



## ORAL PRESENTATION ABSTRACT

### 3.6. "Staining Technique of White Matter Tracts for Cold Temperature S10 Plastination". "Técnica de Tinción de Tractos de Sustancia Blanca para Plastinación S10 a Temperatura Fría".

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**Introduction:** The neuroscience field has grown exponentially in the last 30 years. Over the same period, plastination has taken an active role in providing authentic teaching models to ensure the highest quality learning for students. Many scientists have successfully utilized staining techniques to identify gray matter structures within the nervous system. Prior attempts to stain white matter tracts have not yielded quality stained specimens. This investigation used a modified staining technique to stain white matter tracts in the human brain. **Material and Method:** Three 10% formalin-fixed normal human brains were obtained from the University of Toledo College of Medicine Body Donor program. They were prepared and dissected utilizing the Klingler protocol. Once dissected, two different histological stains (New Myelin Silver and Luxol FastBlue) were applied by brush to the isolated association and commissural tracts prior to cold-temperature acetone dehydration. The brains were then plastinated by the Von Hagens cold-temperature S10 technique. **Results:** The use of the novel white matter staining method produced high quality human brain specimens that identified the association and commissural tracts.

#### References:

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