



**STANFORD
MATERNAL & CHILD HEALTH
RESEARCH INSTITUTE
SEMINAR SERIES**

Cystic Fibrosis as a Paradigm for Precision Medicine

Monday, June 1, 2020 | 12:00pm - 1:00pm

This will be a virtual event via Zoom.

REGISTER HERE:

https://stanford.zoom.us/webinar/register/WN_IG-bDj53RU6GJ42KWFjPDw



CARLOS MILLA, MD

Professor of Pediatrics (Pulmonary Medicine);

Recipient of Transdisciplinary Initiatives
Program Award (FY18) & Pilot Grant Award (FY13)

ZACHARY SELLERS, MD, PHD

Instructor in Pediatrics (Gastroenterology);

Recipient of Instructor K Award Support Award
(FY20) and participant of the Eureka Monsoon
School Certificate Program (2019)

Well into the 21st century, Cystic Fibrosis remains the most common life-shortening inherited disease and in the United States, 1,000 children are born with the disease every year. A consequence of mutations in the Cystic Fibrosis Transmembrane Conductance Regulator (CFTR) gene, remarkable clinical and scientific efforts have led to fast-paced improvements in the treatment of Cystic Fibrosis. Drs. Milla and Sellers will review the progress towards a cure for cystic fibrosis and how this is informed by in-depth genetic knowledge at the individual level.

Dr. Milla's current research efforts are focused on precisely defining at the individual patient level the clinical phenotype and its pathophysiologic mechanisms at the cellular level by making use of technologies developed to work with the patient's own respiratory cells. This not only permits a complete understanding of the individual patient's condition, but also permits the evaluation in vitro of drugs that can have an impact in the cellular machinery to restore normal function. Dr. Sellers will review novel physiologic biomarkers his laboratory is developing to further dissect the defects introduced by CFTR gene mutations and how this can be applied at the individual level to establish an individualized precision medicine service. Dr. Milla will close by reviewing the implications this work has for other genetic disorders and precision medicine efforts in general.

The seminars series is open to all, including faculty, staff, trainees, postdocs, and all members of the research community.