

Inauguration of the Grifols Chair for the Study of Cirrhosis

- The Grifols Chair for the Study of Cirrhosis, a private chair with an international reach, was created to promote research and education on liver diseases, especially cirrhosis.
- The academic nature of the Grifols Chair complements the clinical research work carried out since 2009 by the European Consortium for the Study of Chronic Liver Failure, which currently involves the participation of more than 80 university hospitals in 25 countries.
- The Grifols Chair and the European Consortium for the Study of Chronic Liver Failure will be headed up and coordinated by Professor Vicente Arroyo through the newly created independent European Foundation for the Study of Chronic Liver Failure (EF-CLIF), of which Grifols is a patron.
- Cirrhosis is the seventh leading cause of death in Western Europe, and its prevalence could increase if obesity rates continue to climb in developed countries.

Barcelona, 30th November, 2015.- Grifols, an international company celebrating 75 years of improving healthcare and advancing scientific progress, is sponsoring, along with Professor Vicente Arroyo, the Grifols Chair for the Study of Cirrhosis. Cirrhosis is a very common disease and represents the seventh leading cause of death in Europe, with an annual mortality rate in developed countries exceeding 200,000 persons. Professor Arroyo has been Director of the Department of Medicine at the University of Barcelona and of the Esther Kóplowitz Medical Reseach Center.

This private chair with an international reach was created to promote Reseach and Education of liver diseases, especially cirrhosis. In this sense, the academic nature of the Grifols Chair complements the clinical research work carried out since 2009 by the European Consortium for the Study of Chronic Liver Failure, which currently involves the participation of more than 80 university hospitals in 25 countries. The consortium is supported by the European Association for the Study of the Liver (EASL). The Grifols Chair will primarily focus on translational research and will collaborate closely with the Clinic Foundation for Biomedical Research (FCRB), an institution that contributed to the development of the consortium.



Both the Grifols Chair and the European Consortium for the Study of Chronic Liver Failure are supported by the European Foundation for the Study of Chronic Liver Failure (EF-CLIF), a recently created independent European medical foundation headquartered in Barcelona, Spain, which numbers Grifols, Professor Arroyo and the EASL among its patrons.

"Through the foundation, the consortium and the Grifols Chair we hope to promote and lead international research in cirrhosis, which, far from decreasing, could even grow in the coming years if the prevalence of obesity in the population continues to increase. The decrease in prevalence of liver cirrhosis caused by the hepatitis C virus due to the discovery of effective antiviral treatments does not, therefore, imply that the number of patients with cirrhosis of the liver will decrease. We must continue researching because it is a deadly disease when it reaches its most advanced stages or when it develops into liver cancer," stated Professor Arroyo.

Grifols' commitment to liver disease research

Since the European Consortium for the Study of Chronic Liver Failure's creation in 2009, Grifols, in partnership with the Clinic Foundation for Biomedical Research (FCRB), has contributed more than 5 million euros towards its work. The independent consortium is an important means of carrying out clinical research projects and therapeutic trials in large series of patients in very short periods of time.

The CANONIC study, headed up by some of Europe's most renowned and influential hepatologists, is one of the most significant pieces of research performed by the consortium. The participation of 1,343 patients hospitalized with cirrhosis and acute decompensated cirrhosis in 29 liver units in eight European countries made possible to characterize the concept, pathophysiology, diagnostic criteria and prognosis of a new syndrome: Acute-on-Chronic Liver Failure, which is the most frequent cause of death for patients with cirrhosis.

More than 30 articles discussing this syndrome have been published or are in the process of being published in scientific journals by the researchers from the European Consortium for the Study of Chronic Liver Failure, using the clinical data and biological samples obtained in the CANONIC study.

Currently, a second observational study (PREDICT) is being prepared; it will last one year and approximately 2,500 patients are expected to participate.

About chronic liver failure

Chronic liver failure is the most advanced phase of cirrhosis. It is characterized by the development of complications such as ascites, gastrointestinal bleeding and hepatic encephalopathy which may lead to hepatic coma.

Recent studies led by the European Consortium for the Study of Chronic Liver Failure (the CANONIC study) have shown that Acute-on-Chronic Liver Failure is a



highly complex disorder that occurs in patients with chronic liver failure and that, in addition to liver failure, is associated to failure of other organs/systems including cardiovascular, kidney, intestinal and adrenal glands, as well as failure of anti-bacterial defense mechanisms. Because of this, it represents a special form of multi-organ failure.

Survival rates once the syndrome has manifested are very low, and the only treatment is liver transplantation. Unfortunately, the imbalance between the number of patients and donors means that only 2 in every 10 patients with Acute-on-Chronic Liver Failure are able to receive transplants. As such, there is a vital need to develop new treatment strategies to improve the quality of life and survival rate of these patients.

Cirrhosis of the liver is a very common illness. It can be caused by chronic alcoholism, chronic hepatitis B or C virus infections, obesity, and hereditary and autoimmune diseases. In 5% of cases the etiology is unknown. It is the seventh leading cause of death in Western Europe and the ninth in North America.

About Grifols: 75 years of improving people's health

Grifols is a global healthcare company founded in 1940. In 2015, Grifols is celebrating 75 years of improving people's health and well-being through the development of plasma-derived medicines, clinical diagnostics technology and hospital pharmacy products.

Headquartered in Barcelona, Spain, and with a presence in more than 100 countries worldwide, Grifols is a leader in the production of plasma derivatives and in plasma collection, with a network of 150 plasma donor centers in the United States. The company is a recognized leader in transfusion medicine, and its expertise in immunology and hemostasis allows it to offer integrated solutions for clinical laboratories, blood banks and transfusion centers.

Grifols' 2014 sales exceeded 3.35 billion euros, and it employs approximately 14,000 workers. Grifols demonstrates its commitment to advancing healthcare by allocating a portion of its annual income to R&D.

The company's Class A shares are listed on the Spanish Stock Exchange, where they are part of the Ibex-35 (MCE:GRF). Its non-voting Class B shares are listed on the Spanish Stock Exchange (MCE:GRF.P) and on the U.S. NASDAQ (NASDAQ:GRFS) via ADRs (American Depositary Receipts). For more information visit www.grifols.com