

**Katie Gallup:** In the summer of 2004, I was given the opportunity to conduct research in the Physical Anthropology Lab in the Cleveland Museum of Natural History. This opportunity was provided to me by the Summer Program for Undergraduate Students (SPUR) through the Department of Biology at Case, with funding provided by the Michelson-Morley Foundation. My research centered on determining if the fusion order of the apophyseal rings of vertebral bodies could explain the distribution pattern of Schmorl's nodes. Before this research experience I did not even know what a Schmorl's node was. My research advisor, Dr. Bruce Latimer, suggested this topic and gave me the appropriate direction. A Schmorl's node occurs when the nucleus pulposus of the intervertebral disk herniates into one of the adjoining vertebral bodies. Because this leaves a distinctive mark on the endplate surface, past researchers, namely, Dr. Latimer and Dr. Robert Mensforth, have been able to document the distribution of these nodes in the skeletons of the Hamann-Todd Osteological Collection housed in the physical anthropology lab. An unexpected result of this research was that at and above the vertebral level of T11, the inferior endplate was more frequently affected, while below the vertebral level of T11, the superior endplate was more frequently affected. A suggested hypothesis was that this difference could be related to the apophyseal fusion order. I looked at 131 human specimens from the Hamann-Todd Collection of adolescent skeletons between the ages of 14 and 25. I documented the amount of apophyseal ring fusion on a numerical scale and totaled the results of all individuals. My results did not correlate with the pattern we see in Schmorl's nodes, ruling out the hypothesis that the time of fusion is related to the frequency of Schmorl's nodes at that location.

I greatly enjoyed the opportunity to work with the museum's resources as well as being able to interact with other individuals that use this resource. I was able to take research for a test drive and determine that it was something I could easily be involved with for the rest of my life.