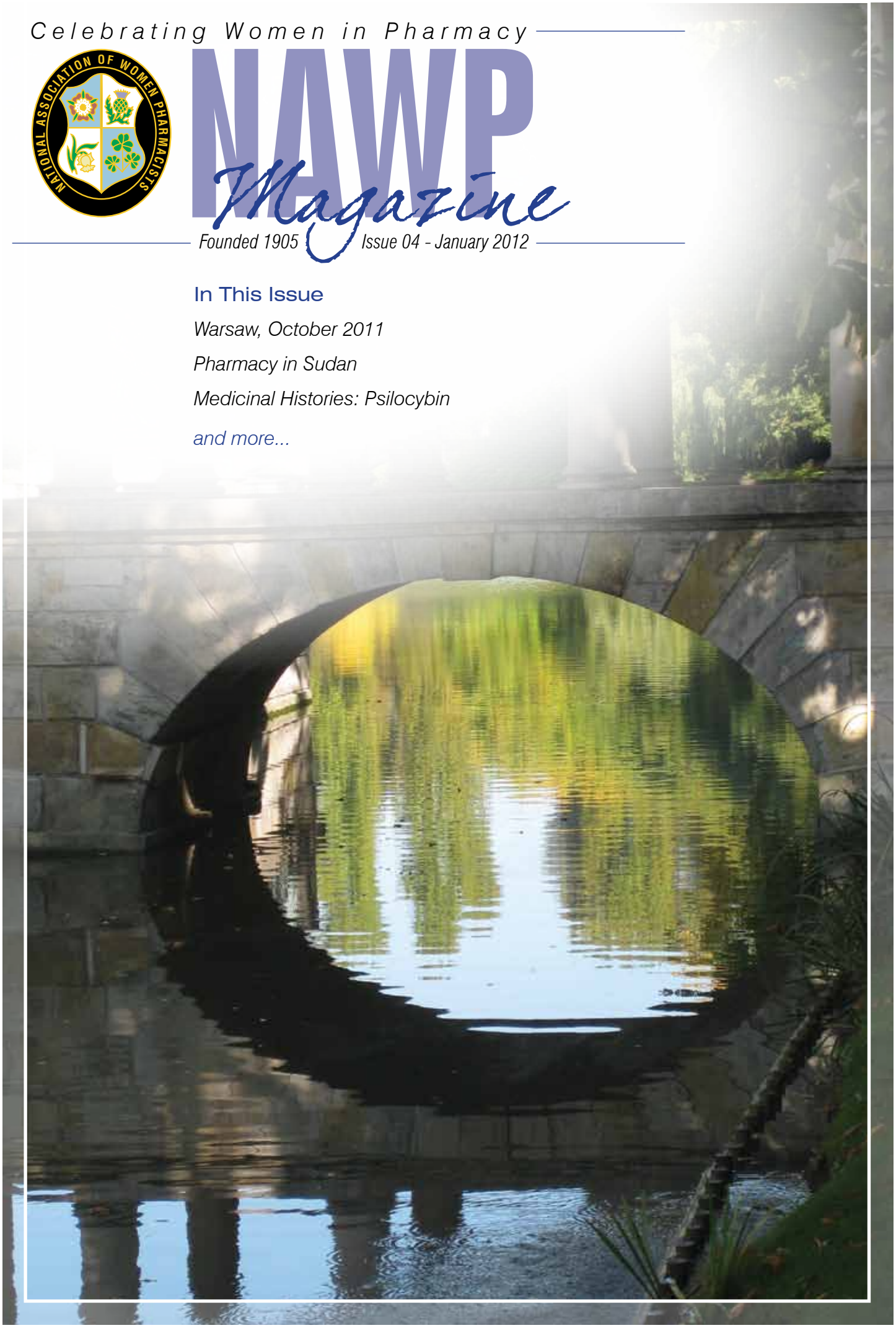
Celebrating Women in Pharmacy

NAWP Magazine

Founded 1905 Issue 04 - January 2012

In This Issue



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NAWP Magazine

Founded 1905

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The President's Letter

Dear Colleagues,

I would like to start by wishing you all a Happy New Year!

Having spent so much time and energy on organising the November conference - Blue pill, pink pill? Does gender matter? - it was great to see a number of you there. I am pleased to report that the conference was successful in that it achieved its objectives and stimulated much discussion and interest. I was amazed at the enthusiasm shown by many of our speakers and representative organisations and their desire to become involved in post-conference activities. Their support and frequent communication since the conference has been invaluable. A full report of the conference is still in preparation but some summary information is provided on pages 12 to 15 of this magazine. In addition some information was posted on our website in early December.

As you are aware, this was the first event organised jointly by NAWP and Medical Women's Federation (MWF) and I hope there will be further collaboration between our two organisations. I am also grateful to the Royal Pharmaceutical Society (RPS) for the administrative and financial support they provided.

The next main event in our calendar is of course our annual conference in April to be held in Manchester. This will also be the VIII European Meeting of Women Pharmacists so we look forward to our friends and colleagues from many other countries joining us for a weekend in this vibrant university city. More information is given on the back cover of this issue.

We have received notification from the RPS of the following consultations: 'Consolidation and review of UK medicines legislation' , 'Review of Good Medical Practice 2012' and 'Public consultation on measures for improving the recognition of prescriptions issued in another Member State '. The closing dates for these consultations are 17 January, 10 February and 8 January, respectively. In addition the Medicines and Healthcare Products Regulatory Agency (MHRA) are currently consulting on 'new draft regulations

on pharmacovigilance' which is the proposed legislation referred to during our November conference by an attendee MHRA (see page 15). If any of you are would like to provide input to the EC or to respond as individuals, please do so.

Following a discussion, whilst we were in Poland, on Centre of Pharmacy Postgraduate Education (CPPE) and whether it now provided CPD to pharmacists working in industry, Christine Heading checked on the eligibility of industrial pharmacists and entered into correspondence with CPPE having noticed that there were anomalies in the information provided. This led to a satisfactory result in that CPPE changed its policy and now permit all pharmacists living in England to be issued with tokens irrespective of the sector in which they work.

This is important information for pharmacists in industry or the private hospital sector, to those returning to practice or considering a change of sector.

I was invited to join the MWF for their autumn Meeting on 'Global Strategies for Women's Health & Children's Health' in London on 11 November. This was the day following our joint conference and, fortunately, I was able to attend for part of the day before travelling home. The opening address 'Becoming a GP - and a leader' was given by Dr Clare Gerada, Chair of the Royal College of General Practitioners. Other speakers during the day were Professor Sian Griffiths (Strategies for promoting women's health: a perspective from China) and Professor Sir Michael Marmont (Social determinants, women and health). There were also abstract presentations, workshops, a review of General Medical Council's 'Good Medical Practice' and a panel discussion on doctors and professional conduct. It was interesting to see the number of women medical students attending the meeting which made me think that maybe we should encourage pharmacy students to attend our conferences.

I would like to thank you for your support of NAWP and to wish you all a Happy New Year.

With best wishes

Virginia Watson

President of the National Association of Women Pharmacists

Seventh European Meeting of Women Pharmacists

Warsaw, October 2011

Diligent readers of this Magazine will recall that all previous meetings of this grouping have been held in Germany. The deutscher Pharazeutinnen Verband (dpv) initiated this annual gathering, but for the first time, a meeting was held outside Germany; in Poland. Eight NAWP members attended the meeting, hosted by the Medical University of Warsaw.

The purpose of this Warsaw gathering was, as always, to bring together women pharmacists from many nations within Europe, to discuss issues of mutual interest. For this purpose, Europe is defined geographically, and everyone present is there as a professional individual, not as a delegate or representative of any organisation. This is worth emphasising because the freedom of speech it generates is in contrast to many other meetings. Another liberation, for UK pharmacists at least, is that everyone is there to share ideas and to learn of other ways of providing pharmaceutical care; no one is there for training; but everyone is there to be educated.

There was no declared theme for the meeting, but the general focus was that of engagement between pharmacists and patients. Two UK contributions came from Sid Dajani and Hazel Baker. Readers may not know that Sid has had a long-standing relationship with NAWP, and we were happy to suggest him as an appropriate speaker on the New Medicines Service (NMS). As someone greatly involved in initiating the ongoing 2-3 year pilot of the NMS, he was excellently placed to explain the background and expectations in terms of improvement of patient 'adherence'. 'Compliance' may be the term that is most often used, but the preferred aim is 'adherence', which refers to sticking to a treatment plan agreed between the patient and clinician. Hazel continued the theme of improving utilisation by giving an overview of the role and mechanics of Medicines Use Reviews; a new concept to most European colleagues.

From Germany, the meeting heard from Prof Karen Nieber on the theme of the patient's knowledge about medication. Findings from a relatively small study (63 women) revealed that 23% of patients lacked correct knowledge of why they were taking their medication. A similar proportion reported incorrect usage with 17% using a higher dose than prescribed. The findings are particularly interesting when one remembers that the number of prescriptions dispensed daily in German pharmacies and by German pharmacists tends to be much lower than in the UK, so reducing dispensing volumes may not be the solution to the adherence problem.

When Karen's talk is considered alongside a talk from Dr Anne Lewerenz on inspection of pharmacies in Germany, sceptics might wonder whether it is proliferating regulation that has diverted attention from actual patient care. Anne Lewerenz' talk, however, was informative and wide ranging and freely acknowledged the complexity of the numerous regulatory frameworks that apply to pharmacy.

From Poland, the meeting heard from Prof Helena Makulska on the role of pharmacists in assisting patients in accessing and using medicines not prescribed by medical practitioners. Access to non-medically prescribed medicines varies considerably across European countries, and affects patients in terms of availability of over the counter medicines (OTCs) outside pharmacies, self-selection or otherwise of OTCs within pharmacies, and pharmacist prescribing. A particular concern in Poland at present is the growth of OTC sales outside pharmacies, which has implications for patient safety (minimal advice available) and for the business side of pharmacy.

Although these European gatherings are usually annual, the next meeting (details of which can be found on the back cover of this magazine) will be held quite soon, in April 2012. The meeting will be held in the UK, in Manchester, and will merge with NAWP's Annual Conference.

Christine Heading

A Polish Adventure

On Thursday 29th September, an exceptionally warm and sunny day, eight members of NAWP gathered at Luton airport at the start of our journey to Warsaw for the 2011 Meeting of European Women Pharmacists.

Some hours later, as we arrived at Warsaw's Novotel Centrum Hotel, we couldn't fail to notice the impressive Palace of Culture and Science, soaring 231 metres into the sky. We were later to learn that the giant of a building was commissioned by Stalin as a 'gift' from the Soviet people to the Polish nation. We were soon checked into our hotel and on our way to a local restaurant for our first taste of Polish cuisine. It was good to relax over a delicious meal, chat and make plans for the next day.

Friday morning we boarded a coach for a 3 hour city tour which proved to be a perfect way to get an overview of Warsaw in the short time we had before transferring to the conference venue. Our first stop was the magnificent Lazienki (Baths) Park where we appreciated the opportunity to walk through the extensive grounds in the warm sunshine. Our excellent guide gave us a wealth of information on the history of the park and its many interesting buildings and monuments. On an artificial island in the Lake stands the most notable of the historic buildings, the Palace on the Water. It was originally a bathhouse, converted into a residence in the late 1700s for the last Polish king. Set on the bank of the lake is the Theatre on the Island, a Roman inspired amphitheater separated by water from its stage, which is modelled on Herculaneum, complete with imitation ruins.

The park is home to the most famous Chopin monument in the world depicting the composer, under a willow tree, listening to a melody carried by the wind. Unveiled in 1958, the recreated sculpture stands, surrounded by thousands of roses, in the same place as the 1926 original which was destroyed during the war. Sadly we were just too late to experience one of the free Chopin concerts which take place alongside the monument every Sunday from May to September. For the time being we had to be content with thirty seconds of Chopin's music from a musical bench. Made of cast iron and polished black stone, the multimedia bench is one of 15 which stand throughout Warsaw next to places associated with the composer.

There are 76 hectares of beautiful parkland to enjoy and we even saw RED squirrels. It would be easy to enjoy a whole day there but we had lots more of Warsaw to see.

As our tour continued we learnt of Warsaw's turbulent history of repeated invasions, occupations, destruction and reconstruction. Much of the city was destroyed in World War II and many of its historic buildings reconstructed from the rubble. The Old Town strikingly illustrates Warsaw's renaissance. Its picturesque Market Square looks and feels authentic and it is hard to believe that the replica buildings date from the 1950s. In 1980 the Old Town received Old


THE FRYDERYK CHOPIN MONUMENT. THE CHOPIN
STATUE WAS A LONG TIME BEING ERECTED, THE RUSSIANS
FORBIDDING IT AND THE FIRST WORLD WAR DELAYING
THE PROJECT FURTHER. IT ONLY BEING COMPLETED IN
1926, DURING POLAND'S INDEPENDENCE. IN 1940 IT WAS
BLOWN UP BY THE NAZIS AND DISAPPEARED, BUT BY
1958 HAD BEEN COPIED FROM THE AVAILABLE RECORDS
AND WAS BACK IN PLACE. TODAY THIS MAGNIFICENT
SCULPTURE BY WACŁAW SZYMANOWSKI IS ONE
OF WARSAW'S MOST FAMOUS SYMBOLS.


LEOPOLDOWI SKULSKIEMU
FARMACEUCIE
PREMIEROWI RZĄDU RZECZYPOSPOLITEJ POLSKIEJ
W LATACH 1919-1920
PREZYDENTOWI MIASTA ŁODZI W LATACH 1917-1919
WSPÓŁTWÓRCY POLSKIEGO RADIA
W SIEDEMDZIESIĄTĄ ROCZNICĘ ŚMIERCI
FARMACEUCI POLSCY
WARSZAWA, 15 GRUDNIA 2010 R.
TABLICĘ UFUNDOWAŁO POLSKIE TOWARZYSTWO FARMACEUTYCZNE

Fryderyk Chopin. He lived there for only a few months before his family moved to Warsaw. In later years he made regular visits to the estate, spending much of his time there playing music. He made his farewell visit in 1830 before leaving Poland forever. Only his heart returned home and lies in an urn embedded in a column in the Church of the Holy Cross, Warsaw.

Heritage Site status. The Royal Castle, once the residence of monarchs, is now a museum containing works by Bernardo Bellotto whose paintings of 18th century Warsaw were used to aid the capital's reconstruction.

Of the many statues we saw, that of King Zygmunt III, the oldest and tallest (22 metres high) secular monument in Warsaw. The remains of its original column, which fell during the war, remain next to the Royal Palace.

In the centre of Muranow stands the Monument to the Ghetto Heroes commemorating the tens of thousands of Jews who in 1943 made the decision to die fighting rather than face death in the extermination camps. The following year, Poland's home army rose up against oppression in a brave bid for independence. Their 63 day heroic struggle is commemorated by the Monument to the Warsaw Uprising. As a punishment for the rebellion, the city was destroyed.

In just three hours we had learnt a great deal about Warsaw's history, viewed many of its major landmarks, recognised its people's fighting spirit and enjoyed a very pleasant walk - a perfect introduction to Poland.

Back at the hotel there was time for a snack before our taxis arrived to take us to the conference venue, Jablonna Palace. Jablonna Palace and park complex has been owned by the Polish Academy of Science since 1953. The palace was burned in 1944 and has been reconstructed to look as it did in the late 18th and early 19th centuries. By late afternoon delegates began to gather in the bar for a happy reunion and a chance to get to know new colleagues. A friendly buzz of conversation and laughter developed and continued as we lingered over our evening meal.

Following Saturday's stimulating symposium we adjourned to the beautiful Palace Ballroom where we were treated to a Chopin recital given by accomplished pianist, Ewa Beata Ossowska.

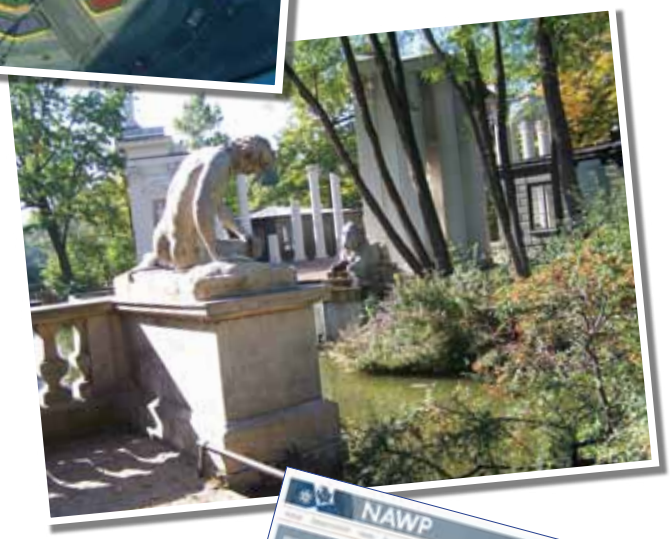
Saturday's dinner was held in the Jablonna Palace restaurant. A convivial evening was spent with good company, delicious food and an opportunity to benefit from the health-giving properties of Aronia berry wine as explained to us by Professor Iwona Wawer.

Sunday morning was cooler & misty as we boarded the coach to take us to elazowa Wola, the birthplace of Chopin's music played in the background as we explored the museum, in Chopin's home, and surrounding park and our guide entertained us with tales of Chopin's life. We paused for numerous photo opportunities notably by Josef Góslawski's bronze statue of Chopin.

We enjoyed an agreeable lunch together at M Gessler's restaurant before departing by coach for Chopin airport in time for some delegates to catch flights home and then on to Warsaw city centre for those staying a little longer.

The sun was shining as us four remaining NAWP delegates made our way back to the hotel to check in for one last night. We decided to make the most of the afternoon sunshine by taking a walk in another of Warsaw's many parks (a quarter of the area of Warsaw is covered with parks, squares and gardens). Minor navigational problems made the walk to & from the park longer than anticipated but we did manage to find it in time to enjoy a stroll around and take refreshment at the open-air bar before we tackled the walk back in the fading light. We were happy to dine in our hotel that evening and take time to relax and reflect on a stimulating, educational and thoroughly enjoyable 'Polish experience'.

Joan Kilby



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Promoting Women in Pharmacy

Blue pill, pink pill?

Does Gender Matter?

This conference, held jointly by the Medical Women's Federation (MWF) and NAWP in conjunction with the Royal Pharmaceutical Society (RPS) proved to be a very successful event attracting a wide range of delegates: not only members from our two organisations, but also some from industry, academia and the Medicines and Healthcare Products Regulatory Agency (MHRA). This diversity of interest and experience led to interesting discussion and information exchange.

The conference revealed that gender/sex effects in medicine should be further investigated and more data collected if we are to optimise treatment in both men and women. The enthusiasm and interest in the topic amongst the attendees and speakers and points raised during the day has resulted in a number of post-conference action points, which are given below. In fact the Lancet addressed one of the action points within 2 weeks of the conference. In the issue of 26 November 2011, the cover of the Lancet featured a single quotation:

"The Lancet encourages researchers…to plan to analyse data by sex, not only when known to be scientifically appropriate, but also as a matter of routine."

See Editorial page 1826

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The editorial on page 1826, 'Taking sex into account in medicine', cited the Blue pill, pink pill conference as a reference source and included the statement 'Being male or female might be a more important determinant of health, illness, and response to treatment than is known.'

NAWP and MWF are delighted that the Lancet has taken up our challenge to ask for research papers to analyse and present data by sex/gender and for this to be incorporated into the peer review system. We encourage all other journals to follow suit. We also ask for the Royal Colleges to endorse this work.

As a result of the Lancet's response, there was a call amongst some of the conference speakers for a press release to be issued. Thus, on the 5 December 2011 a press release was issued by the RPS.

Post conference press release issued by the RPS

Should you take the blue pill or pink pill? Why gender matters in medicines

Being male or female is an undervalued but important determinant of health, illness, and response to treatment.

The Lancet in November this year (2011) called for researchers to enrol more women into clinical trials, and to plan to analyse data by sex, as a matter of routine.

Awareness that gender can influence the prevalence, diagnosis, drug efficacy and tolerance and surgical outcome in a number of diseases is increasing.

Better understanding of gender differences has resulted in the improvement in the diagnosis and treatment outcomes of heart disease in women.

Doctors, pharmacists, and researchers all agree that there is a big gap in the understanding and knowledge of gender differences and the impact that gender

specific dosing can have on drug treatments.

National Association of Women Pharmacists President, Virginia Watson comments: "There is a huge potential blind-spot in optimising effectiveness and toxicity of drugs in routine clinical practice. Gender differences have been largely ignored in relation to the design, conduct and analysis of testing new drugs, and this might lead to under or over dosage of patients. Understanding this might improve treatments for both sexes for future drugs after approval for public use."

And adds, "Current clinical practice for almost all drug treatments defines the dose to be given simply on the weight of the patient and does not take into account potential differences relating to gender. It would be a surprise if the dose of a drug, even if adjusted for size, would always be the same for men and women because of hormonal and other physiological issues.

For example women are generally smaller, but their surface area is not representative of their size compared with men, because the total body water is different. There is a difference in fat tissue ratio, and the hormone matrix is different, particularly relating to pre-puberty, menarche and the menopause. There is also a difference in the metabolism and the enzymes in men and women."

Professor Ray Powles CBE, Cancer Centre London, adds: "This may be particularly important in cancer treatment because trials that have led to approval, determine the starting doses of the schedule, and are the same for men and women. As, successive courses are given, there is a dose adjustment relating to toxicity, particularly using blood counts, leading to patients receiving an individualised biological dose. But the first two or three courses may be critical in getting on top of the cancer and it could easily be that either men or women are being under-dosed at this point."

Virginia Watson

Background information

Gender differences in pharmacokinetics have been demonstrated and may account for some of the different patterns of adverse events. A retrospective analysis of 4626 patients revealed that after 5 years the outcome in women was significantly better than in men yet more women experienced chemotherapy-induced haematotoxicity due to slower clearance of cytotoxic drugs from the body.

Women generally experience more side effects than men; women tend to take more OTC drugs and therefore are more at risk of drug-drug interactions; what is the effect of hormonal contraception on drug metabolism and treatment outcome? Some diagnostic tests are more appropriate/ sensitive in men; diabetes in young women is increasing and there needs to be more understanding in the patient group of the associated risks & need for adherence to treatment; the risk of a rare, but potentially fatal abnormality in heart rhythm that may occur with some drugs is significantly increased in women; more women should be encouraged to participate in clinical trials; all data collected post -marketing and on clinical practice databases should be analysed by gender... the list goes on.

Notes for Editors:

National Association of Women Pharmacists and the Medical Women's Federation hosted a workshop 'Blue Pill/Pink Pill Does Gender Matter' at the Royal Pharmaceutical Society 10 Nov 2011.

The Lancet (November 26, p1826) published a response to one of the many points for concern raised in the recent 'Blue pill, pink pill? Does gender matter?

Virginia Watson, President of NAWP, said, "Both MWF and NAWP are pleased with the interest and enthusiasm generated by this conference which brought together members of the medical and pharmacy professions, academics, representatives from industry, medical editors and the MHRA. We will now be working with a steering group to address a number of action points that have been produced".

Blue pill, pink pill?- *Does Gender Matter?* continued...

Post-conference action points

Clinical Trials

Phase 1 trials do not balance for gender and the Maximum Tolerated Dose (MTD) found in the final cohort may be defined with serious adverse events (SAEs) that have all occurred in three individuals of the same sex.

1. Request that Phase I trials, and in particular cancer trials, investigate and establish a separate MTD for males and females.

   Data on gender are collected during the clinical development programme and may be presented in demographic, efficacy and safety sections of documentation, but not always. Analyses may be ad-hoc rather than planned. Gender analyses presented as part of Market Authorisation Application (MAA) are reviewed by the competent authorities.

2. Encourage clinical trial Sponsors to routinely analyse data for efficacy and safety endpoints by gender/ sex. Stress the need for sex/gender analyses to be incorporated into clinical trial design and included in the statistical analysis plan.

   The 2005 International Conference on Harmonisation of Technical Requirements for Registration of Pharmaceutical Products for Human use (ICH) Gender Considerations in the Conduct of Clinical Trials (EMEA/CHMP/3916/2005) concluded that there was not a need for a separate ICH guideline on women as a separate population in clinical trials. It also adds that this issue may be revisited if future experience suggests a change from current practice.

   The 2009 European Heart Network (EHN)/ European Society of Cardiology (ESC) Red Alert for Women's Hearts and Euroheart Work Package 6 called upon regulatory agencies in the EU to adopt strict rules on the inclusion of women in clinical trials and systematic gender analysis.

3. Explore the possibility of requesting an ICH review of the 2005 Gender Considerations in the Conduct of Clinical Trials. There is also a need to improve treatments by stimulating gender-specific research into medications where gender-specific issues of efficacy, tolerance, bleeding risk, torsades, heart failure or other major adverse event may apply.

Reporting of Data by Gender/Sex in the Public Domain

It was stated that a proportion of papers published analyse and present data by sex but it was agreed that the journals could do more.

4. Encourage authors to report data by sex/gender and to include in the discussion of results by requesting that peer-reviewed journals incorporate this in their instructions to authors and checklist for reviewers.

5. Request British National Formulary (BNF) to include more information on gender where available.

Education

The prevalence of ischemic stroke is higher in women, occurs at a slightly older age, is associated with a higher mortality rate and leads to more disability than in men.

Pregnancies in women with diabetes are associated with more still births, neonatal deaths and congenital

malformations than non-diabetic women. Diabetes is increasing in women of childbearing age (16-44 yrs) but many young women are less compliant with treatment and exhibit poor blood glucose control. It is important that this patient group receive specific counselling on the importance of having good blood glucose control before pregnancy. Today, the most common cause of maternal mortality is from premature cardiovascular disease.

6. Raise awareness of the risk factors for heart disease, stroke and dementia amongst women, building on the British Heart Foundation campaigns and British Cardiovascular Society's Joint Working Group Recommendations for Women's Heart Health, launched with The European Heart Health Charter 2007, and emphasising life-course of prevention now recognised in Joint British Societies' 3rd (JBS3) report, and the Royal College of Obstetricians and gynaecologists (RCOG) 'High Quality Women's Health Care - a proposal for change.
7. Raise awareness of the importance of compliance with treatment and blood pressure monitoring in the growing number of women less than 40 yrs with type II diabetes. Ensure that these patients understand that diabetes removes any pre-menopausal protection from Coronary Heart Disease, as stated in 6.
8. Improve pre-conception advice on risks of diabetes in pregnancy, as stated in 6.

Pharmacovigilance

There are limited data available on the safe and effective use of drugs in pregnant and lactating women. However, post-marketing safety data are collected by the MHRA and other European Competent Authorities

9. Contact MHRA to find out more about the new pharmacovigilance (PV) legislation / guidance currently under discussion.
10. Consider asking MHRA whether, as a condition of giving a Marketing Authorisation (MA), it insists that PV data be analysed by gender /sex.

Other

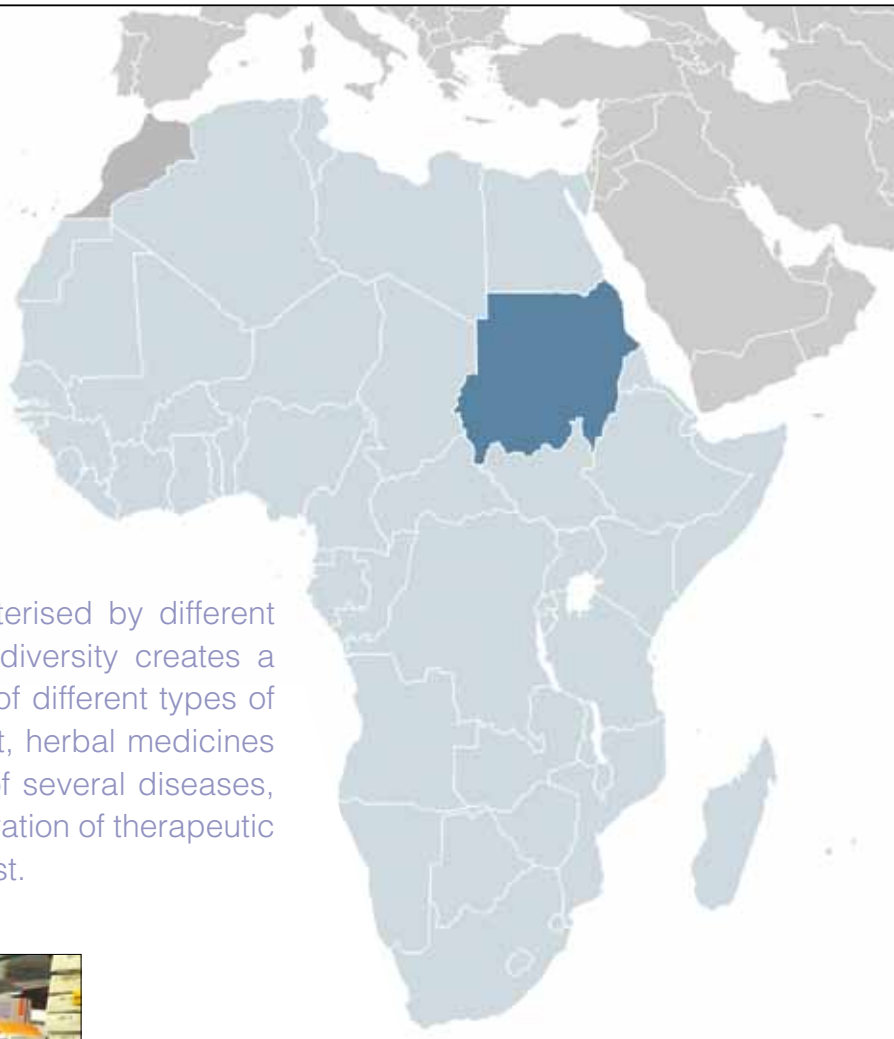
The community health database in Scotland and the General Practice Research Database (GPRD) contain a wealth of potentially useful information

11. In order for more evidence to be obtained on the extent to which gender needs to be taken into account in medicines use, access to relevant data that already exists needs to be widened.
12. Ensure that the Equality Duty is properly observed and enacted in all relevant pharmacological care pathways as well as research.

A full report of the conference is in preparation and will be published in the next issue of the NAWP magazine.

Virginia Watson

Pharmacy in Sudan



Sudan is a very big country characterised by different climates, regions and cultures, this diversity creates a good environment for the availability of different types of medical plants and herbs. In the past, herbal medicines have played a role in the treatment of several diseases, and the collection of herbs and preparation of therapeutic mixtures was the role of the pharmacist.

Dr Mayada Elhadi Babiker Ahmed completed her Bachelor of Pharmacy degree at the Faculty of Pharmacy, University of Sciences and Technology - Sudan in 2006 and is currently undertaking post-graduate studies at Cairo University.

Pharmacy in Sudan however is in progress. Before 1962, the pharmaceutical sector in Sudan was covered by pharmacists from neighbouring countries like Egypt, Lebanon and Greece, but they all worked under the supervision of the Sudanese government.

Pharmacy in Sudan is guided by the Pharmacy and Poison Act 2001, which was established in 1963, and last updated in 2001, and the National Drug Policy (NDP).

Before 2008, the implementation of the Pharmacy and Poison Act and NDP was the responsibility of the Directorate General of Pharmacy-Federal ministry of health, but now the Federal Board of Pharmacy and Poisons (FBPP) is the responsible authority for their implementation and the Directorate General of Pharmacy- Federal Ministry of Health acts as the General Secretariat of the FBPP.

The Pharmacy and Poison Act and NDP provide full and official definitions of all pharmaceutical terms and deal with a number of issues including drug monitoring, control of manufacture, importing and distributing medications, pricing medications; assuring the safety, efficacy and quality of medications, monitoring for adverse reactions, producing accurate drug information and restricting improper promotional activities. They promote the rationale use of medicines; provide up to date pharmaceutical services and promote the role of the pharmacist in the maintenance and restoration of health and contribution to the

fight against diseases. The educational sectors of pharmacy aim to improve young pharmacists' awareness of the acts and the importance of pharmaceutical regulations and their impact on improving the quality of healthcare, therefore it is now taught as a subject at undergraduate level in most colleges of pharmacy in Sudan.

The first Faculty of Pharmacy in Sudan was established at the University of Khartoum in 1964, and its first 18 pharmacy students graduated in 1968. Today there are about 15 faculties of pharmacy in Sudan that graduate more than 800 pharmacists per year. At the end of 2010, 984 pharmacists were awarded permanent registration with the Sudanese Medical Council.

In general, pharmacy education in Sudan is a five-year Bachelor of Pharmacy, during these five years pharmacy students are required to undertake training courses such as dispensing pharmaceuticals in hospital and private pharmacies and practical training in pharmaceutical industries. New pharmacy graduates are provisionally registered with Sudan's medical council, this provisional registration allows new pharmacists to work as interns in different health services under supervision. They are then required to pass the Sudanese medical licensing exam in order to register as a permanent pharmacist. Once they have passed the exam and are accepted onto the register they are then eligible to practice pharmacy independently in governmental or private sectors in Sudan.

The pharmaceutical work sectors in Sudan are either governmental or private sectors, such as community and hospital pharmacies, pharmaceutical factories, Central Medical Supply (CMS), and medicine information centres. All are under control and monitoring of the FBPP.

Community pharmacies accommodate the largest number of graduated pharmacists. Community pharmacy plays an essential role in terms of improving the public's health awareness, therefore community pharmacists are always aiming to develop new, suitable and effective ways of conveying information to the general public.

Medicine information centres also play a fundamental role in the rational use of medicines and contribute by issuing scientific brochures, pamphlets and magazines such as the Khartoum Pharmacy Journal.

The pharmaceutical sector in Sudan is a very organised sector, subjected to a number of rules and regulations and Sudanese pharmacists respect the ethical principles and rules of the profession.

Dr Mayada Elhadi Babiker Ahmed

2012 Annual Subscriptions

A reminder that your Annual Subscription are now overdue. If you have not paid your subscription see for this year, please do so as soon as possible.

Subscription fees for 2012 are:

Full time £30

Associate Member £30

Part time £20

Retired £10

Students are entitled to join NAWP free of charge and to pay a reduced subscription of £10 for the first three years after registration (please state the year of graduation)

Associate Membership is open to individual healthcare professionals (including pharmacists in other countries and technicians) who support the objectives and activities of the Association. Associate members may attend and speak, but not vote at the Annual General Meeting of the Association.

Cheques should be made payable to NAWP.
Registrar: Anita White, 50 Deri Road, Penylan, Cardiff CF23 5AJ

Data Protection Act

NAWP holds on computer file, the names, postal and email addresses and information about payment details of its members. This information is used solely to print address labels, to facilitate mailing within the organisation, to contact members about the Association affairs and to keep a record of fees paid. Under the Data Protection Act, a member may object to their name being on computer file. Objections should be sent in writing, to the Registrar.

The Editor would like to thank everyone who has contributed to this issue of the Magazine and PHOENIX for their continued Sponsorship.

If you would like to contribute to the next issue, please contact the Editor or any member of the Executive Committee.

Greetings from Tanzania

You may recall that in the April edition of the NAWP Magazine, I mentioned that we had received an enquiry, via our website, from the Tanzania Women in Pharmacy Profession, who had expressed an interest in linking with NAWP. Following my response to their enquiry, I recently received an email from Mercy Masuki, their Chair. A slightly edited version of Mercy's email is reproduced below:

Dear Virginia,

Thank you very much for responding to our email and for taking the time to also make enquiries about our organisation through Veronica Mugoyela, who is also one of our members.

As you can see we are still in our infancy stage and your email posed a challenge to us. We are now developing a website, which is now active and some of our information can be viewed there as we improve it. Our website is www.tawopha.org.

Members are still joining, and there are those who are 'waiting to see that the ship is now sailing' before they join. At the moment we have only 47 members and the total number of Pharmacists in Tanzania is 870 (both genders).

In general both Pharmacy associations (we have 2) in Tanzania are not that strong and we are trying to elevate our profession to reach a point where our contributions are well recognized in the society, especially as we advocate career and gender-linked issues while networking with all women in Pharmacy profession associations globally.

We are looking forward to learn from you as NAWP is more than 100 years you have great experience. I know you will be of great assistance to us as we grow, and you will connect us to your networks.

I have seen in your website that you are planning annual conference in April 2012 we will be interested to attend so that we can learn more from NAWP and other women associations that work with you.

Greeting from Members of TAWOPHA we are looking forward to collaborate, learn from you.

Best Regards

Mercy Mpatwa Masuki Bpharm, MBA

Chairman - Tanzania Women In Pharmacy Profession (TAWOPHA)

www.tawopha.org

We hope that we will have the opportunity to meet members of TAWOPHA in Manchester in April.

Virginia Watson

Medicinal Histories

Psilocybin

There is evidence to suggest that psychoactive mushrooms have been used by humans in religious ceremonies for thousands of years. Murals dated 7000 to 9000 BCE found in the Sahara desert in southeast Algeria depict horned beings dressed as dancers, clothed in garb decorated with geometrical designs, and holding mushroom-like objects. Parallel lines extend from the mushroom shapes to the center of the dancers' heads.

Archaeological artifacts from Mexico, as well as the so-called Mayan "mushroom stones" of Guatemala have similarly been interpreted by some scholars as evidence for ritual and ceremonial usage of psychoactive mushrooms in the Mayan and Aztec cultures of Mesoamerica. In Nahuatl, the language of the Aztecs, the mushrooms were called teonanácatl, or "God's flesh".

Following the arrival of Spanish explorers to the New World in the 16th century, chroniclers reported the use of mushrooms by the natives for ceremonial and religious purposes. After the defeat of the Aztecs, the Spanish forbade traditional religious practices and rituals that they considered "pagan idolatry", including ceremonial mushroom use.

Although several psychedelic mushrooms are found in Europe, there is little documented usage of these species in Old World history. The first reliably documented report of intoxication with Psilocybe semilanceata involved a British family in 1799, who prepared a meal with mushrooms they had picked in London's Green Park.

American banker and amateur ethnomycologist R. Gordon Wasson and his wife Valentina studied the ritual use of psychoactive mushrooms by the native population in the Mazatec village Huautla de Jiménez. In 1957, Wasson wrote an article for the popular American weekly magazine Life ("Seeking the Magic Mushroom"), in which he described the psychedelic visions that he experienced during these rituals. Later the same year they were accompanied on a follow-up expedition by French mycologist Roger Heim, who identified several of the mushrooms as Psilocybe species. Heim cultivated the mushrooms in France, and sent samples for analysis to Albert Hofmann, a chemist employed by the Swiss multinational pharmaceutical company Sandoz (now Novartis). Hofmann, who had in 1938 created LSD, led a research group that isolated and identified the psychoactive compounds from Psilocybe mexicana. Hofmann was aided in the discovery process by his willingness to ingest mushroom extracts to help verify the presence of the active compounds. He and his colleagues later synthesized a number of compounds chemically related to the naturally occurring psilocybin, to see how structural changes would affect psychoactivity. Because their physiological effects last only about three and a half hours (about half as long as psilocybin), they proved more manageable in European clinics using "psycholytic therapy"—a form of psychotherapy involving the controlled use of psychedelic drugs. Sandoz marketed and sold pure psilocybin under the name Indocybin to physicians and clinicians worldwide. There were no reports of serious complications when psilocybin was used in this way.

In the early 1960s, Harvard University became a testing ground for psilocybin, through the efforts of Timothy Leary and his associates Ralph Metzner and Richard Alpert (who later changed his name to Ram Dass). Leary obtained synthesized psilocybin from Hofmann through Sandoz pharmaceutical. Some studies in the early 1960s, such as the Concord Prison Experiment, initially suggested promising results using psilocybin in clinical psychiatry.

Main image made available under Creative Commons via Wikipedia and is taken from www.mushroomobserver.org (http://mushroomobserver.org/image/show_image?_js=on&_new=true&id=6514) a source for mycological images.

In response to concerns about the increase in unauthorized use of psychedelic drugs by the general public, psilocybin and other hallucinogenic drugs suffered negative press and faced increasingly restrictive laws. In the United States, laws were passed in 1966 that prohibited the production, trade, or ingestion of hallucinogenic drugs; Sandoz stopped producing LSD and psilocybin the same year. Further backlash against LSD usage swept psilocybin along with it into the Schedule I category of illicit drugs in 1970. Subsequent restrictions on the use of these drugs in human research made funding for such projects difficult to obtain, and scientists who worked with psychedelic drugs faced being "professionally marginalized".

Medical Research

Psilocybin has been a subject of medical research since the 1960s, when Leary and Alpert ran the Harvard Psilocybin Project, in which they carried out a number of experiments to evaluate the therapeutic value of psilocybin in the treatment of personality disorders, or to augment psychological counselling. In the 2000s, there has been a renewal of research concerning the use of psychedelic drugs for potential clinical applications, such as to address anxiety disorders, major depression, and various addictions.

In 2008, the Johns Hopkins research team published guidelines for responsibly conducting medical research trials with psilocybin and other hallucinogens in humans. These included recommendations on how to screen potential study volunteers to exclude those with personal or family psychiatric histories that suggest a risk of averse reactions to hallucinogens.

A 2010 study on the short- and long-term subjective effects of psilocybin administration in clinical settings concluded that despite a small risk of acute reactions such as dysphoria, anxiety, or panic, "the administration of moderate doses of psilocybin to healthy, high-functioning and well-prepared subjects in the context of a carefully monitored research environment is associated with an acceptable level of risk"; the authors note, however, that the safety of the drug "cannot be generalized to situations in which psilocybin is used recreationally or administered under less controlled conditions."

The first FDA-approved clinical study of psilocybin since 1970 led by Francisco Moreno at the University of Arizona and supported by the Multidisciplinary Association for Psychedelic Studies—studied the effects of psilocybin on nine patients with obsessive-compulsive disorder (OCD). The pilot study found that, when administered by trained professionals in a medical setting, the use of psilocybin was associated with substantial reductions in OCD symptoms in several of the patients. Psilocybin has additionally shown promise to ease the pain caused by cluster headaches, often considered not only the most painful of all types of headaches but "*one of the worst pain syndromes known to mankind.*" In a 2006 study, half of cluster headache patients reported that psilocybin aborted the attacks, and most reported extended remission periods; similar results were reported for LSD. A 2011 review of alternative headache treatments concluded that, despite flaws in the study design, these results suggest that LSD and psilocybin may warrant further study for use in the prevention of cluster headaches—only sub-hallucinogenic doses of the drugs are required for effective treatment, and no other medications have been reported to stop a cluster headache cycle.

Several modern studies have investigated the possibility that psilocybin can ease the psychological suffering associated with end-stage cancer. Preliminary results indicate that low doses of psilocybin can improve the mood and reduce the anxiety of patients with advanced cancer, and that the effects last from two weeks to six months. These results are comparable to those obtained from early studies that explored the use of LSD to improve the psychological well-being of terminally ill patients, but without the experimental rigor employed in modern clinical psychopharmacology research.

http://en.wikipedia.org/wiki/Psilocybin

The Multidisciplinary Association for Psychedelic Studies (MAPS) - www.maps.org

MAPS is a membership-based 501(c)(3) non-profit research and educational organization working to develop psychedelics and marijuana into legal prescription drugs and is based in Santa Cruz, California.

MAPS helps scientists design, fund, and obtain regulatory approval for studies of the safety and effectiveness of controlled substances, including; MDMA (Ecstasy) for the treatment of post-traumatic stress disorder (PTSD), LSD and psilocybin for the treatment of anxiety and depression associated with end-of-life issues and ibogaine for the treatment of opiate addiction. MAPS states that their ultimate goal is to establish a network of clinics where these and other treatments can be provided under the guidance of licensed physicians and therapists.

In addition to its sponsorship of scientific research, MAPS organizes continuing medical education (CME) conferences, sponsors and gives lectures and seminars on the current state of psychedelic and medical marijuana research and publishes a quarterly Bulletin with updates about its ongoing research efforts, legal struggles, and educational initiatives.

For more information visit: www.maps.org

http://en.wikipedia.org/wiki/Multidisciplinary_Association_for_Psychedelic_Studies

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Forthcoming Events

NAWP Annual Conference and 8th European Meeting of Women Pharmacists - 20-22 April 2012

Chancellors Hotel and Conference Centre, The University of Manchester, Chancellors Way, Moseley Road, Fallowfield, Manchester, M14 6ZT

The 2012 NAWP Conference will also serve as the 8th Meeting of European Women Pharmacists. We look forward to welcoming our overseas colleagues and as many NAWP members as possible to a weekend of professional and social activities.

The theme for the symposium, on Saturday 21 April, will be Neurological Diseases and proposed topics include:

- Parkinson's Disease
- Epilepsy including different treatments such as diet
- Multiple Sclerosis
- Motor Neurone Disease
- Treatment of neurological diseases using therapies such as acupuncture and physiotherapy
- Support for pharmacists experiencing difficulties may also be included

A Conference Reception and Dinner with guest speaker will be held at Chancellors on Saturday evening.

We hope to start the social programme on Friday afternoon with a visit to the Manchester United Football Club & Museum, followed by an evening meal in one of the restaurants along the 'Curry Mile', close to Chancellors. If football really isn't to your taste and you are prepared to miss this opportunity to see Old Trafford's 'Theatre of Dreams', there are plenty of other options. Whitworth Art Gallery and the Gallery of Costume are both within walking distance of Chancellors and the easily accessible city centre has plenty to offer.

On Sunday morning there will be an opportunity to take part in a walking tour around the city centre giving us a taste of Manchester's history, architecture and culture.

The Conference fee for Saturday (including Reception and Dinner) is £100 (£85 for NAWP members). Bed and breakfast will be available at conference rates from £56 for a single occupancy room.

Chancellors Hotel and Conference Centre is conveniently located approximately 5 miles from Manchester International Airport and only three miles south of Manchester city centre. It is set in five acres of tranquil, landscaped gardens.

Further details and application forms will be available early in 2012.

If you would like more information please contact :

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We look forward to seeing you there!

AGM

The AGM will be held on Saturday 21 April 2012 at the Annual Conference. .Nominations for the Executive Committee are invited and may be submitted to the Secretary in advance of the meeting.

Nominations will also be accepted at the AGM

Celebrating Women in Pharmacy

NAWP Magazine

Founded 1905

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