

UNIVERSITY OF THE THIRD AGE

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Please note the U3A Office is not open yet.

2021 TERM DATES

Term 4 4th October—17th December

NEWSLETTER

October No. 2, 2021



Beaumaris Office:

Monday to Friday 9:30am - 2:00pm

Brighton Office

Monday to Friday 9:30am - 12noon

MELBOURNE LOCKDOWN CONTINUES...

All face-to-face classes remain cancelled in line with the extended lockdown.

Classes currently conducted by Zoom will continue for this duration unless otherwise informed.

We will update you whenever the rules change.

Contact with Bayside U3A members and families who are in need is available. Details on page 2. PLEASE STAY SAFE!

FROM THE PRESIDENT

Tony Aplin

Dear Members.

Time to lighten up, be a little frivolous and also be happy in that we're 'almost' through the worst of our pandemic. I really do hope I don't have to eat my words on this! This week's quote is from Friedrich Nietzsche (1844-1900) the famous philologist and philosopher, although not famous during his lifetime. "He who has a why to live can bear almost any how." This one is also his: "That what doesn't kill you, makes you stronger." Many of us, like me, might just think 'how can I get out of the CBBs'? (Can't Be Bothereds)

The pandemic has certainly made us question many things: who are we as a community or communities? Do we have shared values and a sense of common good or are we skeptical of laws (and cherry-pick them)? Are we experts in many things? I haven't heard so many armchair epidemiologists - I'm sure I can say many didn't know such an occupation existed previously. Are we essentially mature (see Newsletter September No 1) or puerile? Wanting instant gratification and relief no matter the consequences on others, or instant wide-spread wind-back of restrictions set by our health experts (and deriding these as 'political acts')?

What is the measure of our individual resilience and fortitude? Are we supporting each other and our children/grandchildren or pandering to their and our fears? OK now is the time to at least think about shaking off the lockdown woes, get back to some social and family life, look forward to enjoying life more fully and, of course, thinking about what you might do at Bayside U3A next year. Re-enrolment is looming!

At the time of writing, we do not know exactly when or under what terms we will be able to have face-to-face classes. Many classes will just continue on Zoom until the end of the year. There has been lots of discussion about vaccination policy within the U3A movement and many, many occupations and activities such as health care and 'hospitality' generally, require full vaccination. Along with many other U3As, our committee has decided to adopt the following policy (subject to anything contrary from Council): "Members will not attend any Bayside U3A face-to-face activity unless they are fully vaccinated against COVID-19, as defined by the Government of Victoria."

Continued overleaf...

Continued from the President, Tony Aplin

There will be a number of procedures set out as to how this will work. For those who have smartphones, the best way is to have your Medicare Vaccination certificate linked with the Services Victoria app. Otherwise you will need to produce a printed copy of your certificate when QR checking in. Non-vaccinated members (including those 'exempt') can only attend Zoom classes and will not be permitted to attend our classrooms, offices or venues. You'll be advised more on this when we have a better idea of when and what.

We're unlikely to have any indoor member functions this year, but we are resolved to have some 'really good shows' next year. For example our Opening Day and AGM. I'm certainly looking forward to re-meeting many members and old friends.

Best regards and happy days - Tony A

Bayside U3A Happy Hour

This event depends on Health advice. Notification will be circulated when it resumes.

5—6pm last Friday of the month



26th November

No need to book/reply. Just turn up!

Drinks: Special \$6 sparkling or house wine, discount beer and some spirits.

Please wear your U3A name badge and bring along your RSL membership card if you have one! Dinner available for those wishing to stay on.

Hampton RSL, 25 Holyrood Street Hampton

LET'S DO DINNER

Convenor, Karen Hall 0402 891 183

Bad luck that the planned October dinner at Ricketts Point Café cannot proceed.

Hopefully our final dinner for the year will go ahead in November.

20th November at the Cheltenham RSL, 289 Centre Dandenong Road, Cheltenham

No dinner is currently planned for December.

Further details will be emailed to those enrolled in Course code: 21002.



Do you know a Bayside U3A member in need?

Contact with Bayside U3A members and families who are in need is available.

If you hear of someone in need of a caring card, phone call or is isolated during lockdown times, please contact me directly or via U3A.

Karen Hall sidonyhall@gmail.com 0402 891 183 or via baysideu3a@gmail.com

COURSE NEWS Convenor: Sue Steele

It's almost membership and enrolment time again. Enrolments are for each calendar year. 2022 is a new year so you must enrol in each of the classes you are interested in, regardless of what activities you may have done this year. Only financial members can enrol in classes.

Renewing membership

We'll email an enrolment reminder to all current members about 1st November and you can pay your renewal any time after that. The reminder will include how to renew and how to pay membership fees via PayPal, bank transfer or cheque via post.

Members who do not use email will have a renewal/enrolment pack posted to them. Fees remain the same: \$50 for single members, \$90 for a couple at the same address and \$30 for associate members.

New membership

You can join any time from now on and your membership will cover you until the end of 2022. Once you've joined, you can enrol in any 2021 classes by emailing a request to baysideu3a@gmail.com (online enrolment has ended for 2021), and then enrol in 2022 classes from 8th November.

Enrolling in 2022 classes opens on 8thNovember

So far we have 135 fabulous classes on offer for 2022; <u>details are on our website</u> now. From 8th November, if you have paid for 2022 you can enrol either:

- * online
- by emailing us a completed enrolment form or
- * by sending you enrolment form via Australia Post.

There is no need to enrol on the first day. There is a 3 week enrolment period and **ALL** enrolments received by 30th November will be treated equally. **It is** *not* **'first come, first served'**.

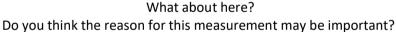
FUN and INNOVATION WITH 3D PRINTERS

Tutor: Dr Juan Soler

What is PLA?

What's happening here?

Can you figure out what the relationship is?











Join us on 3rd November for the answer to these questions and to discover a whole world of fun with 3D printers. We will acquaint ourselves with the technology, software tools and the myriad of resources that exist for anyone to enjoy 3D printing.

This series of interactive discussions will guide you through:

- ⇒ The many products and technologies currently available
- ⇒ What tools exist to facilitate the task of preparing to print
- ⇒ Where the communities of makers are
- ⇒ How to begin designing with simple easy to use tools.

3D printing is where art meets engineering – See you there!

'Sometimes we set out to make something useful and it turns out beautiful'

Course 21155: Let's Play With 3D Printers

10am - 12pm Wednesday 3rd November

email baysideu3a@gmail.com if you wish to join.

CLASSICAL MUSIC The Bach family Tutor: David Peake

Hopefully this will be the last virtual class. Perhaps we can meet in person at the next class? As always, I would appreciate your comments and suggestions. Here is a program of works by Johann Sebastian Bach and his 3 sons - Wilhelm Friedmann Bach (1710-84), Carl Philip Emanuel Bach (1714-88) and Johann Christian Bach (1735-82).



JS Bach - Keyboard Concerto No. 1 BWV 1052. The Russian pianist, Polina Oselinskaya gives a fine performance. https://youtu.be/osg WmeLxQk

JS Bach - Brandeburg Concerto No. 3 BWV 1048. Claudio Abbado and the Orchestra Mozart with Giuliano Carmignola as the principal violin are guaranteed to satisfy. https://youtu.be/Czsd13Mmcg0

JS Bach

WF Bach - Sinfonia in F Major. The piece is expertly performed by Il Giardino Armonico in a very grand location. https://youtu.be/Lnlg1TYWxmA

WF Bach - Suite in G Minor BWV 1070. The Croatian Baroque Ensemble are an original instrument group and do justice to the work which is rather reminiscent of his father's compositions. https://youtu.be/CFRD8 umOX8



WF Bach

WF Bach - Sinfonia in F Major F 67. The piece is very well played by the Israel Camerata, a highly regarded chamber orchestra. https://youtu.be/INWtgebM01w



CPE Bach - Keyboard Concerto in E minor WQ 15. I think that this is a Hungarian Orchestra. There is rather too much echo but otherwise the performance is fine. https://youtu.be/Pwsayx-MUpc

CPE Bach - Symphony in E Flat Major WQ 179. It's amazing that a small town in Germany can produce such a fine Orchestra - the Academy of Ancient Music Bruneck. https://youtu.be/aYSPITTM9Gc

CPF Bach

JC Bach - Symphony in G Major OP.6 No.6 W.C12. Same orchestra, same concert at the Academy of Ancient Music Bruneck, by the look of it. Both performances are excellent. https://youtu.be/8XmM_1fwx7U



JC Bach - Concerto for Pianoforte Op.13 No.6. The New Mannheim Orchestra perform on original instruments, including the Piano. https://youtu.be/pLMW1ZWDThs

JC Bach

Tutor: Ralph Levy

THURSDAY AFTERNOON DISCUSSION GROUP



We still have not resolved all of the world issues, but we have discussed many of them via our continuing Zoom sessions.

We recently continued our annual football finals week discussion led by very special guest football legend Kevin Sheedy.

It is quite amazing how some of our guests have spoken quite openly about things away from the crowd and 'Sheeds' was no different. It was a fascinating afternoon in discussion as he answered all our questions and gave us insightful commentary into our great game. Last year we hosted Mr. 'Up There Cazaly' Mike Brady in celebration of that 'One Day in September'.

Each week we discuss differing issues of interest with all invited to have their say in a respectful and informed way.

SCULPTURE GROUP

Tutor: Roy Bird

The sculpture group have survived lockdown by working at home, the images of sculptures below represent a variety of different techniques and materials.



Salvador Darling by Jennifer Wood (Cement, Acrylic)



Free Thrown by Marion



EL Galope By Davan (Welded Scrap Steel Red Enamel)

U3A BOWLS

Convenor: Rob Coulson

With restrictions easing, U3A Bowls is on again. But it is run strictly according to the government roadmap and Bowls Victoria guidelines. Social distancing, masks, double vaccination, equipment sanitisation etc. are essentials for this course.

So, there has never been a better chance to get out in the fresh air and get into a non-contact sport that is good for body and mind. I have to take my hat off to a large number of our participants this year, who have stuck it out through thick and thin as restrictions went up and down and a lack of continuity has made it a challenge to improve.

Nevertheless, this group seems keener than ever, and were willing devotees to the countless bowls coaching clips and bowls match videos they were sent each week.

Touch wood, we will now have a clear run for the remainder of term 4 and going into term 1 next year.

This time last year, when we started bowls again, there was a surge in participants driven by pent up demand for some gentle exercise.



We are hoping the same will apply on Wednesdays from 27th October at 10 am. We have room for more Bayside U3A members at both the 'Absolute Beginners' and 'Intermediate' categories.

EXPLORING THE BEATLES' LYRICS

Tutor: Dr Robert Mason

We have just completed our review of the Rubber Soul album (December 1965) and now embark on exploring Revolver (August 1966). No - it has nothing to do with guns - the title refers to LP records, which revolve... This is one of the Beatles' most intriguing, respected and adventurous albums, beginning the process of meeting the commitment John Lennon made in 'The Word', his second-last song for Rubber Soul: "Now that I know what I feel must be right, I'm here to show everybody the light."



It is a new, more purposeful and more assertive Beatles at the forefront of the psychedelic experience. Bob Dylan is now persona non grata which some in our class are happy about, having explored his relationship with them in perhaps more detail than some might have liked. Even the Rolling Stones stop being a challenge, having finally thrown themselves into the Beatles' wake. There are new friends to worry about and the situation vis-a-vis their competition, is just as complex as before, although the Beatles are not perturbed as they had been during Rubber Soul.

Rubber Soul and Help! marked the apex of John Lennon's song-writing and now, Paul McCartney steps up to the mark. He writes some of the Beatles' most celebrated songs, like 'Here, There And Everywhere', 'Eleanor Rigby' and 'Yellow Submarine' and begins the process of taking over the Beatles. As John Lennon becomes increasingly disengaged due to his intensive use of LSD, Paul McCartney becomes the dominant member from now through to the end. George Harrison sings his first songs that focus on Hindu philosophy, a passion that will be with him through the rest of his life, again inspired by LSD.

As always, their songs have strong autobiographical aspects, dealing with John Lennon and George Harrison's first two LSD trips and Paul McCartney's delayed submission to the new subculture, which happens in December 1965. 'Our friends are all aboard' is the theme of this album - their third themed album - but the ego battles continue unabated, especially on Paul McCartney's clever single 'Paperback Writer', which announces a harder rocking Beatles. Their guitar work prefigures Jimi Hendrix, who explodes onto the scene a few months later.

The 'Age of Aquarius' continues with further surprising explorations of the occult. The anti-Christian focus, which began on Rubber Soul, continues and meets disastrous consequences, when the Beatles tour the USA just after releasing the album. The blow-back is so intense that they permanently stop touring and turtle up, leading to the insular Beatles of Sgt Pepper's Lonely Hearts Club Band, which we will start exploring early next year.

From our Gardening Tutor, Anne Swiers

A SENIORS VERSION OF FACEBOOK—FROM A GARDENER'S POINT OF VIEW

For those of my generation who do not, and cannot comprehend why Facebook exists. I am trying to make friends *outside* of Facebook while applying the same principles.



Therefore, every day I walk down the street and tell passers-by what I have eaten, how I feel at the moment, what I have done the night before, what I will do later and with whom. I show them pictures of my family, my dog and of me tending my garden, watering the lawn, standing in front of landmarks, driving around town, having lunch and doing what anybody and everybody does every day.

I also listen to their conversations, give them 'thumbs up' and tell them I 'like' them, give them free hints on gardening—how to prune, what to plant and where, when to fertilise and mulch and it works just like Facebook.

I already have 4 people following me—2 police officers, a private investigator and a psychiatrist.

Who needs Facebook?

BAYSIDE U3A WRITERS GROUP

Tutor: Cheryl Threadgold Word of the month LAUGHTER

ON LAUGHTER (Haiku/Tanka)

unrestrained laughter pricking my bubble of anomie how wonderful!

on the cliff-top trail behind wattle and creepers trills of girls laughing

Bill Leak's cartoon parsed intellectual hubris annoying lefties

today's great cartoon a bellyful of laughs sure to upset Labor

brisk laughing yoga psychological relief for my Covid blues

by Stephen Le Page

laughter like sunlight wipes the dense night from earth illuminates my soul

tinkling of music from slow merry-go-rounds the laughter of children

muffled through the bricks comes throaty laughter and giggles imagination stirs

listening keenly words take flight beyond reason senses suddenly fly and laughter bubbles within--Ah! natural medicine

LAUGHTER: WHEN IT'S WRONG

by Juliet Charles

The compulsion to snigger during a solemn or sad situation, when it would be wildly inappropriate to do so - is a dreadful affliction from which I have frequently suffered. When I was at school (a girls' Anglican one), my best friend and I used to set each other off in church. For some reason we thought Reverend Moult was hilarious - he probably wasn't but there's always a trigger to impending mirth. There is a dangerous, even masochistic thrill to erupting hysteria and the desperate attempt to suppress it. My sisters and my daughter have often been my partners in crime. We were - and are - old enough to know better! I shall share one story.

Many moons ago I was a soprano with the Education Faculty Choir of a large university. My daughter attended a concert celebrating Spring - the vernal equinox I believe (I'm hazy on the details as I was too busy trying to control giggles to learn much in church) and was seated mid-row and centre.

I can't recall the program but it included Spring-themed songs, perhaps a Shakespearean sonnet, *It was a Lover and his Lass*, maybe *It Might as Well be Spring* and almost certainly *The Flowers that Bloom in the Spring*. Very likely there was a sprinkling of more obscure Renaissance music.

After the choir had performed two or three pieces, Jeremy, a solid young tenor, with blond hair parted in the middle and sternly slicked down, rose for his solo. He introduced his song to the audience: 'Thith ith a thtory about a huntthman and a maiden. He thpieth her bathing in a thtream and ith utterly tranthfixthed. He hideth in a buth and watthes enchanted ath the singth a thong...' Jeremy chirruped cheerfully. The introduction ground on interminably and I imprudently glanced at my daughter in the audience. Her reddened face, half concealed by her program and slightly shaking shoulders, indicated that she was on the verge of hysterics. I knew the signs. She produced a couple of small coughs to disguise any guffaws threatening to escape and unfortunately our eyes met. I knew how desperately she was trying to hold it in, as to my horror, I began to be similarly affected. It was all I could manage not to explode - and I was facing the audience.

Jeremy had by now launched into his aria, singing thinly, hands clasped prettily, and feet heavily planted and turned out. 'Oh Maiden, maiden, maid, your beauty maketh me thwoon'...he crooned. Oh *please* let it be over. Do *not* look at your daughter. I did keep it together - just. And so did my daughter - by a whisker. While such occasions - and there have been many over the years - are always madly amusing to me later, at the time they are quite simply, terrifying.

LAUGHTER STORY

by Norah Dempster

It was my idea. "Let's go out," I said to my husband. "Do something different. What about the Melbourne Comedy Festival?"

We pulled the Saturday newspaper from the pile of old papers, poured over the list of comedians and chose one that had consistently good reviews. Then we called the baby-sitter and we got dressed up.

At that time we didn't go out much. This was an adventure, and my husband even parked the car in an expensive underground city carpark without a complaint. We were early at the theatre but it didn't matter, because we had a choice of seats.

"Near the front," I urged. "So we can see him properly."

And when the show started with a fanfare of trumpets and the comedian came running out on the stage in front of us I was so pleased. I nudged my husband and whispered, "I'm glad we came."

I put away the nagging worry that the children had gone to bed at a reasonable time and started laughing with the rest of the crowd as the jokes and patter spilled from the comedian as he moved quickly about the stage.

A little bit of information might set the scene for what happened next. My husband is of European Jewish descent, black-haired then, brown eyed and olive skinned and of stocky build. I am descended from a long line of Scots and was blond then, fair skinned and lean.

The comedian stopped moving, came forward and looked directly at us.

"I bet this couple near the front here were married in the sixties," he said.

He appealed to the audience whose heads spun round to stare at us.

"Look at their Beatle haircuts," the comedian continued. "Both the same. Peas in a pod. They've been married a while, I reckon. You can't tell the difference between them." The crowd roared with laughter.

"I bet they know every word of Hey Jude. And Yesterday," he continued playing even more to the receptive crowd.

We sat through the whole show but we went home chastened. I paid the babysitter and made a cup of tea.

"Do you think that's true that we look alike now?" I asked my husband. "That we're not different anymore?"

"We shouldn't have sat so near the front," he replied. "We were sitting ducks."

I changed my haircut the next day.

GIVE LAUGHTER A TRY

by Joy Meekings

Laughter is what I prescribe

When you're feeling sad inside

Don't need a pill or glass of wine

Just a funny joke with a great punchline

Crying's always a good release

But nothing can beat an hilarious piece

Of comic genius at its best

So laugh till you cry - be my guest!

Laughter's the best medicine also seems so true
Makes you feel much better if you're feeling blue
Laugh until you cry and tears run down your cheeks
Releases good endorphins that last for weeks and weeks
So go on have a belly laugh it works every time
Laugh out all your troubles, you'll soon be feeling fine!

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HILDA By Geoffrey Dobbs

Her real name was Hilde, but Uncle George insisted she use the Anglicised version. George was my father's younger brother, a quiet, conventional man. The family were shocked when he returned from military service in Germany in 1950 with a German bride. My mother most of all: my father had been killed in action six years earlier. The family received Hilda with frigid formality. Most of Hilda's own family had perished during the bombing of Dresden so that was some atonement, and a truce was maintained.

Hilda entered my life at Christmas that year. I was eight and she presented me with a cuckoo clock. The family were unimpressed by this overt Teutonic gift, and it remained in its box for some weeks before my mother reluctantly accepted it. Hilda gave me something else though. I was a shy child, uneasy with adults. Hilda sat next to me, talked with me, told me Christmas stories from her childhood. We whispered our mutual disgust at boiled cabbage and other exemplars of English cuisine. When Hilda found the magic sixpence in her slice of plum pudding, she slipped it to me. By the end of the day I was in love.

Within a few years it became clear that it was an unhappy marriage. Hilda had been attracted by George's gentleness and consideration, he by her lively personality, petite figure and fluent English. George had been a solicitor's clerk before the war and he returned to that calling after he was demobbed, commuting to London each day, bowler on head, newspaper in hand, cut lunch in briefcase. Hilda tried in vain to persuade him to study and qualify. Nor could she entice him to concerts and plays. The fault, of course, was judged to be Hilda's: she had married him just to get out of Germany, hadn't she?

The bond formed that first Christmas remained. I even studied German at school and Hilda and I corresponded, she gently correcting my grammatical errors. After George died in his early sixties Hilda bought a small flat in Wimbledon and the family saw less of her. I went on to university in London and in the excitement and challenges of my new life my bond with Hilda faded. Until, in my last year, I received a letter from her inviting me to visit.

It was a spring afternoon when I climbed the stairs to her flat. We drank coffee and ate fluffy cream cakes. We talked: about her flat, my studies and of course, family. I mentioned that first Christmas, how the family had received her and my shame at their behaviour. Suddenly Hilda threw back her head and laughed, a great peal of laughter. It seemed to burst out beyond the walls of the little flat, through the shimmering green trees, over the suburban streets, and semi-detached houses of her marriage, over the ruins of Dresden, over the world.

"Oh, my dear, you are so young!"

Later, as I left, she placed her thin arms on my shoulders and looked into my eyes. Her once chestnut hair was now white, but her eyes were still the dark, glowing amber that I remembered. She sighed.

"If I'd ever had a child, I would have wished them to be like you." She paused and added laughingly, "and I wish you were twenty years older and I thirty years younger! Do you have a girlfriend? Good. Then go to her." We kissed and I left. I looked back once as I walked away. Her face was pressed against the window, watching me. I waved as I turned a corner. Hilda died that autumn. She had made me the executor of her will and its sole beneficiary.

TALES FROM THE CRYPTOSPHERE

<u>Juan Soler</u>

The cryptocurrency space is always brimming with new technological advances, whether that be with token projects or blockchain applications. The latest buzz comes in the form of Non-Fungible Tokens (NFTs). The image on the right is from a series of NFT art pieces. It sold for \$7.5M USD!

P

#3100 4.2KΞ (\$7.58M) Mar 11, 2021

This is one use of an NFT. Their application and usability reach far beyond static art or collectibles. NFTs are tokens that have introduced a new way to verifiably prove ownership of virtually anything through the blockchain.

Anyone can mint an NFT. You just have to own a Wallet and join an NFT community. After that you can buy, sell, make or just 'flip' your assets and hopefully, make some money. These products are made possible by another tech innovation from the blockchain world known as smart contracts.

This provable ownership can be applied not only to art pieces but also to goods that are protected with copyrights or legal documents like a house deed. *NFTS, Blockchain, DeFi, Tokens, Air drops, Smart Contracts, Wallets*Like to know about this new avenue of technology? Join us every fortnight for more tales from the Cryptosphere.

Email baysideu3a@gmail.com if you wish to join the group.

Bayside U3A member, Janice Brasch [MSc 1985 (genetics), Medical geneticist 1989 -2009] had been asked many questions about Covid-19 by her family and friends, expecting that with her background, she would know the answers! She has recently brought herself up to speed and written them an update. Most of the content is based on a lecture by Peter Doherty of the Doherty Institute together with some information presented by a retired MD on U3A Zoom. She hopes it will be of interest to U3A members. Thankyou for sharing this with the Bayside U3A community Jan!

A COVID-19 Update

BACKGROUND

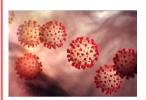
A cluster of cases of pneumonia in Wuhan, China, were reported to WHO on 31st December 2019. A novel coronavirus was eventually identified.

The first case of this novel coronavirus in Australia came to Monash Medical Centre on 24th January, 2020. The patient was aware of his condition and wore mask and gloves. He had isolated after arriving in Australia from Guandong province in China and no further cases eventuated at this time.

On 25th January, 2020 the Minister for Health and Aged Care, Greg Hunt, issued a health alert. The index case from whom the spread began in Australia did not arrive here until later in February, 2020.

Corona viruses are quite prevalent in the population where they can cause the common cold. Outbreaks of more serious respiratory diseases have been caused by corona viruses (eg SARS-CoV in 2002 & 2003) but their spread has been limited. Corona viruses have not been responsible for any previous pandemic. However, the WHO was alarmed by the rapidity of spread and the severity of this new infection. The apparent inaction of countries to introduce the available control measures led WHO to declare a Covid-19 pandemic on 11th March, 2020.

VIRUSES



These are submicroscopic infectious agents that are extremely complex molecules, usually regarded as nonliving. In evolutionary terms the only "aim" of a virus is to survive. It is simply a strand of genetic material (RNA or DNA) encased in a protective membrane which has protein molecules enabling it to adhere to and enter cells. It then uses the replication mechanism of the host cell to achieve its aim and up to 100,000 viral particles can be released from a single cell.

Viruses do not have the capacity to 'travel'. They rely entirely on their hosts to get around and therefore survive! A sneeze can effectively assist 100s of thousands of particles of a respiratory virus to move on.

COVID-19 – TRANSMISSION

Coronaviruses are mainly transmitted from person to person via respiratory droplets, either by being inhaled or deposited on mucosal surfaces as aerosols produced from coughing and speaking.

COVID-19 - INITIAL INFECTION

As do other respiratory viruses, the Covid-19 causing virus enters mainly through the nose and more rarely the eyes or mouth. With the help of mucous it has access to epithelial cells. The 'spike protein' on the outside of the viral particle has a receptor binding domain which attaches to the ACE-2 protein (an important enzyme located on the outside of cells in most organs of the body).

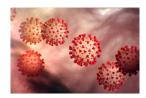
Recent molecular modelling work by protein chemists using a supercomputer has revealed new information about the entry of the viral genetic material into the host cell. After the spike proteins bind to the receptor molecules the genetic material of Covid-19 is not simply injected via a resulting hole in the cell membrane as was previously understood. Instead, another enzyme, produced by human cells, causes the outer coating of the viral particle to fuse with the cell membrane thereby effectively introducing the whole viral particle with its genetic material into the cell cytoplasm.

This discovery explains why the original drug tests done at the Doherty institute led to the suggestion that hydroxychloroquine and ivermectin may have some anti (Covid-19) viral activity. The cell line used in these in vitro experiments did not have the cell surface enzyme that enables the Covid-19 virus particle to infect the cells by fusion. Therefore the tests were not valid because the cells were not being infected as they would be in a human being.

**Continued overleaf...*

COVID-19 – PROGRESS OF THE INFECTION

The Covid-19 virus enters the body via the epithelial cells of the nose and travels to the lungs but here the similarity with other respiratory viruses ends. This virus can enter the bloodstream where it produces coagulopathy – a property never seen previously in a human viral infection. The resulting microclots in the lungs block oxygen exchange causing lowering of oxygen levels in the bloodstream. Low dose heparin and dexamethasone are used to modify this progression.



Travelling via the bloodstream the virus can also attack heart, kidneys and other tissues which produce the ACE-2 protein to which it binds. A vaccinated person is protected against the blood born stage of the infection.

VACCINES

The vaccines approved by the Australian Government Therapeutic Goods Administration (TGA) to date are all more effective than originally predicted. All are highly effective against <u>severe</u> disease. As with any vaccine or medical procedure (or even crossing the road!) there is a slight risk. The risk of adverse reaction causing death from any of the vaccines is currently estimated at between 1 in 200,000 -1,000,000. There is a very small risk of a serious allergic reaction (anaphylaxis) to any vaccine. Therefore you are advised to stay at the clinic or medical surgery for some time following immunisation in case this occurs.

The rare problem of clotting following Astra-Zeneca can now be recognised and the possibly severe outcome averted. For comparison the risk of a healthy unvaccinated 50-year-old dying from Covid-19 is around 1 in 500. This does not take account of the other debilitating long-term effects of the disease which are coming to light.

One of the limitations of the current vaccines is that they are introduced intramuscularly, and the site of initial antibody production is a long way from where it is required for maximum efficiency. The immune response is extremely complicated and involves several different cell types. It is believed that introduction of a vaccine via a nasal spray may be more effective in halting reproduction of Covid-19 because the concentration of antibodies at the site of infection could be higher. This is one of the many research directions being taken to manage Covid-19 in the future.

Even in the vaccinated, breakthrough infections can occur. However a vaccinated person with Covid-19 is 50% less likely to pass on the infection. Current figures suggest that vaccinated people are 6 times less likely to test positive to Covid-19. Those who are infected are at least 10 times less likely to die than an unvaccinated infected person.

VACCINATION – A LITTLE HISTORY! (My own musings)

The smallpox vaccine, introduced by Edward Jenner in 1796, was the first successful vaccine to be developed. He observed that milkmaids who previously had caught cowpox did not catch smallpox and showed that inoculated vaccinia protected against inoculated variola virus.

Smallpox no longer occurs naturally since it was totally eradicated by a lengthy and painstaking process, which identified all cases and their contacts and ensured that they were all vaccinated. Until then, smallpox killed many millions of people. Protests from human rights groups with respect to contact tracing, quarantining and vaccination prolonged the elimination process. The last natural outbreak of smallpox in the United States occurred in 1949. In 1980, the World Health Assembly declared smallpox eradicated.

Below a quote from a family history which recently appeared in a Genealogical Society of Victoria blog – compulsory vaccination has been around a long time in some parts of the world.

I see that in 1897 in the Bendigo City Court my great grandfather was one of six men charged by Mounted Constable Lysaght with having neglected to vaccinate their children against smallpox virus. At the close of the 18th C this contagious disease killed 400,000 people in Europe each year and 80% of children who caught it died. After 1853 all Australian colonies, except NSW and Queensland, introduced compulsory vaccination for smallpox, and it wasn't until 1980 that WHO declared it eradicated.

My ancestor was fined 10 shillings and 2/6 costs for failing to provide a vaccination certificate, whether through preoccupation, laziness, or misguided principle we can't know.

Continued overleaf..

There is plenty more interesting history with respect to previous pandemics and vaccination programs but they are not relevant to a Covid-19 update! Suffice to say there have been and continue to be major vaccination programs which are essential to prevent high numbers of the population suffering from debilitating and life-threatening diseases.

In the case of Covid-19, because of breakthrough phenomenon, the percentage of the population who are fully vaccinated needs to be very high before restrictions to lifestyle will no longer be required to manage the disease.

VACCINE DOSAGE

To date it has been shown that two doses of most vaccines are more effective than one although some protection is afforded by all approved vaccines after just one dose. It is expected that a booster dose may be needed before winter and a candidate vaccine is being trialled for this purpose. Also being developed are vaccines which could cover more than one variant of the spike protein.



GLOBAL PICTURE

Experts advise that to bring the pandemic under control a single dose of vaccine should be given to as many people as possible, and as soon as possible, world-wide. This would require assistance from richer nations but is essential to reduce the chances of yet another even more deadly variant arising.

PROMISING TREATMENTS

The TGA has provisionally approved two and is evaluating a further three treatments for Covid-19. Three of treatments are monoclonal antibodies (developed from human convalescent serum) and another is a synthetic nucleoside which blocks viral replication.

FUTURE OF THE PANDEMIC -UNKNOWN

It may fizzle out, become endemic, be seasonal or become more serious.

STRATEGIES FOR FUTURE MANAGEMENT

- * Increase vaccination globally to reduce disease and variants of concern.
- * Invest in global surveillance to monitor epidemics and emergence of new variants (multivalent vaccines may be required).
- * Plan for winter surges: stop elective surgery, maintain social distancing and mask wearing.
- * Reduce transmission: mandatory vaccination in risky occupations, avoid super-spreader events.
- * Modify behaviour of at-risk individuals avoid contact.

SUPPORT SCIENCE!

Proof of vaccination if you don't have a smartphone!

You can call Services Australia on 1800 653 809 and ask them to send your Immunisation History Statement to you. It can take up to 14 days to arrive in the post.

You can also print your COVID-19 digital certificate at home, available on myGov.