The first day saw Professor Derek Knottenbelt present two ‘State of the Art’ lectures on ocular neoplasia. In the first, he outlined the pathobiology, diagnosis and management of common and less common tumours of the adnexa, eye and orbit. Professor Knottenbelt’s ability to draw on a large and challenging caseload and his engaging lecturing style allowed his audience fascinating and enlightening insight into his personal experience of the optimal management of what are some of the most difficult clinical problems likely to be experienced in equine ophthalmic practice. In the second lecture he reviewed current best practice in the treatment of periorbital sarcoids, a subject which he has effectively made his own over the last 20 years.

The later part of the morning was taken up with the presentation of Abstracts and Case Reports. Drs. Riccardo Stoppini and Ann Dwyer described the use of sliding blepharoplasty techniques for lower lid reconstruction following marginal SCC excision. Both authors demonstrated that, with planning, this somewhat sidelined technique can result in excellent cosmesis and function in selected cases. Dr. Wendy Townsend described the results of a study examining dorsotemporal aqueous shunt placement in normal eyes, concluding that despite histological evidence of fibrosis around the shunts, IOP was reduced for up to 4 weeks, and suggested this technique could be developed as a viable option in the management of glaucoma in horses. Dr. Elizabeth Giuliano described an unusual case of nasolacrimal duct obstruction in a mature TB gelding, arising as a complication of the relatively common condition of nasofrontal suturitis. Dr. Ann Gemensky-Metzler then presented the results of a study revisiting the use of semiconductor diode laser transscleral cyclophotoagulation (TSCP) in the treatment of glaucoma, concluding that currently recommended TSCP protocols can result in collateral geographic injury to the iris and iridocorneal angle in some buphthalmic globes. Dr. Richard McMullen presented his results on streak retinoscopy in 461 horses, identifying approximately 50% of the horses examined as being emmetropic, with 47% of the examined horses being astigmatic. Significant breed and sex differences in the incidence of ametropia in the population examined was reported, but the significance of this and other refraction anomalies on performance remains unknown. Dr. Amber Labelle presented the early results of a multicentre study of Equine Intraocular Melanocytic Neoplasia (EIMN), identifying a low incidence of multicentric disease in the patients included in the study. Treatment options for EIMN were not discussed. However following this presentation Professor Dennis Brooks described the successful use of an Argon laser, directed periliminally to disrupt local blood supply, to trigger reduction in size of iridial melanomas in two horses, pointing towards this technique as a novel non-invasive treatment of EIMN.

Professor Brooks then reprised his interest in surgical complications and long term outcomes by describing two instances where unanticipated difficulties were encountered during phaco surgery; namely abnormally ‘viscous’ subcapsular cortex, and dense vitreal opacity the extent of which had not been appreciated on the presurgical US. Both of these complications compromised the surgical outcome. His colleague Dr. Carolyn Plummer then described unusual and asymmetric ophthalmoscopic pathology in the fundi of a TB yearling, resulting in vision loss. The case highlighted the ongoing difficulties clinicians have with diagnosis and prognosis of fundic disease. Dr. Richard McMullen presented an interesting neuro-ophthalmological case involving unilateral blindness and bilaterally unresponsive dilated pupils. This case highlighted the challenges involved in the diagnosis of pathology involving central visual pathways.
Continuing on the theme of diagnostic difficulties in neuro-ophthalmic cases Professor David Whitley ended the day with description of unilateral blindness in a 7yo Quarter Horse consequent upon E. Coli meningitis, thought to have arisen due to hematogenous spread from a nasal abscess.

The second day began with Professor Brian Gilger describing the results of Two Step Penetrating Keratoplasty (TSPK) to treat small (<6mm) deep fungal stromal abscesses in 5 horses, indicating that this modification of the PK procedure may minimise graft complications and that the use of a conjunctival pedicle flap appeared to decrease postoperative complications. Dr. Mary Utter then presented the results of a novel collaborative study into the incidence of limbal SCC in an extended family of American Haflinger horses, concluding that the breed is overrepresented in the general patient population and providing initial indication of familial linkage within this breed with the development of limbal SCC.

Dr. Dennis Brooks next demonstrated the remarkable reduction in postsurgical corneal opacity occurring with time in eight horses following, mainly, DLEK surgery. He then went on to encourage the audience to become more proactive in case follow up, particularly in relation to long term cosmesis and visual function. Dr. Richard McMullen then described successfully carrying out PLK and DLEK procedures in four standing sedated horses, suggesting this approach is feasible in selected cases in a controlled clinical environment. Dr. Thomas Lannouis was unable to be present at the meeting and his presentation of a suspected IMMK case was given by Professor Brian Gilger. The case involved recurring episodes of stromal oedema, initially responsive to CA and corticosteroid therapy, but which was ultimately treated by superficial keratectomy during a quiescent period. Histology showed only limited inflammatory changes in the keratectomy sample. Continuing on the enigmatic nature of presumptive IMMks, Dr. Maria Kallberg described a case where IMMK-like disease had resolved after ulcerative keratouveitis had developed, possibly associated with topical Tacrolimus therapy. Dr. Kallberg also indentified two earlier cases where IMMK had resolved following severe ulceration or abscessation, provoking some discussion of the immune consequences of acute inflammatory disease on the equine cornea.

As the Keynote Speaker at their fourth annual Symposium, IEOC was pleased to welcome Mr. Sathish Srinavasan, a physician ophthalmologist and specialist corneal surgeon, who gave two brilliantly illustrated and thought provoking lectures. The first of these was on recent advances in the medical management of ocular surface and corneal disease, including the use of limbal stem cell transplants and the withdrawal from use in people of previously standard topical medications because of their now known epitheliototoxic properties. His second lecture described the historic evolution of corneal transplantation techniques, and went on to describe the now state-of-the-art lamellar keratoplastic procedures coming into routine use in people. Inevitably his presentations provoked a barrage of questions from a now animated audience. Dr. Claudia Hartley continued the session by presenting an interesting Cylindrocarpon spp. stromal abscess case encountered at the Animal Health Trust in Newmarket, England. Initial in-vivo confocal microscopy did not identify fungal hyphae in the affected cornea prior to surgery, but ex-vivo confocal microscopy of subsequently resected cornea identified the presence of fungal elements despite negative histopathology. The presence of the fungi was subsequently confirmed on culture.

Dr. Elizabeth Whitley then presented an unusual and enigmatic case of T-cell rich, B-cell primary corneal lymphoma, highlighting the need for immunophenotyping to specifically identify the
tumour. This was followed by a discursive presentation by Dr. Carolyn Plummer on the multifaceted presentation and the specific management of keratomycosis as seen at the University of Florida. Next, Dr. Ann Dwyer returned to compare the different management strategies of two similar cases of corneal laceration. One was managed medically after trimming of the flap and the other was sutured under GA. Progress and repair was less complicated in the conservatively managed case, with the sutures appearing to provoke a reactive granulating response. Dr. Andy Matthews ended the clinical sessions by presenting a case of ‘Linear Keratophy’ where the onset appeared associated with an episode of ocular hypertension in an eye with a history of posterior uveitis, suggesting that this ‘benign’ lesion represents historic pathology in some cases.

The symposium ended with Dr. Richard McMullen presenting a gently humorous visual tribute to the inspirational and vaguely bohemian figure of Professor Dennis Brooks. This took the form of a ‘line up’ style presentation involving a remarkable number of wild haired, bearded and indifferently dressed, mostly human, lookalikes combed out from Richard’s and other’s collections, and, presumably, Google Images. Professor Brooks took this in good spirit, but thankfully has resolved not to change.