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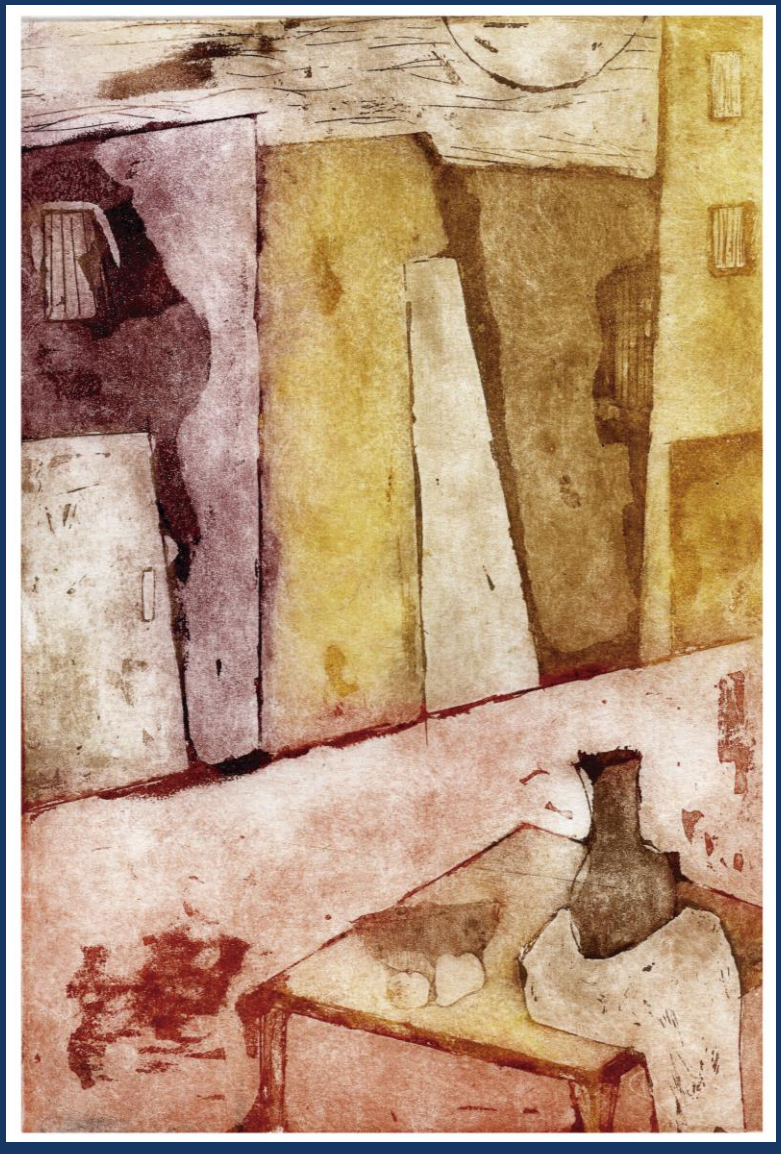

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MIEMBROS EMÉRITOS

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

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

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ANNUAL MEETING OF BIOSCIENCE SOCIETIES 2019

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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.

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we assayed individual serum to study 28 serodiscordant cases from Argentina and Mexico with borderline serology. These displayed a wide reactivity based on the number of positive peptides and quantification of signal. We observed almost complete lack of correlation between the quantitative values obtained in commercial ELISA (Wiener v4.0) and those obtained by the array. Hence, there is much room for improvement of current serological diagnosis. Based on the reactivity against 6 known antigens, we have separated these sera in three groups: one group of 17 sera reactive against several antigens; a second group of 8 sera reactive with fewer antigens and a group of 3 sera that were negative against most known antigens assayed. Using this information, we will shortlist novel antigens from the high-content screening to improve existing diagnostic kits. In this presentation we will revisit the concept of serodiscordance in the light of all new data arising from this screen.

0696 - MOLECULAR DETECTION OF TRYPANOSOMA CRUZI IN OCULAR TISSUE FROM PUTATIVE CORNEAL DONORS

Marta STARCENBAUM BOUCHEZ(1) | Elisabeth CITTADINO(1) | Gianfranco ALI SANTORO(2) | Héctor FONTANA(1) | M Susana LEGUIZAMÓN(2) | **Juan BURGOS** (2)

HOSPITAL DE OFTALMOLOGÍA SANTA LUCÍA (1); IIBIO-UNSAM (2)

Infection by Trypanosoma cruzi, the etiological agent of Chagas disease, is endemic of America where 6-8 million subjects are infected (prevalence in Argentina 3.6%). Due to heart and intestines are T. cruzi target organs, seropositive individuals are excluded as donors, whereas for kidney transplant the use of both dead and living seropositive donors to negative recipients is accepted. About cornea transplants, seropositive donors are rejected even for seropositive acceptors nevertheless WHO consensus makes general indications in which infected donors can be accepted, only in extreme cases and subject to the informed consent. This general consideration is applied for safety without having been, to date, proved the parasite presence in the transplanted tissue. Herein we analyzed ocular tissues (20 corneas and corresponding sclera rings, and 7 eye muscles) from ten deceased seropositive donors (6/4 M/F, 30-74 years old) from Argentina that were admitted consecutively at Hospital Santa Lucia in Buenos Aires, Argentina. DNA extraction was carried out by means of QIAgen (DNeasy blood and tissue kit) with a previous incubation with proteinase. DNA integrity was checked by PCR amplification of the 290bp β-actin amplicon. Presence of T. cruzi DNA was analyzed by means of PCR reactions targeted to the variable region of kinetoplastid DNA (kDNA) (primers 121 and 122) and to the nuclear satellite sequence (TCZ1 and TCZ2). Considering tissue samples, 10 % of corneas (2/20), 20 % of sclera rings (4/20), and 14.3 % of eye muscles (1/7) have positive PCR findings. From patient analysis, corneas were T. cruzi positive in 20 % (2/10) of corneas, 40 % (4/10) sclera rings, and 25 % (1/4) eye muscles. Interestingly, the two donors with positive corneas also had sclera positive findings, suggesting higher parasite burden or a special tissue tropism. This is the first report of T. cruzi presence in human cornea that bring light on the use of seropositive patients as donors.

0706 - ANALYSIS OF JOINT VARIATION BETWEEN HUMAN CASES OF TEGUMENTARY LEISHMANIASIS AND SAND FLY ABUNDANCE IN A HYPER–ENDEMIC AREA OF ARGENTINA.

Maria Cristina ALMAZAN (1) | Griselda Noemí COPA(1) | José Fernando GIL(2) | Inés LÓPEZ QUIROGA(3) | Carlos Lorenzo HOYOS(1) | Silvana Pamela CAJAL(1) | Melisa Evangelina DÍAZ FERNÁNDEZ(3) | Julio Rubén NASSER(3) | Alejandro Javier KROLEWIECKI(1) | Rubén Oscar CIMINO(1) | Jorge Diego MARCO(4) | Andrea Paola BARROSO(4)

INSTITUTO DE INVESTIGACIONES DE ENFERMEDADES TROPICALES (1); INSTITUTO DE INVESTIGACIONES EN ENERGIA NO CONVENCIONAL (2); CÁTEDRA DE QUÍMICA BIOLÓGICA. FACULTAD DE CIENCIAS NATURALES. UNIVERSIDAD NACIONAL DE SALTA (3); INSTITUTO DE PATOLOGIA EXPERIMENTAL (4)

Leishmaniases are a group of diseases caused by Leishmania parasites that are transmitted by sand fly female bite. In Argentina, the north of Salta province is a hyper-endemic area of Tegumentary Leishmaniasis (TL), being Oran department one of the most affected zones. To achieve deeper knowledge about the disease transmission in that region, we studied the joint variation of TL cases and sand fly abundance in two periurban sites of Oran. Sand fly captures were executed with CDC traps placed at the neighborhoods El Cedral (EC) (one night/sampling) and Taranto (TA) (three nights/sampling) across a year. Species identification of female sandflies was made by observation of spermatheca and cibarium. Also, the clinical information of patients diagnosed at Instituto de Investigaciones de Enfermedades Tropicales (IIET) since 1989 to 2018 was analyzed to determine the monthly mean of TL cases and the time of evolution of lesions. A total of 102 female sandflies were caught in EC neighborhood, while 1,434 in TA. The most abundant species was Nyssomyia neivai. The months with the highest proportion of gravid females were December and February for EC and TA neighborhoods, respectively ($p<0.05$). Regarding patient information, the male: female ratio was 6:1 with a median age of 32 years old. The time of evolution determined was one month. It was seen that the peak of patient cases took place in March for EC and in May for TA neighborhoods, namely three months later. This lag between gravidness period (high risk of infection) and peaks of TL cases may be explained due to the time of evolution (one month), plus an incubation period that seems to last two months. Considering the sex ratio and the productive age of patients, the transmission could have been mainly sylvatic during work activities. The analysis of joint variation allowed reaching a better characterization of disease transmission which is fundamental for designing and implementing prevention and control measures.

0732 - FIELD IMPLEMENTATION OF A 3D PRINTER BASED DNA EXTRACTION METHOD COUPLED TO LAMP FOR CONGENITAL CHAGAS DISEASE DIAGNOSIS

Diana Patricia WEHRENDT (1) | Season WONG(2) | Lizeth ROJAS PANOZO(3) | Silvia RIVERA NINA(3) | Lilian PINTO(3) | Marcelo ABRIL(4) | Daniel LOZANO(3) | Albert PICADO(5) | Joaquim GASCON(6) | Faustino TORRICO(3) | Julio ALONSO PADILLA(6) | Alejandro SCHIJMAN(1)

INGEBI-CONICET (1); AI BIOSCIENCES (2); CEADES (3); FUNDACIÓN MUNDO SANO (4); FIND (5); IS-GLOBAL (6)

Congenital Chagas disease entails the transmission of Trypanosoma cruzi infection from a mother to her child. With currently available chemotherapies, the cure rate for infected children is almost 100 % if administered early upon infection. It is therefore of great relevance to diagnose newborns on time. However, the algorithm to detect congenital T. cruzi infection involves the performance of microhematocrite or micromethod at delivery or during the first months of life and a confirmatory serology at 10 months of age. In highly endemic areas where people live far away from reference centers, many infants never go back to confirm the diagnosis and receive treatment if infected. The challenge is then to implement sensitive and rapid diagnostic techniques that can be performed in minimally equipped laboratories. At present there is a prototype loop isothermal amplification molecular test available (T. cruzi-LAMP kit, Eiken, Japan), with similar sensitivity to that of real time PCR (qPCR), but easier to use. Nonetheless, highly purified DNA is needed and obtaining it is time consuming and requires equipment unavailable in endemic regions. Thus, our aim was to couple the T. cruzi-LAMP kit to a recently developed DNA extraction device based on a low cost 3D printer (named PrintrLab), and to test its use in a hospital