

New York City Residency Program Directors COVID-19 Research Group: Azin Abazari, MD¹, Douglas R. Frederick, MD², Ilana B. Friedman, MD³, Albert S. Khouri, MD⁴, Eleanore T. Kim, MD⁵, John J. Laudi, MD⁶, Jamie B. Rosenberg, MD⁷, Harsha S. Reddy, MD⁸, Grace Sun, MD⁹, Jules Winokur, MD¹⁰, A. Elisabeth Abramowicz, MD, FASA¹¹, Todd A. Anderson, MD¹², Melissa Arbuckle, MD, PhD¹³, Judith Aronsohn, MD¹⁴, Teresa Benacquista, MD¹⁵, John Bent, MD¹⁶, Russell S. Berman, MD¹⁷, Jeremy Branzetti, MD¹⁸, Jeffrey N. Bruce, MD, FACS¹⁹, Eric D. Brumberger, MD²⁰, Judah Burns, MD²¹, Simon Cheng, MD, PhD²², Michael A. Curi, MD, MPA²³, Kevin Du, MD, PhD, MSCI²⁴, Mary Fatehi, MD²⁵, Mirela Feurdean, MD, FACP²⁶, Michael A. Feuerstein, MD²⁷, Sharon A. Glick, MD, FAAD, FAAP²⁸, Karen E. Gibbs, MD²⁹, Ira M. Goldstein, MD, FAANS³⁰, Heidi J. Hansen, DMD³¹, Basil Hubbi, MD³², Machteld E. Hillen, MD³³, Alejandro D. Iglesias, MD³⁴, Michael P. Jones, MD³⁵, Ana H. Kim, MD³⁶, Anastasia Kunac, MD³⁷, Richard Lee, MD³⁸, Renée M. Moadel, MD²¹, Peter Muscarella II, MD³⁹, Aaron Nelson, MD, MBS, FAAP⁴⁰, Heather L. Paladine, MD⁴¹, Yar Pye, MD, MBA⁴², Rini Banerjee Ratan, MD⁴³, Matthew S. Robbins, MD, FAAN, FAHS⁴⁴, Marsha E. Rubin, DDS, MAGD, FAOM, DABSCD³¹, Nicholas J. Sanfilippo, MD⁴⁵, Helen L. Schleimer, MD¹³, Michael Schulder, MD, FAANS⁴⁶, Andrew D. Schweitzer, MD⁴⁷, Devorah Segal, MD, PhD⁴⁸, Harsimran S. Singh, MD, MSc⁴⁹, Harsh Sule, MD, MPP⁵⁰, Peter J. Taub, MD, MS⁵¹, Lizica Troneci, MD⁵², Jonathan P. Ungar, MD, FAAD⁵³, Patricia M. Vuguin, MD³⁴, Michael Wajda, MD⁵⁴, David Weithorn, MD³⁹, Alan H. Wolff, MD²⁶, Saqib Zia, MD, FACS²³

Affiliations: ¹Department of Ophthalmology, State University of New York at Stony Brook Health Sciences Center, Stony Brook, NY, USA; ²Department of Ophthalmology, Icahn School of Medicine at Mount Sinai, New York, NY, USA; ³Department of Ophthalmology, BronxCare Health System, Bronx, NY, USA; ⁴Department of Ophthalmology & Visual Science, Rutgers – New Jersey Medical School, University Hospital, Newark, NJ, USA; ⁵Department of Ophthalmology, New York University School of Medicine, New York, NY, USA; ⁶Department of Ophthalmology, State University of New York Downstate Health Sciences University, Brooklyn, NY, USA; ⁷Department of Ophthalmology & Visual Sciences, Albert Einstein College of Medicine, Montefiore Medical Center, New York, NY, USA; ⁸Department of Ophthalmology, New York Eye and Ear Infirmary of Mount Sinai, New York, NY, USA; ⁹Department of Ophthalmology, Weill Medical College of Cornell University, New York-Presbyterian Hospital, New York, NY, USA; ¹⁰Department of Ophthalmology, Zucker School of Medicine at Hofstra/Northwell, New York, NY, USA; ¹¹Department of Anesthesiology, Westchester Medical Center, New York Medical College, Valhalla, NY, USA; ¹²Lenox Hill Pathology, Zucker School of Medicine at Hofstra, Northwell Health, New York, NY, USA; ¹³New York State Psychiatric Institute, Department of Psychiatry, Columbia University Irving Medical Center, New York-Presbyterian Hospital, New York, NY, USA; ¹⁴Department of Anesthesiology, Zucker School of Medicine at Hofstra, Northwell Health, New York, NY, USA; ¹⁵Department of Plastic & Reconstructive Surgery, Albert Einstein College of Medicine, Montefiore Medical Center, Bronx, NY, USA; ¹⁶Department of Otolaryngology, Albert Einstein College of Medicine, The Children's Hospital at Montefiore, Bronx, NY, USA; ¹⁷Department of Surgery, New York University School of Medicine, New York University Langone Health, New York, NY, USA;

¹⁸Department of Emergency Medicine, New York University School of Medicine, New York University Langone Health, New York, NY, USA; ¹⁹Department of Neurological Surgery, Bartoli Tumor Research Laboratory, Columbia University Irving Medical Center, New York-Presbyterian Hospital, New York, NY, USA; ²⁰Department of Anesthesiology, Weill Cornell Medical College, New York-Presbyterian Hospital, New York, NY, USA; ²¹Department of Radiology, Albert Einstein College of Medicine, Montefiore Medical Center, New York, NY, USA; ²²Department of Radiation Oncology, Columbia University Irving Medical Center, New York-Presbyterian Hospital, New York, NY, USA; ²³Department of Vascular Surgery, Rutgers – New Jersey Medical School, University Hospital, Newark, NJ, USA; ²⁴Department of Radiation Oncology, New York University School of Medicine, New York University Langone Health, New York, NY, USA; ²⁵Department of Obstetrics & Gynecology, Nassau University Medical Center, New York, NY, USA; ²⁶Department of Medicine, Rutgers – New Jersey Medical School, University Hospital, Newark, NJ, USA; ²⁷Department of Urology, Lenox Hill Hospital, Zucker School of Medicine at Hofstra, Northwell Health, New York, NY, USA; ²⁸Department of Dermatology, State University of New York Downstate Health Sciences, Brooklyn, NY, USA; ²⁹Department of Surgery, Staten Island University Hospital, Zucker School of Medicine at Hofstra, Northwell Health, New York, NY, USA; ³⁰Department of Neurological Surgery, Rutgers – New Jersey Medical School, Newark Beth Israel Medical Center, Newark, NJ, USA; ³¹Department of Surgery, Division of Dentistry, Oral and Maxillofacial Surgery, Weill Cornell Medical College, New York-Presbyterian Hospital, New York, NY, USA; ³²Department of Radiology, Rutgers – New Jersey Medical School, University Hospital, Newark, NJ, USA; ³³Department of Neurology, Rutgers – New Jersey Medical School, University Hospital, Newark, NJ, USA; ³⁴Department of Pediatrics, Columbia University Irving Medical Center, New York-Presbyterian Hospital, New York, NY, USA; ³⁵Department of Emergency Medicine, Albert Einstein College of Medicine, Montefiore Medical Center, New York, NY, USA; ³⁶Department of Otolaryngology – Head & Neck Surgery, Columbia University Irving Medical Center, New York-Presbyterian Hospital, New York, NY, USA; ³⁷Department of Surgery, Rutgers – New Jersey Medical School, University Hospital, Newark, NJ, USA; ³⁸Department of Urology, Weill Cornell Medical College, New York-Presbyterian Hospital, New York, NY, USA; ³⁹Department of Surgery, Albert Einstein College of Medicine, Montefiore Medical Center, New York, NY, USA; ⁴⁰Department of Neurology, New York University School of Medicine, New York University Langone Health, New York, NY, USA; ⁴¹Center for Family and Community Medicine, Columbia University Irving Medical Center, New York-Presbyterian Hospital, New York, NY, USA; ⁴²Department of Medicine, New York University School of Medicine, New York University Langone Health, New York, NY, USA; ⁴³Department of Obstetrics & Gynecology, Columbia University Irving Medical Center, New York-Presbyterian Hospital, New York, NY, USA; ⁴⁴Department of Neurology, Weill Cornell Medical College, New York-Presbyterian Hospital, New York, NY, USA; ⁴⁵Department of Radiation Oncology, Weill Cornell Medical College, New York-Presbyterian Hospital, New York, NY, USA; ⁴⁶Department of Neurological Surgery, Neurosciences Brain Tumor Center, Zucker School of Medicine, Northwell Health, New York, NY, USA; ⁴⁷Department of Radiology, Weill Cornell Medical College, New York-Presbyterian Hospital, New York, NY, USA; ⁴⁸Department of Pediatrics, Weill Cornell Medical

College, New York-Presbyterian Hospital, New York, NY, USA; ⁴⁹Division of Cardiology, Weill Cornell Medical College, New York-Presbyterian Hospital, New York, NY, USA; ⁵⁰Department of Emergency Medicine, Rutgers – New Jersey Medical School, University Hospital, Newark, NJ, USA; ⁵¹Department of Surgery, Icahn School of Medicine at Mount Sinai, New York, NY, USA; ⁵²Department of Psychiatry, St. Barnabas Hospital Health System, Bronx, NY, USA; ⁵³Department of Dermatology, Icahn School of Medicine at Mount Sinai, New York, NY, USA; ⁵⁴Department of Anesthesiology, New York University School of Medicine, New York University Langone Health, New York, NY, USA

NYC COVID-19 Residency Survey

1.

* 1. What is your Residency Training Program?

- | | |
|---|--|
| <input type="radio"/> Anesthesiology | <input type="radio"/> Oral/Maxillofacial Surgery |
| <input type="radio"/> Dermatology | <input type="radio"/> Orthopedic Surgery |
| <input type="radio"/> Diagnostic Radiology | <input type="radio"/> Otolaryngology |
| <input type="radio"/> Emergency Medicine | <input type="radio"/> Pathology |
| <input type="radio"/> Family Medicine | <input type="radio"/> Pediatrics |
| <input type="radio"/> General Surgery | <input type="radio"/> Physical Medicine and Rehabilitation |
| <input type="radio"/> Internal Medicine | <input type="radio"/> Plastic Surgery |
| <input type="radio"/> Interventional Radiology | <input type="radio"/> Preventive Medicine |
| <input type="radio"/> Medical Genetics | <input type="radio"/> Psychiatry |
| <input type="radio"/> Neurological Surgery | <input type="radio"/> Radiation Oncology |
| <input type="radio"/> Neurology | <input type="radio"/> Radiology |
| <input type="radio"/> Nuclear Medicine | <input type="radio"/> Urology |
| <input type="radio"/> Obstetrics and Gynecology | <input type="radio"/> Vascular Surgery |
| <input type="radio"/> Ophthalmology | |
| <input type="radio"/> Other (please specify) | |

* 2. How many hospitals do your residents cover?

- | | |
|-------------------------|--------------------------|
| <input type="radio"/> 1 | <input type="radio"/> 4 |
| <input type="radio"/> 2 | <input type="radio"/> 5 |
| <input type="radio"/> 3 | <input type="radio"/> >5 |

* 3. How many total residents are there currently in your program (all years combined)? (E.g. 5 per year in 3 year program, but 1 quit, so 14 in total)



* 4. Do residents in your department **currently** wear masks for all patient encounters?

- Yes
- No
- Only when evaluating a PUI or known COVID-19 patient
- Depends on the hospital and available supplies

Other (please specify)

* 5. If your residents wear masks for all patient encounters, approximately when was this practice implemented?

- 3/2 - 3/8 or previous
- 3/9 - 3/15
- 3/16 - 3/22
- 3/23 - 3/29
- 3/30 - 4/5
- Other
- N/A

* 6. If residents wear masks for all patient encounters, what kind of masks do they use?

- Surgical Mask
- N95
- Both, depending on context
- Other

Other (please specify)

* 7. How are residents using masks?

- Single use
- Extended use (wearing the same mask for repeated close contact encounters with several patients, without removing between patient encounters)
- Reuse (using the same mask for multiple encounters with patients but removing it ('doffing') after each encounter)
- Both Extended and Reuse

Other (please specify)

* 8. How many residents have been tested for SARS-CoV-2? How many are still waiting for a test? (Put in N/A if you don't have the data)

Number of residents tested

Number of residents waiting for a test or cannot get a test

NYC COVID-19 Residency Survey

2.

* 9. Have any residents tested positive for SARS-CoV-2?

Yes

No

NYC COVID-19 Residency Survey

3. SARS-CoV-2 Positive Residents

* 10. How many residents have had a **positive SARS-CoV-2** Test?

* 11. Of these confirmed **SARS-CoV-2 positive residents**, what kind of test was used?

Nasal Swab

Don't know

Oropharyngeal Swab

N/A

Bronchoalveolar Lavage

Other (please specify)



* 12. Of these confirmed **SARS-CoV-2 positive residents**, what specific week were they diagnosed? (Please put N/A if you don't have this information)

Number diagnosed 3/2-3/8

Number diagnosed 3/9-3/15

Number diagnosed 3/16-3/22

Number diagnosed 3/23-3/29

Number diagnosed 3/30-4/5

Other

* 13. Of these confirmed **SARS-CoV-2 positive residents**, how long were they quarantined, if at all? (Please put N/A if you don't have this information)

Number of residents not quarantined at all

Number of residents quarantined 1-7 days

Number of residents quarantined 8-14 days

Number of residents quarantined 15-21 days

Number of residents quarantined >21 days

* 14. Of these confirmed **SARS-CoV-2 positive residents**, how many went to a doctor (PCP, urgent care) for their symptoms? (do not include residents who were only tested but did not have a medical evaluation)

For these next 5 questions, one resident may fall into multiple categories

* 15. Of these confirmed **SARS-CoV-2 positive residents**, how many went to the emergency room for their symptoms?

* 16. Of these confirmed **SARS-CoV-2 positive residents**, how many were hospitalized for their symptoms?

* 17. Of these confirmed **SARS-CoV-2 positive residents**, how many were specifically admitted to the ICU or for critical management?

* 18. Of these confirmed **SARS-CoV-2 positive residents**, how many have died?

NYC COVID-19 Residency Survey

4.

* 19. Do you have residents who have been **presumed SARS-CoV-2 positive (based on symptoms: sore throat, cough, fever, shortness of breath, chest pain, myalgias, malaise, conjunctivitis, loss of smell, GI symptoms) without any testing?**

Yes

No

NYC COVID-19 Residency Survey

5. Residents Presumed SARS-CoV-2 Positive *Without* Testing

* 20. How many residents have been presumed SARS-CoV-2 positive **without any testing?**

* 21. Of these residents presumed SARS-CoV-2 positive **without any testing**, what specific week did they first exhibit symptoms? (Please write N/A if you don't this information)

Number manifesting symptoms (3/2-3/8)

Number manifesting symptoms (3/9-3/15)

Number manifesting symptoms (3/16-3/22)

Number manifesting symptoms (3/23-3/29)

Number manifesting symptoms (3/30-4/5)

Other

* 22. How long were these presumed SARS-CoV-2 positive **without any testing** quarantined, if at all? (Please write N/A if you don't have this information)

Number of residents not quarantined at all

Number of residents quarantined 1-7 days

Number of residents quarantined 8-14 days

Number of residents quarantined 15-21 days

Number of residents quarantined >21 days

* 23. Of these presumed SARS-CoV-2 positive **without any testing**, how many went to doctors (urgent care, PCP) for their symptoms? (Please write N/A if you don't have this information)

For these next 5 questions, one resident may fall into multiple categories

* 24. Of these presumed SARS-CoV-2 positive **without any testing**, how many went to the emergency room for their symptoms?

* 25. Of these presumed SARS-CoV-2 positive **without any testing**, how many were hospitalized for their symptoms?

* 26. Of these presumed SARS-CoV-2 positive **without any testing**, how many were specifically admitted to the ICU or for critical management?

* 27. Of these presumed SARS-CoV-2 positive **without any testing**, how many have died?

* 28. Do you have any residents who were highly suspicious for SARS-COV-2 (based on symptoms: sore throat, cough, fever, shortness of breath, chest pain, myalgias, malaise, conjunctivitis, loss of smell, GI symptoms) **but tested negative**?

Yes

No

NYC COVID-19 Residency Survey

7. Residents Presumed SARS-CoV-2 Positive But ***Tested Negative***

* 29. How many residents were/have been highly suspicious for SARS-CoV-2 infection but **tested negative** for SARS-CoV-2?

* 30. Of these highly suspicious for SARS-CoV-2 infection but **tested negative**, what test was used?

Nasal Swab

Oropharyngeal Swab

Bronchoalveolar Lavage

Don't Know

Other (please specify)

* 31. Of these highly suspicious for SARS-CoV-2 infection but **tested negative**, what specific week were they diagnosed or first to exhibit symptoms? (Please put N/A if you don't have this information)

Number manifesting symptoms (3/2-3/8)

Number manifesting symptoms (3/9-3/15)

Number manifesting symptoms (3/16-3/22)

Number manifesting symptoms (3/23-3/29)

Number manifesting symptoms (3/30-4/5)

N/A



* 32. Of these highly suspicious for SARS-CoV-2 infection but **tested negative** residents, how long were they quarantined, if at all? (Please put N/A if you don't have this information)

Number of residents not quarantined at all

Number of residents quarantined 1-7 days

Number of residents quarantined 8-14 days

Number of residents quarantined 15-21 days

Number of residents quarantined >21 days

* 33. Of these highly suspicious for SARS-CoV-2 infection but **tested negative**, how many went to doctors (urgent care, PCP) for their symptoms?

For these next 5 questions, one resident can fall into multiple categories

* 34. Of these highly suspicious for SARS-CoV-2 infection but **tested negative**, how many went to the emergency room for their symptoms?

35. Of these highly suspicious for SARS-CoV-2 infection but **tested negative**, how many were hospitalized for their symptoms?

* 36. Of these highly suspicious for SARS-CoV-2 infection but **tested negative**, how many were specifically admitted to the ICU or for critical management?

* 37. Of these highly suspicious for SARS-CoV-2 infection but **tested negative**, how many have died?

* 38. Do you have any residents who have been quarantined due to exposure, but are asymptomatic?

- Yes
- No

NYC COVID-19 Residency Survey

9.

* 39. How many residents have been quarantined due to exposure, but are **asymptomatic**?

* 40. For how long after exposure were **asymptomatic** residents quarantined?

- 1-7 days
- 8-14 days
- 15-21 days
- >21 days
- Duration varied between these residents

Other (please specify)

NYC COVID-19 Residency Survey

10.

41. Have your residents been redeployed to other departments or units to help with COVID-19 management?

- Yes
- No

NYC COVID-19 Residency Survey

11.

* 42. How many of your residents have been redeployed to other departments or units to help with primary COVID-19 management efforts?

* 43. What specific day did or will redeployment begin for your residents?

Redeployment Date

Date

* 44. Which units or departments have they been redeployed to, and how many to each? (Put N/A if you don't have this information)

Number of residents deployed to ER

Number of residents deployed to floor COVID

Number of residents deployed to ICU

Please specify the name of other departments residents have been deployed to (Optional 1)

Number of residents deployed to that department (Optional 1)

Please specify the name of other departments residents have been deployed to (Optional 2)

Number of residents deployed to that department (Optional 2)

* 45. Are your residents offering visits via telemedicine now?

Yes

No

* 46. Do you feel that your residents/fellows have had to work with suboptimal PPE?

Yes

No



Reporting checklist not-applicable for this manuscript type.