Episode 56HJ August 14, 2023. Letter to Jeanne Marrazzo, NIAID Director as of 8/2/2023, about PM2.5 caused antibiotic resistance.

United States, New NIAID Director, replacing Dr. Anthony Fauci
On 8/2/2023 the National Institutes of Health (NIH) Director Lawrence A. Tabak Ph.D. named Jeanne M. Marrazzo M.D. as director of NIH's National Institute of Allergy and Infectious Diseases (NIAID). Hugh Auchincloss, Jr., M.D., served as acting director of NIAID after long-time director Anthony S. Fauci, M.D., stepped down in December 2022.
As NIAID director, Dr. Marrazzo will oversee NIAID, which supports research to advance the understanding, diagnosis, and treatment of infectious, immunologic, and allergic diseases. NIAID supports research at universities and research organizations around the United States and across NIAID's 21 laboratories, including the Vaccine Research Center on NIH's main campus in Bethesda, Maryland, and the Rocky Mountains Laboratories in Hamilton, Montana. NIAID also has a unique mandate to respond to emerging and re-emerging public health threats at home and abroad. The NIAID research response to outbreaks of infectious diseases, from HIV to Ebola to COVID-19, has led to new therapies, vaccines, diagnostic tests, and other technologies. Dr. Marrazzo's research in discovery and implementation science has focused on the human microbiome, specifically as it relates to female reproductive tract infections and hormonal contraception; prevention of HIV infection using biomedical interventions, including PrEP and microbicides; and the pathogenesis and management of bacterial vaginosis, sexually transmitted diseases in HIV-infected persons and management of antibiotic resistance in gonorrhea.
https://www.nih.gov/news-events/news-releases/nih-selects-dr-jeanne-marrazzo-director-national-institute-allergy-infectious-diseases
For more information about the 27 National Institutes of Health (NIH), including NIAID, visit www.nih.gov.

United States, Letter to New NIAID Director regarding indoor residential wood stove PM2.5 pollution causing antibiotic resistance.
Dear Director of the National Institute of Allergy and Infectious Diseases (NIAID) Dr. Jeanne M. Marrazzo, former Acting Director of NIAID Hugh Auchincloss, Jr., M.D., and Director of the National Institutes of Health (NIH) Lawrence A. Tabak,
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Wood burning emits 90% PM2.5, particulate matter of 2.5 micrometer size, the perfect size to infiltrate the human lung, setting off a cascade of human health problems and early deaths. Very recently, research has been published showing that PM2.5 causes antibiotic resistance. Residents Against Wood Smoke Emission Particulates (https://RAWSEPresidents.wordpress.com) as near neighbors of indoor residential wood burners whose PM2.5 pollution enters our yards and infiltrates our homes, would like to stop the PM2.5 pollution from indoor residential wood burning. Wood burning emits more CO2 and PM2.5 than the fossil fuel coal burning. Wood burning emits 450 times the PM2.5 as the fossil fuel natural gas burning. The list of adverse human health effects of wood burning PM2.5 emissions includes lung cancer, asthma, heart attacks, and the most recent finding, antibiotic resistance. This means that if you get an infectious disease like a viral infection, such as AIDS or COVID 19 and there are antibiotics to help you get over the infection, they will be less effective if at the same time you are inhaling PM2.5 from wood burning emissions. Dr. Anthony Fauci, your predecessor as Director of NIAID, in 1989 introduced the concept of AIDS treatment "Parallel Track" allowing multiple U S Federal Government Agencies, the Food and Drug Administration (FDA) and NIAID, to both follow most rules of FDA Clinical trials of the AIDS drug AZT and to allow a "Parallel Track" of use of the AIDS drug ganciclovir to treat the AZT side effect which was progressive blindness in some cases of AIDS combined with AZT Clinical Trial treatment. This is a request that in 2023 the NIAID, in its mission to combat antibiotic resistance introduce the concept of "Parallel Track" of Environmental Protection Agency (EPA) certification of indoor residential wood stoves along with the use of PurpleAir PM2.5 monitors* placed in the yards of near neighbors of indoor residential wood burners, in order to combat the antibiotic resistance of PM2.5. Near neighbors have often already incurred the economic cost of purchasing the low cost laser PurpleAir PM2.5 monitors whose data appears on PurpleAir Maps as well as on U S EPA AirNow Maps of Smoke and Fire alongside $100,000 EPA monitors, correlated to the EPA monitors with a simple mathematical formula*, which in Wisconsin is PA * 0.5140 +1.8304 for 24 hour (1660 minute) average of PM 2.5_CF1_ug/m3. $100,000 EPA PM2.5 monitors separate gravel density and wood density PM2.5, weigh each, and deliver results to the U S EPA maps of Smoke and Fire in one hour. PurpleAir PM2.5 monitors use lasers to count the PM2.5 particles that pass in front of the monitor, and deliver results in 10 minute intervals. If a PM2.5 monitor is hyper-localized and near enough to the stack of the indoor residential wood burner, in the yard of a near neighbor, to pinpoint

the source of the PM2.5, that data could serve as scientific evidence to show that National Ambient Air Quality Standards (NAAQS) limit is exceeded for the PM2.5 average in a 24 hour period of 35 micrograms per cubic meter, or the limit of 12 annually is exceeded. If that NAAQS limit is exceeded by use of an indoor residential wood burner, that wood burner should be shut down in the interest of public health, because it is causing increased antibiotic resistance at a time when the general public needs antibiotics to deal with widespread viral airborne diseases such as COVID 19, as well as viral diseases that could respond to antibiotic treatment, such as AIDS under certain conditions.

The "Parallel Track" would retain 2020 EPA New Source Performance Standards (NSPS) "safe" limit for indoor residential wood stoves of 2 grams per hour burning cord wood, the most common wood used by indoor residential wood burners.

The "Parallel Track" would retain 2023 EPA National Ambient Air Quality Standards (NAAQS) 24 hour hourly average "safe" limit for PM2.5 of 35 micrograms per cubic meter, or 12 annually. The "Parallel Track" could add the requirement nationwide of a complaint based system in which near neighbors of indoor residential wood burners concerned about their health, could request that the government, with funds from NIAID, give them a free $249 PM2.5 PurpleAir monitor if they complained to their local health department of PM2.5 from an indoor residential wood burner entering the near neighbor's yard and infiltrating their home. The "Parallel Track" could add the requirement that the local health department could shut down an indoor residential wood burner which hyper-localized data shows is the source of the PM2.5 exceeding NAAQS standards.

In a recent letter the EPA has indicated to the 10 U S State Assistant Attorney Generals threatening to sue the EPA by 8/24/2023 if the EPA does not make changes to PM2.5 NAAQS (probably lowering PM2.5 NAAQS limits, given current scientific knowledge of harm from PM2.5) in 2023 as required by the 8 year rule (last changes were made in 2015, 8 years ago) EPA's probable response by 8/24/2023. The EPA indicated that many of the changes requested by the 10 Assistant Attorney Generals can only be made by 2027.

The February 2023 OIG (Office of the Inspector General, watchdog of the EPA) report stating indoor residential wood stove certification was "flawed" by lobbying of the wood stove industry resulting in loopholes that make most indoor wood stoves not actually meet EPA's lax certification standards, making cord wood burned in indoor residential wood stoves at 2 grams per hour emissions an unmet standard in "certified" indoor residential wood stoves sold in the past and up to 2023.

In summary, a 2023 "Parallel Track" would involve the NIAID handing out PurpleAir PM2.5 monitors to any near neighbors of indoor residential wood burners who complain to their health departments of PM2.5 emissions from wood burning entering their yards and infiltrating their homes, in order to regulate indoor residential wood burning and shut down indoor residential wood burning that violates EPA NAAQS "safe" limits for PM2.5 and to concurrently address NIAID's responsibility to prevent antibiotic resistance caused by PM2.5 pollution from indoor residential wood burning emissions of PM2.5 above "safe" limits.

The 2nd "Parallel" of the "Parallel" would involve the EPA continuing to certify as "safe" indoor residential wood stoves, as they have since 1988, when perhaps the polluting effects of wood burning were not yet fully known. Wood burning has the advantage over cigarette smoking that indoor residential wood burning is not physically addicting, as the nicotine in cigarettes is addictive. Now that alternatives to indoor residential wood burning are plentiful and cheap, since the cost of wind and solar energy is going down every day and the Inflation Reduction Act provides subsidies for Heat Pumps that work at temperatures down to 40 degrees below zero Fahrenheit and Heat Pumps can also work as Air Conditioners, and are so efficient that they lower monthly heating bills, this regulation and shutdown of polluting wood stoves that cause adverse health effects and early deaths and also cause antibiotic resistance, should not be unduly burdensome to homeowners seeking to heat their homes. Slowing climate change is not within the scope of the NIAID's duties, although stopping wood burning emissions would also slow climate change.

Thank you,

* Having a Particulate Monitor makes a difference because months of PM 2.5 data can be seen to be undeniable. The data a PurpleAir PM2.5 monitor in Wisconsin collects can be matched to the standard of the data of official Environmental Protection Agency (EPA) data, collected by their own PM2.5 $100,000 Air Quality Monitors, by a simple mathematical formula. Conversion factor: PA * 0.5140 +1.8304. The conversion factor means ((Purpleair Monitor 24 hour (1660 minute) average of PM 2.5_CF1_ug/m3) times 0.5140) plus 1.8304. If the result is over 12 it exceeds EPA limits for Particulate Pollution annually, or if over 35, exceeds the daily limit. In the case of factory emissions and wildfires, PurpleAir PM2.5 data on U S EPA AirNow Maps of Smoke and Fire already signifies and signals to the general public a threat to public health. 12 micrograms per cubic meter annual level PM 2.5 is when people are warned to exercise indoors rather than outdoors, since PM 2.5 is the perfect size to infiltrate the human lung. 12 PM2.5 air is the point established at which the air diminishes life, instead of sustaining life. The National Ambient Air Quality Standard

for PM2.5 24-hour standard is 35 micrograms per cubic meter of air (µg/m3). The EPA annual standard for PM2.5 is 12.0 µg/m3. The World Health Organization (W H O) annual PM2.5 “safe” standard is 5.0 µg/m3