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**ABSTRACTS**

PS2-12

EPR ON COMPLEXATION OF  $\text{Cu}^{2+}$  WITH TRSS-1, A NEW  
SPASMOGENIC PENTADECAPEPTIDE. L.M. Beltramini,  
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The plasma of renal hypertensive rats contains trypsin releasable spasmogenic substances (TRSS) 2-3 times more than plasma from normal rats. It was isolated from TRSS, after several chromatographic systems including HPCL, seven chromatographic species that have slow contracting activity on the isolated guinea pig ileum and this differ from other spasmogenic substance described in the literature (Hypertension 7: 244-252, 1984; Adv.Exp.Biol.Med. 198B: 289-296, 1986). One of these peptides was purified and sequenciated. The structure of TRSS-1 is: Ser<sup>1</sup> - Ile<sup>2</sup> - His<sup>3</sup> - Thr<sup>4</sup> - Leu<sup>5</sup> - Phe<sup>6</sup> - Gly<sup>7</sup> - Asp<sup>8</sup> - Lys<sup>9</sup> - Leu<sup>10</sup> - Cys<sup>11</sup> - Ala<sup>12</sup> - Ile<sup>13</sup> - Pro<sup>14</sup> - Lys<sup>15</sup> (presented in VI Congress PAABS, Abstracts, 207, 1990, SP-Brazil). TRSS-1 was synthesized and now we report the studies about the interaction with  $\text{CuCl}_2$ . The preliminary results of TRSS-1- $\text{Cu}^{2+}$  shows: a) increased of 5 times in activity on the isolated guinea-pig ileum than TRSS-1 without  $\text{Cu}^{2+}$ ; b) studies on EPR (Electronic Paramagnetic Ressonance) shows only one site of  $\text{Cu}^{2+}$  complexation with TRSS-1 where at least 3 (possible 4) nitrogene ligands participate. These nitrogene probably are the amine terminal from Ser, amide group from Ser-Ile and Ile-His, and the imidazolic group of His. The EPR parameters of the complex are  $g_{\parallel} = (2.2245 \pm 0.0005)$ ,  $g_{\perp} = (2.0554 \pm 0.0005)$   $A_{\parallel} = (193 \pm 4)$  gauss  $a_N = (15 \pm 2)$  gauss and the symmetry is square planar.

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| <b>Campo</b>      | <b>Dado</b>                                                                         |
|-------------------|-------------------------------------------------------------------------------------|
| *****             | Documento 1 de 1                                                                    |
| No. Registro      | 000816634                                                                           |
| Tipo de material  | TRABALHO DE EVENTO-RESUMO - NACIONAL                                                |
| Entrada Principal | Beltramini, Leila Maria                                                             |
| Título            | Epr on complexation of 'CU POT.2+' with trss-1, a new spasmogenic pentadecapeptide. |
| Imprensa          | Guarujá, 1990.                                                                      |
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| Assunto           | RESSONÂNCIA MAGNÉTICA NUCLEAR                                                       |
| Autor Secundário  | Izumi, C. (*)                                                                       |
| Autor Secundário  | Greene, Lewis Joel                                                                  |
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| Autor Secundário  | Nascimento, Otaciro Rangel                                                          |
| Autor Secundário  | International Symposium on Crystallography and Molecular Biology (1990 Guaraja)     |
| Fonte             | Abstracts, 1990                                                                     |
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