

## February 2023 COVID-19 Column

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- A- Nearly 1.9 million new cases of COVID-19 and more than 12,000 deaths were reported last week during the last week of the month of January 2023. It means that more than 11 million cases and over 55,000 deaths during the first month of 2023 in the world while we are thinking erroneously that the pandemic is over. So many let their guards off and freely participate in activities in public. In total, as of January 2023, over 665 million confirmed cases and over 6.7million deaths has been reporter globally. SARS-CoV-2 variants Omicron are still being monitored...
- A- Because we have no more to add to our COVID-19 Column, we will bring a little variety this month to talk about an interesting new research at the Cleveland Clinic demonstrating a link between your diet and the gut microbiome, impacting our susceptibility to develop diseases. A specific gut-microbe subproduct has been linked to heart failure: "Phenylacetylglutamine" PAG, a by-product related to the breakdown of dietary proteins in the gut. This study was published in "Circulation: Heart Failure".
- B- An elevated blood PAG was noted in patients suffering from Heart Failure while the ejection fraction was preserved. It appears that the cardiac muscle does not relax sufficiently between contraction rendering it too stiff and less able to fill up the pump blood. The researchers found out that it is directly related the level of protein you ingest. The test will become soon available to clinicians because measuring such PAG blood levels could predict who is at risk for heart disease. Some researchers even suggest that we may benefit in becoming vegetarian for a week to put down our level of PAG's. Unfortunately, the study can't yet distinguish what type of protein increase the PAG's. This parallels previous studies on type 2 diabetes, coronary artery disease, stroke and colorectal cancer directly related to high levels of PAG's.
- C- If we know that a little more than 6 million American adults develop heart failure while the heart become unable to pump enough blood and Oxygen to the body. Studies in the US and Europe laboratories are on-going introducing PAG's in cardiac cells to understand the phenomenon. Lifestyle changes, diets and a reduction in the diet intake or other medications are already being implemented
- D- Other studies are studying ways to discover the offending bacteria and their enzymes responsible for the production of the PAG's.
- E- Monkeypox (mpox) remain a menace in European countries and in the United States. Although, cases before related to West and Central Africa, where the virus was endemic. It is the first time that such virus has been reported simultaneously in non-endemic and endemic areas. Fortunately, most we do have an effective vaccine while the cases are not fatal

