MEDICAL BREAKTHROUGHS
RESEARCH SUMMARY

TOPIC: PERSONALIZED PAIN RELIEF IS A GAME CHANGER
REPORT: **MB #4672**

BACKGROUND: Pharmacogenetics is the study of how people respond differently to drug therapy based upon their genetic makeup or genes. Diet, overall health, and environment also have significant influence on medication response, but none are stronger indicators of how you will process medication than your genetics. All drugs will eventually leave the body by a process called elimination, but the time that they stay active, in your bloodstream working, is often determined by genetic variations that change the way your drug-processing enzymes work. Utilizing pharmacogenetics allows a healthcare provider to choose the right drug and dose that are likely to work best for each individual patient. Tailoring a patient's medication to their unique genetic characteristics may one day replace the one-size-fits-all approach to drug selection and dosing that is commonly used today.
(Source: https://www.genelex.com/what-is-pharmacogenetics/)

METABOLIZE: Some people metabolize medication differently from the majority of the population. They are known as poor metabolizers of that medication. For example, When a patient receives a heart stent, the interventional cardiologist prescribes antiplatelet therapy, a combination of medicines that work together to prevent the formation of blood clots in or around the stent that can block blood flow (stent thrombosis), possibly resulting in a heart attack or even death.
(Source: http://www.secondscount.org/treatments/treatments-detail?cid=e3a1bb05-bf77-4313-9911-c4e1d0fd81fc#.XdgELuhKhPY)

HUMANWIDE: Megan Mahoney, MD, Clinical Professor of Medicine at Stanford University talked about the Humanwide Project, "Pharmacogenomics is sort of the most exciting and the most cutting edge. But really what we were hoping to achieve was utilizing new streams of data that weren't currently being used in primary care that we knew had a lot of promise. Pharmacogenomics is a great example. Also, we're probably under-utilizing even just genetics assessments for all sorts of conditions not just their drug gene interactions that we get from pharmacogenomics. We were also assessing every single patient for genetic risk for cardiovascular diseases and cancer."
(Source: Megan Mahoney, MD)

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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