



Ministerio de Ciencia,  
Tecnología e Innovación Productiva  
Presidencia de la Nación



# PAIS project: Argentine SARS-CoV-2 Genomics Consortium “Evolutionary analyses”

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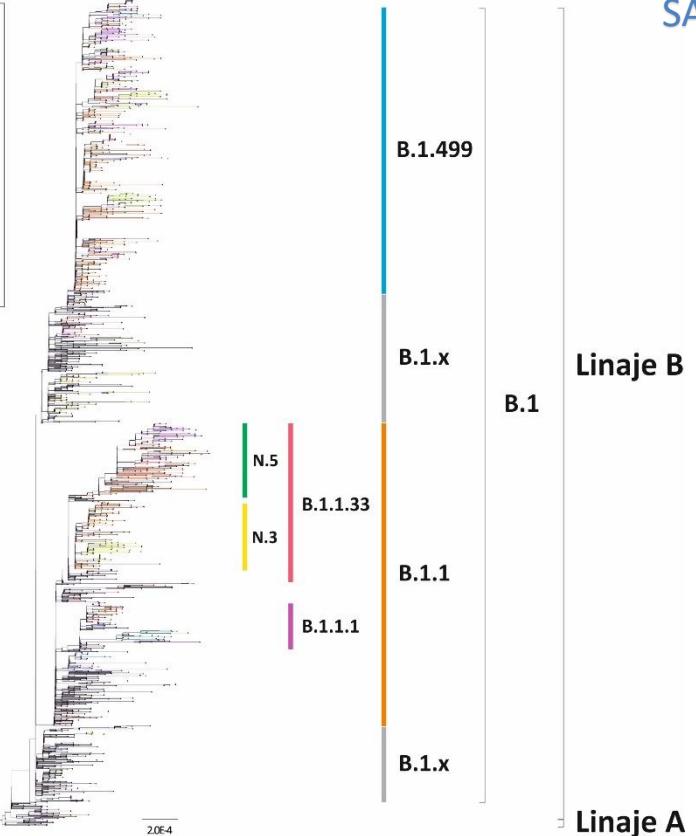


@CaroTorr

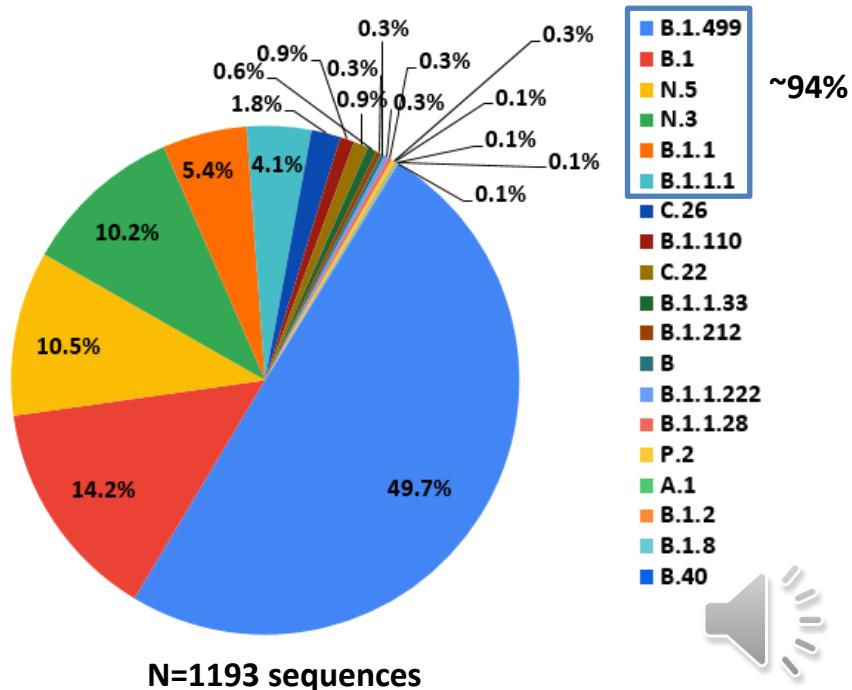


# Phylogenetic analyses: confirmation of lineage assignment

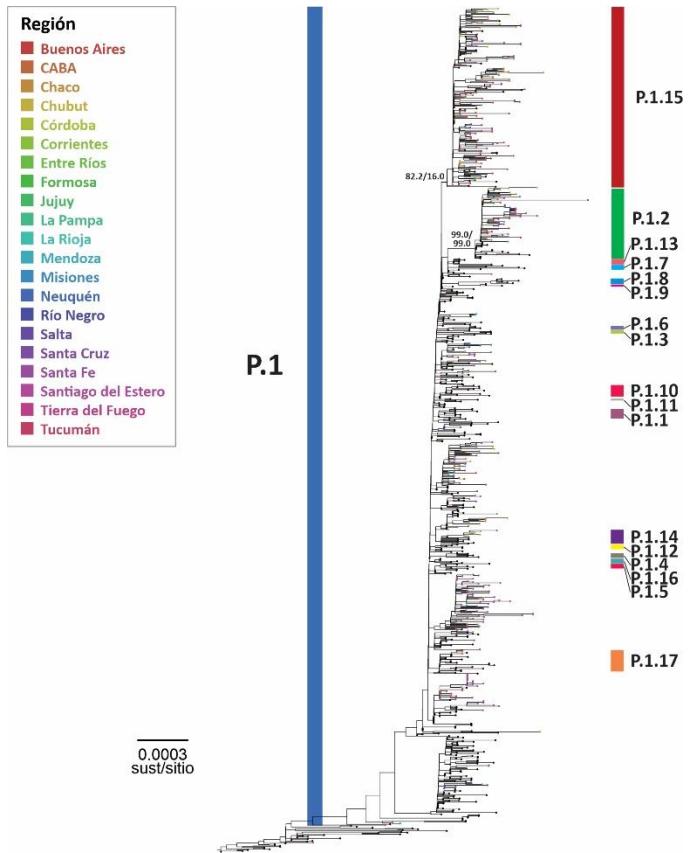
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Buenos Aires
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Corrientes
Jujuy
La Pampa
Mendoza
Neuquén
Río Negro
Salta
Santa Fe
Tierra del Fuego
Tucumán



SARS-CoV-2 Argentine lineages distribution: first wave

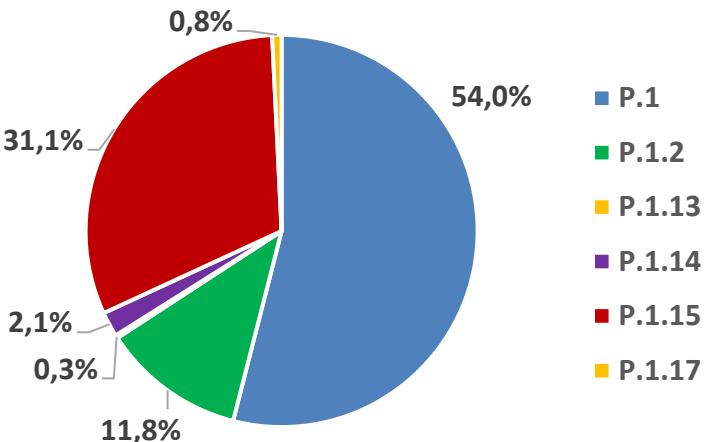


# Phylogenetic analyses: confirmation of lineage assignment

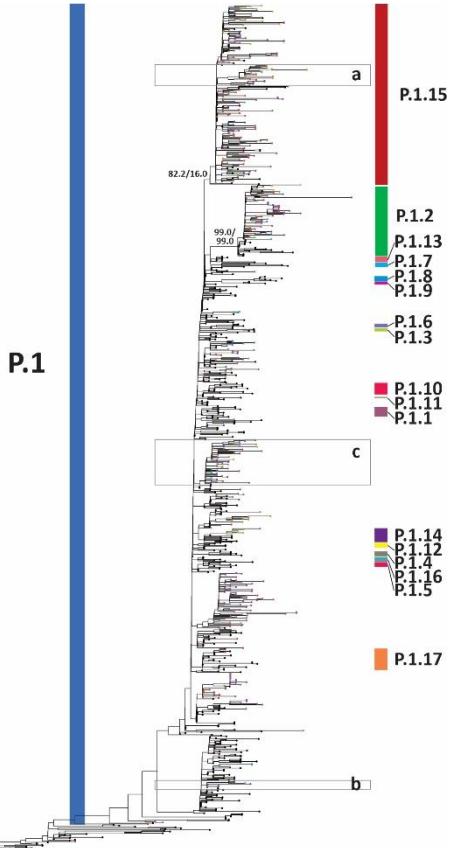
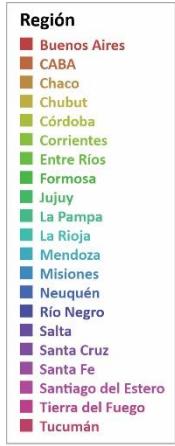


GAMMA

Lineage P.1 and its derived lineages

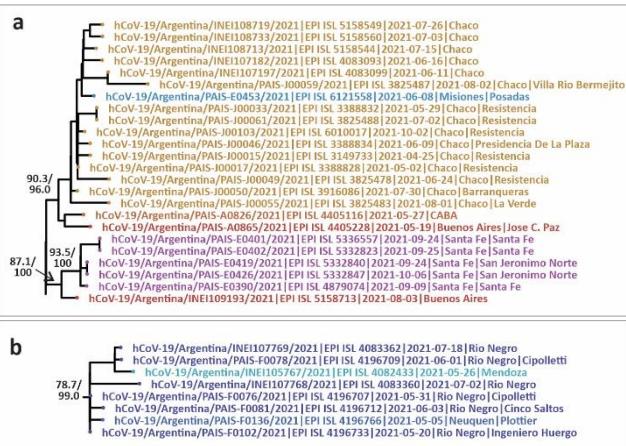


# Phylogenetic analyses: introduction and transmission chains

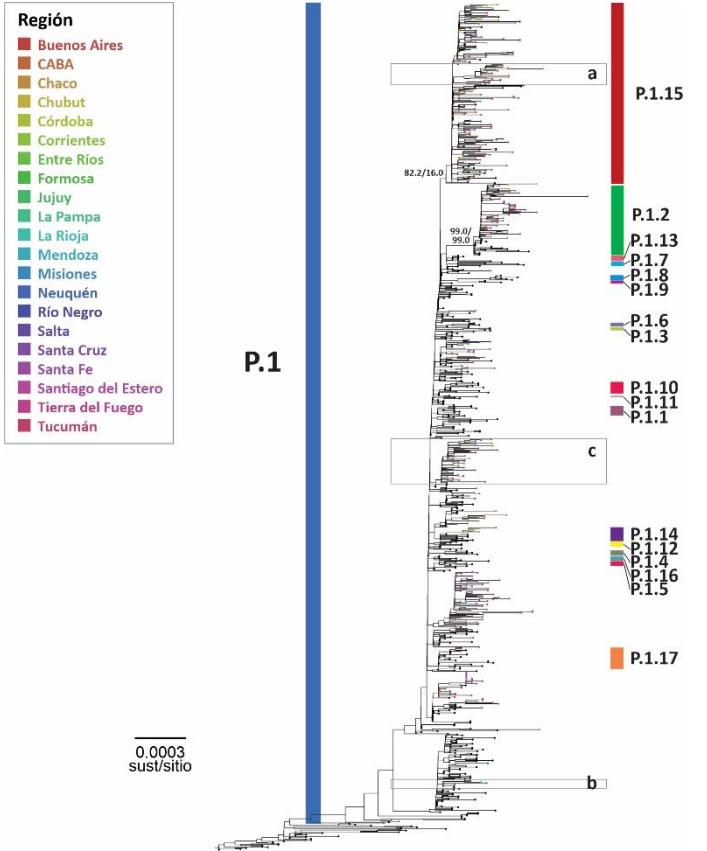


## GAMMA

- Multiple introductions and clusters of Argentine sequences with no epidemiological link were observed, indicating introduction, establishment, and local transmission.
- Monophyletic groups were observed, suggesting transmission chains circumscribed to one or a few areas, dispersed regionally or between distant provinces:

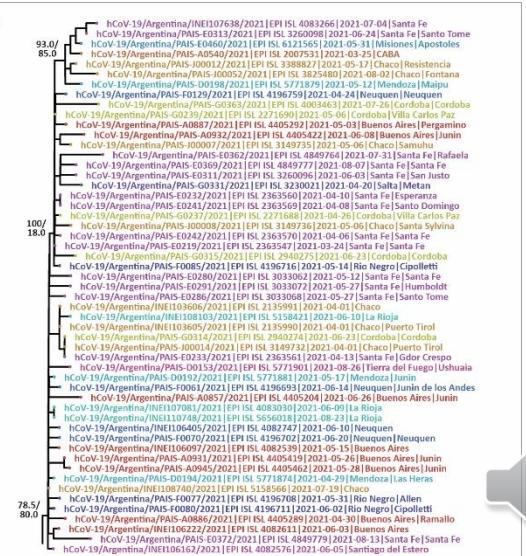


## Phylogenetic analyses: introduction and transmission chains

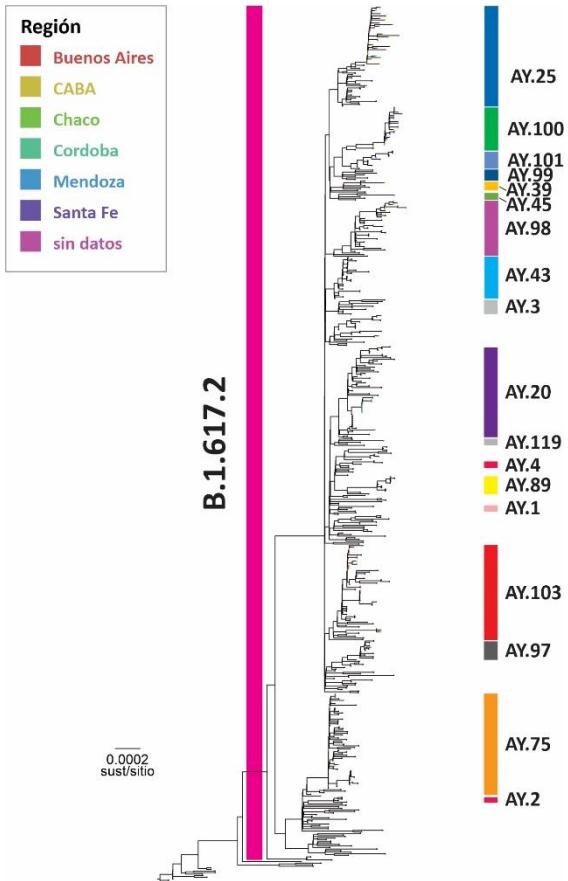


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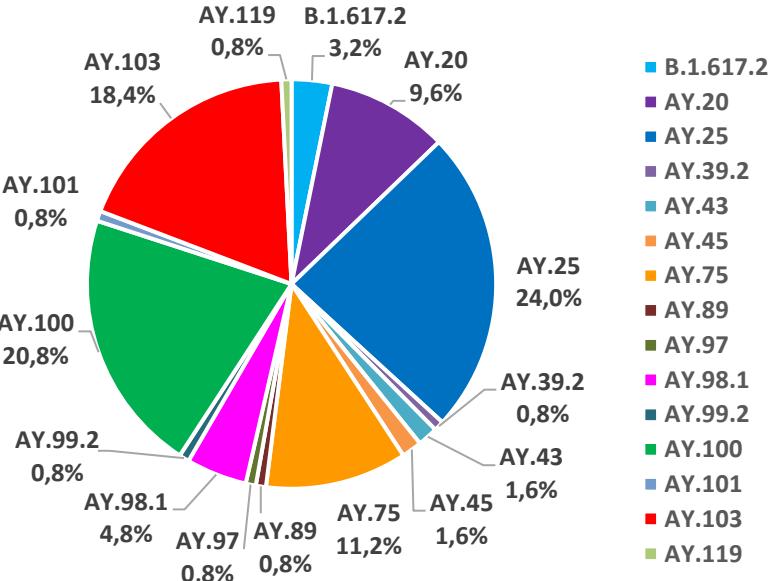


## Phylogenetic analyses: confirmation of lineage assignment

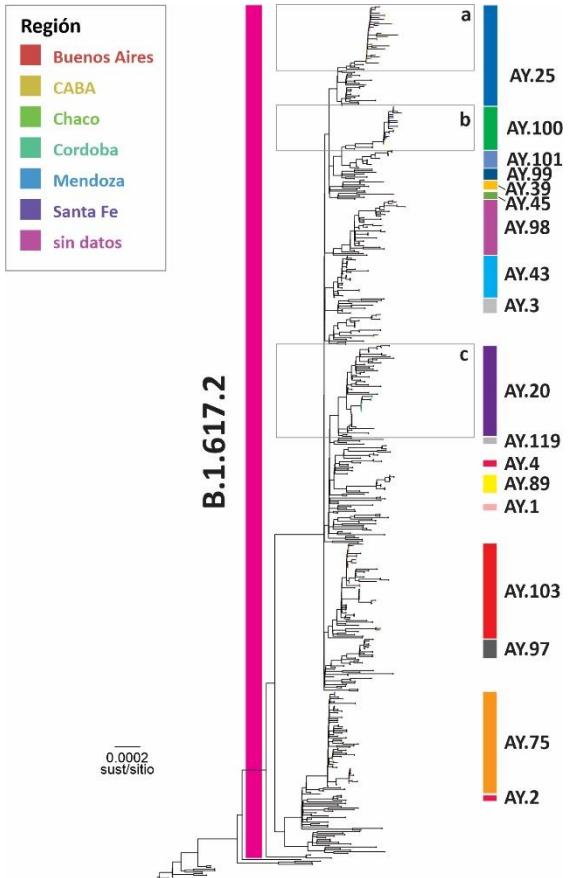


DELTA

## Lineage B.1.617.2 and its derived lineages

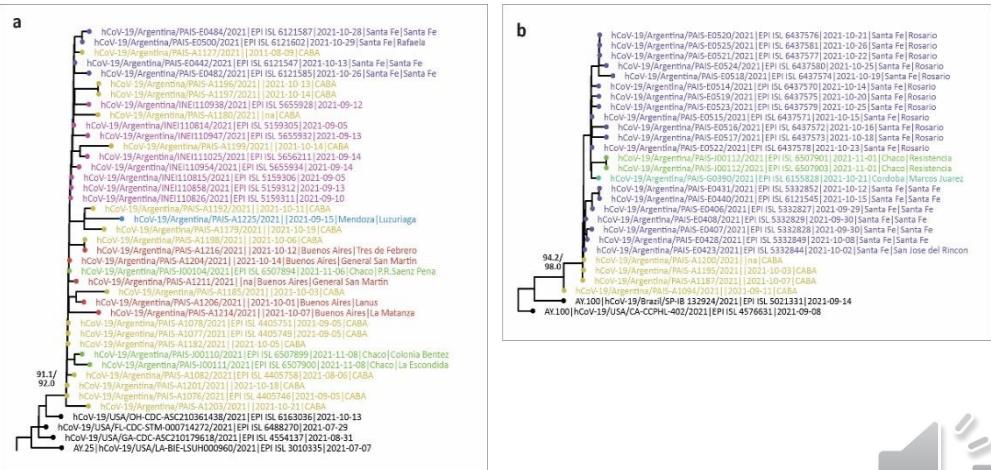


## Phylogenetic analyses: introduction and transmission chains



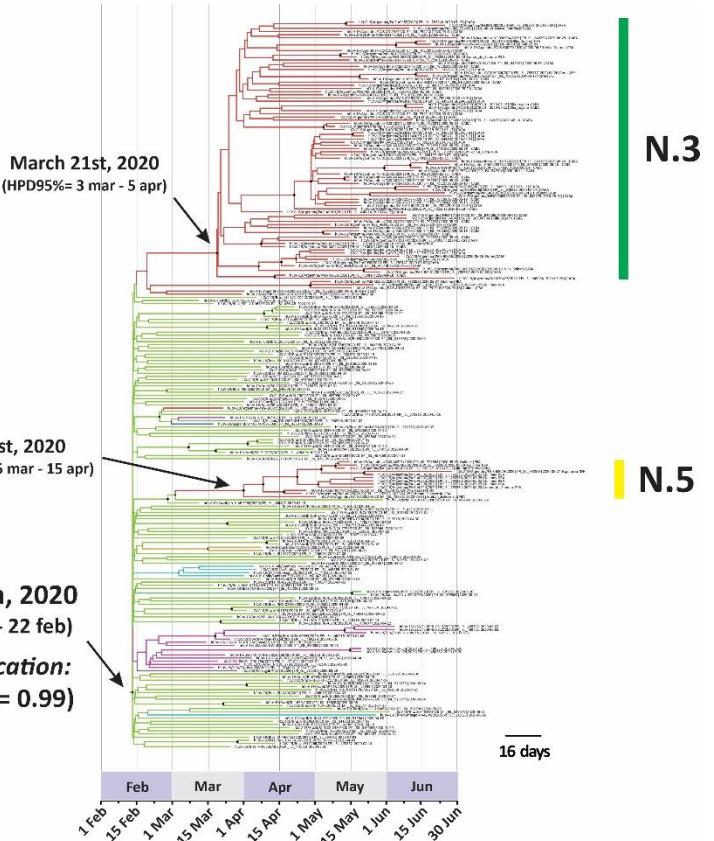
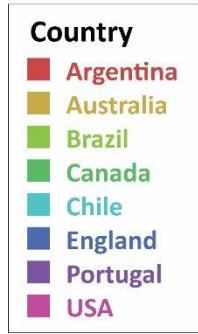
DELTAS

- As for other variants, multiple introductions and groupings of Argentine sequences with no epidemiological link were observed, indicating introduction, establishment, and local transmission. Groups were observed suggesting transmission chains circumscribed to one or a few areas, dispersed regionally or between distant provinces:



# Phylogenetics: dating, evolutionary rate and phylogeography

PROYECTO PAIS

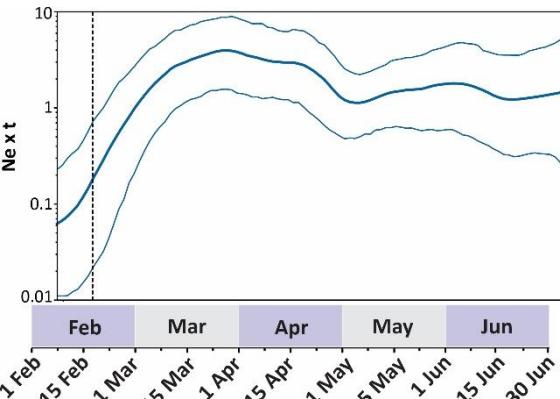


## B.1.1.33 and its derived lineages

Evolutionary rate =  $6.0 \times 10^{-4}$  (s/s/y)  
(HPD95% =  $4.8 \times 10^{-4}$  -  $7.2 \times 10^{-4}$ )

~ 18 subs/year

## Demographic reconstruction





<http://pais.qb.fcen.uba.ar>



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Thank you!!