

The Polymerization (Clotting) of Blood : A Model

[The Polymerization \(Clotting\) of Blood : A Model](#)

by [Clifford E. Carnicom](#), [Carnicom Institute](#)

April 1, 2024

https://truthcomestolight.com/wp-content/uploads/2024/04/polymerization_09.mp4

The video in this paper represents a viable model to demonstrate and detail the polymerization process that is taking place in human blood as a consequence of the Cross Domain Bacteria (CDB) ([nomenclature](#), 2014). The CDB is a genetically engineered, xenobiotic, synthetic life form that is at the crux of human health demise and threat over the past several decades. If you are in doubt as to the source and origin of the polymerization discussed here, you have a pardon to skip to the end of the video.

Although blood clotting appears to be visibly and significantly increased as a consequence of the “Covid Era”, the purported “vaccines” are not the origin or primary source of damage to the blood. The damage to the blood has a known and documented history of more than 25 years, and the processes described in this video have been active over this same time period. What is now different in the history of this research is the current ability to demonstrate the polymerization process via culture. The culture work has no direct association with “vaccine” materials, it is dependent solely upon the existence of the CDB. The CDB have the known ability to produce a series of polymers within the body, not

one.

There are additional polymerization mechanisms that exist and that are not discussed here, especially the vulnerability of the double carbon bond to change to single bonds. Lots more study ahead, I am afraid.

All signs and indications are that the Covid Era has added an additional layer of egregious harm to human health that is more difficult to conceal. It is reasonable to presume that these factors include additional protein/genetic interactions between between the CDB and the various “vaccines”. It may involve polymerization as well, but we already have our hands full with a series of polymers produced by the CDB alone, along with known severe damage to blood. The constitution of the purported “vaccines” remains improperly and inadequately disclosed, and this is likely to remain so. It is best to work with the origin of a problem first, and then tackle the additional layers as further discovery and disclosure provide.

A critical issue to pay attention to here is the formation and transfer of free radicals within the body. They are absolutely at the crux of the polymerization chain reactions which take place with them. It is worthwhile to gain some familiarity with the nature of this problem, and hopefully it is understood that the model is not theoretical at this point.

Significant attention was paid to Fenton’s Reaction (briefly described in the video) in years past by Carnicom Institute. It was known to likely be important in the microbial (albeit, synthetic) metabolism as far back as 2010. A quick review of the research history will find it mentioned within the following papers, for example:

1. [Morgellons : A Discovery and a Proposal](#) (Feb 2010)
2. [Morgellons Growth Inhibition Confirmed](#) (Mar 2010)
3. [A New Form : Frequency Induced Disease](#) (Mar 2011)

[It might be time to establish a renewed interest in this

paper-CEC]

4. [Morgellons : A Thesis](#) (Oct 2011)

5. [Morgellons : The Breaking of Bonds and the Reduction of Iron](#) (Nov 2012)

6. [Cross-Domain Bacteria Isolation](#) (May 2014)

I am aware that the term “Morgellons” was managed quite well with the tin foil hat container (as was “geoengineering”), and that you may deem it not worthy of your study. But you can also be assured that it was another of many successfully managed psychological operations. Many destroyed lives will let us know this (many now deceased) if we have the courage to seek out that history. The perspective of many of us has been funneled into a MTV video (remember those?) level understanding of affairs. I am not out to correct that milieu at this point, but the science will reign supreme if you care to know and understand it.

There are two things different now with regard to the impact of free radicals from that generation of earlier papers. At the time, two things were not known:

1. The existence of hydrogen peroxide production within cultures under study.
2. The ability to reliably repeat the formation of a series of CBD polymers from culture.

The confirmation of both is now beyond dispute, and they have a major bearing on the matter. The theoretical framework of Fenton’s Reaction that produces a hydroxyl free radical in the presence of ferrous iron (the type within human blood) and hydrogen peroxide and that oxidizes your blood iron has been transformed into a live event in front of your face. The production of a series of polymers by the CDB alone (no “vaccine” required) is extensively proven and documented. Both of these factors are a game changer at this point.

And why is this important? The hydroxyl radical, and free

radicals in general, now occupy front and center stage (there are many other strategies as well) on the road to mitigation (please don't forget the *termination* prospect- nothing wrong with setting your sights higher) of the CDB-Covid Era complex and tragedy that we find ourselves in.

Time to get to work, folks..

but then, that has always been the case, hasn't it?...

Sincerely,

Clifford E Carnicom

Apr 01 2024

born Clifford Bruce Stewart, Jan 19 1953.

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Cover image is screenshot from video found above

See Related:

[Clifford Carnicom on the Link Between GeoEngineering & Unusual Filaments Within Blood Samples, Blood Clots, and \(Purported\) "Vaccine" Studies](#)

[Self Assembly Hydrogel Polymers, Historical Research Context of Hydrogel Smart Materials and Nano Worms That Rapidly Grow From Nanometers to Visible Size](#)

[Unvaccinated vs Vaccinated Blood Comparison – Infrared](#)

Pandora's Polymer: Synthetic Blood and the Cross Domain Bacteria (CDB)

[Pandora's Polymer: Synthetic Blood and the Cross Domain Bacteria \(CDB\)](#)

by [Clifford E Carnicom](#)

February 29, 2024

A second polymer form that originates from the Cross Domain Bacteria (CDB) has been isolated and assessed. The CDB is a xenobiotic, genetically engineered synthetic biology that represents a threat to human existence. It has been under study for several decades and is known to degrade human health in a myriad of ways, with foremost visible damage to the blood.

The research at Carnicom Institute ([CI](#)) over the past couple of years is directed toward an increased understanding of the relationship between the CDB and the interaction from the "Covid Era" that has additionally been imposed. This research

establishes that this synthetic biology is the primary source of blood damage, including that of blood coagulation. There is strong evidence that the purported “vaccines” from the *Covid Era* have added another complex layer of harm that increases the rate of and visibility of blood clots and coagulation.

Blood, biology, chemistry and polymer research at CI is at the core of understanding this relationship. A series of research papers by CI over this same period disclose many of the mechanisms of harm that are now known to exist. Numerous other researchers are now involved because of the assaults from the *Covid Era*, but it is hoped that an immediate awareness of the broader [history](#) of the decades old grand assault from synthetic biology will unfold. For your sake, and our sake, it needs to. No time for debates as to Who's On First at this point...

Here is the assessment of this polymer that can be provided at this time:

“The material remains consistent with a genetically engineered, bacteria produced biopolymer likely composed primarily of proteins with potential incorporation of carbohydrates and lipids. The confirmed presence of hemoglobin and the culture solution properties suggest a genetically engineered product designed to mimic specific functionalities of blood components.”

Once again, keep in mind that this culture product derives solely from the existence of the CDB ([nomenclature](#), 2014). No purported “vaccine” is introduced or required to produce this material.

The existence of synthetic blood, xenobiotic filaments, vinyl polymer functional groups, and proteins within this same culture product will be confronted at some point in comprehending the impact of the CDB upon human biology.

The makings of blood clots, in more than one way, are fully in place from the existence of the CDB alone. As mentioned, the Covid Era appears to add another significant layer of complexity to the blood clotting issue, but original sources for the problems, now amplified, will need to be acknowledged.

And yes, this polymer form [also](#) has “biomedical” (in this case, aka known as synthetic biology) applications.



Second polymer isolation from CDB culture. All evidence points to that of a biopolymer polymer, i.e., composed in part of the biomolecules of life (protein, carbohydrates, lipid, nucleic acids). Magnification 2x.

One distinction that seems to exist between the two polymers recently isolated is that the [previous](#) form appears to act as a significant hydrogel. The dominant characteristics of this polymer seem to center on biological interaction.



Additional image of biopolymer isolated from the CDB. Magnification 2x.

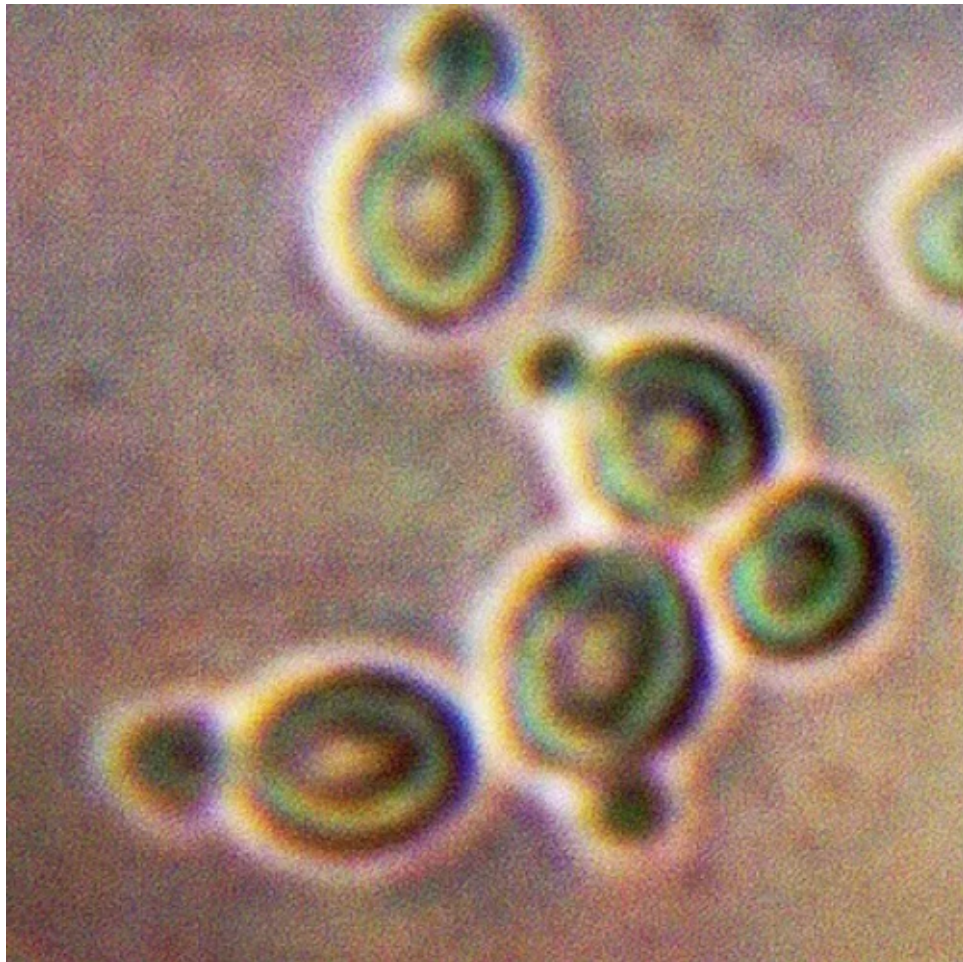


Image of synthetic erythrocytes contained within CDB isolated biopolymer. Multiple tests for hemoglobin present remain positive. Original magnification 8000x.

End of Short Version

In like fashion to the [previous](#) polymer isolated, the following additional information is provided:

The assessment derives from the following testing methods:

1. Measured or observed properties of a particular and specific material that are produced solely by the CDB in culture form.
2. Ultraviolet Spectroscopy (UV)
3. Near Infrared Spectroscopy (NIR)

4. Qualitative Chemistry
5. Conductivity
6. pH
7. Thermodynamics
8. Solubility
9. Reasonably sophisticated chemometric analysis that attempts to synthesize the chemical nature of the material in a combined sense, dependent upon measured properties.
10. Spectroscopy and chemical reference sources.

The measured or observed properties of the substance are:

1. Microscopic view at 3200x reveals significant presence of cells that match erythrocyte geometry and size
2. Thermodynamic properties:
 - a) Browns at 200 deg C
 - b) Charred at 410
 - c) Combustion point, if it exists, is greater than 510 deg C
 - d) Releases detectable volatile organic compounds during heating
3. Near infrared absorbance indicates probable functional groups present:
 - a) Methyl
 - b) Amide/protein
 - c) Vinyl
 - d) Alkyl alcohol.
4. Solubility test information:
 - a) Slightly soluble in water
 - b) Slightly soluble in Acetone
 - c) Insoluble in Mineral Oil
 - d) Moderately soluble in approx 1M sulfuric acid
 - e) Insoluble in NaOH-KOH
5. Color is pure white
6. It is created by genetically engineered bacteria
8. Ultraviolet absorbance at 258 nanometers (nm) and at less than 198 nm.
9. Soft Plastic polymer appearance and texture

10. The material has been confirmed to contain hemoglobin.
11. pH of the generating culture is 3.9
12. Electrical conductivity of the generating culture is 10.6 millisiemens (mS)

Clifford E Carnicom

Feb 29 2024

Born Clifford Bruce Stewart, Jan 19 1953

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[Clifford Carnicom on the Link Between GeoEngineering & Unusual Filaments Within Blood Samples, Blood Clots, and \(Purported\) “Vaccine” Studies](#)

“These Filaments, Actually a Product of Synthetic Biology, Have Altered Human Biology in Untold Ways for Decades”

[TCTL](#) editor’s commentary:

During these past years, as more and more humans are awakening to the global assault that is in the process of transforming or terraforming the planet (including humans and all biological life) there is extensive research related to the so-called “covid mRNA vaccines” and all the deaths related to these poisonous injections. Yet, this assault is not a new agenda and has been going on for a very long time. Geoengineering, tampering with food and water supplies, EMF radiation & wireless technology, poisonous farming practices, and all vaccines (for both humans and animals, all of which have always been toxic and sometimes deadly) have all been part of this global anti-life agenda.

In his article below, Clifford Carnicom, challenges some of the research related to “covid vaccines”. Here he shares links to many articles from his past research related to geoengineering and the highly-toxic substances that fall from our skies. His extensive work in the uncovering of the cause of morgellons, a strange “disease” suffered by so many globally, clearly points to geoengineering as a probable cause. Of interest are the number of military and government agencies who visit his website (see [The Visitors](#)), while at the same time the EPA refuses to analyze and identify the fibrous substance sample that Carnicom provided. Of course, one is reminded here of the U.S. Department of Defense’s role in the rollout of mandated “covid vaccines” (see the work of [Katherine Watt](#)),

For those new to the work of The Carnicom Institute, please take a look at the many links to previous work that Clifford provides at the end of his article.

As an example, here is an excerpt from an article titled “[The New Biology](#)” written in June of 2014:

“It is generally perceived that the so-called “Morgellons” issue is primarily, if not exclusively, a human condition. It is not. It will be found that this condition actually represents a fundamental change in the state and nature of biology as it is known on this earth. The evidence now indicates and demonstrates that there is, at the heart of the “condition”, a new growth form that transcends, as a minimum, the plant and animal boundaries.

The precedent for this argument was made some time past in the paper entitled “[Morgellons: A New Classification](#)” (Feb 2010); the central theme of that paper remains valid at this time. The very classification of the domains of life is central to that paper. Readers may also wish to refer to the

papers entitled, "[Animal Blood](#)" (Jan 2010) and "[And Now Our Children](#)" (Jan 2008), where additional precedents were established. The August 2011 video presentation, "[Geo-Engineering & Bio-Engineering: The Unmistakable Link](#)" is also relevant here."

We owe a lot of gratitude to Clifford Carnicom and so many others who are working to uncover the truth about this horrific transhuman & anti-life agenda that is a daily assault on us all.

~ Kathleen Stilwell 1/12/2024



A "Filaments" Perspective: 25 Years and Counting...

by **Clifford E. Carnicom**, Carnicom Institute

January 11, 2024

For the past several years, there has been some attention given to the presence of unusual filaments within blood samples, blood clots, and (purported) "vaccine" studies. If studied adequately, it will be determined that these filaments have a complex internal biology within them, down to the sub-micron level (minimum). Various names and chemical identities have been assigned to these filaments, such as "ribbons", "threads", "graphene oxide"(i.e., elementary chemistry) and the like. There are numerous implications from various researchers that these filaments originate from the advent of the "Covid Era".

The characterization of these filaments as a product only of recent years, i.e., from purported "vaccines", is mistaken.

Any characterization of the filaments as being of relatively simple or uniform chemistry is mistaken. Any characterization of the filaments as being an unknown and mysterious entity (with no effort expended to remedy that ignorance) is equally inadequate and mistaken.

It is a disservice to simplify their nature, origin, constitution, and capabilities. These filaments, actually a product of synthetic biology, have altered human biology in untold ways for decades and they are NOT a mystery as to their origin or general nature. Any perpetuation of that myth is either from ignorance or with motive.

These unusual and remarkable filaments:

1. Have a known and documented existence of approximately 25 years.
2. Are of an extremely complex biological nature, internally down to the sub-micron level (at a minimum).
3. Have been intensively studied by Carnicom Institute (CI) and others for this same time period.
4. Are directly a physical aspect of the health condition known as "Morgellons".
5. Have been shown to have a direct role in blood clotting and blood changes that appear to occur more frequently and visibly within the *Covid Era*.
6. Are ultimately of a synthetic, engineered, xenobiotic nature.
7. Were first identified to originate from an environmental source (geoengineering, bioengineering research).
8. Were given to the United States Environmental Protection Agency (EPA) in the year 2000 with a request for identification on behalf of the public welfare; this request was refused via a "policy" decision.
9. Are a direct metabolic development of the Cross Domain Bacteria (CDB) under study at CI over these same decades.
10. Have some variation in form (a degree of pleomorphism) and size (although all are primarily microscopic) and all have an

existence that can be shown to directly originate from the CDB.

11. Can be shown to be a source of synthetic blood production under appropriate culture conditions.

12. The filaments can be demonstrated to be distributed throughout human biology, not just blood.

13. Can be cultured successfully from these same CDB.

These conclusions are justified with the [research available](#) at [CI](#) beginning in 1999 and they carry forward to the present day.

As the available research is too lengthy to present, a sampling of representative images and titles from the ~450 paper research set will be given for a sense of the state of affairs:

[EPA Refuses to Identify, Returns Sample After 18 Month Delay](#) (July 5, 2001)

[Biological Components Identified](#) (May 11, 2000)

[Aerosol Ground Sample: Microscopic Views](#) (Nov 4, 1999)

[Visitors to WWW.CARNICOM.COM](#) (Aug 26, 1999)

[Morgellons: An Environmental Source](#) (Dec 14, 2009)

[Morgellons: Airborne, Skin & Blood – a Match](#) (Dec 10, 2007)

[Cross-Domain Bacteria Isolation](#) (May 17, 2014)

[CDB: Growth Progressions](#) (Jun 13, 2014)

[The New Biology](#) (Jun 18, 2014)

[Morgellons: An International Presence](#) (Aug 10, 2016)

[Global Validation](#) (Nov 26, 2017)

[Bean Growth Report](#) (Oct 3, 2017)

[Morgellons : Unique Protein Isolated & Characterized](#) (Oct 1, 2017)

[Blood Alterations: A Six Part Series](#) (Aug 2022 – Oct 2022)

Connect with Clifford E. Carnicom [website](#) | [substack](#)

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Dr. Ana Mihalcea & Clifford Carnicom: What Is Happening to Humanity's Blood? – On the Loss of Electrical Blood Conductivity in the Post C19 Era

[Dr. Ana Mihalcea & Clifford Carnicom: What Is Happening to Humanity's Blood? – On the Loss of Electrical Blood Conductivity in the Post C19 Era](#)

“In our good faith effort to quantify the loss of electrical blood conductivity in the post C19 era and reference this with the extensive previous investigations looking at iron oxidation in blood samples, we have found in our most conservative measures at least a 20% decrease in blood

conductivity and in our modest range estimates a decrease of 47%. In our models this correlates with a 10% and 23.5% increase in iron oxidation."

Evidence of Impaired Electrical Blood Conductivity, Iron Oxidation and Reduced Oxygen Transport Capacity in the Post C19 Injection Era: Ana Mihalcea, MD, PhD in Conjunction With Clifford Carnicom

by [Ana Maria Mihalcea](#), MD, PhD, [Dr. Ana's Newsletter](#)

April 16, 2023



Image: Unvaccinated blood sample, extremely symptomatic patient with fatigue, cognitive impairment, anxiety, pain, palpitations. Blood looks like sludge around Hydrogel/ Graphene/CDB Filament

Background:

In this report, we present preliminary data on further blood

conductivity studies and correlations to iron oxidation of the hemoglobin molecule within the red blood cells. This effort is to answer the question quantitatively and qualitatively of what happened to humanities blood. As a physician, I have seen unprecedented accelerated aging in the unvaccinated over the last two years and the rate of illness is accelerating. In live blood analysis, I have seen Hydrogel/ Graphene Structures, that transform the blood into severe rouleaux formation, making the blood almost unrecognizable and correlating with severity of symptoms. In the last few weeks I have seen this in a more extreme form of toxicity, making the live blood look like sludge. These same structures have been identified by Clifford Carnicom to be filaments growing from the synthetic hydrogel based Cross Domain Bacteria, aka Morgellons. We have shown our work on blood cultures, infrared spectroscopy, and electrical studies which I described in previous posts:

[Blood Cultures of Unvaccinated Blood Shows Extensive \(CDB\) Filament Development After 2 Weeks Incubation- Ana Mihalcea, MD, PhD In Conjunction With Clifford Carnicom](#)

I have also discussed the chemical analysis similarities between filaments sprayed upon humanity via geoengineering and the ingredients of hydrogel building blocks in the self spreading C19 injections.

[Chemical Analysis Comparison of Hydrogel Filaments from C19 Shots and Environmental Geoengineering Sources – Project What Happened to Humanities Blood?](#)

Our preliminary results showing low electrical blood conductivity has to be understood in the context of Clifford's work of three decades evaluating the findings of CDB aka as Morgellons. He began studies in 2011 and more intensively in 2015 to quantify changes in blood conductivity and correlating iron oxidation status in hemoglobin molecules of the blood. Historically, the medical profession has dismissed CDB or

Morgellons as delusionary parasitosis, marginalizing hundreds of thousands of individuals who had severe systemic symptoms of toxicity. However, CDB disease was not just a skin disease, but affected all human beings in a silent way as these fibers were found in blood and tissue samples of everyone investigated. It is known that the covert biological and geoengineering warfare is the source of these nanotechnological synthetic biology fibers.

All people affected had symptoms of chronic fatigue, which overlaps with current findings of what people call "Long Covid". This fatigue is a lack of energy, or life force which is obviously hijacked by these nanotechnological weapons, causing all diseases of aging, including cancer by induction of lower tissue oxygenation and hence increased blood acidity.

Therefore, the question of iron oxidation came into the picture for Clifford. Blood requires iron to be in the primary state of Fe^{2+} to carry and deliver oxygen to tissues. The synthetic nanotechnology biological organism CDB oxidizes iron from its state of Fe^{2+} to Fe^{3+} , in which state it no longer is able to transport oxygen – and causes rouleaux formation.

He described the biochemistry of Heme, the studies of iron oxidation in this paper:

[Morgellons -A Thesis](#)

The loss and transfer of an electron is a transfer of energy. The body's function of oxygenation does not work when the Iron is in its Fe^{3+} state. The state of iron has to be in the Fe^{2+} state to carry oxygen and in that energy.

"Iron is one of the most common elements in the Earth's crust and forms a ready oxidation state. Bacteria use this as a source of energy and as a means of waste disposal.. Iron metabolism is also a significant part of bacterial virulence...It has been established experimentally by injecting iron soluble compounds into test animals with infections that adding more iron causes the bacteria to thrive....Bacteria put out compounds, called siderophores, which attract and bond free iron compounds by chemical processes; these are then oxidized and excreted as a byproduct⁶¹."

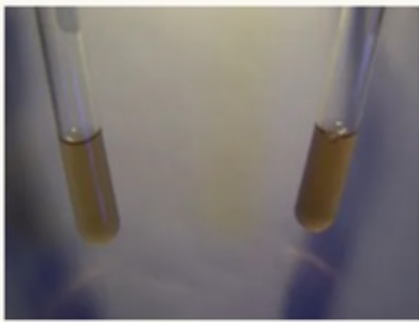
"Iron (Fe) has long been a recognized physiological requirement for life, yet for many organisms... its role extends well beyond that of a nutritional necessity. Fe(II) can function as an electron source for iron-oxidizing microorganisms under both oxic and anoxic conditions and Fe(III) can function as a terminal acceptor under anoxic conditions for iron-reducing organisms⁶²."

"Given the role of free iron in creating DNA damage, it is unsurprising that bacteria have evolved methods to scavenge it....Despite the sophisticated biochemical and genetic strategies that can be brought to bear upon bacteria, we still know remarkably little about the physical mechanisms of iron transport, storage, and regulation, and virtually nothing about iron trafficking and its insertion into metalloproteins. These areas are ripe for future work⁶³."

Source: [Free Iron in Bacteria](#), Jim Imlay PhD, Department of Microbiology, University of Illinois, Urbana-Champaign, Society for Radical Biology and Medicine.

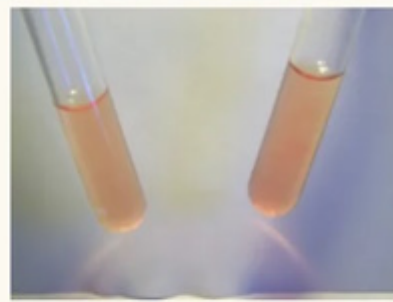
In 2015 Clifford asked the question on what does this iron oxidation mean for the energy production of the body. The question was how much energy would we loose in the body in relation to how much oxidation of iron is observed?

In order to answer this, laboratory experiments were performed that show oxidation of iron. This was evaluated via 1. qualitative chemistry ferrous iron 2+ shows green staining, 2. ferric iron 3+ shows yellow staining. It was also evaluated via qualitative reagent based ion testing.



Testing for Fe^{2+} ions in the culture solution with 1,10 phenanthroline.

Results are negative. No characteristic deep red color forms in the test tube to the right where the reagent has been added.



Testing for Fe^{2+} ions in blood in distilled water solution with 1,10 phenanthroline. Results are negative. No characteristic deep red color forms in the test tube to the right where the reagent has been added.

Results are negative. No characteristic deep red color forms in the test tube to the right where the reagent has been added.



An oral sample filamentous mass produced from extended exposure of the mouth gums to red wine. The sample has been repeatedly rinsed and decanted in distilled water. The purplish color and microscopic filaments are characteristic of the sample.



The oral sample after it has been subjected to a process of alkalizing, heating and filtration. The sample is treated with sodium hydroxide (NaOH) in solution and heated to the boiling point. The solution is then filtered and produces the colored solution above. Please recall that the color of the ferric ion (Fe^{3+}) is usually yellowish to brownish and that the color of the ferrous (Fe^{2+}) ion is generally more greenish in color. This result of this process indicates that the ferric (Fe^{3+}) iron form is a candidate for further investigation in this qualitative analysis.

Model calculations on how much energy is lost:

1. How much energy does it take to oxidize iron?
2. How much iron is in the body?
3. How much oxidation is taking place (it is variable)?
4. How much energy is in a human body in varying states of activity – sitting down, running, weight lifting etc.

The model estimates loss of energy as a function of iron oxidation. If iron oxidizes at a certain percentage, how much energy does the body loose? This energy loss is relative to basal metabolism as a function of oxidation of iron.

The first ionization energy for iron is 7.9 electron volts

(eV) (~760 kilojoules (kJ) per mole), the second ionization energy is 16.2 eV (1560 kJ per mole) and the third ionization energy is 30.6 eV (2960 kJ per mole)⁵¹. What this shows us is that it takes almost twice as much energy to remove the electron to change the iron from the ferrous (Fe²⁺) state to the ferric (Fe³⁺) state as it did to remove two electrons to change it from the elemental form to the Fe(2+) state. From an energy standpoint, therefore, the oxidation of iron referred to in this paper requires a relatively strong energy investment.

To get some sense of what this energy level actually means, let us translate what is happening in the blood to something more tangible for us to visualize. If we assume a 5% reduction in oxygenated hemoglobin over a three month period (the approximate life cycle of red blood cells), this will translate to an energy requirement of approximately 3240 joules over this three month period.

[Humans have roughly 2.5×10^{13} red blood cells; 280×10^6 molecules of hemoglobin in each red blood cell; 7×10^{21} molecules of hemoglobin in each red blood cell; four heme molecules per red blood cell; approx. 2.8×10^{22} Fe²⁺ iron atoms in the human body; at 5% oxidation 1.4×10^{21} atoms in the Fe(3+) state ; .0023 moles of iron in the Fe(3+) state, $.0023(2960 \text{ kJ/M} - 1560 \text{ kJ/M}) = \text{approx. } 3260 \text{ joules over a three month period.}]$

Further calculations and documentation of experimental background can be found here:

[Morgellons A Thesis](#)

Extensive studies on iron oxidation were done in culture work and can be found in [Carnicom Laboratory Notes](#)

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The model formula determined was $\text{Energy Loss in \%} = 2.0 * \text{Iron Oxidation in \%}$ (approx.)

Full documentation of deduction and conclusions about formula can be found here:

[Full Iron Oxidation/ Energy Loss Model calculations](#)

We have a problem with low energy in the body in the post Covid era. What is different about the world three years later?

Blood conductivity studies 2023:

The preliminary data presented was performed with reasonable efforts of standardization of the results, including calibration of the meter and concentration of the sample dilution.

In N=13, all sample aged over 65 years old. Samples were both C19 vaccinated and unvaccinated.

Our samples had a 8 milli Siemens Average blood conductivity ranging from 5.8 to 10.6 milli Siemens. Prior references to normal blood conductivity show range from 10-20 milli Siemens. [Expert Blood Conductivity Values](#)

In our calculations if we take the average blood conductivity at 15 milli Siemens, then our sample average has a decrease of 47%. This is an astonishing number.

If we are highly conservative and choose our reference range for normal blood conductivity at the low end of 10 milli Siemens, our average is still at 20% below normal values.

Given our previous calculations and modeling regarding iron oxidation, we would have an increase of iron oxidation of 23.5% for the high end estimate and a 10 % increase in oxidation for our low end estimate.

There was no statistical difference between C19 vaccinated and unvaccinated blood.

Of note, the lowest values of blood conductivity were obtained from individuals who were not on an intensive nutritional regimen with high doses of Vitamin C and other nutrients to support their immune system. It is my concern, that those who do not use high dose electron donors to alleviate some of the iron oxidation levels, may have blood conductivity values even lower then our calculated average of 8 milli Siemens.

Summary:

In our good faith effort to quantify the loss of electrical blood conductivity in the post C19 era and reference this with the extensive previous investigations looking at iron oxidation in blood samples, we have found in our most conservative measures at least a 20% decrease in blood conductivity and in our modest range estimates a decrease of 47%. In our models this correlates with a 10% and 23.5% increase in iron oxidation.

One of the compounds able to reduce iron from a Fe^{3+} state to Fe^{2+} state is ascorbic acid or Vitamin C. Clifford has done studies showing effective improvement in iron oxidation via Vitamin C and other electron donors. I have been advocating

for this therapy and been performing it intravenously in conjunction with the mainstay of therapy which is EDTA chelation. At the same time, I recommend most ardent measures to minimize exposure to EMF frequencies like 5G and use of cell phones, as the constant exposure clearly worsens the blood changes and makes the Hydrogel/ Graphene/ CDB filaments grow, sometimes a thousand times larger than a red blood cell.

EDTA is a potent electron donor what creates stable bonds with toxic transition metals. EDTA is ethylenediaminetetraacetic acid and its molecular formula is $C_{10}H_{16}N_2O_8$. It has pH value between -0.8 to 12. It is a hexadentate ligand, which means it has 6 lone pair of electrons that participate in coordination bonding. When a metal reacts with one molecule of EDTA, it can form 6 valent coordination complex. Metal ions have 4 bonds on oxygen atoms that are negatively charged and 2 bonds to a single electron pair on the nitrogen atom.

Therefore, EDTA has six donor atoms.

EDTA Donor Molecule

This has reliably reversed the severe blood changes as I have described in multiple other articles.

[Decontaminating The Blood From Synthetic Biology Hydrogel With EDTA Chelation – Live Blood Documentation](#)

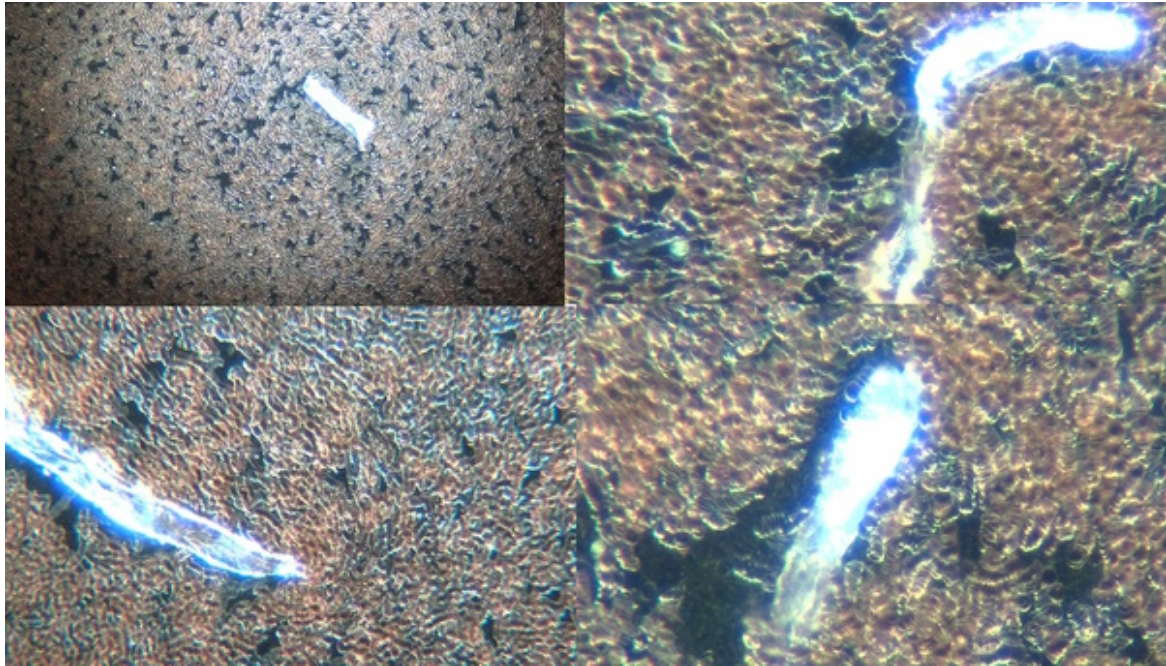


Image: Unvaccinated blood, age 30, highly symptomatic, brain fog, fatigue, palpitations, panic attacks, extreme restlessness, insomnia. Unable to function. Blood looks like sludge, the rouleaux formation is extreme.

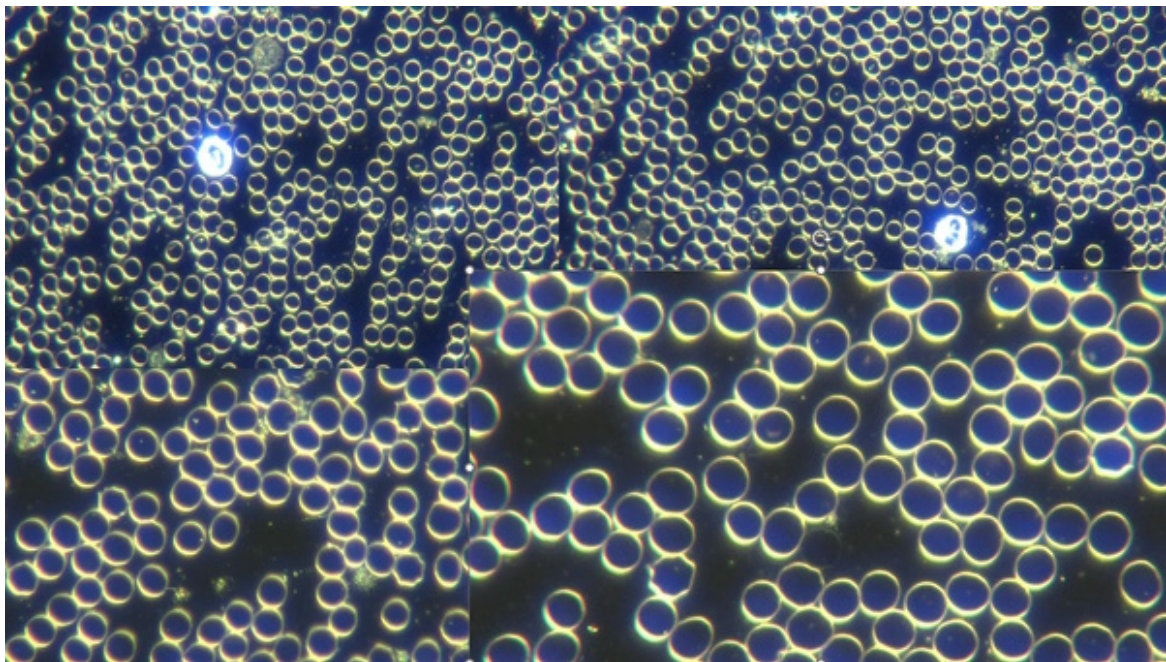


Image: 3 days later after EDTA Chelation 1500mg alternating with 20000mg IV Vitamin C and Epithalon. (total 2 EDTA and 1 Vitamin C IV). All symptoms resolved. Able to hike for 5 hours both days. Sleeping

through the night. Completely focused. No anxiety.

If you would like to support our research Project “ What happened to Humanities Blood? “, please donate to [Carnicom Institute](#). We are a team of scientists dedicated to saving the human species and our planet. Thank you.

Note to scientists and doctors from Ana Mihalcea, MD, PhD: I believe that the current stance of freedom movement doctors to ignore the findings of nanotechnology and synthetic biology causes great harm to humanity, by omitting appropriate treatments. I encourage all scientists and doctors to do their own scientific research and overcome the barrier of hesitancy to address what is so blatantly obvious.

“Silence in the face of evil is itself evil: God will not hold us guiltless.

Not to speak is to speak.

Not to act is to act.”

–Dietrich Bonhoeffer

[Connect with Ana Maria Mihalcea, MD, PhD](#)

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Can Atmospheric Electricity Contribute to Pilots

Collapsing From Blood Clots? How Does Electrically Responsive Hydrogel React Under Increasing Voltage of Electrostatic Fields at High Altitude?

[Can Atmospheric Electricity Contribute to Pilots Collapsing From Blood Clots? How Does Electrically Responsive Hydrogel React Under Increasing Voltage of Electrostatic Fields at High Altitude?](#)

by [Ana Maria Mihalcea](#), MD, PhD, [Dr. Ana's Newsletter](#)

April 2, 2023

We know that the C19 shots contain lipid nanoparticles with are the components of hydrogel like Polyethylene Glycol in Pfizer and SM 102 in Moderna. Hydrogel is a self assembly polymer that grows under the exposure of electrical and electromagnetic fields. I have shown the work of Clifford Carnicom, that low level electrical fields can change the blood to an unrecognizable filament network within an extremely short amount of time. I have discussed our Infrared Spectroscopy, patents and historical work on CDB aka Morgellons – indicate the presence of hydrogel. I have written about this here:

[Unvaccinated Blood: Recurrent New Proof of \(CDB\) Filaments Growing Under Exposure of Extremely Low Electrical Currents: Ana Maria Mihalcea, MD, PhD in conjunction with Clifford Carnicom](#)

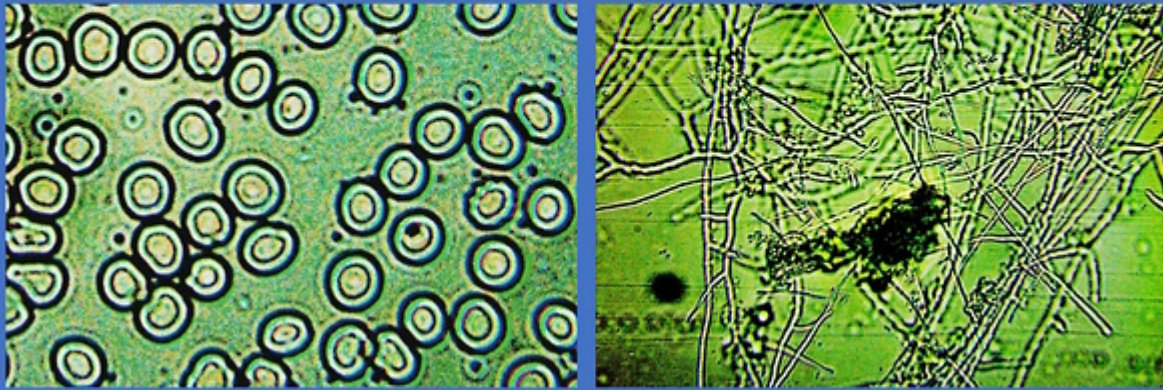
It has been known for over a century and been described by Georges Lakhovsky in 1939, that the electric potential of the terrestrial atmosphere increases with height at the rate of 1 volt per cm. The more modern values are described here:

The [electrostatic field](#) and the difference of potential of the earth field according to investigations, is in summer about 60 to 100 volts and in winter 300 to 500 volts per meter of difference in height, a simple calculation gives the result that when such a collector is arranged for example on the ground, and a second one is mounted vertically over it at a distance of 2000 meters and both are connected by a conducting cable, there is a difference in potential in summer of about 2,000,000 volts and in winter even of 6,000,000 volts and more. [\[11\]](#)

Many explain electricity in a wire with the analogy of a water pipe. The pressure in the pipe is the voltage (V) and the flow velocity of the current is measured in amperes (A). Power, which is measured in watts (W), is the energy unit per time. Their mathematical relationship is: $V \times A = W$

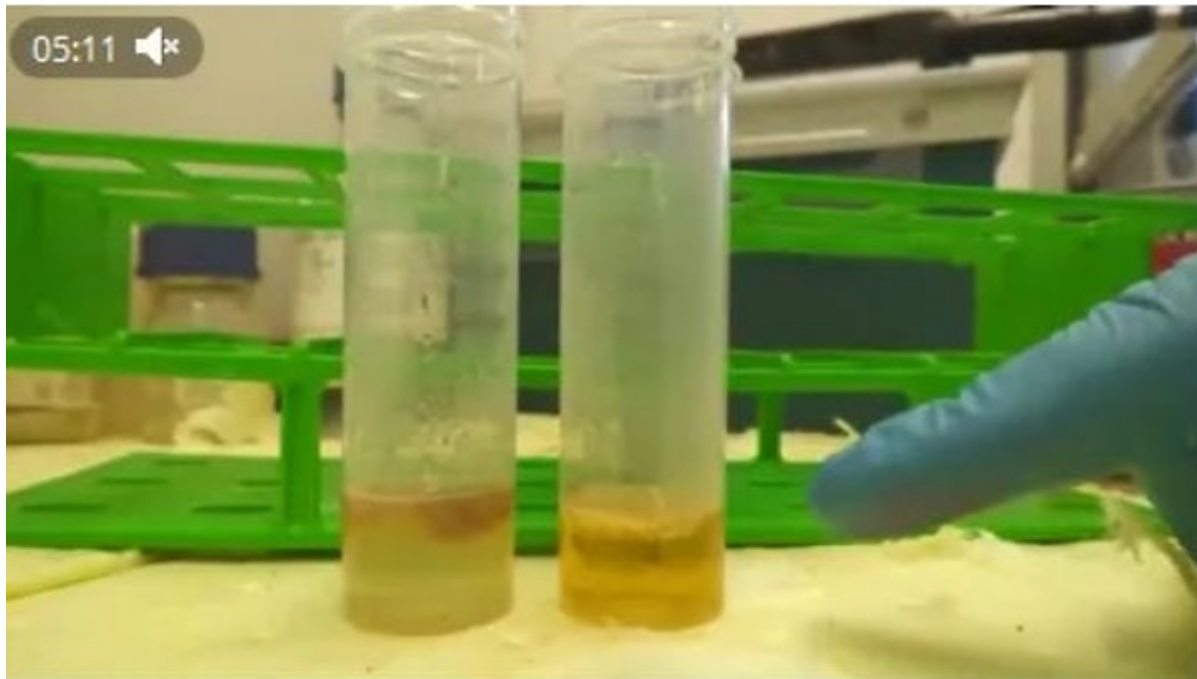
Imagine our experiment done by Clifford Carnicom even on unvaccinated blood applying 10 micro amps of current for two hours.

*Unvaccinated blood, extensive filament network seen under
10 micro amp electrical current original mag. approx. 1500x*



www.carnicom institute.org

Now remember the analysis of Mike Adams on the cadaver blood clots, taken from vaccinated individuals. It contained conductive metals and self assembly carbon rich polymer.



A Self Assembling 'Clot' That Accumulates Conductive Metals

Mike Adams: There's something highly unusual that's causing this sparking, popping, fiery reaction. Whatever's in this clot is rapidly inviting oxidation. It's highly combustible; we've not seen anything like this before. This is clearly not blood vessel tissue.

The analysis shows:

- The clots are absolutely not made of blood
- They attract different types of elements more than what blood would
- It's a self assembling, carbon rich structure
- The 'clot' accumulated a higher level of aluminium, sodium and 6-7X higher levels of tin, and phosphorus
- Many of these elements are conductive

39K 11:24 PM

I have discussed my concerns about hydrogel being the culprit of these rubbery blood clots after the documentary "Died suddenly" came out:

Thoughts and Comments about “Died Suddenly” Documentary

It has been shown that electrical signals can control the self assembly of hydrogel:

Coding for hydrogel organization through signal guided self-assembly†

Kun Yan,^a Feiyuan Ding,^a William E. Bentley,^b Hongbing Deng,^a Yumin Du,^a Gregory E. Payne^b and Xiao-Wen Shi^{*a}

⊕ Author affiliations

Abstract

Complex structured soft matter may have important applications in the field of tissue engineering and biomedicine. However, the discovery of facile methods to exquisitely manipulate the structure of soft matter remains a challenge. In this report, a multilayer hydrogel is fabricated from the stimuli-responsive aminopolysaccharide chitosan by using spatially localized and temporally controlled sequences of electrical signals. By programming the imposed cathodic input signals, chitosan hydrogels with varying layer number and thickness can be fabricated. The inputs of electrical signals induce the formation of hydrogel layers while short interruptions create interfaces between each layer. The thickness of each layer is controlled by the charge transfer ($Q = \int i dt$) during the individual deposition step and the number of multilayers is controlled by the number of interruptions. Scanning electron micrographs (SEMs) reveal organized fibrous structures within each layer that are demarcated by compact orthogonal interlayer structures. This work demonstrates for the first time that an imposed sequence of electrical inputs can trigger the self-assembly of multilayered hydrogels and thus suggests the broader potential for creating an electrical “code” to generate complex structures in soft matter.

Coding for hydrogel organization through signal guided self-assembly

We are facing an unprecedented occurrence of medical emergencies in pilots, which are ignored in main stream media, but covered by Dr. William Makis:

TAROM Flight RO-7673 TSR-HRG service from Timisoara (Romania) to Hurgada (Egypt) diverted: 30 year old pilot had chest pain and collapsed in-flight on March 25th, 2023 – 7th pilot incident this month

And here is more...

Air Transat Flight TS739 FDF-YUL service from Fort-de-France to Montreal, Airbus A321-200: pilot incapacitated in-flight on

March 18th, 2023 – 6th incident this month

*How much electricity is in the human body? Scientists agree that the human **body**, at rest, can produce around 100 watts of power on average. This is enough **electricity** to power up a light bulb. Some humans have the ability to output over 2,000 watts of power, for instance if sprinting.*

Summary:

I have been sounding the alarm that the rubbery clots seen in deceased vaccinated individuals are made from hydrogel, which is what Mike Adams confirmed. We have shown how blood changes under low level electrical current, clearly growing a filament network, aka rubbery clot like structures. High altitudes voltage increased to anywhere between 2-6 million (or more) volts at high altitude, could increase the electrical power in the body significantly and contribute to sudden growth of hydrogel filaments. The same can happen with exercise, as the body can increase its power output from 100 to 2000 watts. We must consider that hydrogel self assembly is not only enhanced via electromagnetic fields like 5G but also via electricity. We are a body electric. Could it be that the hydrogel is harnessing our own electric field, as well as that of the environment to produce a “kill switch?”

The evidence so far certainly suggests this and I urge scientists and doctors worldwide to explore this causal relationship. Aviation safety should explore these causalities and their obvious emerging scientific questions. Once again, I ask doctors to use the diagnostic tool of live blood analysis to see if pilots and athletes have these structures. Voltammetry testing on blood of high risk individuals may be an unconsidered valuable diagnostic tool to prevent catastrophic events like airplanes falling out of the sky or people dying suddenly.

All pilots and athletes especially, aside from every human

being on the face of the earth, should have live blood analysis BEFORE flights or engaging in exercise. If the hydrogel structures are visible, the blood needs to be cleared and these contributing activities avoided. As you know, I recommend EDTA Chelation with other extensive protocols that I have mentioned in prior substacks and interviews. Most of all, the conversation about this concerning association needs to be taking place worldwide.

[Connect with Dr. Ana Maria Mihalcea](#)

Cover image credit: [navyclown](#)

Unvaccinated vs Vaccinated Blood Comparison – Infrared Spectroscopy and Electrical Conductivity Studies

[Unvaccinated vs Vaccinated Blood Comparison – Infrared Spectroscopy and Electrical Conductivity Studies](#)

by [Ana Mihalcea](#), MD, PhD, [Dr. Ana's Newsletter](#)

March 27, 2023

Introduction

In this article, I describe a series of experiments that were done on six unvaccinated blood samples and three vaccinated

blood samples with Infrared Spectroscopy and a electrical conductivity meter. The purpose of this investigation is to begin to quantify with objective measurements what has happened to the blood of humanity since the roll out of the C19 injections. As I have described in previous posts, ribbon like structures have been found in vaccinated and unvaccinated live blood analysis at an unprecedented rate, in addition to extensive rouleaux formation and micro clotting.

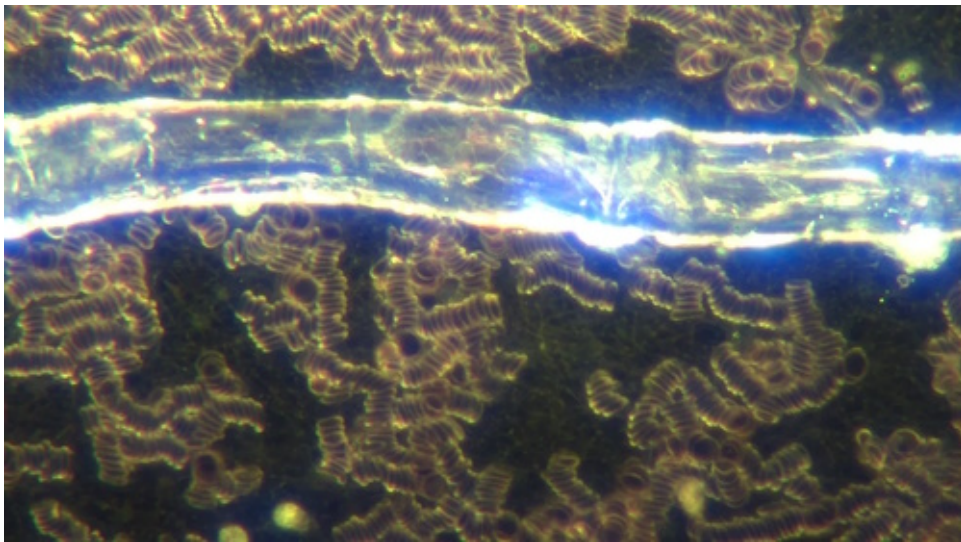


Image courtesy: Unvaccinated blood with rouleaux and characteristic filament structure in post C19 shot era

Clinically, these findings have been accompanied with an undeniable accelerated aging process in the population, exhibiting symptoms like chronic fatigue, brain fog, cardiovascular abnormalities and more. This symptoms complex has been categorized as "long Covid". In my own clinical practice, everyone post Covid, everyone with long Covid and over the last months everyone unvaccinated coming for a live blood analysis has these structures in their blood. The source is presumed from the environment and vaccine shedding. I have suspected it to be self assembly hydrogel possibly with Carbon nanostructures and metals involved based on my background research.

Many people call these structures Graphene. The chemical

composition of these structures, to my current knowledge, has not yet been evaluated. Clifford Carnicom has done extensive research in the area of CDB synthetic biology. I have reported on our recent unvaccinated blood experiments applying very low level electrical current, which shows extensive filament development.

Unvaccinated Blood: Recurrent New Proof of (CDB) Filaments Growing Under Exposure of Extremely Low Electrical Currents: Ana Maria Mihalcea, MD, PhD in conjunction with Clifford Carnicom

Infrared spectroscopy (IR spectroscopy or vibrational spectroscopy) is an analytical technique used to study and identify chemical substances or functional groups in solid, liquid, or gaseous forms.

Clifford Carnicom has three decades worth of IR spectrometry experience investigating environmental filaments (CDB) and the blood of those exposed. The CBD synthetic biology culture work that he has done, evaluated the abnormal metabolic products in affected blood which included 1. water soluble proteins, 2. solid proteins, 3. filament network. These water soluble products under IR spectroscopy created a plastic like film classic of polymer hydrogel with specific frequency peaks. For more information, please see Carnicom Institute. Similar functional groups occur historically in CDB research and in these new experiments of the post C19 injection era.

Preliminary Results:

Infrared Spectroscopy Unvaccinated

History of mild to moderate Covid, no long Covid, N=5

Nanometer Peaks	Associated Chemical Groups
934nm	CH, ROH
1386nm	CH ₃ , ArOH
1524nm	RNH ₂

1 out of 5 samples had a very weak peak of 1648 nm which is why we describe it as a secondary result.

History of severe Covid with respiratory failure and long Covid, N=1

Nanometer Peaks	Associated Chemical Groups
1315nm	SH bond
1100nm	ArCH
1648nm	ArCH
1386nm	CH ₃ , ArOH
1035nm	RNH ₂

CH = carbon hydrogen bond. ROH= hydroxyl group. CH₃= methyl group, ArOH= aromatic alcohol, RNH₂=monoamine. SH=disulfide bond. ArCH=aromatic ring with carbon hydrogen

Vaccinated Blood Infrared Spectroscopy, N=3

Nanometer Peaks	Associated Chemical Groups
920nm	CH, ROH
1386nm	CH ₃ , ArOH
1514nm	RNH ₂
1585nm	New NH
1645nm	ArCH
1435nm	New ROH, CONH ₂ , CH

CH = carbon hydrogen bond. ROH= hydroxyl group. CH₃= methyl group, ArOH= aromatic alcohol, RNH₂=monoamine. SH=disulfide bond. ArCH=aromatic ring with carbon hydrogen, CONH₂= Amide, derivative of carboxylic acid

Summary of preliminary findings:

Unvaccinated blood with history of mild Covid samples have commonalities in IR signatures. Unvaccinated blood with history of severe Covid, respiratory failure and significant long Covid have IR signatures of aromatics and disulfide bonds similar to previously seen in CDB culture work, both could indicate presence of hydrogel polymers. Unvaccinated blood with history of respiratory failure shares an IR peak signature with vaccinated blood of secondary amines. Those can include the amino acid proline, which can form natural

hydrogels, but also other chemicals. Frequency signatures within 5 nm can be considered equal. Vaccinated blood contains completely new spectroscopy findings with new functional groups not identified in any unvaccinated samples.

Aromatic Alcohols and aromatic Carbon Hydrogen bond lead to questions about polymeric alcohols/ hydrogels considering decades of similar IR spectra with CDB filaments. Continued research is necessary to evaluate patterns with larger sample size.

Preliminary Findings of Blood Conductivity Measurements

Measurements of vaccinated and unvaccinated blood with a conductivity meter (N=9) was performed. Preliminary data of these samples shows up to 50% reduction in blood electrical conductivity compared to normal historical values in literature. It appears that vaccinated people have even lower conductivity then unvaccinated. This correlates with clinical findings that many people experience chronic fatigue symptoms, brain fog and decreased mitochondrial function – which has been called long Covid. Further research is necessary in larger sample sizes to evaluate statistically significant changes.

If you would like to support our research to help humanity, please donate to the Carnicom Institute to fund our need for scientific research equipment. Your generosity is much appreciated. <https://carnicominstitute.org/donations-paypal/>

Project WHAT HAPPENED TO HUMANITIES BLOOD: If you have significant experience in Infrared Spectroscopy and would like help with analyzing over twenty years of thousands of blood samples for patters in chemical changes that have occurred with the C19 shots roll out, please contact me.

[Connect with Dr. Ana Mihalcea](#)

[Connect with Clifford Carnicorm](#)

Cover image credit: [sipa](#)