

medicina

BUENOS AIRES Vol. 81 Supl. III - 2021



medicina

BUENOS AIRES, VOL. 81 Supl. III - 2021

COMITÉ DE REDACCIÓN

Sebastián F. Ameriso <i>FLENI, Buenos Aires, Argentina</i>	Caroline A. Lamb <i>Instituto de Biología y Medicina Experimental (IBYME), Buenos Aires, Argentina</i>
Pablo J. Azurmendi <i>Instituto de Investigaciones Médicas A. Lanari, UBA, Argentina</i>	Oscar M. O. Laudanno <i>Instituto de Investigaciones Médicas A. Lanari, UBA, Argentina</i>
Damasia Becú Villalobos <i>Instituto de Biología y Medicina Experimental-CONICET, Buenos Aires, Argentina</i>	Isabel A. Lüthy <i>Instituto de Biología y Medicina Experimental (IBYME), Buenos Aires, Argentina</i>
José H. Casabé <i>Instituto de Cardiología y Cirugía Cardiovascular, Hospital Universitario Fundación Favaloro, Buenos Aires, Argentina</i>	Jorge A. Manni <i>Instituto de Investigaciones Médicas A. Lanari, UBA, Argentina</i>
Hugo N. Catalano <i>Hospital Alemán, Buenos Aires, Argentina</i>	Rodolfo S. Martin <i>Facultad de Ciencias Biomédicas y Hospital Universitario Austral, Buenos Aires, Argentina</i>
Eduardo L. De Vito <i>Instituto de Investigaciones Médicas A. Lanari, UBA, Argentina</i>	Viviana Ritacco <i>Instituto Nacional de Enfermedades Infecciosas ANLIS-CONICET, Buenos Aires, Argentina</i>
Laura I. Jufe <i>Hospital General de Agudos J.M. Ramos Mejía, Buenos Aires, Argentina</i>	Guillermo B. Semeniuk <i>Instituto de Investigaciones Médicas A. Lanari, UBA, Argentina</i>
Isabel Narvaiz Kantor <i>Organización Panamericana de la Salud (OPS/OMS), Argentina</i>	Oswaldo J. Stringa <i>Hospital de Clínicas José de San Martín, UBA, Argentina</i>
Basilio A. Kotsias <i>Instituto de Investigaciones Médicas A. Lanari, UBA, Argentina</i>	
Gustavo Kusminsky <i>Hospital Universitario Austral, Buenos Aires, Argentina</i>	

MIEMBROS EMÉRITOS

Héctor O. Alonso <i>Instituto Cardiovascular Rosario, Santa Fe, Argentina</i>	Christiane Dosne Pasqualini <i>Academia Nacional de Medicina, Buenos Aires, Argentina</i>
María Marta de Elizalde de Bracco <i>IMEX-CONICET-Academia Nacional de Medicina, Buenos Aires, Argentina</i>	Rodolfo C. Puche <i>Facultad de Ciencias Médicas, Universidad Nacional de Rosario, Santa Fe, Argentina</i>
Guillermo Jaim Etcheverry <i>Facultad de Medicina, UBA, Argentina</i>	La Tapa Médanos <i>Daniela Kantor</i>
Daniel A. Manigot <i>Hospital San Juan de Dios, Buenos Aires, Argentina</i>	

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

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, Isabel Lüthy

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. 81, Supl. III, Noviembre 2021

Diagramación y Diseño: Andrés Esteban Zapata - aez.sgi@gmail.com

REUNIÓN DE SOCIEDADES DE BIOCIENCIAS 2021

**LXVI REUNIÓN ANUAL DE LA
SOCIEDAD ARGENTINA DE INVESTIGACIÓN CLÍNICA (SAIC)**

**LXIX REUNIÓN ANUAL DE LA
SOCIEDAD ARGENTINA DE INMUNOLOGÍA (SAI)**

**LIII REUNIÓN ANUAL DE LA
ASOCIACIÓN ARGENTINA DE FARMACOLOGÍA EXPERIMENTAL (AAFE)**

**XI REUNIÓN ANUAL DE LA
ASOCIACIÓN ARGENTINA DE NANOMEDICINAS
(NANOMED-AR)**

17-20 de noviembre de 2021

EDITORES RESPONSABLES

Dr. Alejandro Curino
Dra. Mariana Maccioni
Dra. Paula Schaiquevich
Dra. Hebe Duran

ANNUAL MEETING OF BIOSCIENCE SOCIETIES 2021

**LXVI ANNUAL MEETING OF
SOCIEDAD ARGENTINA DE INVESTIGACIÓN CLÍNICA (SAIC)**

**LXIX ANNUAL MEETING OF
SOCIEDAD ARGENTINA DE INMUNOLOGÍA (SAI)**

**LIII ANNUAL MEETING OF
ASOCIACIÓN ARGENTINA DE FARMACOLOGÍA EXPERIMENTAL (AAFE)**

**XI ANNUAL MEETING OF
ASOCIACIÓN ARGENTINA DE NANOMEDICINAS
(NANOMED-AR)**

November 17-20, 2021

RESPONSIBLE EDITORS

Dr. Alejandro Curino

Dra. Mariana Maccioni

Dra. Paula Schaiquevich

Dra. Hebe Duran

LA TAPA

Daniela Kantor. Médanos, 2018

Técnica: Acrílico sobre cartón entelado. Medidas: 20x28 cm

Daniela Kantor nació el 23 de marzo de 1970. Es diseñadora gráfica (FADU-UBA), pintora, dibujante, historietista e ilustradora. Autora de la novela gráfica *Mujer Primeriza* (Ed. Burlesque, 2014), *Aprendiza* (2019) y *Naturella* (con guión de Arekasadaro, 2017) publicada en *Dis-Tinta* (Ed. Sudamericana, coordinado por Liniers y Martín Pérez). Con guión de Alejandro Farías dibujó *Las moradas de Santa Teresa de Jesús* en historietas (Ed. Loco rabia + CCEBA Centro Cultural de España en Buenos Aires) y *Marilyn* (*Tren en movimiento*, 2019). Es miembro de la revista de historietas "El Tripero" fundada en 1993 junto al grupo de alumnos de Alberto Breccia. En el ámbito de la enseñanza es Jefa de Trabajos Prácticos en la materia Ilustración inicial, y docente en Ilustración Editorial en la Facultad de Arquitectura, Diseño y Urbanismo FADU/UBA. Dicta talleres sobre pintura e ilustración (C C Recoleta, 2019/ Quinta Trabucco, 2020/ taller particular junto a Daniel Roldan, 2019). Es maestra de niños y niñas en Dibujo e Historieta en Escuelas primarias, talleres (Filbita, Festival de literatura de Buenos Aires, 2018-9/ CCK, 2018/ taller propio desde 2014). Estudió Dibujo de Historieta con Alberto Breccia, Técnicas de Acuarela y Pastel con Carlos Nine, charlas sobre Historieta con José Muñoz, Curso de Color con Carlos Gorriarena, Clínica de Pintura con Mariano Sapia y Tulio de Sagastizábal, y Sumi-e en el Centro Okinawense. Trabaja para editoriales y revistas con ilustraciones e historietas (Ed. Troquel, Abran Cancha, Ed. Norma, Unicef, Barcelona, Crisis, Suplemento Ñ/ Clarín, Borges en la Biblioteca Nacional- Lectores de Borges). Fue invitada a la Feria del libro de los Universitarios de UNAM para presentar el libro "Palabra de ilustrador", y en 2019 ganó la Beca UBA Internacional en el marco de un programa de intercambio docente con la Universidad Regiomontana, Monterrey, México.

Fuentes: <https://www.instagram.com/daniela.kantor.9/>; www.kantorconk.blogspot.com

ated to leukocytospermia. Our results revealed a high prevalence of CT-infection in young men from our region. Although, CT infection does not significantly impair sperm quality, men would provide a reservoir for continuous transmission of the infection.

538. (199) OXIDANT-ANTIOXIDANT MARKERS BEHAVIOR IN FOLLICULAR FLUID OF PATIENTS UNDERGOING FERTILITY TREATMENT

¹Álvarez Asensio Natalia Sofía, ²Haro Cecilia, ³Oliva Pablo, ³Delgado Cecilia, ^{1,3}Bonilla Federico
¹Inst de Biología. Chacabuco 461-²Inst de Bioquímica Aplicada. Balcarce 747. Tucumán -Fac Bqca, Qca y Fcia-UNT ³Inst de Maternidad y Ginecolog. Av Mate de Luna 1551-Tucumán nataliasofiaalvarez@gmail.com

Biochemical characteristics of the follicular fluid (FF) surrounding the oocyte may play a critical role in determining oocyte quality and their subsequent potential to achieve fertilization and embryo development. The aim was to study the modifications in redox markers in human follicular fluid and to investigate their behavior according to the number of oocytes recovered. Sixty-four infertile women aged between 23-44 years were categorized in terms of the number of oocytes retrieved as (A)lower: 0-4 oocytes, (B)intermediate: 5-8 oocytes and (C)higher: ≥ 9 oocytes. We determined, by spectrophotometric methods, a) oxidative stress markers: concentrations of malondialdehyde (MDA) and nitrite (NO₂⁻); b) antioxidant defenses: glutathione (GSH) concentration and antioxidant enzyme: superoxide dismutase (SOD), catalase (CAT), glutathione peroxidase (GPx). Statistical analyses were performed by InfoStat software and were considered significant at $p < 0.05$. MDA and NO₂⁻ levels were similar between groups studied. However, GSH and GPx values were significantly lower in the higher oocyte retrieval group compared to the other groups [GPx $\mu\text{mol}/\text{mg prot}$: A=25,7(14,8-39,5); B=27,3(15,6-38,5); C=9,9(5,8-16,4)-GSH $\mu\text{mol}/\text{mg prot}$: A=19,5(11,4-45,3); B=15,6(12,9-19,6); C=9,5(7,5-13,2)]. Positive IVF outcomes were highest when oocyte retrieval was in the range of 5-8 (with pregnancy rate 23%) compared to 0-4 and > 9 oocytes groups (with pregnancy rate 10%). These findings show the behavior of the redox state in the follicular environment according to the number of oocytes recovered, evidencing a marked imbalance in the group with the greatest recovery of oocytes which could affect the IVF outcome.

539. (213) CAPACITATION-INDUCED MITOCHONDRIAL ACTIVITY IS REQUIRED FOR SPERM FERTILIZING ABILITY IN MICE BY MODULATING HYPERACTIVATION

María Milagros Giaccagli, Matías Daniel Gómez-Eliás, Jael Dafne Herzfeld, Clara Isabel Marín-Briggiler, Patricia Sara Cuasnicú, Débora Juana Cohen, Vanina Gabriela Da Ros.
Instituto de Biología y Medicina Experimental (IByME-CONICET), Ciudad Autónoma de Buenos Aires, Argentina.

To become fully competent to fertilize an egg, mammalian sperm undergo a series of functional changes within the female tract, known as capacitation, that require an adequate supply and management of energy. However, the contribution of each ATP generating pathway to sustain the capacitation-associated changes remains unclear. Based on this, we investigated the role of mitochondrial activity in the acquisition of sperm fertilizing ability during capacitation in mice. Previously we had shown, that mitochondrial membrane potential (MMP) increases during mouse sperm capacitation and that mitochondrial activity could be associated with the maintenance of sperm motility during this process. Also, we had demonstrated that the MMP rise was prevented when sperm were exposed during capacitation to the mitochondrial uncoupler Carbonyl cyanide m-chlorophenyl hydrazone (CCCP) or the protein kinase A (PKA) inhibitor H89. In the present study we demonstrated by western blot that treatment with CCCP during capacitation did not affect the PKA substrate and tyrosine phosphorylations ($n=3$; $p > 0.05$) but produced a decrease in hyperactivation measured by CASA, similar to that observed after H89 exposure ($n > 3$; $p < 0.01$). In addition, CCCP inhibited the in vitro sperm fertilization capacity when sperm were incubated with cumulus-oocyte complexes ($n=4$; $p < 0.05$) or with *zona pellucida* (ZP) intact eggs ($n=5$; $p < 0.05$) without affecting gamete

fusion ($n=4$; $p > 0.05$) and cumulus penetration ($n=6$; $p > 0.05$), indicating that hyperactivation supported by mitochondrial function is necessary for penetration of the ZP. Finally, complementary in vivo fertilization experiments further demonstrated the fundamental role of mitochondrial activity for sperm function ($n > 4$; $p < 0.05$). Altogether, our results show the physiological relevance of mitochondrial functionality for sperm fertilization competence.

540. (254) METABOLIC REPROGRAMMING OF MONOCYTES/MACROPHAGES BY FIRST TRIMESTER TROPHOBLAST DERIVED FACTORS

Fátima Merech, Soledad Gori, Daniel Papparini, Vanesa Hauk, Rosanna Ramhorst, Daiana Vota, Claudia Perez Leiros
Universidad de Buenos Aires, Facultad de Ciencias Exactas y Naturales, Departamento de Química Biológica, Laboratorio de Inmunofarmacología. Buenos Aires, Argentina. CO-NICET, Universidad de Buenos Aires, Instituto de Química Biológica de la Facultad de Ciencias Exactas y Naturales (IQUIBICEN), Buenos Aires, Argentina.

Immune regulation during placentation is crucial for fetal growth. Loss of immune homeostasis at the maternal-fetal interface is associated with preeclampsia and fetal growth restriction. A tight interaction between trophoblast cells (Tb) and recruited monocytes and macrophages from early stages of pregnancy maintains an anti-inflammatory microenvironment. We have previously reported on soluble factors present in the conditioned media (CM) of Tb that contribute to CD14⁺ cell expression of an anti-inflammatory profile. Tb cells present high glycolysis rate with high lactate production which is known to induce tolerogenic and anti-inflammatory profiles in tumor-associated macrophages.

Our aim is to evaluate the effect of Tb derived factors on CD14⁺ cell metabolic reprogramming, focusing on glucose and fatty acid metabolism.

For CD14⁺ isolation, peripheral blood of healthy donors was processed by Ficoll-Paque/Percol. Cells were cultured or not for 5 days with M-CSF. CM was collected from human first trimester Trophoblast-derived cell line Swan-71. Phenotypic marker expression, glucose uptake with D-glucose fluorescent analog (2-NBDG) and lipid droplets with Bodipy 493/503 were analyzed by flow cytometry. Lactate production was quantified by Accutrend Plus system.

Glucose uptake by CD14⁺ cells increased upon 20 min LPS (100 ng/ml) stimulation (% of CD14⁺ 2-NBDG (Mean \pm SEM): Basal 32.9 \pm 4.1%; LPS 51.8 \pm 8.5%; $n=11$). Tb CM prevented LPS-induced glucose uptake: CM-LPS 23.7 \pm 4.5% ($p < 0.01$, ANOVA). Tb CM also inhibited the expression of proinflammatory markers such as CD86 after 18h of stimulation with LPS. 18 h stimulation with LPS induced lipid droplet accumulation in CD14⁺ cells, while Tb CM reduced lipid storage. Moreover, LPS induced the release of lactate and CM partially inhibited this effect.

Our preliminary findings indicate that Tb-derived factors induce metabolic reprogramming of CD14⁺ cells associated to inhibition of a proinflammatory phenotype.

541. (258) OVARIAN MONONUCLEAR CELLS DISTRIBUTION AND ITS INFLUENCE ON PATHOGENESIS OF BOVINE CYSTIC OVARIAN DISEASE (COD)

Antonela Stassi^{1,2}, Lucas Etchevers¹, Sofía Cainelli¹, Ayelén Amweg^{1,2}, Hugo Ortega^{1,2}, Florencia Rey^{1,2}, Natalia Salvetti^{1,2}.
¹Laboratorio de Biología Celular y Molecular Aplicada, Instituto de Ciencias Veterinarias del Litoral (ICiVet-Litoral), Consejo Nacional de Investigaciones Científicas y Técnicas, (CONICET) Universidad Nacional del Litoral, Argentina. ²Facultad de Ciencias Veterinarias, Universidad Nacional del Litoral (UNL), Esperanza, Santa Fe, Argentina.

COD results from failure in the ovulation and the study of the processes that lead to this failure and persistence of the dominant follicle in the ovary is the key to understand the pathogenesis of COD in cattle. Ovulation has been characterized as an inflammatory process and mononuclear cells (MC) participate in this process, therefore, the aim of this study was to evaluate the populations of macrophages (CD14⁺), T (CD2⁺) and B (CD79⁺) lymphocytes in ovaries