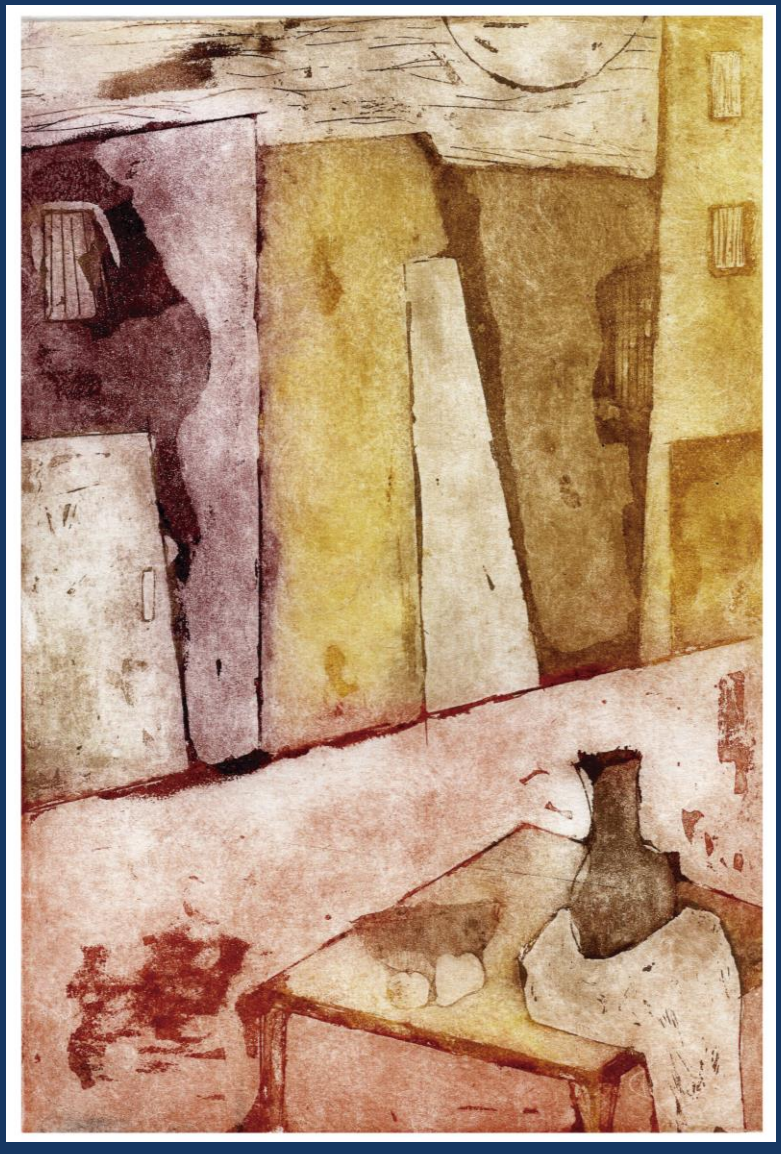
2019

medicina

BUENOS AIRES VOL. 79 Supl. IV - 2019

80° Aniversario



MEDICINA

Volumen 79, Supl. IV, págs. 1-338

medicina

BUENOS AIRES, VOL. 79 Supl. IV - 2019

COMITÉ DE REDACCIÓN

MIEMBROS EMÉRITOS

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

MEDICINA (Buenos Aires) – Revista bimestral – ISSN 0025-7680 (Impresa) – ISSN 1669-9106 (En línea)

REVISTA BIMESTRAL
Registro de la Propiedad Intelectual N° 02683675
Personería Jurídica N° C-7497
Publicación de la Fundación Revista Medicina (Buenos Aires)
Propietario de la publicación: Fundación Revista Medicina
Queda hecho el depósito que establece la Ley 11723

Publicada con el apoyo del Ministerio de Ciencia, Tecnología e Innovación Productiva.
MEDICINA no tiene propósitos comerciales. El objeto de su creación ha sido propender al adelanto de la medicina argentina.
Los beneficios que pudieran obtenerse serán aplicados exclusivamente a este fin.
Aparece en *MEDLINE (PubMed), ISI-THOMSON REUTERS (Journal Citation Report, Current Contents, Biological Abstracts, Biosis, Life Sciences), CABI (Global Health), ELSEVIER (Scopus, Embase, Excerpta Medica), SciELO, LATINDEX, BVS* (Biblioteca Virtual en Salud), *DOAJ, Google Scholar y Google Books.*
Incluida en el Núcleo Básico de Revistas Científicas Argentinas del CONICET.

Directores Responsables:
Basilio A. Kotsias, Eduardo L. De Vito, Isabel Narvaiz Kantor, Guillermo B. Semeniuk

Secretaría de Redacción: Ethel Di Vita, Instituto de Investigaciones Médicas Alfredo Lanari, Combatientes de Malvinas 3150, 1427 Buenos Aires, Argentina
Tel. 5287-3827 Int. 73919 y 4523-6619
e-mail: revmedbuenosaires@gmail.com – http//: www.medicinabuenosaires.com

Vol. 79, Supl. IV, Noviembre 2019

medicina
BUENOS AIRES, VOL 79 Supl. IV - 2019

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

medicina
BUENOS AIRES, VOL 79 Supl. IV - 2019

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

LA TAPA

Antonella Ricagni. **Atardecer en la calle**

Técnica: Aguatinta /aguafuerte. Año 2011. Medidas: 21 x 29 cm. Gentileza del autor.

Antonella Ricagni es Licenciada en Artes Visuales, con orientación en Grabado. Ha ejercido la docencia en Artes Plásticas en el nivel primario. Trabajó en varios museos como orientadora de sala y tallerista. Es escenógrafa egresada de la Escuela Metropolitana de Arte Dramático (EMAD). Ha realizado una residencia artística en México especializada en Xilografía.

Actualmente es docente en la materia Ilustración, en la carrera de Diseño Gráfico en la Facultad de Arquitectura, Diseño y Urbanismo, Universidad de Buenos Aires, y en Plástica y Tecnología en varias instituciones educativas en la ciudad de Buenos Aires.

Fuentes: https://www.behance.net/antoricagn37bb
https://www.linkedin.com/in/antonella-ricagni-4b48a0120/

COMISIONES DIRECTIVAS 2019

SAIC

Presidente
Dra. Mónica Costas

Vicepresidente
Dra. Cristina Carrillo

Secretaria
Dra. Gabriela Marino

Tesorero
Dr. Pablo Azurmendi

Prosecretaria
Dra. María Laura Ruiz

Vocales
Nodo FCEN
Dra. Geraldine Gueron
Nodo FFyB
Dra. Mariel Nuñez
Nodo Facultad de Medicina
Dr. Guillermo Keller
Nodo NCO
Dr. Carlos Laino
Nodo Región Sur
Dr. Ezequiel Lacunza
Nodo IByME-INGEBI-UCA
Dra. Flavia Saravia
Nodo INFICA
Dr. Marcelo Choi
Nodo Hospital de Clínicas
Dra. Florencia Giliberto
Nodo CEDIE
Dra. Mariana Tellechea
Nodo Hospital Garrahan
Dra. María Foncuberta
Nodo Academia Nacional de Medicina
Dra. Stella Ranuncolo
Nodo CEFYBO
Dr. Fernando Correa
Nodo Roffo
Dra. Mariana Callero

Revisores de Cuentas
Dra. Graciela Cremaschi
Dra. Andrea Randi

Secretaria Administrativa
Ivana Rossetto

SAFE

Presidente
Dr. Ana Genaro

Vicepresidente
Dr. Carlos Reyes Toso

Secretaria
Dra. Gabriela Acosta

Tesorera
Dra. Miriam Wald

Vocales
Dr. Santiago Daniel Palma
Dr. Ventura Simonovich
Dra. Lucía Fuentes

Revisores de cuentas titulares
Dra. Graciela Balerio
Dra. Wanda Novak

Revisores de cuentas suplentes
Dra. Patricia Bonazzola
Dra. Maria Palumbo

Secretaria Administrativa
Sra. Susana Gatti Maunas

NANOMED-ar

Presidente
Dra. Hebe Durán

Vicepresidente
Dra. Romina Glisoni

Secretaria
Dra. Leticia Higa

Tesorera
Dra. Julia Altube

Vocales titulares
Dr. Eder Romero
Dra. Mariela Agotegaray

Vocal suplente
Dra. Priscila Schilrreff

Revisora de cuentas titular
Dra. Marisa Taverna Porro

Revisora de cuentas suplente
María José Morilla

SAB

Presidente
Dra. Fernanda Parborell

Vicepresidente
Dra. Débora Cohen

Secretaria
Dra. Griselda Irusta

Tesorera
Dra. Isabel Lacau

Vocales titulares
Dra. Silvina Pérez Martínez
Dra. Mónica Muñoz de Toro
Dra. Clara Marín Briggiler

Vocales suplentes
Dra. Leandro Miranda
Dr. Pablo Cética

AACYTAL

Presidente
Ernesto Gulin

Vice-Presidente
Eliana Cicale

Secretario
Gabriel Pinto

Pro-secretaria
Marina Snitcofsky

Tesorera
Graciela Lammel

Pro-Tesorero
Gustavo Chapo

Vocales Titulares
Marcelo Asprea
Federico Alloatti
Marianela Lewicki
Angelica Miranda
Adela Rosenkranz
Eduardo Caturini

Vocales suplentes
Hugo Ortega
María Ines Zerba

Revisores de Cuentas
Mónica Lamer
Mariana Ríos

SAP

Presidente
Dra. Adelina Riarte

Vicepresidente
Dra. Fernanda Frank

Secretaria
Dr. Mónica Esteva

Pro-secretaria
Dra. María Belaunzarán

Tesorera
Dra. Silvia Longhi

Pro-Tesorera
Dra. Carolina Carrillo

Vocales
Dra. Karina Gómez
Dra. Catalina Dirney Alba Soto
Dra. Silvina Wilkowsky
Dra. Vilma Duschak

Comité científico
Presidente
Guillermo D. Alonso

Vice-Presidente
Vanina Alvarez

Miembros
Javier de Gaudenzi
Alan Talevi
Karina Gomez
Marisa Fernandez
Carolina Poncini
Natalia de Miguel
Alejandro Schijman
María Victoria Cardinal

HCS

Representante
Alejandro Adams

Las Sociedades Argentinas de Investigación Clínica (SAIC), de Farmacología Experimental (SAFE), de Biología (SAB), de Protozoología (SAP), de Nanomedicinas (NANOMEDar), la Asociación Argentina de Ciencia y Tecnología de Animales de Laboratorio (AACYTAL) y la *Histochemical Society* agradecen

EL APOYO DE LAS SIGUIENTES INSTITUCIONES OFICIALES:
-Consejo Nacional de Investigaciones Científicas y Tecnológicas (CONICET)
-Ministerio de Ciencia, Tecnología e Innovación Productiva (MINCYT)
-Agencia Nacional de Promoción Científica y Tecnológica (ANPCYT)

LA COLABORACIÓN Y APORTE DE LAS SIGUIENTES INSTITUCIONES Y PERSONAS:

-Laboratorio Montpellier por su contribución con los bolsos, lapiceras y anotadores para los asistentes de la Reunión Anual de Biosociedades 2019

- Fundación Argentina de Nanotecnología (FAN) por su contribución al premio al "Mejor Trabajo en modalidad Poster" en las sesiones de Nanomedicina

- Fundación Gador por su contribución al premio "Mejor trabajo sobre necesidades médicas insatisfechas" de la SAIC

-**Fundación Honorio Bigand** por su contribución a la organización general de la Reunión conjunta, por la donación para ayuda financiera a los participantes, así como a los premios al "Investigador Joven" en área Interdisciplinaria y Oncología de la SAIC

- **Fundación Lucio Cherny** por su contribución al premio "Lucio Cherny" en temas multidisciplinarios de la SAIC

- **Sinergium Biotech** por la contribución realizada a la financiación para asistencia de participantes

- ***Universities Federation for Animal Welfare (UFAW)*** por la colaboración en la confección de *workshops* con AACYTAL

- *The Company of Biologists* (COB) por su contribución a la organización general de la Reunión conjunta

- Sra. Ivana Rossetto, Sr. Luis Gordillo, Sr. Patricio Golato, Sr. Julián García y Srita. Camila Della Rossa.

Y LA CONTRIBUCIÓN DE LAS SIGUIENTES EMPRESAS:

AGRICULTURAL EXPORT, ALESCO BRASIL, ALLSCIENCE L.L.C., APBIOTECH, BIO – OPTIC S.R.L., BIODYNAMICS S.R.L., ETC INTERNACIONAL S.A., GADOR S.A., Grupo INBIO, LAB DIET, LOBOV Y CIA S. A.C.E.I., MICROLAT S.R.L., MIGLORE LACLAUSTRA S.R.L., MONTPELLIER S.A., SARTORIUS ARGENTINA S.A., TECNOLAB S.A. y THERMOFISHER SCIENTIFIC.

significant changes in mTOR and Bax protein levels between groups. In summary, dexamethasone-induced IUGR is associated with placental changes in epigenetic marks, particularly we found an increase in H3K9 acetylation. In addition, dexamethasone treatment led to a decrease in the anti-apoptotic protein Bcl2 in placentas on day 15 of pregnancy. Furthermore, signs of augmented autophagy were found in placentas at term.

0437 - ENRICHMENT OF MATERNAL ENVIRONMENT PROTECTS THE OFFSPRING THROUGH CHANGES IN THE AMNIOTIC FLUID.

Julieta SCHANDER | Fernando CORREA | Julieta AISEMBERG | Carolina MARVALDI | Fernanda DE LA CRUZ | Manuel WOLFSON | Federico JENSEN | Ana FRANCHI

CENTRO DE ESTUDIOS FARMACOLÓGICOS Y BOTÁNICOS (CEFYBO), UNIVERSIDAD DE BUENOS AIRES-CONICET

Maternal lifestyle affects both pregnancy outcome and maternal health. We previously demonstrated that the exposition to an enriched environment (EE), a non-invasive stimulus of the sensory pathway combined with voluntary physical activity, prevented from preterm birth induced by the administration of bacterial lipopolysaccharide (LPS) in a mouse model. Furthermore, mothers exposed to EE presented less perinatal death when compared to control environment (CE, standard cages) and EE also reverted some of the deleterious effects of the LPS during development. The amniotic fluid (AF) exerts several functions during pregnancy. It protects the fetuses by not only cushioning it from outside pressures but also having immunological functions. The aim of this work was to analyze physiological changes in the AF, associated to the protective effects of the EE on the offspring exposed to LPS. Animals were housed in EE (or CE) cages during 6 weeks and then mated with CE males. On day 15 of pregnancy, LPS was administered and 8h later, amniotic fluid was collected to evaluate several cytokines expression and cellular profile by flow cytometry. We found higher levels of IL-10, an anti-inflammatory cytokine, in AF from EE exposed females when compared to controls ($p<0.05$). It was not modified in any group by LPS treatment. In contrast, LPS induced a significant increase of IL-6 levels ($p<0.05$) (a pro-inflammatory cytokine) in AF from both groups. However, it was 3.6 times higher in CE exposed group when compared to EE. Furthermore, IL-22, involved in protective response against inflammation, was significantly increased by LPS in both groups ($p<0.05$), but it was 6.7 times higher in EE group. We analyzed the presence of B cells in the AF and found a higher percentage of this population in EE exposed mice compared to controls ($p<0.05$). Our results suggest that the enrichment of maternal environment modulates the AF components and response to systemic LPS-administration, protecting the offspring.

0523 - DIRECT EFFECT OF METFORMIN ON HEALTHY OVARIAN CELLS.

Candela VELAZQUEZ | Mariana DI PIETRO | Natalia PASCUALI | Fernanda PARBORELL | Dalhia ABRAMOVICH

INSTITUTO DE BIOLOGÍA Y MEDICINA EXPERIMENTAL (IBYME-CONICET)

Metformin (MET) is an oral antihyperglycemic drug introduced in the treatment of polycystic ovary syndrome (PCOS) to manage hyperglycemia. PCOS is a common disorder that affects women in reproductive age. MET improves ovulation, pregnancy and live birth rates in patients with PCOS. The mechanism by which MET of these effects are not fully understood. MET primary mechanism of action is through the activation of the AMP-activated protein kinase (AMPK), which acts as an energy sensor within the cell. The aims of the present work were to analyze a possible effect of MET on healthy rat ovary and on granulosa cells (GCs) in culture. Methods: For in vivo experiments, 21 d old female Sprague Dawley rats received MET (300 mg/kg) dissolved in the drinking water for 15 days (MET group). The control group received drinking water alone. Rats were killed on day 16 and the ovaries removed. Proteins were extracted for western blot analysis. For in vitro experiments, Sprague Dawley rats (21 d) were injected subcutaneously with diethylstilbestrol (1mg/rat) daily for three days. GCs were isolated by percoll gradient. GCs were stimulated with MET (0.01 ng/ml) with or without the organic cation transporter (OCT) inhibitor cimetidine (CIM). Cells were harvested 48 h later and proteins extracted. One Way ANOVA or t-test were used. p-AMPK was increased in the rat ovaries ($p<0.05$) and in GCs after stimulation with MET ($p<0.05$) while VEGF was decreased ($p<0.05$). Inhibition of OCTs by CIM reversed these effects ($p<0.05$ compared with MET). No changes in Angiopoietin 1 and 2 were found either in vivo or in vitro. Our results suggest that MET acts directly on ovarian cells regulating cell metabolism and VEGF expression, entering the cells through OCTs. Our findings are relevant to optimize PCOS fertility treatment and to explore direct ovarian MET actions in other female pathologies. These results provide new evidence to explain the effect of MET on infertility treatments.

0691 - ROLE OF VALOSIN CONTAINING PROTEIN (VCP/P97) IN MOUSE SPERM CAPACITATION

Martina JABLOÑSKI | Florenza LA SPINA | Clara Isabel MARIN BRIGGILER | Paula Ania BALESTRINI | Nicolás GILIO | Guillermina María LUQUE | Mariano Gabriel BUFFONE

INSTITUTO DE BIOLOGÍA Y MEDICINA EXPERIMENTAL (IBYME-CONICET)

Capacitation is a process that prepares mammalian sperm to undergo an exocytotic event called acrosome reaction (AR) which in turn, is an essential step of fertilization. The study and characterization of the proteins involved in these events is extremely important in order to understand the dynamics of the whole process. In the present work we evaluated the role of Valosin Containing Protein (VCP/p97) in mouse sperm. We found that VCP is localized in the equatorial segment and along the flagellum. In addition, we observed that VCP is cleaved and released during AR. In contrast to human sperm, VCP is not phosphorylated in tyrosine residues. To elucidate how VCP is involved in the capacitation process we used a pharmacological approach. Mouse sperm were incubated in capacitating conditions with or without VCP inhibitors. Several aspects of the capacitation such as phosphorylation of PKA substrates, tyrosine phosphorylation, AR or motility were evaluated. In these experiments, we used four VCP inhibitors: NMS-873, DBeq, CB-5083 and ML-240. By Western blot, we observed no significant differences in the levels of phosphorylation of PKA substrates. Surprisingly, we noticed that all four inhibitors completely abolished tyrosine phosphorylation although this inhibition could be bypassed by using cAMP analogs. Next, we evaluated AR using transgenic EGFP sperm and flow cytometry. We observed that the AR induced by progesterone is strongly inhibited by NMS-873. Finally, we study sperm motility using CASA with different concentrations of this inhibitor and in neither of these, the motility was significantly changed. Taken together, these results indicate that VCP plays an important role in mouse sperm capacitation and if inhibited, these cells cannot undergo AR. On the other hand, motility does not appear to be modified by VCP inhibition.

0853 - DEVELOPMENT OF A LC-MS/MS METHOD TO MEASURE SIMULTANEOUSLY 10 SEXUAL STEROIDS IN PEDIATRIC ENDOCRINOLOGY

Verónica Ana AMBAO (1) | María Eugenia RODRÍGUEZ(1) | Diego GRASSI(2) | Mercedes ALTUBE(1) | María Gabriela BALLERINI(1) | Fernando IÑÓN(2) | Ignacio BERGADÁ(1) | Rodolfo Alberto REY(1) | María Gabriela ROPELATO(1)

CENTRO DE INVESTIGACIONES ENDOCRINOLÓGICAS "DR. CÉSAR BERGADÁ" (CEDIE)-CONICET (1); JENCK (2)

Mass spectrometry (MS) allow the determination of a panel of steroids in small sample volume with superior specificity than immunoassays, important advantages in pediatric samples. To develop LC-MS/MS method to measure concomitantly Cortisol (F), Androstenedione (d4-A), Dehydroepiandrosterone (DHEA),