



THE COVID-19 PANDEMIC – WHAT REALLY HAPPENED

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At the Nation Citizen's Inquiry – Langley, B.C. on May 3, 2023



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- Dr. Pelech is the founder, president and chief scientific officer of Kinexus Bioinformatics Corporation.
- Dr. Pelech and his family own 75% of the shares in Kinexus.
- Kinexus offers proteomics and bioinformatics services and products for a fee. Some of these services may be mentioned in this presentation.



- Dr. Pelech is a professor in the Department of Medicine at the University of British Columbia where he has been on faculty for 35 years.

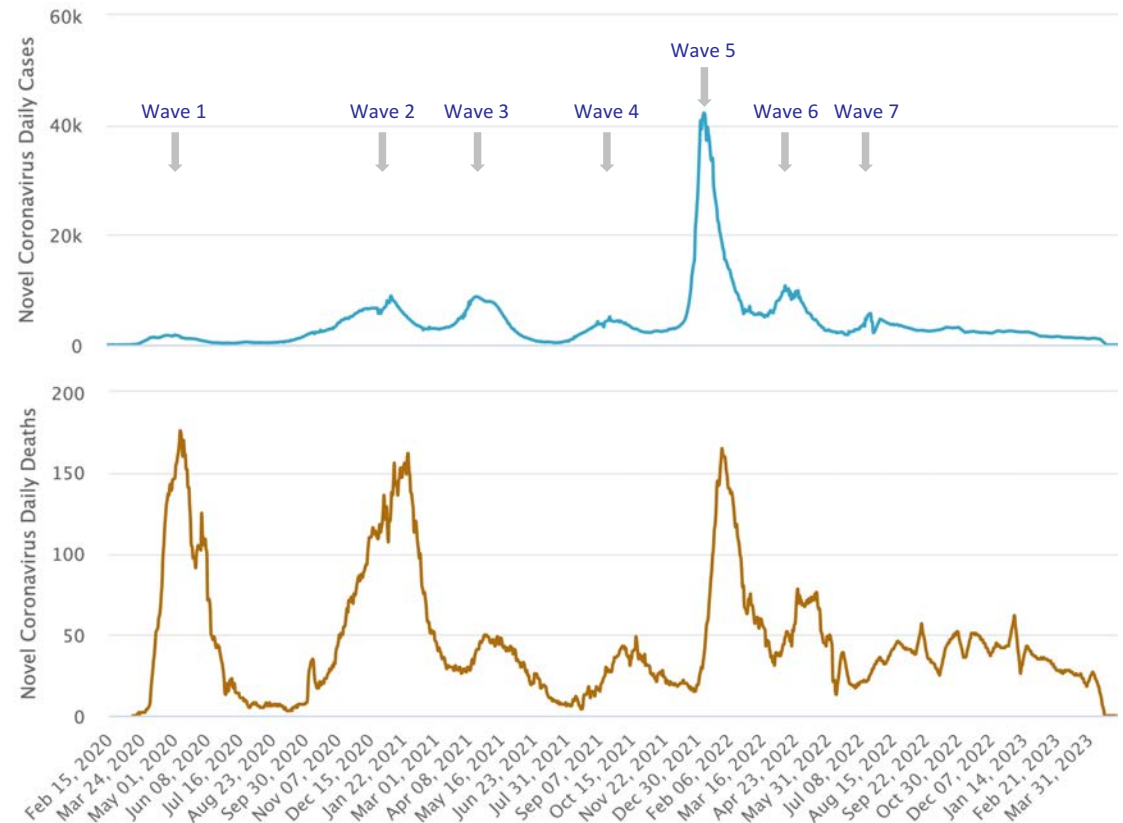


- The views expressed in this presentation by Dr. Pelech are not necessarily held nor endorsed by the University of British Columbia, Kinexus Bioinformatics Corporation, or the Canadian Covid Care Alliance.



The COVID-19 Pandemic in Canada

- Over 4.51 million documented COVID-19 cases, 51,921 deaths in last 3.4 years with COVID-19 in Canada.
- COVID-19 cases have transpired in at least 7 distinct waves, with generally reduced relative lethality in each wave
- Approximately half of the deaths were from comorbidities





The COVID-19 Pandemic in Canada

Year	Period	Total Cases	Total Deaths	% Deaths/Cases
2020 from Feb. 1	11 months	543,830	14,713	2.71
2021 - all	12 months	1,473,795	14,473	0.98
2022 - all	12 months	2,490,703	19,766	0.79
2023 until Apr. 15	0.3 months	146,149	2,969	2.03

- Severe and deadly in a small portion of Canadian population, particularly in those that are very elderly, obese, and with co-morbidities such as diabetes, pulmonary disease, and immune compromised
- COVID-19 genetic vaccines were introduced in mid-December 2020, prioritized for those at the highest risks



COVID-19 Morbidity and Mortality in Canada

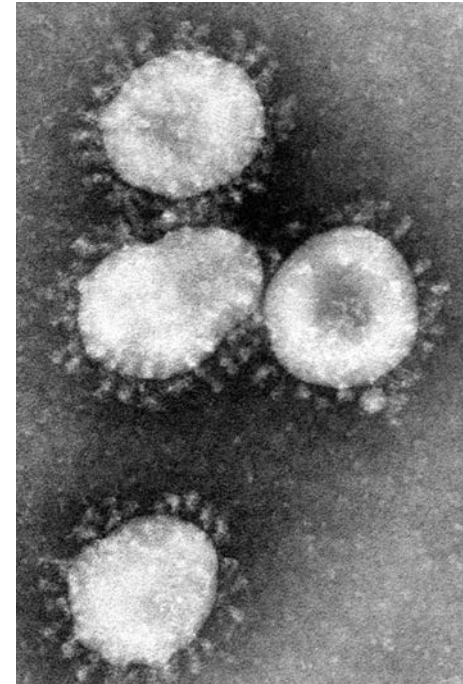
Age Group (Years)	Cases	Hospitalizations	Hospitalizations %	ICU Admissions	ICU Admissions %	Deaths	Deaths %
0-11	420,445	7,030	1.67	730	0.17	53	0.013
12-19	330,872	2,686	0.81	304	0.09	26	0.008
20-29	751,906	9,780	1.30	1,061	0.14	148	0.020
30-39	724,380	14,522	2.00	2,000	0.28	342	0.047
40-49	636,294	15,455	2.43	3,204	0.50	710	0.112
50-59	550,742	24,891	4.52	6,009	1.09	1,902	0.345
60-69	364,570	37,850	10.38	8,743	2.40	4,403	1.208
70-79	248,814	51,186	20.57	8,372	3.36	8,111	3.260
80+	330,938	76,112	23.00	4,667	1.41	21,113	6.380
All groups	4,358,961	239,512	5.49	35,090	0.81	36,808	0.84

<https://health-infobase.canada.ca/covid-19/current-situation.html#a5> (retrieved April 8, 2023)



The COVID-19 Pathogen – SARS-CoV-2

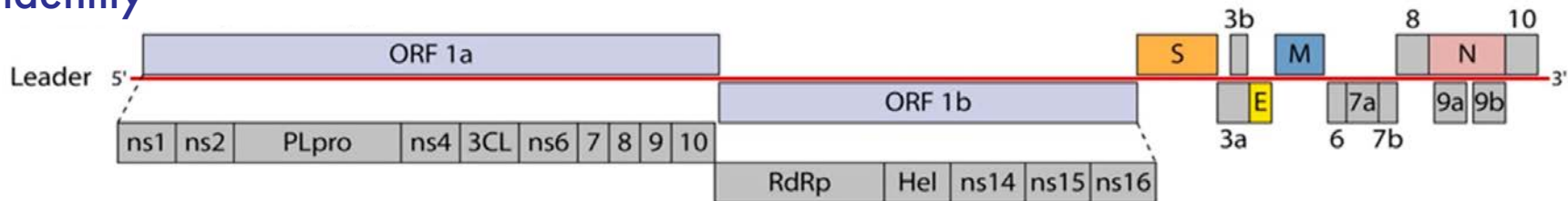
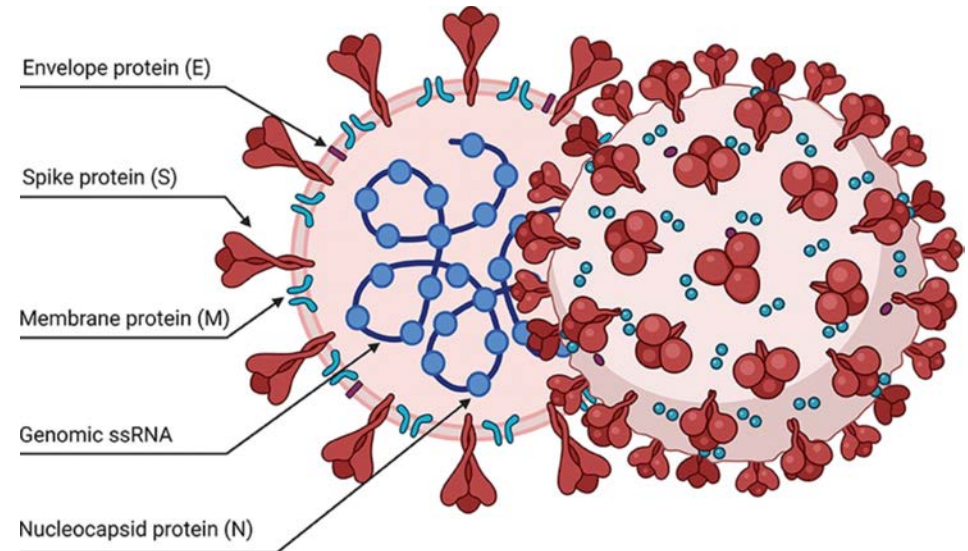
- Respiratory virus that is transmitted, like influenza, in aerosols less than 60 microns in size (a micron is one millionth of meter)
- SARS-CoV-2 virus is about 0.15 microns in diameter
- Influenza virus is about 0.1 microns in diameter
- Typical pore sizes of mask range from 20 to 500 microns; N95 has a median 35 micron pore size
- Cochrane review of over 20 years of research shows no significant benefit of masking for influenza or COVID-19





The SARS-CoV-2 Virus Structure

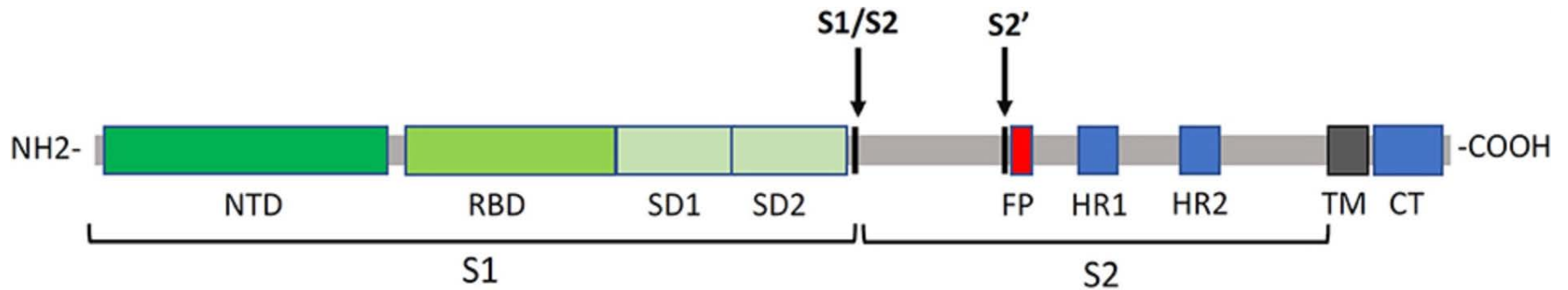
- The single stranded, 29,800 base pair RNA genome of SARS-CoV-2 encodes ~29 proteins, with the Spike protein as the largest on the surface of the virus particle
- Overall structure is very similar to common cold coronaviruses and SARS-CoV and MERS, but most similar to a bat coronavirus (RaTG13) with 96% identity





The SARS-CoV-2 Spike Protein Structure

- Like other coronaviruses, SARS-CoV-2 is able to bind to host cells via its Spike protein, which has an affinity for angiotensin-converting enzyme 2 (ACE2)
- The RBD region is critical for binding to ACE2
- A protease cleavage site (S1/S2), not found in other betacoronaviruses, and targeted by common human proteinases including furin and TMPRSS2, increases the infectivity of SARS-CoV-2





SARS-CoV-2 Mutation and Variants of Concern

- Over 27,000 mutant forms of the SARS-CoV-2 virus identified in last 3.3 years, with a small number of variants of concern that evolved, which temporarily dominate and then are replaced by a more infectious strain, and less virulent strain
- Mutation is due to infidelity of the viral RNA polymerase enzyme that generates new RNA copies of the genome of SARS-CoV-2; it makes a mistake every 10,000 to 100,000 bp
- However, the recent SARS-CoV-2 variants are still around 97% identical in amino acid sequence to the original Wuhan strain

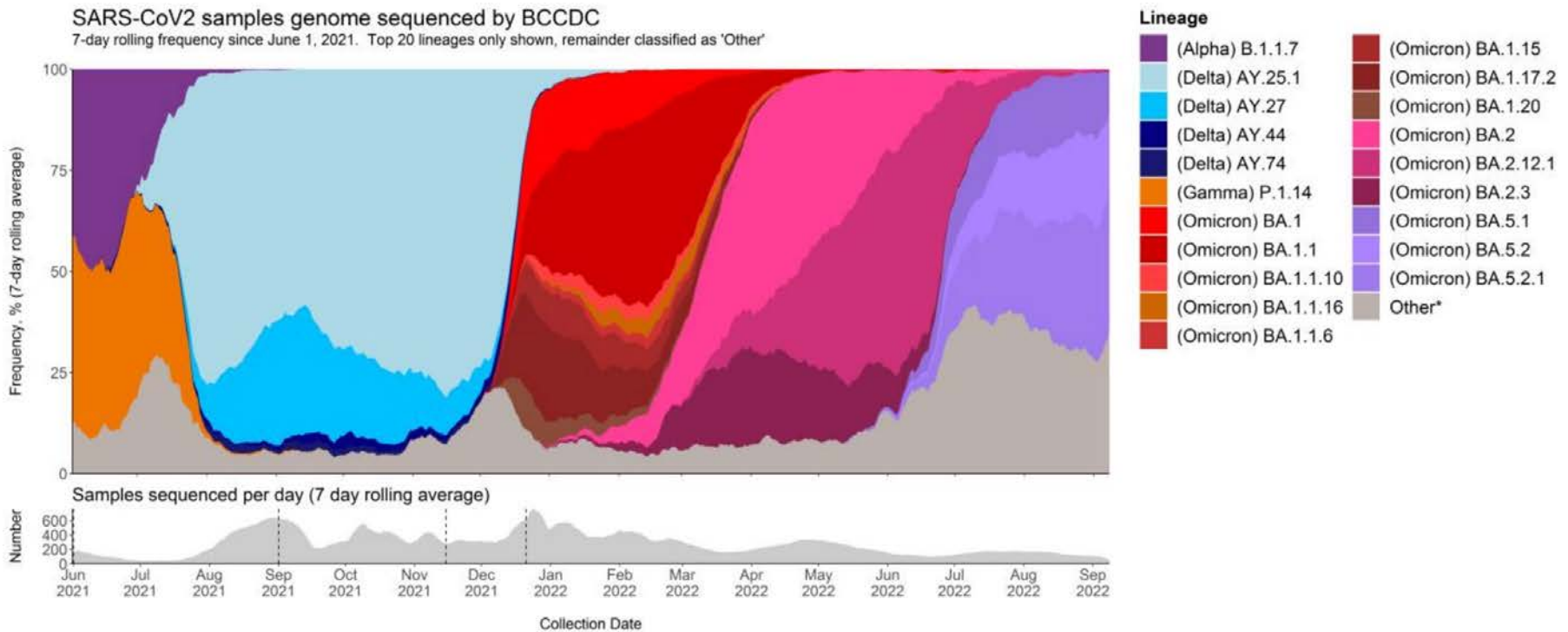


SARS-CoV-2 Variants of Concern

- Most prevalent SARS-CoV-2 lineages in British Columbia, June 1, 2021 – September 10, 2022

SARS-CoV2 samples genome sequenced by BCCDC

7-day rolling frequency since June 1, 2021. Top 20 lineages only shown, remainder classified as 'Other'



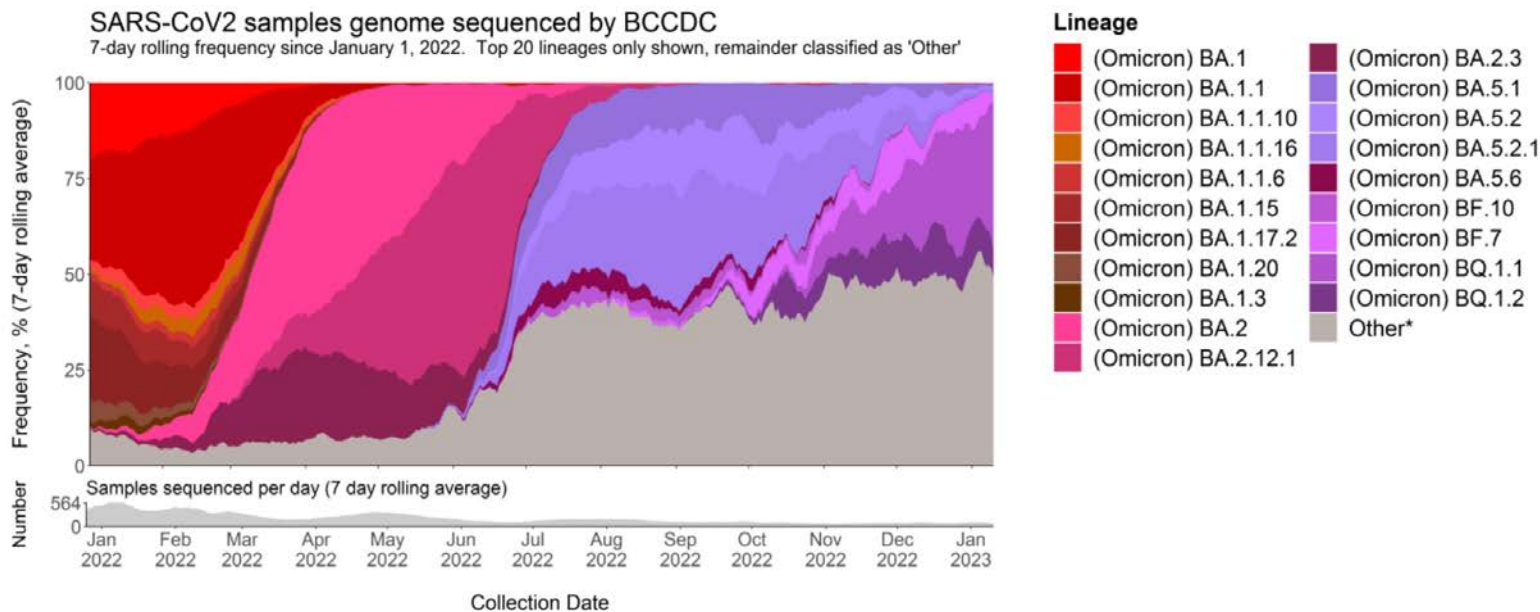
MAY 2023

http://www.bccdc.ca/Health-Info-Site/Documents/VoC/VoC_report_2022-09-22.pdf



SARS-CoV-2 Variants of Concern

- Most prevalent SARS-CoV-2 lineages in British Columbia, June 1, 2022 – January 7, 2023

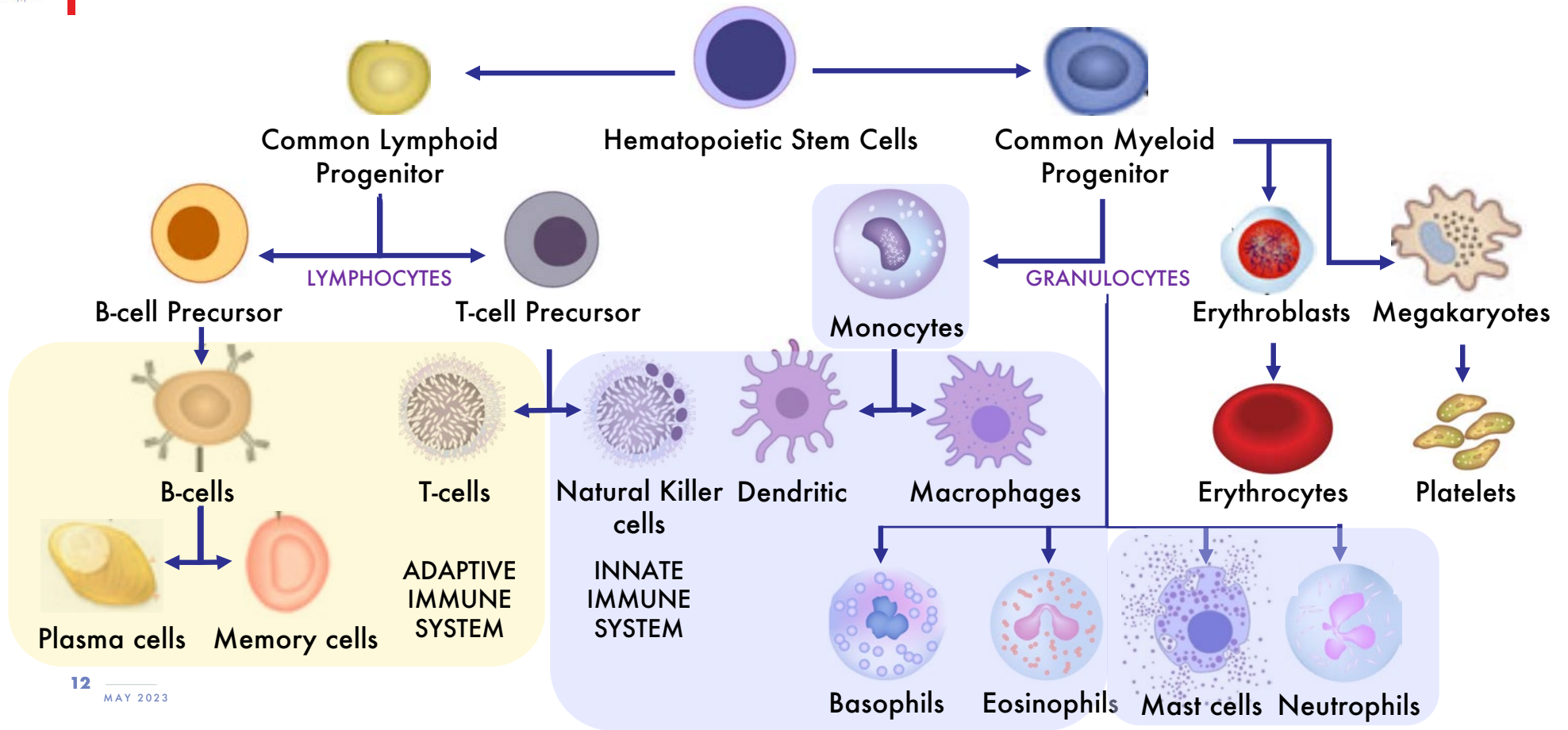


*Other, in the most recent week of data, includes:

BA.5.1.27, BA.5.2.34, BA.5.2.38, BA.5.5.1, BE.1.1.1, BE.1.2, BE.9, BF.11, BF.7.*, BN.1.3, BN.1.3.1, BQ.1, BQ.1.1.*, BQ.1.2.*, BQ.1.3, BQ.1.5, BQ.1.8, BQ.1.8.2, BR.2.1, BW.1.1, CH.1.1, CK.1, CM.8.1, CV.1, DJ.1.1, other BA.2.*, XBB.1, XBB.1.5, XBB.2



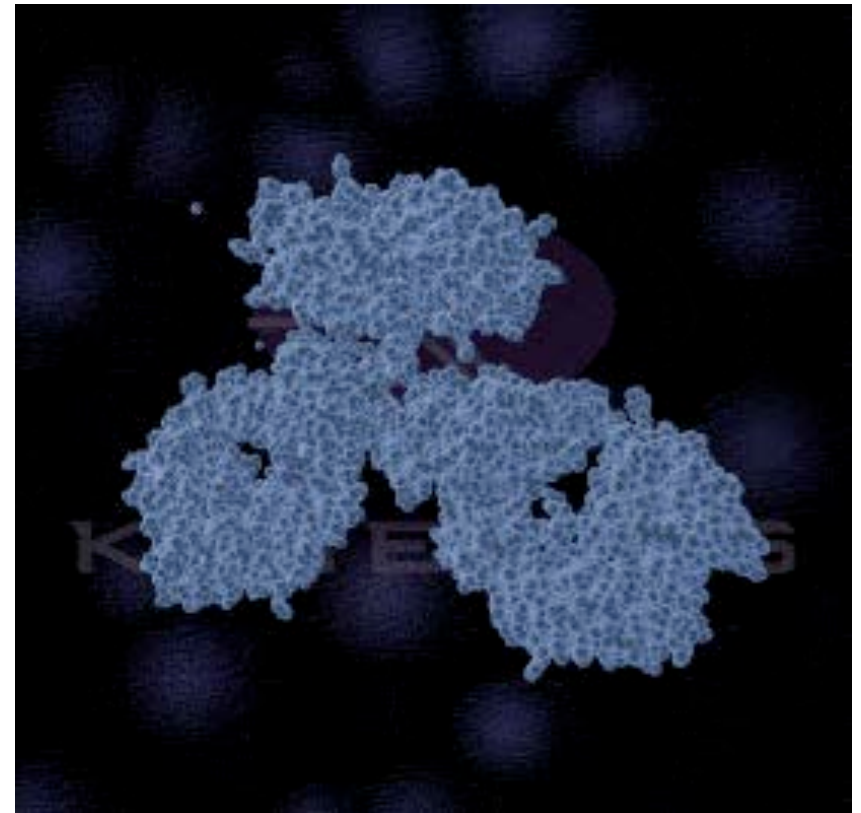
The Innate and Adaptive Immune Systems





B-cells Produce Antibodies

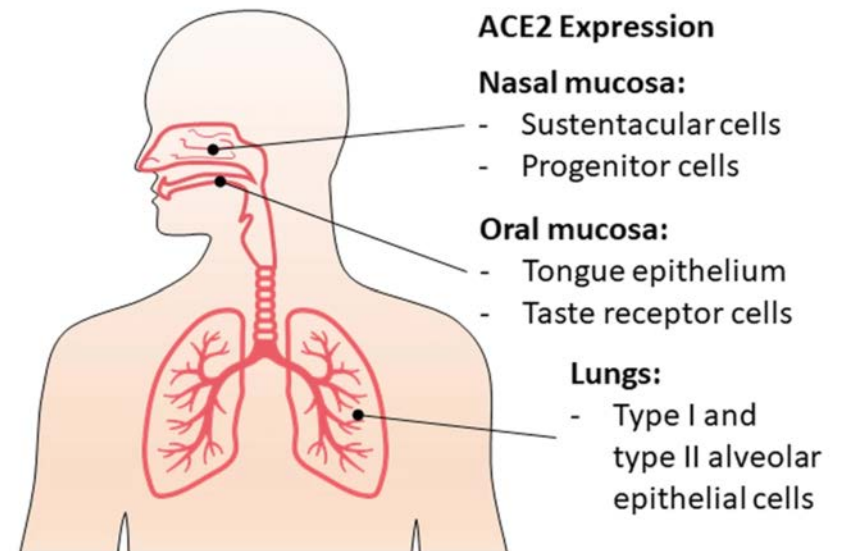
- Antibodies are amongst the most common proteins in blood, and are known as immunoglobulins (IgG)
- Antibodies are composed of two light chains and two heavy chains
- The large half is the **Fab** portion, which recognized a target antigen for binding
- The small half is the **Fc** portion, which is recognized by receptors on immune cells





Natural Immunity with Adaptive Immune System

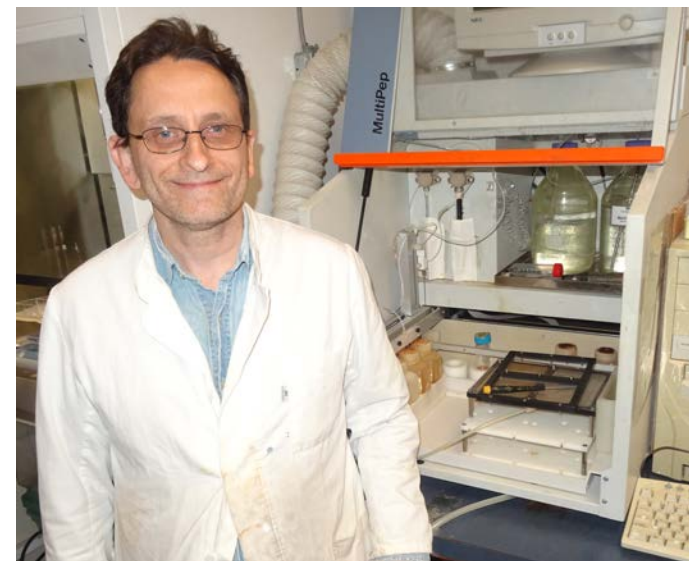
- B-cells produce antibodies against potentially all proteins in the virus
- Antibodies of the IgA and IgM class are secreted in airway spaces and lungs at site of initial infection of a respiratory virus
- IgG class antibodies predominate in blood circulation
- Immunity persists for at least two years and likely decades



<https://immunityageing.biomedcentral.com/articles/10.1186/s12979-020-00192-y/figures/1>



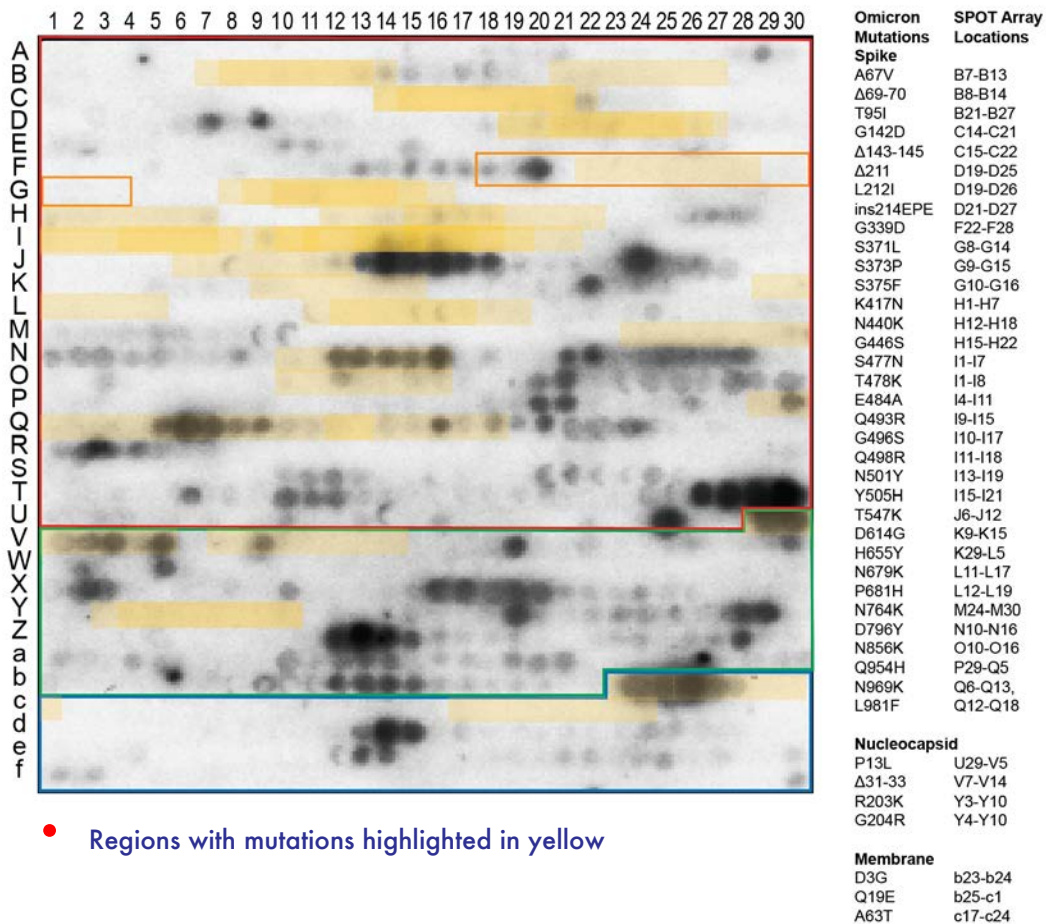
- Co-investigator is Dr. Dirk Winkler
- 3 Year study started on March 1, 2020, and concluded March 31, 2023
- Over 4500 participants, mainly from B.C. and Ontario
- Ages range from 6 months to 90 years old
- 53.5% female and 46.5% male
- >1550 participants had COVID-19 symptoms;
>250 were PCR-confirmed



Dr. Dirk Winkler
Head, Peptide Synthesis Facility
at Kinexus Bioinformatics Corp.



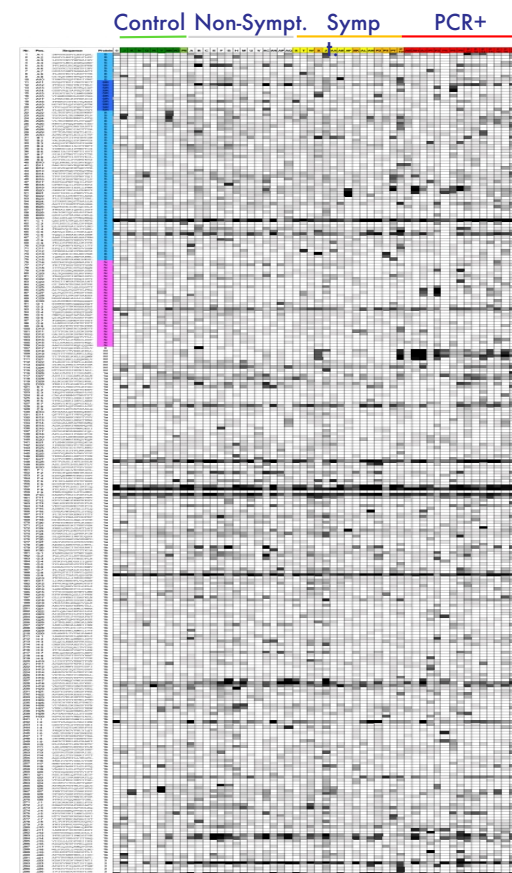
- Kinexus CDH/CDR SARS-CoV-2 SPOT array overlay of 9 images of serum sample results from different participants that recovered from COVID-19
- Regions with Omicron mutations poorly correspond to parts that generate antibody responses
- Most antibodies against the Wuhan strain will strongly recognize Omicron



- Regions with mutations highlighted in yellow



- Spot intensities from identical SPOT arrays with 298 peptides from SARS-CoV-2 proteins that were selected from the results of the peptide scan of the entire viral proteome (light blue - Spike protein (S); dark blue - receptor binding domain (SB); pink - Nucleocapsid protein (N)). The arrays were probed with serum/plasma samples from several different donors/sources (green - pre-COVID-19 serum/plasma samples or from donor negative tested in early 2020; white - non-symptomatic; yellow/orange - symptomatic, but no PCR test confirmation; red - COVID-19 positive tested serum/plasma samples). Each column is a different person; each row is a different segment of 16 different SARS-CoV-2 proteins.

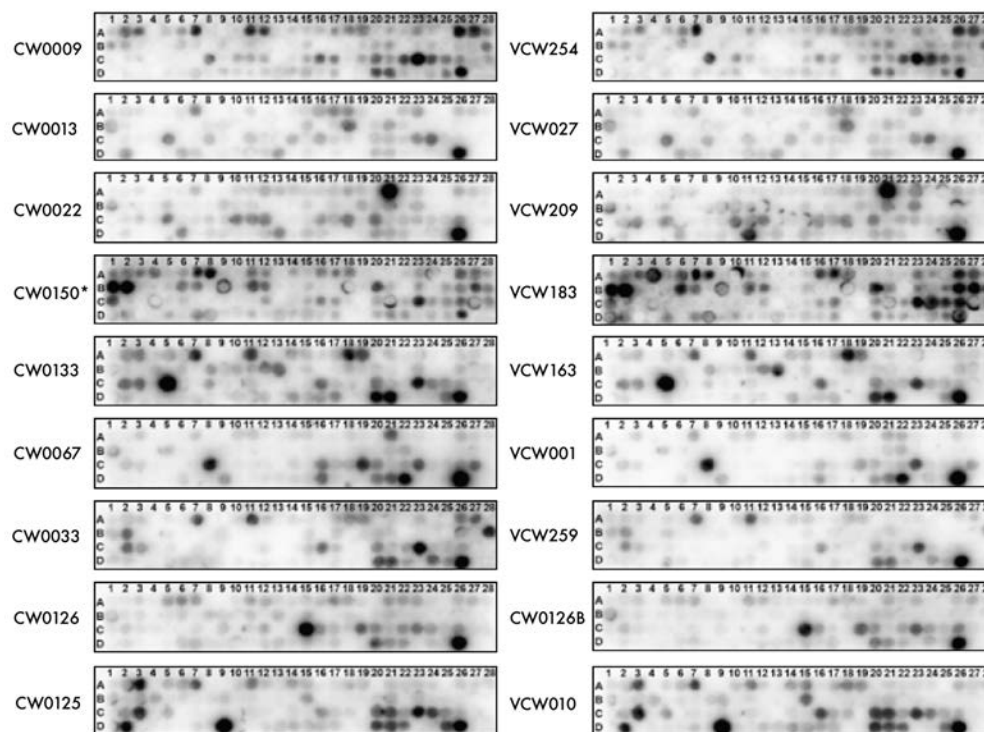




- Kinexus initially screened over 6000 fragments of all 29 proteins encoded by the SARS-CoV-2 Wuhan strain and then focused on 10 proteins
- Participants had very distinct individuals patterns of antibody specificity
- Pattern of antibody reactivity were stable for at least one year, and detectable even 2.5 years after initial symptoms of COVID-19

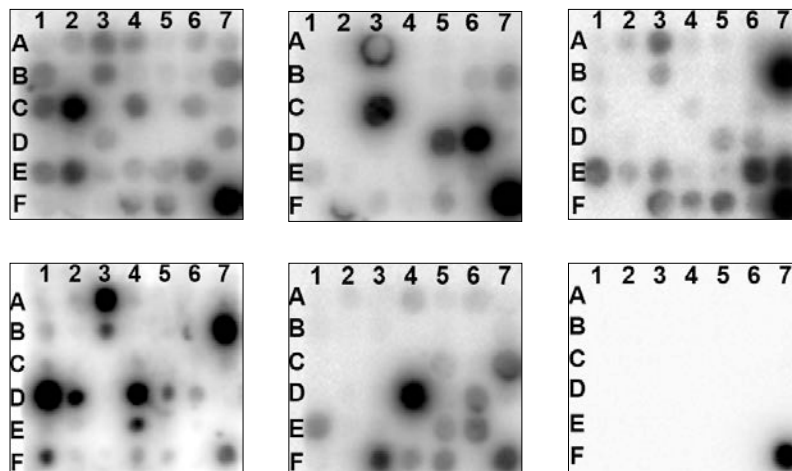
May-June, 2020
First Wave Early Pandemic

Feb. - March, 2021
Post-Second Wave





- Kinexus screen tracked antibodies against 111 or 41 parts of 10 of the SARS-CoV-2 proteins
- Fresh serum and dried blood spots samples were used
- **Over 90%** of participants had antibodies that recognized multiple SARS-CoV-2 proteins
- Note that many confirmed SARS-CoV-2 cases show little or no Nucleocapsid protein-directed antibodies. This is the target of most natural immunity testing



	1	2	3	4	5	6	7
A	S1		RBD			S1	
B	S1		S2				
C	S2						
D	Nucleocapsid			Membrane			
E	Nsp ₁	Nsp ₂	Nsp ₃			Nsp _{8,9}	
F	Nsp ₁₄		Nsp ₁₅		Orf ₃	IgG	



- In collaboration with the BC Childrens' Hospital and BCCDC, SARS-CoV-2 antibody testing of serum samples from 276 health adults was performed in May 17- June 19, 2020
 - **90%** of participants had antibodies that reacted with the Spike or Nucleocapsid proteins of SARS-CoV-2 with an independent test
 - These were confirmed with the Kinexus serological test for 10 of the
- ²⁰ SARS-CoV-2 proteins

The logo for JCI insight, with 'JCI' in a large, bold, white font and 'insight' in a smaller, white font, all on a dark green rectangular background.

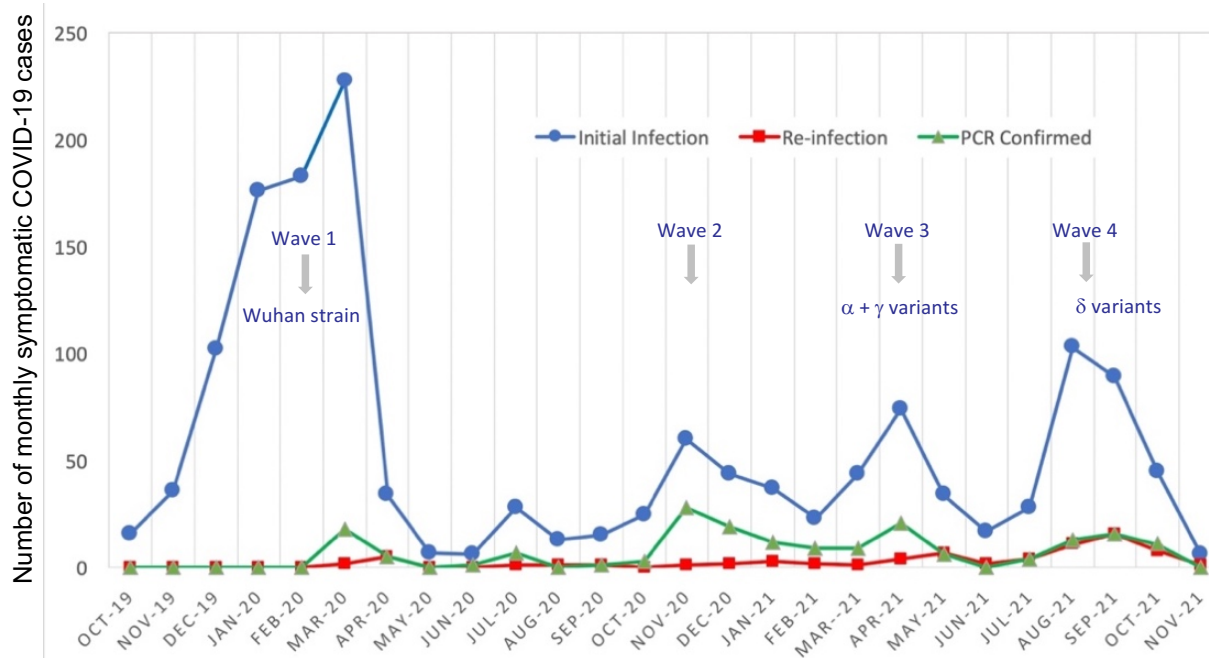
A majority of uninfected adults show preexisting antibody reactivity against SARS-CoV-2

Abdelilah Majdoubi,^{1,2} Christina Michalski,^{1,2} Sarah E. O'Connell,³ Sarah Dada,^{1,2} Sandeep Narpala,³ Jean Gelinas,^{4,5} Disha Mehta,^{4,6} Claire Cheung,^{1,2} Dirk F.H. Winkler,⁷ Manjula Basappa,³ Aaron C. Liu,^{1,2,8} Matthias Görge,^{1,6} Vilte E. Barakauskas,⁹ Mike Irvine,¹ Jennifer Mehalko,¹⁰ Dominic Esposito,¹⁰ Inna Sekirov,^{9,11} Agatha N. Jassem,^{9,11} David M. Goldfarb,^{1,2,12} Steven Pelech,^{7,13} Daniel C. Douek,³ Adrian B. McDermott,³ and Pascal M. Lavoie^{1,2}

JCI Insight. 2021;6(8):e146316. <https://doi.org/10.1172/jci.insight.146316>.



- Most clinical trial participants had their COVID-19-like symptoms prior April 2020, starting as early as October 2019
- The first wave in BC was likely one of the largest
- The wide-spread infection may have contributed to high natural immunity in BC





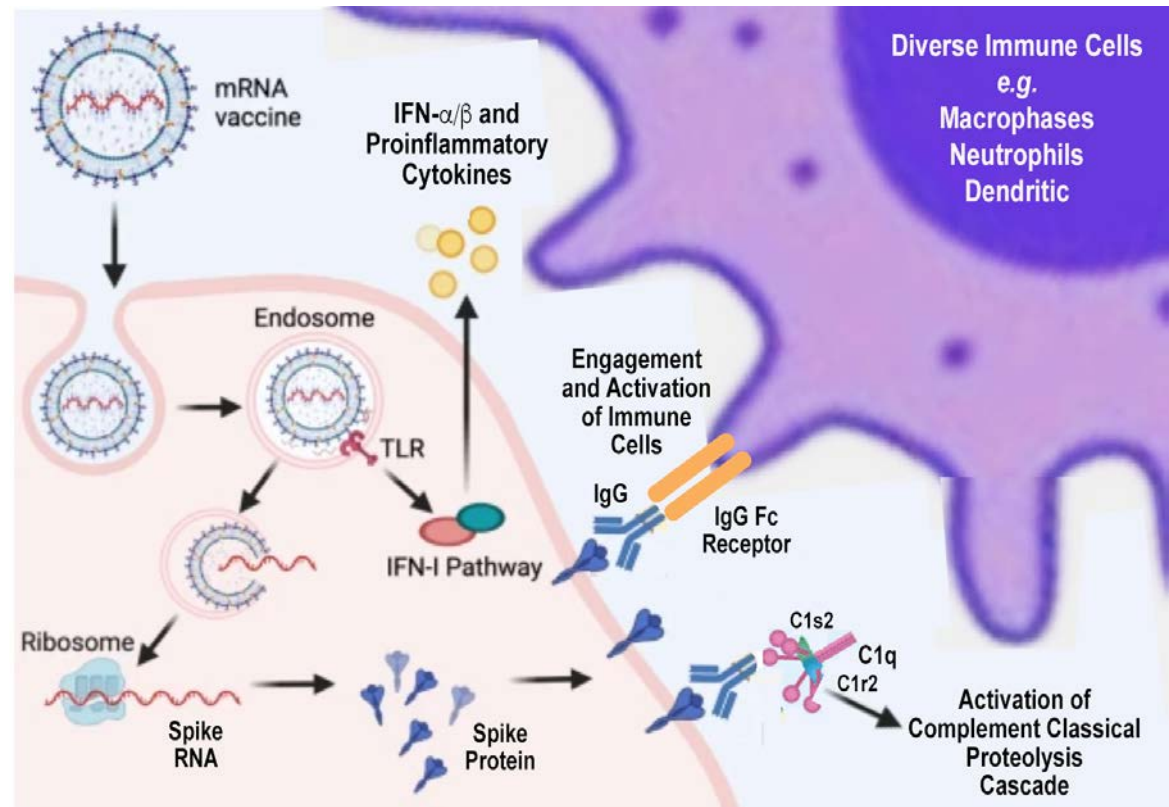
Natural Immunity Based on Nucleocapsid Antibody Detection

- In the United States, a recent seroprevalence study observed that about **75%** of US children that were tested had infection-induced antibodies following Omicron infection (Mallapaty, S. (2022) *Nature*. 605(7909):207-207. doi:10.1038/d41586-022-01231-y ; Clarke, K.E.N., Jones, J.M., *et al.* (2022) *MMWR Morb Mortal Wkly Rep.* 2022;71(17):606-608. doi:10.15585/mmwr.mm7117e3)
- In England, SARS-CoV-2 antibody testing of unvaccinated school pupils from Jan. to Feb. 2022, showed that **62.4%** and **97%** of primary and secondary students, respectively, were serologically positive for previous infection with the virus (<https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/datasets/covid19schoolsinfectionsurveyantibodydataengland>)
- The BCCDC indicates that at least **70-80%** of children ≤ 19 years, **60-70%** of adults 20-59, years, and **~40%** of adults ≥ 60 years had been infected with SARS-CoV-2 in British Columbia by August 2022 (Skowronski, D.M., Kaweski, S.E., *et al.* (2022) medRxiv. <https://www.medrxiv.org/content/10.1101/2022.09.09.22279751v1>)



COVID-19 RNA Vaccine Mechanism Action

- B-cells produce antibodies against potentially all proteins in the virus
- Antibodies are of the IgA and IgM class and secreted in airway spaces and lungs at site of initial infection of a respiratory virus
- IgG class antibodies predominate in blood circulation





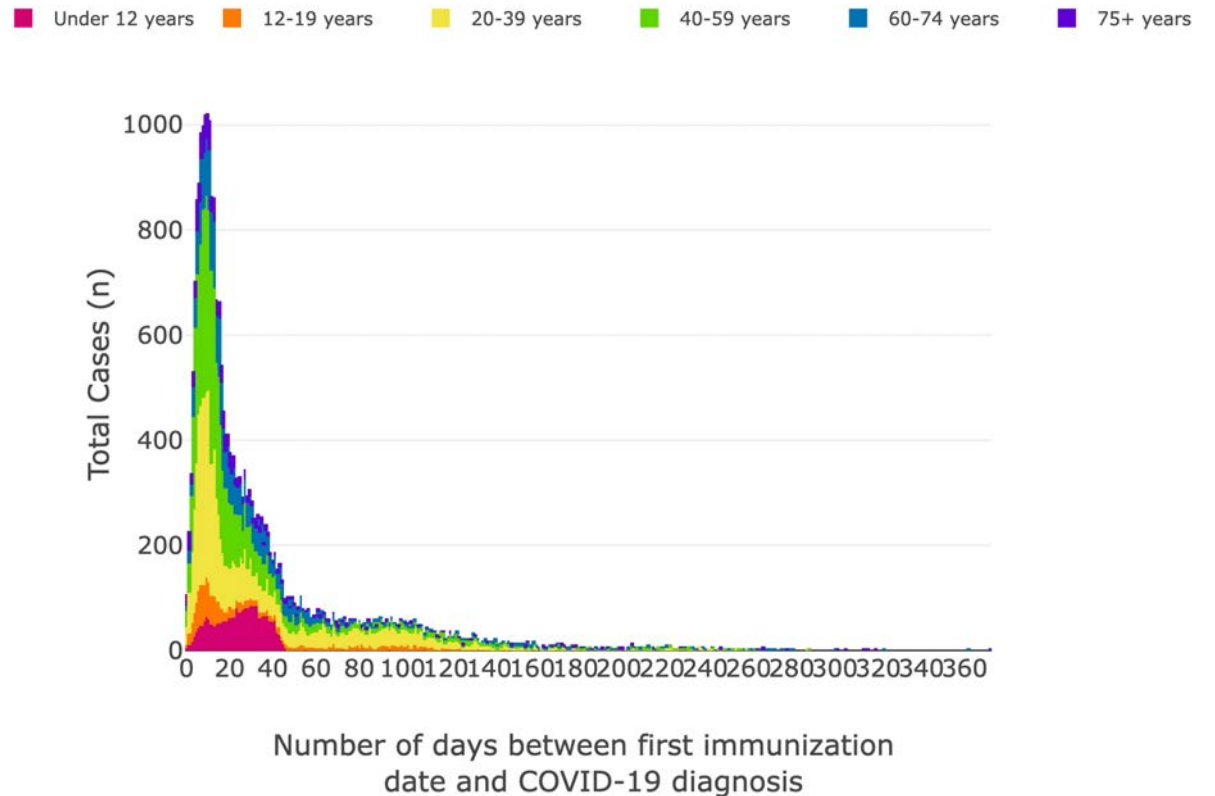
COVID-19 Vaccine Issues – Poor Lasting Efficacy

- It is now widely accepted that COVID-19 vaccination:
 - **Does not prevent infection** with SARS-CoV-2
 - **Does not prevent transmission** of the virus; viral loads in vaccinated and unvaccinated people with COVID-19 is equivalent
- **Reduction of severity** of COVID-19 with vaccination has **not** been proven in clinical studies
- In 2022, **about 85%** of COVID-19 cases were in vaccinated Canadians, and when adjusted per capita, there were no longer very significant differences between unvaccinated and double vaccinated people in this regard, and there were similar rates of hospitalization



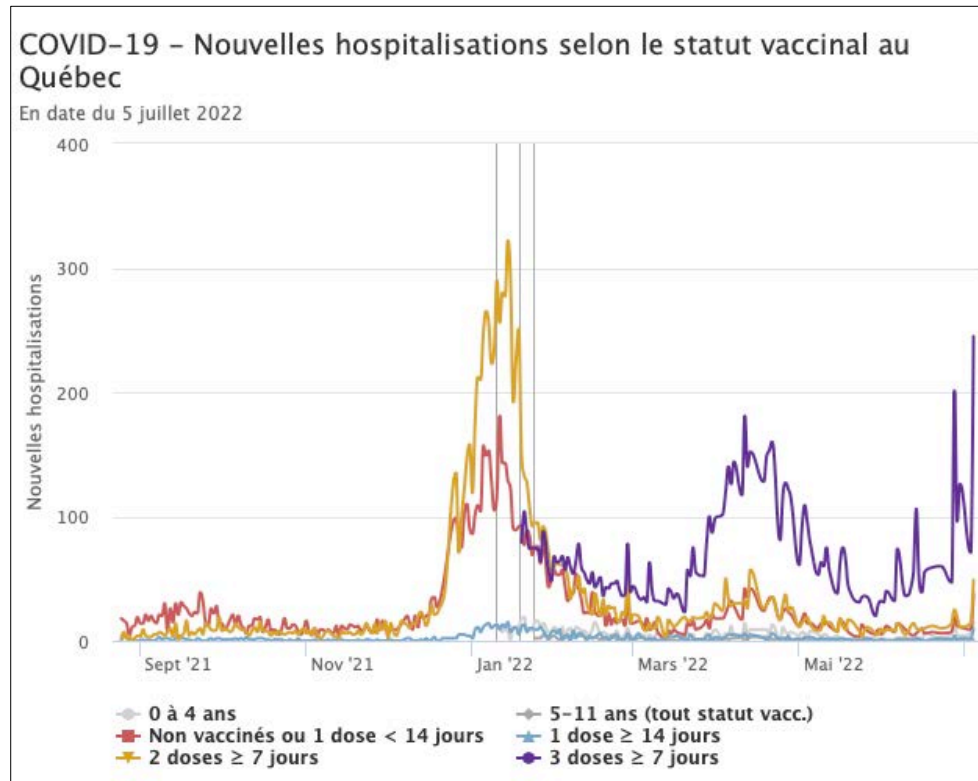
COVID-19 Vaccine Issues – Increased Risk of Infection

- Immediately after the first vaccination, the risk for SARS-CoV-2 infection actually increases in the first week
- The COVID-19 statistics provided on the Alberta Health Website:
<https://www.alberta.ca/statistics/covid-19-alberta-statistics.htm>
Sourced January 11, 2022





COVID-19 Vaccine Issues – Increased Risk of Infection



- Quebec hospitalization data, showing a higher frequency of hospitalization in boosted patients
- https://vaccintrackerqc.ca/cas_et_hospitalisations/#selon-le-statut-vaccinal



COVID-19 Vaccine Issues in Children

- The COVID-19 RNA vaccines are poorly effective in 5 to 11 years old children
- 74,208 tested children and adolescents aged 5 to 11 years at 6,897 sites across the US
- Among children + adolescents, the estimated vaccine effectiveness for 2 doses of the Pfizer-BioNtech COVID vaccine decreased rapidly + in fact had **negative efficacy after 4.5 months** in 5-11 year olds
- Efficacy was **60.1%** one month after second dose, and **28.9%** after two months

Original Investigation

May 13, 2022

Association of Prior BNT162b2 COVID-19 Vaccination With Symptomatic SARS-CoV-2 Infection in Children and Adolescents During Omicron Predominance

Katherine E. Fleming-Dutra, MD¹; Amadea Britton, MD^{1,2}; Nong Shang, PhD¹; [et al](#)

[» Author Affiliations](#) | [Article Information](#)

JAMA. 2022;327(22):2210-2219. doi:10.1001/jama.2022.7493



COVID-19 Vaccine Issues in Children

- The COVID-19 RNA vaccines are poorly effective in 5 to 11 year-olds
- The efficacy of COVID-19 vaccines in 365,502 fully-vaccinated children 5-11 years in New York State during the peak of Omicron infections was only **12%** after 5 weeks

medRxiv
THE PREPRINT SERVER FOR HEALTH SCIENCES



BMJ Yale

Effectiveness of the BNT162b2 vaccine among children 5-11 and 12-17 years in New York after the Emergence of the Omicron Variant

Vajeera Dorabawila, Dina Hoefler, Ursula E. Bauer, Mary T. Bassett, Emily Lutterloh, Eli S. Rosenberg

doi: <https://doi.org/10.1101/2022.02.25.22271454>



COVID-19 Vaccine Issues in Children

- COVID-19 RNA vaccines are poorly effective in 2 to under 5 years old children

Efficacy Endpoint	2 to <5 Years				
	Time Period Vaccinated (Median)	BNT162b2 3 µg #Cases (#Participants)	Placebo #Cases (#Participants)	Vaccine %RRR	Vaccine %ARR
First COVID-19 occurrence after Dose 1		127 (1673)	92 (834)	31.2	3.44
Dose 1 to before Dose 2	16 weeks	21 (1673)	8 (834)	-30.9	-0.3
Dose 2 to <7 days after Dose 2	1 week	4 (1639)	5 (819)	60	0.37
≥7 Days after Dose 2 to before Dose 3	11 weeks	100 (1630)	74 (814)	32.5	2.96
Dose 3 to <7 days after Dose 3	1 week	0 (553)	0 (222)	N.E.	0
≥7 Days after Dose 3	4 weeks	2 (481)	5 (209)	82.6	1.98

Based on Table 20 - Pfizer Report to FDA



- Difference between the vaccinated and unvaccinated groups was three children!
- Efficacy beyond a month was not tracked



COVID-19 Vaccine Issues in Infants

- COVID-19 RNA vaccines are poorly effective in 6 month old babies to under 2 years old children

Efficacy Endpoint	6-23 Months				
	Time Period (Median)	BNT162b2 3 µg #Cases (#Participants)	Placebo #Cases (#Participants)	Vaccine %RRR	Vaccine %ARR
First COVID-19 occurrence after Dose 1		98 (1027)	58 (524)	14	1.53
Dose 1 to before Dose 2	3 weeks	13 (1027)	5 (524)	-32.7	-0.31
Dose 2 to <7 days after Dose 2	1 week	3 (1002)	3 (517)	43	0.28
≥7 Days after Dose 2 to before Dose 3	16 weeks	80 (998)	48 (512)	14.5	1.36
Dose 3 to <7 days after Dose 3	1 week	1 (336)	0 (147)	N.E.	-0.3
≥7 Days after Dose 3	4 weeks	1 (277)	2 (139)	74.9	1.08



Based on Table 19 - Pfizer Report to FDA

RRR = Relative Risk Reduction

ARR = Absolute Risk Reduction

N.E. = Not estimable

- Difference between the vaccinated and unvaccinated groups was a single infant!
- Efficacy beyond a month was not tracked



COVID-19 Vaccine Issues – Reduced Natural Immunity

- Prior vaccination appears to reduce subsequent natural immunity following a SARS-CoV-2 infection
- Moderna's 30,000-participant study of persons 18 years or older for its RNA vaccine has indicated that subsequent production of antibodies against the Nucleocapsid protein of SARS-CoV-2 was evident in only **40% of previously vaccinated** participants with COVID-19 compared to **93% of non-vaccinated** participants that acquired COVID-19
- Even a non-vaccinated person with a mild case of COVID-19 had a **71%** chance of showing Nucleocapsid antibodies in their blood compared to a **15%** chance with a vaccinated person that recovered from mild COVID-19.

Follmann, D. *et al.* (2022) medRxiv 2022.04.18.22271936
doi: <https://doi.org/10.1101/2022.04.18.22271936>).



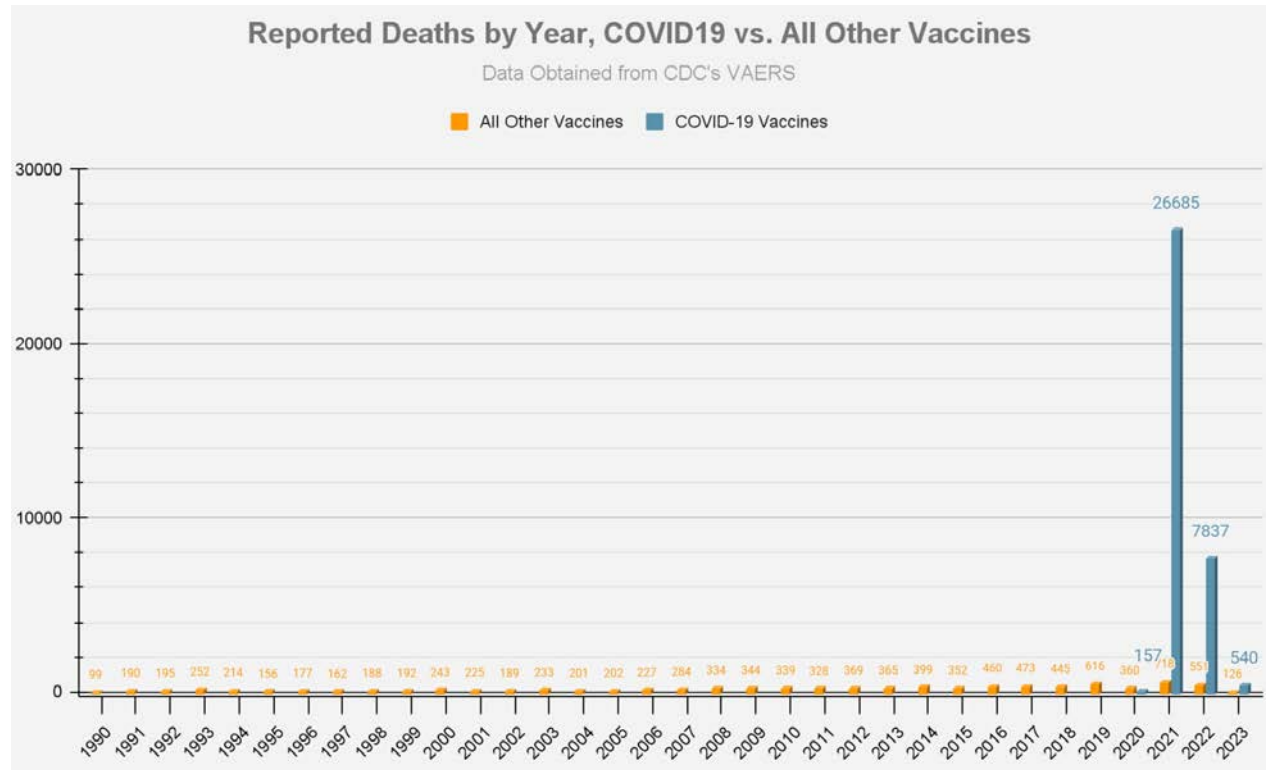
COVID-19 Vaccine Safety Issues

- The RNA- and adenovirus-based COVID-19 vaccines remain highly experimental, with the efficacy and safety phase III trial still ongoing until the summer of 2023
- These vaccines work by initiating an immune attack against any tissues that takes up these vaccines and produce the Spike protein on their surfaces
- Tens of trillions of lipid nanoparticles are injected per inoculum (traditional vaccine contain 50 to a few thousand copies of attenuated viruses or bacteria)
- Each nanoparticle has 5-10 copies of the Spike gene
- Hundreds of Spike proteins may produced from each modified RNA gene
- Repeated inflammatory attacks against one's own tissues, as might occur from booster shots of the vaccines, is a recognized mechanism to trigger or exacerbate autoimmune diseases such as Type 1 diabetes, lupus, arthritis, colitis, MS and Alzheimer's



COVID-19 Vaccine Safety Issues

- US Vaccine Adverse Event Reporting System (VAERS) tracks vaccine injury for 31 years and covers over 80 vaccines previous to the COVID-19 vaccines
- <https://vaersanalysis.info/2023/04/28/vaers-summary-for-covid-19-vaccines-through-4-21-2023/>





COVID-19 Vaccine Safety Issues

- For the three COVID-19 vaccines available in the US (AstraZeneca Vaxzevria was not approved), the following findings in VAERS were found:
 - More than 69% of all serious adverse effects and 77% of deaths ever reported in VAERS were associated with the COVID-19 vaccines
 - As of April 14, 2023, there have been over **1,547,355** adverse events linked with the COVID-19 vaccines, **197,564** hospitalizations, of which **149,580** required urgent care and **35,152** ended in death. (<https://www.openvaers.com/covid-data>)
- VAERS data under reports actual cases by 10- to 41-fold
- Significant serious injuries also noted in the UK Yellow Card system (1,471,106 adverse events and **2,061 ended in death** by March 9, 2022); and European Medicines Agency (407,248 adverse events and **5,201 ended in death** by July 4, 2021)



COVID-19 Vaccine Safety Issues

- **VigiAccess listing of vaccine adverse events (AE) associated with the most commonly used vaccines**
- **World Health Organization. (2022, April 15) VigiAccess - WHO collaborating center for international drug monitoring.
<http://vigiaccess.org/>
Searched with "Comirnaty"**

Disease Targeted	# Total AE	Since Year	# AE since 2021	Rate*
COVID-19	4,002,925	2021	4,002,925	78,489X [∞]
Influenza	286,069	1968	27,051	530X
Polio	125,888	1882	11,608	228X
Hepatitis B	107,196	1985	4242	83X
BCG for TB	37,574	1973	2046	40X
Tetanus	15,478	1968	804	16X
Measles	6,250	1968	553	11X
Diphtheria	1,915	1979	51	1X

*Rate verses Diphtheria vaccine AE since 2021

[∞] 148 times the rate of Influenza vaccine AE during same period



COVID-19 Vaccine Safety Issues

- In the original 6 month Pfizer-BioNTech Comirnaty Phase III clinical trial with 44,165 participants, there was:
 - a 300% increase in adverse reactions in the vaccinated group compared to the placebo control group, and an 75% increase in serious injury; and
 - 20 deaths in the vaccinated group and 16 in the placebo control group (Thomas *et al.* (2021) *N Engl J Med.* 385:1761-1773)
- The first instalment of US court ordered release of over 350,000 pages of injury reports post-approval of the Pfizer vaccine covering up to February 28, 2020 documents at least 1,236 different diseases that have been linked to the Pfizer product and 1,223 deaths (<https://phmpt.org/wp-content/uploads/2021/11/5.3.6-postmarketing-experience.pdf>)



COVID-19 Vaccine Safety Issues - Fertility

- The ovaries represent one of the major sites for accumulation of vaccine lipid nanoparticles in rats (https://pandemictimeline.com/wp-content/uploads/2021/07/Pfizer-report_Japanese-government.pdf)
- Over 40% of fertile women experience prolonged and/or heavier bleeding during their periods following vaccination (<https://obgyn.onlinelibrary.wiley.com/doi/10.1002/ijgo.14356> ; <https://www.science.org/doi/10.1126/sciadv.abm7201>)
- Men experience approximately a 15% drop in their sperm cell counts following vaccination, which takes 3- 6 months to recover (<https://onlinelibrary.wiley.com/doi/10.1111/andr.13209>)



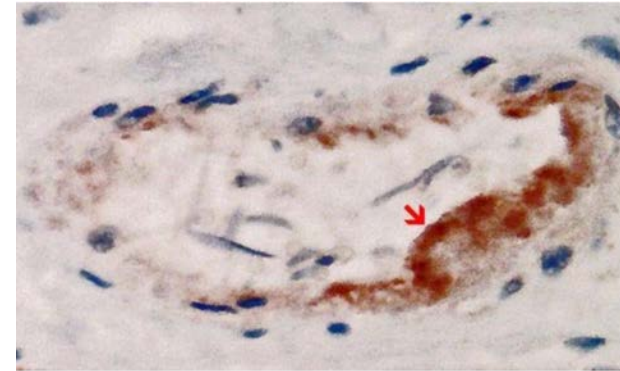
COVID-19 Vaccine Safety Issues – Myocarditis and Myopericarditis

- Among the various concerns associated with the Pfizer vaccine is a 1:5181 risk of symptomatic myocarditis in males between 18 to 24 years of age after their second inoculation (https://www.publichealthontario.ca/-/media/documents/ncov/epi/covid-19-aefi-report.pdf?sc_lang=en)
- With the Moderna vaccine, the risk of symptomatic myocarditis or myopericarditis in males between 18 to 29 years of age after their second inoculation was 1:1910 (Naveed *et al.* (2022) *CMAJ* 194:E1529-36. doi: 10.1503/cmaj.220676)
- For every case of symptomatic myocarditis, there may be 3 asymptomatic cases
- In a Thailand with 301 13 to 18 year-olds who received the second dose of the BNT162b2 mRNA COVID-19 vaccine, 29% had cardiovascular effects from tachycardia, palpitation, and myopericarditis. (Mansanguan *et al.* (2022) *Trop. Med. Infect. Dis.* 7, 196. *Trop. Med. Infect. Dis.* 2022, 7, 196. doi: 10.3390/tropicalmed7080196)

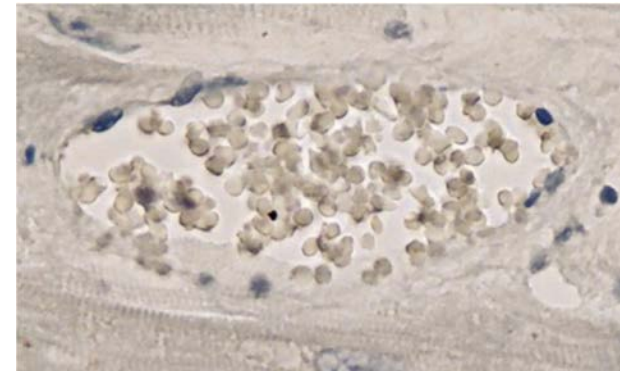


COVID-19 Vaccine Safety Issues

- Case study of 76 year-old patient with Parkinson's disease that died 3 weeks after third COVID-19 vaccination
- Spike protein but not nucleocapsid protein was produced in the heart left ventricle as shown by immunohistochemistry
(<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9611676/pdf/vaccines-10-01651.pdf>)



Anti-spike antibody detection

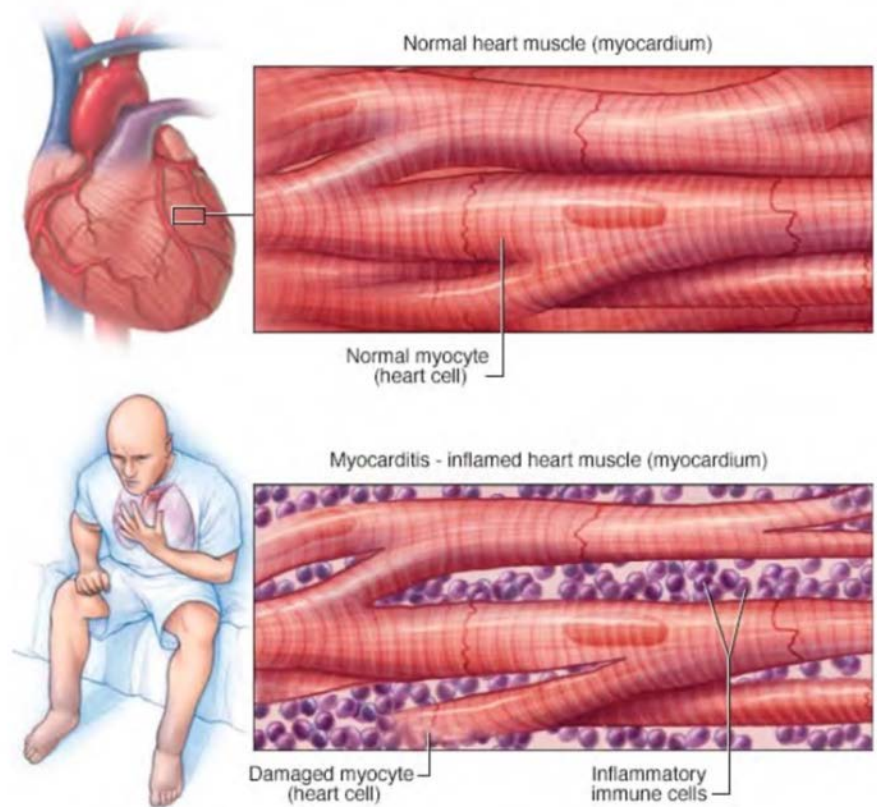


Anti-nucleocapsid antibody detection



COVID-19 Vaccine Safety Issues - Myocarditis

- With viral symptomatic myocarditis, there is a lethality rate of 20% within 6 years (<https://jcmr-online.biomedcentral.com/articles/10.1186/1532-429X-13-S1-M7>)
- Myocarditis is an example of an inflammatory attack on heart muscle cells by the body's own immune system, which causes permanent loss of these cells

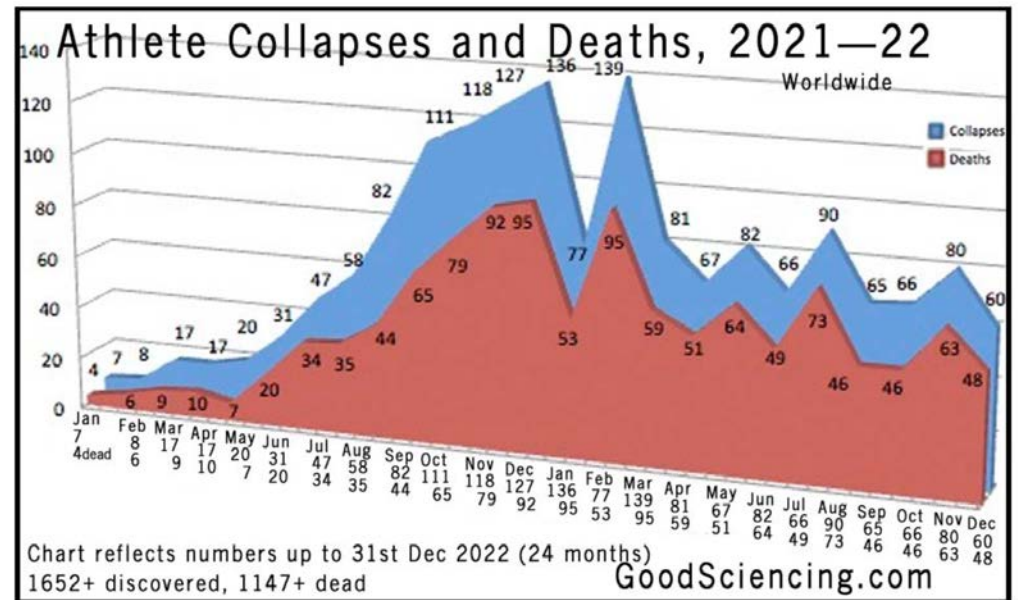


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Athlete Collapses and Deaths – January 2021 – December 2022

- The data sets are under-reported as there has been minimal reporting in the mainstream news regarding athletes collapsing and/or deaths related to the COVID-19 vaccines. In the last 2 years, there have been at least 1676 athlete cardiac serious issues with 1179 deaths reported, which is about 10 times the historical annual average.



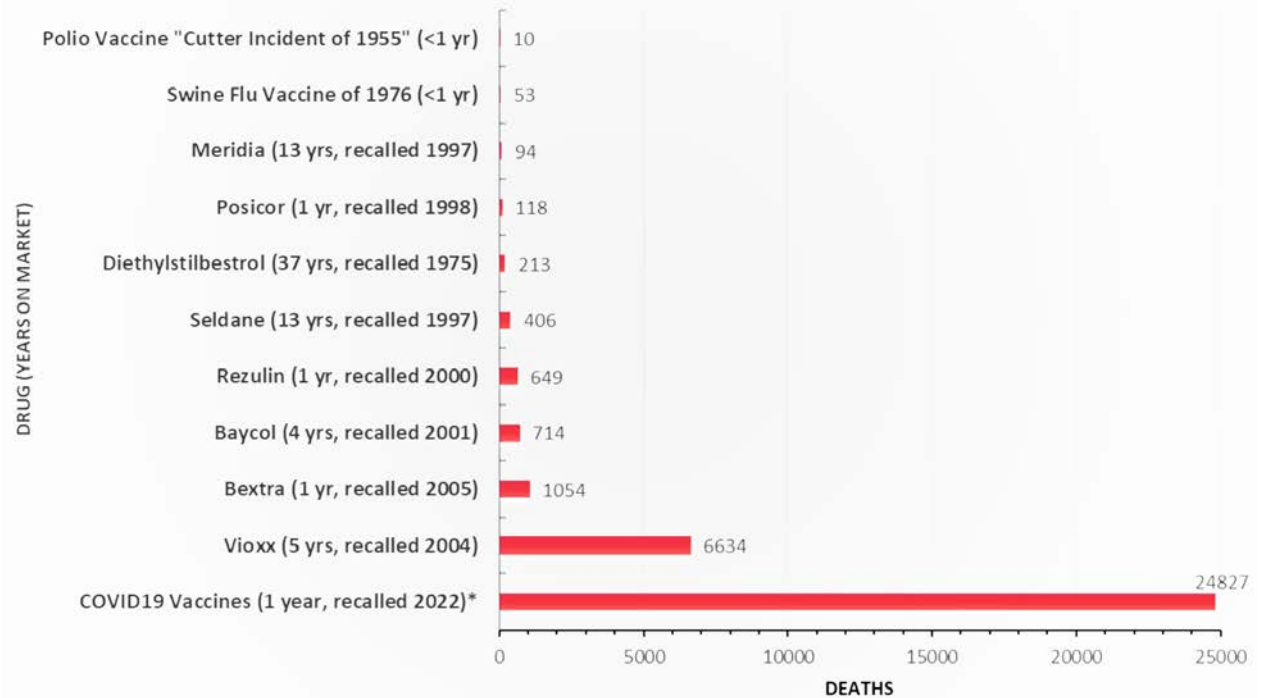


COVID-19 Vaccine Safety Issues

- Reported deaths for major drug/vaccine recalls. Data obtained from VAERS and FAERS.
- Sourced from <https://vaersanalysis.info/2021/07/02/using-the-recall-history-of-fda-cdc-as-context-for-the-covid-19-vaccines/>

REPORTED DEATHS FOR MAJOR DRUG RECALLS

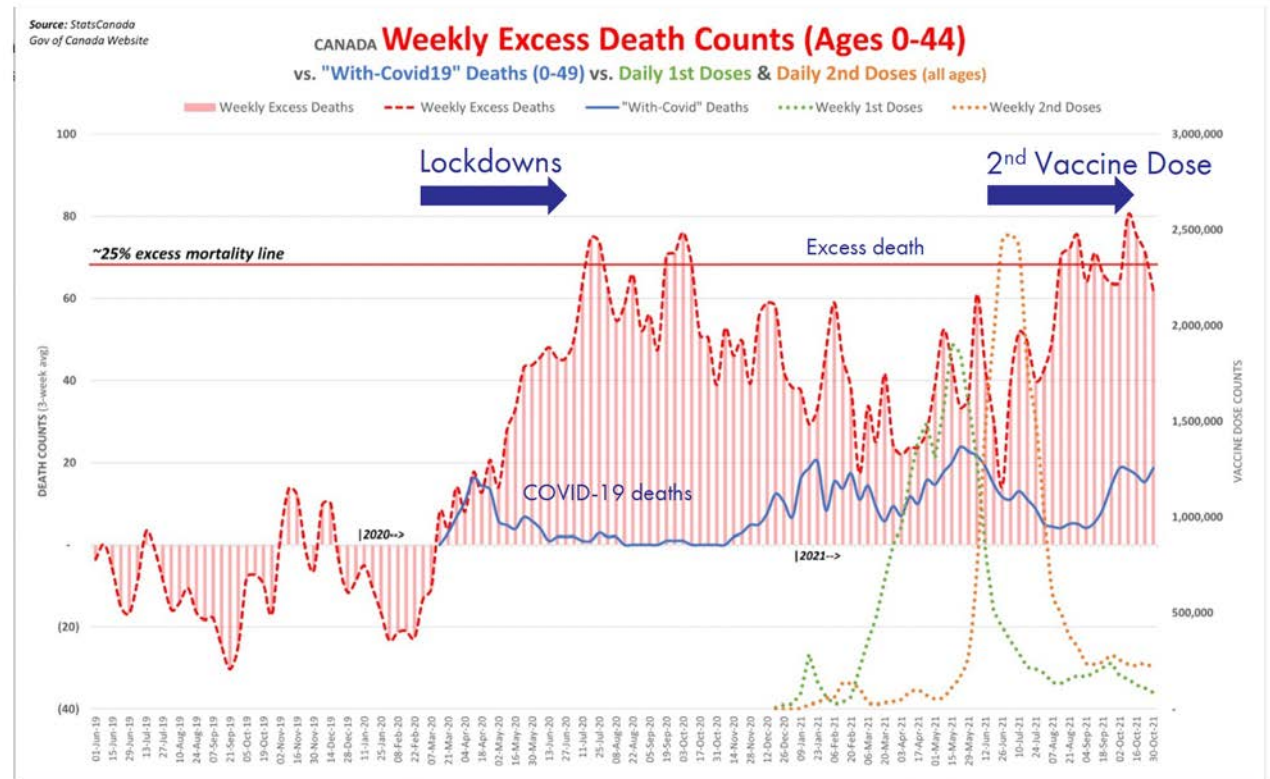
(source: FAERS/VAERS as of 2/25/21)





COVID-19 Vaccine Safety Issues – All Cause Mortality

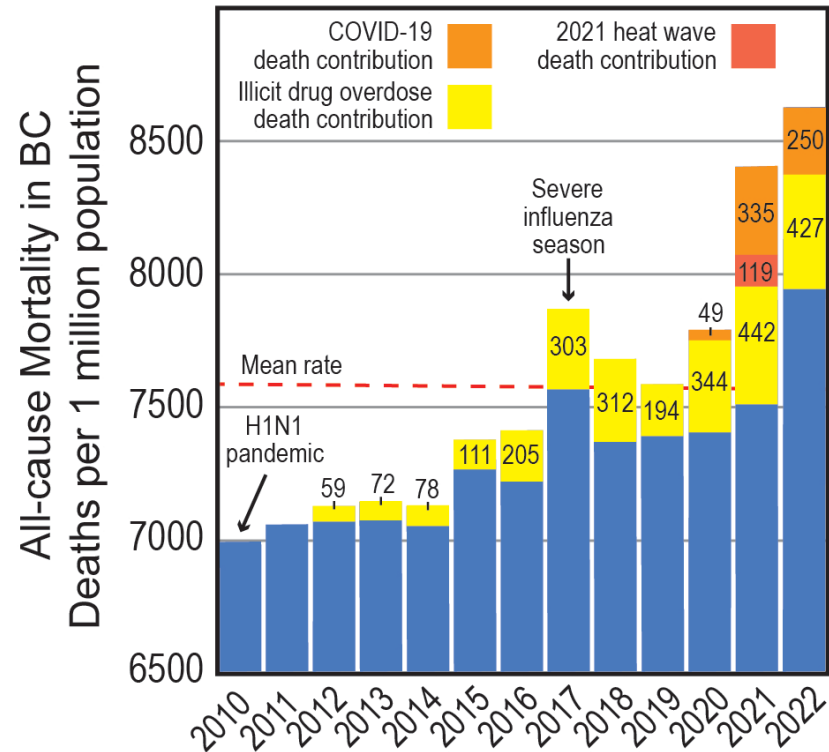
- Concerns regarding increased death associated with COVID-19 vaccines are becoming more widespread
- An analysis of all cause mortality rates among Canadians aged 0 to 44 years showed a jump in excess deaths after both initiation of lockdowns and after administration of the second COVID-19 dose.





COVID-19 Vaccine Safety Issues – All Cause Mortality in BC

- All cause mortality increased in British Columbia in 2021 and 2022 (Data sourced from https://bccdc.shinyapps.io/Mortality_Context_ShinyApp/ and <https://www2.gov.bc.ca/gov/content/lifeevents/death/coroners-service/statistical-reports> (retrieved February 24, 2023))

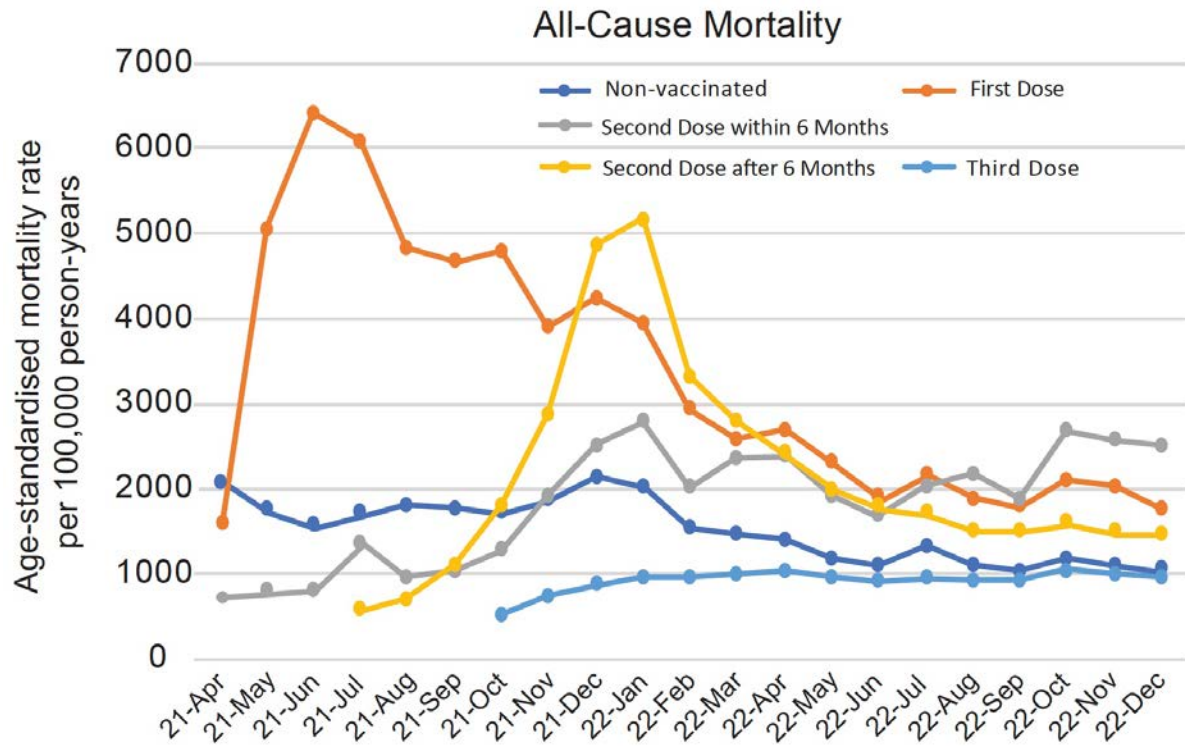




COVID-19 Vaccine Safety Issues – All Cause Mortality in UK

- All cause mortality increased in England in 2021 and 2022

(Data source from Deaths occurring between 1 April 2021 and 31 December 2022 edition. <https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/datasets/deathsbyvaccinationstatusengland> (retrieved April 1, 2023))





Canadian Reaction to COVID-19 Vaccines

- Cumulative number and percentage of people in Canada who have received a COVID-19 vaccine by age group and vaccination status, January 1, 2023

Age group (years)	At least 1 dose	Primary series completed	In the last 6 months, primary series completed or booster dose received
0 to 4	9.6%	5.6%	5.2%
5 to 11	51.6%	40.3%	6.8%
12 to 17	83.7%	79.3%	8.8%
18 to 29	85.1%	82.9%	7.3%
30 to 39	87.0%	85.1%	11.5%
40 to 49	89.5%	88.1%	15.0%
50 to 59	90.2%	89.3%	21.2%
60 to 69	94.5%	93.4%	34.2%
70 to 79	97.6%	96.6%	45.0%
80 and older	≥99%	≥99%	45.5%



International Reaction to COVID-19 Vaccines

- Many countries no longer recommend and/or offer COVID-19 vaccines for children and in many cases adults:
 - **Australia** (Under 18 yr - <https://www.health.gov.au/our-work/covid-19-vaccines/advice-for-providers/clinical-guidance/clinical-recommendations>)
 - **Denmark** (Under 50 yr - <https://www.msn.com/en-in/money/topstories/covid-19-denmark-currently-not-offering-booster-shots-to-those-under-50/ar-AA11TTwi>)
 - **Finland and Sweden** (<https://www.reuters.com/world/europe/finland-pauses-use-moderna-covid-19-vaccine-young-men2021-10-07/>)
 - **France** (Under 30 yr - <https://www.france24.com/en/live-news/20211109-france-advises-against-moderna-for-under-30s-over-rare-heart-risk>)
 - **Switzerland** (Anyone without doctor referral - <https://www.bag.admin.ch/bag/en/home/krankheiten/ausbrueche-epidemien-pandemien/aktuelle-ausbrueche-epidemien/novel-cov/impfen.html#21889874>)
 - **United Kingdom** (Under 50 yr - <https://www.gov.uk/government/publications/covid-19-vaccination-programme-for-2023-jcvi-interim-advice-8-november-2022/jcvi-statement-on-the-covid-19-vaccination-programme-for-2023-8-november-2022>)