

These results are summarized in the table below:

	Number of first Fm visits	Age	Sex	Disability Report	Incidence of FM over first global visits
2006-2007	186	Mean 54 ± 5.6	W 183 M 3	27	528/186 34%
2010-2011	142	Mean 49 ± 9.9	W 138 M 4	26	555/142 26%

Chi square test was used for statistical analysis to assess the relationship between the first medical FM visit and the possibility of request a disability report in each period. The level of significance was 0.4 and it was not statistically significant.

**Conclusions:** We have not registered an increase in the number of patients with diagnosis of FM during the economic crisis period. A higher number of total first visits were registered while we observed a decrease in the FM first visits. This observation probably means that the less favorable socioeconomic situation has not increased the number of FM patients, contrarily the incidence seems to have decreased.

Apparently, patients with FM do not come to rheumatologist visit to pursuit an incapacity benefit. The number of disability reports has not increased significantly. However we observed a decrease in the mean age of patients who requested a disability report. Apparently, the current economic situation does not increase the number of patients with FM who request for work disability.

**Disclosure of Interest:** None Declared

#### SAT0389 VALIDATION OF THE SPANISH VERSION OF THE FIBROMYALGIA RAPID SCREENING TOOL (FIRST)

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**Background:** Fibromyalgia syndrome (FM) requires an expert clinical examination that impedes an easy assessment of diagnostic criteria in some health settings. This problem delays its diagnostic, treatment and referral to specialized services<sup>1,2</sup>.

To solve this drawback, a new screening test, the Fibromyalgia Rapid Screening Tool (FIRST) was created<sup>3</sup>. Despite showing acceptable psychometric properties, notably independent of depression, anxiety, catastrophizing and functional disability, the validation of the FIRST has been questioned for including non-challenging comparators and excluding patients with a severe depression<sup>4</sup>.

**Objectives:** To validate a Spanish version of the FIRST including pain disorders more analogous to fibromyalgia

**Methods:** The FIRST was translated following international standards. Internal consistency and temporal stability were assessed. The ability of the FIRST global score as a screening tool for fibromyalgia (discriminant validity) was assessed by logistic regression analysis. To assess to what degree potential confounders might affect the discriminant validity of the FIRST (divergent validity), it was re-assessed by hierarchical multivariate logistic regression with demographics in a first step, followed by pain, anxiety and depression, catastrophizing, disability, and the FIRST global score in a last step.

**Results:** The final sample comprised 257 patients (67% cases of fibromyalgia). The Spanish version of the FIRST showed acceptable internal consistency, reliability, and discriminant validity. The FIRST was able to discriminate between fibromyalgia and non-fibromyalgia patients even after discarding the effect of potential confounders. Both discriminant and divergent validity were, however, challenged by a moderate specificity (55% of non-fibromyalgia patients correctly classified).

**Conclusions:** The Spanish version of the FIRST may be used as a screening tool for fibromyalgia even in those patients that present with psychopathology, a cognitive style characterized by catastrophizing about pain and high levels of functional disability.

The moderate specificity of the Spanish version of the FIRST suggests that, in its current form, it must be better used to rule in a fibromyalgia rather than to rule it out.

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#### SAT0390

#### MICRORNA EXPRESSION PROFILE IN FIBROMYALGIA PATIENTS: A PILOT MATCHED CASE CONTROL STUDY

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**Background:** Fibromyalgia (FM) is a clinical syndrome characterized by musculoskeletal pain and tenderness. Diagnosis is mainly based on exclusion of other resembling diseases since validated biological tests are still lacking. Identification of disease-related markers will enable clinicians to effectively diagnose FM, follow the progress of the disease, monitor the effects of therapeutic approaches and probably develop preventive programs.

MicroRNAs (miRNAs) are pieces of 18-25 nucleotides capable of regulating gene expression. Changes in their expression levels have been linked to environmental responses as well as to pathological processes. Their recent association to some other chronic diseases such as rheumatoid arthritis<sup>1</sup>, multiple sclerosis and chronic fatigue syndrome/myalgic encephalomyelitis<sup>2</sup>, made us think a signature miRNA profile might also be associated to fibromyalgia.

**Objectives:** The objective of this study was to determine whether an association between an altered miRNAs expression profile and fibromyalgia exists.

**Methods:** Total RNA extracted from Peripheral Blood Mononuclear Cells (PBMC) from 10 FM patients and 10 population matched healthy donors (mirVana™ miRNA Isolation Kit, Ambion, USA)(RIN>8) were subjected to miRNA profile analysis with 3D-Gene™ chips (Toray Industries, Japan) following manufacturer's instructions. Quantitative RT-PCR amplification of miRNAs was performed in a LightCycler® 480 Real-TimePCR System (Roche, Switzerland) with the miScript SYBR GreenRT-PCR system (Qiagen, Germany) and the corresponding specific primer under standard amplification conditions. For comparison of the obtained signals, a Mann-Whitney U test was employed (p < 0.05).

**Results:** A microarray screen including 10 FM patients and 10 population matched healthy donors showed that the levels of 4 miRNAs were consistently reduced by at least 4-fold in PBMCs of fibromyalgia patients as compared to matched healthy donor levels. A Mann-Whitney analysis of the results obtained by reverse transcription followed by quantitative PCR amplification of these 20 RNA samples confirmed that the expression levels of these 4 miRNAs are significantly lower (p < 0.023) in all 10 FM patients while changes in other miRNAs tested resulted non-significant. This indicates that the 4 miRNAs identified have potential biomarker value. Targets of these miRNAs include positive regulators of erythroid anti-oxidant genes, membrane transporters and vascular contractility among other.

**Conclusions:** The 4 miRNAs downregulated in the 10 FM patients analyzed represent potential diagnostic and prognostic biomarkers for the disease. Identification of their target genes in FM patients might help us understand the mechanisms behind this complex disease. However, further validation is required before the results can be transferred to a clinical setting.

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#### SAT0391

#### PREVALENCE OF OBESITY AND ITS CORRELATES IN A FIBROMYALGIA COHORT

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**Background:** Obesity has been associated with higher levels of fibromyalgia symptoms and worse quality of life.

**Objectives:** To evaluate the prevalence of obesity and its correlates in a well characterized fibromyalgia cohort.

**Methods:** All new consecutive patients clinically diagnosed with fibromyalgia between September 1<sup>st</sup>, 2008 and January 31<sup>st</sup>, 2011, were enrolled in the study.

Three hundred and six patients were enrolled.

We recorded detailed demographics, symptoms, family history and comorbidities. All patients completed the Brief Patient Health Questionnaire (PHQ-9), Epworth Sleepiness Scale (ESS), Mood Disorders Questionnaire (MDQ), Fibromyalgia impact questionnaire (FIQ), Symptom Intensity Scale (SIS) and Health Assessment Questionnaire Disability Index (HAQ-DI).