Stanford MEDICINE | Department of Pediatrics

Department of Pediatrics Meeting

January 25, 2021 @ noon

Fellow Scholarship Toolkit

Allison Guerin, EdD, MEd

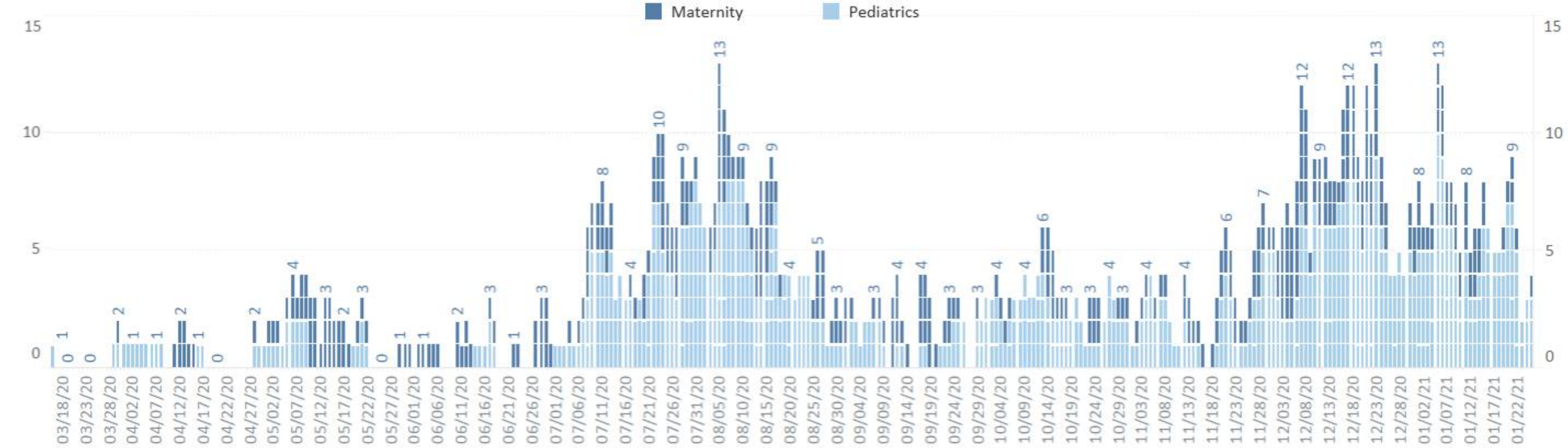
COVID Update

Bonnie Maldonado, MD

Stanford Children's Health | Lucile Packard Children's Hospital Stanford

Total COVID+ Patients In-House by Date

Patient Classes: All



Stanford MEDICINE | Department of Pediatrics

Kyong-Jin Lee, MD
Clinical Professor
Division of Cardiology

Christine Brady, PhD
Clinical Assistant Professor
Division of Endocrinology

Stanford MEDICINE | Department of Pediatrics

Madhura Phadke, MD
Clinical Assistant Professor
Division of Gastroenterology

Orly Klein, MD
Clinical Instructor
Division of Hematology, Oncology, Stem Cell Transplantation and Regenerative Medicine

Susan R. Hintz

Valerie Chock

The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

Higher or Lower Hemoglobin Transfusion Thresholds for Preterm Infants

H. Kirpalani, E.F. Bell, S.R. Hintz, S. Tan, B. Schmidt, A.S. Chaudhary, K.J. Johnson, M.M. Crawford, J.E. Newman, B.R. Vohr, W.A. Carlo, C.T. D'Angio, K.A. Kennedy, R.K. Ohls, B.B. Poindexter, K. Schibler, R.K. Whyte, J.A. Widness, J.A.F. Zupancic, M.H. Wyckoff, W.E. Truog, M.C. Walsh, V.Y. Chock, A.R. Laptook, G.M. Sokol, B.A. Yoder, R.M. Patel, C.M. Cotten, M.F. Carmen, U. Devaskar, S. Chawla, R. Seabrook, R.D. Higgins, and A. Das, for the Eunice Kennedy Shriver NICHD Neonatal Research Network*

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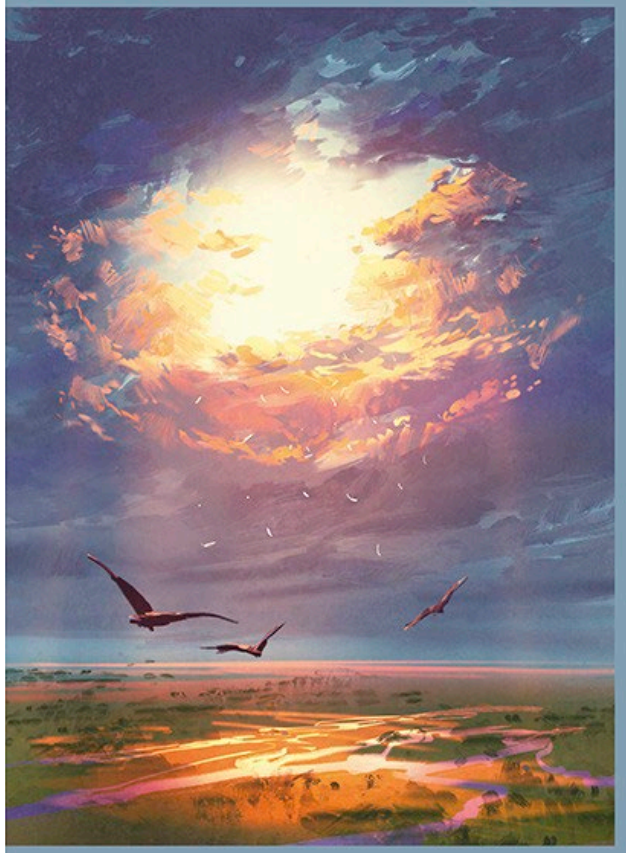
Congratulations!

THE JOURNAL OF CLINICAL AND APPLIED RESEARCH AND EDUCATION VOLUME 44 | NUMBER 1

Diabetes Care®

WWW.DIABETES.ORG/DIABETESCARE JANUARY 2021



Ananta Addala

Claudia Algaze-Yojay, MD

Academic Pediatric Association Quality and Safety Improvement Scholars Program

Stanford MEDICINE | Department of Pediatrics

Francisco Alvarez

2021 Stanford PHM Quality Improvement and Leadership Training (QuILT) Program Calendar

4th Wednesday of Month 10am-12:30pm PST

Leadership Topic (10am-11am)

Quality Improvement Topic (11am-12pm)

January 27

Introduction to Leadership

Nancy Spector, MD

Introduction to QI

Nivedita Srinivas, MD

Tandy Aye, MD

Elected as the Director of Pediatric Endocrine Society

PES Pediatric Endocrine Society

Stanford MEDICINE | Department of Pediatrics

Bonnie Halpern-Felsher, PhD

American Academy of Pediatrics Tobacco Consortium

Stanford MEDICINE | Department of Pediatrics

Congratulations!

Grace Lee

Nemours.

The Children's Hospital of Philadelphia

Nationwide Childrens

Boston Children's Hospital

Stanford Children's Health

Cincinnati Children's

Children's

Children's Hospital Colorado

Seattle Children's

Yair Bannett, MD

PEDSnet Scholars Program

PEDSnet
A Pediatric Learning Health System

Stanford MEDICINE | Department of Pediatrics

Bonnie Maldonado, MD

Santa Clara County Supervisor's Medal for advancing the wellbeing of county residents during the COVID-19 pandemic

Taube Professorship in Global Health and Infectious Diseases

Stanford MEDICINE | Department of Pediatrics

APPOINTMENTS AND PROMOTIONS COMMITTEE

*New Member

Cristina Alvira, MD*

Manuel Amieva, MD, PhD

Suzan Carmichael, PhD

Sharon Fei-Hsien Chen, MD*

Michael Cleary, MD

Tim Cornell, MD*

Anne Dubin, MD

Bonnie Halpern-Felsher, PhD

Korey Hood, PhD

Louanne Hudgins, MD, *(Chair)*

APPOINTMENTS AND PROMOTIONS COMMITTEE

*New Member

Michael Jeng, MD

Joe Kim, MD

Grace Lee, MD

Henry Lee, MD*

Crystal Mackall, MD

John Mark, MD*

Alison Marsden, PhD

Steve Roth, MD*

Julien Sage, PhD

Gary Shaw, PhD

APPOINTMENTS AND PROMOTIONS COMMITTEE

*New Member

David A. Stevenson, MD

Elizabeth Talley, MD*

Stanford MEDICINE | Pediatrics
Advancing Anti-Racism Coalition (SPAARC)

Stanford Pediatrics Advancing Anti-Racism Coalition (SPAARC) Town Hall

Thursday, January 28, 2021 @ noon

Zoom Webinar ID: 922 4521 7850 / Passcode: 284786

Please complete the SPAARC Take Action Survey!

Dr. Lahia Yemane
Gen Peds

Dr. Lisa Chamberlain
Gen Peds

. Elizabeth Talley
Nephrology

Dr. Kim Hoang
PHM

Dr. Ananta Addala
Endocrinology

Dr. Baraka Floyd
Gen Peds

Brian Richter, MS
Gastroenterology

Tiyasha de Pinto
Human Resources

Weichen Ling
Neonatology

Lauren Figg
Endocrinology

Kewana Nichols
Rheumatology

Melanie Ramirez
Peds Advocacy

Allison Guerin, EdD, MEd
Education

Navigating School in Uncertain Times With Denise Pope, PhD

Wednesday, February 3, 2021
10:00 – 11:00 AM

Many families are concerned about the impact of remote and hybrid learning on their child's academic journey. Join us for Navigating School in Uncertain Times on Wednesday, February 3, from 10:00 – 11:00am with Dr. Denise Pope, Senior Lecturer at the Stanford University Graduate School of Education and expert on parenting, student stress, anxiety, well-being and engagement. Dr. Pope will offer practical tips for how families can best support student well-being and engagement during these uncertain times. *This webinar is designed for families with students in grades 6-12. There will be Q&A at the webinar.*

To register and attend click here

Dr. Pope is a Senior Lecturer at the Stanford University Graduate School of Education, specializing in student engagement, curriculum studies, qualitative research methods & service learning. She is the author of *Doing School: How We are Creating a Generation of Stressed Out, Materialistic and Miseducated Students* which was awarded Notable Book in Education by the American School Board Journal, 2001. She lectures nationally on parenting techniques and teaching strategies to increase student health, engagement with learning, and integrity.

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Stanford Maternal and Child Health Research Institute

Research on Structural Racism, Social Injustice and Health Disparities in Maternal and Child Health Pilot Grants

mchri.stanford.edu

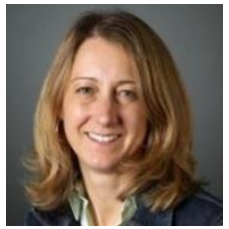
STANFORD MATERNAL & CHILD HEALTH RESEARCH INSTITUTE

Review Committee

STANFORD
MATERNAL & CHILD HEALTH
RESEARCH INSTITUTE

Program Co-Chairs

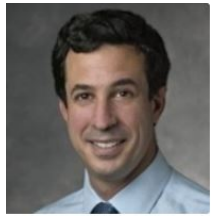

Anisha Patel


Lisa Chamberlain

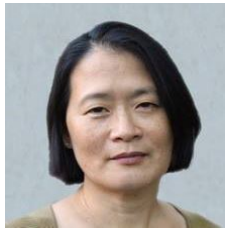

Iram Ahmad


Donald Barr


MyMy Buu


Matias Bruzoni


Jonathan Glazer Shaw


Ewen Wang


Reena Thomas


Megan Mahoney

Fall 2020 Awardees

Natali Aziz, MD, MS
Clinical Associate Professor of Obstetrics & Gynecology (Maternal-Fetal Medicine)
COVID-19 Household Transmission and Social Determinants of Health in Pregnancy

Erica Pasciullo Cahill, MD, MS
Clinical Assistant Professor of Obstetrics & Gynecology (Gynecology & Family Planning)
Patient Evaluation of an Anti-Racism Perinatal Tool

R. Sharon Chinthrajah, MD
Clinical Associate Professor of Pulmonary, Allergy and Critical Care Medicine
Improving Racial Diversity in our Food Allergy Programs

Michael Frank, PhD
Associate Professor of Psychology
Measuring Children’s Early Vocabulary Using Large Scale Data from Diverse Families

Priya Prahalad, MD, PhD
Clinical Assistant Professor of Pediatrics (Endocrinology and Diabetes)
Telehealth Delivery to Change the Paradigm of Care Delivery in Children with Type 1 Diabetes

Stanford | MEDICINE
Pediatric Fellowships

Supporting Fellow Scholarship

Department Meeting
January 25, 2021

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Pediatric Fellowships

Fellowship Leadership Team

Hayley Gans, MD
Director of Fellowship Education

Charlene Larson Rotandi, AB, C-TAGME
Department Fellowship Manager

Bonnie Halpern-Felsher, PhD
Director of Fellowship Scholarship

Erica Okamura, MA
Department Fellowship Coordinator

Becky Blankenburg, MD, MPH
Associate Chair of Education

Allison Guerin, EdD, MEd
Director of Education Administration

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Pediatric Fellowships

Core Curriculum

Education

Fellows' College

(Years 1 – 3)

Scholarship

Scholarship Round Robin

(Year 1)

Scholarship Academy

(Year 1)

Grant Writing Club

(Year 1)

Scholarship Club

(Year 2 -3)

Well-Being

Fellows' College

(Years 1 – 3)

Stanford MEDICINE
Pediatric Fellowships

Core Curriculum Descriptions

FELLOWS' COLLEGE

48 hours of curriculum delivered as 4-hour sessions, 4 times per year. Topics include leadership, diversity & inclusion, teaching, well-being, & more.

SCHOLARSHIP ROUND ROBIN

Introduce fellows to the diverse array of scholarship areas and enhance their understanding of possible scholarship projects within each area.

SCHOLARSHIP ACADEMY

Week-long immersive experience that introduces first-year fellows to the resources and skills needed to begin their scholarly projects.

GRANT WRITING CLUB

Teaches the fundamentals of grant writing, including learning about all the components of the grant submission.

SCHOLARSHIP CLUB

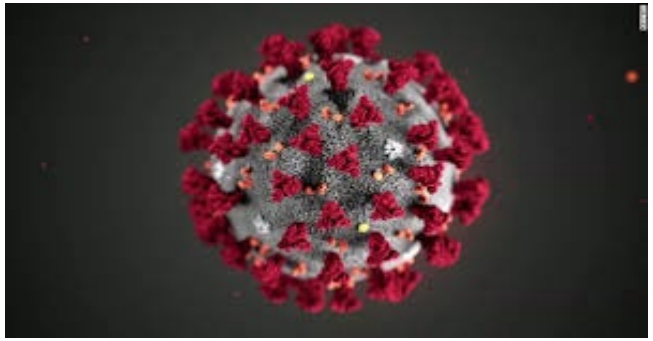
Interactive sessions focused on the real-time research interests and needs, and works in progress of our fellows.

Stanford MEDICINE
Pediatric Fellowships

Fellow Scholarship Toolkit

https://medwiki.stanford.edu/pedtoolkit

- Launched in September 2020
- Developed based on feedback from fellows, faculty, program leadership
- Includes information on types of scholarship at Stanford, resources, courses, grant opportunities, development opportunities, information on training grants and pre-award support for fellows
- Goal is to provide information on all types of scholarship and offer fellows/ mentors resources to support scholarly projects
- This is an iterative resource – please send us your feedback!



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Update on COVID-19

January 25, 2021

Stanford Children's Health | Lucile Packard Children's Hospital Stanford

COVID-19 VACCINE PROVIDER TASKFORCE

1/21/2021

Santa Clara County Emergency Operations Center

Marty Fenstersheib, MD
Jennefer Yoon, PharmD
Patricia Salmon, MD

Santa Clara County PUBLIC HEALTH

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Phase 1a

CURRENT TIER		
1A - Tier 1	1A - Tier 2	1A - Tier 3
• Acute care, psychiatric, and correctional facility hospital staff • Residents and staff at skilled nursing facilities, assisted living facilities and similar settings for older or medically vulnerable individuals • Paramedics, EMTs, and others providing emergency medical services • Dialysis centers	• Intermediate care facilities for persons who need non continuous nursing supervision and supportive care • Home health care an in-home supportive services • Community health workers, including promotoras • Public health field staff • Primary Care clinic workers, including Federally Qualified Health Centers, Rural Health Centers, correctional facility clinics, and urgent care clinics	Other healthcare workers including: • Specialty clinics • Laboratory workers • Dental and other oral health clinics • Pharmacy staff not working in settings at higher tiers

Please continue to vaccinate people in **ALL TIERS** of Phase 1a

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Phase 1b

Phase 1B	
Tier 1	**Tier 2**
• Individuals 65 and older **(some health systems in Santa Clara County are now vaccinating those 75 and older)** • Those at risk of exposure at work in the following sectors: education, childcare, emergency services, and food and agriculture	• Those at risk of exposure at work in the following sectors: transportation and logistics; industrial, commercial, residential, and sheltering facilities and services; critical manufacturing • Congregate settings with outbreak risk: incarcerated and homeless

Move toward an age-based approach
- **Age will become the biggest prioritization factor in CA guidance**
- **More information to come**

Phase 1c

Phase 1C*
• Individuals 50 -64 years of age • People 16-49 years of age and have an underlying health condition or disability which increases their risk of severe COVID-19 Those at risk of exposure at work in the following sectors: water and wastewater; defense; energy; chemical and hazardous materials; communications and IT; financial services; government operations / community-based essential functions **Subject to change. Not yet finalized by CDPH*

Pause of Moderna Lot 41L20A as of January 17, 2021

- 6 reactions at one site
  - No other similar reactions reported from other sites in CA or the country
- **Affected: 21,800 doses**
  - 4,000 Stanford
  - 3,000 ECH
  - 14,800 CSCHS
- As of today, CDPH has released this lot of Vaccine for immediate use in California.

CDPH's Allocation Methods

- Denominator has included Phase IA population (Health care Personnel and LTCF residents)
- Last week, 75+ population was added to denominator
  - Approximately 120,000 in SCC
- This week, 65+ population (approximately 150,000 in SCC) was added to denominator and overall allocation of vaccine was split into two pools: one for LHJs and one for MCEs

NOT Enough Vaccine Across Nation

- Last week, under impression that no distinction between 1st and 2nd dose of vaccine, however, that has not yet happened
  - CA continues to receive first/second dose allotments
- Updates to be provided as we learn more from new Administration's plans

Santa Clara County Vaccine Utilization

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- Since distribution began and through 1/20/21 99,216 vaccinations administered
- SCC accounts for 46,184

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SARS-CoV-2

Virus and mRNA Platform

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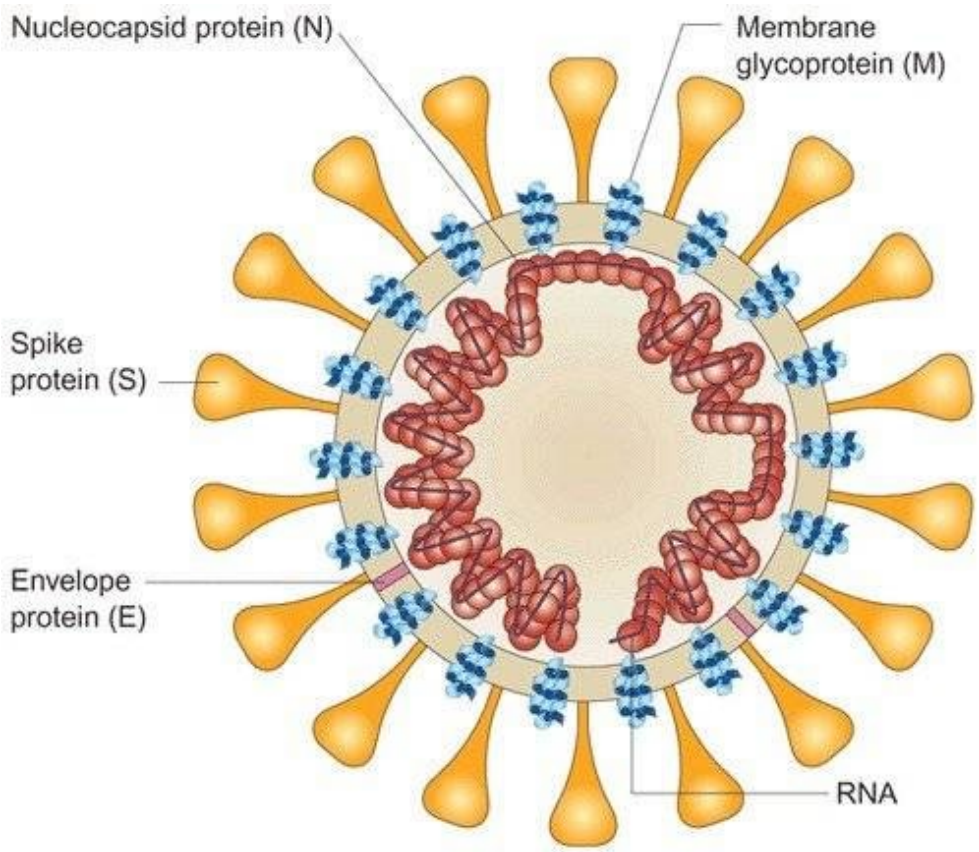
Coronavirus (CoV) Virology

- There are seven human coronaviruses
- Four of them cause seasonal colds
- Three have mutated to produce more severe disease: SARS, MERS and now SARS-CoV-2
- The Spike protein allows the virus to attach to human cells
- A spike mutation, which may have occurred in 2019, likely **triggered SARS-CoV-2 spillover into humans**



https://www.ncbi.nlm.nih.gov/books/NBK554776/

The New York Times

PLAY THE CROS

The Road to a Coronavirus Vaccine › | U.S. Vaccinations Begin | Answers to Your Vaccine Questions | 11 Things to Know | How Pfizer's Vaccine Works | From Lab to You

Coronavirus Vaccine Tracker

By Carl Zimmer, Jonathan Corum and Sui-Lee Wee Updated Dec. 14, 2020

PHASE 1	PHASE 2	PHASE 3	LIMITED	APPROVED	ABANDONED
41	16	16	5	2	1
Vaccines testing safety and dosage	Vaccines in expanded safety trials	Vaccines in large-scale efficacy tests	Vaccines in early or limited use	Vaccines approved for full use	Vaccines abandoned after trials

Leading vaccines

Developer	Type	Phase	Status
Pfizer-BioNTech	mRNA	2 3	Approved in Canada and other countries. Emergency use in U.S. and other countries.
Moderna	mRNA	3	Under F.D.A. review.
CanSino	Adenovirus	3	Limited use in China.
Gamaleya	Adenovirus	3	Early use in Russia.
Johnson & Johnson	Adenovirus	3	
Oxford-AstraZeneca	Adenovirus	2 3	
Novavax	Protein	3	
Vector Institute	Protein	1 2	Early use in Russia.
Sinopharm-Beijing	Inactivated	3	Approved in U.A.E., Bahrain. Limited use in China.
Sinopharm-Wuhan	Inactivated	3	Limited use in China, U.A.E.
Sinovac	Inactivated	3	Limited use in China.

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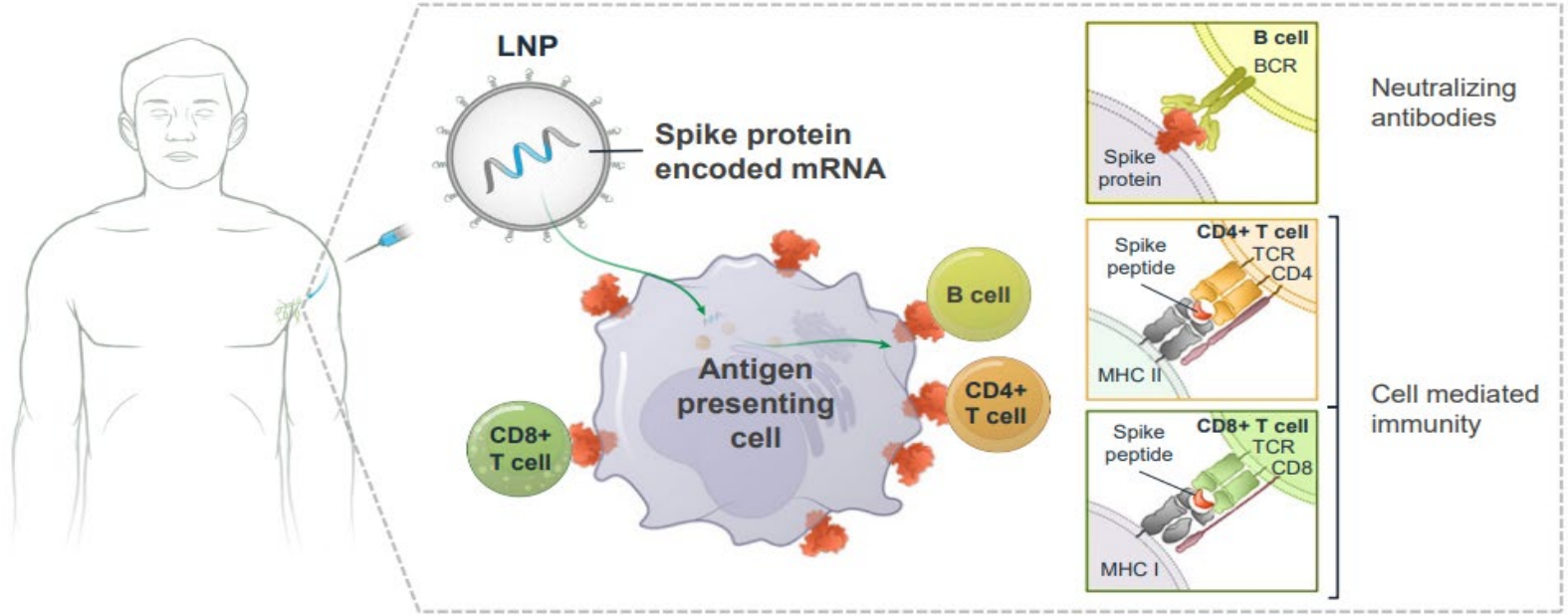
mRNA-1273 is Based on Well-Understood mRNA Biology

- mRNA is the blueprint for all protein synthesis
- Uses cell biology to activate immune system
- Inherent safety features
  - Does not self-replicate
  - Does not enter nucleus or integrate into DNA
  - Manufacturing process is cell free and contains no human or animal products, preservatives, or adjuvants

CO-17


LNP
Spike protein encoded mRNA
Antigen presenting cell
B cell
CD4+ T cell
CD8+ T cell
B cell
BCR
Spike protein
Neutralizing antibodies
CD4+ T cell
TCR
CD4
Spike peptide
MHC II
CD8+ T cell
TCR
CD8
Spike peptide
MHC I
Cell mediated immunity

Pfizer BioNTech Vaccine

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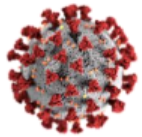
Proposed Indication:

Prevention of Coronavirus Disease 2019 (COVID-19) caused by SARS-CoV-2



Individuals 16 years of age and older

DOSE LEVEL and REGIMEN

- 30 µg
- 2 doses given greater than or equal to 21 days apart

PRESENTATION

- 5 dose multidose vial

***

STORAGE

- -80ºC to -60ºC
- 5 days at 2º-8ºC

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How COVID-19 mRNA Vaccines Work

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- COVID-19 mRNA vaccines make the spike protein found on the surface of SARS-CoV-2.
- After inoculation, the lipid capsule allows mRNA into the muscle cells where it is used to make spike protein.
- mRNA is immediately degraded
- Spike protein is then expressed on the cell surface which is then recognized by the body's immune cells (T and B cells).
- No live virus is used nor does mRNA enter the nucleus of the human cell where the human genes are stored.

COVID-19 First Primary Endpoint Case Definition

COVID-19 Case

Baseline **NEGATIVE** by serology & PCR

=

1 or more of these symptoms

Fever	New or increased cough	New or increased shortness of breath
Chills	New or increased muscle pain	New loss of taste/smell
Sore throat	Diarrhea	Vomiting

+

Positive validated PCR in central laboratory

CDC definition also includes fatigue, headache, nasal congestion or runny nose, and nausea

CC-32

Pfizer and Moderna Overview

	Pfizer	Moderna
Participant Number	~44,000	~30,000
Primary Endpoint	PCR+ COVID-19 Symptoms	PCR+ COVID-19 Symptoms
Cases -Placebo	162	185
Cases- Vaccinees	8	11
TOTAL CASES	170	196
Vaccine Efficacy	95%	94%
Efficacy Endpoint	7 days after second dose	14 days after second dose

Pfizer and Moderna Safety

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- Overall adverse events:
  - Local site tenderness, flu-like symptoms
  - Generally begin within 24 hours and end within 48 hours after vaccination
  - Cases of angioedema also noted

- Anaphylaxis:

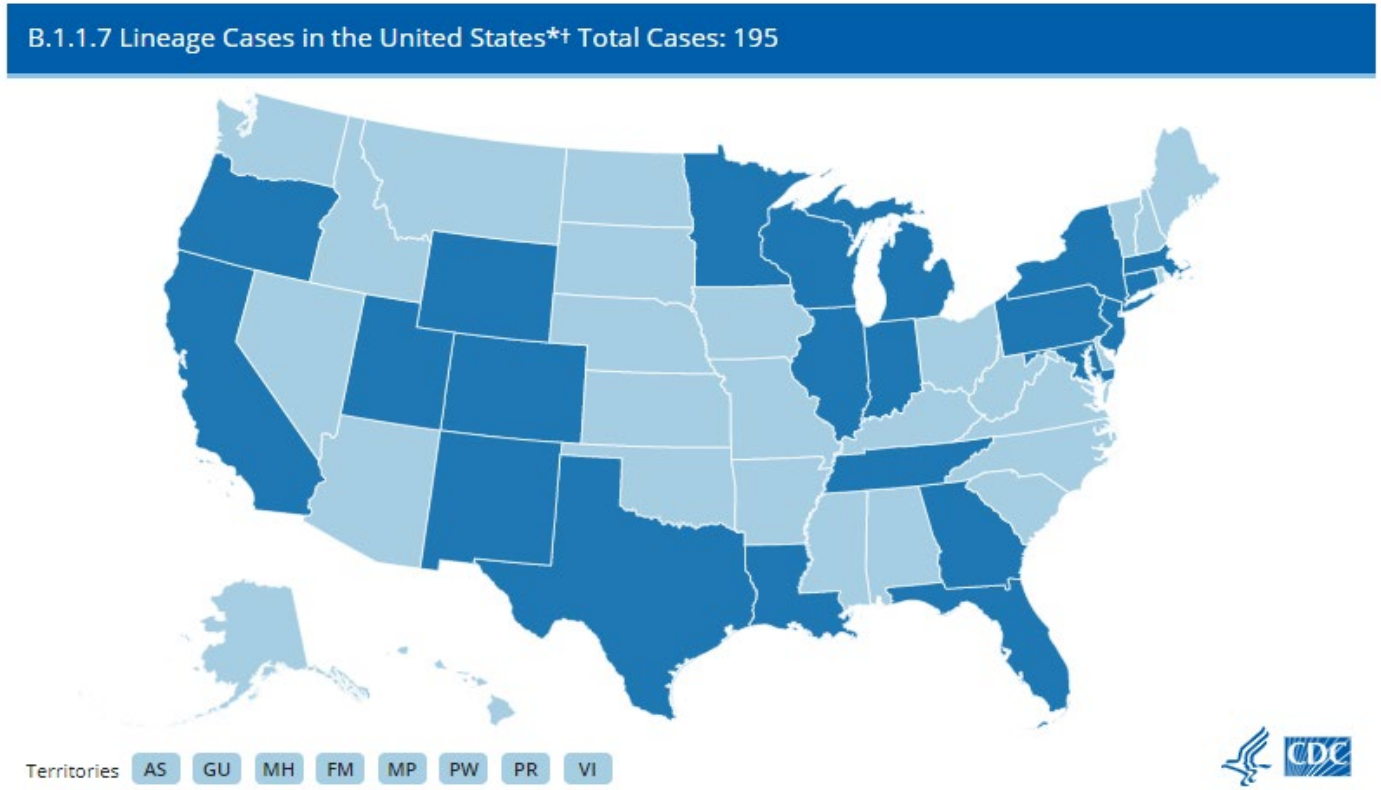
  Moderna: ~2.5 cases per 1 million doses (n=10 cases; only one with no history of prior allergies to one or more other substances)

  Pfizer: ~11.1 cases per 1 million doses (n=21 cases)

  Comparison: 1.3 cases per 1 million doses of influenza vaccine

SARS-CoV-2 Variants

- Overall 195
- California: 72
- Florida: 50
- New York: 22



https://www.cdc.gov/coronavirus/2019-ncov/transmission/variant.html

SARS-CoV-2 Variants

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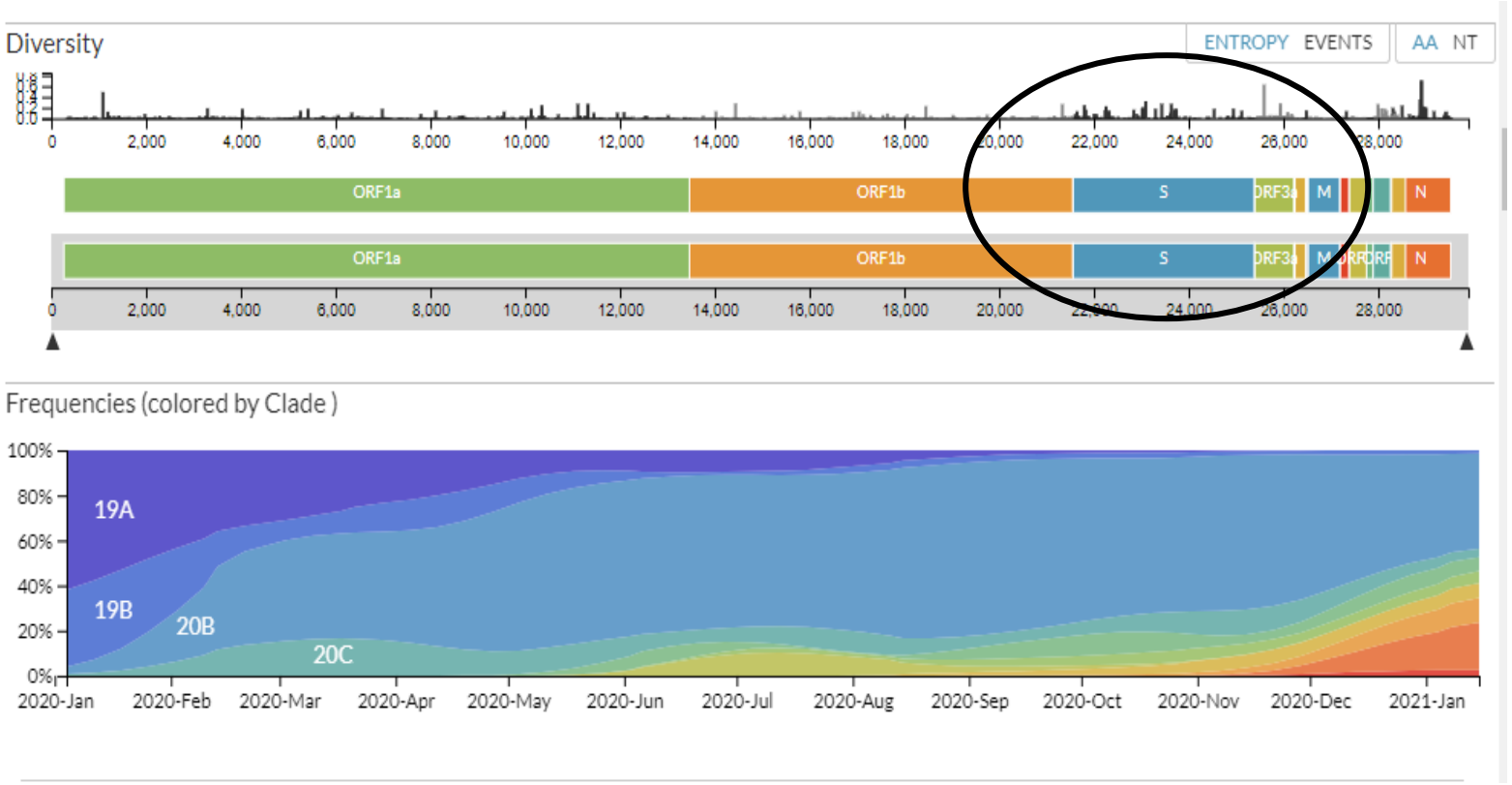
- Multiple COVID-19 variants are circulating globally:
- **B.1.1.7 emerged in the UK** with an unusually large number of mutations
  - Spreads more easily and quickly than other variants
  - Preliminary evidence that it **may** cause more severe illness or increased risk of death
  - This variant was first detected in September 2020 and is now highly prevalent in London and southeast England
  - It has since been detected in numerous countries around the world, including the United States and Canada.
- Another variant called **1.351 has emerged independently in South Africa**
  - Originally detected in early October, shares some mutations with the variant detected in the UK
  - There have been cases caused by this variant outside of South Africa, but it has not been detected in the US
- A variant called **P.1 emerged and was identified in four travelers from Brazil**, who were tested during routine screening at Haneda airport outside Tokyo, Japan
  - This variant contains a set of additional mutations that may affect its ability to be recognized by antibodies
  - This variant has not been detected in the US

Pattern of SARS-CoV-2 Variants



https://nextstrain.org/ncov/global

What Does the Future Hold?

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- Treatment: Combination therapy
  - Antiviral, immunomodulatory, anti-inflammatory, monoclonal
  - Clinical trials approaches must be flexible and adaptive
  - Ideally development of biomarkers or clinical indices to measure outcomes
- Prevention: Vaccines
  - Herd immunity is the ultimate goal but may not happen rapidly
  - Degree and durability of immunity to be determined
  - Vaccine associated immune effects unknown
- Non-pharmacologic interventions (masks, social distancing) to continue for an undefined period

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