

# MEDIA RELEASE

## Fatty liver disease in Ireland – a silent epidemic

### Introduction

Non-alcoholic fatty liver disease represents a huge disease burden on the Irish population but very little is reported in the media. The prevalence of NAFLD mirrors that of type 2 diabetes and obesity and is expected to affect a quarter of the Irish population in the next decade. A team of Irish and UK scientists, doctors and nutritionists have come together to examine the risks in Irish people. In addition, a new screening tool is being tested plus an intervention that may improve liver health.

Led by Professor Suzanne Norris, consultant hepatologist at St. James's Hepatology Department, in collaboration with Associate Professor of Obesity, Dr Bernadette Moore at the University of Leeds; outcomes are expected to increase awareness of this widespread condition and provide recommendations to improve liver health in the population.

### Article:

#### **Non-alcoholic fatty liver disease is associated with the obesity epidemic**

As the name suggests, non-alcoholic fatty liver disease, or NAFLD, is different to liver disease caused by excessive alcohol intake. NAFLD is common in people with type 2 diabetes, high BMIs and high intake of fat and sugar, commonly referred to as the 'Western diet'. It has become the most common liver disease in western countries and is the number one cause of cirrhosis and hepatocellular carcinoma in the Western world. As 36% of the Irish population aged over 50 is obese with a further 43% overweight, and a recent report by the scientific journal *The Lancet* has estimated that we are set to be Europe's fattest nation by 2025, the prevalence of NAFLD in Ireland is likely to be significant. Health risks associated with obesity such as high blood pressure, high cholesterol, heart disease and type II diabetes are well known, but awareness of the impact on liver health is under the radar.

#### **What is non-alcoholic fatty liver disease?**

Non-alcoholic fatty liver disease, is caused by fat accumulation in the liver. This may present in two forms: simple fat accumulation, or the potentially more serious NASH (non-alcoholic steatohepatitis) which involves inflammation, cell damage and fibrosis (scarring of the liver). 1 in 4 people with NASH will progress towards advanced, liver disease including cirrhosis within ten years.

Fat accumulation in the liver is caused in a number of ways. Excess fat intake in the diet and excess sugar intake, particularly in the form of fructose can trigger fat production in the liver. Carrying too much fat around the abdomen can also contribute to the problem. Excess central fat produces harmful inflammatory signals that further damage the liver. Other hormone signalling can become dysregulated, for example the hormones that tell a person when they are full and help to regulate appetite. This can lead to a cycle of increased eating, sugar cravings and increased fat storage.

#### **A new study in Ireland**

A new collaboration of scientists, doctors and nutritionists from the UK and Ireland are investigating the eating habits of Irish people diagnosed with NAFLD. This is the first step in a series of new research studies into this under-diagnosed and under-researched condition. The aim of the first study is to gain insight into the risk factors for NAFLD to provide the public and primary care health professionals with information to help prevent and/or reverse liver damage. Ms Carla Bredin,

Nutritionist, in conjunction with Associate Professor of Obesity Dr Bernadette Moore and Dr Ciara Wright, Nutritionist, has developed a tool to accurately assess dietary intakes of NAFLD patients in Ireland. Dr Moore, an Irish-American herself, says that 'we are interested to study the Irish population, where we expect incidence to be so high, and yet almost nothing is known or said about it'.

The second approach to understanding NAFLD in Ireland is an exciting pilot study at the Hepatology Department of St. James' Hospital Dublin with Professor Suzanne Norris and Dr Sara Naimimohasses. Patients diagnosed with NAFLD or NASH will undergo a 12-week intervention aiming to reduce body weight under specialist care. Dr Ciara Wright, Senior Nutritionist with Glenville Nutrition who is delivering the dietary intervention, says that 'our 12-week programme has been used in the past to help people to reduce central body fat and we anticipate that this programme will improve liver health also'.

### **A novel test for NAFLD**

A series of diagnostic and novel tests, led by Dr Sara Naimimohasses, will be performed before and after the dietary intervention to assess improvement of liver health after the 12-week period. The novel tests may also help to identify a simpler method of identifying NASH patients who are at higher risk of further liver damage. Dr Sara Naimimohasses at St. James' Hospital Dublin says that 'currently biopsy is the only way to detect NASH, and these patients may have to undergo several over the course of their disease to monitor progression. Through this research project, we hope to identify markers either in the blood, or in fatty tissue, where sampling is easier for the patient'. "Any new marker identified in this research would be a very useful addition to current non-invasive methods of assessing liver scarring (fibrosis) such as Fibroscan examinations" said Professor Norris.

The 12-week intervention is currently underway at St. James' Hospital in Dublin.

### **ENDS**

This study has received ethical approval. The intervention is expected to complete in December 2017. Results are expected in the first quarter of next year. Collaborators on this project are Professor Suzanne Norris<sup>1</sup>, Associate Professor Dr J Bernadette Moore PhD<sup>2</sup>, Dr Ciara Wright PhD DipNt<sup>3</sup>, Dr Sara Naimimohasses<sup>1</sup>, Ms Carla Bredin<sup>4</sup>, Ms Deirdre Ní Fhloinn<sup>4</sup>.

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