Richard Desmond Children’s Eye Centre
Transforming lives for ten years
“It seems like only yesterday we were delivering children’s surgical services from the old Victorian ward. I remember thinking how much more we could do for the many children and their families who came here from all over the world if we had a state of the art children’s centre with accommodation. The decision to try and achieve this dream was made by a small group of supporters who felt they could help us realise our ambitions.

“To see the dream emerge from the rubble of the old nurses’ home, and become the world’s largest clinical and research centre for children’s eye diseases, with the Ronald McDonald House for families at the top, has been transformational and has enabled some of the world’s leading research to benefit children. We performed the world’s first gene therapy and have undertaken research into better surgical and medical treatment for diseases like glaucoma. Diagnostic tests for children with eye disease have also greatly improved.

“The building of the Richard Desmond Children’s Eye Centre has transformed the lives of tens of thousands of children. This report celebrates what you have done for all these children and their families. One of my patients remarked the other day what a difference treatment at this centre had made to his life. Thank you for your enthusiasm and huge generosity in enabling us to establish this world leading paediatric ophthalmic treatment and research centre.”
“Ten years on and I’m thrilled that the Richard Desmond Children’s Eye Centre has led to more success, better results and a pleasant environment for both the children and their parents.”

Richard Desmond
Lead donor

“In 2004 I had eye surgery at Moorfields for glaucoma. Professor Sir Peng Khaw was my surgeon and while he was amazing, I was concerned about the facilities he was working in. Therefore when the opportunity arose to support the development and building of the new Children’s Eye Centre at Moorfields I was delighted to be involved.

“Ten years on and I’m thrilled that the Richard Desmond Children’s Eye Centre has led to more success, better results and a pleasant environment for both the children and their parents. This is exactly what I wanted to achieve and couldn’t be more proud to have supported this wonderful, ground-breaking facility.”

Lady Evelyn Jacomb
Chair, fundraising committee

“The RDCEC has achieved so much over the last ten years and I am really excited for the next chapter.”

“IT’s incredible to think that this is the 10th anniversary of the Richard Desmond Children’s Eye Centre (RDCEC). As chair of the fundraising committee, I was really keen to support the project because it was fundamentally clear that we needed to provide specific facilities to treat our paediatric patients to ensure they were to get the best care possible. The RDCEC has achieved so much over the last ten years and I am really excited for the next chapter.”
Surgeon scientist Jim Bainbridge is professor of retinal studies at the UCL Institute of Ophthalmology and consultant ophthalmologist at Moorfields Eye Hospital. It is a unique and privileged situation to have the institute adjacent to Moorfields and the Richard Desmond Children’s Eye Centre, enabling Jim to seamlessly combine his clinical and research activities. The joint team includes scientists and clinicians with a wide range of skills, providing the expertise required to develop new treatments.

Jim led the world’s first clinical trial of gene therapy for inherited blindness and is pioneering a gene therapy treatment for Leber Congenital Amaurosis Type 4 (LCA4), which is a rare form of blindness affecting young children.

With the funds raised through a Moorfields Eye Charity appeal, Jim and his team have been able to significantly advance their work to manufacture and quality test a vector (a harmless virus that delivers the gene into the cells that need it) that will hopefully treat LCA4. Several paediatric patients have been identified as potential candidates for this experimental approach.

The team is also looking at a number of similar conditions and the first results from other studies have been encouraging. An eight year old boy who really struggled to socialise during the winter months because of his night blindness participated in the study and his vision and social life has greatly improved. He now has the confidence to play outside with his friends.
“When our son Aaron was two months old we noticed that he had a squint and our health visitor referred us to an orthoptist. Aaron’s eyes were also cloudy and occasionally watery; they were sensitive to light and he often rubbed or clamped them shut.

“We walked into the orthoptist appointment optimistically thinking Aaron’s eyes might need glasses or patches, but when the orthoptist appointment triggered a next day referral to a specialist I realised something was seriously wrong. That night I couldn’t resist some googling. Every result pointed to childhood glaucoma, but it also said that it was very rare – affecting just 1 in 10,000 babies. We tried to stay positive and hoped for the best.

“However our fears were confirmed. Aaron had congenital glaucoma. The specialist was quick to point out that there were a number of treatment options because Aaron’s eyes were still developing and ‘stretchy’. He referred us to Moorfields Eye Hospital.

“Here we met John Brookes, Aaron’s glaucoma consultant and surgeon. John was candid and explained that he would be performing a new type of surgery on Aaron – a 360 degree trabeculotomy to open up the Schlemm’s canals in the eye to help the excess fluid drain away.

“This wouldn’t be an easy operation, partly because babies’ eyes are so small and partly because the canals aren’t always properly formed in babies of Aaron’s age.

“Luckily John was able to perform the operation fully. The pressure in Aaron’s eyes started to drop almost immediately. The staff at the Richard Desmond Children’s Eye Centre are wonderful people. We couldn’t have asked for a more caring, professional team to look after our baby.”
By the time she came to Moorfields aged eight, Rhiannon Willis was blind in one eye and rapidly losing her sight in the other eye due to glaucoma, cataracts and severe inflammation. In 2001 her care was assigned to Professor Sir Peng Khaw to save the sight in her right eye.

Originally her treatment took place in the main hospital – Rhiannon remembers the very long and boring waits, however she loved Professor Khaw and trusted him from the offset. He was able to explain things in a way that she understood and gave her hope.

Rhiannon laid the foundation stone of the Richard Desmond Children’s Eye Centre in 2007.

Rhiannon was 14 when the Richard Desmond Children’s Eye Centre (RDCEC) opened. The new centre provided a more welcoming environment with facilities to suit children of all ages, including computer games for teenagers and fantastic play areas for toddlers. The facilities are great for parents too, helping to distract their children and reducing anxiety for all concerned.

Professor Khaw was able to save Rhiannon’s sight in her right eye, including reducing the pressure in her optic nerve.

Rhiannon still remembers the moment the eye patch was removed after her surgery. She says: “The vision was so clear, so sharp with so many colours!”

Rhiannon now attends the hospital as an adult patient. “I feel privileged to have been treated at the RDCEC. It is a place that has the most amazing specialists in eye care and truly is a reflection of the life changing advances in modern day science.”
There has been little research into the effectiveness of CXL in children, so Frank Larkin has designed the Keralink trial to investigate the effectiveness and safety of using the CXL technique. In the under-17 age group, corneal transplantation is the most common treatment for keratoconus and it is hoped that the results of this trial will dramatically reduce the need for corneal transplant surgery. Young patients with early keratoconus are being recruited through the Richard Desmond Children’s Eye Centre (RDCEC) to participate in this trial.

This is exactly the kind of pioneering research that makes the RDCEC such an important facility. Not only does the RDCEC treat children with eye disease now, but the research undertaken benefits future patients from the UK and around the world.

Frank Larkin is a consultant ophthalmologist specialising in corneal diseases and cataracts. He is currently leading research into treatments for keratoconus in children and adolescents. Keratoconus is a disorder in which the cornea becomes progressively thinner causing deterioration in vision. In advanced cases it can lead to corneal transplant surgery to restore sight. The earliest signs of this disease are often found in children.

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Annegret Dahlmann-Noor is a consultant ophthalmologist specialising in paediatric ophthalmology and strabismus (squints). Annegret is undertaking research into improving treatments for amblyopia, or ‘lazy eye’. This is the most common vision defect in children, affecting 2-4% of the UK population.

If amblyopia isn’t treated vision in the affected eye is poor, leading to many detrimental effects such as poor hand eye coordination and a lack of 3D vision. It is also possible that problems in the ‘good’ eye develop as the child moves into adulthood, which could lead to deteriorating eyesight or even blindness.

Amblyopia research has discovered that the deficiency is with the two eyes not ‘speaking’ to each other. The visual part of a baby’s brain can be normal but if one of their eyes is ‘lazy’ the brain will naturally allocate more space to the stronger eye, causing an imbalance in vision.

The traditional cure for a squint was to patch the ‘good’ eye in order to strengthen the weaker eye. The problem is that most children do not wear a patch for the prescribed time. A special pair of LCD shutter glasses are being piloted through the Richard Desmond Children’s Eye Centre, which give a blurred image to the strong eye and clear image to the weak eye.

The children are asked to watch a 3D movie wearing the glasses for one hour each day. Initial results show that children use the glasses for 90% of the prescribed time, compared to 50% compliance when using traditional patches.

These results are really encouraging. Research is demonstrating that by making treatments child friendly, children respond more willingly.
Mally Scrutton is the paediatric matron at the Richard Desmond Children’s Eye Centre (RDCEC). Having previously worked on the old children’s ward as the paediatric sister in the main hospital, she was instrumental in the development of a new facility dedicated to paediatric care at Moorfields.

Mally said: “The old children’s ward was uninviting and unappealing for patients, so when it came to designing the RDCEC we were adamant that we spoke to children about what they would want. We held lots of focus groups with children and parents and the overwhelming feedback from the children was they didn’t want the new building to look like a hospital.

“The RDCEC has totally changed the way in which we work. We wanted the new ward to feel calm, even if it is full and I’m delighted to say that we have achieved exactly that. No matter how busy the ward is, it always feels calm and that’s a great environment for both the children and their parents.

“For children, coming into a hospital can be overwhelming. Enabling them to play means they lose the hospital world and are back in a world that they understand. The RDCEC also helps parents relax during what is often a very distressing time and the play areas are vital to help look after siblings while their brother or sister is having their treatment.

“We are very proud that paediatrics and the RDCEC were awarded ‘Outstanding’ in our recent Care Quality Commission report. To get outstanding for a paediatric service in a single speciality tertiary centre is wonderful. We’re thrilled to have been able to create a service entirely based around the children and their parents.”
Flossie Donovan is a senior play specialist in the Richard Desmond Children’s Eye Centre (RDCEC). She has worked at Moorfields for 16 years.

When Flossie first started at Moorfields she was the only play specialist and now there are seven. While some Moorfields sites have dedicated play specialists, most don’t, so the RDCEC staff also cover paediatric clinics across the Moorfields network.

Flossie said: “The role of the play specialist is so important, not only to entertain the children, but to also pick up on any worries or anxieties they may have coming into hospital. The play specialists talk through the fears with the children and help put them at ease. It is not only the younger children who benefit: older children and teenagers also need someone they can talk to and who will be honest with them about what is happening.

“There are lots of facilities available to keep them occupied, such as wifi, DVDs and a Wii they can play on while waiting for appointments and treatments.

“The RDCEC has helped improve the experience for all patients, regardless of if they are babies or teenagers.”
More than 70 different conditions have presented at the accident and emergency department of the RDCEC over the last 10 years. The six most common were:

- Corneal abrasion: 6%
- Eye injury: 7%
- Blepharitis: 8%
- Chalazion: 9%
- Conjunctivitis: 9%
- Allergic conjunctivitis: 19%

Our UK patients come from:

- Rest of UK: 1%
- South West: 1%
- Midlands: 2%
- East Anglia: 15%
- South East: 21%
- London: 60%

Our overseas patients come from:

- Australia: 3%
- Germany: 3%
- Greece: 3%
- Gibraltar: 7%
- USA: 10%
- Malta: 14%
- Italy: 15%
- Other: 18%

“World class paediatric ophthalmic care”

David Probert
Chief Executive, Moorfields Eye Hospital

“Richard Desmond Children’s Eye Centre (RDCEC) offers patients and their families the gold standard in paediatric care and I am proud that many other facilities across the world are trying to replicate the look and feel of the centre and the first class service offered. So much has been learnt over the past 10 years in how to improve treatment for children. We are incredibly proud that during Moorfields Eye Hospital’s recent Care Quality Commission inspection, we received ‘Outstanding’ in services for children and young people. Parents, children and young people were overwhelmingly positive about the kindness and compassion of our staff, their cheerful and calm approach and their sensitivity towards the needs of children, young people and their families.

“We need to ensure that we continue to make the best use of the resources available to us. If we want to continue to lead the way in paediatric services, we have to be open to all opportunities that allow us to grow, innovate and treat our patients. It is our aim that the RDCEC will always be able to deliver world leading clinical service and research; this is only possible with the generous commitment and support of people like you. So once again, many thanks for all your generosity, and for enabling the RDCEC to be at the forefront of paediatric ophthalmic care.”
Moorfields Eye Hospital has been around for over 200 years and your support is more important than ever. Please help us shape the future of eye care.

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