



The MBX / Muscle Pathology Consultation **does not** include electron microscopy (EM) on muscle biopsy specimens. The Muscle Biopsy Laboratory has extensive experience reading many thousands of muscle biopsies over the history of the laboratory, where no fewer than 1,500 muscle specimens per year are interpreted. With that expertise, the myopathologists' interpretation of the standard panel of 14 different histochemical reactions (routinely performed in the MBX consultation), and the additional immunohistochemical studies (performed at the myopathologist's discretion), there is sufficient information for a clinical muscle biopsy interpretation. These data allow prediction of EM findings; therefore, a muscle biopsy can be well evaluated for diagnostic purpose without an EM study.

In addition, performing EM dramatically increases the cost of the specimen evaluation due to the time required for specimen preparation and thick sectioning of at least 20 blocks of tissue (changes can be very patchy), screening and identifying targets for thin sectioning, and staining and examination of the thin sections. Moreover, any variation in sample preparation for EM can lead to major artifacts. While the EM study of other tissues can be highly informative, this is not true for skeletal muscle. EM continues to have a research role in selected muscle diseases.