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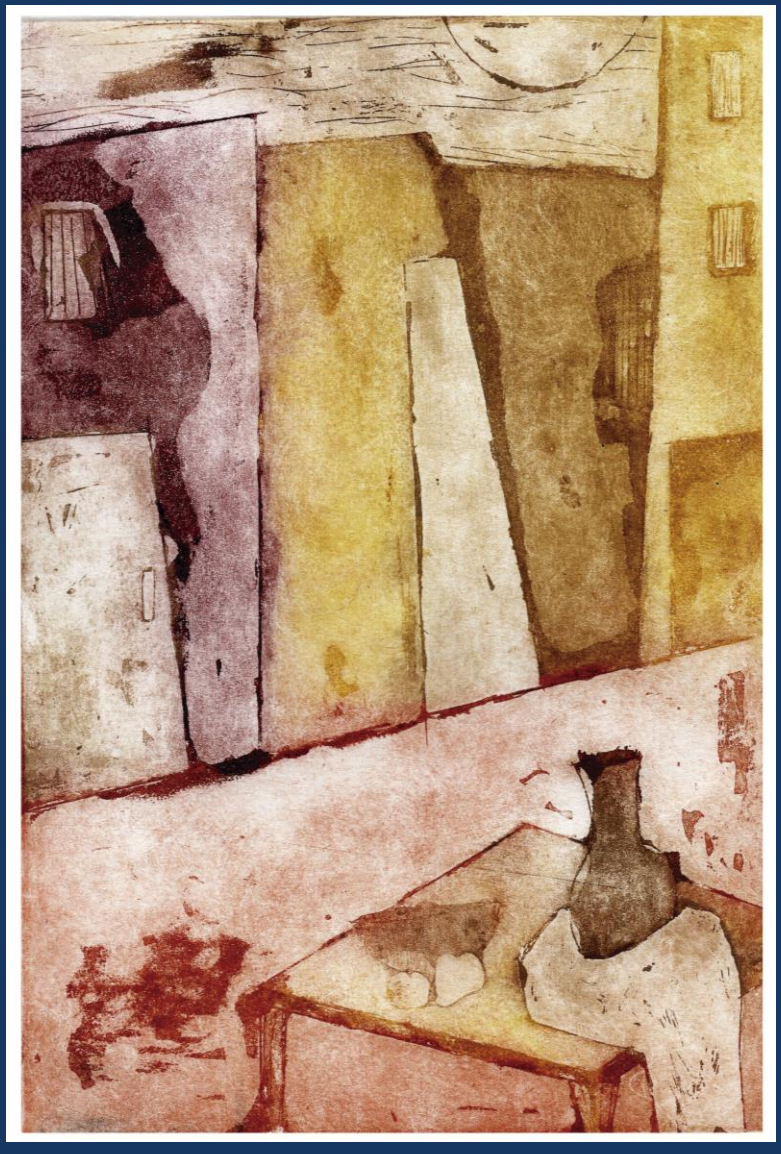

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La Tapa (*Ver* pág. 4)
***Atardecer en la tarde***
Antonella Ricagni

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# REUNIÓN ANUAL DE SOCIEDADES DE BIOCIENCIA 2019

**LXIV Reunión Anual de la**
**Sociedad Argentina de Investigación Clínica (SAIC)**

**LI Reunión Anual de la**
**Asociación Argentina de Farmacología Experimental (SAFE)**

**XXI Reunión Anual de la**
**Sociedad Argentina de Biología (SAB)**

**XXXI Reunión Anual de la**
**Sociedad Argentina de Protozoología (SAP)**

**IX Reunión Anual de la**
**Asociación Argentina de Nanomedicinas**
**(NANOMED-ar)**

**VI Reunión Científica Regional de la Asociación Argentina**
**de Ciencia y Tecnología de Animales de Laboratorio**
**(AACyTAL)**

**con la participación de**
**The Histochemical Society**

13 - 16 de noviembre de 2019
Hotel 13 de Julio - Mar del Plata

**EDITORES RESPONSABLES**

**Dra. Mónica Costas**
**Dra. Gabriela Marino**
**Dr. Pablo Azurmendi**

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# ANNUAL MEETING OF BIOSCIENCE SOCIETIES 2019

## LXIV Annual Meeting of
## Sociedad Argentina de Investigación Clínica (SAIC)

## LI Annual Meeting of
## Asociación Argentina de Farmacología Experimental (SAFE)

## XXI Annual Meeting of
## Sociedad Argentina de Biología (SAB)

## XXXI Annual Meeting of
## Sociedad Argentina de Protozoología (SAP)

## IX Annual Meeting of
## Asociación Argentina de Nanomedicinas
## (NANOMED-ar)

## VI Regional Scientific Meeting of Asociación Argentina
## de Ciencia y Tecnología de Animales de Laboratorio
## (AACyTAL)

## with the participation of
## The Histochemical Society

November 13th – 16th, 2019
Hotel 13 de Julio - Mar del Plata

**CHIEF EDITORS**

**Dra. Mónica Costas**
**Dra. Gabriela Marino**
**Dr. Pablo Azurmendi**

## 0265 - PLACENTAL APOPTOSIS ENHANCED BY HIF1 ALPHA STABILIZATION IS COUNTERACTED BY LEPTIN

**Nataly DE DIOS** (1) | Malena SCHANTON(1) | Rodrigo RIEDEL(1) | Roberto CASALE(2) | Julieta MAYMÓ(1) | Cecilia VARONE(1)

**INSTITUTO DE QUÍMICA BIOLÓGICA DE LA FACULTAD DE CIENCIAS EXACTAS Y NATURALES (IQUIBICEN) (1); HOSPITAL NACIONAL "PROF. DR. ALEJANDRO POSADAS" (2)**

Leptin is a pleiotropic hormone produced by the placenta where it plays important regulatory functions. We have previously demonstrated that leptin promotes proliferation and survival of trophoblastic cells. Moreover, leptin prevents cellular stress under hypoxic condition in trophoblastic cells. In this work we aimed to study the mechanisms that mediate the effect of leptin in placental apoptosis induced by cobalt chloride ($CoCl_2$), a hypoxia mimicking agent that stabilizes HIF-1 alpha transcription factor expression. For this study we use Swan-71 cells, a first trimester trophoblastic human cell line, cultured under standard conditions, as well as human term placental explants. Swan-71 cells and placental explants were treated with $CoCl_2$ (50 or 100 µM). The expression of HIF-1 alpha, p53, Caspase-3 and cPARP was determined by Western blot or Immunofluorescence (IF). Apoptosis was determined by DNA ladder assay in placental explants. All procedures were approved by ethical review committee at the Alejandro Posadas National Hospital. We observed that HIF-1 alpha stabilization increased DNA fragmentation in placental explants (*p<0.05). Leptin treatment blocked this effect (#p<0.05 relativized to control treated with $CoCl_2$). On the other hand, treatment with $CoCl_2$ increases clivated PARP and Caspase-3 levels in a dose-dependent manner indicating that apoptosis was induced (**p<0.01). Moreover, p53 protein expression, a key regulator of apoptosis pathway, was enhanced by hypoxic condition (**p<0.01). We also observed that HIF-1 alpha stabilization increased nuclear p53 localization. All these results suggest that HIF-1alpha stabilization enhances placental apoptosis and leptin is capable to protect these cells under hypoxia conditions.

## 0374 - PREVALENCE OF ESCHERICHIA COLI AND ANALYSIS OF VIRULENCE FACTORS IN ENDOCERVICAL CULTURES FROM PREGNANT WOMEN.

**Maria Lujan SCALISE** (1) | Patricia LEONINO(2) | Adriana PEREYRA(2) | Roberto CASALE(2) | José A. FERREIROS(2) | Flavia SACERDOTI(1) | Cristina IBARRA(1)

**LABORATORIO DE FISIOPATOGENIA, IFIBIO-HOUSSAY (UBA-CONICET) (1); DEPARTAMENTO DE OBSTETRICIA, HOSPITAL NACIONAL "PROFESOR ALEJANDRO POSADAS" (2)**

Presence of E. coli in the endocervical microbiome has been associated to pregnancy complications. We have previously reported that Shiga toxin (Stx) producing E. coli (STEC) infections during pregnancy may cause maternal or fetal damage mediated by Stx2 in rats in early stage of gestation. Moreover, Stx2 inhibits migration, invasion and cell viability in extravillous trophoblast human cells of first trimester. Therefore, we propose to study the presence of STEC in female genital tract in the pregnant women since might be risk factor during gestation. Our objective was to identify different virulence factors of STEC cultures of endocervix of pregnant women. Endocervical swabs from 103 asymptomatic pregnant women with gestational age of 14 to 30 weeks from the National Hospital Posadas were enrolled. Samples were enriched in Tryptic Soy Broth and sub-cultivated on sorbitol-MacConkey (SMAC) agar in order to detect no sorbitol fermenting colonies, characteristic of STEC. Genomic DNA was purified from colonies and the presence of the uidA gene, exclusive for E. coli was analyzed by polymerase chain reaction (PCR). Positive colonies for uidA were checked for rfbO157, lpfAO113, hcp, eae, stx1, stx2-2a genes. STEC strains positive for stx2 genes were also cultured in the presence of mitomycin C (2 µg/ml) to evaluate expression of Stx2 by viability assays on Vero cells. The PCR results showed that 16/103 samples were positive for SMAC agar and 15/103 were positive for the uidA gene. Furthermore, 6/15 E. coli expressed lpfAO113 and hcp, and 9/15 E. coli expressed stx2 being only one sample positive for stx2a variant. All of them were negative for rfbO157, eae and stx1 genes. One STEC strain positive for stx2 gene showed cytotoxic effects even in absence of mitomycin C. These results suggest that STEC strains could colonize the endocervix of pregnant women

## 0405 - VASOACTIVE INTESTINAL PEPTIDE (VIP) AS AN OVARIAN PROTECTOR: PREVENTION AGAINST PREMATURE OVARIAN FAILURE DURING CHEMOTHERAPY

**Yamila HERRERO** (1) | Leopoldina SCOTTI(1) | Gonzalo OUBIÑA(1) | Natalia PASCUALI(1) | Rossana RAMHORST(2) | Claudia PÉREZ LEIROS(2) | Dalhia ABRAMOVICH(1) | Fernanda PARBORELL(1)

**INSTITUTO DE BIOLOGÍA Y MEDICINA EXPERIMENTAL (IBYME-CONICET) (1); INSTITUTO DE QUÍMICA BIOLÓGICA DE LA FACULTAD DE CIENCIAS EXACTAS Y NATURALES (IQUIBICEN) (2)**

The ovary, in addition to its endocrine and intraovarian control, is regulated by direct neural inputs of peptidergic nature. Vasoactive intestinal peptide (VIP) was originally isolated from the small intestine and lung tissues and plays an important role in ovarian function. Previous studies have found VIP immunoreactivity in ovarian follicles. The objective of this study was to determine the effect of VIP on ovarian function in a doxorubicin (DX) induced-premature ovarian failure (POF) murine model. To induce POF, DX 10 mg/kg, i.p. was applied in F1 mice (C57XBalbC 8 weeks old) on day 1. Control and DX mice underwent sham surgery and received an intrabursal injection of saline solution on both ovaries, while DX + VIP groups received either 1 µl or 10 µl VIP 1 µM 1 h prior to DX administration. Sacrifices were made at day 15. The ovaries were isolated for histological analysis and protein extraction for Western Blot assays. For all data analysis ANOVA followed by Tukey test were performed. An ovarian morphological analysis showed that DX decreased the % of primary (PriF), preantral (PF) and early antral follicles (EAF), and increased the % of atretic follicles (AtrF) ($p<0.05$). VIP (1 µl) increased the % of EAF and decreased the % AtrF. However, the highest dose of VIP (10 µl) increased the % of PriF, PF and EAF, and decreased the % of AtrF compared to DX ($p<0.05$). These results were corroborated by IHC for Anti-Müllerian Hormone (AMH), where it was found that DX reduced the % of follicles expressing AMH, while VIP (both doses) increased it ($p<0.001$). DX increased the apoptotic index (cleaved caspase-3-positive follicles/total follicles) in follicles, compared to control ($P<0.01$). VIP (both doses) protected follicles from this increment. In conclusion, VIP might be a promising strategy to protect female fertility in cancer patients. Further studies on VIP effects on female reproduction in chemotherapy-induced POF and on the safety of use of this peptide are required.

## 0443 - CANNABINOID RECEPTOR 1 (CB1) IS INVOLVED IN PRETERM BIRTH INDUCED BY LPS

**Carolina MARVALDI** | Julieta SCHANDER | Julieta AISEMBERG | Fernanda DE LA CRUZ | Ana María FRANCHI | Manuel Luis WOLFSON

**CEFYBO, UBA**

Endocannabinoid system (ECs) is one of several signaling pathways implicated in maternal-fetal interface, and endocannabinoids are implicated in different aspects of physiopathology of reproduction. Preterm birth (PTB) is the leading cause of mortality and morbidity in neonates. It is well known that premature deliveries are mainly associated with infectious process. In mice, it has been shown that one of the major causes of PTB is premature decidual senescence,