COVID-19 Course
Covid-19 From Virus To Vaccine: Biological, Clinical, And Public Health Dimensions
August 24-25, 2020, 10:00am – 4:00pm EDT; Zoom Webinar

Course Coordinators
Gary W. Miller, PhD, Vice Dean for Research Strategy and Innovation
Dana Palmer, PhD, Assistant Professor, Department of Epidemiology and Center for Infection and Immunity
Nischay Mishra, PhD, Assistant Professor, Center for Infection and Immunity and Department of Epidemiology

DAY 1 | SARS-CoV-2: Molecules to Methods

10:00-10:15 Introduction
Gary W. Miller and Nischay Mishra

10:15-11:00 SARS-CoV-2: The virus
Ian Lipkin, MD
John Snow Professor of Epidemiology
Professor of Neurology and Pathology and Cell Biology
Director, Center for Infection and Immunity

11:00-11:40 COVID-19: An epic failure of our public health system. How did we get here?
Stephen Morse, PhD
Professor of Epidemiology

11:40-12:10 Genetics of (coronavirus) SARS-CoV-2
Simon Anthony, PhD
Assistant Professor of Epidemiology, Center for Infection and Immunity

12:10-12:40 Break

12:40-1:30 Virtual Lab 1: Molecular diagnostics and virus detection
Nischay Mishra, PhD
Assistant Professor of Epidemiology, Center for Infection and Immunity

1:30-1:40 Break

1:40-2:10 Adaptive immune response: basic immunology, antibody response
Thomas Briese, PhD
Associate Professor of Epidemiology, Center for Infection and Immunity
2:10-2:40  Virtual Lab 2: Serological diagnostics  
Thomas Briese and Nischay Mishra

2:40-3:10  Break

3:10-3:40  Viral, bacterial, and fungal pathogens responsible for respiratory illnesses  
Rafal Tokarz, PhD  
Assistant Professor of Epidemiology, Center for Infection and Immunity

3:40-4:00  Day 1 Discussion

4:00  Adjourn

DAY 2 | Mitigation to Modeling

10:00  Welcome and Introduction  
Dana Palmer

10:05-10:40  Keynote: COVID-19 epidemiology and epidemic control  
Wafaa El-Sadr, MD  
University Professor  
Dr. Mathilde Krim-amfAR Chair of Global Health  
Professor of Epidemiology  
Director, ICAP

10:40-11:10  Applications of diagnostic and serologic testing in the community and workplace  
Jessica Justman, MD  
Associate Professor of Medicine in Epidemiology  
Senior Technical Director, ICAP

11:10-11:40  Clinical management and treatment: plasma therapy, antivirals, and drug repurposing  
Max O’Donnell, MD, MPH  
Associate Professor of Medicine and Epidemiology  
Vagelos College of Physicians and Surgeons

11:40-12:10  Community engagement and mobilization  
Robert Fullilove, PhD  
Professor of Sociomedical Sciences
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<th>Time</th>
<th>Session</th>
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<td>12:10-12:40</td>
<td><strong>Vulnerable populations—ethical and legal implications</strong></td>
<td>Terry McGovern, JD</td>
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<td>Harriet and Robert H. Heilbrunn Professor</td>
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<td>Chair of Population and Family Health</td>
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<td>12:40-1:00</td>
<td><strong>Break</strong></td>
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<td>1:00-1:30</td>
<td><strong>Modeling in the city: COVID-19 in New York City</strong></td>
<td>Wan Yang, PhD</td>
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<td>Assistant Professor of Epidemiology</td>
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<td>1:30-2:00</td>
<td><strong>Modeling transmission on a national and international level</strong></td>
<td>Jeffrey Shaman, PhD</td>
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<td>2:00-2:45</td>
<td><strong>Virtual Lab 3: Behind the models—coding and analytics</strong></td>
<td>Sen Pei, PhD</td>
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<td>2:45-3:00</td>
<td><strong>Break</strong></td>
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<td>3:00-3:45</td>
<td><strong>Keynote: SARS-Cov-2 vaccine: panacea or wishful thinking?</strong></td>
<td>Bruce Gellin, MD, MPH</td>
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<td>President, Global Immunization</td>
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<td>3:45-4:00</td>
<td><strong>Closing remarks</strong></td>
<td>Ian Lipkin</td>
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<td>4:00</td>
<td><strong>Adjourn</strong></td>
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