

# PLUGS

Ideas. Collaboration.

Results.

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Access code: **664 385 930**



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# **A Discussion of Covid-19 Testing and How it Affects Many Other Kinds of Testing and Complicates Care.**

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**Moderators: Michael Astion, MD, PhD and Jane Dickerson, PhD**

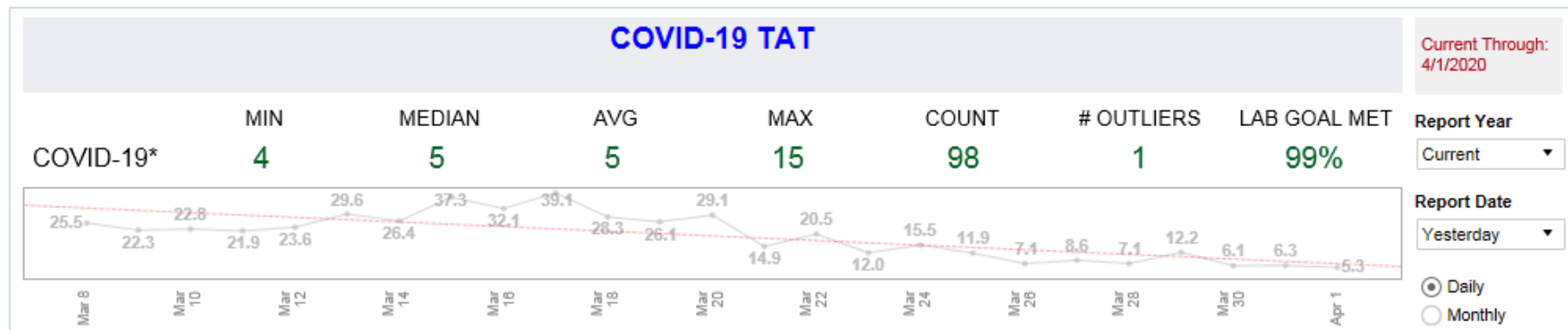
Department of Laboratories, Seattle Childrens Hospital

University of Washington, Department of Laboratory Medicine

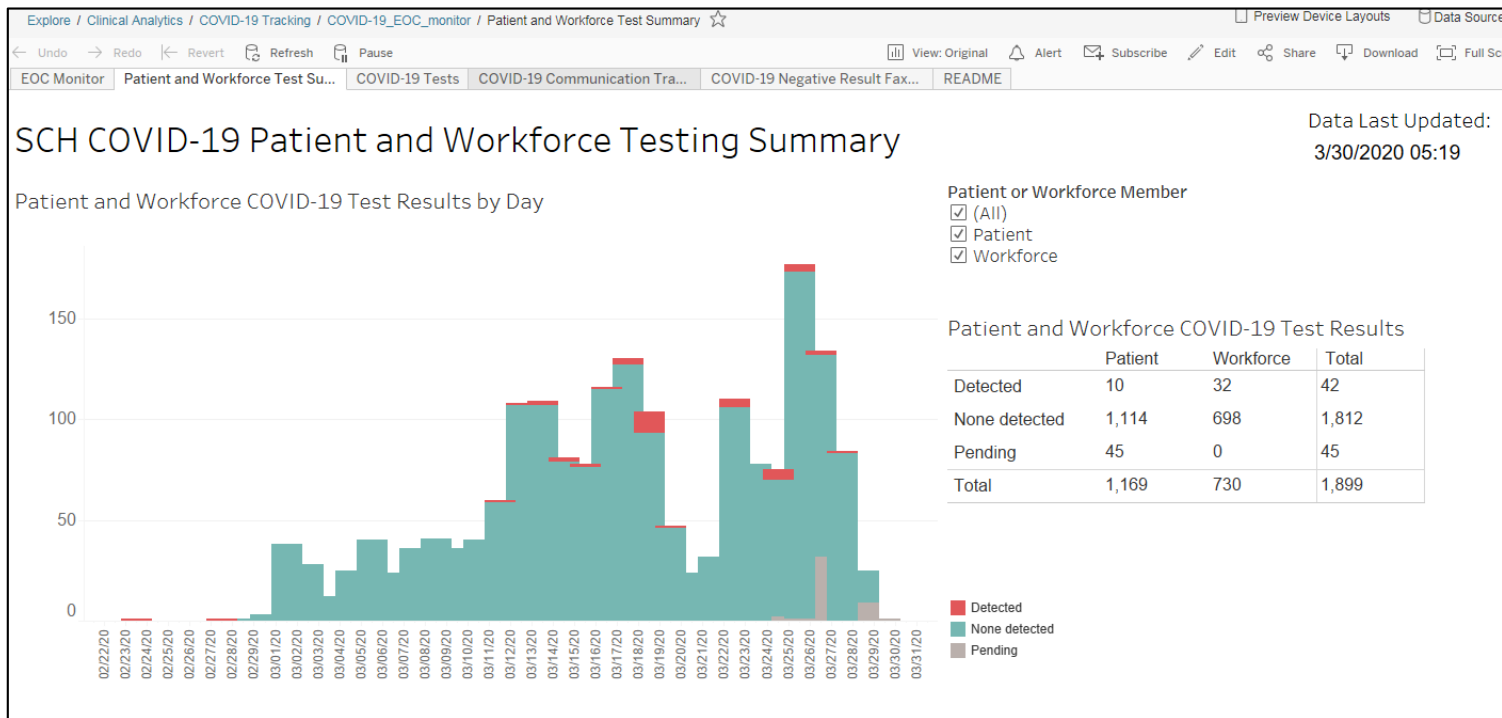
# Covid-19 Testing Experience to Date

- **March 1:** We started testing at the Univ of Washington using an assay developed by Dr. Alex Greninger and Dr. Keith Jerome on March 1. UW is a few miles from SCH.
- **March 24:** We added an LDT at Seattle Children's developed by Dr. Xuan Qin.
- SCH has resulted over 2000 tests on patients and healthcare workers. Patients have an approximate 1% positive rate and symptomatic workforce has run at 4-5% positive. No trend.
- **Current State:** We choose our test location based on lowest TAT. Typically, this involves testing at SCH during the day using multiple runs of an LDT, and UW at night using mostly random access analyzers.
- TAT goal is <12 hours from time of receipt in the lab with no outliers.
- We have been unable to secure Covid-19 inventory for either the Cepheid or BioFire rapid platforms, both of which we own. So we have no rapid test available.
- Supply chain for viral test media and swabs are an issue.

# SCH: Turnaround Time Monitor for Covid-19 Testing



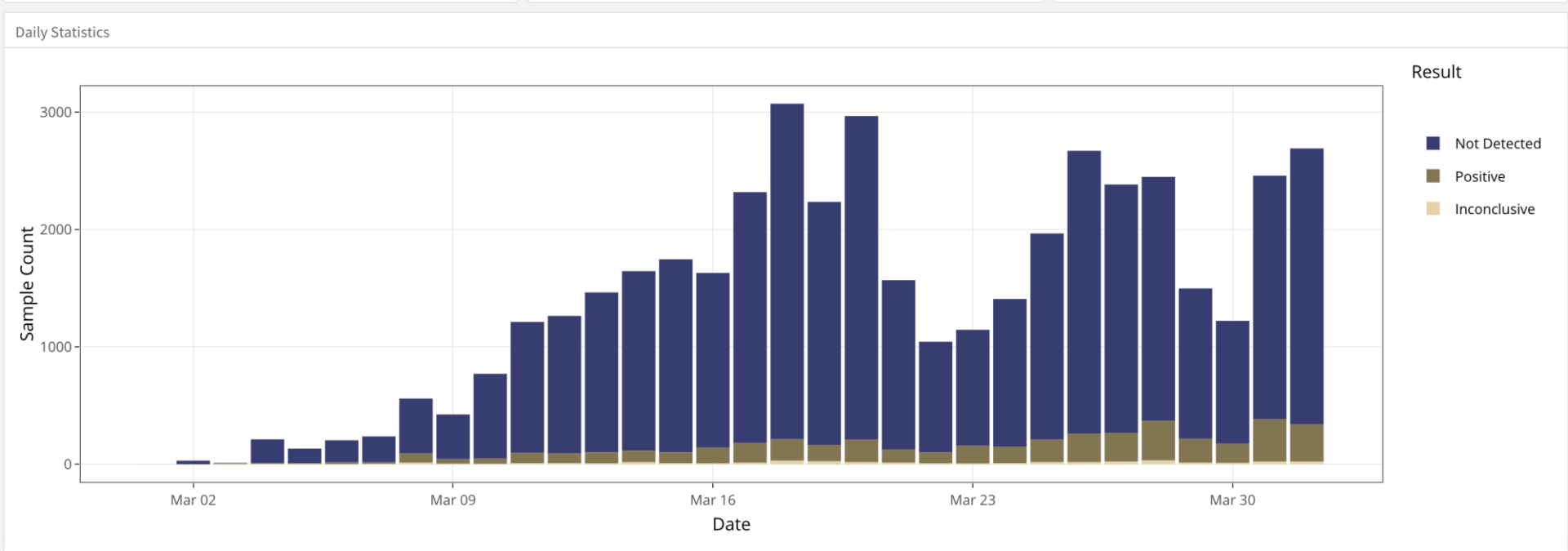
# Daily Monitor of Test Tallies and Results



# Our Special Guest from UW are here to discuss....

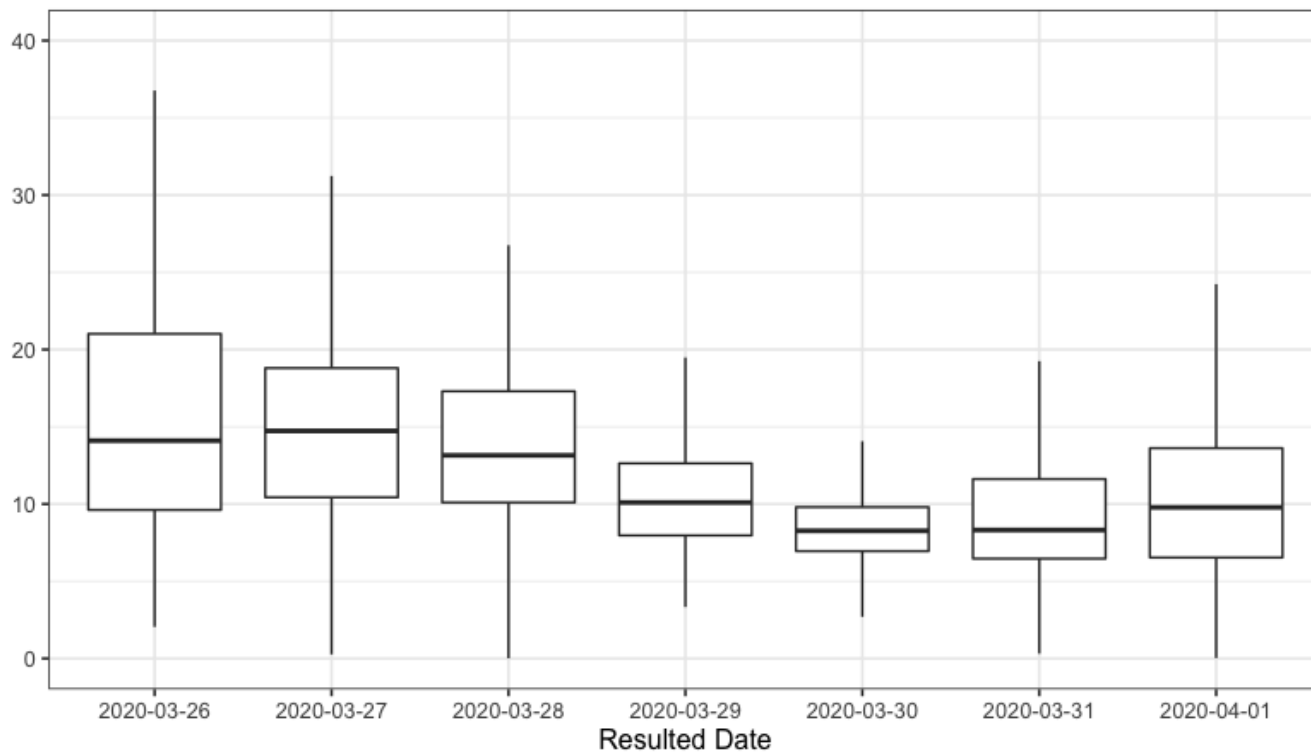
- The UW experience within UW Medicine Health System and within WA State
- Antibody Testing for SARS-CoV-2
- Our guests are:
  - Dr. Geoff Baird, Professor and Chairman of the UW Department of Laboratory Medicine and Interim Chairman of the UW Department of Laboratory Medicine and Pathology
  - Dr. Mark Wener, Professor and Medical Director of Clinical Laboratories, Univ. Washington Medical Center and Director of the Clinical Immunology Laboratory in the UW Department of Laboratory Medicine.

Total patients tested to date:	Total (distinct) positive/inconclusive patients:	Overall patient positivity rate:
43,751	4,252	9.7%
Daily samples tested on 2020-04-01:	Daily positive/inconclusive samples on 2020-04-01:	Sample positivity rate on 2020-04-01:
2,679	335	12.5%



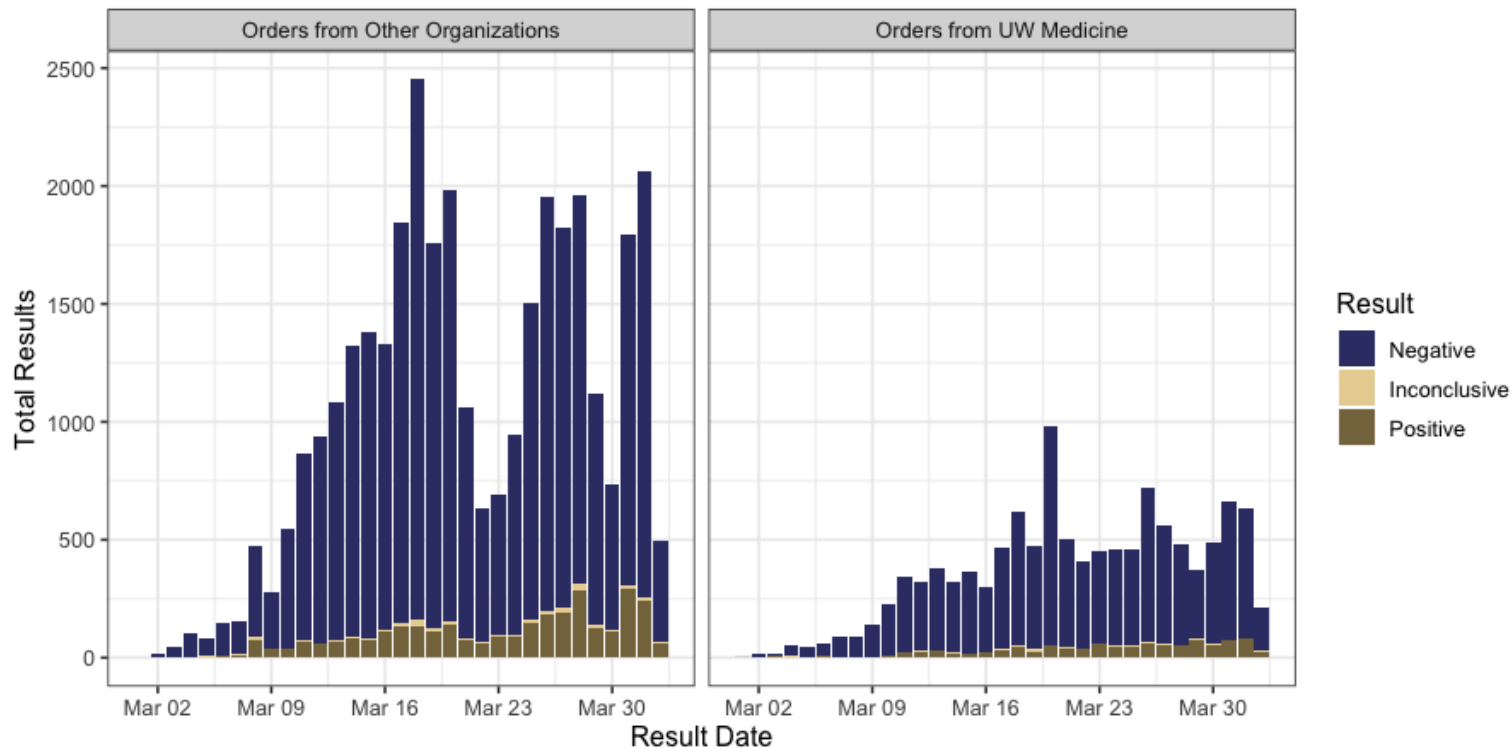
Public dashboard: <http://depts.washington.edu/labmed/covid19/>

# Overall Turnaround Times





# Community Impact



# COVID19/PLUGS: UWMC Immunology Lab

April 2, 2020

Mark Wener, MD

Chihiro Morishima, MD

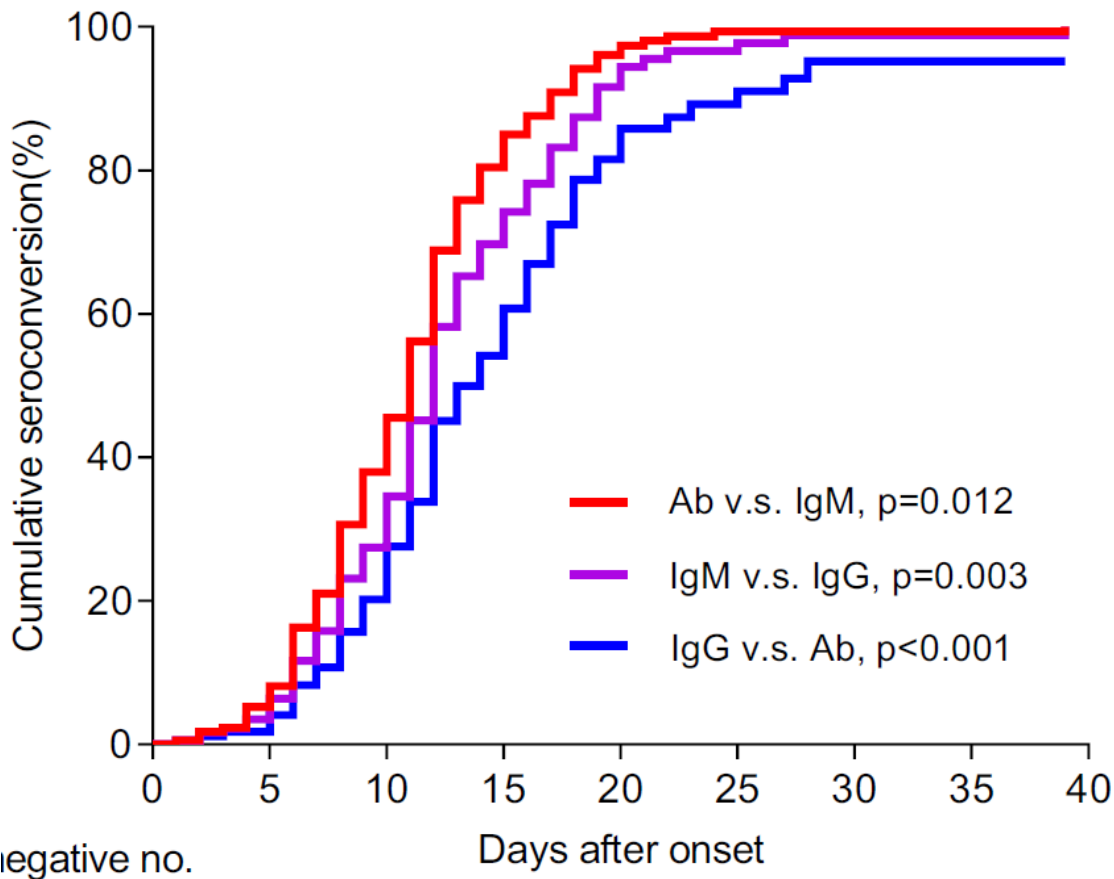
Susan Fink, MD, PhD

Anu Chaudhary, PhD

Marie Hensley, MD

**A**

# Time of Seroconversion, Guandong



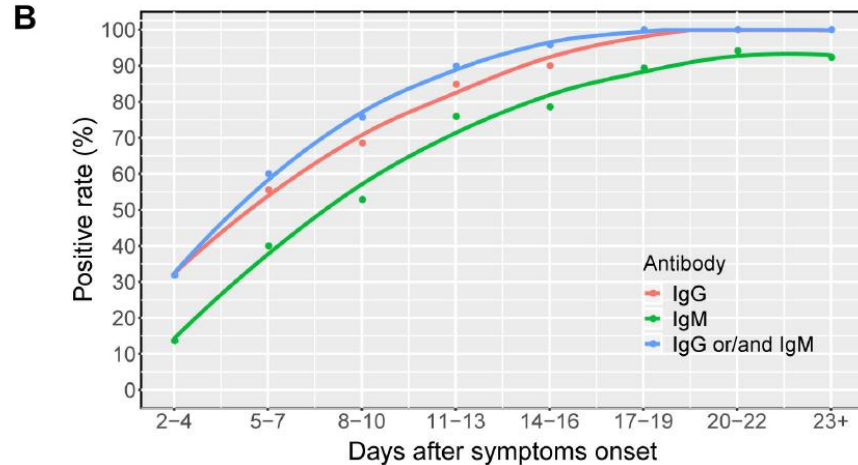
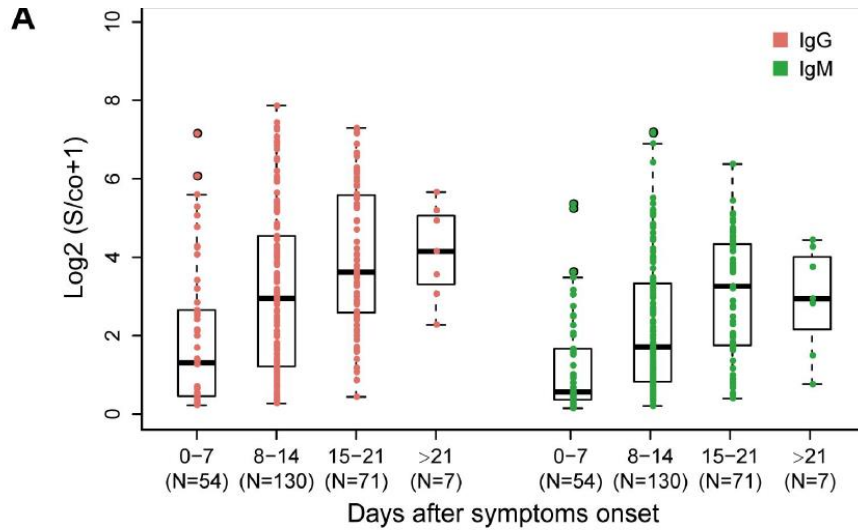
Authors: Jianshan Zhao<sup>1</sup>, Qian Yuan<sup>2</sup>, Haiyan Wang<sup>1</sup>, Wei Liu<sup>2</sup>, Xuejiao Liao<sup>1</sup>

Brief Title: Antibody responses in COVID-19 patients

disease 2019

Title: Antibody responses to SARS-CoV-2 in patients of novel coronavirus pneumonia

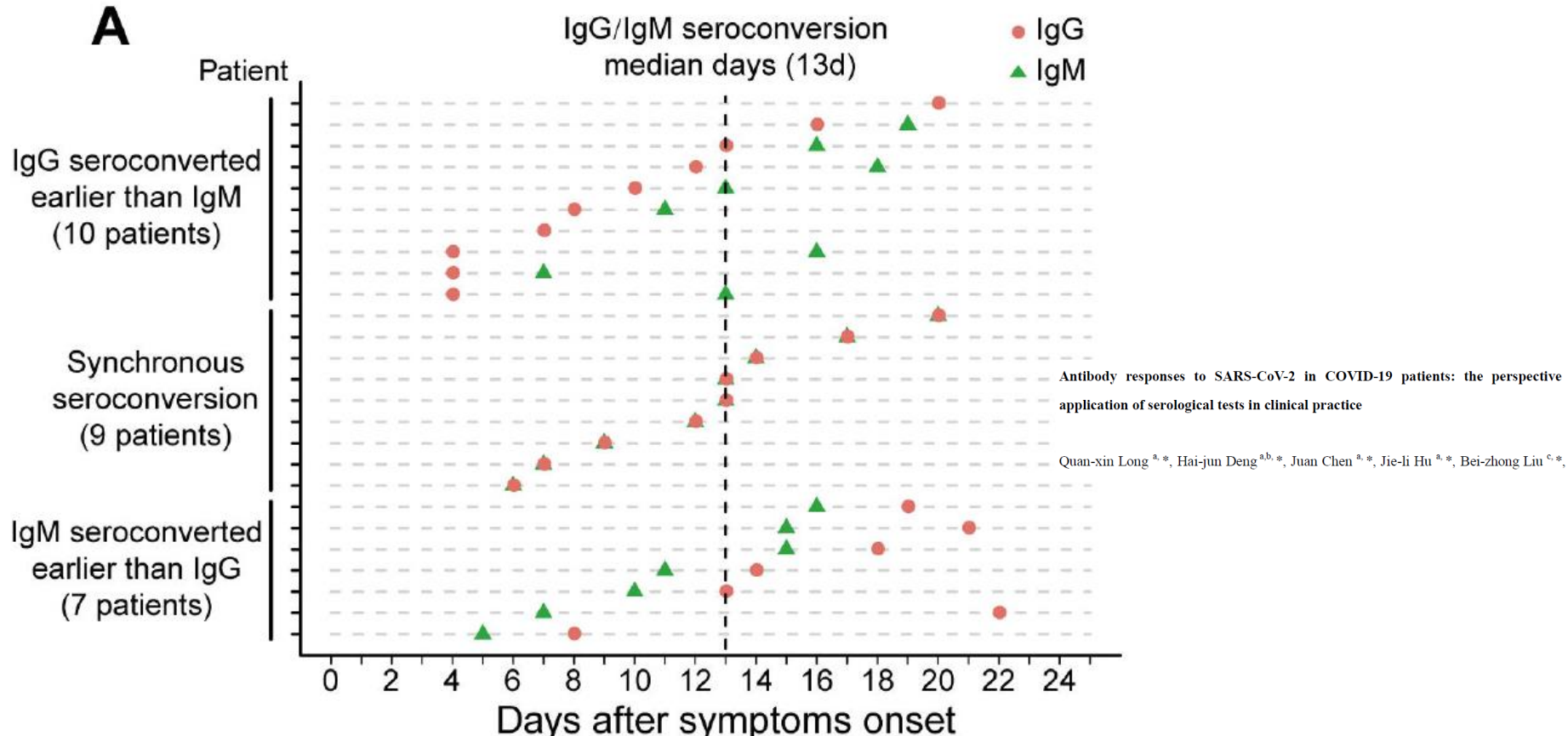
# Time To Seroconversion, Chongking



Antibody responses to SARS-CoV-2 in COVID-19 patients: the perspective application of serological tests in clinical practice

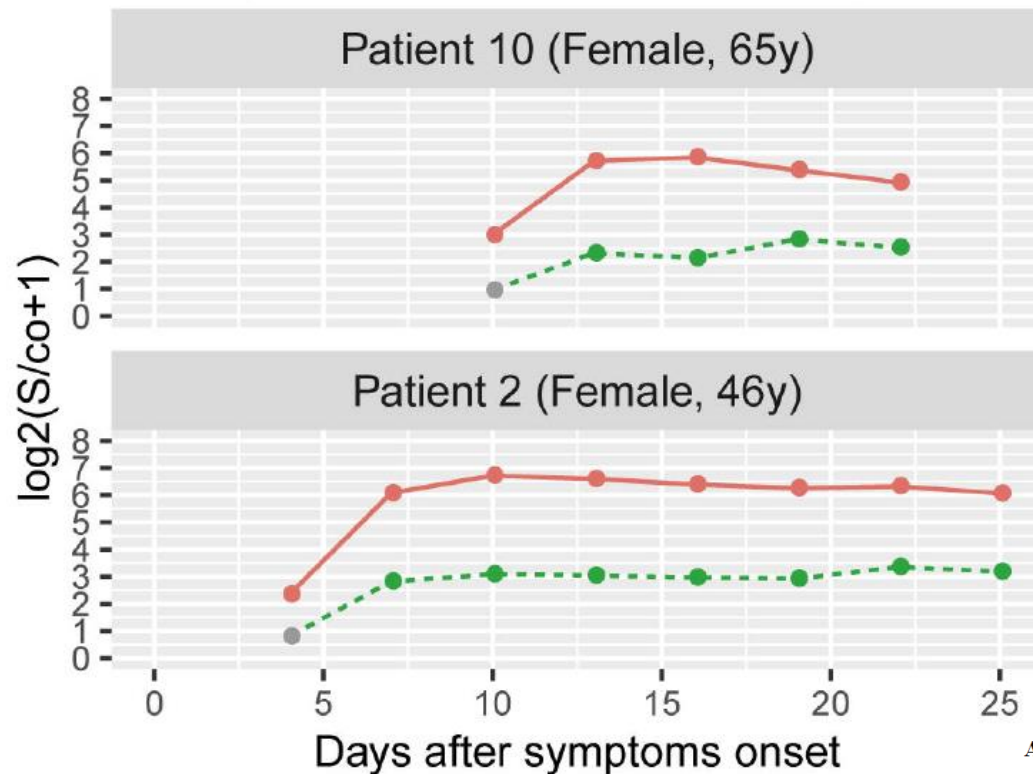
Quan-xin Long <sup>a,\*</sup>, Hai-jun Deng <sup>a,b,\*</sup>, Juan Chen <sup>a,\*</sup>, Jie-li Hu <sup>a,\*</sup>, Bei-zhong Liu <sup>c,\*</sup>,

# Variable Patterns of Seroconversion



**D**

IgG seroconverted earlier than IgM

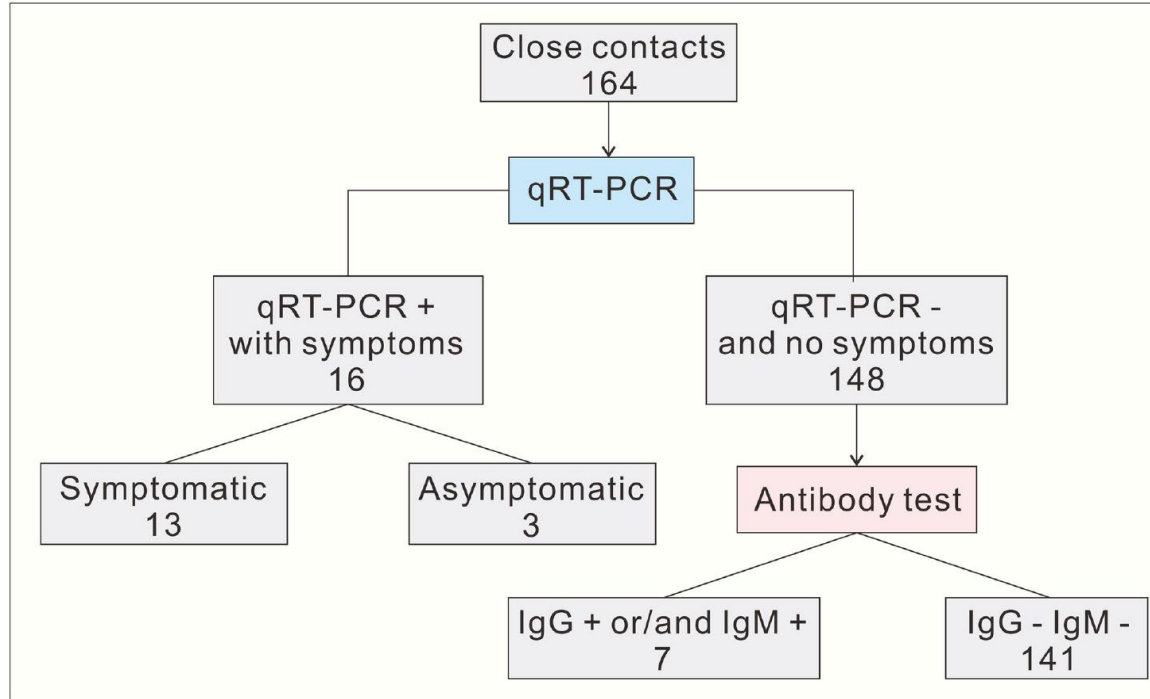


Antibody  
Development –  
Representative  
Examples of IgG  
Before IgM

Antibody responses to SARS-CoV-2 in COVID-19 patients: the perspective  
application of serological tests in clinical practice

Quan-xin Long <sup>a,\*</sup>, Hai-jun Deng <sup>a,b,\*</sup>, Juan Chen <sup>a,\*</sup>, Jie-li Hu <sup>a,\*</sup>, Bei-zhong Liu <sup>c,\*</sup>,

# Possible Diagnostic Utility ?



**Antibody responses to SARS-CoV-2 in COVID-19 patients: the perspective application of serological tests in clinical practice**

Quan-xin Long <sup>a,\*</sup>, Hai-jun Deng <sup>a,b,\*</sup>, Juan Chen <sup>a,\*</sup>, Jie-li Hu <sup>a,\*</sup>, Bei-zhong Liu <sup>c,\*</sup>,

# A Discussion on How Covid-19 Influences Other Testing.....

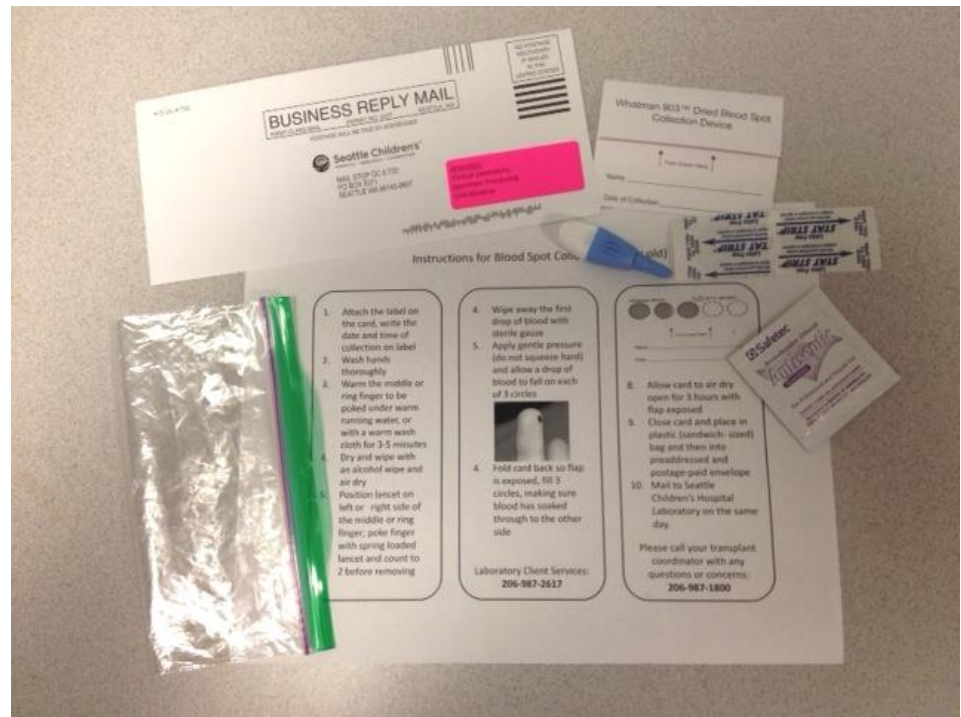
- No elective surgeries
- Reduced ambulatory visits
- Reduced ED and UC visits
- More visits by phone
- What do you do for all the chronically ill patients who need chronic monitoring of their condition? E.g. Transplant patients.





Photo provided with permission from Evelyn's family.

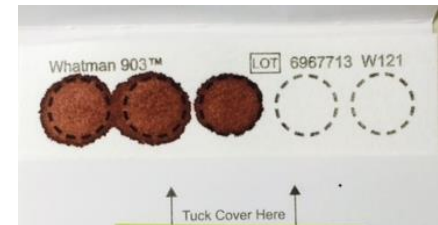
Immunosuppressants and Creatinine offered by DBS as clinical test since 2012.



Watch out for incomplete saturation



Perfect spot!



# PLUGS Summit Update

2021

~~PLUGS® Summit 2020~~

~~JUNE 24<sup>th</sup>-26<sup>th</sup>~~

~~SEATTLE, WA~~

~~Clinical Laboratory Stewardship: Tips, tricks, and  
tools to benefit patients, labs and payers.~~



# Next PLUGS Member Meeting

**May 21, 2020, 11am (PT)**



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