



## Chairman's Message

Registered Charity No. 257131

I think it's fair to say that this year the charity has had more work imposed upon it by our banks and regulator than in any previous years; asking for information or requesting actions to be carried out. This has included quite complex forms to be completed or in one case, the requirement to book a one hour telephone conversation for a "customer review". I was particularly annoyed when I was told that one of the forms I had submitted was completed incorrectly, but they were unable to tell me what the incorrect information was!

The Charity Commission are asking for more information on policies and procedures to be included in the annual returns; accordingly I and others have started formally documenting our policies for various aspects of the charity's work.

On the plus side, our new banking arrangements, introduced after substantial effort, are now saving time and postage in raising, authorising and making payments online with the system ensuring the right number of authorisers along with the ability to authorise a payment by smartphone.

Last year, Professor Wardlaw outlined plans to set up the Centre for Environmental Health and Sustainability (CEHS) at the University of Leicester. He indicated that some of the research they may undertake could be of interest to MAARA.

Later in the year he reported that the proposal was successful and that Professor Anna Hansell had been appointed as inaugural Director. A major grant application was submitted by a team led by Professor Hansell, to the National Institute for Health Research (NIHR), the nation's largest funder of health and care research under their Health Protection Research Unit (HPRU) Programme. HPRUs are research partnerships between universities and Public Health England (PHE). CEHS applied in the Environmental



Steve Watson, Prof Anna Hansell and Prof Andy Wardlaw

Exposures and Health category and has been awarded a grant of £1m over 5 years. It will support PHE to deliver public health protection by building an evidence base for public health policy and practice. I was particularly pleased to note that some of the work we have recently sponsored is mentioned in the submission.

I was invited to attend a presentation and workshop where Professor Hansell outlined the bid to establish the HPRU. Informal discussion afterwards sought to understand how the health protection research can be made more relevant to the needs of patients, carers and service users. After the meeting I was asked to lead the patient and public involvement group if the bid was successful, to which I agreed.

Finally, it is with mixed sentiments that I have to report that Professor Wardlaw has decided to retire and with this decision, he will retire as the Vice Chair of MAARA early next year. Andy has been a stalwart of MAARA for many years and chaired the Medical Advice Committee (MAC). Despite a pressing professional workload he has always been happy to assist Eva in dealing with medical questions we get from time to time as well as keeping us updated on the medical services' situation in Leicestershire. We are currently, (with Andy's help) trying to fill the Vice Chair position. I would like to thank Andy for all of the work he has put into MAARA over the years, he will be greatly missed by the committee and we wish him a happy retirement. I'm sure he will continue to enjoy his writing, see elsewhere in the newsletter for details! Additionally, as usual, I would like to thank Eva, the members of the Executive committee and external referees for all of their work and assistance over the last year.

Steve Watson - Chairman

### THIS ISSUE:

Chairman's Message

Treasurer's Report

Meet the Committee

Harry Morrow-Brown Travel Fellowship

Fundraisers & Donations

# MAARA

Funded Projects

Aerobiology at  
Leicester University

—

Identification and  
characterisation of allergens  
from *A. fumigatus*  
associated with lung  
damage in asthma

—

Food Protein Induced  
Enterocolitis Syndrome  
(FPIES) study

—

Investigating the role of a  
promising new asthma drug  
target, CRTH2, on  
monocytes in asthma

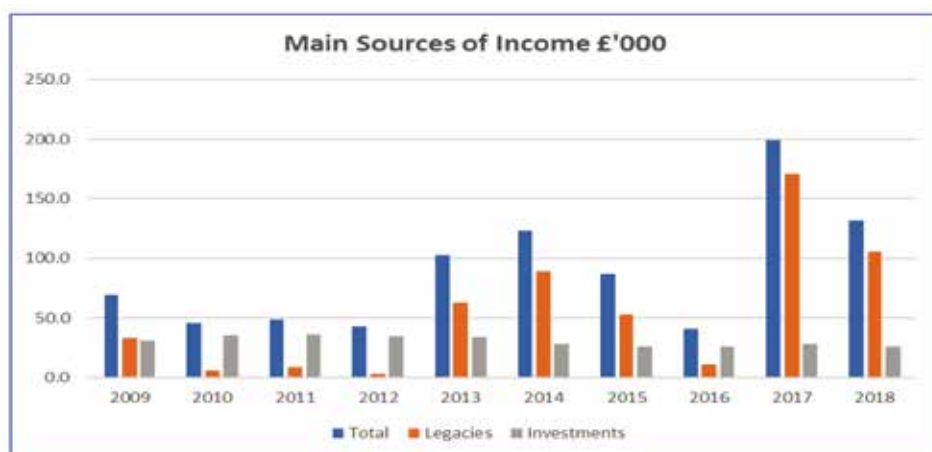
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Characterisation of type-2  
lymphoid cells in the sputum  
of wheezing children

## Treasurer's Report

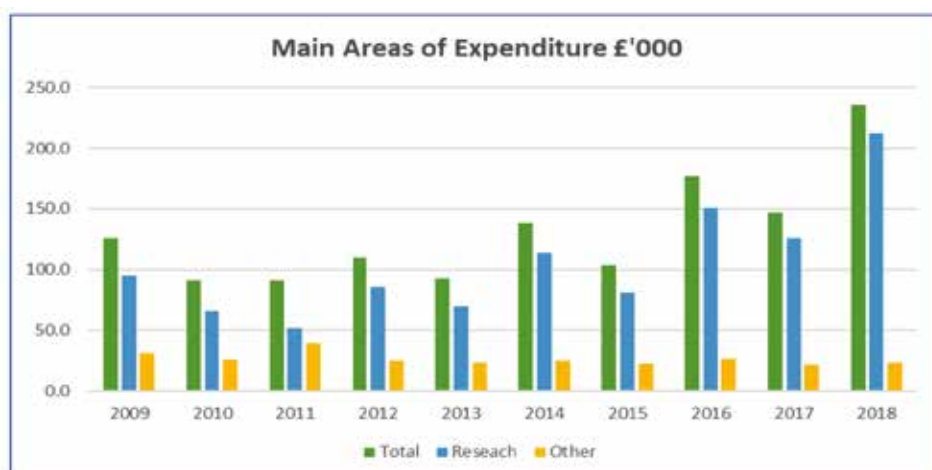
### Financing our Activities, and Research Funding From our Treasurer Peter Teasdale

I am pleased to report another successful year in 2018. As usual, income is very dependent on the level of legacies, which by its nature fluctuates from year to year. Donations and legacies were again at a very high level of £102,438, following last year's record of £170,984. Our investments continued to perform in a steady manner bringing in a further £25,741 (£25,123, 2017) which covers all our running costs (an average of £23,700 over the last five years). In addition, there are many fundraising events which individual MAARA members and members of the public undertake to support our charity, contributing £3,662 this year.



The graph shows the significance of legacy income in recent years in relation to total income.

MAARA devotes the majority of its funds to important research projects, which is a core activity of the Association. The majority of these involve asthma and allergy specialists at the University Hospitals of Leicester NHS Trust, with some existing projects continuing over the coming years. The year saw a record expenditure of £206,283, funding grants with a total value in excess of £500,000. We also committed in 2018 to substantial new funding of other important research programmes which are highlighted elsewhere in this Newsletter. MAARA's emphasis on funding important research projects whilst containing administration costs is highlighted in the next graph.



Thank you again for all your support which allows MAARA to continue its research funding programmes.

## Officers

**Chairman**

Mr Steve Watson

**Vice Chairman**

Professor Andrew Wardlaw

**Honorary Secretary**

Mrs Lisa Bacon

**Honorary Treasurer**

Mr Peter Teasdale

**Medical Adviser**

Dr Martin Stern

## Committee

Dr Will Carroll

Dr Erol Gaillard

Dr David Luyt

Mr Stuart Mills

Mr Jim Pain

Dr Roger Chappell



*Eva Day*

Dear Member

We hope you enjoy this edition of the 2020 newsletter. This year we have, as usual, included all the MAARA funded research projects and the Harry Morrow-Brown Travel Fellowship awards.

The membership now stands at 58 and some of you have been with the charity since before I joined in 1989.

We would like you to know how much we appreciate the continued support you give to MAARA along with donors who make the work we do possible.

With best wishes  
Eva Day

## Richard Keene MAARA Chairman 1988 - 1998

Richard Keene took a very keen interest in MAARA supporting the charity while he was Mayor of Derby from 1986-1987. He became the MAARA Chairman in 1988 after he stepped down as Mayor of Derby. At that time there was always a lot of activity going on in the MAARA Headquarters and Clinic, Vernon Street, Derby with many patients regularly passing through the building. It was a hive of activity especially in the summer months when there were many patients with hay fever and asthma as a result of allergy to grass pollen. When Ann Harries retired as Administrator I was asked to help Richard at MAARA Committee meetings both the Derby Management Committee and the MAARA Executive Committee whilst continuing aerobiological research. He was a very easy person to work with and he worked hard to raise the profile of MAARA in Derby all the time he was Chairman, he stepped down as Chairman in 1998. I was pleased to be present at his funeral at St Matthew's Church Darley Abbey and remember his great contribution to the charity, ensuring MAARA continued to help and support research into the cause of asthma and hay fever.



*Richard Keene*

**Julie Corden**

Richard Gerald Keene was born on 25th January 1927 and died on 13th December 2018 at the age of 91 years. He was born into a well-known Derby family, his father was a Derby architect, his grandfather was a noted artist and his great uncle was a famous early photographer.

His father died when Richard was seven so he was brought up by his mother. At the age of 17 years he joined the RAF and was transferred into the parachute regiment during the Second World War. When demobbed he joined the local Water Company as a Land Surveyor a job which he enjoyed for many years.

In 1952 he married Christine and together they had four children.

Richard decided to stand as a councillor and joined the Conservative Party and was originally elected to Derby County Borough Council in 1968 where he served until 1974. On Local Government reorganisation he stood as a councillor in 1974 for Derby Borough Council which became Derby City Council in 1977 representing Mickleover Ward until his retirement in 1996.

Richard said that his proudest moment as a Councillor was when he became Mayor of Derby in 1986/87. He enjoyed opening fetes and developed friendships with many people. He opened a Derby Night Club "The Pink Coconut" and the CAMRA beer festival and must have been the only Mayor of Derby in history to have opened the beer festival with a soft drink being totally teetotal. He often turned up at Council meetings with his pointed beard wearing his deer stalker hat and enjoyed his open top Morgan car.

**Councillor John Keith**

# New faces for the Aerobiology & Clinical Mycology Group



## Madhavi Pandya

I am a third year Biomedical Science undergraduate from De Montfort University currently undertaking a 12 months placement with the Aerobiology and Clinical Mycology group at the University of Leicester prior to returning for my final year. My primary role is to process clinic sputum samples collected from the Institute for Lung Health (Glenfield Hospital) for fungal growth and then use microscopic and morphological means to identify different fungi. If however, I cannot identify a fungus, I would carry out DNA extraction, PCR and DNA purification and then send off the extracted DNA for sequencing. Once sequenced, I can use the BLAST database to identify the fungi. Other tasks which I carry out include re-growing old samples, storing the samples at -80°C and ensuring the data for the samples on Excel is up to date. I am immensely grateful that I have been given the opportunity to develop myself both personally and professionally, working in interesting and vast field and in a small way, contributing to making a positive difference in patients' lives.



## Emily Castells

After finishing my placement in Dr Catherine Pashley's aerobiology lab in 2015 (featured in the Spring 2016 MAARA Newsletter), I was eager to return to work in the group to continue research in the involvement of fungi in asthma and respiratory disease. I am currently working as a research technician on a clinical trial which is looking at a new drug to stop the colonisation of fungi within the lungs of asthmatic patients. I am also developing and validating molecular techniques which will allow us to detect the composition of fungi and bacteria within the lungs to better understand how our lungs and microbes interact and change in health and disease.

# Meet the MAARA Committee

As a charity, MAARA needs to be run in accordance with rules from the Charity Commission, who recommend that a committee be used to regulate a Charity's operations.

The MAARA Executive Committee is responsible for decisions regarding our day to day running and for ratifying major financial decisions. Without their input the charity could not function. We are fortunate to have committee members from all backgrounds, medical specialists, business-people, technical experts and those who have experience of asthma and allergy either personally or from a family member. The photographs below allow names to be put to the faces of our Committee!



**Steve Watson**  
Chairman



**Prof Andrew Wardlaw**  
Vice Chairman



**Peter Teasdale**  
Treasurer



**Lisa Bacon**  
Secretary



**Dr Martin Stern**  
Medical Adviser



**Dr David Luyt**  
Consultant Paediatrician



**Dr Will Carroll**  
Consultant Paediatrician



**Dr Erol Gaillard**  
Consultant Paediatrician



**Roger Chappell**  
Committee Member



**Stuart Mills**  
Committee Member



**Jim Pain**  
Committee Member



**Eva Day**  
Staff Member

### Pollen Season

This year the spring flowering tree pollen season has been affected by earlier warmer weather. Warmer weather in February has caused alder to peak sooner and deplete sooner (Fig. 1). Oak and birch were affected in a similar way in April. The Grass season on the other hand was fairly steady with very high days spread throughout June and July (Fig. 2). This year peaked on the 16th of June with a count of 218 grains per cubic meter of air. This is lower than last year's 277 grains and 2016's 300 grains. None of the recent years have come close to 2005 when we had six days when levels reached "exceptionally high" levels of more than 500, peaking at 931!

### Fungal Spore Season

This year's summer didn't experience such a long dry period as 2018 and has seen a more normal steady distribution of high day peaks for *Alternaria* and *Cladosporium* species. This year both *Cladosporium* species and *Alternaria* species passed allergenic thresholds on multiple occasions. *Cladosporium* species can cause symptoms in allergic individual above 3,000 spores per cubic metre of air on a given day. The threshold for *Alternaria* species is 100 spores per cubic metre of air as it is a much bigger spore. *Cladosporium* has reached levels over 20,000 and *Alternaria* has passed 2,500 spores per cubic metre of air on a given day.

Fig. 1

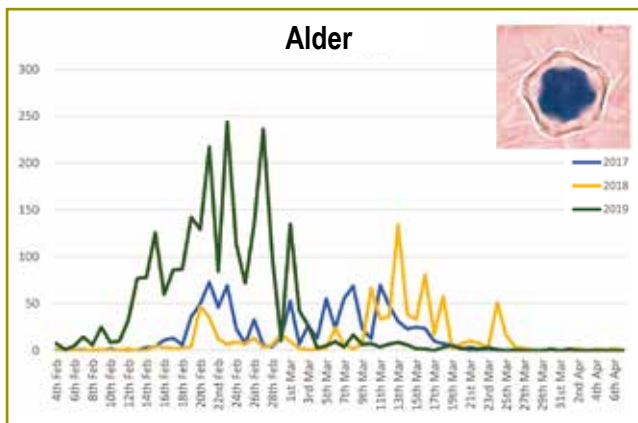


Fig. 1. Graph showing levels of Alder over the last three years and a photo showing what Alder looks like under the microscope.

Fig. 2

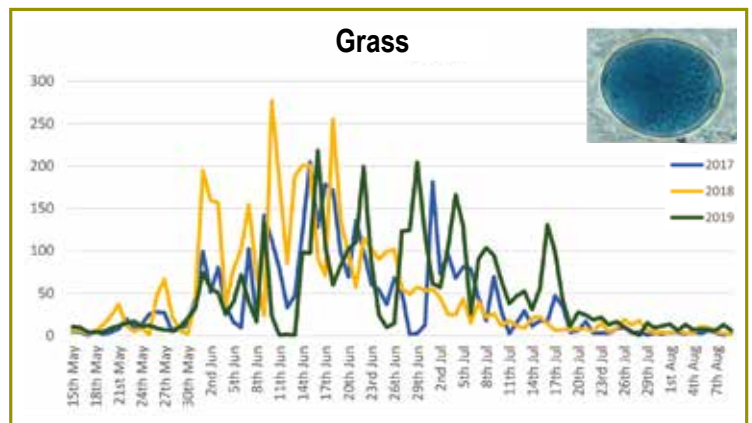


Fig. 2. Graph showing levels of Grass over the last three years and a photo showing what Grass looks like under the microscope.



Prof Andy Wardlaw, Steve Watson and Dr Cat Pashley in the Aerobiology Lab at University of Leicester



## Congratulations Dr Eva-Maria Rick

"Congratulations to Dr Eva-Maria Rick, who has successfully defended her PhD thesis entitled "Fungi in asthma - investigation of the lung mycobiome and characterisation of allergens". She graduated in July 2019 from the University of Leicester where she studied under the supervision of Prof Andy Wardlaw and Dr Cat Pashley.

In 2018 Eva was a recipient of the MAARA Harry Morrow-Brown travel fellowship."

In March 1996 MAARA presented new research (Figure 1) at the American Academy of Allergy, Asthma and Immunology showcasing a newly designed portable 24-hour indoor air sampler. The instrument was developed by Dr Martin Stern (MAARA Medical Director) in conjunction with Burkard Manufacturing, specifically to investigate indoor aero allergens (pollens and fungal spores). This “new” trap facilitated the study of the indoor and outdoor environment using the same methodology that had been used for outdoor air; that in its day revolutionised our understanding of airborne pollens and fungal spores.



Figure 1.

In 2005, in memory of 9 year old Jacob Fleming who sadly passed away due to asthma, members of Jacobs’s family and friends raised funds to purchase three indoor air samplers, including one of the original design (Figure 2).



Figure 2.

These traps have been used many times over the years. One of their major uses was the studies, funded by MAARA, of Abbie Fairs – work which contributed towards her being awarded a PhD in 2012. Using these traps (Figure 3) Abbie first monitored fungal spores from 100 properties within Leicestershire (reported in MAARA newsletter 2009). She then went on to use both traditional microscopy and molecular approaches to investigate the homes of people with asthma where she found that people from whom we cultured the fungus *Aspergillus fumigatus* from their lungs were exposed to higher levels of the fungus in the air (reported in MAARA newsletter 2009).

The average person spends 80 - 90% of their day indoors. Consequently, indoor air quality and its impact on health is of great importance and there is still a need for further understanding of this topic. In 2018 the University of Leicester established a new Centre for Environmental Health and Sustainability, recruiting Professor Anna Hansell as director (Figure 4). In collaboration with the Aerobiology group new research is planned to further understand the relationship between fungal exposure in the indoor environment and respiratory health. It's great to know that a MAARA designed trap from the 1990's still has an active place in research today, and that Jacob’s memory continues to support active research.



Figure 3. Abbie Fairs and patient with the personal air sampler.

## Dr Leyla Pur Ozyigit

I have recently joined the UHL Adult Allergy Team as an allergist after moving with my family from Istanbul to Leicester. I received my education as a respiratory physician, allergist and basic immunologist from Istanbul and Montpellier.

My main interest includes asthma, innate immunity in allergic diseases and drug allergy. I also have a special interest in ethics and work in the Ethics Committee of the European Academy of Allergy and Clinical Immunology (EAACI). I had the chance to observe clinical allergy practice in many countries such as the US, the UK, France and Turkey, including the least developed area of my country during my mandatory service. Therefore, I had the chance to witness different clinical approaches to different socio cultural levels of patients. Now, I enjoy working in the NHS and serving the multicultural Leicestershire patients.

Thank you very much MAARA for giving me the opportunity to introduce myself.



*Dr Leyla Pur Ozyigit*

## Allergy and Anaesthesia

Dr Patricia Romero Palomino



*Dr Patricia Romero Palomino*

I am a Consultant Anaesthetist based at Glenfield Hospital in Leicester. After NAP 6 (National Audit Project in Perioperative Anaphylaxis) was published it was very clear that Allergists and Anaesthetists should work together in order to improve the management of Perioperative Anaphylaxis. In March 2019 I started to work with Dr Nazreen Khan in the Allergy Department at Glenfield Hospital.

My main duties are the implementation of the recommendations of NAP 6 and to act as a link between Allergy and Anaesthesia but I am involved in skin tests, drug challenges and in the drug allergy clinic too. Allergy Services in Leicester are growing and in the future we would like to challenge patients with anaesthetic drugs.

I am enjoying working in Allergy and think it is an amazing and interesting field. In October I joined Imperial College London and hope I will be able to finish the MSc in Allergy in the next three years.

## MAARA Member - Michelle's Story

Michelle Taylor is a MAARA member who runs her own business and suffers with asthma. This is Michelle's story.

I have suffered with uncontrolled asthma since the age of 45, until then I was a fit and healthy young woman exercising and enjoying my mountain biking, basically living life to the full. I have never smoked.

I was struck down with pneumonia and recovered after 8 weeks leaving scar tissue in my left lung. That was not to last for long before I had episodes of lung infections over and over again and I was then diagnosed with uncontrolled asthma. From that day I rely on inhalers, antibiotics and steroid tablets monthly, I would get a good month and then another infection. My quality of life has changed so much I no longer go to the gym or if I do I pay for it with another infection.

Finally, getting a diagnosis last month of eosinophilic asthma after a long frustrating 5 years has finally given me some hope.



*Michelle Taylor*

# Harry Morrow-Brown Travel Fellowships

## Dr Ibrahim Wadah

## American Thoracic Society



For the second year running, I was lucky enough to be awarded a Harry Morrow-Brown Travel Fellowship. Having just returned from the 2019 American Thoracic Society (ATS) Annual Conference in Dallas, I wanted to write and express my deep

gratitude for the valuable opportunity. This year's conference was exceptional in so many ways, from the breakthrough scientific symposiums, to the all-day workshops and learning how to start a thriving career in respiratory medicine. I have had two abstracts accepted for poster presentations, interacting with hundreds of like-minded delegates from around the world has been truly enjoyable, an experience would not have otherwise been possible without the help of MAARA.

My field of interest is exploring alternative diagnostic tests in airway diseases like asthma. One of the studies I presented at the ATS was around the use of a new technology: Forced Oscillation Technique (FOT) in assessing airway function. We tested the device in asthmatics hospitalised

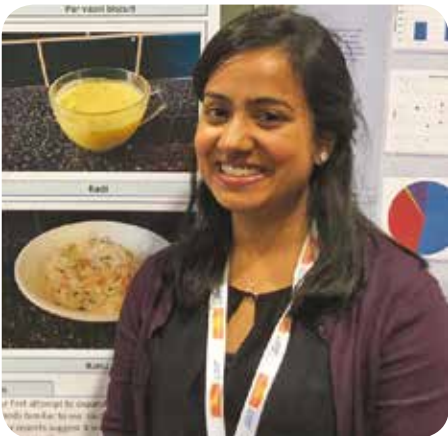
with severe exacerbations, it was performed successfully by all, with promising results. Further studies are currently underway to validate this.

My second presentation was exploring breath as an easier alternative to sputum in assessing airway inflammation in patients hospitalised with severe exacerbations of asthma, COPD and pneumonia. A good sputum sample can be difficult to obtain in severely unwell patients, a high quality breath sample is significantly easier to obtain and can potentially provide important information about the state of airway inflammation.

Once more, thank you for supporting early career respiratory researchers, your generosity truly makes a difference.

## Priya Mistry

## Paediatric Allergy Dietitian



I am a Paediatric Allergy Dietitian working in the Children's Allergy Service at the Leicester Royal Infirmary. I was very fortunate

to have received funding from MAARA to attend the British Society for Allergy and Clinical Immunology Annual Conference (BSACI) 2019. This allowed me to present on the "Development of a home-based milk reintroduction ladder that includes 'Asian foods' for children with cow's milk allergy (CMA)." Our dietetic team have developed an expertise in milk allergy, in particular the management of improving or resolving milk allergy where we have developed a 'milk ladder'. This is essentially a 'ladder' to guide the parents on which foods with increasing amounts of milk to feed their children as their allergy improves or resolves. As have a large south Asian community in Leicester, we see many of their children in

our service. They represent 25% of our patient population. We recognised that there is a need to include traditional Asian foods into the ladder to allow families to manage reintroducing milk with foods common to their diet. I have led the development of this new ladder for these patients and it was a brilliant experience to be able present the work our team have developed at BSACI 2019. We have preliminary feedback from families which will be reviewed formally in the future. Attending BSACI allowed me to network with other healthcare professionals and industries working in the field of allergy. I am very grateful for being supported by MAARA to allow me to present our work.

## Dr Karl Holden Investigating Fungal Sensitisation in Pre-School Wheeze



I am an NIHR Academic Clinical Fellow in Paediatrics. To date the areas of research with which I have been involved with include; investigating blood biomarkers in preschool wheeze, fungal sensitisation in children with asthma and children with preschool wheeze and breath sampling for VOC analysis in preschool and school-aged children. I am extremely grateful to MAARA for the Harry-Morrow Brown Travel Fellowship award. This allowed me to travel to Madrid for the 29th Annual International Congress of the European Respiratory Society (the largest respiratory conference) to present research I had undertaken in Leicester investigating

fungal sensitisation in preschool wheeze. Preschool wheeze is extremely common and attendances to hospital with wheeze are highest in this age group. We know from birth cohort studies that there is evidence of fungal sensitisation in preschoolers and that this is associated with an asthma diagnosis in later childhood. In this study we found that those children attending asthma clinic due to preschool wheeze with evidence of fungal sensitisation had more troublesome wheezing requiring a higher GINA treatment step of preventer medication. It was a thoroughly enjoyable and educational conference.



## Harry Morrow-Brown Travel Fellowship

The Midlands Asthma and Allergy Research Association (MAARA) supports research into asthma and allergy in Derby and Leicester. The Harry Morrow-Brown travel fellowship was launched in 2014 in memory of the founder of MAARA. This fellowship will offer researchers an opportunity to travel to a national or international allergy or asthma conference to present their original work. The fellowship is awarded annually, and successful applicants can apply for support for travel, accommodation and conference registration fees. For full details of eligibility contact [enquiries@maara.org](mailto:enquiries@maara.org)

## Characterisation of Type-2 Innate Lymphoid Cells in the Sputum of wheezing Children

Asthma is a common, but very complex disease, caused by inflammation in the airways. It affects all age groups but is particularly prevalent in children.

To date very few studies have concentrated on looking at inflammation in paediatric asthmatics, and even less have focused on inflammation during an acute wheezy episode, commonly known as an 'asthma attack'.

A cell population thought to contribute to inflammation are type two innate lymphoid cells (ILC2s). These cells have been described relatively recently and are thought to contribute to asthma attacks through their ability to secrete powerful messengers known as cytokines.

As part of the MAARA grant titled 'Characterisation of type-2 innate lymphoid cells in the sputum of wheezing children', we aim to study the importance of ILC2s in maintaining inflammation in the airways during an acute exacerbation.

Using flow cytometry, a technique which allows for the identification of cells based off cell surface receptors, we have been able to identify small populations of ILC2s within the sputum of acute asthmatics.

We look forward to next year where, now we have established a method to identify ILC2s in the sputum of children, we can delve further into their presence within the tissue during an acute exacerbation and clinically stable periods.



*The flow cytometer used as part of the MAARA grant to investigate ILC2s in sputum.*

**Megan Philpot**



## 20 in 2020 Two Decades of Research into Respiratory Disease at the Leicester Institute for Lung Health (ILH)

The Leicester Institute for Lung Health was formed in 2000 to promote respiratory research and clinical development. Over the last two decades members of the Institute have made a significant contribution to our understanding of a range of respiratory disease. In celebration of this success a twentieth anniversary scientific meeting has been planned for 12th to 14th February 2020, to be held at Stamford Court in Leicester.

The meeting will be an opportunity to catch up with former colleagues and old friends as well as hear about the latest advances in respiratory research, with talks on discovery science, translational science and clinical interventions. We have invited a range of national and international speakers, alumni of the institute and current staff members.

MAARA is proud to financially support this event.

## At the start of the year the British Paediatric Surveillance Unit (BPSU) Food Protein Induced Enterocolitis Syndrome (FPIES) study started.

Food Protein Induced Enterocolitis Syndrome (FPIES – pronounced F- pies) is a type of food allergy which leads to repeated vomiting and other gastrointestinal symptoms up to several hours after a problem food (or baby formula) is eaten. Delays in diagnosis are frequent, since many frontline healthcare providers are not aware of the condition, and presenting symptoms can mimic other serious childhood illnesses.

It is rare but serious form of food allergy. Currently, there is very limited national and international data on how common it is. This is the first nationwide study of FPIES in the UK. This study will tell us how common FPIES is in the UK, what foods can cause it and the range of symptoms that children exhibit during a reaction. It will also improve awareness of FPIES amongst paediatricians' as every consultant paediatrician in the country will be told about FPIES through the BPSU. This has the potential to benefit future patients and families through improved recognition leading to quicker diagnosis of FPIES.



To date we have presented some of the first 4 months of data at the annual BSACI 2019 conference. Most of the reports have come from clinicians with an interest in allergy. After 4 months, there have been 36 confirmed cases. Most were in male infants (78%) and the commonest foods causing FPIES was milk (22%), fish (19%) and egg (17%), followed by grains including rice.

The study will conclude in January 2020. We are very grateful to MAARA for funding this vital research and look forward to sharing the findings in the later half of 2020.

**Dr Gary Stiefel - Paediatric Allergy Consultant**

## Searching for new fungal allergens

I am a postdoctoral research associate in the Aerobiology and clinical mycology group where I have worked since completing my PhD in October 2018. Severe asthma is associated with permanent lung damage. We have shown that lung damage in severe asthma is linked to allergy to a mould called *Aspergillus fumigatus*. This fungus can grow in the lungs where it causes a persistent allergic reaction. Over time this can lead to irreversible lung damage. Not everyone with allergy to *A. fumigatus* gets lung damage. My work focusses on trying to identify new fungal allergens from *Aspergillus fumigatus*. Fungi contain many proteins only some of which cause allergies, and when they do they are called allergens. Different people are allergic to different allergens. If we could find the allergen in *A. fumigatus* which causes lung damage we could use it to identify people at risk of developing lung damage. We could also use the allergen for immunotherapy to prevent damage. The nature of the protein would also provide clues as to how the allergy causes damage.



*Dr Eva-Maria Rick*

Based on preliminary experiments using extracted proteins from this fungus and blood from people with asthma, I am investigating a range of allergen candidates that were identified. Once shown to be allergens in preliminary tests, their allergenicity will be evaluated for a larger panel of people with asthma and control individuals. Patterns will be determined as to whether allergic reactions to certain proteins are associated with specific disease outcomes, in particular signs of lung damage. These proteins could then be used to predict the risk of lung damage in people with asthma. This can benefit these individuals as their treatment could be adjusted to prevent lung damage. To date, I successfully produced nine proteins, including two known and seven unknown allergens from *A. fumigatus*. To produce and test a larger panel of allergens, we just received generous funding from MAARA to support this research. I am very grateful for this opportunity and looking forward to this project.

**Dr Eva-Maria Rick**

## MAARA funding has supported a project investigating the role of a promising new asthma drug target, CRTH2, on monocytes in asthma

November 2019

People with asthma have increased airway inflammation, often due to viral infection, that is all too familiar for many patients on a daily basis, worldwide. We know that the body's natural defences, white blood cells, migrate from blood to lung, promoting these responses [see Dr Cathryn Weston in 2019 Spring issue]. To stop this migration new therapies are under evaluation in asthma and one of these blocks a cell surface receptor known as "CRTH2". I have identified an additional cell type, known as a non-classical monocyte that has this receptor. The role of this receptor on monocytes (and in the broader context of inflammation in people with asthma) has not been investigated before. It could play a role in their ability to migrate and promote or actually inhibit certain parts of the inflammatory response towards viral infection. Therefore, I believe that we should better understand the role of these cells during viral inflammation in asthma and I am very grateful to MAARA for supporting me to do this.

To achieve this I will be using different laboratory techniques at Glenfield Hospital, working closely with both adult and child research participants, and University of Leicester colleagues, Dr Erol Gaillard and Professor David Cousins. I hope that this information will increase our understanding of anti-viral inflammation and provide the rationale for increasing the accuracy of CRTH2 targeted therapy in asthma.

**Dr Adam Wright** - *Research Associate, Respiratory Sciences, University Hospitals of Leicester NHS Trust*



*Dr Adam Wright*

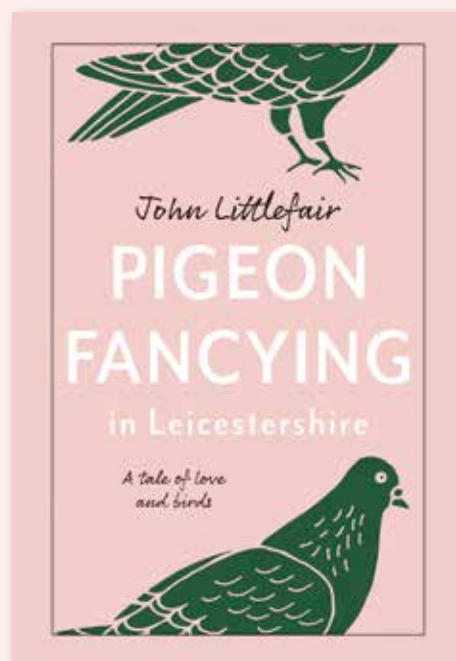
## Pigeon Fancying in Leicestershire

Pigeon Fancying in Leicestershire is a light-hearted and witty book, in which an off-beat, crime-based plot is interwoven with a love story.

Lanfranco DeLuca has a passion for pigeon racing, but his prize-breeding bird, recently bought at great expense, is failing to perform his stud duties. Desperate measures involving an avian kidnapping are necessary to restore both his pride and purse.

Joe Landseer is tired of life, or at least of London. He's torn between a taste of bucolic harmony at his great aunt's dilapidated small holding in Leicestershire and a career in Brixton as a struggling journalist, supported by his ambitious partner, Louise.

To complicate matters, Joe falls for Alice, a scientist working in Leicester on Pigeon Fancier's Lung, who gets caught up in DeLuca's scam. Their lives become amusingly entwined as they attempt to resolve their dilemmas and the mystery of the barren pigeon.



### About the author:

John Littlefair is a doctor, living in South Leicestershire, who has worked at the University of Leicester and Leicester city hospitals since 1992. He says, "I started writing as an antidote to the stresses and strains of working for the NHS. The starting point for this book was a story in a local newspaper about a pigeon fancier who had bought a racing pigeon for over £100k to stand at stud. I recalled Shergar, a famous race horse snatched in a bungled hijack, and thought the kidnapping of a pigeon would make a good plot for a funny novel."

Available to buy from Amazon, The Book Guild and all good bookshops!

## MAARA DONATIONS ON-LINE



Credit card donations can now be made on-line  
by going to

**www.maara.org**

and clicking on the

**DONATE NOW**

button at the top  
of the page



money  
giving

## *Dates for Your Diary*

**The MAARA AGM will be held in  
September 2020.**

If you would like more information about  
this event please contact:

**0116 247 9888.**

or email [enquiries@maara.org](mailto:enquiries@maara.org)

### In Memoriam

Keith Austin  
Michael & Carmel Fitzpatrick  
Richard Keene | Peter Dunn

### Legacies

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