

# Introducing LIVERFAST™ In Your Clinic: Simplifying Liver Assessment In Medicine

Fibronostics' latest test, LIVERFAST™ is intended for evaluation of  
liver fibrosis, inflammation and steatosis

Sam Pappas, MD, Clinical Internist | Arlington, Affiliated with Virginia Hospital Center

Teresa Gonzalo, PharmD MBA, Medical Science Director | Fibronostics, Inc.

Ronald Quiambao, MD, Chief Medical Officer | Fibronostics, Inc.

## ASSESSMENT OF LIVER DISEASE

Non-alcoholic fatty liver disease (NAFLD) is the primary cause of chronic liver disease in the United States, afflicting an estimated 80 to 100 million Americans<sup>1</sup>. With the decline in metabolic health in the general population due to the rise in diabetes and obesity, the need for internists and medical subspecialists to identify liver patients at greatest risk is rising<sup>2</sup>. As the treatments for liver disease advance, the role of the health care doctors becomes even more important in staging and monitoring disease and its treatment.

Dr. Sam Pappas uses the capabilities of Artificial Intelligence (AI) algorithm LIVERFAST™ blood-based test for evaluation of liver disease, fatty liver disease and NASH (Non-Alcoholic Steatohepatitis) to provide excellent care for his patients.

### Where?

Pappas Health Clinic  
Arlington, Virginia, USA

### Who?

Sam Pappas, MD, Principal  
Internist Clinician

### Challenge

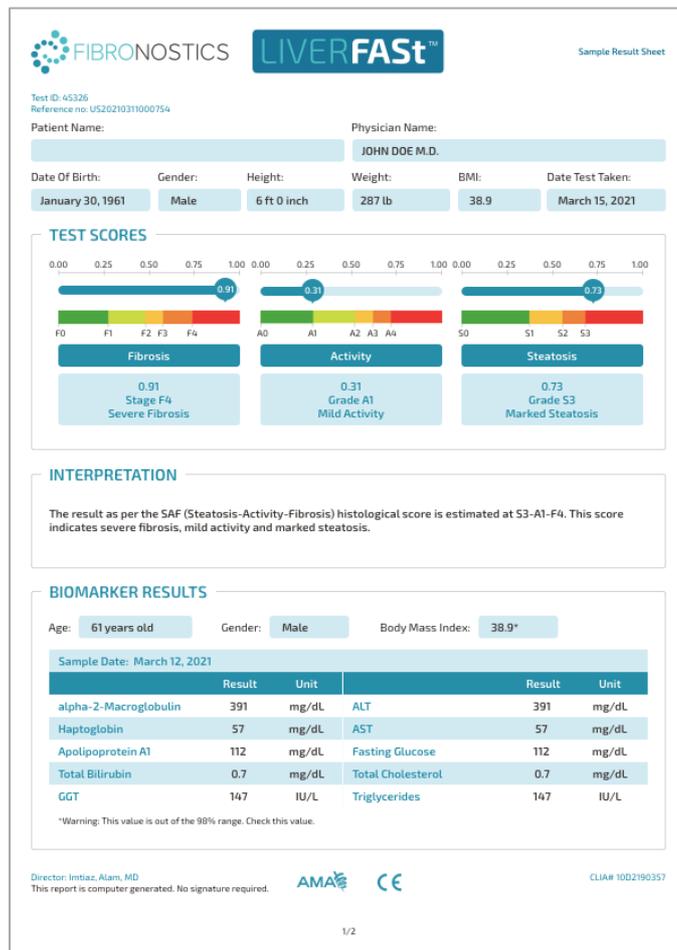
How a non-invasive blood biomarker  
LIVERFAST™ test can help in the  
assessment of patients  
with liver disease

### Solution

Fibronostics offers advanced  
Artificial Intelligence algorithms to  
serve a quick and easy test for  
ongoing patient assessment and  
monitoring of disease progression

## LIVERFAST™ USE IN PATIENTS

When Dr. Pappas speaks about the use of LIVERFAST™ with his patients: “This is a technology that really helps to identify patients who has problems early on.”



“One of our first patients who did LIVERFAST™ had fatty liver disease and we confirmed it with LIVERFAST™ and got much more motivated to start seeking appropriate care. This is a wonderful way to assess patients and screen them in early phases. Many patients are data driven and they don't want to see lengthy and detailed medical explanation, they prefer to visualize the results. When they see the report with results in colors related to their liver

disease status, they also see the numbers change from S3 to S2 for example, getting out of the red and orange zone to a green area, I think it is very useful for the patient to assess his own health.”

## FATTY LIVER DISEASE ON THE RISE

With regard to fatty liver disease, Dr. Pappas says, “The number one organ, the number one filter is the liver. Usually is a window to the rest of your health.

He continues saying, “Early screening for fatty liver disease and NASH is very central to patient care. We have a lot of people with liver diseases and we need to see if it is fibrosis, inflammation or steatosis that it is affecting their liver health so we can recommend the best approach and next steps.”

Due to the increasing relationship that metabolic diseases have with fatty liver disease, and it is extremely useful to use LIVERFAST™ to assess liver disease.

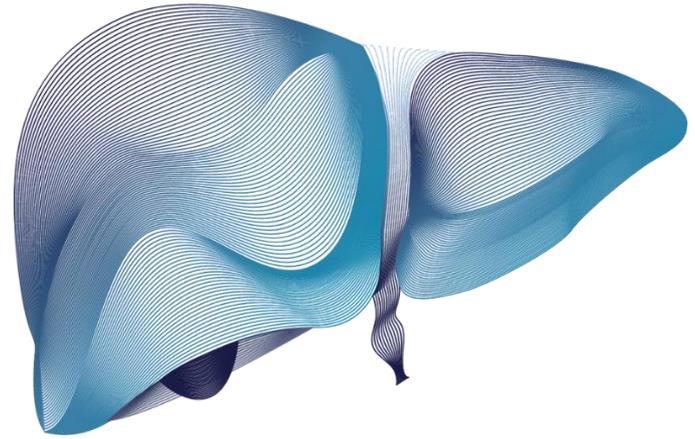
“We can provide quantification with LIVERFAST™ according to the SAF score. There are new therapies to treat fatty liver disease/NASH and we can use the results from this AI-algorithm based test to measure the state of the fibrosis as part of patient management.”

According to the National Institute of Diabetes and Digestive and Kidney Diseases<sup>3</sup>, 30 to 40 percent of Americans have fatty liver or nonalcoholic fatty liver disease (NAFLD) and 3 to 12 percent have nonalcoholic steatohepatitis (NASH)<sup>1</sup>.

The prevalence of NAFLD has increased in recent years from 20% in 2005 to 32% in 2016<sup>4</sup>. Another study based on one of the largest databases in the United States (12,317 individuals) reported that 34% of the general adult population of the United States is affected by NAFLD, amounting to at least 43 million adults<sup>4</sup>.

As approximately 20% of NAFLD cases develop NASH, the associated increase in NASH during the same period is to be expected (33% in 2005 to 59.1% in 2010)<sup>5</sup>. Moreover, NAFLD is the only liver disease with growing prevalence, synchronous with the increasing rates of obesity and Diabetes Mellitus Type 2, in the USA<sup>6</sup>. Indeed, NAFLD now represents the most common cause of abnormal liver blood tests and chronic liver disease in the Western world<sup>7</sup>.

Dr Pappas confirms, "we receive patients with different metabolic diseases, and we couldn't identify who had more severe liver disease."



## DEVELOPING A LIVER DIAGNOSTIC PROGRAM

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By adopting the AASLD guidelines, primary care physicians can integrate a practical liver diagnostic program into their practice that is comprehensive, effective and sustainable<sup>8</sup>. Using non-invasive algorithm-based tests as first-line investigation of liver disease, offers simple, repeatable, and cost effective *early* diagnosis, with accurate staging and progression monitoring.

Primary and specialty practices that can benefit from such a program in several ways include:

- Identifying individuals that may be at risk, or confirmation of liver fibrosis status
- Use of LIVERFAST™ for patient visit preparation that provides a more productive patient-physician discussion of liver health to motivate and provide goal-oriented lifestyle change
- Use of Data for the physician's entire patient population allowing identification of patients at risk thus providing a basis for counselling, and potential for follow-up confirmation testing.



As with other health diagnostic machine-learning algorithms tools like LIVERFAST™ can provide rapid, noninvasive, inexpensive, and (most importantly) early alerts well before a patient's condition demands the expense and added risk of a liver biopsy procedure.

## References

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