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In memoriam Dr. Julia Marina Oterino

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The abstracts have been revised and evaluated by the Scientific Committee
of the Tucumán Biology Association

81.
BIOCHEMISTRY OF LOCALIZED AND GENERALIZED AGGRESSIVE PERIODONTITIS
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Aggressive Periodontitis (AP) appears early in life and is classified into Localized (LAP) and Generalized (GAP) Periodontitis. The aim of this work was to determine biochemical characteristics in gingivocrevicular fluid (GCF) of patients with Localized and Generalized Aggressive Periodontal Disease. We worked with 41 individuals that attended the Dental School, UNT, 21 with LAP and 20 patients with GAP, aged between 21 and 35. Twenty individuals without periodontal disease belonging to the same age group were used as the control group. Periodontal diagnosis was made by a single calibrated examiner and included: plaque index (Silness & Loe), gingival index (Loe & Silness), in-depth-probing, insertion level and bleeding on probing. The inclusion criteria were: absence of systemic diseases, previous periodontal therapy and neither anti-inflammatories nor antibiotics on the last 6 months. GCF samples were taken from 6 sites of the buccal cavity with absorbent paper. The chemical determinations were: Aspartate Amine transferase (AST), Lactate Dehydrogenase (LDH) and Alkaline Phosphatase (AP) (Wiener kit). For LDH and AST statistically significant differences were observed (p<0.001) between periodontitis and the control groups. AP showed significant differences (p<0.005) between LAP, GAP and the control groups. Biochemical analysis of the GCF would allow the characterization of Localized and Generalized Aggressive Periodontitis. Through the determination of AP, controls could be distinguished from the disease groups, and with LDH and AST determinations both AP types could be differentiated.

82.
COMPARARTIVE STUDY OF THE EFFECT OF RINSES ON SALIVARY PARAMETERS
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The use of mouthrinses favors the integrity of hard and soft tissues in the buccal cavity. Little is known about their action on important remineralization ions as well as on salivary proteins. The aim of this work was to compare the *in vitro* effect of two buccal rinses on components of non stimulated saliva. Ten healthy individuals with good buccal health and without drug treatment were selected. Total saliva was obtained by salivation, centrifuged to 10000 rpm and conserved at 5ºC. The active principles of the rinses were sodium fluoride and chlorhexidine digluconate. Distilled water was used as control. Equal volumes of each rinse and saliva were incubated at 37ºC with agitation for 1, 5, 10 and 15 min. Then they were centrifuged and calcium and phosphorus ((Wiener-Lab), total proteins (Lowry's method), amylase (Wiener-Lab) were quantified. Data were analyzed by ANOVA. Calcium did not show significant differences (p>0.05) between the control and the rinse with fluoride, whereas the rinse with chlorhexidine showed differences (p<0.05) at 10 and 15 min with respect to the control. Phosphorus showed a significant diminution (p<0.05) at 15 min with respect to the control for the rinse with fluoride. Proteins showed differences (p<0.05) with both rinses, a noticeable diminution occurrring at 5 min. Amylase did not show significant differences (p<0.05) between any of the groups. The chloride of the bisguanide would fix calcium, as well as fluoride complexes would tramp salivary phosphates. Both principles would precipitate proteins.

83.
INFLUENCE OF CALCIUM CHLORIDE ON CELLULAR POLARITY OF *Aspergillus niger* MYA 135
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Introduction: The hypha is a tubular cell whose shape is conserved thanks to the cell wall, the site of various enzymatic activities. In this connection, the wall lytic enzyme β-N-acetyl-D-glucosaminidase can be used as a biomarker of hyphal morphology. The stimulating effect of calcium on this activity was reflected by an increase in of mycelium ramification and by the presence of abundant bulbous cells. Thus, the loss of cellular polarity could be the result of a weakened cell wall. **Objective:** To determine if cellular polarity is restored in a high osmolarity medium. **Materials and Methods:** The mycelium developed in mineral medium at 30ºC was considered as standard. The morphological changes were examined in mycelium obtained in the presence of $CaCl_2$ with and without the addition of NaCl as an osmotic stabilizer. **Results and conclusion:** No bulbous cells were observed in medium supplemented with 1.5 M NaCl, suggesting the presence of a weakened cell wall.
This work was partially supported by grants PICTO-UNT 761 and PIP 6062 (CONICET).

84.
EVALUATION OF A PROINFLAMMATORY STATE IN TYPE 2 DIABETES PATIENTS
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Type 2 diabetes (DT2) is associated with a precocious and accelerated atherosclerosis (ATH). The begininng of ATH involves an endothelial activation and a subclinic inflammatory state. Our aim was to evaluate markers of both events in DT2 patients and their relationship with other cardiovascular risk factors. Forty patients with DT2 aged 48.7±11.2 yr, evolution of 3.7±2.6 yr, with no clinical evidence of vascular disease were studied. sE-Selectin (sE-S), VCAM-1 and von Willebrand Factor (vWF) were determined as activated endothelium markers and hCRP, fibrinogen (Fb) and white globules recount (WGR) as inflammation markers. The values obtained in diabetic and control groups were: sE-S (86.±39.8 vs 60.8±19.8 ng/ml, p=0.016); VCAM-1 (810±208 vs 633±45 ng/ml, p=0.006); vWF (112±13 vs 93±10 UI/dl, p=0.006); hCRP (5.3±3.0 vs 3.1±1.0 mg/l, p=0.02); Fb (308±74 vs 251±34 mg/dl, p< 0.001) and WG (7808±1869 vs 6360±655/ul, p=0.02). In DT2 patients we found a good correlation between sE-S and hCRP (r=0.449); Fb (r=0.423); WG (r=0.439), while vWF was correlated with hCRP (r=473). These results suggest the existence of a subclinic inflammatory state as an endothelial dysfunction. Also, high sE-S and VCAM-1 levels in diabetics with increased waist circumference show the relevance of abdominal obesity as a cardiovascular risk factor.