

Epiretinal membrane removal with ILM peeling

Schumann *et al* assessed the selectivity of brilliant blue G (BBG) staining by analysing the morphological components of unstained and stained tissue obtained during epiretinal membrane removal with internal limiting membrane (ILM) peeling in 26 BBG-assisted vitrectomy operations. The dye was injected into the fluid-filled globe. The staining characteristics were assessed by the surgeon. The unstained tissue was removed as a first step. This was followed by reinjection of a few drops of BBG. In a second step, tissue stained with BBG was removed. The first surgical specimen of all eyes showed absence of intraoperative staining with BBG and corresponded to masses of cells and collagen. The second surgical specimen demonstrated staining characteristics and corresponded to the ILM in all patients. The authors concluded that BBG selectively stained ILM. **See page 1369**

Colour discrimination on Mt Everest

Willmann *et al* investigated changes in colour discrimination as a result of chronic hypoxic exposure induced by extreme altitudes (above 8000 m) during an expedition to Mount Everest by two male participants (four eyes) using a quantitative, computer controlled psychophysical colour vision test (modified version of the Cambridge Colour Test). The tests were carried out over a period of 54 days at altitudes ranging from of 1300 m to 8000 m. They observed rise of colour discrimination thresholds, predominantly for the tritan (blue) axes, in both observers with increasing altitude. Deutan (green) thresholds were minimally elevated at high altitude, whereas protan (red) was altered in one observer. Tritan colour

discrimination thresholds decreased as a function of time spent at a given altitude and normalised upon return to low altitude. **See page 1393**

Mycophenolic acid suppresses in vitro proliferation of human pterygium and normal tenon fibroblast

Amer *et al* investigated antifibrotic effects of mycophenolic acid (MPA) on pterygium fibroblasts and tenon fibroblasts with and without stimulation with basic fibroblast growth factor. They also compared the efficacy of MPA with mitomycin (MMC) and dexamethasone (DXM). They observed that MPA showed a concentration-dependent inhibition of proliferation of pterygium fibroblasts and tenon fibroblasts. The antiproliferative effect of MPA was comparable with that of MMC and DXM. They conclude that further investigation is warranted before MPA replaces MMC in clinical applications. **See page 1373**

Cross-linked actin networks in lamina cribrosa cells

Job *et al* determined F-actin staining patterns in the cells of the lamina cribrosa (LC) of normal, DXM (DEX)-treated and glaucomatous dissected tissue and cell cultures. Tissue samples were exposed to 1×10^{-7} M DEX for up to 14 days. After staining with Phalloidin-Alexa 488 samples were examined by confocal or epifluorescent microscopy. They observed dominant actin arrangement of stress fibres bundles in the LC tissue and LC cell cultures. Cross-linked actin networks were markedly increased by steroid treatment and were particularly large and abundant in cultures from glaucoma

donors. The authors conclude that cross-linked actin networks may have a role in glaucoma pathology. **See page 1388**

Disrupted circadian rhythm in children with optic nerve hypoplasia

Rivkees *et al* assessed the incidence and nature of sleep-wake abnormalities in 23 children with optic nerve hypoplasia using actigraphy. Sufficient data were obtained on 19 children. They observed normal rest-activity patterns in 13 children (68%). Of the six children (32%) with abnormal rhythmicity, three had fragmented sleep, one had free-running rest-activity cycles and two were arrhythmic. Abnormal rest-activity rhythmicity was associated with severe vision impairment, abnormal pupillary responsiveness, developmental delay, and multiple hormonal deficiencies. **See page 1358**

24-h ocular perfusion pressure in POAG

Costa *et al* compared the 24-h intraocular pressure, blood pressure (systolic and diastolic), and perfusion pressure of 29 primary open-angle glaucoma patients and 24 healthy individuals (measurements every 2 h, starting at 08:00 until 06:00 of the next morning). They observed that the mean SBP was significantly higher in primary open-angle glaucoma patients from 04:00 to 10:00, and also at 14:00 and 18:00. DBP was significantly higher at 08:00 and 10:00, but was significantly lower at 04:00. The authors conclude that despite distinct diurnal perfusion pattern in glaucoma patients, further studies are warranted to investigate the importance of 24-h perfusion pressure as a risk factor for glaucoma progression. **See page 1291**