MEDICAL BREAKTHROUGHS
RESEARCH SUMMARY

TOPIC: COVID BOOSTER ON THE WAY?
REPORT: **MB #4933**

BACKGROUND: A COVID-19 vaccine may prevent you from getting COVID-19 or becoming seriously ill or dying due to the virus; prevent you from spreading the virus to others; add to the number of people in the community who are protected from getting COVID-19, making it harder for the disease to spread and contributing to herd immunity; and, prevent the virus from spreading and replicating, which allows it to mutate and possibly become more resistant to vaccines. Both the Pfizer-BioNTech and Moderna COVID-19 vaccines use messenger RNA (mRNA). These vaccines give cells instructions for how to make a harmless piece of an S protein. After vaccination, your cells begin making the protein pieces and displaying them on cell surfaces. Your immune system will recognize that the protein doesn't belong there and begin building an immune response and making antibodies.
(Source: https://www.mayoclinic.org/diseases-conditions/coronavirus/in-depth/coronavirus-vaccine/art-20484859)

COVID BOOSTERS: As variants of the coronavirus continue to spread and mutate, researchers are monitoring how the vaccines perform and whether booster shots will be needed to maintain immunity. Experts are currently saying it's too early to speculate whether we'll need booster shots like some routine vaccines. Dr. Amesh Adalja, a senior scholar at Johns Hopkins Center for Health Security in Baltimore, says it's premature to predict whether COVID-19 boosters will be needed and, if so, at what intervals. "To me, the threshold for boosters would be to see fully vaccinated individuals getting breakthrough infection severe enough to land them in the hospital," said Adalja. "We have not crossed that threshold." However, the companies whose COVID-19 vaccines are being distributed in the United States say their shots may need to be given annually, like a flu shot. Dr. Judy Martin, a professor of pediatrics and Co-Director of Pittsburgh Vaccine Trials Unit for the Department of Pediatrics at the University of Pittsburgh School of Medicine, says and she and her team are studying the safety and the body's immune response to determine if it is better to get a booster shot with the same vaccine that you got the first time or to get a booster with a different vaccine. They are studying the four vaccines which were approved under FDA emergency use authorization.
(Source: https://www.healthline.com/health-news/will-we-need-a-covid-19-vaccine-booster-shot-later-this-year)

NEW BOOSTER STUDY: The University of Rochester Medical Center (URMC) is participating in a clinical trial that will mix-and-match the initial regime of an approved vaccine with a booster dose from a different manufacturer. The NIH, CDC, and WHO have prioritized the study to determine whether immunity is sufficiently strengthened if someone gets their original vaccine and a booster dose from a different manufacturer. If shown effective, the findings could help resolve some of the distribution challenges that plague large-scale vaccination programs by removing dependency on a single company for national and global vaccine supply. "One of the key scientific questions we are trying to answer is whether vaccines that use different platforms, such as mRNA, adenovirus, and protein-based, can sufficiently strengthen the original immune response generated by a different vaccine technology," said Angela Branche, MD, co-director of the URMC Vaccine and Treatment Evaluation Unit (VTEU), part of the network of National Institute of Allergy and Infectious Diseases.
(Source: https://www.urmc.rochester.edu/news/story/new-study-mismatches-vaccine-doses-to-boost-immunity-to-covid-and-variants)

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If this story or any other Ivanhoe story has impacted your life or prompted you or someone you know to seek or change treatments, please let us know by contacting Marjorie Bekaert Thomas at mthomas@ivanhoe.com