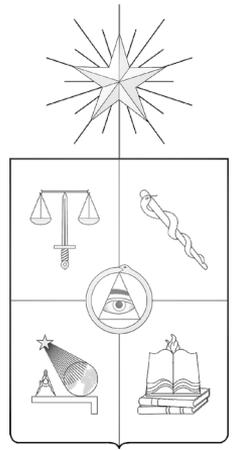
# COVID-19 Host Genetics Cohort - Chile

## The COVID19hg Project

**Ricardo A. Verdugo**  
School of Medicine  
University of Chile

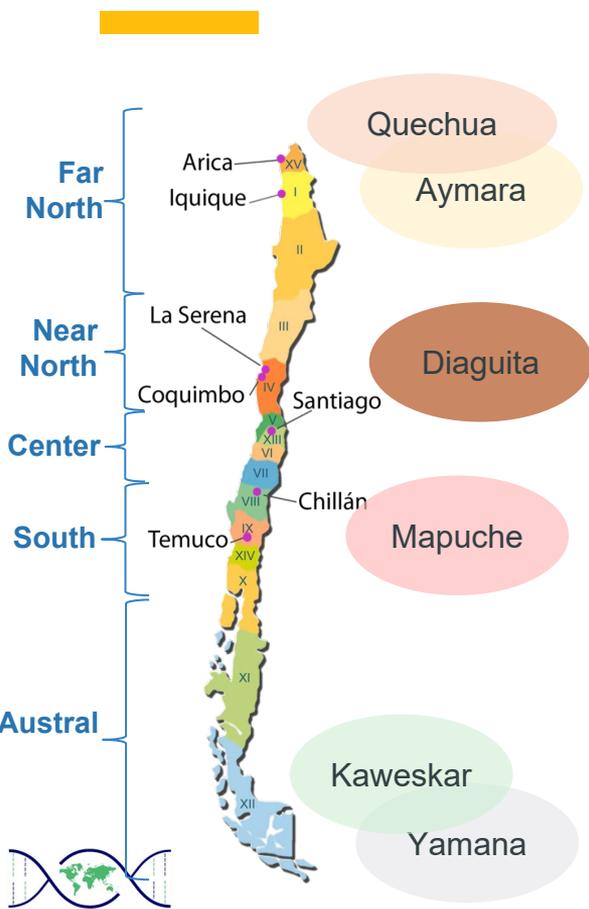


- Objective
- Design
- Challenges
- Status
- Perspectives

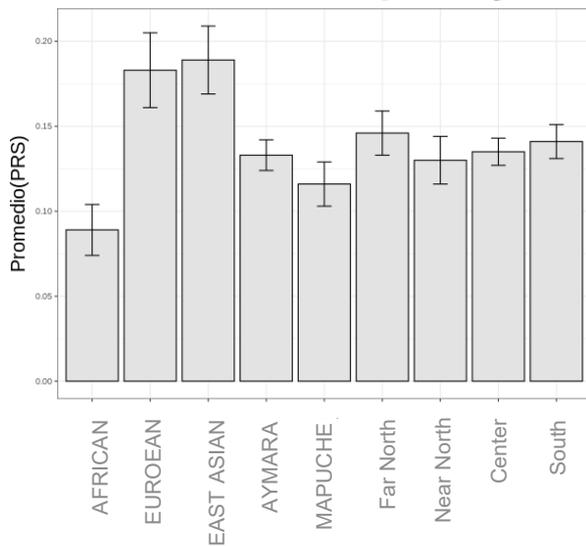


# CHILEGENÓMICO

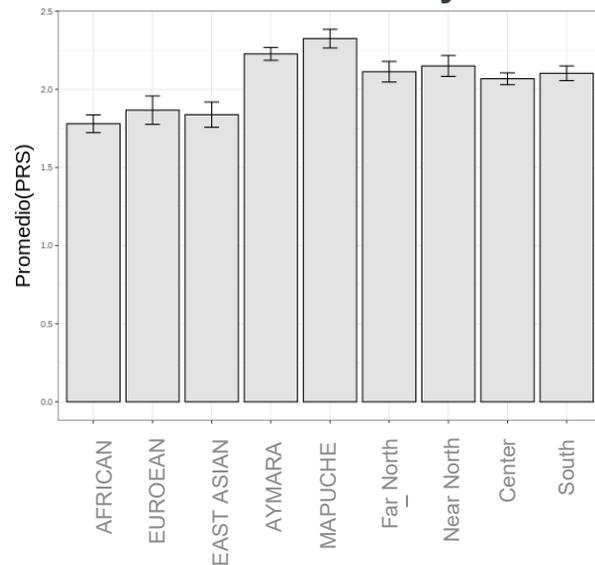
**ChileGenómico**  
 General population  
 3000 Blood samples  
 414 Axiom LAT1  
 600K SNPs



**PRS Susceptibility**

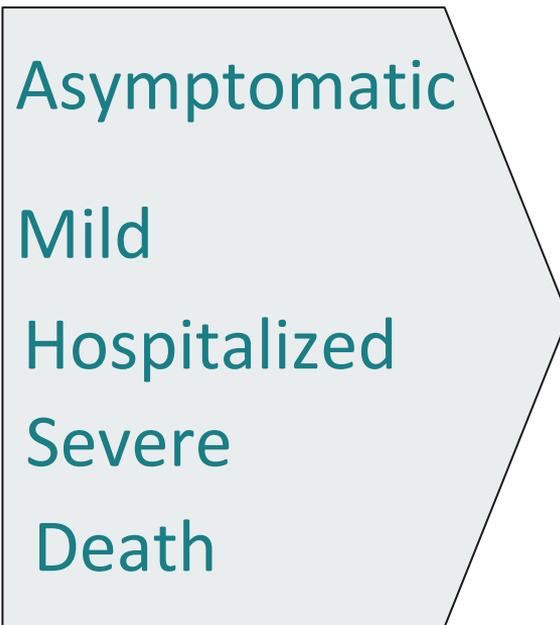
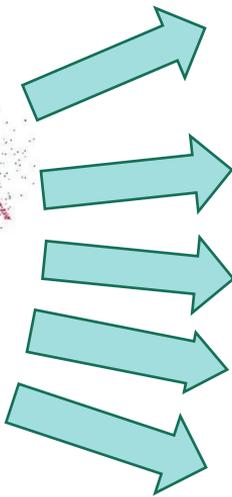
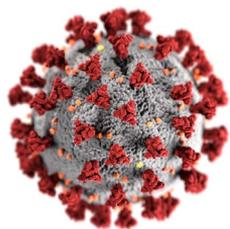


**PRS Severity**



# Objetivo

To evaluate the association between the genetic variation that the Chilean population presents with the susceptibility of presenting severe forms of COVID-19 disease



## Ancestry

Quechua

Aymara

Diaguita

Mapuche

Kaweskar

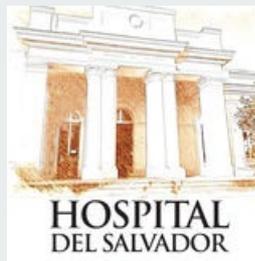
Yamana



# Design



Pilot Recruitment  
in Santiago  
Sep-Oct 2020



National call for  
volunteers  
Nov 2020

¿QUIERES SER PARTE DE LA PRÍMERA LÍNEA?

**SI TUVISTE COVID19**

AYÚDANOS A ESTUDIARLO

¿CÓMO PARTICIPAR?

- Déjanos tus datos para ser contactado
- Responde nuestra encuesta
- Dona una pequeña muestra de sangre

A CAMBIO, CONTRIBUIRÁS CON EL CONOCIMIENTO DE LA ENFERMEDAD Y RECIBIRÁS UN INFORME DE TU ANCESTRÍA U ORIGEN GENÉTICO.

ESCRÍBENOS A:

COVID19-INFO@CHILEGENOMICO.CL

@covid19hg @covid19hg-cl @covid19hg

WWW.CHILEGENOMICO.CL/COVID19HG



Home  
visit



Regional  
Center



Contact  
form



# Design



Recruitment 4000



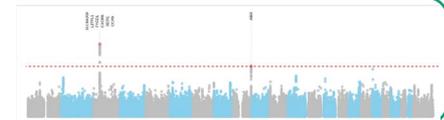
Survey



Genotyping (GSA)



GWAS



## Survey based on WT/IHCC

- Demography
- Ancestry
- Socioeconomic
- Comorbidities
- Symptoms (26)
- Medical care
- Sequelae



## Challenges

- Engaging (overworked) clinicians
- One IRB per hospital
- Harmonization with other projects
- Funding for Follow ups

## Biobank Standards

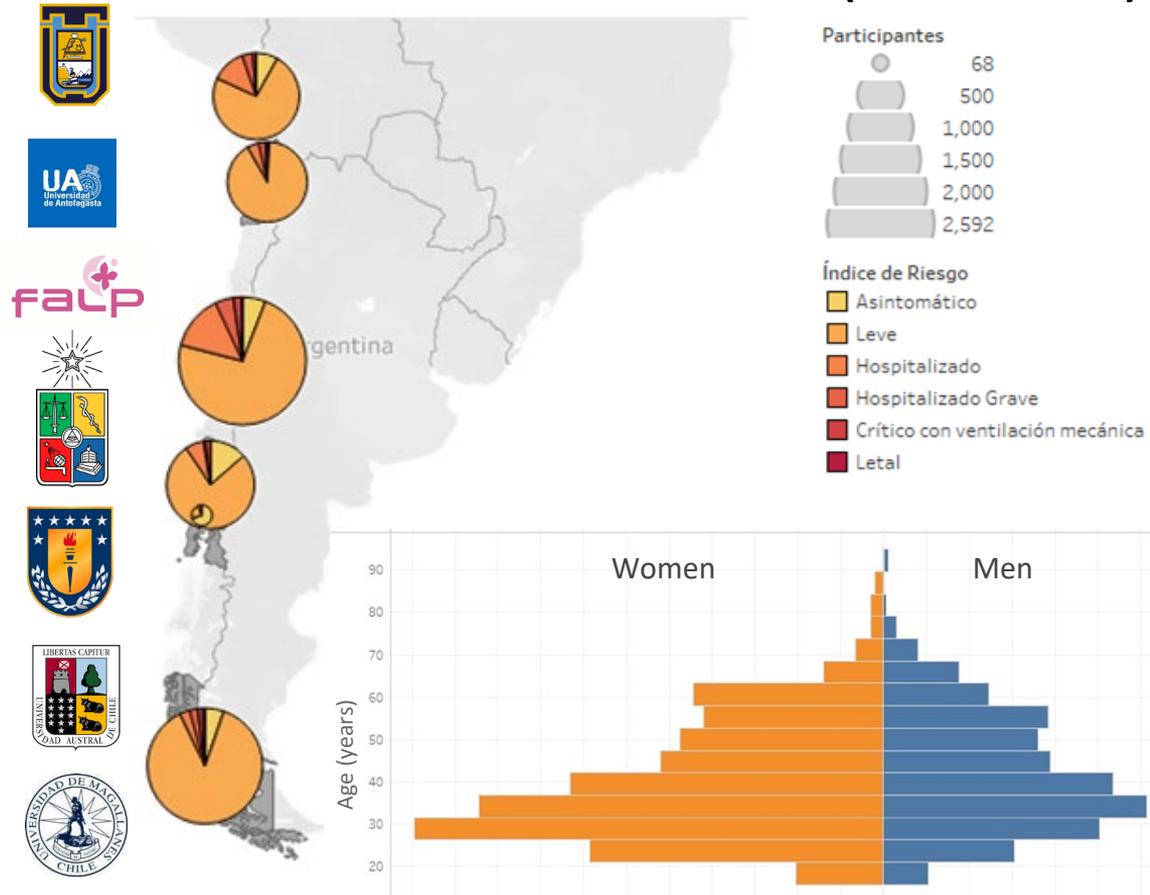
- FAIR Guiding Principles
- 19 SOPs
- 12 Process record forms



# Current status

- Recruitment completed (N=2000)
- Joined 3 other projects (N=1500)
- Follow up started in one cohort (N=60)
- DNA samples sent for genotyping

## COVID-19 Genomics Network (C19-GenoNet)



## Universidad de Tarapacá



**Macarena Fuentes, PhD**  
Iván Pulgar Alarcón  
Cristobal Guajardo  
Patricia Fernández

## Universidad de Antofagasta



**Cristina Dorador, PhD**  
Christian Muñoz  
Claudia Campillay  
Conny Ossandón  
Jonathan García

## Biobanco Tejidos y Fluidos UCH



**Alicia Colombo, PhD**  
Gerardo Donoso  
Pamela Bocchieri  
Karina Colombo  
Daniela Jara  
Técnicos de Biobanco

## Universidad de Atacama



**César Echeverría, PhD**  
René Manríquez  
Paulina Delgado  
Estefany Román

## Hospital del Salvador



**Virginia Monardes, BQ.**  
Pia Kochifas  
Yessica Ramirez  
Andrés Soto  
Erika Rubilar

## Universidad de Chile



**Ricardo Verdugo, PhD**  
Eduardo Tobar  
Cristián Yáñez  
Carolina Becerra  
Francisca Carvajal  
[raverdugo@uchile.cl](mailto:raverdugo@uchile.cl)

## Universidad Austral de Chile



**Andrea Silva, PhD**  
Claudio Cappelli, PhD  
Héctor Valenzuela  
Carolina Trujillo

## Universidad de Magallanes



**Yolanda Espinosa, PhD**  
Oscar Gallardo  
Daniela Zapata  
Paulina Velásquez  
Magdalena Osorio  
Paula Zúñiga

