

# ICFAR 2023



**1st International Conference on Frontiers in Academic Research**

February 18-21, 2023: Konya, Turkey

**Abstract Book**

# ABSTRACT BOOK OF 1ST INTERNATIONAL CONFERENCE ON FRONTIERS IN ACADEMIC RESEARCH

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Editors:

**Asst. Prof. Dr. Umut Özkaya**

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## INTRODUCTION

We had the great honor of organizing the 1st International Conference on Frontiers in Academic Research ICFAR 2023. It was truly a great pleasure for us to greet a lot of participants from many different countries attending ICFAR 2023! We firmly believe that the conference will become an important international event in the field of cross-industry discussion about innovations in Academic Studies.

Three cooperating organizations supported the four-day conference. There were 302 papers accepted for presentation at ICFAR 2023, contributed from different countries. We had plenary speeches and several well-known scientists and experts, to give invited talks at different sessions.

The purpose of ICFAR 2023 was to provide a forum for the participants to report and review innovative ideas, with up-to-date progress and developments, and discuss novel approaches to the application in the field of their own research areas and discuss challenges of doing science.

We sincerely hope that the exchange of ideas on doing research, science and improving education will help the participants, and international cooperation sharing the common interest will be enhanced.

On behalf the Organization Committee of ICFAR 2023, we would like to heartily thank our cooperating organizations for all they have done for the conference. We would also like to thank the authors for their contribution to the proceedings; the participants and friends of ICFAR 2023, for their interest and efforts in helping us to make the conference possible; and the Editorial boards for their effective work and valuable advice, especially the ICFAR 2023 secretariat and the ICFAR 2023 staff, for their tireless efforts and outstanding services in preparing the conference and publishing the Proceedings.

Asst. Prof. Dr. Umut Özkaya

Conference chairs



## IL-1B AND IL-10 AS BIOMARKERS OF NON-ALCOHOLIC FATTY LIVER DISEASE SEVERITY IN HYPERTENSIVE PATIENTS

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**Abstract – The aim of the study.** To analyze the opportunities of interleukins IL-1 $\beta$  and IL-10 as markers of liver fibrosis in patients with non-alcoholic fatty liver disease (NAFLD) and hypertension (HT).

**Materials and methods.** The study included 63 NAFLD and HT patients, 52 isolated NAFLD patients and 20 relatively healthy volunteers. The interleukins levels were determined by ELISA. Liver parenchyma stiffness was assessed using shear wave elastography. Statistical processing was performed using standard descriptive analyzes and the sequential exclusion multiple linear regression analysis method.

**Results.** IL-1 $\beta$  levels were increased in NAFLD and HT patients (17.55 ng/ml (95% CI 17.06, 19.73) versus 15.72 ng/ml (95% CI 15.25; 17.44),  $p < 0.001$  and 15.72 ng/ml (95% CI 15.25; 17.44),  $p < 0.001$  in isolated NAFLD and control groups respectively. IL-10 activity was significantly lower in NAFLD and HT group (12.69 ng/ml (95% CI 11.93, 12.95) versus 14.34 ng/ml (95% CI 13.27; 14.34),  $p < 0.001$  and 16.19 ng/ml (95% CI 15.15; 17.74),  $p < 0.001$  in isolated NAFLD and control groups respectively. The model was relevant (adjusted  $R^2 = 0.606$ ,  $F = 17.421$ ,  $r_s = 0.58$  between observed and predicted values,  $p < 0.001$ ). The residuals were distributed normally ( $W = 0.978$ ,  $p = 0.327$ ) without dependence on predicted values ( $r = 0.016$ ,  $p = 0.900$ ). The direct correlation between liver stiffness values and IL-1 $\beta$  levels with an inverse correlation between liver fibrosis severity and IL-10 levels were determined.

**Conclusions.** Interleukins IL-1 $\beta$  and IL-10 were identified as significant predictors of liver fibrosis in patients with this comorbidity.

*Keywords – NAFLD, Hypertension, Interleukin-1 $\beta$ , Interleukin-10, Liver Fibrosis*