One of our charity’s main objectives is to support the training of individuals from all the professions involved in the improvement of eye health in the less developed world. We are especially keen to assist those who in their own communities will be in a position to influence local policy and become leaders in the effort to prevent and treat blindness. In turn they will pass on their skills to others and so multiply the value of their own training. To support education is to support the future.

Throughout this annual review you will find examples that will enable you to judge for yourselves the measure of our success. The reports explain very clearly the value of learning about methods for assembling and analysing data as well as the evaluation of evidence. They also acknowledge the importance of communication and publishing skills in the planning and delivery of eye health programmes. In addition, the Boulter Fellows, who are in London studying for the MSc in Public Health for Eye Care recognise that the sharing of their previous experience gives them a wider understanding of the problems faced in different countries.

This year Jaqueline Boulter resigned from the Council. It has been her second term as a trustee and we shall miss her helpful advice and calm judgement. Arvind Chandna and Paul Foster joined us as trustees. Both are practicing ophthalmologists with valuable experience of charitable work and research overseas. I hope this annual review gives you a clear picture of our work and that you agree it is both worthwhile and effective. There is much to do.

Dr Jeffrey Jay CBE, BSc, FRCS, FRCOphth
The BCPB and VISION 2020: The Right To Sight

- Somewhere in the world, a child goes blind with every passing minute.
- In eight out of ten cases blindness is avoidable – treatable or preventable.
- Blindness causes suffering not just for those people directly affected. The impact of lost productivity, as well as the direct costs of rehabilitation, has a significant effect on families and communities, particularly in developing countries, where 90% of blindness is concentrated.

The BCPB fully supports the aims of VISION 2020: The Right To Sight and we are committed to playing our part in eliminating avoidable and treatable blindness by funding:

- Practical research into the causes of blindness, more effective treatments, and preventive methods.
- The training of eye care professionals from the developing world to enable them to implement improved blindness prevention programmes in their home countries.

VISION 2020: The Right To Sight (www.v2020.org) is a worldwide concerted effort to eliminate avoidable blindness by the year 2020.

The programme will enable all parties and organisations involved in combating blindness to work in a focused and co-ordinated way to achieve the common goal of eliminating preventable and treatable blindness.

Research and Training Projects Currently Funded

<table>
<thead>
<tr>
<th>Project</th>
<th>Total Cost of Project (£)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr Victor Hu, Sir John Wilson Fellowship: Blinding Trachoma - studies on pathogenesis and control in Tanzania.</td>
<td>£175,588</td>
</tr>
<tr>
<td>Dr Khumbo Kalua, Sir John Wilson Fellowship: Childhood Blindness in Malawi: Identifying Children In Need.</td>
<td>£154,000</td>
</tr>
<tr>
<td>Dr Chitra Sambare, Sir John Wilson Prevention of Blindness Fellowship: Unravelling the Genetic Basis of Glaucoma in India.</td>
<td>£120,007</td>
</tr>
<tr>
<td>Boulter Fellowships: part-funding for 7 eye care professionals from developing countries to undertake MSc in Public Eye Health at the International Centre for Eye Health, London School of Hygiene and Tropical Medicine.</td>
<td>£93,600</td>
</tr>
<tr>
<td>Mr Parwez Hossain, PhD Studentship: Negative Regulators of Interleukin-1ß &amp; Toll-Like Receptor-4 Signalling: A Therapeutic Approach to Treat Global Blindness From Sight Threatening Corneal Inflammatory Disease.</td>
<td>£59,100</td>
</tr>
<tr>
<td>Professor Andrew Lotery, Pump Priming Grant: The effect of SERPING1 on Age Related Macular Degeneration.</td>
<td>£59,820</td>
</tr>
<tr>
<td>Professor Andrew Lotery, Discovery of Novel Immunogenetic Disease Pathways in Age Related Macular Degeneration.</td>
<td>£50,000</td>
</tr>
<tr>
<td>Mrs Anshoo Choudhary, Pump Priming Grant: Evaluation of thrombospondin-1 anti-angiogenic peptides for suppression of corneal vascularisation.</td>
<td>£47,165</td>
</tr>
<tr>
<td>Professor Clare Gilbert, Pump Priming Grant: Migration study of lens opacities in Bangladeshis living in London and in Bangladesh: a pilot study to refine methods.</td>
<td>£12,000</td>
</tr>
</tbody>
</table>

**TOTAL**: £771,280

Most of these projects are funded across more than one Financial Year.
Following on from the BCPB’s success in funding Boulter Fellows (see pages 16-17) who train at Masters level in Public Health for Eye Care, the Trustees decided in 2006 to set up a Doctoral Fellowship Programme. The Fellowships are fully funded by BCPB and lead to the award of PhDs and MDs.

The aims of this project are:

• to provide top level eye care personnel in developing countries, in order to build knowledge and skills in eye care where they are most needed. Fellows from developing counties are selected partly on their ability and ambition to disseminate knowledge and skills through teaching and training.

• to foster links between UK institutions and those in developing countries, in order to facilitate a mutually beneficial transfer of knowledge in eye care.

To achieve these aims, an Advisory Panel was established (see page 7). For its first three years Professor Andrew Dick of Bristol University chaired the Panel. From June 2009 it has been chaired by Professor James Morgan, Professor of Ophthalmology at Cardiff University.

Two types of Fellowship are offered. Barrie Jones Fellowships are awarded to UK based Fellows who carry out research in a developing country; Sir John Wilson Fellowships are awarded to students from developing countries who come to the UK to carry out research.

Sir John Wilson and Barrie Jones Fellowships

Advisory Panel

Mr Peter Ackland
(Oversight Advisor)
Chief Executive Officer, International Agency for the Prevention of Blindness

Mr Michael Clark
FRCS, FRCOphth
Reader in Ophthalmology, Claremont Wing Eye Dept Royal Victoria Infirmary
Newcastle upon Tyne

Miss Parul Desai
MSc, PhD, FRCS, FRCOphth
Consultant Ophthalmologist and Public Health, Moorfields Eye Hospital, London

Professor Harminder Dua
MBChB, FRCOphth
Professor of Ophthalmology, University of Nottingham

Professor Paul Foster
BMedSci(Hons), PhD, FRCOphth
Senior Lecturer, Department of Genetics and Epidemiology, UCL Institute of Ophthalmology, London

Mr Peter Francis
PhD, FRCOphth
Consultant Ophthalmologist, St Thomas’ Hospital, London

Professor Simon Harding
MB ChB, FRCS, FRCOphth, MD
Professor of Clinical Ophthalmology and Head, Ophthalmology Research Unit, School of Clinical Sciences, University of Liverpool

Mr James Kirwan
FRCOphth
Consultant Ophthalmologist, Queen Alexandra Hospital Portsmouth

Dr Caroline MacEwen
MBChB, MD, FRCS(Ed), FRCS, FRCOphth
Head of Department & Consultant Ophthalmologist, Ninewells Hospital, Dundee and Vice President of the Royal College of Ophthalmologists

Professor James Morgan
MA, DPhil, FRCOphth
Professor of Ophthalmology, Cardiff University
(Chairman, from June 2009)

Mr Ian Murdoch
BSc, MSc, MD, FRCS, FRCOphth
Consultant Ophthalmologist, Moorfields Eye Hospital, London

Mr James Morgan
MA, DPhil, FRCOphth
Professor of Ophthalmology, Cardiff University
(Chairman, from June 2009)

Mr Ian Murdoch
BSc, MSc, MD, FRCS, FRCOphth
Consultant Ophthalmologist, Moorfields Eye Hospital, London

Miss Giuliana Silvestri
MD, FRCP(Ed), FRCS, FRCOphth
Head of Department, Ophthalmology, Queen’s University Belfast

Professor Miles Stanford
MD, FRCS, FRCOphth
Consultant Ophthalmologist, St Thomas’ Hospital, London, Professor, University of London
Sir John Wilson Fellowships

Kenya: Research and Treatment Programme Focusing On Over 50’s

The BCPB awarded its first Sir John Wilson Fellowship to Dr Wanjiku Mathenge of Kenya in February 2006. Dr Mathenge’s research focused on older patients in the Nakuru district of Kenya. The research was supervised by Professor Allen Foster at the International Centre for Eye Health (ICEH), based at the London School of Hygiene and Tropical Medicine (LSHTM). It will lead to the award of a PhD and will equip Dr Mathenge with the knowledge and skills she needs to lead the development of eye care within Kenya.

As cataract, trachoma, vitamin deficiency and river blindness are tackled, the proportion of blindness due to diseases such as glaucoma and age related macular degeneration (AMD), which affect the posterior segment of the eye and older patients, and which are common in developed countries, is increasing in LDCs. At present little is known about their distribution or control in Africa. Dr Mathenge’s study researched the burden of posterior segment eye diseases in the Nakuru district of Kenya by means of a survey of 5000 people over 50 years old. Risk factors were identified by comparing cases with the disease to disease-free controls. After counselling for treatment, cases and disease-free controls were followed up after 1 year to assess the barriers to uptake of services, the results of treatment and the progression of disease.

We are delighted to say that Dr Mathenge, was awarded her Doctorate in March 2011 and is now Head of Department of Ophthalmology at Kigali Health Institute, Rwanda. You can read a letter from Dr Mathenge to BCPB Trustees below.

Letter from Dr Mathenge to BCPB Trustees – 30 March 2011

I am honoured to qualify as the first Sir John Wilson Fellow thanks to the very generous scholarship that I received from the British Council for Prevention of Blindness Fellowships. Thanks to your generous support I am now, as far as I know, the first female ophthalmologist from sub Saharan Africa to have a PhD.

Growing up in a less privileged community not only offered financial and academic challenges, but more importantly made me realise the value of education as a way out of poverty. The challenge in quantifying the direct impact and value of the investment you made in my education and that of many others may arise due to the long incubation period.

I am privileged that the BCPB scholarship allowed me to study at the prestigious London School of Hygiene and Tropical Medicine and specifically at the International Centre for Eye Health where I received all the support and mentoring I needed. The research skills I learnt throughout my training allowed me to be involved in setting up and teaching a new course in Tanzania in research methodology and publishing skills for ophthalmologists in Africa. By the time I received my diploma I had already been employed as the Head of Department of Ophthalmology at the Kigali Health Institute producing eye workers for Rwanda and Burundi.

Let me outline briefly a few of the main messages from my study:

1. Cardiovascular diseases, obesity and diabetes are increasing alarmingly in the region, while there is still a huge unfinished agenda of malnutrition, communicable diseases and maternal, neonatal and child mortality.

2. Posterior segment eye diseases (PSED) including glaucoma, diabetic retinopathy, age related maculopaties, optic atrophy and other retinopathies and maculopaties were the second leading cause of blindness causing one third of blindness. Therefore in the next few years Africa will be experiencing a complex relationship between tackling avoidable blindness and blindness from PSED.

3. Only 25% of those in need of treatment for diabetic retinopathy had received any treatment and only 30% of those treated had been treated adequately.

4. Glaucoma was the most important cause of blindness from PSED in this study and only 2.5% of the glaucoma cases had been diagnosed prior to the survey.

The challenge for me now is to not only disseminate my research findings but also to translate what I have written in this thesis into knowledge and policy that is usable by the communities that I serve and live among. I wish to confirm to you that I will do that to the best of my ability. I am also very excited by the fact that the Medical Research Council has recently granted funding to another doctor to follow up the cohort that I set up, so that more evidence can be obtained on the incidence of these diseases in African eyes.

Once again, I offer my sincerest thanks to all the members of BCPB Board and the Advisory Panel for supporting my PhD studies.
In January 2007 the BCPB Advisory Panel awarded the second Sir John Wilson Fellowship to Dr Khumbo Kalua of Malawi. He focused on developing alternative methods of identifying blind children in rural locations, in order to refer them for treatment to save their sight, where possible. The Fellowship provided around £150,000 of funding to help save the sight of children in this part of Africa. In 80% of cases the blindness is avoidable – preventable or treatable. But the children do not get the help they need - partly because they are simply not identified and referred for treatment.

Dr Kalua’s research project tested a new method of identifying blind children in the community using ‘key informants’. This involves training people from the villages who know their community well, are willing to help identify blind children, have time to do the job -and are happy to do it without payment. In a pilot study, Dr Kalua himself trained a group of key informants for a day and in the following 6 weeks they successfully identified around 40 blind children, who were then referred for treatment. The new method was tested against another method using trained primary healthcare workers (Health Service Assistants or HSAs). Alternative methods of referral were also evaluated.

The project not only treated many more blind children, but also helped to develop sustainable systems and procedures to prevent childhood blindness in Malawi. The lessons learned are applicable elsewhere in Sub-Saharan Africa, where there are some 320,000 blind children at present. As well as providing these important research and treatment outcomes, the Fellowship has enabled Dr Kalua to attain skills in prevention of blindness at Doctorate level. This equips him to lead the development of eye care programmes in his country and the surrounding region. Dr Kalua aims to establish a fully operational community eye department at the University of Malawi, which will have a big impact in national blindness prevention.

Dr Kalua’s objectives for the coming year are to complete his doctoral thesis, publish and disseminate the results, use the results to influence policy change in Malawi and identify areas for future research.

The main conclusions to date are:

- KIs are more effective at identifying blind children than HSAs even after receiving similar training by about 60:40. This is partly because HSAs have many other child health issues to consider, including immunisation, which prevent them having time to conduct eye tests as well.
- The main barriers preventing children from accessing eye care services are a combination of poor communication (from HSAs and the indirect costs of hospital treatment – lost earnings whilst the child is hospitalised, costs of food to supplement hospital meals, etc.

Key outcomes of the project so far:

- 434 health workers and volunteers trained
- Over 950 children examined
- Number of cases referred for cataract treatment in Blantyre has increased from 50-60 to almost 100 per year during the last 3 years
- Blantyre Institute for Community Ophthalmology (BICO) was established in 2008, now with a full time Project Co-ordinator (see below).

In order to achieve the VISION 2020 goals, the centre aims to coordinate operational research being carried out by eye care professionals in Malawi and transfer the best of its expertise and experience to an ever-increasing number of eye care institutes across Southern Africa.

The current activities of the institute contributing to eye care in Malawi and other developing countries in Southern Africa include:

- Capacity building of community eye care health workers
- Training Programmes – focusing on community eye care delivery
- Research capacity building through conducting practical local research (operational and health services research)
- Publications
- Consultative support to hospitals with no expertise in community eye health
- Advocacy and contribution to Eye Care Programmes at National and International level through the Government and International NGOs.
- Fund raising for eye care service delivery
- Childhood Blindness Research.

The centre is now able to offer short International courses in public eye care and has already attracted students from within Malawi, and from overseas.

Dr Kalua’s research project tested a new method of identifying blind children in the community using ‘key informants’. This involves training people from the villages who know their community well, are willing to help identify blind children, have time to do the job -and are happy to do it without payment.
Glaucome is the leading cause of irreversible blindness worldwide and there are an estimated 12 million people affected by glaucoma in India, the majority of whom are undiagnosed.

By 2020, this is expected to be 16 million. Glaucoma associated visual impairment and blindness are difficult to prevent.

Predicting which people are likely to develop substantial visual loss is difficult, as no single test is sufficiently sensitive or specific to screen populations for glaucoma. Many patients already have advanced disease at the time of diagnosis, and irreversible visual loss. A recent review of glaucoma in India highlighted that a major element of any glaucoma strategy must be “case detection”.

Therefore considerable effort should be focused on early detection, and here, genetic profiling may help to identify those at risk of getting glaucoma later in life. Glaucome has a strong genetic basis and the key aims and objectives of this project are to:

- establish a clinical database and DNA bank of Indian patients with glaucoma
- identify genetic determinants associated with glaucoma development in the Indian population.

Identifying the genetic determinants associated with glaucoma development and progression in the Indian population will help detection and early treatment, lessening the visual, social and economic burden of this condition. The lessons learned may well be applicable to other populations.

With the help of local hospitals and ophthalmologists in the Pune area some 500 patients and controls have now been recruited.

DNA extraction and banking presented a number of practical problems – not least a hostile climate with high temperatures and poor transport infrastructure - that have now been overcome.

Local guidelines and operating procedures were developed to ensure DNA preservation and transport. Three blood samples (3 x 3mls) are now taken and transported immediately to the laboratory for processing. The third sample is frozen in a secure freezer with an auxiliary back-up. If the extraction or quality control fails when assessed in Queen’s University Belfast (QUB) the back-up reserve sample can then be extracted. DNA is stored and shipped on dry ice in batches of 100 using a courier service. The DNA is quantified and stored at QUB.

At this point (August 2011) the first objective of the research, to establish a clinical database and DNA bank, has been principally achieved. The subsequent genetic studies are ongoing and will yield publications when completed.

Dr Chitra Sambare: Genetic basis of Glaucome in India

About Glaucome

Glaucome is not a single disease entity but a group of conditions characterized by damage to the optic nerve (detected by pathological cupping of the optic disc) and loss of the field of vision. The two main types are primary open-angle glaucoma and primary angle-closure glaucoma.

Primary open-angle glaucoma is more frequent in whites and Afro-Caribbeans, while primary angle-closure glaucoma is more common in South-East Asia. Glaucome is uncommon among persons under the age of 40, but the prevalence increases with age. Other risk factors include raised pressure inside the eye (intraocular pressure), a positive family history and belonging to a susceptible ethnic group. Primary open-angle glaucoma cannot be prevented, but acute attacks of primary angle-closure glaucoma and more chronic forms of the disease can be prevented by early detection, followed by laser treatment or surgery to the iris. As the early stages of both types of glaucoma are often asymptomatic, patients often present late, particularly in developing countries. Once vision has been lost, regardless of the type of glaucoma, it cannot be restored.

Current situation

WHO has estimated that 4.5 million people are blind due to glaucoma. Published projections indicate that 4.5 million people will be blind due to open-angle glaucoma and 3.9 million due to primary angle-closure glaucoma in 2010 (37). Furthermore, about 60.5 million people will have glaucoma by the year 2010 (44.7 million with open-angle glaucoma and 15.7 million with angle-closure glaucoma). Given the ageing of the world’s population, this number may increase to almost 80 million by 2020. The published projections also indicate that nearly half of the bilateral blindness attributable to glaucoma by 2020 will be caused by angle-closure glaucoma (11.2 million people).

Primary open-angle glaucoma can be managed by long-term use of eyedrops to reduce intraocular pressure or surgery (e.g. trabeculectomy) and should be followed up by long-term monitoring of the visual field, optic disc and intraocular pressure. Detection of eyes at risk of angle closure by assessment of anterior chamber depth or the configuration of the drainage angle of the eye, followed by treatment with laser or surgery to produce an iridotomy or iridectomy can prevent progression to angle-closure glaucoma. Treatment of established primary angle-closure glaucoma requires surgery or medication to reduce intraocular pressure, followed by long-term monitoring.
Trachoma is the leading infectious cause of blindness worldwide. Infection with Chlamydia trachomatis triggers a poorly understood inflammatory response in children, mainly in the conjunctiva (the membrane lining the inner surface of the eyelid). These children are then at risk of developing scarring complications: the eyelashes turn in and rub against the eye which leads to blindness. It is unknown whether current control measures, including antibiotic treatment, will halt this process as scarring develops over many years.

There are at least 1.3 million people estimated to be blind from trachoma, with many more having poor vision, and 8.2 million with painful, in-turned lashes scratching against the eye. There are an additional 40 million at risk of blindness in endemic countries. The disease is largely found in poor rural communities in developing countries, particularly in Sub-Saharan Africa.

The aims of the project are:

• to improve our understanding of how blinding trachoma develops and progresses, which is necessary for the development of blindness prevention measures
• to develop and validate research tools to identify early markers for progressive disease
• Finally, these tools will be used to investigate whether current interventions result in a reduction in factors associated with progressive scarring and will help to lead to the development of new trachoma control strategies.

Over the last year I have been continuing full-time research into blindness caused by trachoma, supported by the BCPB Barrie Jones Fellowship, and based primarily in Tanzania.

I have completed the analysis of a major case-control study, which I undertook including 360 participants with trachomatous scarring of the conjunctiva and 360 control participants without scarring. I employed in vivo confocal microscopy, microbiological culture and quantitative gene expression as investigative techniques in this study. This has led to a number of publications in peer-reviewed journals. Earlier this year, in a related study, I also completed the follow-up on a cohort of 800 people with scarring who have been examined every 6 months for the last 2 years. This study will help us understand the factors that are associated with progressive trachomatous scarring and possible interventions to slow or prevent the onset of blindness.

The BCPB have kindly extended the Fellowship for a period of 6 months. This will allow me to complete a further study involving conjunctival biopsies from patients with trichiasis and control participants. We will use these samples to perform histological analysis at the University College London Institute of Ophthalmology in order to gain further insights into the scarring process in trachoma. As part of this study we have performed corrective lid surgery on 50 patients with trichiasis, turning the lids out so that the lashes are no longer scratching against the eye. One of these patients was Halma Kombe (pseudonym), a 65-year-old lady who lives in a village in the Kilimanjaro region of northern Tanzania. This village has very limited running water or electricity and subsistence farming is the norm. She said the result of her operation was “very, very nice” and is relieved to have the persistent scratching of her eye alleviated. Halma is responsible for the care of two grand-children.
The Boulter Fellowship Programme

The BCPB makes a contribution towards both tuition and living expenses for the Boulter Fellows, who come to London to undertake a Master of Science Degree in Public Health for Eye Care at the International Centre for Eye Health, within the London School of Hygiene and Tropical Medicine. Training in Public Eye Health extends the trainees’ expertise in clinical ophthalmology which is applied to individual patients, to cover the eye health of whole populations – how their needs can best be evaluated and met.

The VISION 2020 global programme for the elimination of avoidable blindness (see page 4) has human resource development as a key component. This course is designed in keeping with the objectives, priorities and strategies of VISION 2020 and aims to equip eye care professionals with the knowledge and skills they need to implement the VISION 2020 programme at country and district level. The students, once trained, return home to help set up and manage eye care programmes to save and restore sight.

### Boulter Fellows 2010-2011

<table>
<thead>
<tr>
<th>Boulter Fellows</th>
<th>Place of work</th>
<th>Country or region of focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr Ada Aghaji</td>
<td>Lecturer and Consultant, University of Nigeria, College of Medicine</td>
<td>Nigeria</td>
</tr>
<tr>
<td>Dr Ben Bwonya</td>
<td>Specialist Ophthalmologist, Mbale Regional Referral Hospital</td>
<td>Uganda</td>
</tr>
<tr>
<td>Dr Rohan Chariwala</td>
<td>General Ophthalmologist, Divyajoti Trust, Surat, Gujarat</td>
<td>Nigeria</td>
</tr>
<tr>
<td>Mr Esmael Habtamu</td>
<td>Trachoma research Field Co-ordinator LSHTM/Carter Centre Trachoma Research Programme, Bahir Dar</td>
<td>Ethiopia</td>
</tr>
<tr>
<td>Dr Irfan Khattak</td>
<td>Public sector Optometrist, Swaziland Government</td>
<td>Pakistan</td>
</tr>
<tr>
<td>Ms Sharon Maseko</td>
<td>Staff Ophthalmologist at Bolor Melmii Eye Hospital</td>
<td>Mongolia</td>
</tr>
<tr>
<td>Dr Praveen Vashist</td>
<td>Associate Professor of Community Ophthalmology, All India Institute of Medical Sciences</td>
<td>India</td>
</tr>
</tbody>
</table>
I aim to share the information and skills learnt through the course to develop effective blindness prevention strategies in the country.

**Here Dr Grace Adepoju, BCPB Boulter Fellow 2007-8 writes about her experience of the Boulter Fellowship and her work afterwards:**

I got all I hoped for and far beyond - the experience was a rich and enlightening one. I learnt a great deal about avoidable causes of blindness in Africa, and the dearth of data about Africa in general and Nigeria in particular. The experience clarified my role as an agent of change in eye care, and provided me with the skills to make a positive impact.

Being aware of the low uptake of eye services in Nigeria, the low cataract surgical rate and high level of avoidable blindness prompted me to design a series of awareness and health information programmes to address some of the barriers to uptake. We now have 13 films lined up for production. Film is one of the best means of transmitting information in Nigeria. The first, titled "YOU ARE MY EYES," is about Cataract, and aims to dispel the myths and promote factual knowledge.

It describes the ordeal of a family man who becomes blinded by cataract. He becomes unable to support his family and his wife leaves him. At first he relies on traditional healers, but they of course cannot cure him.

Fortunately a medical doctor visits his village, and he is referred for surgery, recovers his sight, and is re-united with his wife, now pregnant with his child. I wrote the film, developing the script over an eight-month period, which included interactions with rural people from many different villages. The 35 minute film has been shown at the Ophthalmological Society of Nigeria National conference, in clinic settings and is to be more widely circulated. Other health information activities include information leaflets, posters and drama books, television and radio programs.

The community eye care services that I manage are now being delivered in a more effective manner. The community eye care services that I manage are now being delivered in a more effective manner.

The Eye Care program in Swaziland was revived in 2008 through a partnership formed between the Ministry of Health and an International Non-Governmental Organisation (NGO) with vast experience in the field of blindness prevention - CBM. Although great accomplishments have been made through this partnership, the Swaziland government is faced with various other pressing challenges brought about by poverty and HIV/AIDS, so that eye health is given very little priority. There is a need for innovative ways to raise the profile of Eye Health within the Swaziland Government, as well as to ensure the Programmes’ sustainability beyond CBM’s support. However the country lacks personnel trained in this field and it is for this reason that I had a keen interest in attending a programme in public health for eye care. I hoped to gain skills in how best to advocate for, plan, implement and manage an eye care programme in an efficient, effective and sustainable way.

Dr Grace Adepoju:
Manager Community Eye Health Service, Nigeria

Having completed the course, I now realise and appreciate the need to move beyond addressing the needs of a few patients presenting in the eye clinic towards addressing the needs of entire communities; moving from a clinical to a public health perspective through establishing quality services that are comprehensive and equitable.

For an Eye Care Programme to be successful one must gain understanding of how the entire health system operates as well as the various players and policies that govern the health sector. Although eye disease and blindness are debilitating to the individual, the family, society and the economy at large, they may often be overshadowed by life-threatening diseases such as HIV/AIDS and malaria, hence the need to utilise existing resources efficiently and effectively through the integration of National Eye Care Programmes into already existing structures, even outside of Eye Health. Seeing practical examples of how this has worked in other countries similar to Swaziland e.g. in The Gambia, provided an opportunity to learn and realise that some aspects could be adopted and applied to Swaziland - such as community mobilisation and involvement from project inception to implementation to ensure ownership and sustainability.

I learnt how to design studies that are relevant to Eye Care through formulation of sound research questions and the use of appropriate methodologies to answer specific study questions, as well as key skills required for eye care field work such as designing data recording forms, the creation of a database and so on.

Learning about the epidemiology of eye disease provided me with an opportunity to apply the principles learnt in basic epidemiology to eye disease and thus gain an in-depth understanding of the incidence, burden and risks of various blinding eye diseases both globally and in my setting. I also learned skills in applying statistical methods in public health research to gather, analyse and interpret data in order to develop more effective programmes. Evidence based interventions are key to the success of any programme, hence the importance of need for more research work, particularly in developing countries such as Swaziland.

One of the challenges I face is that Eye Health does not currently form part of the National Health budget in Swaziland. I will use the information gained in this course to highlight the burden of blindness and visual impairment in Swaziland and how it links to almost all the World Health Organisation’s Millennium Development Goals to raise the profile of eye health within the Swaziland Government. Various platforms can be utilised for advocacy such as the National Blindness Prevention Committee, which is a multi-disciplinary committee with representation from various government and non-governmental organisations. As a member of this committee and of the Vision 2020 Technical Committee in Swaziland, I aim to share the information and skills learnt through the course to develop effective blindness prevention strategies in the country.
Since 2005, scientists from all over the world have become increasingly aware of the role of genetics in AMD and how family history may play a role. However, it has been a surprise to discover that it is the genes of the body’s defence mechanisms and not the eye itself that appear to be responsible. Some of the first genes implicated are those responsible for part of our immune defences known as the alternative complement pathway. These help the body detect and eliminate foreign particles and reduce infection. My team, together with local and international collaborators, are the first to suggest that another pathway might also be involved. We have found that a regulatory element at the beginning of the classical complement pathway is also implicated in AMD. Our work now focuses on determining how a fault in the SERPING1 gene can cause the inflammation and scarring seen in AMD eyes. It is hoped that this knowledge will lead to new drug therapy targets for AMD patients in the future.

We now wish to explore the possibility that gene number may be an important factor in disease development, perhaps being as detrimental to sight as faulty genes. This concept is known as copy number variation and the AMD research team at Southampton look forward to expanding upon their initial findings over the months ahead. We are also collaborating with a large multinational consortium of AMD researchers to perform a meta-analysis of all our results. We expect this will lead to some high impact papers.
### Income & Expenditure:

**Year ended 31st March 2011**

<table>
<thead>
<tr>
<th>Unrestricted Funds</th>
<th>Restricted Funds</th>
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<th>Total 2010</th>
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<td>Voluntary income</td>
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<td>Donations (including gift aid)</td>
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<td>Legacies</td>
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<td>101,554</td>
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<td>Investment income</td>
<td>4,487</td>
<td>–</td>
<td>4,487</td>
</tr>
</tbody>
</table>

**TOTAL INCOMING RESOURCES** 128,918 53,000 181,918 664,729

<table>
<thead>
<tr>
<th>RESOURCES EXPENDED</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost of Generating Funds</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fundraising and publicity</td>
<td>34,615</td>
<td>–</td>
<td>34,615</td>
</tr>
</tbody>
</table>

**TOTAL RESOURCES EXPENDED** 661,872 59,000 720,872 360,052

**NET (OUTGOING)/INCOMING RESOURCES** 532,954 (6,000) 538,954 304,677

**Unrealised (loss)/gain on investments** (11) – (11) 999

**NET MOVEMENT IN FUNDS** 532,965 (6,000) 536,965 305,676

**FUND BALANCES BROUGHT FORWARD** 989,185 51,562 1,040,747 735,071

**FUND BALANCES CARRIED FORWARD** £456,220 £45,562 £501,782 £1,040,747

### Balance Sheets:

**Year ended 31st March 2011**

**FIXED ASSETS**

<table>
<thead>
<tr>
<th></th>
<th>Group 2011</th>
<th>Group 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tangible Assets</td>
<td>134</td>
<td>333</td>
</tr>
<tr>
<td>Investments</td>
<td>–</td>
<td>7,097</td>
</tr>
</tbody>
</table>

**CURRENT ASSETS**

<table>
<thead>
<tr>
<th></th>
<th>Group 2011</th>
<th>Group 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Debtors</td>
<td>292,912</td>
<td>427,511</td>
</tr>
<tr>
<td>Investment / Bank Deposits</td>
<td>676,208</td>
<td>649,553</td>
</tr>
<tr>
<td>Cash at bank and in hand</td>
<td>253,471</td>
<td>340,695</td>
</tr>
</tbody>
</table>

**TOTAL CURRENT ASSETS** 1,222,591 1,417,759

**CREDITORS**

<table>
<thead>
<tr>
<th>Amounts falling due within one year:</th>
<th>Group 2011</th>
<th>Group 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Committed grants</td>
<td>353,215</td>
<td>282,059</td>
</tr>
<tr>
<td>Accruals</td>
<td>17,061</td>
<td>29,133</td>
</tr>
</tbody>
</table>

**NET CURRENT ASSETS** 852,315 1,106,567

**TOTAL ASSETS LESS CURRENT LIABILITIES** 852,449 1,113,997

**CREDITORS: AMOUNTS DUE AFTER ONE YEAR**

<table>
<thead>
<tr>
<th></th>
<th>Group 2011</th>
<th>Group 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boulter Fellowship Award Fund</td>
<td>93,600</td>
<td>39,600</td>
</tr>
<tr>
<td>BCPB Fellowship Award Fund</td>
<td>190,000</td>
<td>450,000</td>
</tr>
<tr>
<td>General Fund</td>
<td>172,620</td>
<td>499,585</td>
</tr>
</tbody>
</table>

**NET ASSETS** £501,782 £1,040,747

**NET MOVEMENT IN FUNDS** 456,220 51,562 £501,782 £1,040,747

**FUND BALANCES BROUGHT FORWARD** 989,185 51,562 1,040,747 735,071

**FUND BALANCES CARRIED FORWARD** £456,220 £45,562 £501,782 £1,040,747
Board of Trustees

The trustees during the year ended 31 March 2011 were:

**Chairman**
Dr Jeffrey Jay
CBE, BSc, FRCS, FRCOphth
Past President of Royal College of Ophthalmologists

**Honorary Secretary**
Claire Walker
BSc, PhD, MInstF

**Honorary Treasurer**
and Acting Chairman (June 2008-June 2009)
Stephen Brooker
MA, FCA
External member, House of Commons Audit Committee and Chair of the Worshipful Company of Gowers’ Charities

**Members of the Council**
Miss Jacqueline Boulter
BA
Managing Director
Yellow Hat Consulting Ltd
(Resigned February 2011)

Mr Arvind Chanda
MBBS MD DO FRCS(Ed)
Consultant Ophthalmologist
Alder Hey Children’s Hospital
NHS Trust, Liverpool
(Appointed October 2010)

Dr Caroline Harper OBE
Chief Executive
Sight Savers International

Professor James Morgan
MA, DPhil, FRCOphth
Professor of Ophthalmology,
Cardiff University

Professor Paul Foster
BMedSci(Hons) PhD FRCS(Ed)
FRCOphth
Senior Lecturer in
Ophthalmic Epidemiology and Glaucoma Specialist,
Moorfields Eye Hospital, London
(Appointed October 2010)

**Principal Address**
British Council for Prevention of Blindness
4 Blossbury Square,
London WC1A 2RP

Telephone: 020 7404 7114
Email: info@bcpb.org
Website: www.bcpb.org

Registered Charity Number:
270941

**Member of the Association of Medical Research Charities**
Associated with:
The International Association for Prevention of Blindness (IAPB)
The International Centre for Eye Health (ICEH)

**Auditors**
Knox Cropper
89/Well Court,
London EC4M 9DN

**Bankers**
National Savings & Investments
Glasgow G58 1SB

HSBC Bank Plc
90 Baker Street
London W1M 2AX

Santander
201 Grafton Gate East
Milton Keynes
MK9 1AN

Charities Aid Foundation/Scottish Widows Bank
15 Dalkeith Road
Edinburgh EH16 5BU

**Supporting the BCPB**
Our work in preventing blindness cannot take place without the generosity of individuals, trusts and companies.

**Gift Aid**
All gifts made to charity now qualify for tax relief. In effect this means that, simply by signing the declaration below, all your donations will increase in value, at no extra cost to you. For example, a donation of £250.00 in 2011-2012 will become £31.25, or more if you pay income tax at the higher rate.

**Making a Will**
Whether you have already made a will or are thinking of doing so, please consider making a charitable bequest to the BCPB. Legacies can make an enormous difference to our work and what we can achieve.

**Regular Donations**
By giving regularly you can make it much easier for the BCPB to plan important projects - providing income we know we can rely on.

**Website**
You can donate on-line at www.bcpb.org

To make a single or regular donation please fill in the appropriate sections below and send to the British Council for Prevention of Blindness, 4 Blossbury Square, London WC1A 2RP

**SINGLE DONATION**
You can also make donations on-line. Simply go to www.bcpb.org/donations.asp

Please accept my / our donation towards preventing blindness and restoring sight:

Please pay:
The British Council for Prevention of Blindness, 59-60 Russell Square, WC1B 4HP

Please tick the appropriate box:

£25  £50  £100 £

(whatever you can afford to help our work)

Whether you have a already made a will or are thinking of doing so, please consider making a charitable bequest to the BCPB.

**GIFT AID DECLARATION**
This will enable us to reclaim the tax you have paid on your donation:

<table>
<thead>
<tr>
<th>I would like all gifts to the British Council for Prevention of Blindness paid on or after the date of this declaration to be Gift Aid donations.</th>
</tr>
</thead>
<tbody>
<tr>
<td>I pay tax at the [ ] basic rate [ ] higher rate</td>
</tr>
<tr>
<td>Please note: You must pay an amount of UK Income Tax or Capital Gains Tax equal to the tax deducted from your donations for your gift to be eligible for Gift Aid.</td>
</tr>
</tbody>
</table>

**BANKER’S ORDER FORM (For regular donations)**
To (name of your Bank)

Please pay: The British Council for Prevention of Blindness
4 Blossbury Square, London WC1A 2RP

the sum of £
amount in words

Start Date* PLEASE ALLOW AT LEAST ONE MONTH FROM TODAY’S DATE

And afterwards on the day same day each month/quarter/year until further notice (delete as appropriate).

*This cancels all previous orders.

Signature

**Website**
www.bcpb.org

Email: info@bcpb.org

Telephone: 020 7404 7114

Registered Charity Number:
270941

Website: www.bcpb.org

Email: info@bcpb.org

Telephone: 020 7404 7114
Independent Auditors’ Statement to the Trustees of the British Council for Prevention of Blindness

We have examined the summarised financial statements of the British Council for Prevention of Blindness on pages 22 and 23.

This statement is made solely to the Trustees, as a body, in accordance with the terms of our engagement. Our work has been undertaken so that we might state to the trustees those matters we have agreed to state to them in this statement and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the trustees as a body, for our work, for this statement, or for the opinions we have formed.

Respective responsibilities of trustees and auditors

The Trustees are responsible for preparing the summarised financial statements in accordance with recommendations of the charities SORR.

Our responsibility is to report to you our opinion on the consistency of the summarised financial statements with the full financial statements and Trustees’ Annual Report. We also read the other financial information contained in the summarised annual report and consider the implications for our report if we become aware of any apparent misstatements or material inconsistencies with the summarised financial statements.

Basis of opinion

We conducted our work in accordance with Bulletin 1999/6 ‘The auditors’ statement on the summary financial statement’ issued by the Auditing Practices Board for use in the United Kingdom.

Opinion

In our opinion the summarised financial statements are consistent with the full financial statements and the Trustees’ Annual Report of the British Council for Prevention of Blindness for the year ended 31st March 2011.

Knox Cropper
Registered auditors
21st November 2011

The Trustees confirm that the financial statements on pages 22 and 23 are taken from the full set of financial statements comprising the Trustees’ Report and Accounts which were approved on 8th July 2011.

The summarised financial statements may not contain sufficient information to allow a full understanding of the financial affairs of the British Council for Prevention of Blindness.

For further information the Annual Report and Accounts should be consulted. A copy of this document, upon which the auditors have reported without qualification, has been delivered to the Charity Commission and is available on request from the British Council for Prevention of Blindness, 4 Bloomsbury Square, London, WC1A 2RP.

By order of the Trustees.
Date: 21st November 2011