	shCTRL	shMLCK
Total # of myelin profiles	60	31 <sup>+</sup>
Normal profiles	49 (82%)	17 (55%)
Abnormal profiles	11 (18%)	14 (45%)¶
Inclusion bodies and/or	6 (10%)	5 (16%)
myelin ovoids		×
Outpocketing and/or myelin	7 (12%)	6 (19%)
whorls		
Compaction defects*	0 (0%)	5 (16%)
Thin or uneven myelin*	2 (3%)	7 (23%)
SC with swollen ER*	1(2%)	4 (7%)

## Ultrastructural characterization of myelinating cocultures abnormalities

A total of 55 (shCTRL) and 74 (shMLCK) high magnification fields (10,500X) were scored for the presence of myelin. Cultures treated with shMLCK had significantly less myelinated axons (+) with a larger proportion of them exhibiting various morphological defects ( $\P$ ). Some abnormalities (\*) such as thin myelin and swollen ER were more commonly found in shMLCK cultures, while compaction defects were seen only in shMLCK-treated cultures.