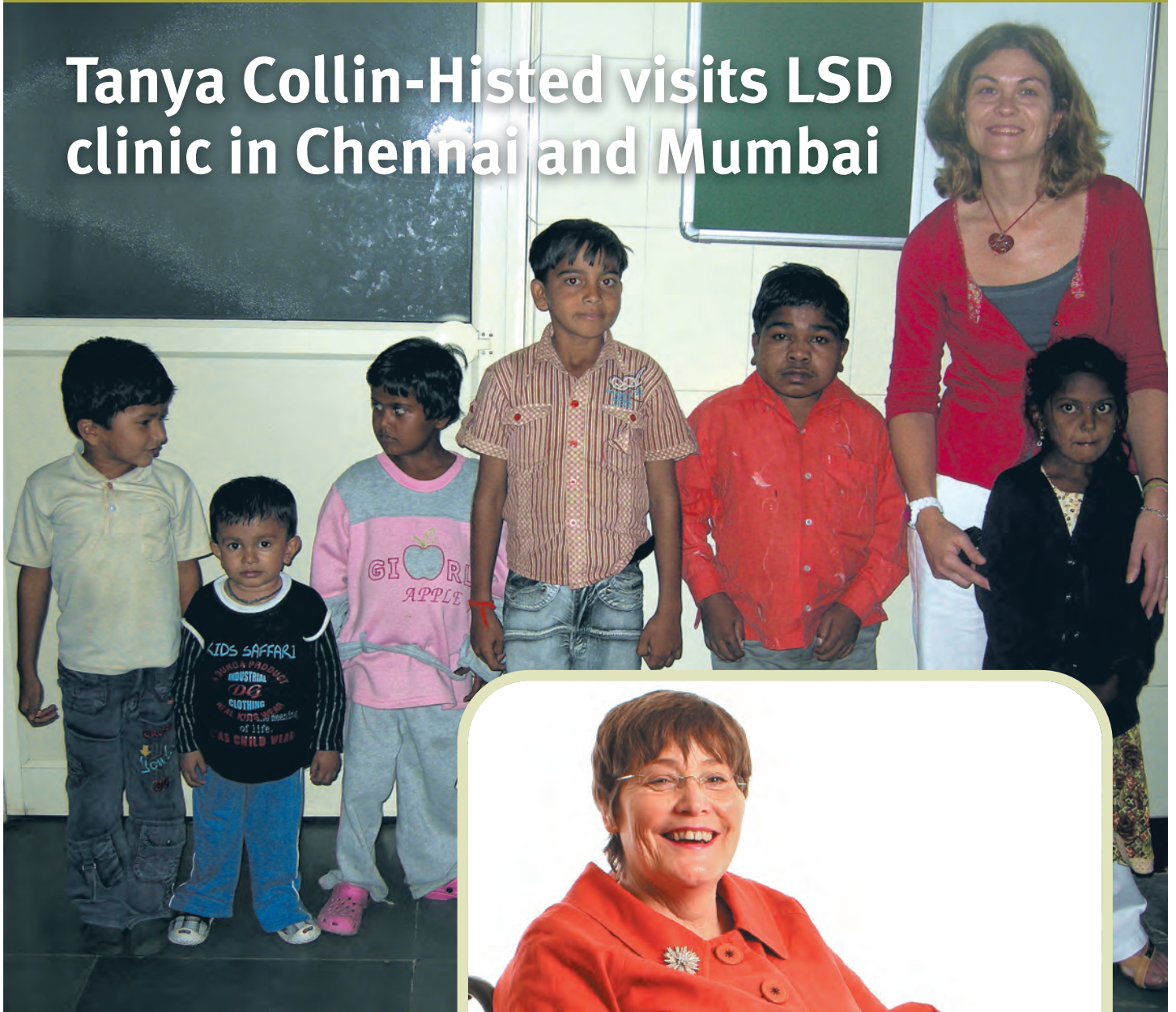


Gauchers NEWS

April 2011

Gauchers ASSOCIATION

Tanya Collin-Histed visits LSD clinic in Chennai and Mumbai



Damehood for Anne Begg MP



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Chairman's Chat

Dear Friends,

Welcome to the Spring 2011 edition of Gauchers News. This edition includes a mix of personal stories, updates on treatment developments, reports of an important scientific conference, an article on the challenges faced by patients in India and other parts of the world, an update on the Humanitarian aid programmes for Gaucher patients as well as updates on our past and future fundraising activities.

2011 is the 20th anniversary of the first meeting of the eight people who formed the Association. As we look back, it's worth recalling the challenges faced when we sought to secure the newly developed and licensed (at that time only in the USA) Enzyme Replacement Therapy for those whose doctors thought they would benefit from this revolutionary new treatment. There were no National Centres of Excellence then but there were committed doctors working hard for their patients and offering their advice and guidance to the fledgling Association. I pay tribute to them all. Most are still working to make the world a better place for Gaucher patients and without their inspired drive, determination, tenacity and compassion the situation in the UK and worldwide would look very different.

Our anniversary is a time for reflection and to express gratitude to all those who have helped us. It is also a time for celebration and I hope you will be able to join us for our birthday event on the 5th November (see Page 15). The year ahead will bring lots of opportunities to engage with the Association. Please try and participate in our events. Members and friends are training for the Marathon, practising their golf swing and pedalling for our cycle ride – thank you for helping the Association. We need your support so that we can continue to help Gaucher patients.

Notwithstanding the success of enzyme therapy, unresolved challenges remain. We plan to redouble our efforts to support those trying to better understand and manage the neurological manifestations of Gaucher disease and to develop effective treatments. We need to better understand the connections between Gaucher and other conditions and as experience is gained of the new therapies, we want to help doctors and scientists better distinguish the benefits of each new and potential treatment.

The Board are grateful to our members and friends for all that they do for the Association. If you want to help us, please contact Tanya or Sarah.

With best wishes
Jeremy

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Front page photo (top to bottom): Tanya Collin-Histed, Chief Executive of the Gauchers Association on a recent trip to India; Anne Begg MP receives a damehood.

My beautiful daughter Hijab – A father’s story

The Gaucher community is a small one. When parents and doctors reach out for support for either access to treatment or advice, it’s the relationships and contacts that have been nurtured over many years that spring into action. The UK Gauchers Association receives many requests each year to help parents access treatment for their children when their own health system is unable to provide funding for treatment.

For many years the UK Gauchers Association and the European Gaucher Alliance (EGA) has worked with the Genzyme Corporation to support patients by referring them for consideration for treatment (see page 12). Atif Qureshi, the father of two year-old Hijab from Pakistan tells his story –

“Hijab was born in December 2008. She was a healthy child. About five months ago, we observed that her stomach was bigger than normal and when she started walking there was no significant change in her stomach size. Other family members also observed the same apparent abnormality.

“I took her to a renowned Pediatrician who diagnosed her quickly. She needed an ultrasound and the report showed a huge spleen and enlarged liver and the doctor admitted her to hospital the very next day for tests. This revealed an alarmingly low hemoglobin level and platelet count. For the next stage of diagnosis, the doctor advised us Hijab needed a bone marrow biopsy. It was then I realized that there must be something seriously wrong with my child. The doctor did not communicate clearly and told us that it could be a form of a blood or storage disorder.

“I remember the day when her blood reports were in my hands and I had no idea what my child was going through. I took her to the leading cancer hospital in the country for the painful bone marrow biopsy. When her operation started, my family and I were sitting in the waiting area and praying. After 40 minutes a nurse came out and I ran towards her and asked her how my daughter was. She said that since her platelets were very low, they were unable to get the required sample in first attempt and asked me to sign the consent form to try and take the sample from the other side. It was a horrifying

decision to make but I had no option but to sign the consent form and wait.

“I was out of town when I checked her bone marrow biopsy report online. I called her doctor about the findings and when I told him that the findings were a “storage disorder that favours Gaucher disease”, the response from doctor was “it is exactly what I suspected when I first saw her. It is a rare genetic disorder.” When I asked him about the treatment and cure, he said “unfortunately there isn’t any cure and the only available treatment, ERT, is beyond reach.” I was in disbelief and denial.

“The worse part was when I consulted almost all the paediatricians and surgeons in my city. No-one could give me proper guidance and advice and most of them had never seen anyone with this disorder. Few of them advised me that there is no other way except a splenectomy and after that her survival would be 15–20 years maximum. Finally a doctor suggested we visit Dr. Agha Shabbir Ali who is the head of the Paediatric department at a local hospital and has the experience in dealing with Gaucher patients.

“In the meantime I was in contact with my brother and his wife who were in the UK. They were a great help as they consulted the specialist doctors in the UK regarding Hijab’s diagnosis.

“After viewing the reports of Hijab, Dr. Agha told us that a bone marrow biopsy is not the ultimate diagnosis and the gluco-cerebrosidase and chitotriosidase assay level needed to be checked to confirm the diagnosis but no lab in my country provides the services to test these. My brother and his wife made the arrangement for these tests to be done in the UK. The results confirmed the disease.

“After confirming the diagnosis, the next task was to try and get ERT for Hijab. This was made easier with the efforts of



my family in the UK who contacted the Gauchers Association. One morning I received a call from Tanya Collin-Histed who was very kind and helpful. She gave her contact details and forwarded me the form from the Genzyme Corporation for Cerezyme and she guided us through every step of securing the treatment. After completing the formalities I sent the forms back to her. Hijab’s case was successfully considered for humanitarian aid.

“Bringing the treatment was also an uphill task as a ‘No Objection Certificate’ from the Ministry of Health and a duty waiver certificate were required for importing the vials. I had to visit the Ministry office four times to arrange the NOC certificate and for the duty waiver I had to put forward a special request to the Prime Minister that was fortunately approved.

“Hijab’s ERT started last December and she is progressing well. Even though her spleen and liver are still enlarged and her weight and height remain unchanged for six months, overall she has responded positively.

“With the help of the UK Gauchers Association, I want to help set up a medical centre in Pakistan so that patients can get proper help and guidance. I am trying to contact all the families and children who are fighting this disease and trying to bring all of them together where we can share our experiences. There is a great need for advocacy and awareness about Gaucher disease in Pakistani medical professionals.

“I would like to thank the UK Gaucher Association, The Genzyme Corporation from all those who look to them for help, guidance and prayers. It is due to them that Hijab is now fighting back strongly from this disease.”

“Hijab is now fighting back strongly...”

National Collaborative Bone Project – Conclusions

Members are aware that the Association was responsible for funding the initial National Bone study, Professor Timothy Cox (University of Cambridge at Addenbrooke's Hospital) reports:

'It is a pleasure to inform the Association of the publication of two primary research articles describing the work carried out between the three adult centres that participated in the national project funded by the Gauchers Association and, latterly in part, by funds from the European Union and by the Cambridge Biomedical Research Centre of the National Institutes of Health (metabolic theme). The centres concerned were The Royal Free Hospital (Prof. Mehta and colleagues), The Royal Manchester Children's Hospital (Prof. Wraith and colleagues) and Addenbrooke's Hospital, Cambridge (Dr Deegan and colleagues).'

Prof. Cox pointed out that from that statement itself, you could see that the core funding provided by the Association had "academic leverage": that additional support for laboratory expenses and a research fellowship for Dr Elena Pavlova had been provided to see the very complex research project, involving many colleagues, through to its conclusion – or, at least its primary conclusion. Two papers have been published and have appeared in peer-reviewed international journals:

The first, describing principally the clinical findings, with its primary author Dr Patrick Deegan – 'Osseous Manifestations of Adult Gaucher Disease in the Era of Enzyme Replacement Therapy' – Deegan P B, Pavlova E, Tindall J, Stein P E, Bearcroft P, Mehta A, Hughes D, Wraith J E and Cox T M (2011) appeared in *Medicine* (Baltimore) Vol. 90, pages 52-60.

The other publication: 'Potential Biomarkers of Osteonecrosis in Gaucher Disease' – Pavlova E V, Deegan P B, Tindall J, MacFarlane I, Mehta A, Hughes D, Wraith J E, Cox T M (2011), appeared in *Blood Cells, Molecules & Diseases* Vol. 46, pages 27-33.

'To remind members as to the nature of these studies, we sought to quantify the contemporary burden of Gaucher disease in the skeleton and explore possible relationships between the clinical, x-ray and blood test findings.'

'A representative group of 100 unselected UK adult patients agreed to participate, in a structured interview, rigorous clinical examination, review of their radiology, as well as the completion

of detailed questionnaires. We estimated quality of life and examined relevant blood test measurements of disease activity.'

'What was surprising was the true extent of residual disease: the study showed, even in the treatment era, that mobility was impaired in a third of patients, and that about 15% (1 in 6) experienced significant pain. An estimate of the quality of life as a summary measure showed that this was reduced mainly in those patients who had experienced episodes of osteonecrosis (bone 'crises') or fractures due to increased fragility of their bones.'

'It was notable that eight patients had experienced new episodes of osteonecrosis after the start of enzyme replacement therapy (only Ceredase and Cerezyme had been available during the period of study), but the presentation and progress of these episodes were often not typical. What was very pleasing to discover was that of the nine patients who had been treated with enzyme replacement therapy since childhood, all had had an excellent outcome.'

'Overall, the prevalence of osteonecrosis was more than 40%, with just over a quarter of the patients suffering from fractures due to increased bone fragility. A few patients had destructive foci in a bone ('lytic lesions' - in 4%), and 6% had, or were still suffering from, episodes of bone infection ('osteomyelitis') – a disabling and at times very unpleasant orthopaedic complication, despite the availability of modern antibiotic agents.'

'There were two unusual aspects to this study that all the investigators had found to be revealing. Although for many years osteonecrosis had been associated with patients who had had their spleen removed, in this study Dr Patrick Deegan had discovered a strong association in the timing of the surgical operation and the occurrence of osteonecrosis. The complication was found to be significantly more frequent in the first few years after the surgical operation than at any other time.'

Prof. Cox stated that this finding lends considerable weight to the widely held view that the removal of the spleen is best avoided in Gaucher disease. Not only are there the immediate risks associated with the surgical procedure itself and the long-term risks related to an increased

tendency to form blood clots and overwhelming bacterial infection (both of which were well-known and quite easy to prevent), but there is an additional risk of bone crises with injury to the skeleton. He explained that these effects did not arise simply because in the past patients with more severe disease were more likely to have their spleens removed in the first case, but because of the influence and effects of removing the spleen. A widely held view is that removing the spleen has subtle effects on the flow properties of the blood – but the exact explanation has yet to be discovered. In patients with ongoing osteonecrosis, conventional markers of their general Gaucher disease activity in the blood were more elevated. This association was prominent in the minority (albeit significant minority) who suffered from this complication of Gaucher disease irrespective of enzyme treatment. These so-called 'biomarkers' (termed chitotriosidase and the chemokine PARC/CCL18) were thus found to be significantly higher in the group with osteonecrosis. In this connection, Prof. Cox pointed out that the Association many years ago (1997-2000) generously funded research carried out in Cambridge by Mary-Teresa Moran that led to the identification of the CCL-18 marker – a protein that is now in widespread use and undergoing evaluation alongside chitotriosidase in Gaucher patients worldwide.

In the more recent work, studies conducted on a range of potential biomarkers in Gaucher disease by Dr Elena Pavlova not only showed that numerous serum cytokines are elevated in the condition, but several, like CCL-18, were particularly elevated in those patients who had on-going osteonecrosis despite enzyme replacement therapy.

Prof Cox went on to tell the Association that he regarded these papers as enormously important in their own right: the UK centres working with many dedicated patients had been able to carry out a thorough documentation of a whole national cohort of patients with Gaucher disease in the mature period of therapy. At the most elementary level it was clear that there was a continuing need for vigilance as to the development of complications in the skeleton – but more important was the obvious need for a stratagem to reduce the risk of these complications occurring in a treated population.

It was very encouraging that patients who were now adults, but who had received enzyme replacement therapy from paediatric specialists during childhood, had grown normally and appeared to be free of skeletal complications, as well as other manifestations in the condition. But the real-life experience of those adults with established disease – though benefitting from treatment given later – showed that

they had a greater risk of bone disease with its attendant disability and impaired life quality. It appeared clear that such patients had experienced improved well-being, energy and blood counts but were left not only with the burden of their past disease but often with ongoing disease that was incompletely suppressed. The finding that biomarkers were higher in those patients with the complications was also very significant, since it would drive what are known as prospective studies, seeking to determine whether or not given values of the biomarkers were predictive of a particular complication in a group of patients followed over time.

With many samples of banked sera obtained from patients with Gaucher disease worldwide over many years, and the completely unexpected unwanted effects of the catastrophic world shortage of enzyme replacement therapy in the year or so from June 2009, when the Cerezyme shortage was first announced, it was explained that all the investigators were in a position at least to initiate a study. If high biomarker activities were shown to predict future adverse events in Gaucher disease, then studies could easily be undertaken with the available enzyme preparations (now three – Cerezyme, VPRIV and the emerging taliglucerase) to determine threshold biomarker values, below which there was an insignificant risk of developing skeletal complications.

In the future development of this research, it is not too fanciful to move from individualised therapy to the practice of identifying target values in the existing

activity markers (as well as continuing the search for improved biomarkers). Clearly, much work would be needed with the tools available to see if such aims were really achievable, but already the studies developed by the national group of investigators had come as far as formulating the appropriate questions and identifying the true burden of Gaucher disease for many patients who had developed the condition before definitive treatment had become available.

The Association was again congratulated on its bold initiative for funding peer-reviewed research which was now in the public domain. It was an enlightened altruism to commission a project of clinical relevance shared by the all relevant treatment centres at the time. A key feature of the research was the collaborative spirit and ‘bonding’, and in this way it appeared to set a high standard for future clinical research in the UK.

With five active therapeutics (three enzyme preparations and two orally active treatments) licensed or in late-stage clinical development, there was a formidable challenge to the conduct of imaginative, but at the same time independent work of this kind. The work achieved so far was but one step towards a fuller understanding of Gaucher disease in the great uncharted space where lack of disease understanding meets the demand for better treatment in the real world for patients.

A view was expressed that similar initiatives should be undertaken in the smaller, but important population of paediatric patients with Gaucher disease

– many of whom in the UK also had neurological manifestations to contend with. Once established, it was clear that the skeletal effects of Gaucher disease posed difficulties for treatment, and that this largely reflected our lack of definitive understanding as to how these aspects of the condition came about.

‘Thus, with the model of the national bone project now firmly in place, and with possibilities for further collaborations mandated by the Association, we are all in a much stronger position to redouble our research effort and, if possible determine how best how predict the risk and prevent the injury. It seems quite plausible that one day we will have a blood test that tells us that any person’s Gaucher disease has been sufficiently treated effectively to remove the long-term risk of skeletal disease. This might be a target value for chitotriosidase or CCL-18 – or another blood biomarker that is simple to measure.’

Finally on behalf of all the investigators, Professor Cox sincerely thanked the Association for its great generosity and forbearance; he also thanked all the participants and – especially his colleagues, Drs Deegan and Pavlova for their hard work – as well as the numerous patients who took part willingly so that the work could be usefully completed. There remained many nuggets of critical information so far undiscovered within the study, and all the investigators looked forward to building on the strong relationships they have formed between each other and with the Association, the better to explore them.

Professor Joseph Tager



South African-born Professor Joseph Tager died on 25th February 2011 at 85. He was a founder of the European Study Group on Lysosomal Diseases (ESGLD) and the European Working Group on Gauchers Disease (EWGGD). Prof Hans Aerts writes –

Joseph Tager started his career as a plant physiologist and after his PhD he continued his investigations at the laboratory of Physiological Chemistry, later known as Biochemistry in Amsterdam. He continued to work on mitochondria and then he extended his interest to lysosomes and peroxisomes. He made important contributions to Fabry, Pompe and Gaucher disease, had a major impact

on our understanding of peroxisomal diseases. He was chairman of the Biochemistry Department at the University of Amsterdam (1980-1991).

Joseph Tager was kind and charismatic and was known for fostering young researchers and his love of fine arts and his merits as a mentor were not restricted to biochemistry in Amsterdam. He had an enthusiasm for curiosity-driven and

innovative research and continuously challenged dogma and hypotheses in the scientific community. His insistence to always look closely at individual data in scatter plots, and to distrust any data sets without an outlier (known to many as the Joseph point) became legendary.

Although Parkinsonism took its toll, he was intellectually active and was in the process of finishing a book dealing with a variety of scientific and cultural topics and he was characteristically optimistic about scientific advancement. A great concern was the growing impact of industry on the advance of research and patient care and he believed in the need for pure clinical and pure laboratory research by the next generation of investigators, free of industry agendas, for progress in science and clinical care for patients suffering from inborn errors of metabolism. Joseph Tager will be remembered as a true gentleman of science.

Anne Begg MP awarded a DBE in the New Years Honours List

Anne Begg, Gauchers Association member and MP for Aberdeen South and was made a Dame Commander of the Order of the British Empire (DBE) in the New Years Honours List. She received her award in recognition of her services to disabled people and equal opportunities.



A teacher before entering Parliament in 1997, Anne was the first full time wheelchair user to be elected to the House of Commons and has said she always regarded her wheelchair as her 'liberator'. Anne has campaigned for people with disabilities not to be excluded from society.

In Parliament, Anne lists her political interests as social justice, welfare reform, pensions, equality, genetics and broadcasting. In 2010, she was elected as Chair of the Work and Pensions select committee.

Jeremy Manuel writes, "Anne has been

a constant supporter and friend to the Association. I remember when she wrote to Susan Lewis in 1994 telling us of her nomination as candidate as MP in Aberdeen South and our joy at her election in 1997. Susan and I were at a European conference with other patient groups and they wanted us to tell them how they could get an MP with Gaucher disease! Since entering Parliament she has hosted events for us (including the celebration of the publication of Prof Zimran's book on Gaucher disease and Joan Grantham's retirement celebration), and she has given us wise counsel in our

dealings with the Department of Health. Her intervention when there was a threat to the National Designation of the Gaucher service and ensuring we were able to put our case directly to the Secretary of State was invaluable to Gaucher patients and helped lead to the extension of the designation to cover other LSDs. We are delighted that her work has been recognised in this way.

On behalf of every member, I send Anne our very best wishes, our congratulations and our affection on this much deserved honour."

ICGG Registry Booklet

The International Collaborative Gaucher Group (ICGG) Gaucher Registry is the largest cooperative, observational registry on Gaucher disease. It is a longitudinal database tracking outcomes of routine clinical practice. By January 2007 this Genzyme sponsored registry held data on 4,585 patients collected from physicians in 56 countries.

The registry has launched a booklet designed to answer common questions posed by patients who are (or are considering) participating in the Registry. The aim is to tell individuals about the Registry, allowing them to make informed decisions about participating. It can be used to assist patient/doctor discussions during patient authorisation (or 'informed consent'), and also to help patients explain to friends and family what taking part means. It also explains how the Registry works and what participants can expect.

Some example topics:

What is a disease registry? A database that collects information from people with a specific, often rare, disease. Each disease only has small patient numbers, making it difficult to collect data about signs and symptoms.

What is the Gaucher Registry? An ongoing observational database with the aim of monitoring the long-term natural course of the disease and treatment outcomes. The Registry collects data from patients worldwide and will be maintained

over a long period of time, thereby providing information that would ordinarily be hard to obtain because the population is too small.

Who can participate? The Registry is open to everyone with Gaucher disease, regardless of treatment choice or status.

Why is my participation important? For the registry to be effective, it needs to include as many people as possible to improve the accuracy of the conclusions drawn from the data. Data from patients who are either treated or untreated are equally important to enable research into the disease and long-term effects of treatment.

Editors Note: At the 9th EWGGD meeting in Cologne, Germany, July 2010 Members of the EWGGD agreed the need for an independent Disease registry for Gaucher. Members of the EWGGD steering Group and EGA Patron Dr Liese MEP met with members of the European Commission in December to discuss how to take this further. Updates on the progress of this incentive will be covered in future editions of the Gauchers News.

Children's Gaucher Research Fund allocate \$300,000 to Professor Tony Futerman for research into Neuronopathic Gaucher Disease

Following the death of their four year-old son Gregory from Type III Gaucher disease, Greg and Deborah Macres set up the Children's Gaucher Research Fund (CGRF) in 1997.

Greg Macres writes: The CGRF mission is to raise funds and unite families to find a cure for Type II and Type III Gaucher disease. Since 1997, the CGRF has 30,000 people on their worldwide database and has raised over \$1.6m for medical research.

In July 2010, the CGRF published a 'Call for Research' soliciting research proposals with the purpose of furthering their quest to find a cure for neuronopathic Gaucher disease (Gaucher Type II and Type III). Eleven applications were received from research laboratories around the world, which over the past months have endured an intensive review process. Reviewers (research scientists) from the United States, Denmark, United Kingdom, France and Germany freely offered their expertise, time and knowledge to help guide the CGRF in their funding decisions.

The CGRF makes grants based on recommendations by the Scientific Advisory Board and by unaffiliated researchers around the world. Grant applications are ranked according to the following criteria:

- Historical excellence demonstrated by the researcher and the associated medical/research institution
- Relevance of the proposed research grant to Type II or Type III Gaucher disease
- Demonstration of efficiency regarding the proposed use of funds

Each reviewer is asked to rank each proposal between one and 10 (10 being the highest recommendation) and to include specific narrative comments to support their ranking. An overall ranking of seven and above will be considered for funding, however to date the CGRF has only funded research proposals with an overall average ranking of between eight and 10.

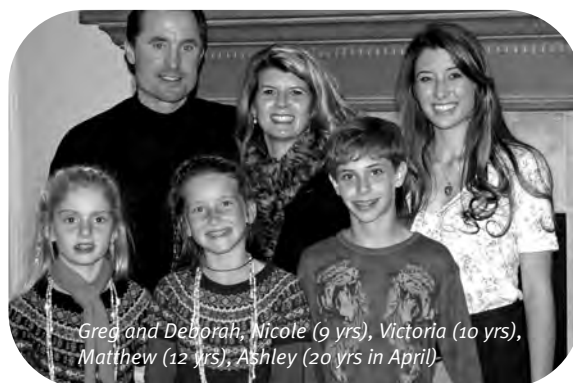
In this latest call for research the highest overall average ranking was received

by Professor Tony Futerman Ph.D. of the Weizmann Institute of Science in Israel. The CGRF has awarded this research laboratory a \$300,000 research grant to pursue the "Patho-physiological Mechanisms in Neuronal Forms of Gaucher Disease". The CGRF has been funding basic research at the Futerman laboratory since 2002 in an effort to uncover the mysteries surrounding the impact of Gaucher Type II and Type III on the brains of young children.

Below are comments submitted by one of our esteemed reviewers:

"This grant builds upon a previous body of research funded by the CGRF that has delivered excellent value for the money and multiple [scientific] publications. This is the best of the basic science proposals this round. The aim is to generate insights into differential neuronal pathology and its mechanism(s), probe the involvement of neuroinflammation in neuronopathic Gaucher and test new therapeutic approaches based on the two main aims.

The previously CGRF funded inducible mouse model of neuronopathic Gaucher will feed into this research program nicely as it will be available within 12 months. The comparative analysis of the acute Karlsson mouse and the new mouse will no doubt lead to important mechanistic insights into pathogenic mechanisms, leading to new therapeutic approaches that can be tested in the two models. All the proposed studies are important, logical, based on sound preliminary data and building on a proven track record of productivity. All the studies are well within the capabilities of the lab. I think it is important to keep neuronopathic Gaucher disease research a focus of the Futerman



Greg and Deborah, Nicole (9 yrs), Victoria (10 yrs), Matthew (12 yrs), Ashley (20 yrs in April)

lab and to continue the funding of what has been and will continue to be innovative, rigorous and hypothesis-driven mechanistic research. New therapeutic approaches will no doubt arise and be tested by this group based on the aims of the grant and their access to proprietary compounds (even if they can't be disclosed at this stage) is an additional advantage."

Founder of the CGRF Greg Macres explains, "The advances in medical science are compelling, and it gives the CGRF further motivation to continue in our quest to raise funds to support this important research. When we created this nonprofit to honour our son's life and the lives of all children affected by Gaucher disease, we made the commitment to apply all donations toward scientific research – *100% of donations go to medical research*. There are no salaries, there are no administrative costs and all costs for postage, printing, website development, etc. are either donated by our talented volunteers or paid for by the founders. We express our deepest gratitude to our thousands of donors who make this research possible".

For more information on the Children's Gaucher Research Fund visit our website at www.cgrf.org.

A full list of previous CGRF grant recipients and published papers can be found at: www.childrensgaucher.org/gaucher-research/cgrf/

UK Association Sponsors Participation in Prestigious Gordon Conference

In October 2010's Gauchers News, we reported that the UK Gauchers Association were to sponsor six bursaries to UK-based scientists to attend the first Gordon Conference on Lysosomal Storage Diseases which included Gaucher disease in Texas, USA in January 2011. The organising committee allocated the bursaries through an application process and those awarded give their individual reports –



Luke Haslett

My work in the field of LSDs started during a research placement with Prof. Fran Platt and Dr. Emyr Lloyd-Evans at the University of Oxford. While there, I studied the relationship between Smith-Lemli-Opitz Syndrome (SLOS), a disorder of cholesterol synthesis and Niemann-Pick Disease Type C (NPC), a rare LSD. During this study we observed that these diseases are similar at the cellular level and that Miglustat was a potentially useful treatment for SLOS; our collaborators received funding to run a clinical trial with this drug. I am continuing this work in Dr. Emyr Lloyd-Evans' newly established lab at Cardiff University.

Thanks to the bursary, I attended the Gordon Conference on LSDs in Texas and presented a poster on this work. It was well received and the interest shown lead to me being selected to give a talk on my major findings followed by a discussion of the work with other conferees.

The Conference convinced me to stay in the field of LSDs and I met others working in the field, from established researchers to students and young post docs. During the conference I also became a member of the committee charged with organizing a Gordon Research Seminar before the next conference on LSDs – a one day event allowing researchers with comparable levels of experience to present their work in a less formal atmosphere.

I would like to thank the UK Gauchers Association for the opportunity and I hope those experiences help me conduct research which provides insight into LSDs in the future.



Dr Angharad Watson, University of Manchester

I began my PhD in 2006 at the University of Manchester in the newly-formed Mucopolysaccharidosis Stem

Cell Group, under the supervision of Dr Brian Bigger.

The group has interests in Mucopolysaccharidosis (MPS) I, IIIa and IIIb, and studies disease pathology, biomarkers for diagnostic tests and gene therapy. My work focused on MPS I Hurler, and my PhD examined ways that materials stored in LSDs might alter signalling interactions, and thus contributes to the disease pathology or treatment difficulties. In the case of MPS I Hurler, I was interested in how the storage substrate heparan sulphate might be interfering with the important signals needed to guide donor stem cells to the bone marrow after transplant.

During my PhD, I discovered many things about MPS I Hurler heparan sulphate, including its role in inhibiting the arrival of transplanted stems cells in bone marrow. This finding supplied the content of the work I presented at the GRC.

The GRC surpassed all my expectations. The prospect of meeting people I had known by reputation was daunting, but by the end, they had become friendly faces. Hearing their opinions was a positive experience, and made me much more confident about taking my work forward to publication and peer review.



Denis Marchesan

I graduated from the University of Padua and carried out my PhD at the University of Gothenburg.

Currently I am a research associate in the Department of Medicine, at the University of Cambridge. I am working in Professor Cox's laboratory and we are interested in studying the mechanism of enzymatic uptake in the cells from patients with LSDs. We believe that by understanding the way the enzymes enter the more relevant cells, we will have tools for improving the current ERT, whose efficacy in all diseases except Gaucher disease is still modest.

I applied to attend the GRC which gave me the opportunity to present our work in form of a scientific poster and to

meet with the leading LSD scientists worldwide. We also had interesting feedback that we'll use and we could start and renew collaborations with academic and industry colleagues.

These meetings are important because the best unpublished data is presented and this helps us to know what is happening. It also has a strong impact in the possibility of coordinating and optimizing research in groups worldwide with overlapping interests and I am very grateful to the Association for my bursary.



Dr Tim Sargeant

I'm a postdoctoral scientist at the Department of Medicine at the University of Cambridge. My PhD, which I completed in at Victoria University

in New Zealand, investigated aspects of opiate use and foetal brain development. I currently research with Professor Cox and Dr Cachón-González who are developing gene therapy for Tay-Sachs and Sandhoff disease. My role is to develop and characterise an innovative disease model that will help us understand what aspects of GM2 gangliosidoses are treatable with gene therapy and what factors define the therapeutic window for treatment. In conjunction with others, my research also encompasses investigating what pathological processes are responsible for development of neurological symptoms in GM2 gangliosidoses.

The GRC put me into contact with leaders in different aspects of research I am interested in. I presented data on the disease model I am developing and received critical appraisal. Due to the nature of these conferences, I was also able to talk to others working on developing similar models and we could talk about technical aspects of our work that are almost impossible to find in the literature. The opportunity to attend this conference not only put me into contact with experts, it also showed me how research on LSDs is rapidly changing and what new directions the field is taking.



**Chun-Wu Chen
(Oscar Chen)**

I am doing my PhD at the Department of Pharmacology, University of Oxford. My research interests are on the role of metal ions and their association with the pathogenesis of LSDs. Also, I am interested in investigating and identifying potential biomarkers and thereby developing novel therapies on LSDs. I hope to find valid biomarkers to help evaluate the progress of diseases and drug treatment responses of LSDs patients.

It's an honour to be supported by the Gaucher Association to attend the GRC. I met lab principal investigators, clinicians and PhD students and I heard presentations on the latest data in all aspects of the field. These researchers are working hard to understand the pathogenesis of LSDs and trying to develop useful therapies to help improve the quality of life for patients. Finally, I would like to thank the Association who have supported me at this early point in my career.



Paul Fineran

I am doing a DPhil in Pharmacology at the University of Oxford and I attended the GRC and my travel costs were kindly met by the UK Gauchers

Association. My research focuses on Niemann-Pick Disease Type C (NPC), a rare LSD affecting around 1 in 150,000. NPC is characterized by progressive neurodegeneration leading to disability and premature death. Those who develop NPC during infancy will usually die within their first few years.

My work has focused on how disease develops in NPC organisms. The majority of NPC patients have a mutation in the NPC1 gene, which codes for the production of a protein present in the lysosomal membrane. The function of NPC1 is not certain, but dysfunctional NPC1 leads to a number of changes in the cell. Cells from NPC organisms accumulate a wide range of substances in the lysosome, have problems with cellular trafficking and have reduced levels of

lysosomal calcium. The order in which these events occur is contentious – we don't know which is the primary disease event (occurring as a direct result of NPC1 dysfunction, and whose occurrence leads to other cellular defects). Our aim is to work out the order of events occurring inside the diseased cells/tissues. With a better understanding of the root causes of NPC we hope to be able to develop more effective therapies.

Being able to attend the GRC was a fantastic opportunity, and I am grateful to the UK Gauchers Association. This help gave me the chance to engage with cutting edge research into NPC and LSDs. I met others in my field and we exchanged ideas and discussed directions our research could take and may lead to future collaborations. In conclusion, this conference has provided me with an excellent grounding for my work, and I am extremely grateful.

Protalix's announce trial for orally-delivered treatment for Gaucher disease

Israeli company Protalix Biotherapeutics have developed taliglucerase alfa which is an intravenously-delivered plant cell expressed glucocerebrosidase (GCD) enzyme treatment for Gaucher disease. In partnership with Pfizer, Protalix is awaiting for approval for taliglucerase alfa in the US and has filed with regulatory authorities for licences for the enzyme treatment in Europe, Israel and Brazil. Protalix now seek to hold trials on the delivery of their enzyme orally.

Tanya Collin-Histed, Chief Executive of the UK Gauchers Association reports on Protalix's announcement of the development of an oral treatment for Gaucher disease. This treatment is a plant cell expressed form of GCD that is naturally encapsulated within carrot cells genetically engineered to express the GCD enzyme.

It has been reported that pre-clinical studies of oral GCD demonstrate the stability of the enzyme in the cell and the capacity of the cellulose wall to protect the enzyme against degradation in the digestive tract in an in-vitro model of the stomach and intestines. Additionally, rats fed with lyophilized carrot cells expressing

GCD have accumulated the active enzyme in the target organs, the spleen and liver.

The company's development of an oral delivery of encapsulated GCD has the advantage of leveraging the well-characterized mechanism of action for taliglucerase alfa (an intravenously-delivered plant cell expressed GCD). Furthermore, delivering GCD orally may dramatically change the treatment paradigm for Gaucher patients, as currently approved enzyme replacement therapies are only delivered intravenously.

Professor Ari Zimran, Director of the Gaucher Clinic in Shaare Zedek Medical Center in Jerusalem, Israel, and lead investigator of the phase III clinical trial of taliglucerase alfa said, "Using the plant-

cell expression system for oral delivery of GCD is revolutionary because it targets the disease-specific organs without the need for lifetime dependence on repeated intravenous infusions. Moreover, it is unlike substrate reduction therapy, which is also oral but may have unpredictable long term effects due to the inhibition of other non-disease-specific compounds. Finally, oral administration of the enzyme for patients with Gaucher disease will increase compliance and facilitate management."

Protalix intends to initiate phase I clinical trials of oral GCD in healthy individuals who are carriers of Gaucher disease and show reduced enzymatic activity at baseline.

Visiting LSD clinics in India

On the 26th and 27th of January 2011, a group from the UK were invited to the annual LSD multidisciplinary clinic held at the Fetal Care Research Foundation (FCRF) in Chennai, India. The group comprised Dr Ashok Vellodi (Consultant Paediatrician, GOSH), Tanya Collin-Histed (CE, UK Gaucher Association), Dr Uma Ramaswami (Consultant Metabolic Paediatrician, Addenbrooke's Hospital), Niamh Finnegan (LSD Clinical Nurse Specialist, GOSH), Christine Lavery (CEO, MPS Society), and Malcolm Johnson (Genzyme). Dr Vellodi reports –



The clinic staff at the Fetal Care Research Foundation (FCRF) in Chennai

The FCRF is a private, non-profit organisation established in 1982 by Dr S. Suresh, a fetal interventionalist, and his wife Dr Indrani Suresh, a foetal ultrasound diagnostician. The bulk of the work of the centre is related to foetal diagnostic and interventional work. In 1997 they were joined by Dr Sujatha Jagadeesh, a geneticist (dysmorphologist). In 2003 it established, for the first time in India, a support group for families of children suffering from mucopolysaccharidoses; this was quickly extended to involve other LSDs including Gaucher disease.

The LSD service at FCRF is headed by Dr Jagadeesh, ably assisted by a dedicated team. At present, the centre has about 215 LSD patients, of whom 21 have Gaucher disease. This small number may reflect the fact that mildly affected Gaucher patients are not being diagnosed. This hypothesis is supported by the fact the majority of Gaucher patients at the centre (14) have Type III, and nearly all are children. The first adult patient ever seen at the centre (two days after the clinic was held) was a 44 year old woman, incidentally diagnosed just a year earlier when she was found to have splenomegaly at the time of a hysterectomy.

Most of the patients (15 out of 21) have been receiving ERT with Cerezyme® through Genzyme's Indian Charitable Access Programme (INCAP). Dr Jagadeesh,

Dr Ramaswami and Dr Vellodi are members of the advisory board for this programme.

Each member of the group had a specific role (support group, pharmaceutical company, clinical, nursing). The purpose of the visit was twofold; first, to participate in the clinic and second, to discuss future collaborations.

I have been working with Dr Jagadeesh and her team since 2004, and Dr Ramaswami since 2008 but it was the first time either of us had attended the annual multidisciplinary clinic. It is always held on the 26th of January as it's a national holiday in India and the families can get time off to attend.

A total of 67 children and their families attended the clinic supported by eight specialists (geneticist/metabolic, cardiologist, orthopaedic surgeon, ENT surgeon, dentist, ophthalmologist, physiotherapist and neurologist). Dr Sujatha is the only specialist based at the centre; the others come from hospitals around the city. Including Dr Ramaswami and myself, there were therefore a total of ten specialists, calling for a high degree of coordination! The centre's other activities were closed in order to accommodate the clinic and to keep the clinics running smoothly there are at least a dozen volunteers. Each patient arrived with a prearranged schedule of the specialists they would be seeing and every appointment was attended by

at least one volunteer who had a copy of the schedule so that they could escort the family to their next appointment.

During the all day clinic, Dr Ramaswami and I saw about a dozen patients each. The majority of patients had MPS; however, there were four patients with Gaucher disease. The others spent the time observing, or talking to patients and families.

India has 22 major languages. In the north one can manage with just Hindi, but in the south there are at least four major languages so interpreters were required, often having to rush between clinics at short notice!

In addition, the clinic was held in ten rooms over three floors connected by a single narrow staircase, and the significant noise levels that are part and parcel of life in India, and one gets an idea of the scale of the task faced by the volunteers!

Despite the apparent chaos the clinic ran like clockwork. There was also considerable flexibility, so that if a child was required to see an unscheduled specialist at short notice, this could be done. This even extended to ultrasound and MRI scans; they could be done on the same day and the report made available either the same day (ultrasound) or the next day (MRI).

We were all very impressed with this clinic; it is an outstanding example of its kind, and certainly gave us useful ideas for our personal practice in the UK.

The following morning we all met for an interactive session with parents and representatives of the Lysosomal Storage Disease Support Society of India (LSDSSI). Mr Prasanna Shirol, the president of the LSDSSI, gave an excellent talk and presented a superb video on LSD and several parents spoke, voicing their concerns. It was moving to listen to them, particularly as most of them spoke totally extemporaneously.

We also visited the Apollo Children's Hospital in Chennai to see a Pompe patient who had been admitted to the PICU. LSD patients receive their ERT infusions at this new hospital and it is equipped with state of the art facilities. However, it is private, patients are charged per day for their care and to no surprise, there were a large number of empty beds. Unfortunately, as this is the only hospital that is prepared to give the infusions, families have to pay for the cost of the day admission, all ancillaries (iv fluids, needles etc), and of course subsistence costs such as travel, food and in some cases overnight hotel accommodation. These 'stealth' costs to the family can be considerable.

The next day Tanya and I flew to Mumbai, where we were guests of Dr Mamta Muranjan, Associate Professor of Paediatrics at the KEM Hospital, one of the oldest teaching hospitals in India. Being a teaching hospital, the meeting

was attended by faculty as well as several postgraduate students. The focus of the day was on Gaucher disease, and about a dozen families attended. The day was divided into two sessions – the morning session comprised of talks by some of the staff as well as parents and was followed by a Q&A and in the afternoon, Dr Vello di held a clinic. Thirteen patients attended of whom 11 had Gaucher disease. While most were receiving treatment through Genzyme's INCAP programme, a small number had not yet been approved. In addition there were two newly diagnosed patients. The meeting received good press coverage, an important step towards attracting attention to these rare disorders in India, a country with many competing health priorities.

During the visit, we also had a chance to look around the paediatric ward and the rest of the hospital. Unlike the Apollo Children's Hospital in Chennai, the KEM Hospital is a government hospital and is therefore free of charge. Patient intake is from the poorer socio-economic classes and all the beds are full with a long waiting list. Obviously, the facilities are not as good as the private sector but the staff are just as skilled and dedicated.

Patient Support

The LSDSSI is now the main organisation for patient support in India. It has a large executive group with excellent representation, not only geographically but also disease-wise. The LSDSSI is doing excellent work, with their portfolio including lobbying the central and state governments for recognition of these disorders, engaging with the media and visiting the centres. They are aware of the latest developments, Mumbai is a site for the Eliglustat trial and they have also started attending international conferences.

Overall, the visit was considered by everyone to be a success. Discussion was free and open, both during the clinics as well as the interactive patient sessions.



A gaucher child and his grandmother at the KEM clinic in Mumbai

There are differences between the healthcare systems in India and the UK. Some are obvious; others less so. The key issues that were identified were –

1. Cost. This is the major driving force in healthcare in India. Unsurprisingly, most of the issues were cost-related –

- While ERT is provided free through the INCAP programme, investigations have to be paid for. These costs can be prohibitive and often result in investigations being delayed or even left out altogether
- Infusion ancillaries (cannulae, IV fluids, syringes) have to be paid for
- Travel/subsistence. Some of the families had to travel considerable distances for weekly infusions, in one case up to 17 hours each way



Dr Vello di, Niamh Finnegan & Malcolm Johnson in Chennai with an MPS child and mother

2. Paucity of local treatment centres. There were two main reasons for this –

- Lack of trained medical and nursing personnel
- Lack of a continuous supply of electricity. In many states there is regular 'load shedding' during which electricity is cut off for a predetermined period every day, sometimes for up to six hours. Clearly it is impossible to store enzyme supplies safely under such conditions and this prevents the patients from receiving their infusions locally.

3. Symptom care. Many patients are, unfortunately, diagnosed too late to benefit from specific intervention. In the UK such patients would be considered suitable for symptom/palliative care. Unfortunately this is almost non-existent and this area needs urgent attention.

Potential avenues for collaboration that were identified were:

- Funding for travel and ancillary costs
- Training programmes to enable clinicians from India to travel to the UK and visit specialist centres (similar to the Susan Lewis Fellowship)



Staff at the KEM Government hospital in Mumbai

- More dialogue between patient support groups, and increasing awareness in the younger members e.g. encouraging them to attend international conferences
- Involvement of other pharmaceutical companies supporting both ERT and other areas perhaps not related directly to ERT (e.g. spleen guards)

Overall the group was extremely impressed with the setup in India, its skilled and dedicated clinicians, the excellent facilities and above all, the patients and families. Not only were they eager to engage in a two way dialogue with us, but they were also highly motivated and articulate. Their stoicism and courage in the face of, in many cases, great adversity and hardship, were quite inspiring.

Clearly there is a long way to go but we came away feeling very positive and encouraged by what we saw. While this was just a first small step, there is little doubt that rapid strides can be made over the next few years.

For more information on the FRCF: www.medicansystems.org/fcrf/fcrf_aboutus.asp



Dr Vello di presents a family with a child's wheelchair, donated by the UK MPS Society

Tanya Collin-Histed adds: This was my first trip to India. I have come back feeling extremely excited about the work in these clinics and the work of the patient support group. I hope the strong close network for LSD groups worldwide can support the patients and doctors in India to continue to develop their services and access to treatment.

Bringing Hope to People with Gaucher Disease

Simone Azevedo, Head of Charitable Programs at Genzyme outlines their commitment to patients with Gaucher disease and other LSDs; through the development of their humanitarian aid programmes:

When it comes to helping patients with rare genetic diseases, discovering and developing an effective treatment is just the beginning. Once a treatment is fully developed and the necessary clinical trials complete, regulatory agencies such as the European Medicines Agency (EMA) must review all of the information about the safety and efficacy of the drug and approve it for sale. Then, depending on the individual health care system, an agreement to pay for the medicine must be reached, usually through a government-sponsored healthcare plan or private insurers. The more uncommon the disease, the higher the treatment cost for a single patient usually is which means that patients with rare diseases may not be able to afford treatment on their own.

In countries with an advanced healthcare infrastructure, a means is eventually found to pay for most approved drugs. However in nations whose economy or healthcare infrastructure are still developing, it may be that no one can afford to pay for the cost of treatment or it is difficult to get the necessary insurance.

Genzyme introduced Ceredase® (αglucuronidase), the first treatment ever approved to treat Gaucher disease, in 1991 with Cerezyme® (αglucuronidase) following soon after. Genzyme leaders knew that just developing these therapies would not be enough to treat everyone affected by Gaucher disease. Our goal was to help everyone have access to treatment.

Early on, Ceredase and then Cerezyme were only available in the USA and some European countries. We opened offices in more than 40 countries and in each country we work with regulators, health administrators, insurers, clinical experts and patient organisations to gain approval for Cerezyme and to pay for the cost of therapy.

We knew of Gaucher patients who could not afford Cerezyme treatment, and we looked for ways to make sure these patients could be treated. Eventually it became clear that we needed a large-scale, global program to improve access, therefore, over the years, we developed

the Genzyme Humanitarian Program (see table below). This program provides patients who have Gaucher, Fabry, Pompe and MPS I diseases with free Genzyme products, distributed through an international infrastructure. The Humanitarian Program is guided by an expert medical committee who makes treatment decisions, monitors and reviews patient progress and advises local physicians regarding patient care as well as a board that recommends and approves these requests.

Program	Region	Diseases	Comments
INCAP	India	Gaucher, Pompe, MPS I, Fabry	Includes Project Hope and CAP (USA)
CHINCAP	China	Gaucher	
ICAP	Global	Gaucher, Pompe, MPS I, Fabry	Includes ECAP and Gaucher Initiative

In designing the Humanitarian Program, Genzyme knew that we needed to create something that we could support for the long term. Enzyme replacement is a lifelong therapy and we knew we could not provide free drugs to every patient and still keep our business going. Therefore, we have worked carefully to set limits and priorities for the Program that allows us to help patients over the long term. To do this, the Genzyme Humanitarian Program does more than provide free drugs. It works with physicians, patient advocates and government organizations to increase the understanding of rare genetic diseases and to build sustainable healthcare systems in developing countries. Currently more than 700 patients worldwide benefit from the program.

Genzyme's commitment to their Humanitarian Program has always been unwavering. When the Cerezyme supply shortage started, one of the first decisions that we made was to pay no attention to charitable status when allocating drugs. This means that patients who receive treatment through our charitable access programs are allocated drugs in the same way as other patients.

We still have a long way to go to make sure that everyone with Gaucher disease has access to an approved treatment.



Patients with Type 2 Gaucher disease still don't have an effective therapy. Our supply problems interrupted access to treatment for patients around the world.

We are working hard to overcome these challenges. We have new manufacturing

facilities coming online that will greatly expand our capacity to make Cerezyme and our other protein therapies. We have an active ongoing drug discovery program in Gaucher disease that continues to evaluate new drug candidates to improve the treatment of Gaucher disease and we work with the Gaucher Registry to expand awareness so that more physicians can recognize the symptoms. Additionally, we continue to expand our operations into more countries, working in each one to develop a healthcare infrastructure that will allow full and sustainable access to treatment for all.

Other products are approved for the treatment of Gaucher disease in the European Union.

Editors Note: In 2003/4 the European Gaucher Alliance (EGA) worked with Genzyme to develop the European Cerezyme Access Programme (ECAP) helping patients with Gaucher disease in Eastern Europe to access treatment. Since then, over 116 patients in 14 countries have received treatment through this programme. The EGA continues to work closely with Genzyme to support patients worldwide who need treatment. Recently this has involved Gaucher patients in India, Pakistan, Kazakhstan and Ecuador.

Developing a National Transition Plan for 14–25 year-olds

The development of a number of therapies for the treatment of Gaucher disease and other lysosomal storage disorders (LSDs) has led to patients living longer and moving from paediatric to adult services. This transition can be a difficult time for young patients and their families. Here we describe the development of a plan to ease the transition process.

In 2010, the UK Lysosomal Storage Disease collaborative group were awarded a three year grant by the Advisory Group for National Specialist Services (AGNSS), the body that manages the Specialist Services for lysosomal storage disorders in England to develop a national transition plan for LSDs.

Lindsey Wingate, advocacy Support Officer for the Society of Mucopolysaccharide Diseases (MPS) was appointed to undertake this project. Below, Lindsey outlines her plans –

I am working on a document concerning Transition for young people; a process many face when they leave behind paediatric health services and enter adult health services.

This is a joint project with the Lysosomal Storage Disease collaborative group who's members are; Association for Glycogen Storage Disease, The Batten Disease Family Association, The Gauchers Association, The Niemann-Pick Disease Group (UK), The Save Babies Through Screening Foundation UK and the Society for Mucopolysaccharide Diseases (The MPS Society). The aim of the project is to devise a set of Transition guidelines which we hope the Department of Health will adopt and put into practice nationally.

I have read copious amounts of legislation regarding the need for proactive transition plans to be created and adhered to. I have contacted every local authority I could find recorded in a

governmental list of local authorities asking for any Transition information they could give me. I also contacted many agencies who work with long term medical conditions to ascertain whether they had knowledge, experience or indeed a plan. In all areas I was informed that transition plans are needed!

I am currently arranging meetings with medical experts who work with patients with Lysosomal Storage Diseases all over the UK. I have developed a list of 'open' questions, and all participants will be asked the same questions to ensure the research is fair and balanced.

I am also working on the development of questions for young people with Lysosomal Storage Diseases and their parents and I will speak to individuals who are before, during and after transition. I am really looking forward to learning from these experts as their experiences are going to be really valuable and they will add x applied knowledge.

Once the questions have been finalised I will contact young people in the 14–25 age range and their parents to organise venues throughout England to hold our meetings and conduct the study. It will be an exciting opportunity to shape the future for all young people with lysosomal storage diseases.

For further information on this project please contact Tanya Collin-Histed at the Gauchers Association on: ga@gaucher.org.uk or 01453 549231

Aunty Day – Transition Visit

As part of the Gauchers Association's ongoing commitment to support young girls with Type III Gaucher disease, Niamh Finnegan and Victoria Crook, Clinical Nurse Specialists at Great Ormond Street Hospital took a group of girls on a visit to one of five adult centres for lysosomal storage disorders in England. Niamh and Victoria report on the day:

It's time again for another 'Aunty Day' update! Having survived travelling on the London Underground last July, this time we visited a clinic in an adult hospital. As it won't be long before some of the girls leave children's services behind, they felt a trip to see what lies ahead would be helpful.

We met on a Saturday morning in February and headed to the National Hospital for Neurology and Neurosurgery, next door to Great Ormond Street Hospital. We were greeted by Ana Amado Fondo, a Clinical Nurse Specialist from the adult metabolic unit, who gave us a tour of the outpatients department. As it was a

Saturday it was quiet and there were no other patients so we had the opportunity to have a good look around and to discuss any questions and concerns the girls had.

Ana showed us the reception for checking in for appointments, where to arrange follow ups and the ticketing system used to call patients for blood tests and she explained how this system works. The girls found out that the main differences in adult clinics was that the doctors would be asking them the questions and not their parents or family members and they also discovered that they would be more responsible for managing their follow ups and overall care. We gave them information

on other UK adult centres so they could make informed choices on where they would like to be seen in the future.

Overall the feedback from the girls was positive and they valued the opportunity to visit an adult clinic and ask questions and we'd like to thank Ana who took the time to show us around, explain how the adult clinics work and answer all our questions.

Following the clinic visit we had some discussion and planning about what we would like to do for the upcoming family conference in April. We then headed off for a lovely and lively lunch at nearby Giraffe Restaurant!

London Marathon 2011 – Five Runners for The Gauchers Association

Once again the Association is delighted to announce that we have five runners in the 2011 London Marathon.

We wish good luck to our runners Janine Simon, Jenny Hurst, Elan Hirshler, Daniel Lerner and David Hershman who will be training hard over the next few weeks. Please read their stories below and support them as much as you can. Last year the Association raised a record £20,000 from our runners through generous support of our members, and the runners' friends and family.



Janine Simon and her niece Verity

Janine Simon

My name is Janine, I'm a 42 year-old mother of two and I run a language school and accommodation agency in Worthing, West Sussex. I have wanted to run a marathon for 20 years. My dad was a keen runner and completed three London Marathons but sadly lost his battle with cancer aged just 42. I vowed that one day I would retrace his steps through London.

I decided to raise money for the Gauchers Association as my niece Verity was diagnosed a year ago. Verity is tiny, as the disease wasn't diagnosed until she was nine. She is a feisty little thing and has been a real inspiration to all of us, never complaining about her months of tests, scans and an operation. She is receiving ERT at home and takes everything in her stride and the Association has been a great source of information and advice for my family.

After an 8.5 mile run today, I am wondering how I will do 26.2 miles in April. It's very overwhelming and seems an enormous task but I am trying to stick to a training programme to motivate myself. I am running up and down hills, doing 'fartlek' sprint training and long boring weekend runs. I'm also in the middle of a leg strengthening programme at the gym and

I am so serious that I am now taking energy gels on my runs and they're disgusting!

My running buddy Jen Hurst lives in Portugal, so we cannot train together, but we compare training daily. Jen will also be running to raise money for The Gauchers Association. I frequently ask 'what on earth are you doing to yourself?' But as I'm now committed and raising money, I can't let anybody down. I keep telling myself that by mid-April it will all be over.

www.justgiving.com/Janine-Wood-Simon



Jenny Hurst

I enjoy running in the sunshine. It makes me smile and when I've finished I always drink an ice cold beer! I'm 52 and feel 22!

I wanted to be a P.E. teacher but I ended up in the rag trade! Relentless dedication meant no time for sport and 20 years later we moved to The Algarve!

One sunny morning I woke up with a mad desire to run and having never run before, I joined a running group. It was hard going but I loved the banter and just kept turning up! We always run along chatting and laughing and people think we are mad when we say it is fun!

Last year we all decided London was our goal but none of us got a ballot place so we entered for Madrid. They're on the same day but much warmer and it was an amazing experience.

This year my best pal Janine has managed to get two Gaucher places for London. We have one each and can't wait to run for her niece Verity was diagnosed with Gaucher disease a year ago.

We are training independently as Janine is in the UK and I am in Portugal and we speak daily by email, Facebook

and text. It has been very rewarding taking on the challenge of raising money for the Gauchers Association and on the 17th April 2011 I know we are going to have the day of our lives.

Janine's dad died of cancer when he was 42 and was a London Marathon runner. It will be a great honour running with his daughter and I know he will be with us every step of the way! The work of the Gauchers Association is tremendous and I feel very privileged to be part of it.

www.justgiving.com/Jen-Hurst



David Hershman

I will be 45 in March and have been married to Sara for 19 years. We have a 17 year-old son Jack and twin 14 year-old daughters Sophie and Lucy and I am an optometrist.

Sports have always played an important part of my life. I play squash and captain my club team in the Middlesex League, and I am a keen cyclist and tennis player. I ran the London Marathon in 1997 and then New York in 1999.

I had been doing some running with a friend who is training for April, and so was delighted when the place was offered to me.

<http://uk.virginmoneygiving.com/davidhershman>



Dan Lerner

I'm Dan Lerner from South Woodford in northeast London. As this is my first marathon I am little unsure exactly what to expect, although as I've heard great things from those that have participated before, I am eager to train hard and look forward to enjoying a fantastic day.

I don't know anyone with Gaucher disease but I am aware of the amazing work that the Association does in their support for those that are diagnosed and

their families. I hope that by running the Marathon I can raise both awareness and a huge amount of money to help the Association continue their incredible work.

<http://uk.virginmoneygiving.com/danlerner>



Elan Hirshler

After experiencing the atmosphere of last year's marathon, I wanted to take part in 2011. The first thing that struck me as a spectator was the crowd's energy and encouragement towards each runner. I have never run in such an event before but the thought of thousands of people cheering me on makes me ask why have I not considered this before?

When my place was confirmed I was overjoyed, not just because it meant I had taken a first step to achieving a life ambition but by the thought that I would be doing this to promote awareness for Gauchers.

After learning more about Gaucher disease and how it affects those diagnosed, it has given me the extra incentive to complete this challenge knowing that it would benefit those that suffer day to day. Even when the cold winter nights put me off from keeping up with my training I know that by venturing into the cold is taking me one step closer to helping those that are in need.

Now with only two months to go I am dreaming of running down The Mall knowing that by doing so I am not only fulfilling a life ambition but I am giving those an extra chance.

<http://uk.virginmoneygiving.com/ElanHirshler>

Gauchers Association Golf Tournament

We are pleased to announce our fourth Golf tournament will be held at the beautiful Dyrham Park Golf Club, Galley Lane, Barnet, Hertfordshire on Wednesday 22nd September from 1pm. The golf will be followed by dinner.

- Open to anyone with a handicap.
- Entrance fee £110.
- As we only have 80 places available early booking is essential.

If you would like to play either individually or with a team, please contact Sarah on 01453 549231 or admin@gaucher.org.uk

Gaucher's Cycle Ride

London – Cambridge on Sunday 4th September 2011

Back by popular demand

- **Start:** University College School Playing Fields, Ranulf Road London NW2
- **Finish:** Addenbrooke's Hospital Cambridge
- Scenic 60 mile ride
- Open to all cyclists
- Fully marshalled route
- FREE refreshment stops along the route
- Under 16s to be accompanied by an adult
- Easy return by coach or train



Limited number of places available so register NOW!

Either go online at: www.gaucher.org.uk/cycleride, or contact Sarah on 01453 549231 or admin@gaucher.org.uk.

A fee of £25 will be payable on registration and there is a minimum £200 sponsorship pledge. Coaches will be laid on to return cyclists to London at £25 per person (including bike).

Gauchers Association 20th Anniversary Celebration –

SAVE THE DATE – 5th November 2011

This year is the 20th Anniversary of the Gauchers Association and to celebrate this momentous occasion we are planning a special celebration for all of our members, colleagues and friends.

On the evening of 5th November 2011 we will be hosting a party on a boat on the Thames. We are planning a fun filled evening and hope that as many people as possible who have been associated with us over the past 20 years will be able to attend.

Further details will be provided but to register your interest please contact admin@gaucher.org.uk or call 01453 549231.

Mark & Callum Bardoe report on their cycle ride from Vietnam to Cambodia

To raise money for the Gauchers Association, my 15 year old stepson Callum and I signed up for a Vietnam/Cambodia cycle challenge in January 2011. The journey began when we left the UK on January 22nd, flying to Singapore and then on to Ho Chi Minh City (Saigon) in Vietnam.

From Saigon we covered roughly 450km over six days riding mountain bikes through rough tracks, paths, tarmac and gravel. We encountered loose cattle, wandering chickens, snakes, green ants, the odd drunken local and thousands of scooters! Mostly though, we met friendly Vietnamese farmers and hundreds of children who just wanted to wave and 'high five' us as we rode through their villages and we criss-crossed the Mekong



delta passing banana plantations, fields of sugar cane and rice paddy fields. We followed the Mekong and crossed over into Cambodia where things became harder with longer daily rides and higher temperatures.

Our longest day was from the capital of Cambodia, Phnom Penh, to Kompong Tom when we rode from 7am to 5pm and the temperature rose to 35°C. It was also the fastest day and we averaged speeds close to 30 kph. The last day included a ride through Angkor Wat, a true wonder and a perfect example of Khmer temple architecture. Pictures of our journey can be found at www.gallery.me.com/bardoe#100192

Unforgettable memories include the number of Buddhist temples through both countries; the friendliness of the people; the accompaniment of rice with every meal and that large spiders can be eaten and are tasty if covered with satay sauce! In addition to all the wonderful people and places we met and saw, we



visited the infamous 'Killing Fields', scenes of the systematic decimation of the Cambodian people by the Khmer Rouge.

It was a privilege to undertake this challenge of highlighting the Gaucher Association and its objectives to a wider audience. We are optimistic that before the next six weeks are up we will be able to exceed our charity goal objective of £6,000. Thanks to all who supported us.

Members' Fundraising

Fundraising brings in over £4,310

Generous donations have been received from the following people, totalling £605: Dr Barry Horwitz; Dr E G Ansell; Joanne Yaniv at Deacon Search; Jean Beecham; Aidan Gill; Love and Unity Lodge; Adidas Women's 5k Challenge; University of Plymouth

Robert Sloan very kindly donated £40 via a collected box in David & Lindsay Sloan's shop.

Mr Jeff Hammerschlagg generously donated £500 through the New West End Synagogue from their Kol Nidre Appeal.

Susie Bainbrigge raised £100 by completing the Glasgow 10k run in September 2010.

Jewin Welsh Presbyterian Church kindly donated £117.82 following a talk by Elin Haf Davies about her adventures rowing across the Atlantic Ocean in aid of The Gauchers Association.

Fay Perloff donated £25 in celebration of **Stella Cohen's** 90th birthday.

Insight Research Group donated £250 to the Association for helping them with

their research project. Along with this **Daniel Brown, Blake Mackinnon** and **Susan Cowan** all generously donated their incentive fees totalling £150.

A donation was received from Miriam & Keith Graham in honour of the Silver wedding anniversary of Mr and Mrs N. Springer.

Tri for Life generously donated £2,000 following proceeds raised in their Tri for Life event.

English Martyrs Catholic Primary School kindly collected £405.38 after their school play.

For more information on fundraising ideas and organisation, please call us on 01453 549231 or email admin@gaucher.org.uk.