PURPOSE: To assess the role of "melanoma inhibitory activity" (MIA) as a potential serum marker for screening and detection of metastatic uveal melanoma. DESIGN: Prospective, clinical study. MATERIAL AND METHODS: Serum samples of 305 patients with uveal melanoma were collected. Serum samples were analysed by a one-step enzyme-linked immunosorbent assay (ELISA) to quantify the MIA serum levels. All patients underwent a standardized echography of the globe to evaluate maximum tumour height and were checked for systemic metastasis of the tumour by liver enzyme tests and ultrasonography of the liver.

RESULTS: Twenty patients (6.6%) had proven metastatic disease; eight of them developed it during follow-up. The mean serum concentration of MIA in the 285 patients without metastasis was 6.72 ng/ml, whereas the mean serum concentration of MIA in the 20 patients with metastasis was 13.03 ng/ml (P<0.001). The eight patients who developed metastatic disease during follow-up showed an MIA of 5.92 ng/ml before detection of metastasis and 12.21 ng/ml afterwards (P<0.001). MIA serum levels did neither correlate with the tumour height or to whether local therapy had been applied.

CONCLUSION: The elevation of MIA serum levels in patients with metastatic disease from melanoma supports its promising role as a serum marker for monitoring patients with...
uveal melanoma.