



the medical center hour

*Medicine & Society in Conversation*

A program of the Center for Health Humanities and Ethics  
University of Virginia School of Medicine

Wednesday, 18 November 2020

12:00-1:00 pm

A Zoom Webinar: <https://us02web.zoom.us/j/86828545236> Passcode: 439854

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*Hayden-Farr Lecture in Virology and Epidemiology / Medicine Grand Rounds / Pandemic Perspectives 2020*

## COVID-19: PUBLIC HEALTH AND SCIENTIFIC CHALLENGES

Anthony S. Fauci MD

Director, National Institute of Allergy and Infectious Diseases  
National Institutes of Health, Bethesda MD

David S. Wilkes MD

Dean, School of Medicine

Marcia Day Childress PhD, moderator

Even as COVID-19 surges in the U.S. and across the world, Dr. Anthony Fauci continues to guide public health policy, the media, and the public in best practices related to understanding and managing this coronavirus pandemic's many challenges. In this Hayden-Farr Lecture, he focuses on COVID-19 science, his perspectives informed by his work leading the National Institutes of Health's COVID-19 research effort and by his role on the White House Coronavirus Task Force. His talk addresses the latest developments in COVID-19 epidemiology, natural history, virology, pathogenesis, transmission and prevention of transmission, patient management and therapeutics research, and vaccine research.

*Co-presented with the Department of Medicine  
as part of Medical Center Hour's Pandemic Perspectives 2020 mini-series,  
with thanks to the Hayden-Farr Lecture organizing committee (Frederick G. Hayden MD,  
Costi Sifri MD, and Marcia Day Childress PhD)*

Suggested resources:

1. Lerner AM, Folkers GK, Fauci AS. Preventing the spread of SARS-CoV-2 with masks and other "low tech" interventions. *JAMA* 2020 (26 Oct); <https://doi:10.1001/jama.2020.21946>
2. Morens DM, Fauci AS. Emerging pandemic diseases: how we got to COVID-19. *Cell* 2020 (3 Sept);182(5):1077-1092. <https://doi.org/10.1016/j.cell.2020.08.021> Epub 2020 Aug 15 (erratum published 29 Oct 2020: <https://doi.org/10.1016/j.cell.2020.10.022>)
3. Lane HC, Fauci AS. Research in the context of a pandemic. Editorial. *New England Journal of Medicine* 2020 (17 July); DOI: [10.1056/NEJMe2024638](https://doi.org/10.1056/NEJMe2024638)
4. Corey L, Mascola JR, Fauci AS, Collins FS. A strategic approach to COVID-19 vaccine research and development. *Science* 2020 (29 May); 368(6494):948-950: <https://doi:10.1126/science.abc5312>
5. Paules CI, Marston HD, Fauci AS. Coronavirus infections—more than just the common cold. *JAMA* 2020 (25 Feb); 323(8):707-708. DOI: [10.1001/jama.2020.0757](https://doi.org/10.1001/jama.2020.0757)

This is the final Medical Center Hour of the fall semester.  
Medical Center Hour resumes—on Zoom—on 3 February 2021.

**Anthony S. Fauci MD** is a graduate of Holy Cross (AB) and Cornell University (MD) and trained in internal medicine at Cornell; he then joined the National Institute of Allergy and Infectious Diseases' (NIAID) Laboratory of Clinical Investigation as a trainee and, later, as a senior investigator and head of the clinical physiology section. Since 1980, he has been NIAID's chief of the Laboratory of Immunoregulation, and, since 1984, director of NIAID. In 1988, he became director of NIH's Office of AIDS Research and NIH's associate director of AIDS research. As NIAID director, he oversees an extensive portfolio of basic and applied research to prevent, diagnose, and treat established infectious diseases such as HIV/AIDS, respiratory infections, diarrheal diseases, tuberculosis, and malaria as well as emerging diseases such as Ebola and Zika. NIAID also supports research on transplantation and immune-related illnesses, including autoimmune disorders, asthma, and allergies. The fiscal 2020 NIAID budget is an estimated \$5.9 billion.

As NIAID director, Dr. Fauci has advised six U.S. presidents on HIV/AIDS and other domestic and global health issues. He was a principal architect of the President's Emergency Plan for AIDS Relief (PEPFAR), a program that has saved millions of lives throughout the developing world.

As longtime chief of the Laboratory of Immunoregulation, Dr. Fauci has contributed to basic and clinical research on the pathogenesis and treatment of immune-mediated and infectious diseases. He helped pioneer the field of human immunoregulation by making important basic scientific observations that underpin our understanding of the regulation of the human immune response. Dr. Fauci is also recognized for delineating the precise ways that immunosuppressive agents modulate human immune response. He developed effective therapies for formerly fatal inflammatory and immune-mediated diseases such as polyarteritis nodosa, granulomatosis with polyangiitis (formerly Wegener's granulomatosis), and lymphomatoid granulomatosis. A 1985 Stanford University Arthritis Center Survey of the American Rheumatism Association membership ranked Dr. Fauci's work on the treatment of polyarteritis nodosa and granulomatosis with polyangiitis among the most important advances in patient management in rheumatology over the previous 20 years.

In HIV research, Dr. Fauci has made seminal contributions to the understanding of how HIV destroys the body's defenses leading to its susceptibility to deadly infections. He has been instrumental in developing treatments that enable persons with HIV to live long, active lives. Much of his ongoing research is devoted to elucidating the immunopathogenic mechanisms of HIV infection and the scope of the body's immune responses to HIV.

In a 2020 analysis of Google Scholar citations, Dr. Fauci ranked as the 41st most highly cited researcher of all time. According to the Web of Science, he ranked 7th out of more than 1.8 million authors in the field of immunology by total citation count between 1980 and January 2020.

Dr. Fauci has delivered major lectures worldwide. Among his numerous awards are the Presidential Medal of Freedom (the highest honor given to a civilian by the U.S. President), the National Medal of Science, the George M. Kober Medal of the Association of American Physicians, the Mary Woodard Lasker Award for Public Service, the Albany Medical Center Prize in Medicine and Biomedical Research, the Robert Koch Gold Medal, the Prince Mahidol Award, and the Canada Gairdner Global Health Award. He has received 45 honorary doctoral degrees from universities in the U.S. and abroad.

Dr. Fauci is a member of the National Academy of Sciences, the National Academy of Medicine, the American Academy of Arts and Sciences, and the American Philosophical Society, as well as other professional societies, including the American College of Physicians, the American Society for Clinical Investigation, the Association of American Physicians, the Infectious Diseases Society of America, the American Association of Immunologists, and the American Academy of Allergy, Asthma & Immunology. He serves on the editorial boards of many scientific journals; as an editor of *Harrison's Principles of Internal Medicine*; and as author, coauthor, or editor of more than 1300 scientific publications, including several textbooks.

Dr. Fauci declared no personal/professional relationships with commercial entities producing healthcare goods and/or services related to this presentation. Medical Center Hour planning group members M.D. Childress PhD; R.J. Bonnie LLB; R. Carpenter DrNP; J.F. Childress PhD; M.F. Marshall PhD; J. Mutter MD MA; K. Reid PhD RN FNP-C CNL; L. Shepherd JD have no personal/professional relationships with commercial entities producing healthcare goods and/or services, while R. Dillingham MD MPH reports interests with Gilead and Warm Health Technology Inc. UVA Office of Continuing Medical Education faculty and staff have no personal/professional financial relationships with commercial entities producing healthcare goods and/or services.

Or by telephone: Dial (for higher quality, dial a number based on your current location): US: +1 301 715 8592 or +1 312 626 6799 or +1 646 558 8656 or +1 253 215 8782 or +1 346 248 7799 or +1 669 900 9128. International numbers: <https://us02web.zoom.us/j/kdP7w9XnrX> Webinar ID: 868 2854 5236; passcode: 439854

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Medical Center Hour is free of charge and open to the public. For more information, see Center for Health Humanities and Ethics: <https://med.virginia.edu/biomedical-ethics/medical-center-hour/>  
Watch Medical Center Hour recordings at <http://www.youtube.com/uvamch>

Learning objectives:

1. Understand the current state of scientific challenges related to COVID—19 infection and its management and possible prevention.
2. Consider the medical and public health challenges and public health policy implications of with this novel coronavirus pandemic.