STAFF SPOTLIGHT

Judy Dluzen, collections and natural areas specialist, Matthaei Botanical Gardens, on learning interpersonal skills on the job: "Many people use gardening as a way to have down time and get away from people. But that doesn't happen when it's your job. It's a collaborative effort."

EVENTS

The Sean Dobbins Trio performs from 8-10 p.m. Aug. 18 at the U-M Museum of Art in the free Jazz Series curated by Associate Professor of Music Adam Unsworth. It is sponsored by UMMA and the Katherine Tuck Endowment.

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Research

Landmark study will use genetic test to help predict gum disease

By Laura Bailey
News Service

U-M's School of Dentistry has signed an agreement with Interleukin Genetics Inc. (NYSE AMEX:ILI) to conduct what is believed to be the largest clinical study to date using genetic testing to assess the risk for gum disease.

William Giannobile, professor of dentistry and director of the Michigan Center for Oral Health Research at the School of Dentistry, will lead the study for U-M.

"It's an exciting study because … it's a way to use genetic testing to personalize a dental treatment plan and the frequency of dental care visits of patients as it relates to oral care," Giannobile says. "It's a way to customize patient care."

"One of the goals of personalized health care is to detect disease earlier and prevent it more effectively," says Kenneth Kornman, president and chief scientific officer of Waltham, Mass.-based Interleukin. The study will use Interleukin's PST test as one part of a periodontitis risk assessment, says Kornman, who also is an alumni of the U-M School of Dentistry. Research has shown that genetics plays a large role in gum disease, and research also suggests that severe gum disease is a risk factor for other chronic disease complications such as heart disease or low birth weight.

In the retrospective cohort study, U-M scientists will examine 15 years of patient clinical outcome data provided by a Michigan-based insurance company. Scientists will then recruit at least 4,000 of those patients and get their genetic information using the PST, Giannobile says.

They will combine this genetic information with two other common risk factors, smoking and diabetes, then measure tooth survival rates to see how those results lined up with the treatment plans people received over the 15 years. Some patients may have needed more dental visits, some may have required less, Giannobile says.

The PST genetic test works by identifying genetic variations that are predictive of severe gum disease and tooth loss in some patients. The test may be used on all ethnic populations and must only be given once in a lifetime to identify at-risk patients. Specifically, the test identifies genetic variants that regulate a protein that when overexpressed, is thought to be associated with destruction of soft tissue attachment and bone and increased severity of gum disease in certain patients.

An estimated 75 percent of American adults have some form of gum disease, and roughly 20-25 percent have moderate to severe cases, which can lead to tooth loss. The yearlong study begins in the fall.

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