



Image Analysis Applies Space Age Technology, Serving Millions of Patients Through the Diagnosis of Bone and Cardiovascular Diseases

Name: Image Analysis

Internet:

www.image-analysis.com

Products/Services: Bone - Density Imaging Equipment and Coronary Calcium Screening

Location:

Columbia/Adair County

Leadership:

Ben Arnold, Ph. D, President

Employees: 10

Founded: 1985

Reach: International

Innovative Insight:

“Competition is world-wide, so you must be the best in comparison to the world market.”

Advice for Growing

Companies: *“Create a work environment of learning and innovation. You do not have to be large to excel and compete”.*

Way Internet Has Made You

More Competitive: *“As a result we sell to Europe and Asia. This would not have been possible without the Internet.”*

Most Important Investment in

Next Five Years: *“We plan to invest in software development that will provide new diagnostic products for cardiac plaque disease in arterial calcium measurements.*

Ways to Continue to Attract Best Workers:

“Improve the attractiveness of Kentucky’s small towns.”

Columbia, Ky. — A recent NASA-funded study revealed how bone loss increases the risk of devastating bone fractures, highlighting the need for additional steps that ensure the health of spacecraft crews and aging Americans. Image Analysis, based in Columbia, Kentucky is playing an important role in this important type of medical diagnosis.

In the Study, researchers from the University of California San Francisco (UCSF) and Baylor College of Medicine, Houston used three-dimensional X-ray computed tomography (CT) to study the effect of prolonged weightlessness on the bone mineral density and structure of the hip in a group of 14 American and Russian International Space Station crewmembers. The results of this research are being shared with the medical community and may aid people who suffer from similar conditions including Osteoporosis.

This type of diagnostic equipment is provided to the medical community by companies like Image Analysis. Its axial CT imaging equipment reveals compressions, fractures, and calcifications that only QCT (quantitative computed tomography) can exclude from the measurement volume, thereby improving diagnostic accuracy. Because of the advancements in technology, bone mass assessment is increasingly becoming a routine part of patient care. It is noninvasive and can be completed quickly. With equipment available that can fit on a desktop, many physicians are considering the acquisition of bone mass assessment technology.

According to Dr. Ben Arnold, Image Analysis President and Director of Scientific Research, “Image Analysis has delivered more than 5000 Bone Densitometry Systems worldwide for clinical use as well as for key bone density research and drug evaluations at several major universities. In addition, Image Analysis is developing a new method for diagnosis of cardio-vascular plaque disease which uses CT Scanners and is currently in tests at some 30 universities across the U.S.”

Image Analysis products covered by more than 10 separate patents are merging technologies that encompass electronics, computer science (scanning and data collection devices, programs for CT scanner operation and data collection, data bases for individual patient and longitudinal data analyses) and x-ray image processing.

Arnold emphasized, “One of the reasons we were able to move back home, was the availability of Internet access. It allowed us to have an international reach from a small town in Kentucky.”

Image Analysis client base spans the U.S., Europe and Asia. Its equipment is helping the medical community diagnose critical bone and heart disease. 25 million Americans, predominantly women, will be robbed of their independence as a result of Osteoporosis. 1.5 million broken bones occur per year, including many debilitating fractures of the hip and back. While standard X-rays can confirm fractures, they only reveal bone loss when at least 30 percent of bone mass is already gone.

When it comes to health, the Center for Disease Control and Prevention reports that the name of the game in treatment is prevention. Stronger is healthier, says the CDC, which wants at least 30 percent of adults over age 65 engaging in regular strength training by the year 2010. Image Analysis is leading the way in providing state-of-the-art technology advancements for this world-wide health issue.

About KY 120:

In the fast-paced world of technology-driven business, it should be recognized that best practices can be studied and emulated. As a part of the [connectkentucky](#) initiative, CITE is profiling business initiatives in each of Kentucky’s 120 counties to identify lessons learned on the path toward successful and sustainable innovation.