Shedding of mRNA Spike “Gene Therapy” Shots

Postulated Mechanisms

MORTALITY Outcomes

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- **Discovered the HERV-K102 mediated TRAINED INNATE IMMUNITY "virus anti-virus PROTECTOR system" that launches in foamy macrophages while the Research Manager of the Blood Zoonotics Unit, at the Public Health Agency of Canada (PHAC) ***
- **Author of the 2015 New Immunosenescence Paradigm of Macrophages (ISM) (how illness relates to stress/aging in foamy macrophages) ***
- **Over 25 years of Clinical Experience in the Prevention and Reversion of ISM with Alpha-fetoprotein (AFP) Antagonists (Nutritional Natural Products)**
- **Producer/editor of the famous Health Canada's "November 1997 - National Forum on Xenotransplantation - Clinical, Ethical and Regulatory Issues" https://publications.gc.ca/site/fra/9.686126/publication.html; and other xenotransplantation safety initiatives see https://publications.gc.ca/collections/collection_2024/sc-hc/H14-539-2010-eng.pdf**

*** Overview:** **Laderoute, M.** Antibody Dependent Enhancement (ADE) of Infection into Macrophages Validates the Importance of HERV-K102 Particle Production for Pandemic Preparedness. ***Preprints*** **2023**, 2023120185. https://doi.org/10.20944/preprints202312.0185.v1

https://www.biorender.com/icon/coronavirus-s-spike-glycoprotein

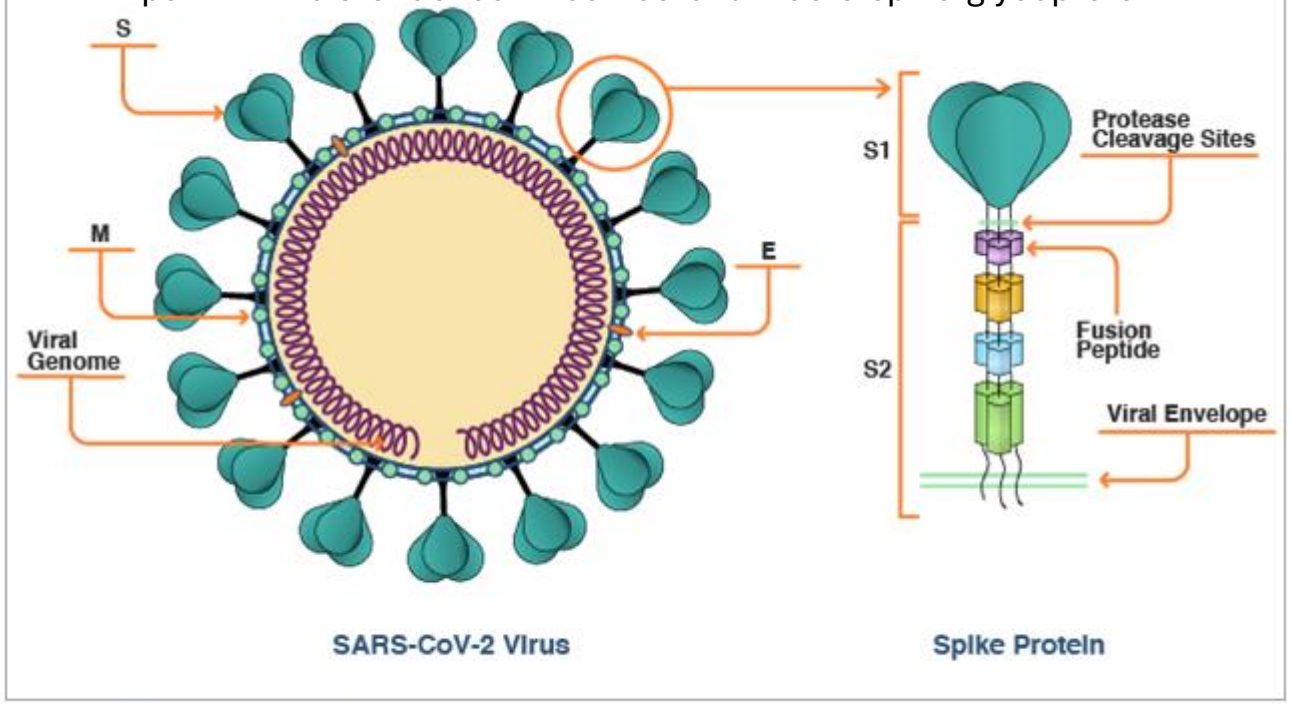
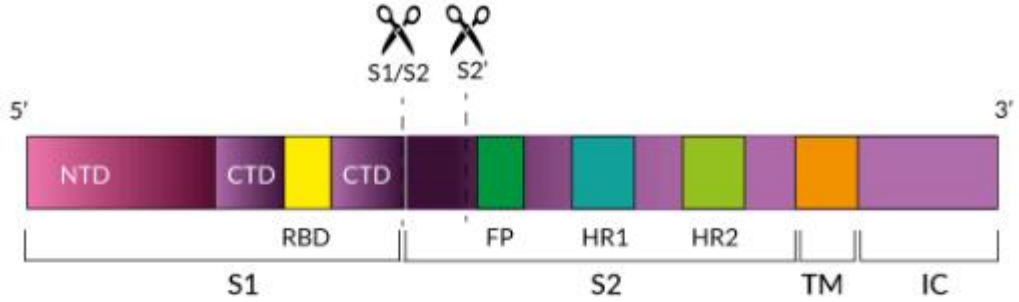
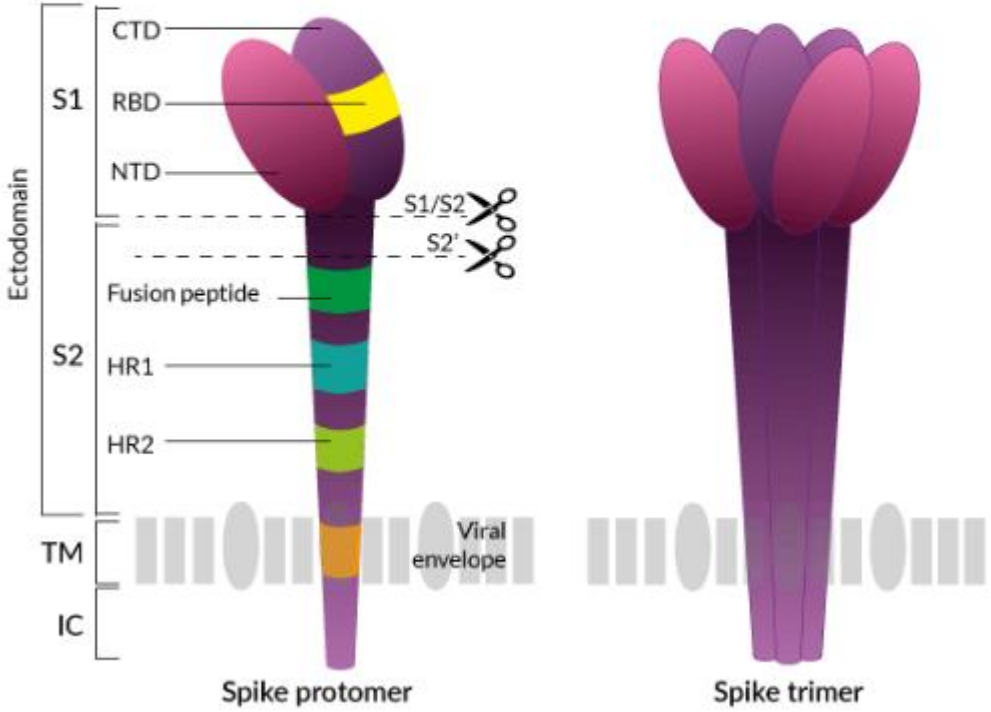


Figure 1: Viral spike protein structure

The pathology of SARS-CoV-2 and COVID-19 mRNA gene therapy shedding is all about the spike protein.





https://www.invivogen.com/sars2-spike

There is the outer N-terminal domain called S1 which is often cleaved (from the natural spike protein but not the vaccinal spike) and the inner C terminal domain comprised of S2 that is embedded into the outer membrane layer of the virion or cell.

As discussed in this paper

Banoun H. mRNA: Vaccine or Gene Therapy? The Safety Regulatory Issues. **Int J Mol Sci. 2023 Jun 22**;24(13):10514. doi: 10.3390/ijms241310514.

According to European regulations, vaccines are products capable of producing active immunity [17] and contain antigens capable of inducing active immunity against an infectious agent [4]. According to the EMA [11], the active substance of the COVID-19 Pfizer vaccine is mRNA: it is not an antigen. Therefore, according to the European and French pharmacopoeias, mRNAs should not be considered as vaccines because they do not contain antigens.

TAKEHOME MESSAGE:

'**Shedding** and **genomic integration** are **the** major issues with gene therapy and must be adequately studied before THESE PRODUCTS hit the market. In the case of EUA, the onus was on CDC/FDA/EMA/Big Pharma **to report publicly on the above ongoing VACCINE surveillance studies including safety and effectiveness in real time**, which **was not done**.'

Unbelievably, in the whole world, only the United Kingdom (UK) Office for National Statistics has linked the citizens' death records to COVID-19 vaccination records to allow proper evaluation of the safety and effectiveness of the COVID-19 mRNA vaccines.

In the UK, the Pfizer-BioNTech BNT162b2 COVID-19 mRNA gene therapy shot was primarily used.

From these records, one could estimate the impact of BNT162b2 shedding on mortality. Here's how.

Initial Evidence that Vaccination was Co-ordinating the Non-C-19/C19 Ratio in the Unvaccinated

Why would the non-C19/C19 peak ratios in the unvaxed co-ordinate with that which occurs in the vaxed????

ONS England Datasets
Released 25 August 2023
and 6 July 2022.

https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/datasets/deathsbyvaccinationstatusengland

Did the relative ratio death rates of Non-COVID-19 to COVID-19 MRs in the Unvaccinated reflect shedding in the UK ONS data?

	Variants (Our World in Data)	Approximate date of when 45 % of the 65 to 74 Age Group were vaccinated		Non-C19/C19 Mortality RATES* VAXED (A)	Non-C19/C19 Mortality RATES* UNVAXED (B)	All-Cause Mortality Rates ACM Vax/Non-Vax Ratio	Mortality Rates (MRs) per 100,000 person-years VAXED non-C19	VAXED C19	VAXED non-C19/C19 ratio	UNVAXED non-C19	UNVAXED C19	UNVAXED non-C19/C19 ratio
2021			Jan	1.28	1.11	1.39	1958	1526	1.28	1320	1187	1.11
		1st dose: Feb 10 2021	Feb	5.89	1.42	0.61	2689	456.8	5.89	3087	2174	1.42
			Mar	13.77	4.59	1.27	3909	283.9	13.77	2716	591.9	4.59
		2nd dose: Apr 28, 2021	Apr	26.39	14.77	2.19	4855	184.0	26.39	2153	145.8	14.77
	Delta		May	99.72	36.77	4.99	8426	84.5	99.72	1673	45.5	36.77
			Jun	113.07	27.59	6.33	9916	87.7	113.07	1534	55.6	27.59
			Jul	44.29	6.38	6.40	9960	224.9	44.29	1392	218.2	6.38
			Aug	23.00	3.23	6.04	9266	402.9	23.00	1307	404.2	3.23
			Sep	15.16	3.53	5.19	7884	520.2	15.16	1297	367.8	3.53
		3rd dose: October 28, 2021	Oct	20.83	4.04	7.67	11845	568.6	20.83	1302	322.3	4.04
			Nov	19.63	3.05	9.10	14155	721.0	19.63	1287	421.3	3.05
			Dec	13.82	2.61	9.04	15501	1121.9	13.82	1358	520.5	2.61
2022	Omicron BA.1		Jan	7.10	2.10	11.04	16417	2310.9	7.10	1227	584.6	2.10
	BA.1/BA.2		Feb	10.05	4.35	9.01	11346	1128.4	10.05	1126	258.7	4.35
	BA.2		Mar	12.37	5.71	8.33	9445	763.6	12.37	1048	183.5	5.71
			Apr	14.51	4.89	10.31	11622	800.8	14.51	1000	204.7	4.89
		Special Extra Booster offered to 75+/others&	May	30.23	10.24	9.45	7914	261.8	30.23	795	77.6	10.24
	BA.4/BA.5		Jun	47.97	16.63	8.00	8533	177.9	47.97	1028	61.8	16.63
			Jul	21.91	6.89	6.76	8128	371.0	21.91	1130	164.0	6.89
			Aug	25.43	10.35	5.86	6067	238.6	25.43	987	95.3	10.35
	BA.5		Sep	33.43	21.01	5.92	5833	174.5	33.43	968	46.1	21.01
		4th dose: 50% of 50+ on Oct 14, 2022 #	Oct	20.19	8.68	6.37	6828	338.2	20.19	1025	118.0	8.68
			Nov	25.84	17.19	6.41	6747	261.1	25.84	1024	59.6	17.19
	BQ.1		Dec	33.09	15.17	6.41	6009	181.6	33.09	963	63.5	15.17
		Average Rate per month 2022		23.51	10.27	8	8741	584	23.51	1027	160	10.27

To date, the ONS mortality rates by vaccination status have only been released up to **May 2023**.

While shedding would also impact deaths associated with COVID-19 infections, here we are only estimating the impact on non-COVID-19 (non-C19) deaths which underestimates the impact somewhat.

For the 29 months of data by vaccination status, the nadir (lowest non-C19 mortality rate per 100,000 person-years) was selected for the unvaccinated (UNVAXED = **795** in May 2022) and ever-vaccinated (VAXED = **1958** in January 2021).

The nadir MR for the unvaccinated (795) was subtracted from each of the monthly non-C19 MRs to yield the excess rates over background as shown on the right side of the Table 1.

For the ever–vaccinated, the nadir in January 2021 also had vaccination induced deaths (up to 21 days where the MR was 836.5). It was assumed that the number of shedding deaths in January 2021 was zero. This provided an estimate of other non-vaccination non-C19 MR of 1122. So 1122 was subtracted from the total non-C19 for the vaccinated leaving the excess. Then by knowing the vaccination MR under 21 days for each month, this allowed the ability to estimate the shedding mortality rates in the vaccinated.

TABLE 1.

ENGLAND ONS Data	Monthly Mortality Rates per 100,000 person-years							Excess Monthly Non-C19 Mortality Rates Over Nadir Background #				MR for Deaths not within 21 days of dose		Non-C19 deaths Mortality Rates within 21 days of any dose of vax			
		UNVAXED			VAXED			Excess Unvaxed		Excess VAXED				1st	2nd	3rd	4th
		non C19	C19	Non-C19/C19 ratio	Total Non-C19	C19	Non-C19/C19 ratio		Non-C19 MR minus 795 Nadir		Non-C19 MR minus 1122 Nadir	Putative Shedding Deaths Mortality Rate	Non-C19 Total Vax Related Deaths				
2021	Jan	1320	1187	1.11	1958	1526	1.28	Jan	525	Jan	836.5	0	836.5	592.8	243.7		
	Feb	3087	2174	1.42	2689	456.8	5.89	Feb	2292	Feb	1567	119.8	1447.2	802.6	644.6		
	Mar	2716	591.9	4.59	3909	283.9	13.77	Mar	1921	Mar	2787	390.9	2396.1	1878.9	517.2		
	Apr	2153	145.8	14.77	4855	184.0	26.39	Apr	1358	Apr	3733	1526	2207.3	1737.6	469.7		
	May	1673	45.5	36.77	8426	84.5	99.72	May	878	May	7304	4953	2351.2	1580.2	771.0		
	Jun	1534	55.6	27.59	9916	87.7	113.07	Jun	739	Jun	8794	5533	3260.8	1807.4	1453.4		
	Jul	1392	218.2	6.38	9960	224.9	44.29	Jul	597	Jul	8838	5918	2920.5	1071.3	1849.2		
	Aug	1307	404.2	3.23	9266	402.9	23.00	Aug	512	Aug	8144	5358	2786.5	1433.4	1353.1		
	Sep	1297	367.8	3.53	7884	520.2	15.16	Sep	502	Sep	6762	5058	1704.3	581.8	903.6	218.9	
	Oct	1302	322.3	4.04	11845	568.6	20.83	Oct	507	Oct	10723	6533	4190.4	1904.7	1895.8	389.9	
	Nov	1287	421.3	3.05	14155	721.0	19.63	Nov	492	Nov	13033	6896	6137.5	3386.9	2177.8	572.8	
	Dec	1358	520.5	2.61	15501	1121.9	13.82	Dec	563	Dec	14379	10484	3895.0	1327.4	1560.4	1007.2	
	Average Rate per month 2021	1702	538	3.16	8364	515	16.23	Average Rate per month 2021	907	Average Rate per month 2021	7242	4397	2844				
2022	Jan	1227	585	2.10	16417	2311	7.10	Jan	432	Jan	15295	9582	5713.0	2237.0	1823.2	1652.8	
	Feb	1126	259	4.35	11346	1128	10.05	Feb	331	Feb	10224	5149	5074.9	1898.6	1282.2	1894.1	
	Mar	1048	184	5.71	9445	764	12.37	Mar	253	Mar	8323	323	8000.0	4702.5	1081.4	1922.1	294.0
	Apr	1000	205	4.89	11622	801	14.51	Apr	205	Apr	10500	5473	5027.2	0	2705.9	1503.5	817.8
	May	795	78	10.24	7914	262	30.23	May	0	May	6792	683	6108.8	0	2753.8	2246.7	1108.3
	Jun	1063	63	16.87	12789	294	43.50	Jun	268	Jun	11667	8176	3490.9	0	0	2515.4	975.5
	Jul	1175	168	6.99	12660	787	16.09	Jul	380	Jul	11538	8481	3057.3	0	0	1936.8	1120.5
	Aug	1050	97	10.82	9598	276	34.78	Aug	255	Aug	8476	7464	1011.8	0	0	0	1011.8
	Sep	1033	46	22.46	9227	237	38.93	Sep	238	Sep	8105	7378	727.3	0	0	0	727.3
	Oct	1097	124	8.85	9783	515	19.00	Oct	302	Oct	8661	7964	696.7	0	0	0	696.7
	Nov	1129	65	17.37	9576	323	29.65	Nov	334	Nov	8454	7754	700.0	0	0	0	700.0
	Dec	1538	114	13.49	12489	388	32.19	Dec	743	Dec	11367	9929	1438.1	0	0	0	1438.1
	Average Rate per month 2022	1107	165	6.71	11072	674	16.43	Average Rate per month 2022	312	Average Rate per month 2022	9950	6530	3421				
2023	Jan	1315.4	121.9	10.79	10215.5	388.1	26.32	Jan	520	Jan	9094	7443	1650.9	0	0	0	1650.9
	Feb	1177.1	82.9	14.20	7601.3	266.7	28.50	Feb	382	Feb	6479	4777	1702.4	0	0	0	1702.4
	Mar	1072.7	96.2	11.15	5659.1	328.8	17.21	Mar	278	Mar	4537	4537	0	0	0	0	0
	Apr	1023.8	82.8	12.36	5263.5	222.5	23.66	Apr	229	Apr	4142	4142	0	0	0	0	0
	May	901.6	46.1	19.56	4696.0	82.1	57.20	May	107	May	3574	3574	0	0	0	0	0
	Average Rate per month 2023	1098	86	13.61	6687	258	30.58	Average Rate per month 2023	303	Average Rate per month 2022	5565	4894	671				

https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/datasets/deathsbyvaccinationstatusengland

The monthly mortality rates per 100,000 person-years were averaged for each year for non-C19, C19 and the excess non-C19 SHEDDING for the Ever Vaccinated versus the Unvaccinated and Summarized in this Table 2.

Table 2.

Excess Non-C19 Monthly Mortality Rates (MRs) * in England Guesstimated to be Ascribed to Vaccination and/or Shedding (Vax-Shed) by Year for the Ever Vaccinated Versus Unvaccinated

Year	# of months	Ever Vaccinated Monthly MRs						Unvaccinated Monthly MRs					Monthly MRs for VAXED /UnVAXED Shed /C19 Ratios
		Non-C19 Mean MR	Non-C19 Vax & Shedding Mean MR	Non-C19 Putative Shedding	Non-C19 MR % Due to Shedding	C19 MRs	Shed/C19 Ratios	Non-C19 Mean MR	Non-C19 Shedding Mean MR	Non-C19 MR % Due to Shedding	C19 MRs	Shed/C19 Ratios	
2021	12	8364	7242	4397	52.6%	515	8.5	1702	907	53.3%	538	1.7	5.06
2022	12	11072	9950	6530	59.0%	674	9.7	1107	312	28.2%	165	1.9	5.12
2023	5 &	6687	5565	4894	73.2%	258	19.0	1098	303	27.6%	86	3.5	5.38

& most recent data only until May 31, 2023

April 6 2024

*Mortality Rates per 100,000 person-years (Age range for provided database is 10+)

https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/datasets/deathsbyvaccinationstatusengland

ONS Database Released on 25 August 2023 and 6 July 2022

NB: In an attempt to translate the shedding versus vaccination associated deaths with real numbers of deaths the numbers ended up being too high. This slide is under revision.

For now please refer to Tables 1 and 2 where the shedding rates for the ever vaccinated and the unvaccinated as a percentage of the non-COVID-19 deaths are provided. Note that they exceed the COVID-19 deaths in either case and moreso in the vaccinated.

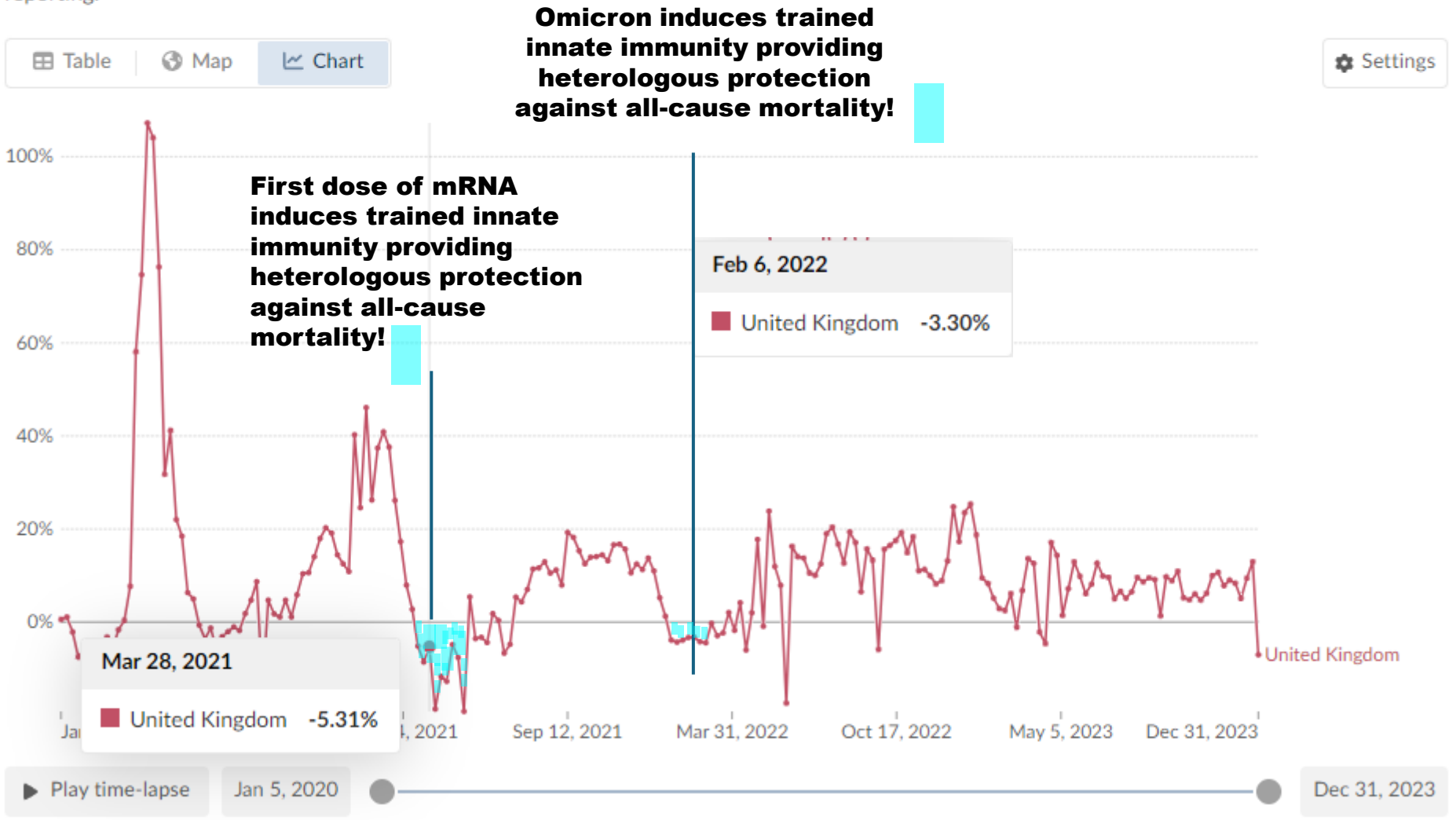
As well for the ever vaccinated, the estimated shedding MRs also exceeded the vaccination associated deaths (i.e., those that occurred within the first 21 days after the dose).

The conclusion remains that estimated shedding deaths contributed significantly to the non-COVID-19 mortality in England.

Excess mortality: Deaths from all causes compared to projection based on previous years

Our World in Data

The percentage difference between the reported number of weekly or monthly deaths in 2020–2022 and the projected number of deaths for the same period based on previous years. The reported number might not count all deaths that occurred due to incomplete coverage and delays in reporting.



Laderoute MP. The Marvels of the HERV-K102 Virus-Anti-Virus Protection System of Humans Including Shed (Horizontal) Population Protection (and the Harms of Gene Therapy Shedding), March 5, 2024. https://hervk102.substack.com/p/the-marvels-of-the-herv-k102-virus.

Around the time that about 50% of the 65 to 75 years of age had received a particular dose, what immediately happened to the mortality rates about 10-14 days days later ?

Temporal changes to C19 and non-C19 Mortality Rates By Dose

	A: 1st Dose		B: 2nd Dose		C: 3rd Dose		D: 4th 75+ Dose		E: Omicron	
change period	Mar to Apr 2021		Jun to Jul 2021		Oct to Nov 2021		May to Jun 2022		Jan to Feb 2022	
	C19	non-C19	C19	non-C19	C19	non-C19	C19	non-C19	C19	non-C19
vaxed	-35%	24%	156%	0%	27%	16%	-32%	8%	-51%	-31%
unvaxed	-59%	-22%	74%	-10%	31%	-1%	-20%	29%	-56%	-8%

NB: **Omicron [E] decreased mortality rates in both the vaxed and unvaxed for C19 and non-C19.** The same thing happened for the first Pfizer-BIoNTech mRNA dose [A] except the vaccine was toxic and induced non-C19 deaths. **The data in A is the first evidence ever to show shed exosomes from the URT are protective (inferred HERV-K102 particle horizontal protection) . On the other hand,** these exosomes can be contaminated by gene therapy and can be deadly when shed especially related to the generation of the spike IgG1/3 after the second dose.

Shedding in the donor URT probably lasts up to 3 months after vaccination

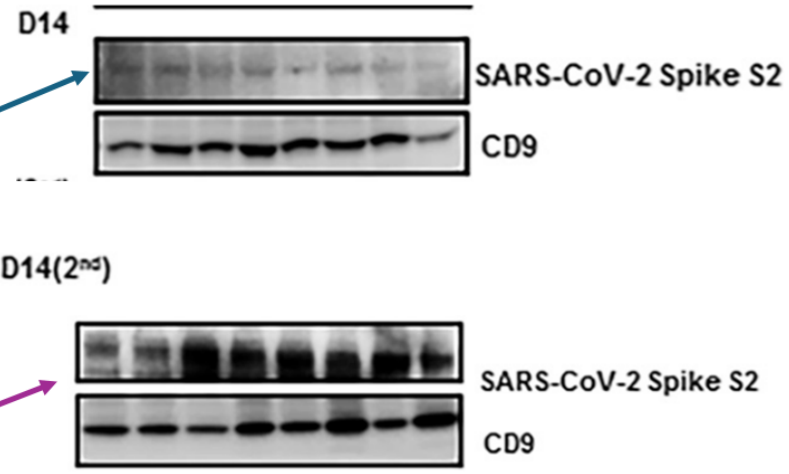
Bansal S, Perincheri S, Fleming T, Poulson C, Tiffany B, Bremner RM, Mohanakumar T. Cutting Edge: Circulating Exosomes with COVID Spike Protein Are Induced by BNT162b2 (Pfizer-BioNTech) Vaccination prior to Development of Antibodies: A Novel Mechanism for Immune Activation by mRNA Vaccines. J Immunol. 2021 Nov 15;207(10):2405-2410. doi: 10.4049/jimmunol.2100637.

In BNT162b2 mRNA vaxed saw S2 protein on exosomes (**about 120 nm**) at 14 days after 1st dose but not at d7 (very weak signal by day 14 after the first dose).

Antibodies peaked at day 14 after the 2nd dose which targeted the LNPs to the macrophages/sebocytes and much higher concentration of spike S2 protein on the exosomes (**very strong signal (100 fold?)**).

By 4 months neither the IgG1/3 antibodies nor the exosomes were detectable.

Didn't discuss where was S1



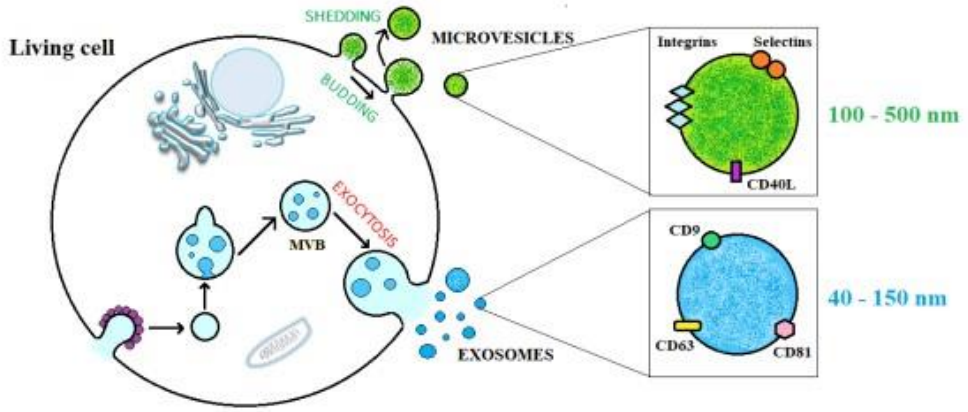
In 2021 letter to editor found S2 and N on exosomes

Bansal S, Tokman S, Fleming T, Maine GN, Sanborn K, Hachem R, Bharat A, Smith MA, Bremner RM, Mohanakumar T. SARS-CoV-2 infection in lung transplant recipients induces circulating exosomes with SARS-CoV-2 spike protein S2. Clin Transl Med. 2021 Nov;11(11):e576. doi: 10.1002/ctm2.576.

And ADE strongly contributes to contamination of the putative HERV-K102 exosomes converting the protector HERV-K102 particles to shed bioweapons.

Serretiello, E.; Ballini, A.; Smimmo, A.; Acunzo, M.; Raimo, M.; Cantore, S.; Di Domenico, M. Extracellular Vesicles as a Translational Approach for the Treatment of COVID-19 Disease: An Updated Overview. Viruses 2023, 15, 1976. https://doi.org/10.3390/ v15101976

Gene Therapy shedding is believed to occur via exosomes.



	EXOSOMES	MICROVESICLES	APOPTOTIC BODIES
Dimension (nm)	40–150	40–10,000	100–5000
Density (g/mL)	1.13–1.19	Unknown	1.16–1.28
Markers	CD9, CD63, CD81, CD106, ICAM, Tspan8, Tspan29, Tspan30, TSG101, MFGE8	Integrins, selectins, CD82, CD40L, fibronectin, annexin, flotillin-2	Phosphatidylserine, annexin V
Biogenesis	via inward budding of the endosomal membrane	via outward budding of the cellular membrane	via membrane eversion of an apoptotic cell
Cargo	RNA, miRNA, ALIS, Peroxidases, G proteins, clathrin, VPS32, VPS4, HSP70, HSP90	RNA, miRNA, Tau, TDP43, GAPDH, ARF6, Erk, PLD, HSP70, HSP90, actin, tubulin	DNA, RNA, miRNA, other ncRNAs, histones, cytoplasmatic proteins, organelles
Functional properties	Selective cargo transfer, receptor interaction, immune response	Coagulation, thrombosis, angiogenesis, tissue regeneration, inflammation	Transfer of DNA fragments to phagocytes, cell survival, inhibition of inflammatory process
TEM morphology	Cup-shaped	Cup-shaped	Heterogeneous

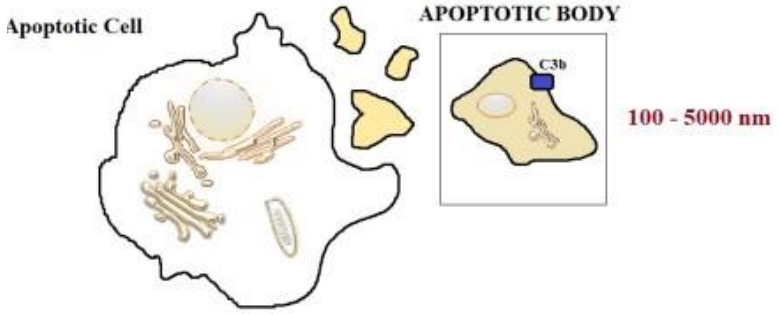


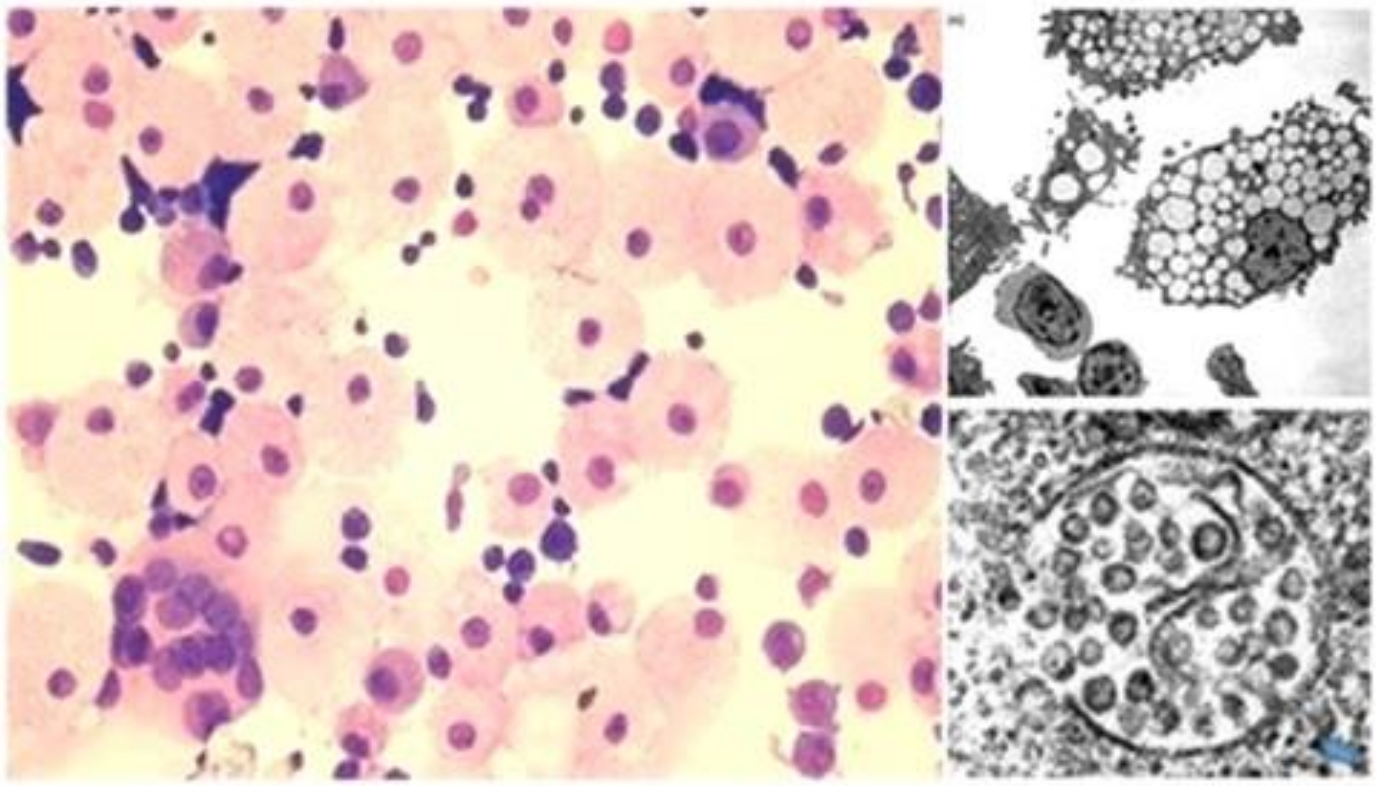
Figure 2. Extracellular vesicle structure and biogenesis.

But, the most likely vehicle (exosome) especially involving foreign or infectious agents would be human endogenous retrovirus-K102 (HERV-K102) particles of 100 nm and a peak density of 1.16 +/-0.06 [Contreras-Galindo R et al, J. Virol October 2008].

Laderoute MP, Larocque LJ, Giulivi A, Diaz-Mitoma F. Further evidence that human endogenous retrovirus K102 is a replication competent foamy virus that may antagonize HIV-1 replication. **Open AIDS J. 2015 Dec** 7;9:112-22. doi: 10.2174/1874613601509010112.

Laderoute MP, Giulivi A, Larocque L, et al. The replicative activity of human endogenous retrovirus K102 (HERV-K102) with HIV viremia. **AIDS. 2007** Nov 30;21(18):2417-24. doi: 10.1097/QAD.0b013e3282f14d64.

HERV-K102 Particles are produced in M1-like foamy macrophages and release is by lysis.



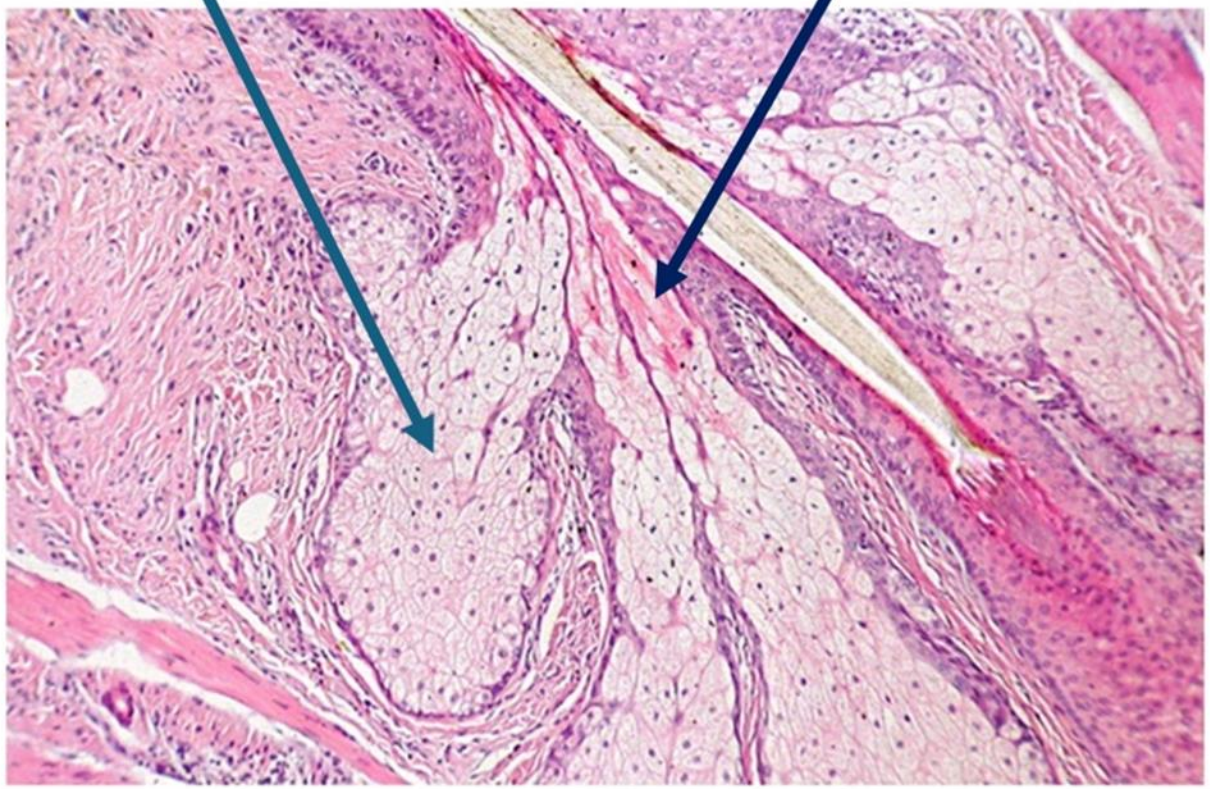
- **Produced by budding through the golgi creating vacuoles) and accumulate hundreds of particles per vacuole and hundreds of vacuoles in the M1-like foamy macrophages**
- **Requires lots of lysine and cholesterol to produce**
- **Release of particles is by a novel cytosol-initiated**
- **Novel DNase-2 mechanism for apoptosis** [Fischer H, et al. Holocrine secretion of sebum is a unique DNase2-dependent mode of programmed cell death. J Invest Dermatol. **2017** Mar;137(3):587-594. doi: 10.1016/j.jid.2016.10.017.]

- **100 nm immature particles (no condensed cores)**
- **Have envelope spikes on surface**
- **Density of 1.10 to 1.20 g/ml (iodixanol gradients)**
- **Carry and use reverse transcriptase and integrase for replication *in vivo* and *in vitro***
- ***Replication competent (functional REVERSE TRANSCRIPTASE and INTEGRASE***

1. Lipid nanoparticles with spike mRNA enter sebocytes (specialized foamy macrophages in sebaceous glands lining the mucosa) and become captured in the HERV-K102 particles.

Spike specific IgG1/3 in the URT following the second dose (only in the mRNA C19 vaccinated) targets the LNP to sebocytes which worsens the shedding RISK by concentrating spike protein in the HERV-K102 particles.

2. Reverse transcription occurs upon release of particles by lysis. HERV-K102 and spike mRNA are reverse transcribed



https://commons.wikimedia.org/wiki/File:Insertion_of_sebaceous_glands_into_hair_shaft_x10.jpg

3. **Particles shed from the mucosa;** e.g. via aerosols. May also be associated with spike specific antibodies that preferentially target these particles to foamy macrophages in the new host via antibody dependent enhancement of transfection to macrophages.

4. ***In the new host***, while HERV-K102 may be integrated such as in the Upper Respiratory Tract; **there is also the INCREASED risk of genomic integration of cDNA encoding spike protein.** This is really bad if the transfected cell is a foamy macrophage as spike protein will prevent the lytic release of the HERV-K102 particles and will shut down particle production.

How Shedding Might Increase the Risk of Spike mRNA Integration into the Host GENOME Promoting Lethality in the Unvaccinated

2.3. Sebocytes of Sebaceous Glands Lining the Mucosa Were Discovered to Produce HERV-K102 Particles (Sebocytes are Specialized FOAMY Macrophages)

"Another fascinating aspect of foamy viruses is that when they transmit to a new host, they replicate solely in the non-proliferating sebocytes of sebaceous glands and thus are deposited to the exterior mucosa causing no harm to the host [73]. An examination of hematoxylin and eosin-stained sections of sebaceous glands (Figure 7) [82] reveals sebocytes have the exact same morphology as the M1-like foamy macrophages producing the HERV-K102 particles (Figure 4). A search of the expressed genes of sebocytes as available through GEO Profiles [83] revealed both *in vitro* [84] and *in vivo* [85] sebocytes are positive for the major antigens of M1-like foamy macrophages [86-88,] including: CD14, CD16, CD68, CD163, WDR74, TNFSF10; for myeloid specific enhancers SPI1 and CEBPB [88] which are also trained innate immunity enhancers [89,90]; for genes involved in foam cell formation (NR1H3, LDLR, SQLE, EGFR, HIF1A, BSG, SREBF1/2, PPARG, CD36) which are also implicated in the induction of trained innate immunity [90-96]; for genes involved in the expression of HERV-K102 full length proviral genomes (IRF1, NFKB1, VDR, IFNGR1/2, NR3C1 +/- MIF) [97-99], and genes associated with a novel day 6-7 apoptosis mechanism triggered in the cytoplasm (DNASE2, LAMP1, LCN2 and MX1) [92, 100]. Not only do macrophages that are M1 polarized express high levels of HERV-K102 proviral transcripts [99] but ERVK-7 (HERV-K102) was constitutively expressed in sebocytes [84]. Thus, sebocytes are in fact programmed and phenotypically the same as M1-like foamy macrophages, and they respond the same way as macrophages do both *in vitro* [101] and *in vivo* [60], except they constitutively express and release HERV-K102 particles. There is no doubt that sebocytes are specialized M1-like foamy macrophages that line the mucosa. This discovery makes it very plausible that the HERV-K102 protector system is in fact the first line of defense against infectious agents anticipating them in the mucosa and so, is critical to infectious disease outcomes."

Excerpt from: Laderoute, M. Antibody Dependent Enhancement (ADE) of Infection into Macrophages Validates the Importance of HERV-K102 Particle Production for Pandemic Preparedness. Preprints 2023, 2023120185. https://doi.org/10.20944/preprints202312.0185.v1

Shedding in the donor URT probably lasts up to 3 months after vaccination

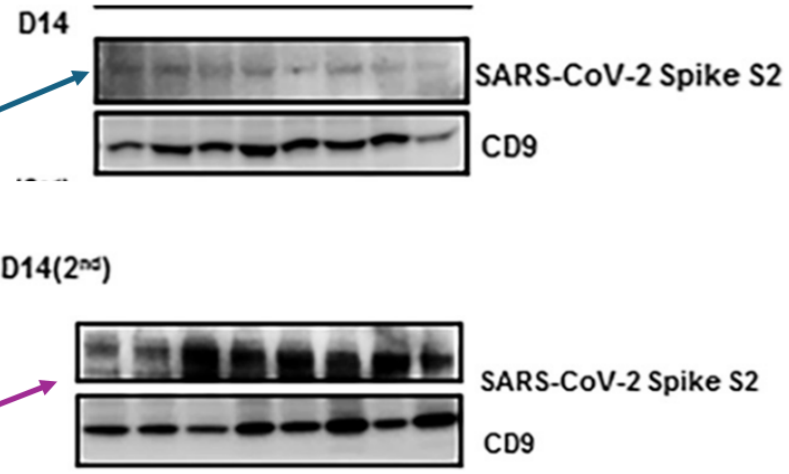
Bansal S, Perincheri S, Fleming T, Poulson C, Tiffany B, Bremner RM, Mohanakumar T. Cutting Edge: Circulating Exosomes with COVID Spike Protein Are Induced by BNT162b2 (Pfizer-BioNTech) Vaccination prior to Development of Antibodies: A Novel Mechanism for Immune Activation by mRNA Vaccines. J Immunol. 2021 Nov 15;207(10):2405-2410. doi: 10.4049/jimmunol.2100637.

In BNT162b2 mRNA vaxed saw S2 protein on exosomes (**about 120 nm**) at 14 days after 1st dose but not at d7 (very weak signal by day 14 after the first dose).

Antibodies peaked at day 14 after the 2nd dose which targeted the LNPs to the macrophages/sebocytes and much higher concentration of spike S2 protein on the exosomes (**very strong signal (100 fold?)**).

By 4 months neither the IgG1/3 antibodies nor the exosomes were detectable.

Didn't discuss where was S1



In 2021 letter to editor found S2 and N on exosomes

Bansal S, Tokman S, Fleming T, Maine GN, Sanborn K, Hachem R, Bharat A, Smith MA, Bremner RM, Mohanakumar T. SARS-CoV-2 infection in lung transplant recipients induces circulating exosomes with SARS-CoV-2 spike protein S2. Clin Transl Med. 2021 Nov;11(11):e576. doi: 10.1002/ctm2.576.

And ADE strongly contributes to contamination of the putative HERV-K102 exosomes converting the protector HERV-K102 particles to shed bioweapons.

146. Guerrieri M, Francavilla B, Fiorelli D, et al. Nasal and salivary mucosal humoral immune response elicited by mRNA BNT162b2 COVID-19 vaccine compared to SARS-CoV-2 natural infection. Vaccines (Basel). 2021 Dec 18;9(12):1499. doi: 10.3390/vaccines9121499.

147.Aksyuk AA, Bansal H, Wilkins D, et al. AZD1222-induced nasal antibody responses are shaped by prior SARS-CoV-2 infection and correlate with virologic outcomes in breakthrough infection. Cell Rep Med. 2022 Dec 15:100882. doi: 10.1016/j.xcrm.2022.100882.

"The main reasons for the general lack of selection of immune escape variants prior to the vaccine roll-out in late December 2020 was because during natural infection, for the most part the innate immune system was able to clear or inactivate replication competent SARS-CoV-2 from the URT before the onset of the spike anti-IgG [145]. Perhaps more importantly, a growing body of evidence implies for natural infection unless the case of COVID-19 was severe/critical, there were **few IgG1 or IgG3 antibodies to spike RBD in the nasal secretions and none in the saliva** [146,147]. However, with the second dose of COVID-19 vaccines (mRNA or adenovirus virus vectored), these dangerous IgG antibodies to spike protein were commonly detected at high levels in the URT [146,147]. It remains to be seen if boosting further expands the incidence or levels of spike IgG1 or IgG3 positives in the URT further enhancing infection rates in the fully vaccinated."

Only the mRNA or DNA vaccines induce the IgG1/3 spike antibodies in the URT. Ergo, the selection and transmission of variants occurs in the vaccinated and not the unvaccinated. Shedders of the bioweapons comes from those who have had at least 2 doses of the mRNA/DNA gene therapy products.

Shrestha NK, Shrestha P, Burke PC, Nowacki AS, Terpeluk P, Gordon SM. Coronavirus Disease 2019 Vaccine Boosting in Previously Infected or Vaccinated Individuals. Clin Infect Dis. 2022 Dec 19;75(12):2169-2177. doi: 10.1093/cid/ciac327.

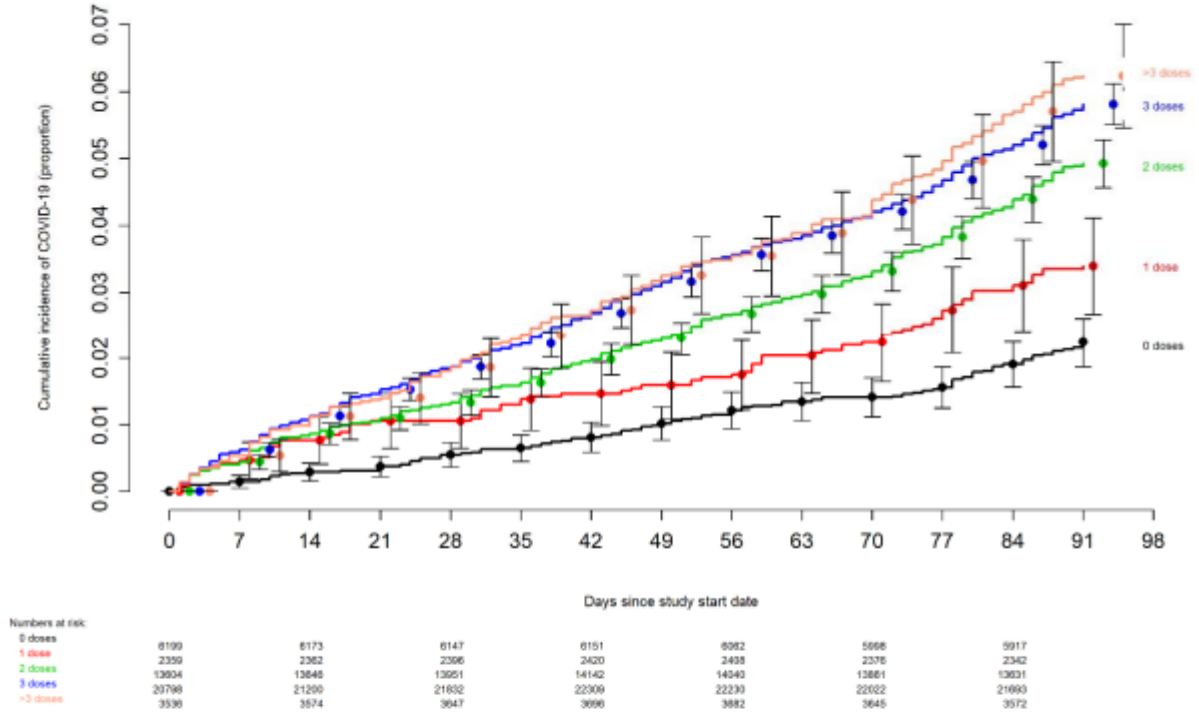


Figure 2. Simon-Makuch plot comparing the cumulative incidence of COVID-19 for subjects stratified by the number of COVID-19 vaccine doses previously received. Day zero was 12 September 2022, the day the bivalent vaccine began to be offered to employees. Point estimates and 95% confidence intervals are jittered along the x-axis to improve visibility.

The famous Cleveland Clinic data implies that the spike IgG1/3 in the URT is not converted to IgG4/2 even after multiple boosters. Instead the levels of spike IgG1/3 increase with each dose. Via antibody dependent enhancement (ADE) of infection into macrophages (sebocytes) in the URT the spike IgG1/3 promote symptomatic infections, where the risk is proportional to the amount of spike IgG1/3 present.

This ALSO means the IgG1/3 antibodies are likely shed with the spike-laden exosomes meaning it is an immune complex that sets off a microclotting cascade upon transmission to the new host!

Hulscher N, Procter BC, Wynn C, McCullough PA. Clinical Approach to Post-acute Sequelae After COVID-19 Infection and Vaccination. Cureus. 2023 Nov 21;15(11):e49204. doi: 10.7759/cureus.49204.

SPIKE protein:

- Binds and triggers CD147 (BSG) on cardiac pericytes inducing apoptosis (Avolio E et al, 2021)
- Increases **mitochondrial dysfunction**
- **Increases cardiomyocyte fusion leading to arrhythmias**
- **Detected in the heart with C19 Vax induced myocarditis**
- Causes thrombotic endothelialitis, endothelial inflammation, hyperactivated platelets, fibrinaloid microclots in PASC (Turner S et al, 2023) **ie., microclotting**

Note the original Wuhan spike variant and up to the delta spike variant have high affinity for human BSG. The COVID-19 vaccines use a modified Wuhan spike with affinity for human BSG.

Omicron variants have affinity for mouse BSG but not human BSG. This is why in part, vaccine shedding is so dangerous because it retains affinity for human BSG.

Therefore, any myocarditis post omicron era (e.g. in January 2022 onward) would likely be due to vaccine or shedding (ie., not due to SARS-CoV-2 co-infection).

4 Sources of Toxic Spike Protein:

1. **Free Spike Protein** (URT has virus replicating but not in the LRT/blood, e.g., PASC)
2. **SARS-CoV-2 virions**
3. **LNP mRNA gene therapy products**
4. **Contaminated HERV-K102 Exosomes**

DISEASE-Causing Dysfunctional M2 Foamy Macrophages

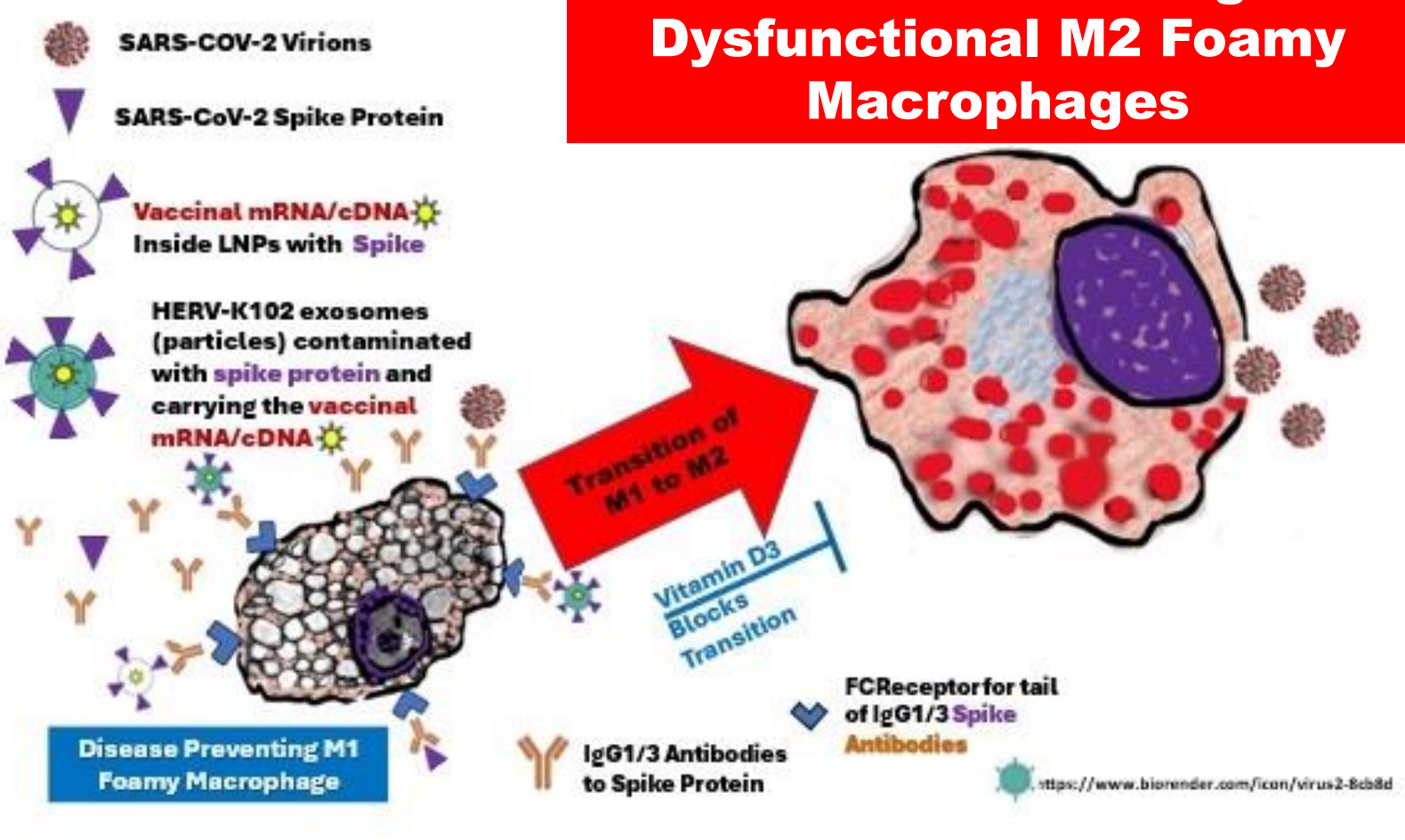
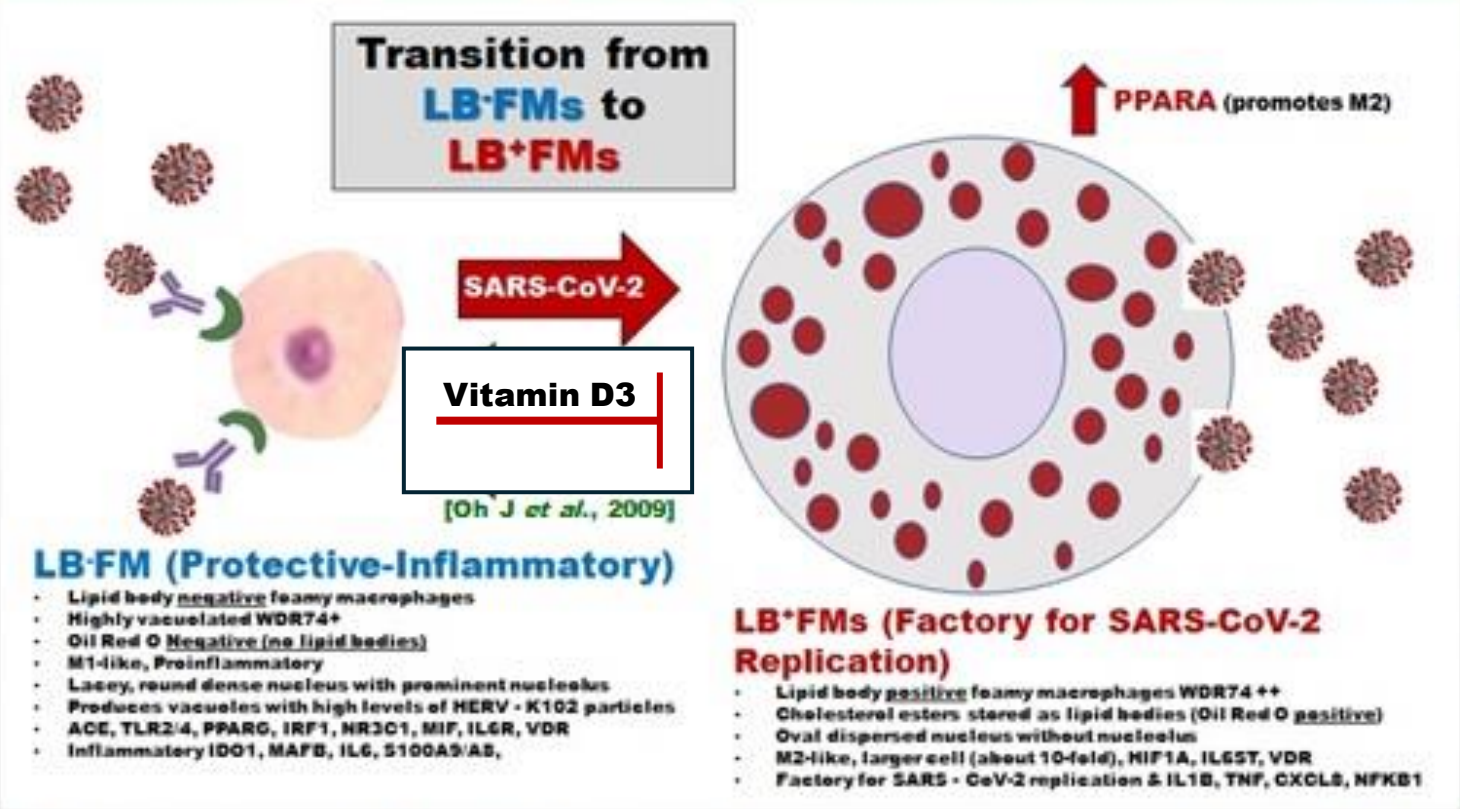


Figure 1. Antibody Dependent Enhancement (ADE) of Spike Protein or Spike-Laden Exosomes/Particles/LNPs/SARS-CoV-2 Virions Into the Protector M1 Foamy Macrophages (FM), Causing Their Transition to Disease-Causing Pathogenic and Dysfunctional FM (Immunosenescent Macrophages, ISM).

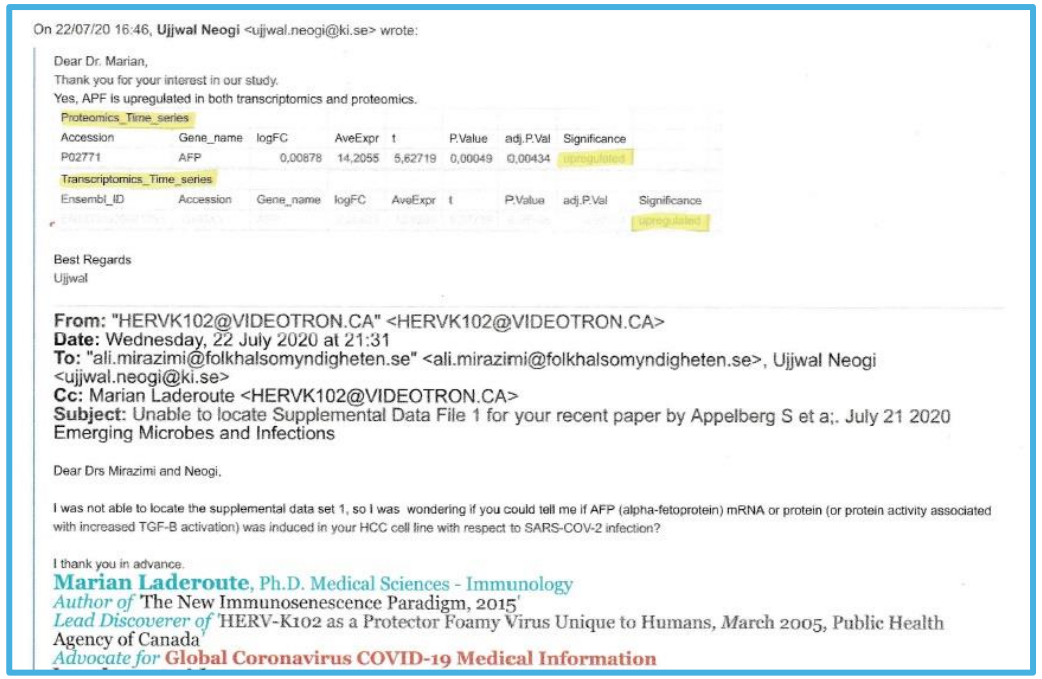
How does ADE cause progression of COVID-19 disease?

(ie., what happens upon entry of SARS-CoV-2 into the protector foamy macrophages?)



1. It blocks HERV-K102 particle production, & prevents the lytic release of the protector HERV-K102 particles, ie., abrogates critical Trained (innate) Immunity
2. Leads to immunosenescence of the foamy macrophages: i) state of being both proinflammatory & immunosuppressed, so renders macrophages dysfunctional, ii) causes chronic disease like hypertension, insulin resistance and even glucocorticoid resistance (e.g. CIRCI) which can lead to cytokine storm/hypercoagulable state
3. By converting the M1-like lipid body negative foamy macrophages (LB-FMs) to the M2-like lipid body positive foamy macrophages (LB+FMs), provides **an immunologically privileged site for SARS-CoV-2 virion production and release** by budding through the plasma membrane [Dias SSG et al., 2020].

SARS-CoV-2 infection of human HCC cells causes the upregulation of AFP mRNA and protein (Appelberg S et al, 2020 and personal communication Dr. Ujjwal Neogi).



On 22/07/20 16:46, **Ujjwal Neogi** <ujjwal.neogi@ki.se> wrote:

Dear Dr. Marian,
Thank you for your interest in our study.
Yes, APF is upregulated in both transcriptomics and proteomics.

Proteomics_Time_series

Accession	Gene_name	logFC	AveExpr	t	P.Value	adj.P.Val	Significance
P02771	AFP	0,00878	14,2055	5,62719	0,00049	0,00434	upregulated

Transcriptomics_Time_series

Ensembl_ID	Accession	Gene_name	logFC	AveExpr	t	P.Value	adj.P.Val	Significance
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	upregulated

Best Regards
Ujjwal

From: "HERVK102@VIDEOTRON.CA" <HERVK102@VIDEOTRON.CA>
Date: Wednesday, 22 July 2020 at 21:31
To: "ali.mirazimi@folkhalsomyndigheten.se" <ali.mirazimi@folkhalsomyndigheten.se>, Ujjwal Neogi <ujjwal.neogi@ki.se>
Cc: Marian Laderoute <HERVK102@VIDEOTRON.CA>
Subject: Unable to locate Supplemental Data File 1 for your recent paper by Appelberg S et a;. July 21 2020 Emerging Microbes and Infections

Dear Drs Mirazimi and Neogi,

I was not able to locate the supplemental data set 1, so I was wondering if you could tell me if AFP (alpha-fetoprotein) mRNA or protein (or protein activity associated with increased TGF-B activation) was induced in your HCC cell line with respect to SARS-COV-2 infection?

I thank you in advance.

Marian Laderoute, Ph.D. Medical Sciences - Immunology
Author of The New Immunosenescence Paradigm, 2015
Lead Discoverer of HERV-K102 as a Protector Foamy Virus Unique to Humans, March 2005, Public Health Agency of Canada
Advocate for **Global Coronavirus COVID-19 Medical Information**

S2 protein inhibits p53 function and this means it is no longer able to repress AFP expression! Therefore**, spike protein probably causes immunosenescence of macrophages.** (NB: AFP also likely plays a role in CCR5 mediated inflammation of the vascular endothelial associated with mitochondrial dysfunction (and insulin and glucocorticoid resistance) and the loss of CD8 T cells in COVID-19.)

So SARS-CoV-2 and spike cause ISM by upregulating AFP.

Singh N, Bharara Singh A. **S2 subunit of SARS-CoV-2 interacts with tumor suppressor protein p53** and BRCA: an in silico study. Transl Oncol. 2020 Oct;13(10):100814. doi: 10.1016/j.tranon.2020.100814.

Lee KC, Crowe AJ, Barton MC. **p53-mediated repression of alpha-fetoprotein gene expression by specific DNA binding**. Mol Cell Biol. 1999 Feb;19(2):1279-88. doi: 10.1128/MCB.19.2.1279.

Jett KA, Baker ZN, Hossain A, Boulet A, Cobine PA, Ghosh S, Ng P, Yilmaz O, Barreto K, DeCoteau J, Mochoruk K, Ioannou GN, Savard C, Yuan S, Abdalla OH, Lowden C, Kim BE, Cheng HM, Battersby BJ, Gohil VM, Leary SC. **Mitochondrial dysfunction reactivates α-fetoprotein expression** that drives copper-dependent immunosuppression in mitochondrial disease models. J Clin Invest. 2023 Jan 3;133(1):e154684. doi: 10.1172/JCI154684.

mRNA GENE THERAPY is an extremely dangerous approach to vaccination due to risk of **shedding** and **integration**, and **uncontrolled production of TOXIC spike protein** that lingers and circulates throughout the body for weeks and months if not longer!

Plus the vaccinal spike protein (Wuhan variant) has an affinity for human BSG (CD147) meaning it is more likely to cause myocarditis/microclotting which is why shedding is more dangerous than infections with the omicron variants. HERV-K102 particles/exosomes contaminated with vaccinal mRNA/cDNA also has a higher risk of integration as these particles carry functional reverse transcriptase and integrase.#

‘mRNA gene therapy vaccine’ is an oxymoron.

#**Laderoute, M.** Antibody Dependent Enhancement (ADE) of Infection into Macrophages Validates the Importance of HERV-K102 Particle Production for Pandemic Preparedness. ***Preprints* 2023**, 2023120185. https://doi.org/10.20944/preprints202312.0185.v1

Protect Yourself Against mRNA GENE THERAPY Shedding

- **Demand the banning of all mRNA/cDNA gene therapy for use in humans/animals/plants**
- Adopt a healthier lifestyle, and
- Protect yourself against Wuhan spike by using alpha-fetoprotein antagonists (next slide) and follow the McCullough protocol below

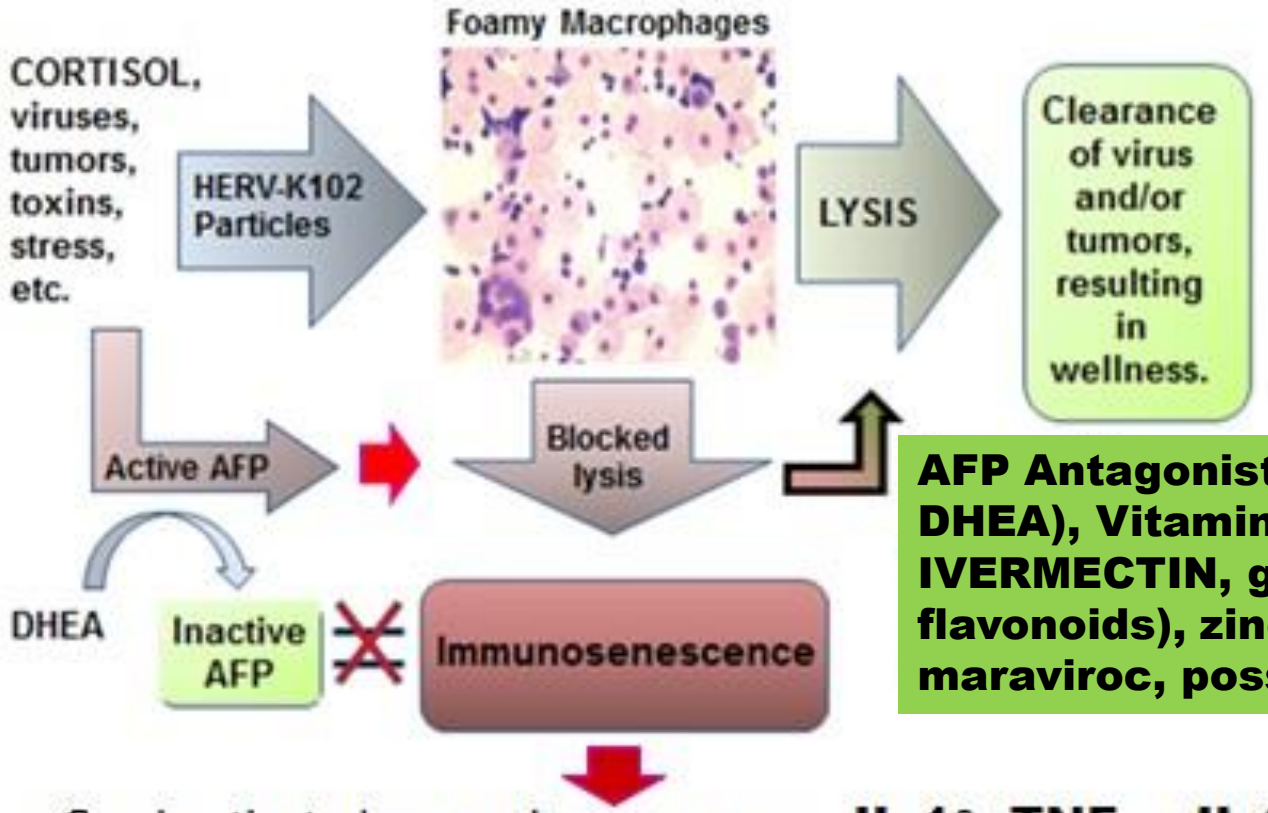
Hulscher N, Procter BC, Wynn C, McCullough PA. Clinical Approach to Post-acute Sequelae After COVID-19 Infection and Vaccination. Cureus. 2023 Nov 21;15(11):e49204. doi: 10.7759/cureus.49204.

The New Immunosenescence Paradigm, 2015.

Defined as the failed lytic release of HERV-K102 particles from foamy macrophages.

DHEA/Cortisol Ratio Declines with AGE

With the loss of DHEA with age or stress, there is a higher risk that AFP will remain active!



AFP Antagonists: DHEA (7 keto-DHEA), Vitamin D3, IVERMECTIN, genistein (iso-flavonoids), zinc, ECGC, maraviroc, possibly artemisinin

Semi-activated macrophages express **IL-1β, TNF-α, IL-6**

Immunosuppression & Concomitant Inflammation = dysfunctional macrophages

Laderoute MP. Discovery Medicine, 2015