# Transforming the Management of Inflammation For Better Health

## Inflammation: A Hot Health Issue

Inflammation is implicated as a root cause for several chronic diseases including diabetes and cardiovascular disease. The burden of inflammation throughout the body fosters chronic disease initiation, amplifies progression, and compromises response to treatment. The cost of managing these chronic inflammatory diseases is staggering, accounting for ~84% of the U.S. healthcare budget.

Advanced dental care, when targeted to the right individuals, provides a practical and effective access point to lower chronic inflammation and improve systemic health. In a landmark study in 2014, Jeffcoat and colleagues used insurance claims data from 338,000 individuals<sup>1</sup>. They found that when periodontal disease was treated, medical costs and hospitalizations in subsequent years were significantly reduced by approximately 40%; for adverse pregnancy outcomes, hospitalizations were reduced as much as 73%.

Given the value of periodontal and dental preventative care, many do not adequately use dental services. Specifically, our large (>25,000 lives) Michigan data base showed about 25% of employees visited a dentist for emergency only, and about 35% visited once annually.

## An Integrated Solution To Improve Health and Drive Value

The Interleukin Genetics (IG) PerioPredict® program identifies and directs beneficiaries, who over-produce inflammation, to obtain proper preventive care. Our solution integrates three components to ensure that targeted members follow through to receive proper care.







## **Genetic Risk Assessment**

Scientists at Interleukin Genetics and others discovered the gene responsible for the production of IL-1 $\beta$  varies in about 33% of the human population. Individuals who have certain single nucleotide polymorphism variations (SNPs) in the gene have a robust over production of IL-1 $\beta$  leading to a hyper inflammatory response. This hyper response is associated with increased risk and severity of highly prevalent, serious and costly diseases.

Though advanced science, the test is a simple oral fluid cheek swab. Testing is done at our CLIA certified lab near Boston.

#### **Individualized Care Plan**

Greater preventive oral health care represents an unexpected, yet practical access point with well-documented evidence to lower systemic inflammation; thereby delaying onset, slowing progression, and reducing the severity of chronic disease. We work with dental professionals to provide a personalized care plan that contains the appropriate number of dental cleanings based on their risk status.

### **Employee Engagement**

We have developed a turnkey program comprised of digital and educational tools to enroll and test employees at your company through employee health fairs and other company events. We then deploy multi-channel communications programs to facilitate dental visits and support oral health efforts.

#### **Outcomes**

The Interleukin Genetics solution aligns with the Healthcare Triple Aim as follows:

- **Promote Wellness** Identify and stratify At Risk Populations for appropriate preventive and personalized care.
- Drive Employee Engagement Rapidly drive engagement, education, adherence, and appropriate utilization with beneficiaries and providers to promote overall well-being
- **Save Costs** Obtain up to an 8% savings in overall health care costs with annualized savings over 4 years in targeted populations.

# The Proposal

We 'd like to collaborate with you and your team to discuss a turnkey initiative to identify and manage the At-Risk beneficiaries in your employee population. To this end, we will establish program scope, work with key stakeholders in your organization, establish an implementation plan, and coordinate with your dental carrier.

# **Company Overview**

Interleukin Genetics, Inc. (OTCQB: ILIU) develops and markets proprietary genetic tests for chronic diseases and health-related conditions, with significant expertise in metabolism and inflammation. The products empower individuals and their healthcare providers to manage existing health and wellness through genetics-based insights and actionable guidance. Interleukin Genetics' lead products include its proprietary PerioPredict® genetic test for periodontal disease and its Inherent Health® line of genetic tests.

