

# WEBINAR SEQUENCING 2021



# Evolution of the environment

Acquisition of a sample preparation platform

- Reduction of cost per sequence

- Better preparation for the sequencing (automation)

- Reduction of the TAT

Illumina Nextseq and Novaseq on site (confirmed)

Hiring of a Bio-Ingeneer (Hadrien REGUES) and a PhD student (Gregory QUEROMES)

- Develop and provide analytical and comparison tools

- Development of a better interaction with the sites

- Publication of results



# Acknowledgements

## Staff from Lyon NIC

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## Surveillance GISRS Data

John McCauley  
GISRS network

## System for Data collection

GISAID

## Source of Data

GIHSN sites



# GIHSN NETWORK ACTIVITIES: strain sequencing in 2019-20

## SITES USING VIRPATH LAB FOR SEQUENCING

- India (111) 3 shipments: week 4 of Jan, week 2 of Feb
- Nepal (0) 0 shipment
- Kenya (63) 2 shipments week 2 Feb, week 2 Sept
- France - Lyon (42) (almost real-time)
- France - Paris (33) 1 shipments week 2 Sept
- Russia - Moscow (0) 0 shipment
- Serbia (50) 2 shipments week 2 Jan, week 1 Mar
- Ukraine (61) 3 shipments week 2 Jan, week 1 mar, week 4 Jun
- Lebanon (87) week 2 Jul**
- Peru (14) 1 shipments week 1 sept
- Bangladesh (0) 0 shipments
- Ivory Coast (pending)
- Argentina (0) 0 shipments



# Strain sequencing: data available

Majority of A(H1N1)pdm09, a minority of A(H3N2) viruses in 2019-2020

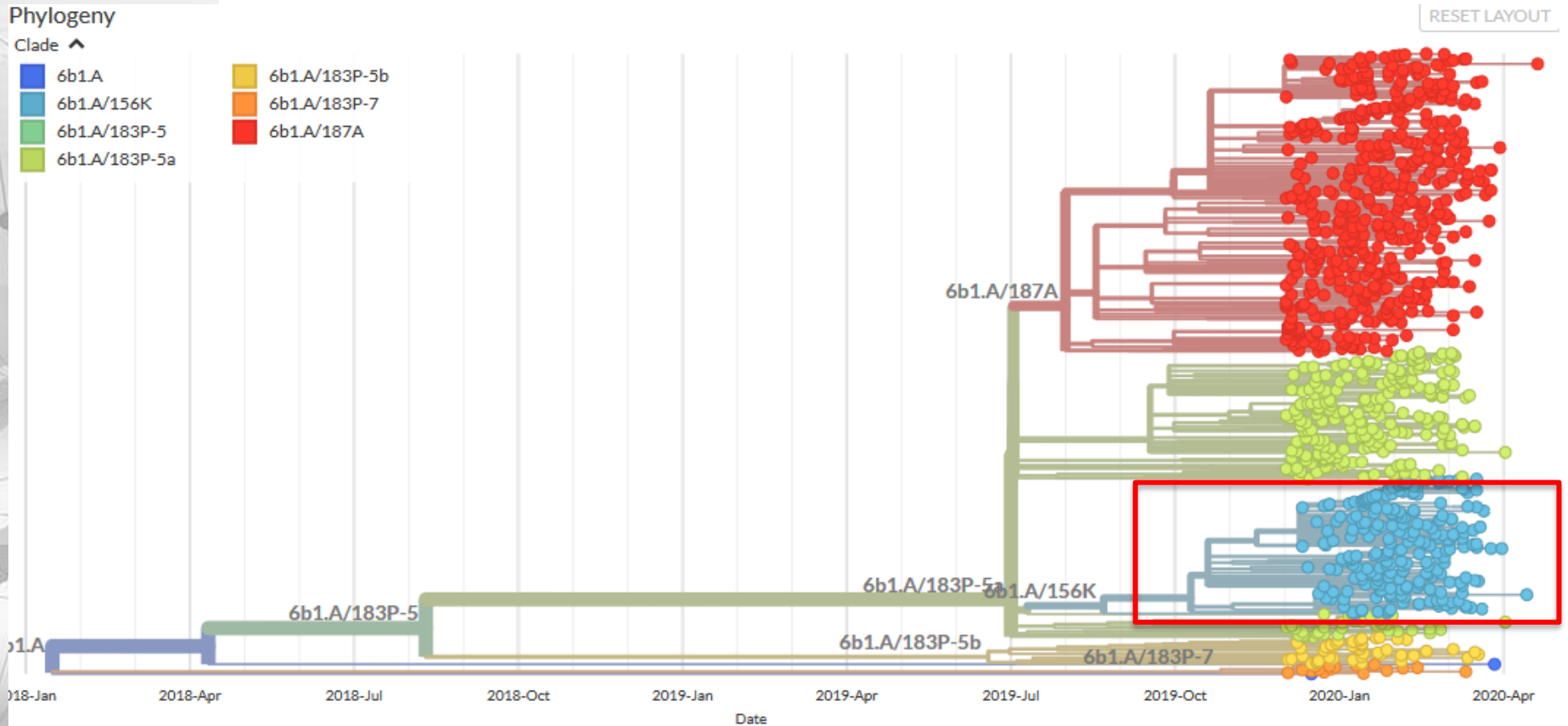
B Victoria strains majority of the detected B viruses, no B Yamagata detected in the network in 2019-2020

Phylogenetic analysis on its way (first draft manuscript sept 2021):

Sequencing of the 2021 strains arriving (low numbers)



# Phylogeny of 2019-2020 H1N1pdm09 (incl 6b1.A/156K)



# Phylogeny of 2019-2020 GIHSN H1N1pdm09 (incl 6b1.A/156K)

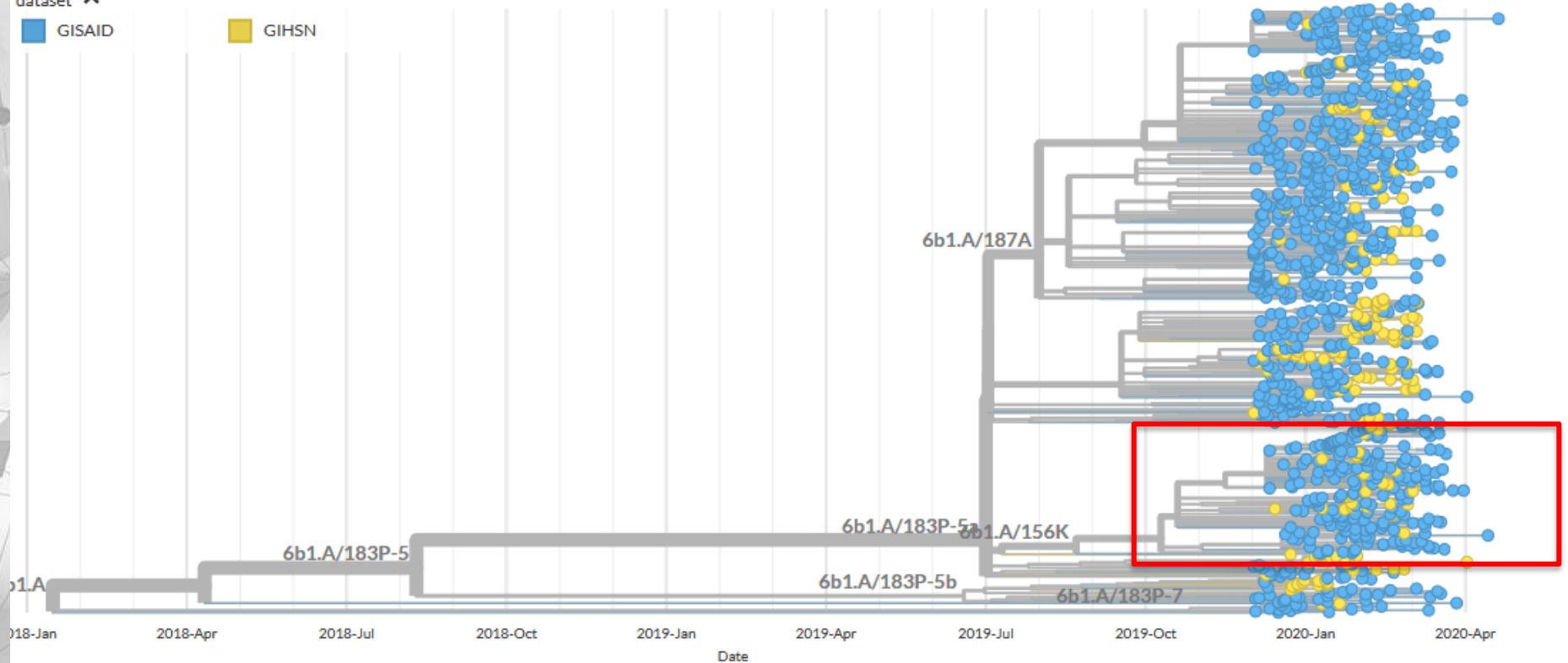
## Phylogeny

dataset ^

■ GISAID

■ GIHSN

RESET LAYOUT



# Purpose of the webinar

Networking (interaction between GIHSN actors) +++

Provide insight into the sequencing activities  
Describe the tools used for sequencing

Answer to questions

