

# The Need to Evaluate Trained Innate Immunity of Macrophages and Antibody Dependent Enhancement of Infection of Macrophages (ADE) for Pandemic Vaccine Approvals

## REFERENCES



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### On HERV-K102 Activation in Foamy Macrophages for Recovery from Emerging Pathogens/Pandemics

Published as a chapter in a medical book:

Laderoute MP. Chapter 17. **Controversies Concerning the Immunology of the COVID-19 Adaptive Immunity Vaccines**. In: Controversies in the Pandemic. Ed(s); J Varon, PE Marik, M Rendell, J Iglesias, C de Souza, P Prabhudesai. Jaypee Brothers Medical Publishers Ltd, New Delhi, India, 2024, pages 249-310. ISBN: 978-93-5696-730-4.

But also available for free downloading here:

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://www.preprints.org/manuscript/202312.0185/v2>. DOI: 10.20944/preprints202312.0185.v2.

### How the HERV-K102 Protector System Launched in Foamy Macrophages Generates Trained (Innate) Immunity & Heterologous Protection Against Intracellular Pathogens, Tumors and Chronic Diseases: Essential for Handling Pandemics

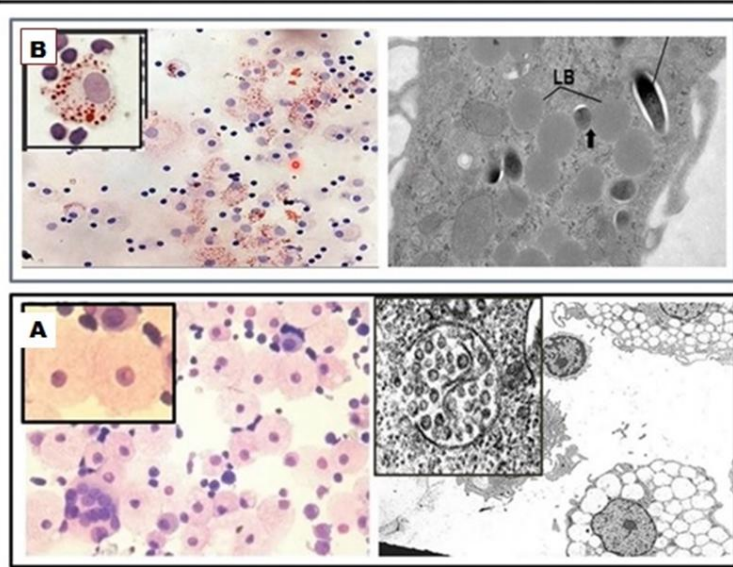
Laderoute MP. Trained Innate Immunity: Mechanisms & Meaning. February 10, 2025.

<https://hervk102.substack.com/p/trained-innate-immunity-mechanisms>.

**Shedding Causing Excessive (Stealth) Deaths Was a Property of the Pfizer-BioNTech Spike mRNA Gene Therapy Shots at 5.7-fold times the number of COVID-19 deaths in England from January 1, 2021 to May 31, 2022.**

**Laderoute MP. Shedding of Spike mRNA 'Gene Therapy' Product (Causing Death). Sworn Testimony to the National Citizens Inquiry, Regina, Saskatchewan Canada. <https://rumble.com/v51idm2-dr-marian-laderoute-jun-01-2024-regina-saskatchewan.html>**

## Two Types of Foamy Macrophages in HUMANS



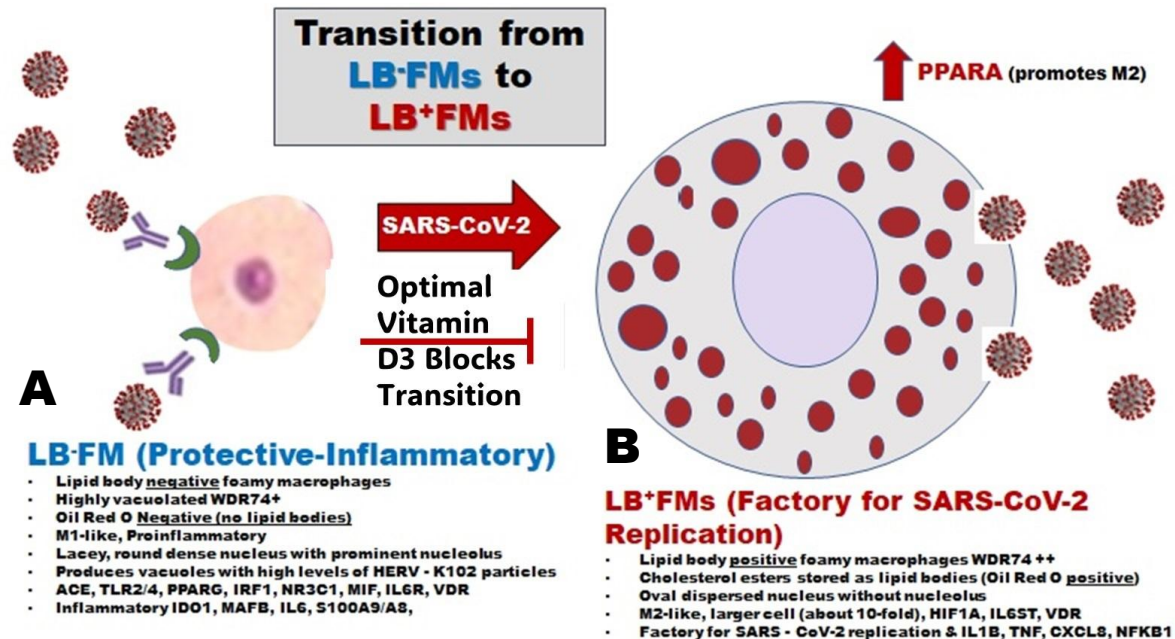
Both the A (M1-like) and B types (M2-like) are induced by *Mycobacteria tuberculosis* in vitro in PBMC [Peyron P et al., 2008]. With time *due to infection*, the A types are converted to the B types.

Only the A types produce the protector HERV-K102 foamy retrovirus particles [Laderoute MP et al., 2007; 2015].

Intracellular pathogens including SARS-CoV-2 favor the conversion of LB-FMs (A types) to LB+FM (B types) because it provides a safe haven for their replication [Dias SSG et al., 2020].

**There are essentially only two types of foamy macrophages:**

- A) the proinflammatory M1 Lipid Body negative foamy macrophages that produce high levels of HERV-K102 particles over 6 days with release on day 6/7 by apoptosis/cell lysis, and,**
- B) the anti-inflammatory M2 Lipid Body positive foamy macrophages that are responsible for wound healing.**



During the disease process, including for cancer patients and during infections with pathogens {shown here for SARS-CoV-2 (bottom) and *Mycobacterium tuberculosis* (top)}, it is alleged that active alpha-fetoprotein (AFP) causes the conversion of M1 to M2 (ie., the immunosenescence of macrophages). Since AFP blocks apoptosis, these dysfunctional M2 cells survive long term. In infections they provide an immunologically privileged site for pathogen production and release (by cell budding) which in many instances entered the foamy macrophages by ADE. In cancer patients the dysfunctional M2 macrophages release a wide variety of factors that contribute to malignant potential of the tumor, and which further suppresses trained innate immunity.

In the next slide,

1. Monthly data on the all-cause, COVID-19 and non-COVID-19 mortality rates per 100,000 person years in the unvaccinated versus the vaccinated is provided for ENGLAND (ONS data) along with the ratio of vaccinated/unvaccinated mortality rates (covering Jan 2021 to May 2022). In the all-cause category except February 2021 (when the second dose was postponed revealing a benefit of trained innate immunity on mortality) it is clear the mortality risks of deaths in the vaccinated exceeded the unvaccinated which got worse with time. Raw death counts revealed there were 5248 lives saved (putatively by only the first dose) during this time of 17 months. For every life saved during this period, there were 103 deaths due to the vaccine toxicity (and/or shedding see later). The Pfizer mRNA shot clearly showed negative effectiveness (caused more death than the unvaccinated) especially with time.
2. Using the data provided in Image 1 (and supplemented with further data from later reports of the ONS) by plotting the non-COVID-19 Mortality Rates over the COVID-19 Mortality Rates (from image 1), this provided a surrogate marker of shedding deaths. As expected from the results of Bansal S et al, J. Immunology, 2021, maximal shedding deaths peaked following the second dose including in the unvaccinated and each peak lasted 3-4 months as expected for the contamination of exosomes with the spike protein.
3. Using various criteria for shedding, it was found that about 66.6% of the deaths that occurred during the first 17 months of the Pfizer spike mRNA gene therapy shot in England were due to shedding which included over 72,000 deaths in the unvaccinated. Shedding causing death was 5.7-fold more dangerous than COVID-19. The cure was far worse than the disease.
4. A model is provided where it is suggested that ADE allows for targeting of the spike laden lipid nanoparticles (process 2 for Pfizer) to macrophages and sebocytes. Apparently in the upper respiratory tract (based on the Cleveland Clinic data) there is no conversion of IgG1/3 to IgG4. The exhaled complex of spike exosomes with the IgG1/3 antibodies can cause rapid death in third parties related to complement fixation, microclotting, and myocarditis.



DATA from England Demonstrated the Pfizer mRNA Shot Caused More Deaths with Time in the Vaccinated Over the Unvaccinated and This Related to ADE and/or Shedding Following the Second Dose

TABLE 1. UK Office for National Statistics (ONS) England Monthly Age-Standardized Mortality Rates (ASMRs) per 100,000 Person-Years and Vaccinated (Vax) to Unvaccinated (Unvax) Rate Ratios for January 1, 2021 to May 31, 2022 for Both Sexes and All Ages 10+ \*

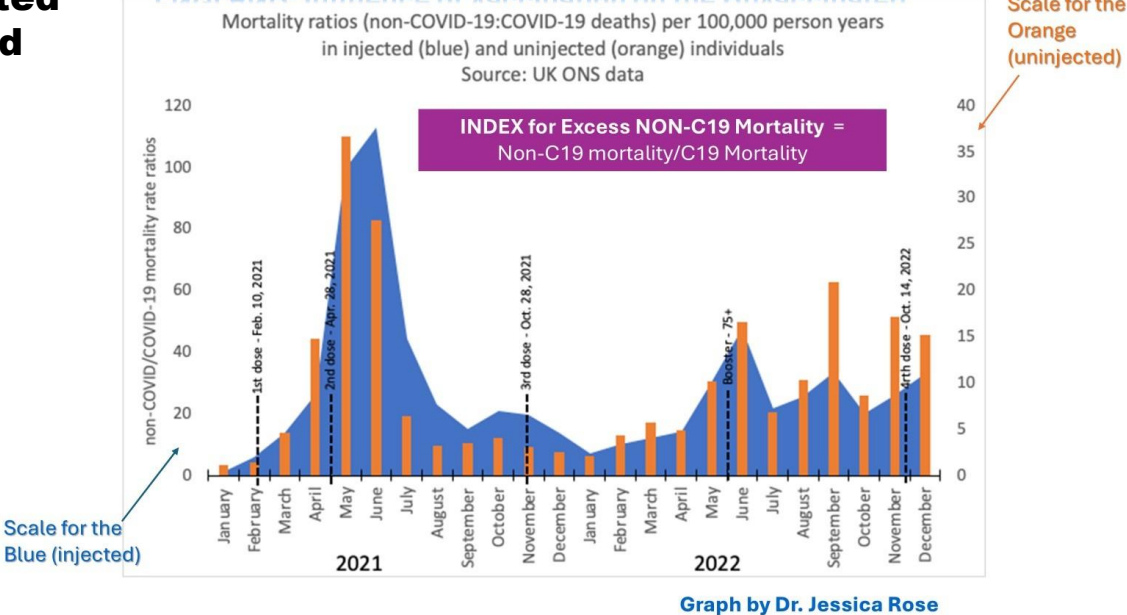
	All-Cause Mortality				COVID-19 Mortality				Non-C19 Mortality			
	RATE Unvax	Actual RATE Ever Vax	Ratio of Vax/Unvax Rates	p values	RATE Unvax	Actual RATE Ever Vax	Ratio of Vax/Unvax Rates	p values	RATE Unvax	Actual RATE Ever Vax	Ratio of Vax/Unvax Rates	p values
2021 Jan	2507.6	3483.5	1.39		1187	1526	1.29		1320	1958	1.48	
Feb	5261.5	3205.4	0.61		2174	456.8	0.21		3087	2689	0.87	
Mar	3307.8	4192.2	1.27		591.9	283.9	0.48		2716	3909	1.44	
April	2298.4	5039.2	2.19		145.8	184	1.26		2153	4855	2.25	
May	1718.8	8582.6	4.99		45.5	84.5	1.86		1673	8426	5.04	
June	1589.7	30060	6.33		55.6	87.7	1.58		1534	9916	6.46	
July	1610.7	10307.1	6.40		218.2	224.9	1.03		1392	9960	7.16	
Aug	1711.6	10340.7	6.04		404.2	402.9	1.00		1307	9266	7.09	
Sept	1664.5	8639	5.19		367.8	520.2	1.41		1297	7884	6.08	
Oct	1623.7	12456.3	7.67		322.3	568.6	1.76		1302	11845	9.10	
Nov	1708	13546.6	9.10		421.3	721	1.71		1287	14155	11.00	
Dec	1878.5	16974.3	9.04		520.5	1121.9	2.16		1358	15501	11.41	
2022 Jan	1812	19997.9	11.04		584.6	2310.9	3.95		1227	16417	13.38	
Feb	1384.5	12474.4	9.01		258.7	1128.4	4.36		1126	11346	10.08	
Mar	1231.7	10257.2	8.33		183.5	763.6	4.16		1048	9445	9.01	
April	1204.6	12423.2	10.31		204.7	800.8	3.91		1000	11622.4	11.62	
May	872.9	8246	9.45		77.6	261.8	3.37		795	7914	9.95	
average	1964	10131	6.37	0.0001	457	673	2.09 NS (0.8)		1507	9242	7.26	0.0001
					Oct 1 2021-May 31, 2022							
					3.17			0.01				

The "Actual Rate Ever Vax" refers to recompiled data where all the ASMRs in the different categories of vaccination were manually added up to yield a total, because the 'Ever vaccinated' totals provided by the ONS were manipulated/wrong.

NB: There were 71,318 vaccination cases that were excluded due to incomplete records. There were 1,436 vaccination deaths that were excluded because the vaccination details were only entered after they died and this was NOT updated. #

#<https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/bulletins/deathsinvolvingcovid19byvaccinationstatusengland/previousReleases>  
\*<https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/datasets/deathsbyvaccinationstatusengland>

ENGLAND: Influence of Vaccination on the Unvaccinated



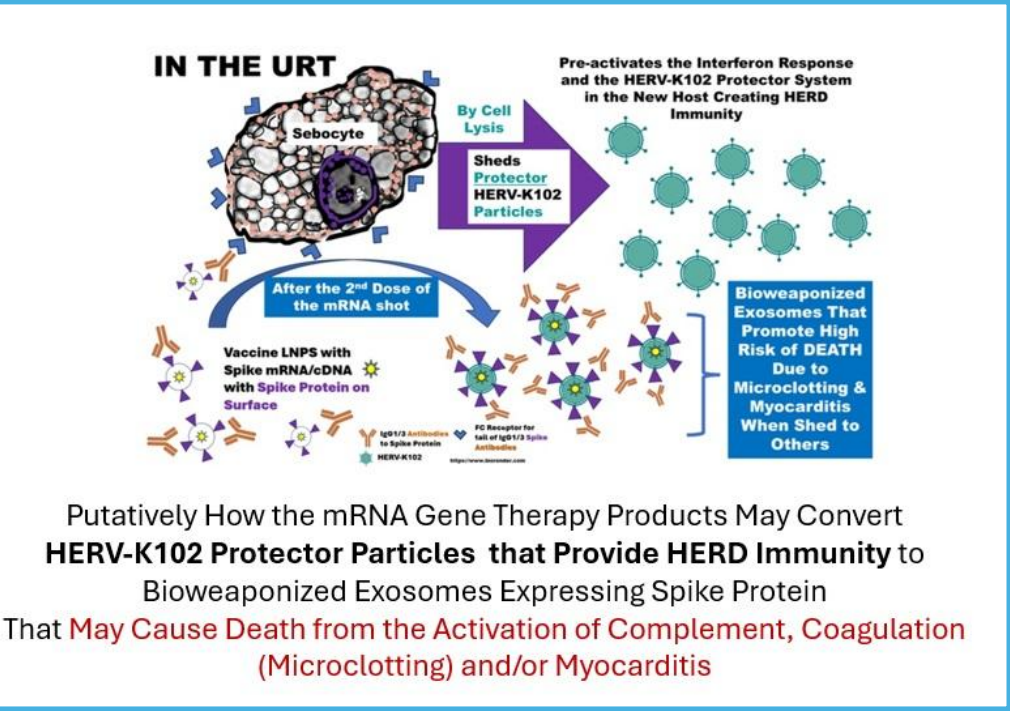
Raw Death COUNTs for the First 17 Months of the COVID-19 Vaccine Rollout (January 1, 2021 to May 31, 2022) ONS Data Released July 6, 2022 for England. Estimates for Shedding DEATHS. 10 years of age and up.

Total Deaths	COVID-19	Non-COVID-19	Other NonC19 but Non-Iatrogenic Causes	Vaccine Iatrogenic Causes	Iatrogenic Early Vax <21 days	Average Shedding Deaths in the Vaccinated	Estimated Shedding Deaths in the Unvaccinated	Total Shedding Deaths	Ratio of Shedding Deaths Over COVID-19
749,115	87,472	660,207	100,654	559,553	60,917	426,602	72,034	498,636	5.7-fold
100%	11.6%	88.1%	13.4%	74.7%	8.1%	57.0%	9.6%	66.6%	5.7-fold

\* Two methods were used to estimate shedding deaths in the vaccinated, excess above background nadir counts of Jan 2021 (430,855) and the number of deaths that occurred >63 days (420,194) where the average was 425,525. However, there were an additional estimated 1077 shedding deaths# not captured in the ONS database for a total of 426,602. For the unvaccinated, the excess above a background nadir of May 2022 was used. See details <https://rumble.com/v51dm2-dr-marian-laderoute-jun-01-2024-regina-saskatchewan.html>

<https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/datasets/deathsbyvaccinationstatusengland> Released July 6, 2022 Covering deaths in the 10 + age group and January 1, 2021 to May 31, 2022.

<https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/bulletins/deathsinvolvingcovid19byvaccinationstatusengland/previousReleases> # NB 1,436 vaccination deaths not included in the database for the July 6, 2022 data release. Estimated 75% of these were shedding deaths (n=1077).



In the next slide, data is presented that implies for the unvaccinated that following the first dose of vaccine (A), there was a reduction in both COVID-19 and non-COVID-19 deaths, consistent with protector HERV-K102 particles being shed to the unvaccinated. Trained innate immunity is known to provide heterologous protection against pathogens (and tumors) and to improve outcomes from chronic diseases. In contrast following dose 2 (B) in the vaccinated we see that there is a 74% increase in COVID-19 deaths in the unvaccinated consistent with shedding deaths exacerbated by SARS-CoV-2 infection. As well we see with each dose in the vaccinated the change in non-COVID-19 deaths in the unvaccinated is less and less protected by shed exosomes {A=- 22 %, B=- 10 %, C= - 1 % and D=29 %) consistent with the notion that with each dose more and more of the protector HERV-K102 particles are compromised by spike, the IgG1/3 spike antibodies and/or spike mRNA/cDNA and may cause micro-clotting and/or myocarditis.

**Note: HERV-K102 cDNA particles contain active reverse transcriptase and integrase raising the odds that spike mRNA/cDNA could integrate into host's genome upon shedding to third parties.**



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).  
<https://hervk102.substack.com/p/the-marvels-of-the-herv-k102-virus>. **ONS Data For England**

**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 later ?**

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

change period	A: 1st Dose		B: 2nd Dose		C: 3rd Dose		D: 4th 75+ Dose		E: Omicron <b>Positive Control</b>	
	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 consistent with HERV-K102 particle protection being horizontally transmitted. On the other hand,** these exosomes can be contaminated by gene therapy products and can be deadly when shed especially related to the generation of the spike IgG1/3 after the second dose (B & C) to the unvaccinated.

# Take Home Messages/ Conclusions

1. If HERV-K102 particles as found in sebum in the mucosa (made in sebocytes that are highly specialized M1 like foamy macrophages), are shed to third parties by exhalation and pre-activate herd immunity such as i) type 1 interferons, ii) HERV-K102 particle production in recipient's macrophages, and iii) pre-activate innate T cells and B cells with antigen receptors for HERV-K102 envelope, then **shed HERV-K102 particles which generates trained (innate) immunity, play a major role in generating HERD IMMUNITY**. Since rapid onset and spreading of herd immunity is the goal of vaccination during a pandemic or epidemics involving emerging pathogens, such vaccines must be tested for ability to induce the shedding of the protector HERV-K102 particles. If live attenuated viruses or mRNA/cDNA vectors are (inappropriately) used for vaccination, there is a need to study if these vaccines compromise the protector HERV-K102 particles. A role of ADE should also be studied also in the context of shedding especially after antibodies to the antigen are made and again later when the Ig1/3 are switched to IgG4.
2. ADE as was demonstrated for SARS-CoV-2 can be studied in various ways but also by examining the host for the quality and quantity of CD9 exosomes produced in saliva versus blood before and after antibodies to the virus antigen(s) are made. See details in Bansal S et al., J Immunol, Nov 2021.
3. For any pandemic or epidemic involving emerging pathogens, it is imperative that the vaccine activates trained innate immunity which can be studied a number of ways including HERV-K102 activation with a novel qPCR ddCt method using DNA isolated from plasma and a peptide ELISA for antibodies to HERV-K102 envelope [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.]
4. In the future, simple pan-vaccines to induce trained innate immunity (e.g., oral beta glucan or BCG injected under the skin alone or with ivermectin) to pre-activate HERV-K102 in the most susceptible may be all that is needed to generate herd immunity to rapidly end the pandemic. Masking and lock-downs would be contraindicated to more rapidly reach critical herd immunity sooner.
5. **The mRNA/cDNA gene therapy type shots should not be used for immunization purposes due to autoimmunity, antigen persistence, contamination, unable to control the dose or the distribution of the lipid nanoparticles, risk of endotoxin from process 2 (?) and the opportunity for shedding causing injuries and death including in the unvaccinated.**
6. **The Trump administration must issue an executive order for the CDC to link the vaccination record to the mortality database as was done by the ONS for England, to discern the level of shedding deaths in the USA and the truth about risks >benefits to be communicated directly to the public.**