



KOONGGA

Bulletin of the Rotary Club Of Ku-ring-gai Inc
- Chartered 6th February 1959

Rotary serving humanity

Volume 59 No. 19 14 Nov 2016 — Membership and New Club Development Month

Claudia Moratti

Claudia Moratti representing the iGEM team was our guest speaker on 12 September and she was proposed by our Mahiar Mahjoub

Claudia is working on genetic modification and her team achieved:

Awards:

- Best entrepreneurship
- Best Food and Nutrition project
- Finalist and First Runner-up

Nominations (only 5-8 teams get nominated for each category out of about 300 teams):

- Best applied design
- Best Integrated Human Practices
- Best poster
- Best presentation
- Best wiki (website)



This is an outstanding result and first of its kind for both Sydney University and Australia as a whole (and possibly any team from Southern Hemisphere). This is especially remarkable since all the other teams spend their summer holidays on their projects while the Australian teams have to manage both classes and the project. Hopefully, in this way we can get more funding in future so that our students who need to travel are not disadvantaged financially as well as helping with getting some seed funding for more large-scale commercialisation. Our team hoped that by recruiting both engineers and biologists, as opposed to only biologists before, we would be better prepared for the competition and it has definitely paid off. Recruitment of very talented people was also made possible by the 2015 winning Gold and putting the competition on the radar of undergraduate students. If each Sydney team continues to self-reflect and build on their experiences and shortcomings, then I can see a place as the overall winner in sight very soon.

If members want to know more about the project, all the details are on their website http://2016.igem.org/Team:Sydney_Australia. It contains a lot of pretty pictures and animations and designed for general audience, not a scientific crowd.

Handel's *Messiah* at Hornsby Cathedral

Start your Christmas on a high note

The annual performance by the Hornsby Ku-ring-gai Ecumenical Choir, of the best-loved highlights from Handel's *Messiah*, will be presented in Our Lady of the Rosary Cathedral Church on **Thursday 8 December 2016**

Since 2009 the Choir has been presenting in Hornsby Cathedral each year approaching Christmas, an ecumenical performance of Handel's *Messiah* for the whole community, any proceeds of which go to the homeless.

Over that time the choir has raised over \$37,000 towards the provision of facilities for the welfare of homeless people in our community. Last year and again this year any funds will be given to the Hornsby Ku-ring-gai Women's Shelter.

Performance details:

Time & Date: Thursday December 8 at 8 pm (doors open 7.30 pm)

Venue: Our Lady of the Rosary Cathedral Church, 23 Yardley Ave, Waitara

Tickets: At www.Trybooking.com - select buy ticket and use event name Handel's Messiah Hornsby

at Hornsby Parish Office; or at the door from 7:15 pm

Ticket prices: : Adult \$30, Concession \$20, Student \$10, Children under 10 free

For further information e-mail: hcmessiah@gmail.com

Musical Director, Phillip Linquist, principal organist Heather Moen-Boyd and more than 100 choristers will be joined by an ensemble of musicians and young professional soloists singing favourite arias.

Last week announcements

We are conducting a **BBQ** at the Gordon Markets on Sunday Michal Midlam and Emyr. Have volunteered, more volunteers needed, please contact Michael

Malcolm Braid visited **Ken Sackville** and he is keen to return to Rotary but he is still in rehabilitation. he is in Killara Gardens Greengate Rd

Our **AGM** is approaching and we ask you to please **volunteer** - all roles all roles are vacant

Joy Newling - 21 Nov **International night** at Georgina Manning 6.30 for 7. Please bring international food entry \$30

We are sending \$1,000.00 to doctors in Nepal – it will be used to set up a **days for girls program.** (sanitary)

White Ribbon Day (domestic violence) 25 November

Bob Ivey is home and well we sent a gift basket of fruit

Four drinking glasses have emerged with a Ku ring gai motif on each, their history is uncertain

Ted Price

JUST WHAT THE DOCTOR ORDERED OR JUST WHAT DID THE DOCTOR ORDER??

Price is my name and pharmacy is my game. There are 26700 pharmacists in Australia, and four of them are gainfully employed at Price's Pharmacy....and then there is me!! I have been a pharmacist at West Pymble for over fifty years and a member of this Rotary Club since the Jurassic Age.



I would like to share with you the enormous changes that took place in the 20th Century in medicine, in communication and the practice of pharmacy and in the education of pharmacists during that century. Along the way I will outline the history of three generations of the Price Pharmacy Dynasty. I am calling my talk "Just What the Doctor Ordered" or "Just What did the Doctor order?"

In 1900, there were only 80 "chemists" in Sydney. The men in white coats stayed behind the dispensary screen and dispensed the secret mixtures from their supply of tinctures, powders and herbs and spices, following the coded prescriptions written by the stern men in suits, the Doctors. Most ingredients used by the pharmacist were plant based and many many hours of University study were taken up studying concoctions made from the leaves the roots and the seeds of the various plants and you could say that at that time up until the introduction of a full University Degree at Sydney University in 1960 that much of Pharmacy was really "naturally organic".

As was the case with my Grandfather and father, I was trained as an apprentice and studied part time at Sydney University, although the conditions of apprenticeship had changed over the years. My great grandfather paid a bond for my grandfather to be trained as a pharmacist by Mr. McKimm in Burwood and his wages were paid from that bond. He was required to sleep on the premises. Dad was apprenticed to grandfather, who at that time was managing director of the Hallams chain of pharmacies in the City. From what I can gather, Grandfather was a very strict boss. My apprenticeship with Dad was a much easier affair. I was allowed to sleep at home and borrow the car when I needed to attend nightly practical sessions at University. I was in the last group of Pharmacy students to study under the Diploma course.

From a repertoire of mysterious herbal plant-based preparations through to the discovery of aspirin sulpha drugs and antibiotics for fighting infection and the isolation of insulin for combating diabetes, to the ground breaking devel-

Ted Price

opment in the late 1990's of specific anti-cancer, anti-HIV and anti-hepatitis drugs, this has been the huge change in Pharmacy during the 20th Century.

Who can forget the "blood and guts" scene in the film "Gone With the Wind" when the defeated Confederate army had retreated to Atlanta?

This was the reality of war before the introduction of anaesthetics and antibiotics.

These are some of the highlights that I will attempt to mention in the advance of Pharmacy during the 20th Century:

- 1899: Aspirin is synthesised and patented
- 1914-1918: Pandemic Influenza outbreak
- 1920's: Insulin isolated in the Pancreas and purified
- 1930s: Discovery of the early Sulpha drugs
- 1940s: Early Antibiotics
- 1950s to 1961: The Thalidomide Tragedy.
- Late 1990's : The breakthrough in targeted cancer treatments and the first generation TKIs for treatment of Chronic Myeloid Leukaemia, the success with other cancers and the new success in treatment of malignant melanoma.



Aspirin

Acetyl Salicylic Acid was first synthesised and trademarked in 1899 as Aspirin by the German company Bayer but we can trace it's history back to Hippocrates who realised that the powder made from the bark and leaves of the willow tree were useful in reducing headache, fever and pain, Salicylic Acid in an impure form was used in 1826 but this was tough on stomachs and in 1853 the French chemist, Charles Frederick Gerhardt neutralised the

Salicylic Acid and produced Acetyl Salicylic Acid. Nothing more happened until a German chemist Felix Hoffman rediscovered the formula and Bayer Aspirin was born.

As a matter of interest, in 1898 Bayer trade-marked Heroin and for decades marketed it as a cough medicine for children without side effects. The danger of addiction was well known.

During the First World War Bayer produced Chlorine Gas used in the trench-

Ted Price

es and as a result was stripped of its trademarks by the Treaty of Versailles in 1919.

With supplies of Aspirin cut off during World War I, Australian Attorney-General Billy Hughes announced that German patents and trademarks would be suspended and granted to any home based manufacturer who could meet the standards of purity. In Melbourne George Nicholas, using crude equipment of kerosene tins and kitchen utensils borrowed from his wife, eventually was able to produce Australia's first Aspirin. In 1917 Aspro was born, expanded into England in 1924, into Europe in 1925 and into Asia in 1927. To me it is ironic that sometime in the last few years, the Nicholas business has been taken over by Bayer.

Had Aspirin been discovered in 1999, it would have been heralded as a wonder drug, but it is not without its problems. It is used mainly these days as a blood thinner in smaller doses of 100mg. than when used for pain. It is used for preventing heart attack and stroke.

2 Combination Aspirin/Phenacetin & Caffeine

Heavily promoted as "mother's little helper" from the early 1930's until the mid 1970's the combination of Aspirin, phenacetin and Caffeine turned out to be a killer combination, causing high rates of kidney disease until banned in the mid 1970's. "A cup of tea, a Bex and a good lie down" was the panacea used by housewives to help them get through the day with some housewives taking up to three doses a day. Vincent's APC and Bex as well as the stronger Veganin were widely promoted and readily available and the result was eventually known as the Newcastle Disease. Phenacetin was proved to be highly addictive and poisonous and its use was eventually linked to the resulting high rate of kidney disease ---dialyses and kidney transplants. APC powder use by shift workers in Melbourne was high and the relationship to their use was made by nephrologist Professor Kincaid-Smith and its use was banned in 1977. Vincents and Bex were usually taken as a day powder and washed down the hatch with water or a cup of tea.

Cancer Council press release in August 2014 was headed "Bex Powder Killed More than Pain" and professor Jack Thomas from Sydney University has described Aspirin as having been responsible for more therapeutic deaths than any other substance.

The most commonly used pain killer these days is Paracetamol (Panadol) but it also should be used in accordance with the maximum daily dose of 4 grams, the limit that can be safely taken in a 24 hour period. Paracetamol is usually first line for relief of pain and high temperature but does not reduce the inflammation associated with arthritis. It is broken down in the liver and

Ted Price

caution should be used if severe liver problems exist. It can be used safely with a moderate intake of alcohol, but drinking more than 4 standard drinks on one occasion is strongly discouraged.

Insulin

The next major breakthrough involves the Islets of Langerhans which are not a group of islands in the Caribbean but cells in the pancreas that produce insulin.

In 1869 Paul Langerhans had discovered these clusters of cells in the pancreatic tissue, but their function was unknown. In the 1920's a Canadian group investigated the function of (chopped up) pancreatic material and diabetes and in January 1922, in Toronto, a 14 year old boy was the first person to receive Insulin. Early insulin was short acting and sourced from cattle. In 1923 Canadian researchers Bunting and McLeod were awarded the Nobel Prize in Physiology or Medicine and American firm Eli Lilly started the large scale production of insulin, producing enough to supply the entire North American demand. People with severe diabetes and given only days to live were saved and could live an almost normal life

A Danish scientist in the U.S.A. at this time realised that insulin was the talk of the town, returned to Denmark and started to produce porkine insulin. The firm Leo Nordisk produces much of the insulin used today.

3 Current insulin delivery systems include:

- 1) Injection with syringe
- 2) Insulin pens
- 3) External insulin pumps (size of a pager)
- 4) Insulin Jet Injectors - expensive and not commonly used

Sulpha Drugs & Early Antibiotics

In the 1920's and 30's common killer bacterial infections Staph and Streptococcal were rampant in Europe and the U.S. In 1935 Sulphanilamide, the first drug to successfully treat bacterial infection, was introduced by Gerhard Domag, Pathologist - awarded Nobel prize but forced to reject by Hitler and the Nazi Party after being arrested by the Gestapo for accepting it.

This was the first of many sulpha drugs. I remember taking Sulphadiazine Dulcets as a child for tonsillitis. Isoniazid discovered later was one of the strongest and most reliable anti Tuberculosis drugs. Mobile chest X-Ray vans at local shopping centres checked for TB.

Following on the observation by Fleming of anti-bacterial activity of the fun-

Ted Price

Dr. Howard Florey, in 1940, began further investigation into this anti-bacterial substance. Penicillin proved more effective against bacteria and with the high incidence of trauma and infection during the War production of Penicillin pushed ahead and by March 1944 Commonwealth Serum Laboratories was contributing to the penicillin needs of our forces in the South West Pacific zone of the War.

At the beginning of World War II Australia had to import 275 of the 365 basic drug substances of the British Pharmacopoeia and wholly manufactured only 40. We were at the end of the supply line.

In the immediate post War period other antibiotics including Streptomycin, Aureomycin and Chloramphenicol were developed.

We now had the situation of the resistance of bacteria to antibiotics caused by their wide overuse and could be reaching the stage where we have nothing to combat deadly strains of bacteria and have nowhere to go with nothing strong enough to combat these infections.

The Thalidomide Tragedy

In the 1950's Thalidomide (Distival) was marketed as a wonder drug, an effective tranquilliser and pain killer and promoted as a safe treatment for pregnant women suffering from Morning Sickness.

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In 1956 the first child with disability caused by Thalidomide was born to an employee of the German company Grunenthal, manufacturer of the drug. In 1961 a German paediatrician described an epidemic of babies being born with limb malformations, cause unknown, but in Melbourne in late 1961 Dr William McBride and a German Doctor, Dr. Lenz separately worked out the likely cause and effect of the use of Thalidomide in early pregnancy and birth defects. An estimated 10,000 babies were born worldwide in the late 1950's to 1961. About 40% of babies damaged by the effects of Thalidomide died in the first year but today there are adults living with the disabilities caused by Thalidomide. At the end of 1961 Thalidomide was withdrawn from sale in Australia, Germany and the U.K. In December 2013 more than 100 Australian and New Zealand victims won an \$89 million settlement.

Since 2008 Thalidomide has been allowed to be used to treat Multiple Myeloma and is now authorised for treatment of complications of leprosy. It is supplied under strictly controlled conditions with a clear warning that a single dose can cause severe birth defects.

Following the Thalidomide tragedy the Therapeutic Goods Administration

Ted Price

(TGA Australia) came into being to regulate the safety of drugs in Australia.

Targeted Therapies

In the late 1990's research for targeted therapies for cancers produced the first long term treatment for Chronic Myeloid Leukaemia (CML). Imatinib was the first drug to specifically target the PCR-ABL Tyrosine Kinase protein and quickly became the standard treatment for CML. Side effects are common. Now second generation tyrosine Kinase Inhibitors (TKI's) have been introduced. Follow on research has now produced specific treatments for lung cancer and more recently myeloma.

Conclusion

In Australia we are so lucky that the pharmaceutical Benefits Scheme introduced in 1948 by the Chifley Commonwealth Government covers the enormous cost of so many life saving drugs. Initially the PBS covered only 140 life saving and disease preventing drugs that were supplied at no cost to the patient.

Witches Brew

Please read Shakespeare's Macbeth, Act 4, Scene 1

Double double toil and trouble,
Fire burn and cauldron bubble
Cool it with a baboon's blood,
Then the charm is firm and good.



Calendar of events

14 Nov	Small Grants Project Indonesia.	Chris Curtis
21-Nov	International evening	
28 Nov	100 years of Rotary Foundation cele-	



Door Team

Nov	Dec	Jan	Feb
Dawson	Aitken		
Mahjoub	Kipps		

President	Michael Midlam
Vice President	John Aitken
Immediate Past President	Graham Timms
President Elect	Malcolm Braid
Secretary	Lindsay Forrest
Treasurer	Chris Lewis
Director	Greg Newling
Director	Linda Lam Rolfs
Service committee chairpersons and committees	
Administration (Club Service)	Gary Keating
Vocational Service	Lou Coenen
Community Service	Roger Desmarchelier
International Service	Georgina Manning
Youth Service	Linda Lam-Rohlfs
Social events	Joy Newling
Bobbin Head Cycle Classic	Tony McClelland
Sergeant-at-Arms	Graham Timms
Club committees	
<p>Administration: Gary Keating, Geoff Hungerford, Rob Hall (Program), Bob Ivey (Web and social media), Graham Maslen, Tony McClelland (Koongga)</p> <p>Bobbin Head Cycle Classic: Tony McClelland, John Aitken, Ross Egan, Bob Elsworth, Peter Kipps, Michael Midlam, Gary Keating</p> <p>Club History: Malcolm Braid, Tom Jackson</p> <p>Community: Roger Desmarchelier, Gary Dawson Rob Hall Geoff Hungerford (Gordon Markets) Gary Keating Ross Egan (Daffodil Day) Chris Hoch (Red Shield) Anil Fulwaria Nick Kenyon Ted Price Cathy Jackson</p> <p>International: Georgina Manning, Rob Hall, Graham Timms, Graham Maslen, Greg Newling, Anil Fulwaria, Emyr Evans</p> <p>Membership: Tony McClelland,</p> <p>Public Relations: Emyr Evans, Georgina Manning,</p> <p>Rotary Foundation: Chris Hoch, Peter Tang, Lindsay Forrest, , Greg Newling</p> <p>Social Events: Joy Newling, Ross Egan, Georgina Manning,</p> <p>Vocational: LOU Coenen, David Forsythe, Peter Kipps, M Tyler</p> <p>Youth: Linda Lam-Rohlfs, , Cathy Jackson, Gary Keating, Chris Lewis, Matt Mahjoub, Andrew Marselos, Joy Newling, Don Riddell</p>	

Small Grants Project



PP Chris Curtis
Rotary Small Grants Project Indonesia
Rotary Club of Lane Cove

PO Box 86, Lane Cove, NSW 1595

President Michael Midlam
Rotary Club of Ku-ring-gai
House 2, 2A Booralie Road
Terrey Hills, NSW 2084

27 October 2016

Dear President Michael,

Lane Cove Rotary Club has a unique International project called the **Small Grants Project Indonesia**. We have been promoting it widely and are very pleased by its growing success and support. Our project committee have developed a talk on the project and would be very pleased if you would allow us to present it to your club.

Stripped to its basics, the **Small Grants Indonesia** project supports farmers and rural schools in eastern Indonesia. This one of the poorest regions in Indonesia and is very close to Australia, in some places less than 400km from our northern coast. Unfortunately, natural factors including weather patterns and geology combine to provide poor conditions for farming on the many islands. Farm productivity is often very low effecting health and community life. Child malnutrition and mortality among the six million population is very high because of poor sanitation resulting from a lack of clean water.

Our project seeks to relieve these problems by supporting small activities in farms and villages. A typical small grant is about \$600, enough to allow a local community group to buy materials and construct a large water tank, for example. The projects are well managed and monitoring tours are made each year. I have attached several brochures that explain the project in more detail.

Our presentation takes about 20 minutes and as well as outlining the project, shows snippets from a project monitoring tour recently completed. If you think that your club would be interesting in hearing this talk, I would be very pleased if you could put me on your speakers list.

Thank you very much for considering me as a speaker at your club.

Regards,

A handwritten signature in black ink that reads "Chris".

PP Chris Curtis
Rotary Club of Lane Cove
Small Grants Project Indonesia
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