

From Reverse Transcription to Transmembrane Proliferation – Observed Theory on the Genesis of Neurodegenerative Diseases from SARS-CoV-2

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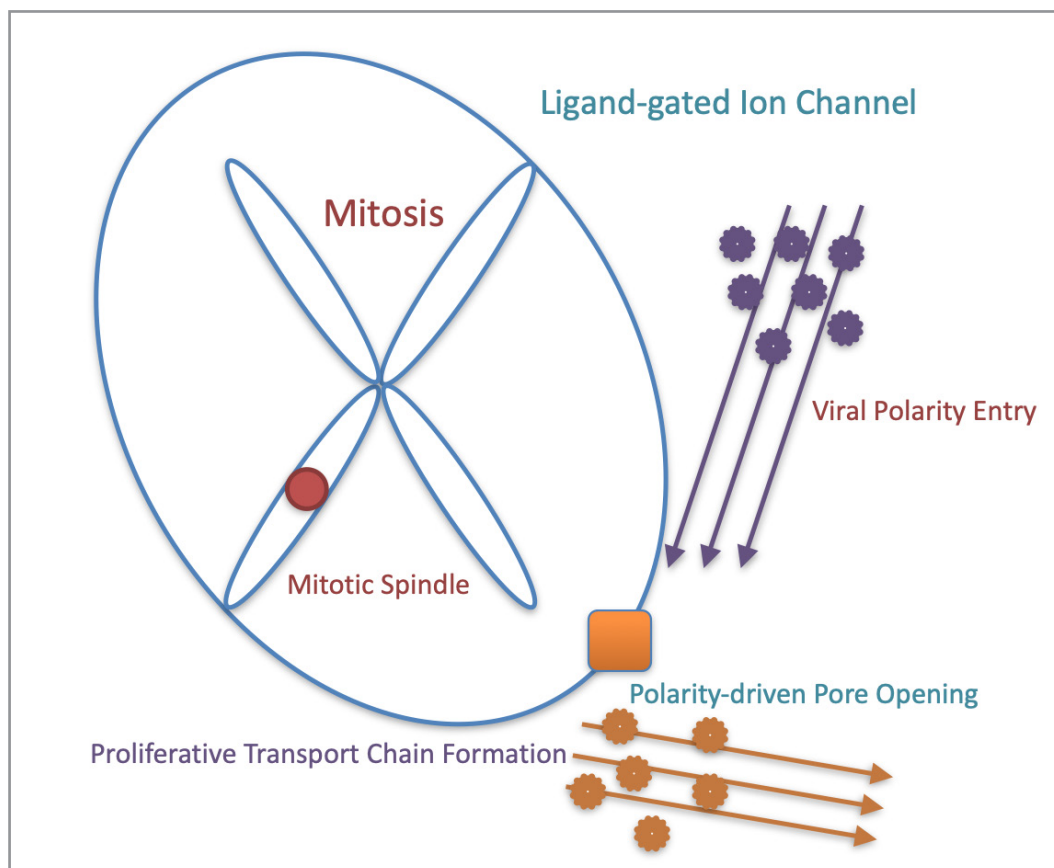
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Abstract

Introduction: The research takes an immune checkpoint method in etiological studies on post-vaccination SARS-CoV-2 infections in vivo. The trial is subsequent to the NCT05711810 trial and was informed by the data collected from the latter.

Methods: The experiment is designed for hydrostasis observations inferred from proton-coupled electron transfer with sodium and calcium-based statin therapies, and adheres to the Nuremburg Code and Declaration of Helsinki.

Result: The etiology of the virus, including the post-vaccination complications, is explained by the proton-gating proliferation during mitosis illustrated in the graphical abstract.



Discussions: The researcher discusses the basic science aspects of the trial design and practice.

Conclusions: The protocol falsifies the SARS-CoV-2 vaccination treatments, and developed the immune checkpoint methodology to clinical trials, confirming COVID-19 categorically corresponding to the negative-sense paramyxovirus.

Keywords: COVID-19, lipoprotein, Mitosis, Polarity, Proton-Coupled Electron Transfer, Protonmotive Force.

Introduction

The theory on the pathogenesis on the origination of neurodegenerative diseases and autoimmune diseases from SARS-CoV-2 and its Spike 2 (S2) protein is formed from the interventional trial. It was reported that retroelements have been involved in human autoimmune responses and a mitogen-activated protein

kinase-dependent mechanism of cell death exists [1, 2]. The study takes a phenomenological approach to observation, and explores sebaceous immunobiology [3-8]. The schema for the protocol is seen in Figure 1 with the objectives and endpoints in Table 1.

Table 1: Justification for Objectives and Endpoints

OBJECTIVES	ENDPOINTS	JUSTIFICATION FOR ENDPOINTS
Primary	Study Visits 1 - 3	
The primary objective is to determine the causal origins of the platelet variations.	The order of the symptom disappearance from the previous trial after medication discontinuation with the cardiac activity normalization is causally referential between the steroidogenesis pathway and the mitochondrial toxicity.	The primary endpoint is mainly chosen for discretion in participant's safety in health.
Secondary	Study Visit 4	
The secondary objective is to assess the efficiency of the clinical design, and to determine if further treatments are needed.	The secondary endpoint is designed to obtain the objective data results on the clinical design. The data, compared with the historic data and data from the last trial will provide a better picture of the pathogenic developments in the participant's system. The immune reflex and sebaceous-blood-brain barriers will be assessed with the data analysis.	The secondary endpoint is chosen based on the time projection for the treatment to take relatively lasting effects.
Tertiary/Exploratory	Study Visit 5	
Tertiary objective is to evaluate the lasting effects of the intervention.	The tertiary endpoint's objective data will help evaluating if COVID-19 vaccine poisoning can be detoxicated for good.	The tertiary endpoint is designed to assess the relapse possibilities after the intervention.

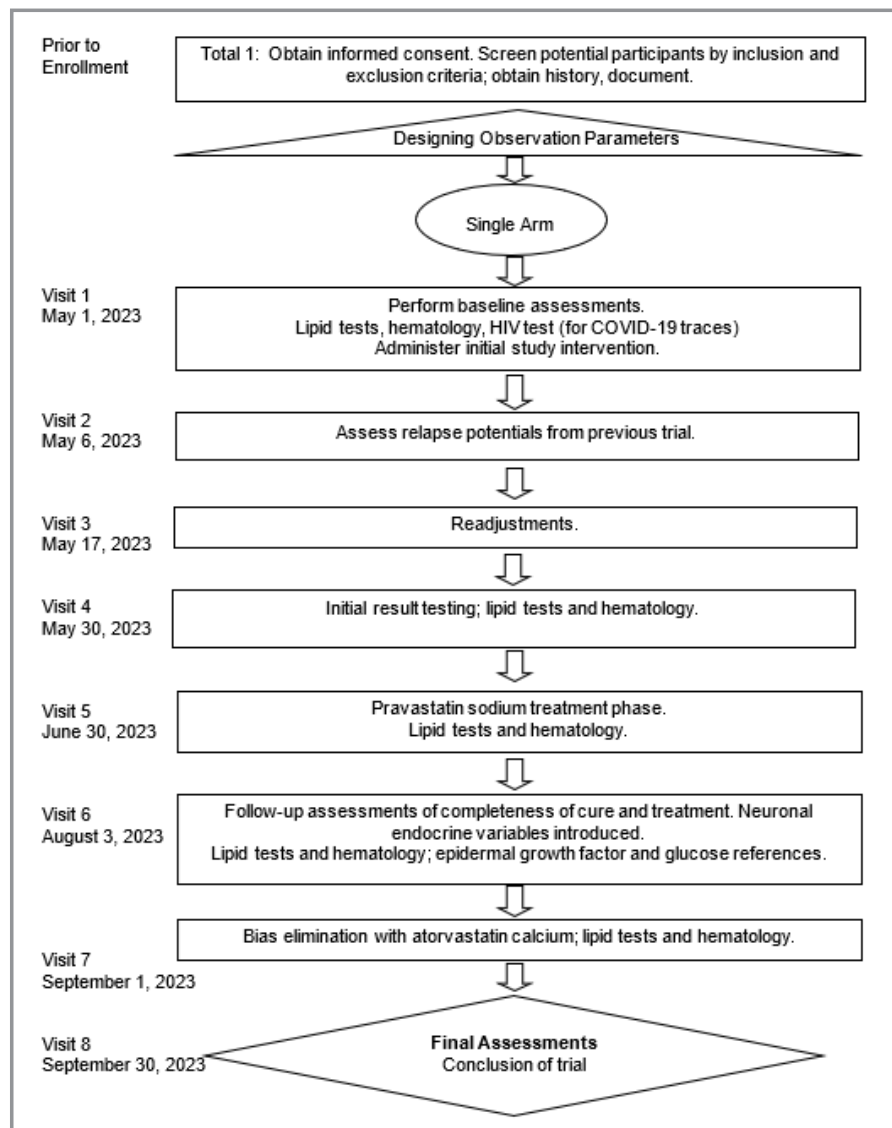
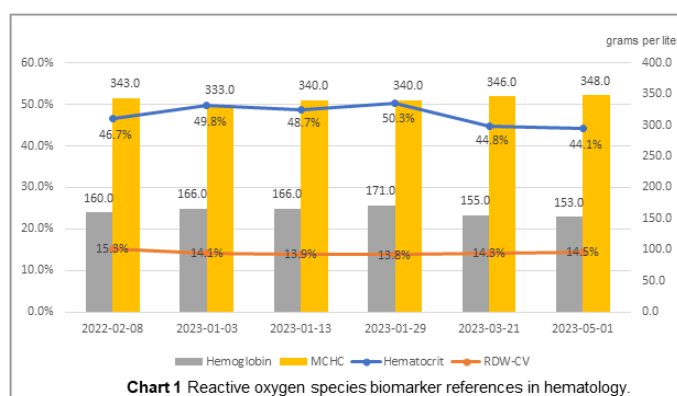


Figure 1: The schema of the NCT05839236 trial

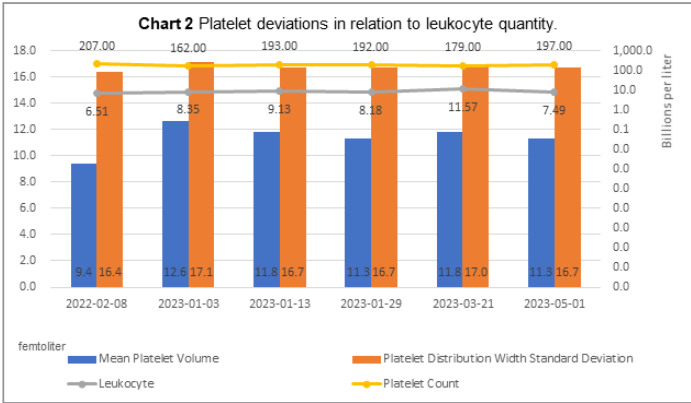
It was reported that there is a correlation between low-density lipoprotein cholesterol (LDL-C) levels and prognosis of severe and critical COVID-19 cases, and the study draws on immune checkpoint methodology in studying the causal relations with intervention designs [9-11]. Statin therapies are utilized for intervention following the pilot cardiac interventional trial NCT05711810, with reference to the hematological biomarkers' indications in oxidative stress seen in Figure 2 [12-16].

The review on the proton paths in cardiac immune reflex was conducted for a nuclear biochemical reference with relation to ligand-gated ion channels (LGIC), and Chart 1 shows the hematocrit levels vis-à-vis red cell distribution width coefficient of variation (RDW-CV), hemoglobin, and mean corpuscular hemoglobin concentrations (MCHC) levels before and after the pilot intervention [17].



From the observational window in the trial NCT06107348 in July 2021, the three-dose COVID-19 recombined vaccination fully vaccinated participant’s platelet increased in size while dropped in count before the NCT05711810 trial’s intervention in January 2023, as seen in Chart 2. The implications were not clear with the blood-borne pathogen being from which side of

the immunological aisle, and evidence emerged with the intervention clinical monitoring [12]. The pilot interventional trial NCT05711810 evidenced the autoimmune disease nature of SARS-CoV viruses that the S1 and S2 proteins can independently exert pathogens in human hosts [18-20].



Lipid-lowering is beneficial to reduce the health risks of the participant, and the statin therapy introduced is essentially an in vivo manipulation on the steroidogenesis pathway [21-23]. Albeit correlation does not necessarily imply causation, the null hypothesis took the correlation in LDL-C for statistical testing [24, 25]. With the hypoxia symptoms indicated in Chart 1, it was hypothesized that the fusogenic activities of S2 proteins are dependent on reactive oxygen species (ROS) [26, 27]. The secondary alternative hypothesis for the NCT05839236 trial is testable

with the orders of symptom disappearance under intervention, with the truth table in Table 2 [28]. Note that albeit alternatively hypothesis 2 has been supported by the data collected, neither the null hypothesis nor the alternative hypothesis 1 has been supported by the results of the trial [25]. Nevertheless, data collected from the results seemed to support the null and alternative 1 hypothesis, and only the constant recurrence of symptoms afterwards raises the doubts [29].

Table 2: The truth table for statistical testing

	Cure	Before or After	Null Hypothesis	Alternative Hypothesis 1	Alternative Hypothesis 2
Symptomatic Signs	F	-	-	F	-
	F	A	F	F	-
	T	B	T	T	F
	T	A	T	T	T

Methods

The in vivo experiment with the human host is designed for hydrostasis observations with sodium and calcium-based statin therapies. Calcium is thought to be critical in O-O bond formation in PCET, and sodium in ferroptosis defense mechanism by the subsequent chains in sodium phosphate and glycerol-3-phos-

phate dehydrogenase 2 in mitochondria [30, 31]. The intervention medicines are thus decided for equivalence comparison between atorvastatin calcium and pravastatin sodium. Evaluations are conducted by hematological results collected in each endpoint, apart from clinical monitoring data. The comparison can be seen in Table 3.

Table 3: Biomarker changes in intervention manipulations

Parametric Changes	Leukocytes	Neutrophils		Lymphocytes		Monocytes		Eosinophils		Basophils	
	(109/L)	(109/L)	(Percent)	(109/L)	(Percent)	(109/L)	(Percent)	(109/L)	(Percent)	(109/L)	(Percent)
Atorvastatin Calciuma	0.33	0.16	(0.3%)	0.05	(0.6%)	0.05	0.4%	0.07	0.6%	0.00	(0.1%)
Pravastatin Sodium with SNRI	(0.95)	(0.89)	(5.1%)	0.05	4.6%	(0.11)	(0.8%)	0.01	1.4%	(0.01)	(0.1%)
Pravastatin Sodiumb	(1.67)	(1.01)	(3.5%)	(0.40)	2.7%	(0.09)	0.1%	(0.17)	0.5%	0.01	0.2%
Atorvastatin Calcium with Agomelatine	0.90	1.26	13.8%	(0.36)	(11.1%)	0.05	0.1%	(0.05)	(2.6%)	(0.01)	(0.2%)

Parametric Changes	Red Blood Cell	Hemoglobin	Hematocrit	Mean Corpuscular Volume (MCV)	MCH	MCHC	RDW	
	(1012/L)	(g/L)	(Percent)	(Femtoliter)	(Picograms)	(g/L)	CV	SD
Atorvastatin Calciuma	0.30	0.0	1.3%	(3.0)	(2.1)	(12.0)	(0.6%)	(5.0)
Pravastatin Sodium with SNRI	(0.06)	(5.0)	(0.8%)	(0.7)	(0.6)	(4.0)	0.2%	0.0
Pravastatin Sodiumb	(0.21)	(5.0)	(1.2%)	1.7	0.3	(3.0)	0.3%	NAc
Atorvastatin Calcium with Agomelatine	(0.39)	(14.0)	(4.2%)	(1.4)	(0.6)	(1.0)	0.4%	NAc

Parametric Changes	Platelet Count	Plateletcrit	Platelet Distribution Width (PDW)	Mean Platelet Volume (MPV)	Cholesterol	Triglycerides
	(109/L)	(Percent)	(Femtoliter)	(Femtoliter)	(mmol/L)	(mmol/L)
Atorvastatin Calciuma	26.0	0.00%	(0.1)	(1.5)	(1.10)	(3.25)
Pravastatin Sodium with SNRI	(29.0)	(0.02%)	0.2	0.3	0.36	1.21
Pravastatin Sodiumb	1.0	(0.01%)	0.0	(0.3)	0.73	(0.30)
Atorvastatin Calcium with Agomelatine	(3.0)	(0.001%)	NAd	0.0	(1.94)e	(1.12)e

Parametric Changes	High-density Lipoprotein – Cholesterol (HDL-C)	LDL-C	Apolipoprotein A1 (ApoA1)	ApoB	Lipoprotein(a) [Lp(a)]
	(mmol/L)	(mmol/L)	(g/L)	(g/L)	(mg/L)
Atorvastatin Calciuma	0.30	(0.96)	0.08	(0.23)	38.7
Pravastatin Sodium with SNRI	(0.51)	0.33	(0.25)	0.08	(9.8)
Pravastatin Sodiumb	0.30	0.68	0.21	0.32	(34.9)
Atorvastatin Calcium with Agomelatine	(0.21)e	(1.15)e	(0.28)e	(0.31)e	88.7e

^aRescue medicines (tested medicines from the NCT05711810 trial) taken inconsistently throughout the period, and all other periods have consistently taken rescue medicines.

^bSNRI taken inconsistently for around half of the period and later changed to agomelatine.

^cNot reported by lab.

^dLab reported in CV.

^eCollected on November 11, 2023, instead of September 1, 2023 like the others.

The review conducted for the justification of the study design was corroborated with the lp(a) changes seen in Table 3 with relation to calcium's role in photo-oxidation in contrast with sodium intermediation in platelet activities and hemoglobin deaths indicated by hematocrit [25, 32]. The correlations supported the initial designs' rationale on chromatophores' roles in post-COVID-19-vaccination adverse cardiac events, therefore, validates the theoretical premise of PMF for the observational design in causal references from adenosine triphosphatase (AT-Pase) with the intervention parameters [29, 33, 34].

Due to the participant's business travel and risky contacts during the primary efficacy endpoint and between study visit 1 and study visit 2, rescue medicine was reintroduced. Even though the unanticipated problem undermined the initial study design, the study adhered to the Nuremberg Code and Declaration of Helsinki in prioritizing the participant's health outcome. Proton-pump inhibitors are taken almost throughout the trial, except

for the initial few days and other three days scattered in the trial periods.

Confirmation bias in the study design is with the lipid activities and nicotine consumption of the participant. Since the observations on the LGIC and the pore activities involve the theory of decay proposed by Fermi and Dirac's theory of positron, the correlates between lp(a) and ApoA1 & B are indicative of the viral protein's fusogenic polarity. If the polarity of S2 protein is as commonly presumed to be positive-sensed, the null hypothesis would have been proven with calcium-based superiority for intervention from the PMF and PCET chain, and the alternative hypothesis 1 would have been proven with elevated ApoA1 levels in contrast with atorvastatin calcium's efficacy in lp(a) decreases [17, 35, 36]. Thereby, the interpretations of pravastatin sodium's efficacy will have to be depended on different sets of premises. The inferential method in the study design is seen in Figure 2.

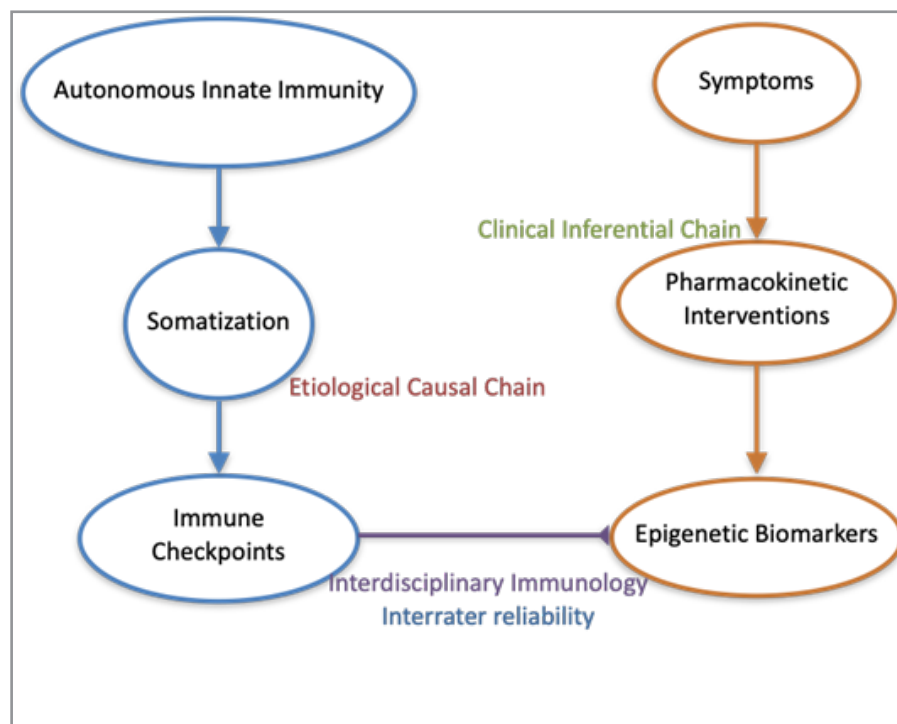


Figure 2: Overview of the methodological rationale of the trial

Result

Since the protocol design is not primarily intended to validate the null hypothesis, retrogressive analyses have been the primary considerations for statistical hypotheses. Even though there is no current study on the biological correlative and possibly causal bases of chromophores' roles in LGICs, especially on the pore-opening complexities, optical control experiment on LGIC with light-gated glutamate receptor as model has been previously studied [37].

In the pilot intervention NCT05711810, consciousness and sleep cycles were taken into account and photochromic tethered ligands are reported to activate LGICs [12, 37]. The pilot trial's elevated heart rate and blood pressures before the participant's sleep in the stead of daily activities' elevations supports further analyses in taking SARS-CoV-2 as negative-sensed virus [36]. Therefore, viral entry upon PCET energized by proton pumps is dependent upon cations, explaining the viruses' behaviors in micropinocytosis [25]. It is further hypothesized from the retrogressive analyses that the perpendicular elongation of Src kinase-inactive cells long axes to direct-current electric field vector during mitosis is the proximal momentum for viral binding through the pore opening of LGICs, as illustrated in the graphical abstract [38].

Discussions

The methodological design potentially bridges the microbiology with immunology-based nuclear anatomy with human physiology [17]. PCET and LGIC are the core thermophysical and nuclear chemical mechanisms epigenetically, and the immunological induction in the research accentuated the potentials of sebaceous immunobiology in bridging the nuclear and traditional anatomies with protein kinase dynamics [39-41].

The fundamental research on the COVID-19 autoimmune disease deepened clinical practices in a phenomenological ap-

proach with immune checkpoint to innate immunity. The nuclear analytic perspective to epigenetics needs further research and reviews in order to fill in the knowledge gaps between genetic and cellular biology, and structural biology may be the direction with the initial electrochemical polarity approaches.

The clinical data obtained do not support SARS-CoV-2 virus being positive-sensed with the proliferation momentum in the secondary electrostatic triad during proton-gating [17]. Furthermore, vaccination methods targeting SARS-CoV-2 S1 proteins would have worked if the viral RNA were indeed single-stranded. Even though randomized trials with sham comparators and placebo are possible, the positive approach in the trial, with correct theoretical and logical premises, is the most appropriate way to ensure the Nuremburg Code and Declaration of Helsinki.

Conclusions

The protocol falsifies the SARS-CoV-2 vaccination treatments, and developed the immune checkpoint methodology to clinical trials. It confirms the previous categorical rationale that the virological features of COVID-19 correspond to the negative-sense paramyxovirus with the abnormally over-lengthed fusogenic features for a single-strand virus [36].

Funding

The research is not funded.

Data Availability

The anonymized participant data can be accessed on Open Science Framework with the DOI: 10.17605/OSF.IO/2MGJK.

Registration

The trial is registered on ClinicalTrials.gov with the identification number NCT05839236.

The full protocol can be viewed with the URL: https://clinicaltrials.gov/ProvidedDocs/36/NCT05839236/Prot_SAP_000.pdf

Credit Author Statement

YIP: Conceptualization, Methodology, Data curation, Visualization, Investigation, Supervision, Validity tests; and Writing-Original Draft.

References

1. Sezer Okay (2022) Involvement of retroelements in the autoimmune response in humans. *Explor Med* 3: 280-288.
2. Monique Verhaegen, Joshua A Bauer, Cristina Martin de la Vega, et al (2006) A Novel BH3 Mimetic Reveals a Mitogen-Activated Protein Kinase-Dependent Mechanism of Melanoma Cell Death Controlled by p53 and Reactive Oxygen Species. *Cancer Res* 66: 23.
3. Kwack MH, Ha DL, Lee WJ (2022) Preventative effects of antioxidants on changes in sebocytes, outer root sheath cells, and Cutibacterium acnes-pretreated mice by particulate matter: No significant difference among antioxidants. *International Journal of Immunopathology and Pharmacology* 36.
4. Zouboulis CC, Coenye T, He L, Kenji Kabashima, Tetsuro Kobayashi, et al. (2022) Sebaceous immunobiology - skin homeostasis, pathophysiology, coordination of innate immunity and inflammatory response and disease associations. *Front Immunol* Volume 13.
5. Clayton RW, Langan EA, Ansell DM, Ivo J H M de Vos, Klaus Göbel et al. (2020) Neuroendocrinology and neurobiology of sebaceous glands. *Biol Rev Camb Philos Soc* 95: 592-624.
6. Lovászi M, Szegedi A, Zouboulis CC, Töröcsik D (2017) Sebaceous-immunobiology is orchestrated by sebum lipids. *DERMATO-ENDOCRINOLOGY* 9: 1.
7. Zouboulis CC (2013) Epidermal growth factor receptor and the sebaceous gland. *Experimental Dermatology* 22: 695-696.
8. Smith KR, Thiboutot DM (2008) Thematic review series: Skin Lipids. Sebaceous gland lipids: friend or foe? *Journal of Lipid Research* 49: 271-281.
9. Zhao M, Luo Z, He H, Bo Shen, Jinjun Liang et al. (2021) Decreased Low-Density Lipoprotein Cholesterol Level Indicates Poor Prognosis of Severe and Critical COVID-19 Patients: A Retrospective, Single-Center Study. *Frontiers in Medicine* 8.
10. Pai SI, Cesano A, Marincola FM (2020) The Paradox of Cancer Immune Exclusion: Immune Oncology Next Frontier. *Cancer Treat Res* 180: 173-195.
11. Xing H, Wang Y, Qu B, Qiang Wei, Chua Li, et al. (2023) The Current status of steroid-refractory immune-checkpoint-inhibitor-related hepatotoxicity. *Translational Oncology* 28.
12. Pachankis YI (2023) Cardiac Transfer of SARS-CoV-2 Spike Protein Circulation Techniques -Medicine Induced Hemodialysis on "Vaccinated" Immune Attacks. *Biomedical Science and Clinical Research* 2: 86-93.
13. Schofield JH, Schafer ZT (2021) Mitochondrial Reactive Oxygen Species and Mitophagy: A Complex and Nuanced Relationship. *Antioxid Redox Signal* 34: 517-530.
14. Xiao B, Kuruvilla J (2022) Tan E-K. Mitophagy and reactive oxygen species interplay in Parkinson's disease. *NPJ Parkinsons Dis* 8: 135.
15. Dixon SJ, Lemberg KM, Lamprecht MR, Rachid Skouta, Eleina M Zaitsev, et al. (2012) Ferroptosis: an iron-dependent form of nonapoptotic cell death. *Cell* 149: 1060-1072.
16. Fox S, Leitch AE, Duffin R, Haslett C, Rossi AG (2010) Neutrophil apoptosis: relevance to the innate immune response and inflammatory disease. *J Innate Immun* 2: 216-227.
17. Pachankis YI (2023) Proton Paths of Cardiac Immune Reflex. *Online Journal of Cardiology Research & Reports* 7(1). Page 1-3.
18. Maguire G (2022) Covid-19 Vaccine-Induced Autoimmune Disease: Case Study with Therapeutic and Dietary Regimen. Located at: Authorea.
19. Zhang XW, Yap YL (2004) Structural similarity between HIV-1 gp41 and SARS-CoV S2 proteins suggests an analogous membrane fusion mechanism. *Journal of Molecular Structure: THEOCHEM* 677: 73-76.
20. Pachankis YI (2023) Null Hypothesis Proven in Sebum Infectant to Immune Reflex through Sebaceous Immunobiology by COVID-19 Vaccine. *Journal of Psychiatry* 26: 615.
21. Zhou Y-X, Wei J, Deng G, Ao Hu, Pu-Yu Sun, et al. (2023) Delivery of low-density lipoprotein from endocytic carriers to mitochondria supports steroidogenesis. *Nat Cell Biol* 25: 937-949.
22. Slominski A, Zbytek B, Nikolakis G, Pulak R Manna, Cezary Skobowiat, et al. (2013) Steroidogenesis in the skin: implications for local immune functions. *J Steroid Biochem Mol Biol* 137: 107-123.
23. Blalock JE, Harp C (1981) Interferon and adrenocorticotrophic hormone induction of steroidogenesis, melanogenesis and antiviral activity. *Archives of Virology* 67: 45-49.
24. Fan J, Wang H, Ye G, Cao X, Xu X, et al. (2020) Letter to the Editor: Low-density lipoprotein is a potential predictor of poor prognosis in patients with coronavirus disease 2019. *Metabolism* 107.
25. Pachankis YI (2023) Plausibility Review on Lipoprotein (A) Infection Path of S2 Autoimmune Pathogen. *Global Journal of Medical Research* 23: 5-11.
26. Seneff S, Kyriakopoulos AM, Nigh G, McCullough PA (2023) A Potential Role of the Spike Protein in Neurodegenerative Diseases: A Narrative Review 15: e34872.
27. Flora S, Balansky R, La Maestra S (2021) Antioxidants and COVID-19. *J Prev Med Hyg* 62: E34-E45.
28. Pachankis YI (2023) Hypothesis for COVID-19 Vaccine Detoxification. *Associative Journal of Health Sciences* 2. Pages 1:4.
29. Pachankis YI (2023) COVID-19 Vaccination Detoxification in LDL-C. <https://clinicaltrials.gov/ct2/show/NCT05839236>.
30. Weinberg DR, Gagliardi CJ, Hull JF, Christine Fecenko Murphy, Caleb A Kent, et al. (2012) Proton-coupled electron transfer. *Chem Rev* 112: 4016-4093.
31. Wu S, Mao C, Kondiparthi L, Poyurovsky MV, Olszewski K, Gan B (2022) A ferroptosis defense mechanism mediated by glycerol-3-phosphate dehydrogenase 2 in mitochondria. *Proc Natl Acad Sci USA* 119(1): e2121987119.
32. Evans MCW (1965) The Photo-Oxidation of Succinate by Chromatophores of Rhodospirillum Rubrum. *Biochemical Journal* 95: 661-668.
33. Sorgato MC, Ferguson SJ, Kell DB, John P (1978) The protonmotive force in bovine heart sub mitochondrial particles. Magnitude, sites of generation and comparison with the phosphorylation potential. *Biochemical Journal* 174: 237-256.

34. Berry BJ, Trewin AJ, Amitrano AM, Kim M, Wojtovich AP (2018) Use the Protonmotive Force: Mitochondrial Uncoupling and Reactive Oxygen Species. *Journal of Molecular Biology* 430: 3873-3891.
35. Xu X, Li G, Sun B, Zuo YY (2022) S2 Subunit of SARS-CoV-2 Spike Protein Induces Domain Fusion in Natural Pulmonary Surfactant Monolayers. *The Journal of Physical Chemistry Letters* 13: 8359-8364.
36. Pachankis YI (2023) Theoretical Strategies in SARS-CoV-2 Human Host Treatment. Short Communication. *Journal of Clinical and Medical Images* 6: 1-4.
37. Szobota S, McKenzie C, Janovjak H (2013) Optical Control of Ligand-Gated Ion Channels. *Ion Channels. Chapter 32. Methods in Molecular Biology* 417-435.
38. Pachankis YI (2023) On Centromeres' Evidential Values in Physical Cosmology. *Global Journal of Science Frontier Research – I* 23: 13-18.
39. Liu Z, Yang Y, Gu A, Jiawen Xu, Ying Mao, et al (2020) Par complex cluster formation mediated by phase separation. *Nat Commun* 11: 2266.
40. Perea-Resa C, Blower MD (2018) Centromere Biology: Transcription Goes on Stage. *Mol Cell Biol* 38: e00263-18.
41. Theivendren P, Kunjiappan S, Mariappa Hegde Y, Sivakumar Vellaichamy, Muruganathan Gopal, et al (2022) Importance of Protein Kinase and Its Inhibitor: A Review. *Protein Kinases - Promising Targets for Anticancer Drug Research. chap Chapter 5. Biochemistry* 164.