Alpha-1 UK Support Group Newsletter

Issue 12
Summer 2013

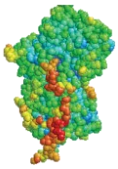
Welcome

To our Summer 2013 Special Edition 50th Anniversary Commemorative Newsletter

A BIG thank you to all our members for your loyalty and support over the years and a very special welcome to all our new members, we hope you enjoy being part of our group.

INSIDE THIS ISSUE

This year marks the 50th Anniversary of the discovery of Alpha-1 Antitrypsin Deficiency



Alpha-1 Antitrypsin Deficiency was first reported in 1963 by Carl-Bertil Laurell & Sten Eriksson who discovered a link between low plasma serum levels of AAT and symptoms of pulmonary emphysema. Since this discovery an understanding of the biochemical mechanisms and genetic abnormalities involved has developed and AAT is now thought to be one of the most common hereditary disorders worldwide, comparable in frequency to cystic fibrosis. By 1969 an association with liver disease had been discovered in the US, and patients in both Europe and North America began to be identified with the condition.

50th Anniversary Social Gathering South Wales 14th September 2013

This year's annual social gathering is a special event which will commemorate the 50th anniversary of the discovery of Alpha-1 Antitrypsin Deficiency. The meeting will be held again at the Heronston Hotel, Bridgend, South Wales which is about 20 minutes' drive from Cardiff. This event is proving very popular with reserved bookings already in excess of 100, so if you are interested in joining us on this informative and fun packed day please contact us as soon as possible by e-mailing:-

infoalpha1uk@googlemail.com

If you wish to make it into a long weekend please let us know as soon as possible as hotel room availability is very limited.

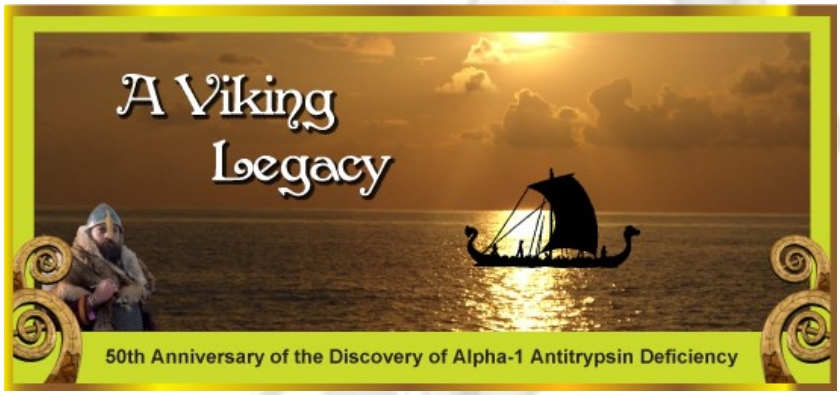
Further details can be found on our website:

alpha1.org.uk

50th Anniversary of the Discovery of Alpha-1 Antitrypsin Deficiency

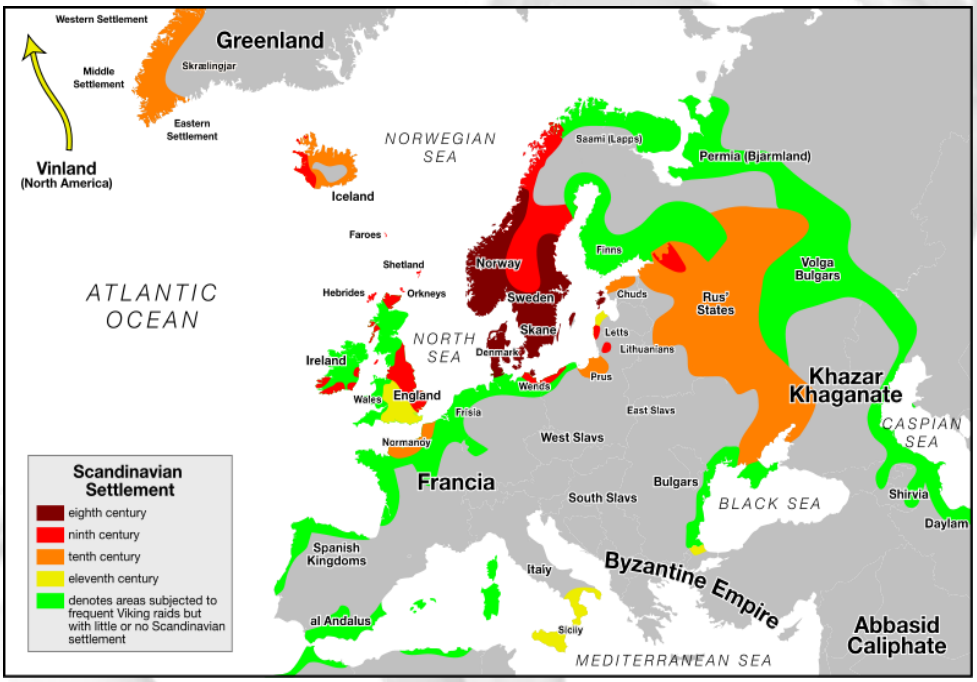
Origins

Alpha-1 Antitrypsin Deficiency (AAT) is often referred to as the "Viking Legacy" as it is believed that the AAT "Z" mutation, which is thought to have arisen from a single origin 66 generations or 2,000 years ago, originated from southern Scandinavia where the highest frequency of the mutation was found suggesting that the mutation was dispersed by migration patterns matching the areas of Viking conquests across northern Europe between 700 and 1000 A.D. The AAT "S" mutation is much older and is believed to have originated in the Iberian Peninsula the date of which is uncertain. Both mutations were introduced to the rest of the World through migration.



The Viking invasion started at the end of the eight century AD with England, the rest of the British Isles and Ireland soon followed. Early settlement began in Ireland (840's AD) and as they established themselves in Great Britain and Ireland, which they dominated through the eleventh century, it prepared them to explore lands further west. On their way they discovered the Faroe Islands and Iceland in the mid ninth century and in 900 AD they discovered Greenland. Their most intriguing discovery was that of North America about 1000 AD where they thought that it was just another island. They named it Vinland due the wild vines that grew which produced fine wine.

While the Norwegian Vikings were exploring the west, the Danish Vikings set out for the south attacking Aquitaine (799 AD), Spain (814 AD), France taking Paris (845 AD).



The Vikings adventures into Eastern Europe were primarily trade related where the established trade routes along the Russian rivers such as Volga and Dnieper.

The cause of the Viking expansion is unknown. However, it has been suggested that overpopulation in Scandinavia forced many Vikings to seek their fortunes in other lands, some became traders, and some became invaders.

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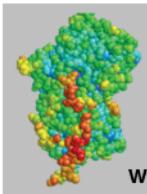
Discovery - Alpha-1-antitrypsin deficiency (AAT) was first reported in 1963 by Carl-Bertil Laurell and Sten Eriksson who discovered a link between low plasma serum levels of AAT and symptoms of pulmonary emphysema. Since this discovery an understanding of the biochemical mechanisms and genetic abnormalities involved has developed and AAT is now thought to be one of the most common hereditary disorders worldwide, comparable in frequency to cystic fibrosis. By 1969 an association with liver disease had been discovered in the US, and patients in both Europe and North America began to be identified with the condition.

Timeline



1963

Carl-Bertil Laurell C-B / Sten Eriksson
Discovered an association of alpha-1 antitrypsin deficiency in patients with COPD. Later in 1969 Sharp and co-workers discovered an association between alpha-1 antitrypsin deficiency and neonatal cirrhosis

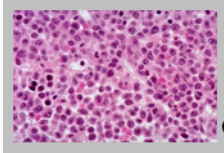
1960's

1952 and 1961
Carl-Bertil Laurell (1919-2001)
The introduction of plasma protein electrophoresis for clinical investigations: 1952 paper electrophoresis 1961 agarose electrophoresis

1950's

1955
Herman Schultze (1899-1985)
Showed that the major inhibitor for trypsin is located in the α1-globulin fraction and was named alpha-1 antitrypsin

1940's



1894
Fermi and Pernossi
Protease inhibitor activities were first discovered in human plasma

1800s

700 / 1000 AD
Scandinavian Origin
"Z" mutation
Believed to have originated from southern Scandinavia where the highest frequency of the mutation was found suggesting that the mutation was dispersed by migration patterns matching the areas of Viking conquests across northern Europe between 800 and 1100 A.D.

1000
700

???
Iberian Origin
"S" Mutation
Believed to have originated in the Iberian Peninsula the date of which is uncertain

???

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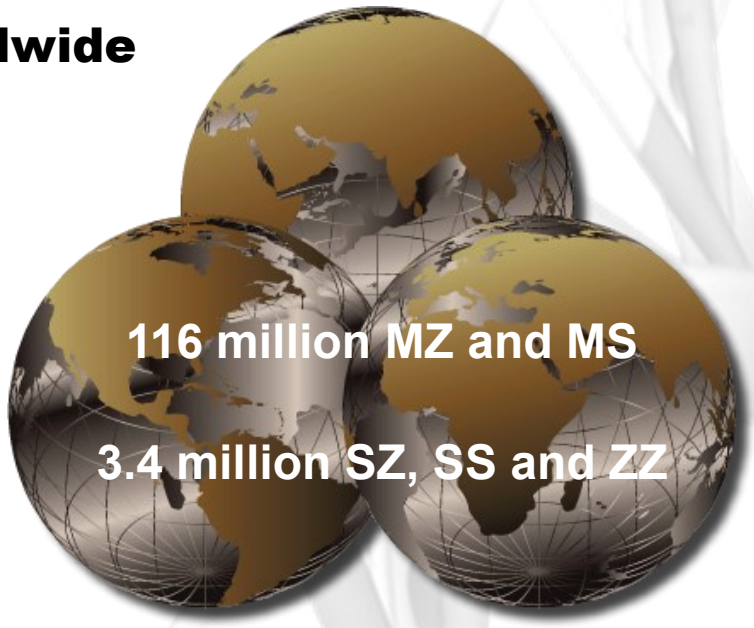
Prevalence Worldwide

In a total population of 4.4 billion in the 58 countries surveyed, there are at least 116 million carriers (those with Pi phenotypes PiMS and PiMZ) and 3.4 million with deficiency allele combinations (phenotypes PiSS, PiSZ, and PiZZ) for the two most prevalent deficiency alleles PiS and PiZ; which suggests that AAT deficiency may be one of the most common serious single-locus genetic diseases in the world.

Source: Alpha-1 Antitrypsin Deficiency Is Not a Rare Disease but a Disease That Is Rarely Diagnosed Frederick J. de Serres, December 2003 Environmental Health Perspectives; Dec2003,



Where are we now?

In the 1980's Gadek and colleagues developed augmentation therapy, also known as replacement therapy, where the alpha1 antitrypsin (AAT) protein is separated from human blood serum and is administered intravenously to replace the AAT circulating in the blood. The intended outcome of augmentation therapy is protection from the accelerated decline in lung function suffered by deficient individuals. Augmentation therapy has since been approved in 20 countries worldwide which include the USA/Canada and 13 European including Germany / Spain / Austria / Italy / Belgium and France. Many other countries including the UK, Sweden and Australia are still awaiting proof of clinical efficacy before licensing.

"More recently Inhaled AAT therapy has been developed"

Augmentation therapy is not indicated in individuals who have partial alpha-1 antitrypsin deficiency (MZ heterozygotes) and in AAT deficiency associated liver disease. More recently Inhaled AAT therapy has been developed which aims to replenish AAT in lung tissue through direct Inhalation. Initial studies indicate that this may provide sufficient AAT to reach normal concentrations in the lung fluid. Clinical trials are now in advanced stages with interim reports demonstrating excellent safety and tolerability profile of the product and is under FDA and EU Orphan Drug Designation. The trial is scheduled to end in 2013. Exciting new developments combing Gene Therapy and Stem Cells has been realised where patients with genetic diseases could one day be treated with their own cells. A team of researchers has corrected a faulty gene in induced pluripotent stem (iPS) cells derived from skin cells of people with AAT metabolic liver disease. The researchers then developed the stem cells into something resembling liver cells. Researchers said this was a "critical step" towards devising treatments, but safety tests were still needed. If this could be developed into a therapy it would be preferable to liver transplant as the patient would not need to take immune suppressant drugs.

"A team of researchers has corrected a faulty gene in induced pluripotent stem (iPS) cells derived from skin cells of people with AAT metabolic liver disease."

Meet Four Alphas From Around the World

The stories of **John** (from the United Kingdom), **Jenni** (from Australia), **Hans** (from Sweden) and **Caroline** (from Belgium) are unique, but they also share many similarities. Each of them, like their Alpha peers in the United States but perhaps more so, faces daily the challenge of having a disorder with very low awareness, not only among the general public, but also within their countries' health care systems and medical communities. "Whilst it is becoming apparent that the younger generation of medical profe-sionals have heard of Alpha-1, the vast majority seem to still be unaware of the condition," explains **John Mugford**, a 61-year-old Alpha from Milton Keynes, United Kingdom. "Also, it is apparent that doctors are very dismissive regarding Alpha-1. When questioned, they know the condition is out there but they do not have a great deal of knowledge about it or the possible symptoms or side effects. It is very clear that a great deal more work needs to be done educating our doctors before we can expect better treatment." THE VAST MAJORITY of the population in the UK does not have access to an Alpha-1 specialist," John continues. "Patients can be referred to the Alpha-1 Research Centre (ADAPT), but only if their GP (general practitioner) or consultant (respiratory specialist) is aware of their existence which is an on going problem we frequently come across with our support group members. Usually the first time new members hear of ADAPT is via our group."

> ***"Whilst it is becoming apparent that the younger generation of medical professionals have heard of Alpha-1, the vast majority seem to still be unaware of the condition"***

"ADAPT was established by research doctors who have an international reputation for their research into the causes of emphysema, in collaboration with the pharmaceutical company Bayer," explains John who is Chairman and Trustee of the Alpha-1 UK Support Group. "ADAPT's mission is to rapidly collect important information about how AAT deficiency affects patients and their families…the information is critical to the design of clinical studies of the effects of treatment of the disease. "The challenge of low awareness is clearly global as **Jenni Nankervis** from Australia shares similar frustrations about the need to provide education to the medical community throughout her country." In 2011, the Alpha-1 Association of Australia (AAA) revamped its website and produced an Information booklet and poster to be displayed in doctor's waiting rooms," explains Jenni a 56-year-old ZZ Alpha diagnosed in 2009. Jenni said "We had hoped to print and distribute these booklets and posters to all doctors and specialists around Australia. Yet, lack of funds makes accomplishing these goals difficult. For the AAA, the lack of funding to be able to raise

Jenni Nankervis

awareness on a wider scale [is our biggest challenge]," she continues. "Australia is such a large and spread out country which also makes raising awareness difficult. The rules and regulations for fundraising are different in each of our states and territories, so for a small national charity like the AAA, it makes it very difficult. I believe this may be altered in the future, but the changes could take many years."

Hans Andersson of Sweden believes his country's biggest challenge related to Alpha-1 is two-fold and directly related to low awareness. "[We need] to get our country to follow the World Health Organization guidelines for the testing of Alpha-1 and get physicians and healthcare professionals to understand Alpha-1, to educate themselves in the field," explains Hans, 54, diagnosed in 2005. He believes these efforts will lead to acquiring better treatments for Alpha-1 in Sweden. Currently in Sweden, Alphas are treated as COPD patients, receiving COPD drugs for lung symptoms.

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Hans Andersson

"We are treated the same way as COPD patients," he continues. "It might be ok, because the symptoms are similar, but we think we should be treated differently. Many doctors tell us to not worry about Alpha-1 because there are so few who have it. "

Augmentation Therapy: NOT a Global Option

Augmentation therapy is not readily available to Alphas in Sweden, an ironic fact considering Alpha-1 was first discovered by two Swedish physicians in 1963. "The cost is [considered] too expensive for our health care system," Hans explains. "Prolastin is approved in Sweden, if you will pay for [it] yourself [but] you cannot, under circumstances, pay yourself. This means that all doctors do not [prescribe] Prolastin. I and many other Alphas are very sad and disappointed to know that there is some help [available] but we are refused treatment. "Lack of augmentation therapy is a concern around the globe.

Caroline Gillissen, a 44-year-old mother of six in Belgium, explains that making augmentation therapy available to all Alphas in her country is a primary focus of the newly created Alpha-1 Belgium Patient Group. "In Belgium, newly diagnosed people cannot access augmentation therapy with the state health insurance schemes and so there is a two tier system—those who have augmentation therapy and those denied this treatment," she explains. "[We are] looking into the reasons why state health reimbursement was stopped for the newly diagnosed who receive health reimbursement from the state health companies, " Caroline continues. " This issue of reimbursement is one that is constantly evolving. Our patient group will continue to be a loud voice in this." Caroline is fortunate to be one of the Alphas receiving augmentation. Her therapy continues, but receiving her treatments is not a simple task. "I go to an inner

Caroline Gillissen and Son

city hospital to receive my infusions," she explains. "It's the only hospital in the region that does infusions. It takes me about two hours from leaving home to get to the hospital as I take my children to school first and then join the traffic jams to the city centre."Even given the challenges of receiving her therapy, Caroline is quick to express her joy in receiving it. "It's made such a change to my life and wellbeing," she says.

Unfortunately, like Hans, John and Jenni also do not have the advantage of receiving augmentation therapy in the U.K. and Australia. John explains that because the U.K. and many countries in Europe do not accept the "orphan drug status" that augmentation therapy is given in the United States, the therapy is not approved as an option for U.K. Alphas. Specifically, the U.K. requires that a conventional clinical trial, in which some patients receive Prolastin and some receive a placebo, be conducted. However, such a trial has been deemed "prohibitively expensive" and not possible because of insufficient patients diagnosed with Alpha-1. This is quite different from the United States, in which the Food and Drug Administration (FDA) granted augmentation therapy a product license by giving it orphan drug status, thus not requiring the conventional clinical trial. "It is very frustrating knowing that there is treatment available which clearly slows down the progression of this life-threatening condition," John says. Jenni is well enough to not need augmentation therapy currently. Yet, as a key volunteer with the Australian Alpha-1 Association, she is very concerned that the treatment has not reached her country. "It is frustrating that it is taking so long for Australia to get augmentation therapy approved. Until awareness is raised and more people are diagnosed with it, I believe we will be fighting this battle. We need the pharmaceutical companies to be interested in doing more trials as well."

John Mugford and Wife Sheila

There is currently one augmentation therapy trial underway in Australia, but it closed to new participants in 2010.

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Alpha-1 Support Community IS Global

Among these four Alphas, only Jenni will be making the trip to Barcelona (she is one of two Australian delegates) and yet each has benefited from being active within the larger Alpha-1 community via support groups, attendance at conferences in their countries and abroad or Via email and Facebook exchanges with other Alphas.

Receiving support, education, advice and camaraderie from Alpha peers is definitely a shared Alpha experience around the world. From the Alpha-1 Association and your U.S Alpha peers, thank you John, Caroline, Hans and Jenni for educating and enriching us with your stories of life with Alpha-1 throughout the world.

Article from the Alpha-1 News A Publication Alpha-1 Association from the Special International Edition Volume 25 Issue 2 April 2013

By Cathy Carlomagno

4th International Alpha 1 Patient Congress Barcelona, April 11-13 2013

The 4th International Alpha-1 Patient Congress in Barcelona April 11-13 was attended by our Secretary/Trustee Karen North and Trustee Bev Burroughs.

The congress marked the 50th anniversary of the discovery of Alpha-1 Antitrypsin Deficiency by Swedish researchers Carl-Bertil Laurell and Sten Eriksson in 1963. 250 people from 23 countries attended to hear renowned Alpha-1 medical specialists, experts and researchers speak, including Kenneth Chapman, MD, on the status of augmentation therapy; Robert Sandhaus, MD, on managing self-care and 50 years of scientific research progress; Mark Brantly, MD, on Alpha-1 therapeutics into the future; and our Patron Professor Robert Stockley on Discovery and Scientific

Professor Robert Stockley

Research Progress.

Alpha-1 patients also did presentations, including our very own Karen North who spoke about "Patient

Karen North

Perspective Across the Continents."

Alpha-1 Foundation President John Walsh summarized what had been discussed during the closing ceremony. "We're all going to commit to each other that we'll move ahead on these priorities," he said. "We all need to share our resources with each other."

This year's International Research Conference on Alpha-1 focused on Alpha-1 liver disease for the first time. The plan is to hold an international Alpha-1 research conference every two years.

Sten Eriksson

A highlight of the congress was the premier showing a video featuring an interview with Sten Eriksson and a look at the past, present and future of Alpha-1. View it and much more from the Barcelona congress

vimeo.com/channels/523182

22nd Annual Alpha-1 National Education Conference Washington D.C. by Karen North

The Alpha-1 Association - 22nd annual National Education Conference in Washington, D.C. was held on June 7-9, 2013 with an expected attendance of more than 600 people. The National Conference is the largest gathering of Alphas and families in the world! Our Secretary Karen North attended this year's event and here is her account of some of the highlights from the conference:-

Arrived in Washington the Wednesday and met some Alpha's at the airport, the O2 kind of gave them away. After settling in I met them in the bar and ended up going out for dinner with them. Unbeknown to me I ended up out with a load of Alpha's who worked for CSL Behring! This was very fortuitous as, after telling them about our campaign, they made contact with all and sundry Internally to see how they could help. Thursday morning I managed a little sightseeing in the morning with some apha's.. the Lincoln Memorial, the Washing memorial (from a distance as it is surrounded by scaffolding after a crack appeared due to an earthquake), the Vietnam Wall, the new World War 2 Memorial with veterans present too - sounds like a lot but they are all in one area in a park. We then took a tour of the Arlington Cemetery. The weather was very kind to us and it was quite emotional to be honest. It was then time to head back to the hotel to register for the CSL Walk for Breath. They gave us our T-shirts and we were coached to the Newseum, a museum whose focus is the news and its history.

Friday morning I had registered for the Yoga breakfast, I got the breakfast but missed the yoga as I ended up having a meeting instead. The conference started at 1pm, and the first non-orientation session I attended was Charlie Strange (Lung) and Jeffrey Teckman (Liver), Foreseeable Research Lung & Liver. They spoke about recent studies and new/on-going studies. I made a few notes, but recommend you watch the video when it is released. You will find the link to the videos at:

apha1.org/education/e-education-events

when they become available.

A new study is looking at ZZ smokers vs non smokers and the differences. They are also looking at germs in the lungs and the carrier status. They will need a bronchoscopy which caused some giggles as they asked for us to volunteer our friends! A CT scan is equivalent to 40 chest x-rays and radiation is worse for you when you are younger. It is believed that 75% of our antitrypsin in produced in the liver. They "think" there maybe genetic modifiers which play a part in why some of us get liver disease but they don't know yet. The risk of liver disease could be as high as 50% in older adults! Several studies are on-going researching the liver but it is very difficult to study. There is a trial of carbamazepine, mice were given 10x the dose but the trial is using a normal dose as is used for other conditions. There has only ever been 1 study for the liver that was published and it didn't prove anything, there have been others but they didn't even make publication.

NIH are conducting a study, I think is was called Children Study – 0-25 years old are enrolled they are followed without drugs. It will help to understand who has disease, who doesn't and environmental genetic modifiers. They hope it will lead to developing a test to see who will develop liver disease in the future. There is an Adult liver study at Phase 1 following 100 ZZ adults for 5 years with a biopsy at the start and end. They hope to be able to predict who will develop liver disease.

"There is an Adult liver study at Phase 1 following 100 ZZ adults for 5 years with a biopsy at the start and end. They hope to be able to predict who will develop liver disease"

Saturday morning, the first presentation was 50 Years of Alpha-1 History & Into the Future by Robert Sandhaus & Mark Brantly. I recommend you watch both of these presentations, I made so few notes as they kept me enthralled throughout with their predictions for the next 5-10 years being the most exciting and in 50 years we will have no need for the patient groups as we shall have "the cure". John Walsh gave an update on the International Alpha-1

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Patient Congress (Barcelona) and the Alpha-1 Foundation update.

Then some of the video's from the video wall created in Barcelona were used … specifically shown was Steve Knowles from Australia and Jenni Nankervis was speaking along Geir Kvam from Norway, Anne-Gretes husband, with Marilyn Black from NZ closing the show. The Foundation was also creating a video wall from the Washington Conference and I was once again asked to create a video and answer a few questions, I also made an appearance in Johns presentation. During the afternoon there were 4 tracks of events, so 4 presentations being held simultaneously. These will all be made available and you will be able to view those which appeal to you. I attended the following: -

Healthy Living : Paediatric Liver Nutrition & Exercise - as I thought it may be of benefit to our Evie. The notes I made here indicated that calcium should be increased (I can see how this may be difficult though Jemma). Trans fats are BAD for the liver as is high fructose corn syrup. Supplements that were recommended were A D E, also if on antibiotics K, they said they should be water soluble and not fat soluble. Zinc should be taken for growing issues and that magnesium is generally low after a lung or liver transplant. They also recommend probiotics. They also mentioned Duo Cal by SHS Nutrition.

Natural History of Liver Disease & New Therapy Development – again one to watch. Although the liver is capable of regenerating it isn't designed to do this constantly, just for infections, hence why our liver doesn't repair the damage caused by the trapped antitrypsin. More adults over 50 than children under 5 have liver disease and, as we know from our own Mike and Carol, you can have very severe damage before you even know anything about it. Jeffrey Teckman recommends a yearly evaluation of the liver, and not just blood tests. You should be having a physical examination to see if your liver is enlarged which should also include questions into your wellbeing i.e. itching, how you feel/have been generally, your GP is fine it doesn't have to be a liver specialist. A liver biopsy is the best way to see how much damage or if the damage is permanent. He recommended less than 1 drink per day or 3 per week. It is also probably wise to avoid both ibuprofen and aspirin as they are toxic to the liver … although that said if you are prescribed aspirin for another ailment you and your doctor need to look at the risk/benefits. With regard to liver cancer for alphas they are still unsure as to the risk levels but research is on-going. It is unknown if children of liver affected alphas have a higher risk.

"Jeffrey Teckman recommends a yearly evaluation of the liver, and not just blood tests. You should be having a physical examination to see if your liver is enlarged "

Induced pluripotent stem (iPS) cells and Alpha-1 – this was a fascinating presentation which I recommend you watch. I made no notes at all on this session. Andrew Wilson, who delivered the presentation, opened by saying he speaks very quickly, boy was he right he could be an auctioneer! I shall have to watch it again to catch the bits I missed.

Panel of Alpha-1 Patients Open Q&A – I attended this session to see if I could find any parent of lung affected alphas for Jemma and Evie. In the evening there was a dinner and awards ceremony along with a raffle. Sunday morning is an early breakfast followed by the Memorial service. It was obviously a very emotional morning and Todd Pierce and John Walsh both spoke about Mario Ciuffini, one of the Italian Patient Group board members who had long championed the heal prick test for babies. Mario was one of the first Alpha's I knew internationally as I met him at my first conference in Rome in 2007, and met him at all Alfa Europe meetings annually thereafter. As many of you know Mario gave our group much support at a European level and he passed away suddenly shortly before the conference in Barcelona. Many others were honoured too, brothers, sisters, fathers, mothers, friends, group leaders and also Gordon Snider, MD, pioneer researcher in Alpha-1 and COPD, who died Saturday after a long illness at age 91 and who for many years did ground breaking research on Alpha-1 Antitrypsin Deficiency and COPD, and served for a decade on the Board of the Alpha-1 Foundation. Angela McBride asked if I would read Joes poem at the service as she felt it was so good. I can't say that it was the easiest task for me but I did manage to read it to the end and dedicate it to all of the UK Alpha's we had lost along with Mario too. I received many compliments on the sentiment of your poem Joe, I wonder if you struggled as much writing it as I did reading it? But then I am a big softie really … but don't tell anyone. Then it was off to the Alpha-1 Associations Support Group Leader training which was very interesting and a great opportunity to see how things work in the states. In the evening we all went on a cruise of the river, it was a wonderful way to end the weekend.

Alpha-1 Foundation applauds trial showing augmentation therapy's effectiveness

MIAMI, FL – The Alpha-1 Foundation applauded the results of the RAPID Trial, which demonstrates the effectiveness of augmentation therapy in slowing emphysema due to Alpha-1 Antitrypsin Deficiency. Results of the trial were announced today at a late breaking abstract session at the international conference of the American Thoracic Society in Philadelphia. CSL Behring sponsored the trial, which randomly assigned 180 Alpha-1 patients to receive either the augmentation product Zemaira or a placebo for a two-year period. "We congratulate CSL on this landmark clinical trial, which provides the strongest evidence yet that augmentation therapy preserves the lung tissue of individuals with Alpha-1-related lung disease," said John Walsh, Foundation president and CEO. "We hope these results will support Alpha-1 communities around the world in their efforts to win access to therapy." The RAPID Trial is the first well-powered randomized, placebo-controlled trial to use CT scan lung density as the primary outcome measure. CT scans are currently considered the most sensitive measure of emphysema detection. The trial was conducted at 28 sites in the United States, Europe, Canada, Australia and Russia. Lead author Kenneth Chapman, MD, director of the Asthma and Airway Centre of the University Health Network in Toronto, Canada, called the trial "the most rigorous evidence to date that augmentation therapy slows the progression of emphysema in patients with Alpha-1 Antitrypsin Deficiency. The effect of A1-PI seen in this trial was both clinically and statistically significant, final confirming its benefit in preventing the loss of lung tissue in patients with this potentially debilitating disease." Chapman added that preliminary data from a two year extension trial suggest that early treatment with augmentation therapy shows persistent efficacy in patients with Alpha-1 and emphysema.

When the subjects who had been receiving a placebo in the original two-year trial switched to treatment with Zemaira, their lung density decline (which was more rapid than the treated group in the main study) slowed to the same rate as the treatment group, according to the preliminary findings.

ALPHA-1 FOUNDATION
Research for a Cure

Article from the Alpha-1 Foundation News Publication 21/05/2013

Alpha-1 Alliance Campaign Update

The Alpha-1 Alliance is campaigning for the establishment of a highly specialised service for Alpha-1 patients. As future patient access to a licensed augmentation therapy will be an integral part of this service, we warmly welcome the augmentation therapy clinical trial results recently presented by CSL Behring at the American Thoracic Society conference and their intention to apply for market authorisation in the UK. CSL Behring has made a commitment to patients in the UK and has provided a donation in support of the Alpha-1 Alliance campaign. We are extremely grateful for this support which will allow us to implement our rigorous campaign plan for the next 12 months. This will include a number of campaigning activities over the course of the next year, such as the development of a policy report, further meetings with politicians and a Patient Day in Parliament. We will be engaging with NHS England and the Department of Health in the coming months to further define the next steps of the process to secure a new highly specialised service, and will provide regular updates on the progress of the campaign.

E-Petition Update

The Alpha-1 e-petition to the Department of Health calling on the Government to nationally commission a specialised service for Alpha-1 so that patients can get the vital treatment and support they need closed on Thursday 4th July 2013 with 2,374 signatures. A BIG thank you to all who signed and shared, lets hope and pray we get the vital treatment and specialised service we need.

Fundraising for Our Group

A big thank you to the following fundraisers and donations:-

Mick & Diane Stobart - Donation

Peter Rundle - Donation

Charlotte, Bobby & Ted Goode - Charity duck race in memory of their dear husband and father Stuart who passed away four years ago.

Bobby & Ted & Friend Corey

Leigh Curtis - Four nurses walking Hadrian's wall 84 miles in 6 days . Leigh Curtis, one of the 4 nurses whose husband suffers with Alpha-1 has chosen the Alpha-1 UK Support Group as the charity.

Four fabulous nurses from Southend Hospital

Diana Penly - Three Forts half marathon.

Sarah Jane Bickerton - Donations in memory of her dear Mum Sue Deadman who sadly passed away in April.

Katherine McCafferty, Mrs McDermott, Lucy McCutcheon and Mr E Waterworth Company dress down day, bake sale, coffee morning and stall in memory of Mrs Muriel Water worth who sadly passed away in April.

Jimmy Campbell - Donations in memory of his wife and our dear friend Gillie who sadly passed away in March.

Alan & Claire Lyons - Lincoln Friday Club Lucky 7 Charity Day 17th Annual 'Active Nation' Lincoln 10K Road Race.

Jemma & Evie Masters

Squeezy's fundraising Karoke Night.

Evie, her sister Erin and Mum Jemma

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Raising Funds

Perhaps you could help raise funds to enable us to continue our work? Whether £5 or £500, all donations will be put to good use, providing information, equipment and support for all Alpha-1 patients. In addition, we aim to promote better awareness and understanding of A1AD related diseases throughout the medical profession and general public. To donate or set up your own fundraising page please use JustGiving it's easy (completely free) and only takes 60 seconds to get up and running.

JustGiving™

It is also possible to raise funds without any cost to yourself, by using Easyfundraising to do your online shopping,

easyfundraising.org.uk

or the Easysearch for your internet searches. When you search the Web with easysearch instead of Google or any other search engine, you'll raise funds for us with every search you make!

easysearch.org.uk

Please visit our Website for details: -

alpha1.org.uk

A Big Thank you to everyone who has been involved in fundraising activities and donations for our group. We constantly have new targets to reach and new projects to fund, your kindness and the money donated will help us to do even more.

Support Group Shop

Shop

On our website we have a selection of Alpha-1 merchandise available. Including Wristbands, Pedometers, Shopping Trolley Key rings, Badges, Mouse mats and Shopping Bags. A new selection of Christmas Cards and 2014 Calendar will be available soon.

alpha1.org.uk

Guides/Posters

Alpha-1 Information Packs, Booklets and Posters are also available at no cost for you and your GP Surgery and Hospital, please e-mail us with your full name and address.

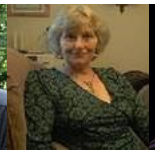
Healthcare Professionals welcome.

infoalpha1uk@googlemail.com

Members Page

Meet the Trustees and Committee

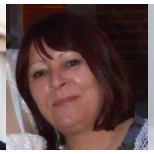
John Mugford
Chairman
Trustee



Chris Torrance
Vice Chairman
Treasurer
Trustee
Yahoo Group
Owner

Karen North
Secretary
Trustee
Project
Co-ordinator

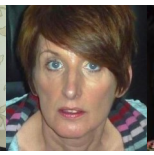
Linda Cooke
Liaison Officer
Trustee



Bev Burroughs
Admin Support

Ray Overton
Admin Support

Joe Lyons
Admin Support



Sioned Lewis
Admin Support

Jemma Masters
Fundraising
Awareness
Co-ordinator

Charlotte Goode
Fundraising
Awareness
Co-ordinator

New Committee Members

We are pleased to announce that Jemma Masters and Charlotte Goode have agreed to join the committee and will take on a joint roll of Fundraising and Awareness Co-ordinators. We very much look forward to working with Jemma and Charlotte who will be a valuable asset to our group.

Mini Social Gathering in St Ives Cornwall 16th May 2013

Members gathered in St Ives for a Mini Social Gathering. Despite the cold weather everyone had a lovely time. Sally also celebrated her birthday

Sally's Molly & Ted Birthday cake organised by Mel Brolly

Cornwall May 2013 - Left to right Bob Oliver, John Hehir, Norah Oliver, Joy Hehir, Sally Duff, Mel Brolly, Carol and Joe Lyons

Transplant News

Jill Mayers

28/11/2012 received a double lung transplant .

Tommy Hogan

05/06/2013 received a double lung transplant..

Wedding Congratulations

Michael & Mel Brolly

Were married 16th February 2013 at Tregenna Castle Hotel, in St Ives, Cornwall,

Michael & Mel Brolly

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Squeezy's Story by Jemma Masters

For the past seven years we have battled to find out what Evie has wrong with her, we have finally been told what she has and it is called Alpha 1 antitrypsin deficiency, this has the possibility to lead to lung and liver disease. It isn't something that many people know exist, so I would like to help raise awareness and funds to help my daughter and other people with this condition.

A bit about Evie's story so far...

When Evie was born she was jaundiced, we obviously didn't give this much consideration as many babies are born that way. At only 10 days old she stopped breathing and turned blue. We rushed her to hospital and found out she had suffered from a collapsed lung. She was placed on oxygen, given intravenous antibiotics and fed through a tube. At that time we were told to prepare ourselves for the worst! Thankfully she held her own and they started to tube feed her Nutramagen as she was also suffering from reflux and was intolerant to breast milk. After 6 months in hospital in Cornwall she was transferred to Great Ormond Street and remained there for 2 weeks.

She was tested for many conditions, including Cystic Fibrosis and Ciliary Dyskinesia but never Alpha-1 Antitrypsin Deficiency, although we now know that being a jaundiced baby should have automatically triggered that test. Evie continued to remain underweight and all wheat and gluten was removed from her diet. This helped a little and she did start to grow and put on the tiniest amount of weight.

For the last 7 years Evie has had a chest infection for pretty much 3 weeks out of every 4. She has also had a few kidney infections although we are still unsure if there is any connection to Alpha-1! She remains hugely underweight for her age and has to drink Fresubin calorie drinks, we also add Duocal in powdered form to her food and drinks to boost her calorie intake. She also takes Azithromycin daily which is an antibiotic, in addition to the antibobiotic she takes to treat any infection, and uses two inhalers daily. Due to the constant infections Evie tires easily and has subsequently missed a lot of schooling. Jemma, Evie's mum, had to give up her job because of the amount of time she needed to take off work to care for Evie whilst she was ill. On average it takes 7 years for someone to be finally diagnosed with Alpha-1 Antitrypsin Deficiency, please help us raise awareness of this rare genetic condition by liking and Sharing Squeezy's Story on Facebook.

Squeezy's Karaoke Fundraiser

Alpha-1 fundraising event for Squeezy was held at the Rock

Island Bistro and Tapas Bar in Porth Cornwall on Thursday 28th February on National Rare disease day. £760 was raised in total with the help of Mel Brolly who was thrown a challenge to sing publicly a Chelsea supporters song "Blue is the colour" for a video to put on Facebook. Mel is an avid Fulham supporter so this was nothing but severe public humiliation for her, she said, "It's for a great cause"

Evie Celebrity Signing

Continued from Page 14

Bobby's Story

Charlotte, Stuart, Bobby and Ted

Hi, My name is Charlotte and I lost Stuart, my husband, to Alpha-1 Antitrypsin Deficiency in August 2009. He was 36 when he died. He was diagnosed 2 1/2 years earlier. Up until his diagnosis he had lived a happy and healthy life although he was very ill shortly after he was born. His illness was painful, stressful, confused and his treatment extremely

Bobby

poorly managed. Earlier diagnosis could have prevented his death or at least prolonged his life. Stuart was ignored by doctors, letters were lost and he had to 'project manage' his illness himself. Stuart leaves behind two sons, they were 3 and 1 when he died. Our eldest son, Bobby, is now 6. Read his story as he remembers what happened to his daddy .

My daddy died when I was 3 years old. I remember him really well from our home in Ashby-de-la-Zouch. I remember playing with him and him telling me things that were really interesting. It makes me sad that he is not here anymore to enjoy stuff with me, mummy and Ted. He didn't see me in my uniform when I started school or know that Ted (that's my little brother) likes playing football and that he's at school now too!

My mummy told me that when daddy was born a long, long time ago (way before I was born) that he was really ill. He was all yellow and very tiny. He spent three months in hospital (that's a lot of sleeps) before he could go home to be with his mummy and daddy (that 's Grandma Christine and Grandad John). Mummy says the doctors never knew why daddy was so poorly and he just got better. Well, when I was born mummy says that daddy started to get ill again. When I was 9 months old (that's means I was only 0!) the doctors told daddy he had an illness called Alpha-1 Antitrypsin Deficiency. They are very big words and I don't understand the illness but it's got something to do with your liver and lungs. I know they are important parts of your body because my teacher told me at school. I don't really remember daddy being ill but I do know he spent a lot of time in bed. Mummy used to tell me to be quiet and let daddy sleep and we'd (that's me and Ted) would climb into the double buggy and mummy would push us to the park. Sometimes we'd have a fight…and once Ted fell out because mummy forgot to strap him in Mummy said that after Ted was born daddy started to get really, really poorly and have seizures. I don't understand this either but I do know it meant that daddy couldn't control his body and he had to go to hospital. There was one time we were shopping and daddy had one of these things. It took ages for the ambulance to arrive because mummy couldn't find anybody to tell because she had to look after me and Ted. Then I wanted a wee so she had to ask somebody to look after Ted and daddy whilst she took me! I was in McDonalds. When I came back from the toilet a nice man was playing a game with Ted so I joined in and then the ambulance came, put daddy on a bed thing with wheels and into the ambulance. I remember another time when an ambulance was at our house when I got back from nursery and daddy had a mask on his mouth to help him breathe and he was covered in bruises. Mummy said he'd had one of his seizures in the garden and hurt himself.

Continued from Page 15

I remember going to stay in a caravan with mummy, daddy and Ted. This was in Charmouth by the sea. This was the last holiday I had with daddy. It was really fun. One night mummy got me out of bed because there was a fantastic rainbow. Daddy couldn't walk very far on this holiday so we would do lots of cuddling and sat down a lot.

When we came home again I remember daddy was in bed a lot. Then Grandma and Gran came to stay a lot and mummy kept going out. Daddy wasn't there. He was in hospital and mummy went everyday to visit him. Mummy cried a lot and I didn't really understand why.

Bobby and Ted

One day Ted and me went to visit daddy. When I saw him I was very happy but then I was a bit scared. There were lots of machines and wires and I didn't want to go up to daddy. Ted did. He lay down next to daddy and daddy cuddled him. Daddy held my hand but I didn't want to. We then went home with Grandma. Daddy didn't come home. Mummy said he was too poorly and his body stopped working. I miss him so much. I like to drink lemon juice because I know it was one of daddy's favourites. People say I look like daddy and I'm silly like him – I like it when people say this as it makes me proud. I feel sorry for Ted because he was only a baby when daddy died so he can't really remember him – he says he does but I don't believe him. He asks for a new daddy a lot. I once asked mummy if I could go to heaven to see daddy but I don't think you can do that. We have lots of photos that we look at often with mummy and we all love doing that.

Mummy told me that not many people know about daddy's illness. She says that babies are still being born today that are poorly and they might have daddy's disease but that not enough people know about it. Mummy told me as well that when daddy was poorly he was looked after by lots of different doctors who were all very confused and didn't know what medicine to give him. If more people knew about daddy's illness then he might have got the right medicine. Then he might have seen me start school.

Mummy says that daddy was amazing. She told me that even though he was so poorly he never did any moaning and was a nice daddy and friend to my mummy. Mummy still cries a lot. I try and do what my daddy would have done and make her feel happy again and help with jobs in the house.

We all miss daddy. I don't want anymore babies to suffer or boys or girls to be sad if their daddy dies. It would make me happy if we all knew more about daddy's illness.

Bobby Goode, 6 ¾ years old

Daddy's Duck Race

Daddy's Duck Race is a charity event created by Corey Coggins, aged four, Bobby Goode, aged seven and Ted Goode, aged five. The duck race raised awareness of two causes close to the boys' hearts; Bowel Cancer and Alpha-1 Antitrypsin Deficiency.

Corey lost his daddy to Bowel Cancer in 2011, whilst Bobby and Ted lost their daddy to Alpha-1 Antitrypsin Deficiency in 2009. The event will also raise funds for Wigan and Leigh Hospice, which is the boys' chosen charity

The event took place on Sunday 30th June, on the Leeds - Liverpool Canal at the Wigan Investment Centre, on Waterside Drive and the boys are appealing to individuals and businesses to purchase a duck and join in the fun!

The day was a great success. Over 1000 ducks raced (well bobbed along slowly) down the canal in Wigan! The boys even got to hold the hose with the

Bobby, Ted and Corey

firemen to get a current flowing on the canal. They had the best day ever- and in Bobby's words 'it was the best day of his life'.

During the day itself they raised over £3000 for the local hospice and our Alpha-1 stall generated £109 through cake sales! Plus another £80 from Alpha-1 goodies.

In Memorium

Kevin Finnan

It is with deep regret that we announced in January that Kevin Finnan from Liverpool had sadly passed away. Our deepest condolences, thoughts and prayers were sent to Kevin's family.

It is with deep regret we announced in January that Geoff Frost from Gloucestershire had sadly passed away. Our deepest condolences, thoughts and prayers were sent to Geoff's family.

Geoff Frost

Gillie Campbell

It is with deep regret we announced in March that Gillian Campbell from Dorset had sadly passed away . Our deepest condolences, thoughts and prayers were sent to Gillie's family.

Reflections

For the people who've gone before us
your fight was not in vain
Our thoughts and prayers are with you
we tried to ease your pain
We know you were the bravest,
the best that you could be
And even then you smoothed a path
for someone just like me

In life we all need heroes
who would fight and be strong
You are all classed amongst them,
even though you've gone
In our thoughts you're always there,
we'd think of what you'd do
Even when life is a struggle
we strive to be as good as you

Life takes so many heroes
before we can get it right
Our thoughts are always with them
throughout the day and night
So pause just for a moment
let your mind free to take stock
Be thankful in that moment
remembering what you've got

by Joe Lyons

(Antitrypsin Deficiency Assessment and Programme for Treatment)

What is ADAPT?

ADAPT (Antitrypsin Deficiency Assessment and Programme for Treatment) has been established by research doctors who have an international reputation for their research into the causes of emphysema, in collaboration with the pharmaceutical company Bayer.

ADAPT's mission is to rapidly collect important information about how AAT deficiency affects you and your family. In addition to being helpful to you in understanding the effects of AAT deficiency on your lungs, this information will be critical to the design of clinical studies of the effects of treatment of the disease.

Finally, ADAPT will provide an information service to you and your relatives to explain how AAT deficiency influences you, your health, and your lifestyle.

The Patient Community

Being a patient under ADAPT means that you meet other patients. There is an alpha-1 "community" in which patients support each other in friendship, sharing information, supporting research and so on.

ADAPT Project
Lung Function & Sleep Dept.
Outpatient, Ground Floor
Queen Elizabeth Hospital
Mindelsohn Way
Edgbaston
Birmingham
B15 2WB

Tel no: 0121 371 3885

Clinical Trials by Professor Stockley

It is essential that robust clinical trials are undertaken to prove that specific treatments work. This is a long drawn out process that costs hundreds of millions of pounds. In the past the most accepted measure of the severity of chronic obstructive pulmonary disease (COPD) has been the forced expired volume of breath in 1 second (the FEV1). This is a relatively simple test carried out by spirometry and in general relates to the patients symptoms, exercise capacity and quality of life. For these reasons any treatment that improves the FEV1 or slows its decline is perceived to be beneficial.

Drugs such as the inhaled agents (corticosteroids and bronchodilators) do produce some improvement in FEV1, exercise and reduce exacerbations (episodes of sudden and short lived deterioration) on average in a group of COPD patients and many relatively short clinical trials (6 months to 3 years) have proven this and these drugs are the mainstay of COPD management.

However, as disease gets worse the FEV1 continues to fall and treatments are being developed to prevent this and stabilise patients. Clinical trials of such agents are enormously difficult and require large numbers of patients studied over 3-5 years to prove efficacy. This is essentially the problem with alpha-1-antitrypsin deficiency (AATD). Having AATD increases the likelihood of developing COPD (specifically emphysema) even in non-smokers. It seems logical that replacing the AAT should at least slow the process down. For these reasons Prolastin® was developed in the 1980s. It became apparent that a conventional clinical trial in which some patients received Prolastin® and some received a placebo (injection of fluid without Prolastin®) could not be done to see if it prevented the progression of COPD as measured by the FEV1. This was for several reasons but specifically because it was prohibitively expensive and because there were insufficient patients diagnosed with AATD. Because of this the Food and Drug Administration (FDA) in the USA accepted only the logic and demonstration that AAT levels and function could be improved to grant a product licence under "Orphan Drug Status". However, many countries in Europe and especially the UK did not accept this decision and still required a conventional clinical trial to prove efficacy.

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Many observations of patients over the years have provided tantalising evidence of efficacy and the general body of opinion is that Prolastin® (and other forms of AAT) are **probably** effective. But **probably** is not proof. For instance in the large NIH registry patients who received Prolastin® **for at least** 6 months had a mortality rate the same as patients **always on treatment** and this was less than patients who **never** received treatment. In the UK where patients **never receive treatment** the mortality rate is the same as the USA patients on **treatment**.

The NIH registry also showed that if FEV1 was between 1/3 and 2/3 normal Prolastin® slowed down the decline but not if the FEV1 was close to normal or worse than 1/3 normal, so many patients with the worst lung function do not qualify for treatment.

ADAPT was established to investigate all of these issues but especially whether a robust clinical trial could be performed to satisfy all countries that Prolastin® worked. The first step was therefore to identify patients, study the disease, monitor its progress and determine the most sensitive way to follow patients. This requires many patients studied over many years especially as it remained clear that it would never be possible to design and deliver a trial based on FEV1.

We pioneered the research in CT scanning showing that it was the best method to assess the progress of emphysema and that if Prolastin® worked it would not make patients suddenly feel better but would slow down the rate of decline in the lungs. This now created new problems.

Firstly, assessing emphysema gives different results with different scanners so we had to develop methods to ensure that calibration of all scanners could be achieved so that wherever the data was collected it was the same.

Secondly, we had to convince the FDA and European regulators that CT was a robust and important outcome for disease rather than the FEV1. A task that has taken years until recently.

Thirdly, we had to design a robust study that would provide the answer. However, since we could not be sure that Prolastin® would stop the decline in emphysema but may only slow it down we did not know how many patients we would need to enter the study to prove the difference between Prolastin® and the placebo.

Fourthly, as with all clinical trials it had to be run in more than one country which presented enormous control need for each centre. Finally we had to secure funding for the study. EXACTLE ran over 3-4 years in 3 countries involving 82 patients and cost in excess of $80million. At the end of the study the results showed that Prolastin® slowed down emphysema progression if the most sensitive analysis was used. This data was not accepted as proof, but rather supportive of efficiency. We re-analysed the previous Dutch Danish study using our sensitive method and that also showed an effect but the drug used was not Prolastin and was only given once a month. We combined the 2 studies as this increased the numbers and the combined data provided highly statistically significant data of AAT replacement efficacy but many reviewers of the publication still criticised the data. Interestingly out of this data analysis we showed that the average UK patient showed slower progression than those from other countries, when we combined our exclusive data with that from other countries (ie. **a lot** of patients) we showed that lung function decline (FEV1) was slower in those receiving AAT than those not (an important observation but not a clinical trial).

So where are we?

The overall belief of ADAPT and many worldwide experts is that AAT replacement works. However, selective review of the literature in the recent Cochrane review (usually believed to be an independent assessment) concluded that evidence of efficacy is still not robust. In the UK treatments (especially expensive ones) are not prescribed usually unless licensed (ie. approved by the regulatory authorities) endorsed by NICE and funding approved and released by the local NHS commissioners (who often use NICE as guidance). Named patient treatment can be received if endorsed by the patients doctors and approved by the commissioners. The alternative (as with lung transplantation) is that the government establishes and funds both assessment at national centres and the cost of therapy. However, as always, wheels move slowly in the NHS and the continued accumulation of evidence is essential. Establishing the business case (and its cost effectiveness) is the future task. Meanwhile other treatment strategies are being explored as more than AAT is involved in this disease including the development and validation of simple markers that can predict whether the disease will remain stable or progress. Such tests will negate the need for several years of observation by just a single blood test. Some of the work is covered by the contribution of many of the team. Meanwhile I am pleased to see that the ADAPT patient group is now becoming well established and we will be working in partnership to achieve all these ends and an EU policy document is being prepared.

alpha-1 uk
support group
Supporting alphas, their families, carers and friends since 1997

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We are a registered Charity

England and Wales (1146330)

Scotland (SC043177)

apha1.org.uk

Alpha-1 Antitrypsin Deficiency

also known as Alpha-1, A1AD or AATD is an inherited, genetic condition that is passed on from generation to generation. As the name suggests it is a deficiency of alpha-1 antitrypsin (AAT) in the bloodstream. AAT is an enzyme produced in the liver to help protect the tissues of the body during infections. The low level of AAT in the blood occurs because the AAT is abnormal and cannot be released from the liver at the normal rate. This leads to a build up of abnormal AAT in the liver that can cause liver disease and a decrease of AAT in the blood that can lead to lung disease.

Who are we?

The Alpha-1 UK Support Group is a not for profit organisation founded in 1997 by those diagnosed with the genetic condition Alpha-1 Antitrypsin Deficiency who are dedicated to help, advise and support fellow sufferers, their families, carers and friends.

Mission Statement

- To provide support and education for patients, families, carers and friends who are affected directly or indirectly by Alpha-1 Antitrypsin Deficiency.
- To grow a social network for patients, by providing discussion groups focusing on how better to cope with their condition, aiming towards improving quality of life.
- To advance education, understanding and awareness of the condition, in particular among medical professionals, including information relating to genetic implications, treatment, and lifestyle choices.
- To support research and campaign for better access to treatment for Alpha-1 patients.

Find us on Facebook

alpha1uksupportgroup

YAHOO! Groups

alpha1uk

Alpha1UKSupport