

The Blood and its Third Element - Professor Antoine Bechamp

(ed. 2017 - A Distant Mirror)

5 Bechamp always thought that his work was unfinished

6 1920's/30's - Royal Rife - cured cancer and others with electromagnetic frequencies.

By his death he was forgotten - 'authorities' destroyed all work & equipment.

Gaston Naessens - went further than Bechamp - identified the various stages of somatid life cycle.

Phillipa Uwins - nanobes - "The morphological and micro structural characterization of novel nano-organisms."

7 "There is no single cause of disease."

Translator's Preface (Leverson)

8 Microbian or germ theory of disease - "The greatest scientific silliness of the age." - Bech.

10 Molecular granulations = microzymas = may evolve into bacteria (under certain conditions)

11 Microzymas = imperishable.

12 Microbian theory - wrong - same as germ theory.

Author's Preface

31 1866 "The year following... [1865]" - First lists "microzymas" in Comptes Rendus of the Academy of Sciences.

Comptes rendus de l'Académie des Sciences, or simply Comptes rendus, is a French scientific journal which has been published since 1835. It is the proceedings of the French Academy of Sciences.

Since Leuwenhoeck (17th century) known that human saliva contains microorganisms - Bechamp found these to be chiefly microzymas in a clean mouth...

With Alfred Estor & Camille St. Pierre - Published (Academy) "On the role of the microscopic organisms of the mouth in digestion in general and particularly in the formation of the salivary diastase,..."

32 1870 and following - Estor - "...he then became my collaborator... in proving that that which was true of milk and meat was also true for all the parts of an animal... also resulted... the microzymian theory of the living organism. The construction whereof is completed by the present work."

"**The** new theory rests upon a collection of fundamental and new facts which may be arranged under the following heads: ... 1) ii) Demonstration that the soluble ferments or microzymas are not the products of some change of an albuminoid matter, but the physiological products of a living organism; in short, that the relation of a mould, of beer yeast or of a cellule and of a microzyma with the zymases is that of producer to a product."

33 3) "Demonstration that natural organic matters are spontaneously alterable, because they necessarily and inherently contain the agents of their spontaneous alteration."

"That is, productions similar to those which I called "little bodies" in certain experiments upon sugared water, and "the living beings already developed", in the letter of 1865 to Dumas, and to which I gave the name of microzymas the following year, as being the smallest of ferments, often so small that they could only be seen under the strongest enlargements of the immersion objectives of Nachet, but which I had discovered to be the most powerful of ferments."

33 "Ever since 1870 all my efforts have been directed to its discovery (microzymas - proceeding from a germ in the air, of the chalk, of the milk, of natural organic matters.)... the producer of zymases."

"... these microzymas functioning like anatomical elements endowed with physiological and chemical activity in all the organs & humors of living organisms in a perfect state of health, preserved there morphologically alike and functionally different, ab ovo et semine, in all the tissues and cellules of the diverse anatomical systems, down to the anatomical element which I have called **microzymian molecular granulations**. And especially, they showed me that the cellule is not the simple vital unit... because the cellule itself has microzymas as anatomical elements."

34 "... microzymas... produced chemical alterations... which inevitably led to tissue disorganizations... changing in form and function (pleomorphism)

could become vibrioniens by evolution, which they did whenever the conditions of this evolution were realized." i.e. microzymas are reactive.

"... I established that... the bacteria which the anatomical microzymian elements had become, destroyed themselves... they were at last reduced to microzymas... i.e. they were restored to the mineral condition, so that of the natural organic matters and of their tissues and cellules there remained only the microzymas."

"These microzymas... were identical morphologically and functionally, with those of chalk, calcareous rocks, alluvins, water, arable or cultivated earths, or the dusts of the streets and the air."

"From these experiments, I argued that the microzymas of the chalk, etc., were the microzymas of the bacteria which the anatomical element microzymas of the living beings of the geological epochs had become!"

[Here we see that Bechamp predated Naessens link between the microzyma/somatid and bacteria. This places Bechamp well on the path to discovering all that Naessens did approximately 100 years later!]

35 "... I am able to assert that the microzyma is at the commencement of all organization."

"... it follows that these microzymas are the living end of all organization. The microzymas are surely then living beings of a special category without analogue."

"**Estor** and I demonstrated that in a condition of disease, the microzymas which become morbid determine in the organism special changes, dependent upon the nature of the anatomical system... which leads to the disorganization of the tissues... to the destruction of the cellules... so that the microzymas, living agents of all organization, are also the agents of disease and death..."

"**Finally**, they are the agents of total destruction when the oxygen of the air intervenes... the microzymas... are physiologically imperishable."

"... anatomical element microzymas... are not pre-existent in the air, in the earth and in the waters, but are the living remains of organisms which have disappeared and been destroyed."

Experimental Fact - The very highest form of all evidence which can be supplied by science, cuts away the entire fabric of the microbial theory of

disease from its very foundation. Never having been other than a **baseless guess** on the part of Pasteur and of his followers, it was fittingly designated by Bechamp as "the greatest scientific silliness of the age"...We are mocked by quarantines, vaccines, inoculations and other devices for "conveying" the products of labour into the pockets of official doctors. We are gulled by them to the full extent of our willingness to be gulled. The opponents of a truly rational medicine are many and powerful, as evidenced by the suppression for more than a generation of Bechamp's admirable discoveries beneath a conspiracy of silence, and these opponents of the art of healing are entrenched in nearly all medical schools, in richly endowed research institutes, in expensive manufactories of animal poisons for poisoning men and animals (under the ignorant belief that they are benefiting us), and in all medical officialdom! - Levenson, 1912

36 "... tissue and cellular pathology are in reality microzymian pathology."
Professor Alfred Estor

"**Nothing** is the prey of death; everything is the prey of life."
(imperishable microzymas)

38 "But so fertile is this theory founded upon the nature of things..."

"The microzymian theory of the living organism is true because...
Nothing is but what ought to be. Nothing is created; nothing is lost."

48 Pasteur makes declaration, subsequent to Bechamp's experiments of 1857 = PLAGIARISM. [1] (see p. 53 - footnote)

53 Roux - "The medical work of Pasteur began with the study of fermentations... This was an absolute untruth, for 7 years later Pasteur had not yet attained to an elementary understanding about them."

49 "... living organization is characterized by the property of producing and secreting zymases, each according to its nature or species..."

1862 - Pasteur (noting Bechamp's verification of hypothesis) publishes a memoir against spontaneous generation, wherein the alteration of all organic matters was explained... 2nd plagiarism. [2]

1863 - Pasteur experiment - "... he applied my method of substituting alcohol in the place of creosote. That was a 3rd plagiarism." [3]

50 Up to 1870 - Bechamp & Alfred Estor continued "the study of microzymas of the higher organisms."

1872 Pasteur's boldest plagiarism: "He discovered all of a sudden, 8 years after my discovery thereof... that the ferment of vinous fermentation exists naturally upon the grape." "... he discovered also that plant and animal matters contain normally the things which cause them to alter spontaneously... that their cellules, without atmospheric germs, are ferments." ("In other words, he repudiated his experiments and conclusions of 1862.")

Up until this time (1872), Bechamp & Estor gave Pasteur consideration - they registered their claims in the Comptes Rendus Vol LXXV pp. 1284, 1519, 1523, 1831.

51 In 1876 Pasteur 'explained' that the cause was atmospheric germs what he 'explained' was spontaneous generation in 1862.

1863 Pasteur **invents** the word "microbe".

Also, Pasteur "organized the conspiracy of silence around the works related to the microzymian theory"...

Bechamp attacks the principles of the microbial doctrines, ...

"Cornil maintained that the discoveries of Pasteur had been verified in every country and that I was alone in the world... Bechamp replies...

"It is not because everybody thinks so that it is true. I have demonstrated in an already old communication that the protoplasmic system, false in its principles, is false also in its consequences. It is so likewise with the microbial doctrines. For the dignity of science and of human reason it is time that they were abandoned."

52 Estor protests - "That honorable and conscientious savant died of grief!"

"The microzymian theory has experienced in our days... the fate of all new truths which go counter to the habits, the passions and the interests of those in power."

"... **it is** that part of mankind which allows for the plagiarist to calumniate and to vilify the victim whose work he has plagiarized."

54 M. Levenson - re: academia "... and, what is worse, training students of biology, physiology, pathology and medicine to mistake follies for wisdom!"

56 1860 - Bechamp's views - remain to be true

64 "A separation which had occurred in 1876, and then the so premature death of Estor, deprived me of my eminent collaborator and devoted friend..."

"Bechamp & Estor had demonstrated that the blood contains, besides the 2 species of globules (cells), a third figured element, clearly determined in form & properties, by means whereof the phenomenon of coagulation could be explained..."

65 "In our note of 1869, the microzymas of the blood were expressed as the first cause of the production of fibrin and the proximate cause of coagulation."

70 Bechamp's logs "germs of the air" hypothesis verified-published (1858)

72 Microzymas "extreme minuteness" C.R. 1866

Microzymas, air, creosote (disinfectant) relationship.

73 Microzymas in the air vs. microzymas inherent to living organisms.

Microzymas - "agents of change"

77 Microzyma diameter $\leq .0005$ mm ($\leq .0000005$ m)(≤ 0.5 micro m)(≤ 500 nm) "hardly attains"

[Here again Bechamp demonstrates that his initial discovery of the microzyma includes the pleomorphic affects of converting to bacteria, that Naessens well illustrated & documented 100 years later.]

78 "1. The fibrinous microzymas liquefy starch and then become bacteria."

83 Proof - "... fibrin, like milk, the liver, etc. is neither a proximate principle nor a compound of such principles, but that like them it is an organic body containing special microzymas. Further, these living microzymas are what, in the fibrin, liquefy starch and can become vibrionien by evolution..."

87 "... as the pancreas or its microzymas produce pancreazymas, which liquefy and saccharify starch..."

88 "... heat at 100 deg. C. kills the microzymas as it destroys the activity of all the zymases..."

"Fibrin is not a proximate principle. It decomposes oxygenated water correlatively to a change in the zymas produced by its microzymas..."

91 Levenson reports - (re: microzymas) - "For the purpose of continuing the 'conspiracy of silence' beneath which the discoveries of Bechamp have been obscured for so many years, this word and its congeners are never used in the writings of the chief conspirators, nor in those of the numerous leaders of the profession who have been duped by them."

102 "We must then erase the fibrins from the list of proximate principles to see them only what they really are, that is microzymian false membranes."

104 haemoglobin = animal proximate principle

111 "... the blood really contains the fibrin in the state of *microzymian molecular granulations*."

112 "... after having **proved** the presence of the microzymas of the blood in the fibrin..."

"... **proving** that there were microzymas in the fibrin that we compared them to the microzymas of the liver, finding them smaller and more transparent."

117 "... molecular granulations..., where each granulation is a spherical mass of albuminoid matter having a microzyma for its centre." "... the very dilute HCl acid dissolves the enveloping albuminoid matter, leaving the central microzyma undissolved."

Albumin [albumin.org]

Albumin is a family of globular proteins, the most common of which are the serum albumins. All the proteins of the albumin family are water-soluble, moderately soluble in concentrated salt solutions, and experience heat denaturation.

"**Direct** observation had already permitted Estor and I to declare... contains around the globules an innumerable number of microzymas..."

118 "We did not fail to add that the reason they had escaped the attention of histologists was because of their minuteness and transparency."

"It was in reality a *dirigent* idea which enabled us to find them where they had not before been seen." [dirigent: adjective - (*obsolete*) directing]

121 "... a microzyma... which is enveloped in an atmosphere of a soft substance, mucous & hyaline."

"It is not then surprising, the central microzyma being so very small, that it escaped microscopic observation; in fact, it only becomes visible when the albuminoid matter of the enveloping atmosphere, outside of the vessels, begins to undergo the *allotropic* modifications which cause it to acquire the properties which it possesses in the fibrin." *allotropy* - existing in two or more distinct forms.

"... **all this** the microscope is incapable of showing directly because all the parts in the entire organ have the same refractive index. But as soon as, by grinding, this organization is destroyed, the conditions of existence of the anatomical elements of the organ are altered, and the microzymas and crystalline tubes become visible."

*Exosomes - "... a subtype of extracellular vesicles... typically **30 - 150 nm**

Bechamp - microzymas, "no more than" & "hardly attains" **500 nm**

122 "The facts of this chapter establish definitely that the blood contains a **third anatomical element**... previously unrecognized because of its anatomical constitution, its location and its properties, I have named haematic microzymian molecular granulations."

"... it becomes evident that ordinary fibrin is nothing other than the microzymian granulations..."

"We shall see how... (microzymian granulations) ... explain the phenomenon of spontaneous coagulation of the blood..."

123 Levenson - "The blood does not really coagulate."

"In isolating the microzymas of the pancreas, as Estor and I had isolated those of the liver, I found them enveloped with an atmosphere of complex matter..." (MMG - Microzymian Molecular Granulations)

Google - blood coagulation -

"coagulation cascade" is described - complicated process noting such things as '30 proteins known as clotting factors'; factor 7A; factor 10A; thrombin (enzyme); factor 13, etc.. How much of this process is Truth and how much is "facts" that are handed down, generation to generation of 'medical students' remains to be seen. i.e. how much of it is proven & substantiated Truth will be revealed in time.

124 Red globules = globules = red blood cells

Size of platelets = 1.5 - 3 microns = 1500-3000 nm

red blood cells = 6 - 8 microns = 6000-8000 nm

"A red blood cell is .000007 of a meter in size" = 7000 nm

tegument - the enveloping membrane of a body (cell, etc.)

corpuscle - a minute body or cell in an organism, especially a red or white cell in the blood

hemoglobin - a protein in your red blood cells that carries oxygen

exosomes* - extra-cellular membrane vesicle that contain constituents (protein, DNA, RNA) of the **cells that secrete them.

vesicle - tiny sacs that transport material within or outside of the cell

albumin - a class of simple, sulfur-containing, water-soluble proteins

proximate principles - compounds occurring naturally in animal and vegetable tissues and separable by analytical methods (nothing figured or living).

vibrio - any curved or spiral rodlike Gram-negative bacterium of the genus *Vibrio*

vitellin - Vitellin is a protein found in the egg yolk. It is a phosphoprotein. Vitellin is a generic name for major of many yolk proteins.

humor - In medicine, a fluid or semifluid substance. For example, the aqueous humor is the fluid normally present in the anterior chamber of the eye, between the cornea and the iris.

protoplasm - [see page 172] the cytoplasm and nucleus of a cell. The term was first defined in 1835 as the ground substance of living material and, hence, responsible for all living processes; the term Protoplasm is not often used these days, however, due to the fact that it was initially used to imply that a cell only contains two components, a nucleus and a simple, homogenous cytoplasm.

polarimetry - Polarimetry is the measurement and interpretation of the polarization of transverse waves, most notably electromagnetic waves, such as radio or light waves. Typically, polarimetry is done on electromagnetic waves that have traveled through or have been reflected, refracted or diffracted by some material in order to characterize that object.

127 "... if there is no cellule without an envelope, neither is there one without microzymas." "The red globules are, in fact, no exception."

132 "The blood really contains 3 kinds of anatomical elements: the red globules (blood cells), the white globules and the microzymian molecular granulations."

"... and contain microzymas which I have **proved** to be living... and by their capacity to become vibrioniens by individual evolution..."

137 "... Estor & I have shown that the container & content of the vascular system are born and developed simultaneously with the aid of the microzymas and the unorganized materials of the vitellus." C.R. LXXV p. 962 (1872).

140 "In the microzymian theory, it is not life which produces or elaborates the proximate principles, but the anatomical elements are constituted into living apparatus by the microzymas..."

142 "... the only thing certain is that the blood, like the flesh, is a tissue and that both of them are spontaneously alterable, as are all tissues, when the natural conditions of existence of their anatomical elements are no longer realized."

144 "The fibrinous microzymas... are, along with the pancreatic microzymas, the smallest I have observed... diameter - .005 mm in the humid state."

" This enables us to calculate that in 1 cubic mm there are at least 15,250 million."

"... one litre of blood contains more than 27 x 15,000 million microzymas."

145 "... it will presently be proven that they do in reality occupy it all." (MMG in blood) further...

146 "The microzymian molecular granulations exist throughout the whole of the space occupied by the flowing tissue (blood), except that which is occupied by the globules and the intercellular and intergranular liquor."

147 "But the following are **2 phenomena** which the hypothesis of the plasma cannot explain... this is what the plasmatic hypothesis cannot explain...But that hypothesis has never been verified."

1) the serum changes from a lemon colour to a deep red colour - globules deprived of oxygen and their changed colouring matter diffuses in the serum.

2) the rapidity of the coagulation 'may vary notably' from one species to another... this is 'well fitted' to verify the truth of the role ascribed to the microzymas."

152 "The conclusion which results from this new series of experiments... sufficiently explains the facts..." "It is time then to erase from the language of science the words plasma, plasmine, fibrinogen and fibrinoplastic, with which it has been encumbered." Levenson - "also get rid of microbe... (p. 169)

153 "... in truth, the blood does not coagulate..." "The supposed spontaneous coagulation of the blood is only the end of the 1st phase of the spontaneous alteration of the flowing tissue..."

First phase - chemical alteration - coagulation of the albuminoid atmosphere of the MMG - forms clot - retraction of latter - expulsion serum. Globules have nothing to do with it (**proven** by horse experiment).

Second phase - begins when serum changes from yellow to red. (includes the destruction of globules).

1863 - Pasteur experiment - 5 years after Bechamp **proved** germs in the air - Pasteur gives up spontaneous generation.

154 Pasteur = protoplasmist = sees an organism as proximate principles (nothing in it figured or anatomically living).

156 "... protoplasmism had been accepted as dogma..." "... the mass of the blood or the flesh to be regarded as a collection of proximate principles..."

157 "**Servel**, Estor's assistant, had presented to the academy (C.R. Vol. LXXIX p. 1270) a work **verifying the fact** that with absolute protection from atmospheric germs, the most diverse tissues could produce bacteria even in their interior, and cited other verifications made in Germany."

158 Pasteur denies microzymas - "creatures of the imagination".

"[fibrin]... while its microzymas become bacteria."

"The following experiment **demonstrates** that O₂ has no influence in the phenomenon of the destruction of the globules in defibrinated blood." (something Pasteur held to)

159 Destruction of globules (on coagulation) - microzymas inherent to globules.

J. Bechamp - repeated Pasteur's experiment on flesh - he **found** in the centre of meat microzymas in evolution and vibrios or bacteria. (Pasteur said that the germs of vibrios were absent - Protoplasmic system.)

160 "The excessive role ascribed to the germs of the air... have diverted science into a deplorable road."

161 "Indicates... that the microzymas of the milk are different from those of the blood."

163 "[fermentation]... the microzymas... did not undergo vibronian evolution. In order that the vitellin microzymas may evolve, other conditions are necessary."

164 "... I had long before **observed** in studying the microzymian origin of the vibrioniens."

"While the globules of yeast is being destroyed and its microzymas set free and begin to undergo vibronian evolution, several phases of this evolution are to be **observed** (Naessens)..." C.R. Vol. LXVI p. 421 & 859 (1868)

"... all these productions **may be seen** at the same time in the field of the microscope."

167 "... for I have **experimentally proved** that the microzymas of animal origin and those of the yeast are actually the figured ferments which produce..."

"**From all these experiments it results incontestably** that the microzymas of living organisms in general, and those of the blood and the blood globules in particular, are anatomical elements and are themselves figured ferments; that is to say, that they are living and organized in the same manner as it is proposed that yeast is; as also are the vibrioniens which these microzymas may become by evolution, out of the same organized substance.

But the microzymas are living beings of an entirely special order, without analogy, on which I have insisted for a long time and again insist upon as crowning the demonstration that the blood is veritably a tissue."

"And the anatomical change may be so rapid, as is well known to histologists, that one is obliged to take steps to preserve the integrity of the tissues. [blood alters rapidly subsequent to **shedding**] **In fact, one or two minutes may suffice, after the blood has been shed, to render it impossible to demonstrate the third anatomical element.**"

168 "This phenomenon (coagulation) is solely the work of the microzymas..."

"As I have said, the microzymas are living beings of a special order without analogy..."

170 "His memoir shows the efforts made by Pasteur to convince himself that the germs of the air are the sole origin of the vibrios."

172 "... all the tissues (including the blood) and humors are spontaneously alterable, because they contain... the microzymas, which by evolution may become vibrios or, in certain fixed conditions, bacteria."

"... the doctrine of a living matter **without** living figured elements, called **protoplasm** or blastema."

173/4 1876 Pasteur denies microzymian theory

1871 Microzymian theory nearly all published

1874 Publication verified & confirmed in France & abroad

Pasteur - "He experimented for the purpose of proving that without the germs of the air, unputrefying corpses would accumulate upon the earth, and he even calculated the consequences of such an accumulation."

175 Anonymous Swiss guy - "These molecular granulations, he exclaimed are evidently the *microzymas* of Bechamp, the (*micro*) *coccus* of Bicroth and without hesitation, the *monas crepusculum* of Ehrenerg." (This is refuted by Bechamp - see p. 186)

Dr. M. Nencki in collaboration with Giacosa, "confirmed our observations generally..." (but were unwilling to class the microzymas as anatomical elements)

176 "... microzymas... autonomous anatomical elements..."

177 "... anatomical elements and living beings of a category not before suspected, and without analogy."

178 "But the blood does not contain the microzymas in a naked state, but rather surrounded by an atmosphere of special albuminoid matter; *in short*, the blood contains the Microzymian Molecular Granulations, and the albuminoid atmosphere, which is mucous, hyaline and swollen, gives to these granulations a density differing very little from... that of the intergranular & interglobular substance which connects them..." [makes a differential identity analysis difficult (?)]

179 "The microzymas of the vascular system, container & content, are different from those of the other anatomical systems. I have **proved** this proposition..."

183 "... after death, thanks to oxygen, that each individual should undergo that total destruction which reduces all substances except the microzymas to the mineral condition."

186 Demonstration that the microzymas are living beings, belonging to a category of their own, and having no analogue.

"In fact, the microzymas are neither the *bacterium punctum*, nor the *monas crepusculum*, nor even the *bacterium termo*, which is much smaller than they." ("...a spore cannot multiply itself as the microzyma does...")

187 Microzymas - "... there are 2 or 3 gms. dried at 100 deg. C. (I have isolated and weighed them) in the vitellus." vitellus of the mature egg

190 "Such was the first **experimental verification** of the hypothesis that the microzymas of the chalk and calcareous rocks are the organized remains, still living, of beings which lived in the geological ages of the earths to which those rocks belonged."

"By fresh experiments I have learned that the microzymas of an entire body... become bacteria in the first phases of the phenomenon; these then disappear becoming again microzymas, while the rest of the matter already transformed is, under their influence, and with access of air, reduced to the mineral state i.e. carbonic acid, water, nitrogen, etc.."

"It was then a legitimate conclusion that the microzymas of calcareous rocks, clays and marls, in short, of all the rocks which contain them, are the organized and living remains of animals & plants of past geological epochs."

191 "I have **proved** that the microzymas of the air are ferments of the same order as those of the chalk and rocks, and also those of my experiments with artificial chalk..."

"... in short, there are no pre-existing germs. There exist in the surrounding air only the microzymas of former beings..."

192 "... in all the **observations and experiments** relative to spontaneous change of natural vegetable and animal matters... when the influence of the micro-organisms of the air have been destroyed or suppressed, only microzymas and vibrioniens, and vibrios or bacteria, fruits of their evolution, are seen; this **proves** that the microzymas are autonomous anatomical elements existing in it of themselves."

4 statements summing up -

1) Microzymas of the animal organism proceed from vitellin microzymas which are autonomous anatomical elements of the vitellus.

2) The number of anatomical species of microzymas are enormous.

3) The essential biological characteristic of the microzymas is that they are creators of cellules by synthesis and of vibrioniens by evolution.

4) The physiological and chemical characteristic of microzymas is to produce zymases and to be themselves ferments having a determined form.

194 "... this duration means that the microzymas are **physiologically imperishable**. And this last statement must convince us that the microzymas are organized living beings, of a class apart, and without analogue."

196 "The microzyma is at the beginning and at the end of every living organization. It is the fundamental anatomical element whereby the cellules, the tissues, the organs - the whole organism - can be defined as living."

"... that it may fulfil its numerous functions." mutability/pleomorphism

"... functionally different in the different anatomical systems of the same species, and different at all ages..."

197 "I add that, taken as a whole and in its details, the theory has been **confirmed, verified and corroborated** by a great number of other **facts** of general anatomy, pathological anatomy and physiology."

198 sand de rate (anthrax) - studied by Davaine - the diseased microzymas end by evolving into bacteridiae... the bacteridiae were **not** the cause of the diseased condition, but were one of it's effects; proceeding from the morbid microzymas, they were capable of inducing this diseased condition in the animal whose microzymas were in a condition to receive it."

Pidoux - "Diseases are born of us and in us." (Old aphorism)

Pasteur denied this and imagined a "pathogenic panspermy".

199 "... {Pasteur}... he was neither physiologist nor physician, but only a chemist without any knowledge of comparative science."

"... the microbe, also called a virus..."

"... **and that even** at the Academy of Medicine I said - and no one ventured to contradict me - that **no one had ever been able to reproduce a disease on the nosological roll by taking the pretended pathogenic microbe in normal air, but only in the diseased animal.**"

199 "... so also after a short time the blood of an animal which has died of anthrax no longer communicates that diseased condition, and the same is true in all cases."

200 "Thus normal air not only does not, but cannot, contain the pretended pathogenic microbes, and the very principle of microbian medicine constitutes a fundamental error."

[re: microbes taking over the body - "...Jaccoud wrote this nonsense with reference to cases of acute pneumonia following a chill."]

"[Pasteur] had declared that cellules were not living, his disciples imagined that the leukocytes (under the name phagocytes) were living, like amoeba, and able to perform movements called amaeoboid. And it was imagined that these phagocytes formed themselves into troops to pursue and devour the microbes. There was thus a phagocytosis, which was trumpeted forth as providential."

"There was thus a *phagocytosis*, which was trumpeted forth as providential." **Leveron** - "These words must be erased from the language of science."

201 "... the microzymian theory explains what the microbial system is powerless to make clear..." (202b)

202 "Now if the organism was what they think, and the sole cause of disease was what they say... everyone would, of equal necessity, become diseased..."

"... but even in times of epidemics the majority are not attacked!!" the microbial system cannot explain this!!!"

204 "There is no anatomical element simpler than the microzyma, and none other like it in its resistance to total destruction."

"... they may be functionally different also in the same organs of the same structure in man and animals."

205 "The 'individual coefficient' is the factor which increases or diminishes in the microzymas the sum of the energy which enables them to resist the various causes which, by disturbing their functioning, determine the morbidity in them, and thence disease & death."

"The individual coefficient, then, is relative to the functional differences of the microzymas of the individual."

206 "I said that in anthrax the bacteridia, **instead of being the specific cause of the disease**, were actually the result of the evolution of the microzymas of the blood, having become morbid as the consequence of a discoordination or of **some disturbance** in the physiological functioning of the organism. But it is evident that if the interior medium were inert or passive, this discoordination, in such a mixture of proximate principles, would be an effect without a cause, nothing leading it to become disturbed in its supposed functioning (for such a mixture has been shown to be unalterable of itself), while on the contrary it would immediately and infallibly be placed in a condition of alteration determined by the agent, microbe, or specific ferment introduced from outside the organism."

"If the internal medium were the mixture imagined by microbial medicine, the foregoing facts would be incapable of explanation." (African sheep - adults vs. lambs & susceptibility to anthrax), as follows:

"In short, on the hypothesis of a pure interior medium, a mixture of proximate principles, and a microbe whose multiplication is poisonous, all sheep would be equally susceptible, especially in times of epidemic, to contract anthrax under identical circumstances, by contagion, and in all cases by inoculation.

Well, this does not happen. The adult African sheep is refractory to anthrax; it does not contract the disease by contagion, and generally not even by inoculation. The individual coefficients of French and African sheep are not the same under identical circumstances. And as proof that the coefficient differs according to age, it is enough to state that the African lamb is not refractory, while the adult sheep of the same race is... If the internal medium were the mixture imagined by microbial medicine, the foregoing facts would be incapable of explanation..."

207 "It is the individual coefficient in relation to the functional differences of the microzymas of the subjects which alone explains the immunity of some, and the susceptibility of others, since it has been **demonstrated** that in

the interior medium there is nothing autonomically living, acting and physiologically impressionable except the microzymas.

In the language of the old medicine, immunity and susceptibility are determined by the capacity of the living organism to resist the influence of external or internal agents. The microzymian theory adopts this thoroughly physiological language since it is only the microzymas of the living organism which can receive impressions and either suffer or not suffer their influence, or in other words, resist or not resist the perturbing causes of their functioning depending on whether the individual coefficient is abnormal or normal."

"In microbial medicine, the language of the old medicine is without meaning, since the former states that one sole cause produces disease and the alteration by fermentation of organic matter in general, making no distinction between the internal medium and a mixture of proximate principles."

209 28 Facts - Conclusion

1) Ordinary air, near the earth, contains living microscopic objects called 'germs' - these are microzymas.

13) The zymas are special albuminoid matters, likewise definable as proximate principles; they are always a functional product of the microzymas.

16) The red corpuscle of the blood is a true cellule, having a cell wall and its proper content. This content is constituted especially of haemoglobin and microzymian molecular granulations, the microzymas of which decompose oxygenated water as do those of the fibrin.

17) The blood contains a third anatomical element; the haemetic microzymian molecular granulations. It is the albuminoid atmosphere of these granulations which form, by allotropic transformation, the intermicrozymian gangue of the false membrane called fibrin.

19) The three orders of anatomical elements of the blood only find their conditions of existence complete in their natural surroundings.

21) The microzymas of the different parts of the circulatory system possess alike the property of decomposing oxygenated water without this property being unique to them, for the microzymas of almonds, other parts of plants,

and beer yeast also possess this property. But there are animal tissues whose microzymas do not disengage the oxygen of oxygenated water.

22) The microzymas, anatomical elements, are living beings of a special order without analogue.

23) The spontaneous changes of natural animal matters, whether the microzymas have or have not undergone vibronian evolution, thanks to free access of air, lead always under certain conditions to the complete destruction by oxidation of the product of those changes; that is to say, they are reduced to the mineral condition, carbonic acid, water, nitrogen. But the microzymas under whose influence the oxidation is effected are not attacked. After all which is purely proximate principle in a tissue, a cellule or the bacterium has undergone total destruction, the microzymas remain, and bear testimony to the existence of the vanished organization.

24) The geological microzymas of certain calcareous rocks and chalk, and those of the dust of the streets and the air, bear testimony to the microzymas which functioned as anatomical elements in the tissues of organisms of past geological epochs, even as they function in those of the present time.

25) That which in the air have been called germs are essentially the microzymas resulting from the total destruction of a living organism.

26) Normal air contains neither pre-existing germs nor the things which have been improperly termed microbes, supposed to be produced by parents resembling them.

27) The air normally contains no pathogenic microzymas. The carbon bacteridium of Davaine is the product of the evolution of diseased microzymas, either of haematic microzymian molecular granulations, or those of the blood globules.

28) There is no living matter which is not morphologically defined; that which has been called protoplasm in the cellule always contains microzymas as anatomical elements.

214 **Leverson** - "The term *microbe*, introduced for the purpose of drowning the grand discoveries of Bechamp, is, as presently shown, an etymological solecism." (*error in word usage*)

Leverson - "...It is *true* that there is no such *thing* as tetanus, smallpox, syphilis, etc., as is implied by the general use of nosological terms. **Disease** is not a *thing*, nor an *entity*; it is a **condition**, and the error of regarding the condition of disease as an entity has confirmed, where it has not originated, much of the prevailing erroneous treatment of the sick. Nosological terms have a use; it is that of bringing to the mind of the physician a group of pathological symptoms, which may or may not be present in the case of the patient under consideration; from them, when present, the diseased condition of the patient can be recognized and treated. Unfortunately, through not understanding this truth, attempts are frequently made to treat, not the patient, but the name, which has been given to a collection of morbid symptoms."

217 "All microzymas are ferments of the same order - that is to say, they are organisms, able to produce alcohol, acetic acid, lactic acid and butyric acid."

219 "Finally, the microzyma may become diseased and may communicate the disease condition."

220 "Every phenomenon having a cause, I admit the existence of organized particles in miasms, but I do not believe in their proliferation in the organism, a proliferation which has nowhere been proven, up to the present time, and which many experiences positively contradict."

221 [Davaine - the introduction into a wound of certain bacteria] "... and there was no proliferation of the inoculated bacterium." "It is the same with animals. It is not the inoculated organisms which multiply, but their presence and the liquid which saturates them causes a change in the surrounding medium which enables the normal microzymas of the organism to evolve in a diseased manner..."

222 "This theory which is founded upon **facts** ascertained by **indisputable experiments**, explains, among other things, why the blood of carbuncular sheep containing bacteridia inoculated upon dogs or birds does not induce the appearance of bacteridia and the development of carbuncular disease..."

"... **and** thus, the microzymas are seen to be the beginning and end of all organization."

"If that is true, we ought to encounter them wherever organized beings have lived; and the **fact** is that **I have found them** in all the calcareous rocks from the oolithic [neolithic - 10,000 - 4,500 B.C.] to the most recent; the

dusts of the streets swarm with them, and there as everywhere they are ferments of the same order."

226 **Leverson** - "... disease is not an entity - a thing - but a condition, and that it is an entity is responsible for many of the errors of modern medicine."

228 "... these labors were spread over 53 years (Bechamp's work: 1853 - 1905 incl.)

"**The world** has yet to learn how much it owes to this remarkable genius. The acknowledgement will be resisted by all those interests which fatten upon the ignorance and trusting confidence of the people. But thanks to his researches and discoveries *it cannot be long** before the medical profession will recognize the dangerous errors into which it has been led by those who succeeded in establishing a conspiracy of silence around Bechamp and his discoveries." **Leverson, 1912!**

* Just as in 1988, when I thought that my research/understanding of vaccines would become public knowledge within 3 years!

Was Light Microscopy Valid in the Latter Half of the 19th Century?

This statement on page 33 requires looking into to validate the authenticity of the claim, "strongest enlargements of the immersion objectives of Nachet". The point being, was Bechamp able to see what he claimed he saw, over so many years? The information below verifies, both by way of dates and by way of the creative and intellectual prowess of Camille Sebastien Nachet. Additional to this is the information on the damage to sampling by the use of electron microscopy, along with Bechamp's statement that within a minute or two of leaving the body, the microzyma is undetectable.

33 "... microzymas... as being the smallest of ferments, often so small that they could only be seen under the strongest enlargements of the immersion objectives of Nachet, but which I had discovered to be the most powerful of ferments."

Camille Sébastien Nachet

1799 - 1881

Camille Sébastien Nachet (1799-1881) was a Parisian optician who began his career making lenses in the workshop of **Charles Louis Chevallier**, the **renowned microscope maker** & physicist in 1834. In 1840, he set up his own business. He sold achromatic lenses to microscope makers at home and abroad, including Lerebours, Brunner, J.G.A. Chevallier, Abraham Abraham, and others. At the great London exhibition in 1851, Nachet was awarded a gold medal for his work.

In the late 1850s, Nachet was joined by his son, Jean **Alfred Nachet (1831-1908)**, who went by the name of Alfred. The firm was renamed Nachet et Fils around 1862, when Alfred was made a partner and the workshop was relocated to Rue St. Séverin, 17 in Paris.

When Camille Nachet died, Alfred took over sole control of the business and renamed it A. Nachet. Around 1890, Alfred's son joined the partnership, and the firm once again became known as Nachet et Fils.

Nachet Large Drum Microscope

Date: 1851 - 1862 | Identifier: LL02.48.03.10

This instrument is the largest of the Nachet drum microscopes. It includes eight objectives, polarizing prisms, camera lucida, 45 degree tilted observation prism, goniometer, stops and condensers in a fitted box.

Nachet Polarizing Microscope

This microscope was introduced by **Camille Sébastien Nachet** in **1833**, and was one of the first microscopes to feature crossed-polarized illumination for the examination of birefringent samples.

The body tube contains two Nicole prisms that are oriented with the light vibration directions being perpendicular to one another. One prism is fitted underneath the stage, while the other is placed in the removable eyepiece, just below the intermediate image plane. The microscope has a brass body tube that is fastened to the central pillar with a rack mount. A circular stage is also mounted in a fixed position on the pillar and has two spring clips to secure the specimen in place. Focusing is accomplished with a knurled knob that translates the body tube up and down in the rackwork. The substage plano-concave mirror is used to concentrate light into the single-lens

condenser. Accessories include several interchangeable objectives and a higher power eyepiece.

Nachet Inverted Compound Monocular Microscope

Camille Sebastien Nachet was a French instrument designer and lens grinder who studied with **Vincent Chevalier** before opening his own shop in **1840**. The inverted microscope designed and build by Nachet is described and illustrated in a short treatise entitled Microscopes to the End of the Nineteenth Century by F. W. Palmer and A. B. Sahiar.

The inscription on this instrument reads "Nachet et Fils, 17, Rue St. Séverin, Paris, indicating the authenticity of the microscope. A sturdy circular brass base supports four pillars that, in turn, support a platform containing the microscope limb and a prism box with a front silvered mirror. The single eye tube is threaded directly into the prism box, as is the inverted objective. The stage rides on the circular limb and is adjustable via a knurled knob. Coarse focus is achieved by sliding the objective tube, while fine focus is performed by adjusting a screw between the pillars that moves the stage up and down. Above the stage is a housing that contains a condenser lens and a planar mirror that assist in specimen illumination. Also mounted on the limb is an additional bi-convex lens that helps add light to the specimen.

According to Palmer and Sahiar, this inverted chemical microscope was made:

"... for the purpose of viewing objects from their underside when heat or reagents are being applied to them. **It meets the requirements of observers engaged in the 'cultivation' of the minute organisms which act as ferments**".

In light microscopy, a **water immersion objective** is a specially designed objective lens used to increase the resolution of the microscope. This is achieved by immersing both the lens and the specimen in water which has a *higher refractive index* than air, thereby increasing the numerical aperture of the objective lens.

Refractive index – how fast light travels through a material.

Although Nachet was undeniably one of the most important 19th [century] continental microscope manufactures – surprisingly enough – Nachet never manufactured the classical continental stand. The ‘standard’ horse-shoe based model was introduced by Oberhaeuser, and slightly further developed by his successors, Hartnack, Prazmowski and eventually Bezu & Hausser. When the German manufacturers (Zeiss, Leitz) finally started to penetrate the microscope market in the 1880s, they did so by flooding the market with horse-shoe base models copied from Hartnack.

While Nachet’s large microscopes did follow the general layout of Oberhaeuser’s horse-shoe base microscope, they were far more elaborate and elegant. It is therefore that Nachet was regarded as the “most English” microscope manufacturer on the continent.

In 1883, the severely ill Adam Prazmowski offered his company to his competitor Alfred Nachet. From the 1850s to the 1870s, the companies of Nachet and Oberhaeuser & Hartnack had monopolized the continental market. The 1883 takeover failed, but in July 1896 Alfred Nachet finally got his hands on the the former company of Oberhaeuser & Hartnack, purchasing it from Bézu & Hausser. As a consequence of the takeover, the 1898 Nachet catalogue for the first time featured the continental stand. By finally including the standard continental stand in its range as late as 1898, Nachet was the last continental manufacturer to adopt it. Even the English manufacturers Ross and Beck had – reluctantly – were earlier to adopt the continental stand! As if feeling the need to apology for including the continental stand microscope in its 1898 catalogue, Nachet announced it at follows: “Nous construisons ce modèle depuis que nous avons réuni à nos ateliers ceux de la maison Bézu, Hausser & Cie (anciennement Hartnack et Prazmowski). [voir page 11].” English translation: “We manufacture this model since we joined to our workshops those of Bézu, Hausser & Cie (formerly Hartnack and Prazmowski). [see page 11].”

This instrument was presented as the last large model microscope: N° 5. Nachet described its merits – or more precisely its sole merit – as follows: “Le n°5 à platine tournante à centrage, que nous construisons depuis que nous avons réuni à notre maison celle de MM. Bézu, Hausser et Cie (anciennement Hartnack et Prazmowski), est un perfectionnement de l’ancien modèle d’Oberhaeuser et d’Hartnack qui, jusqu’à présent, a servi presque exclusivement de type aux constructeurs continentaux”. English translation: “The n° 5 with rotating and centering stage, which we manufacture since we joined to our company that of Mr. Bézu, Hausser and Co. (formerly Hartnack

and Prazmowski), is an improvement of the old model of Oberhaeuser and Hartnack which, until now, has served almost exclusively as a model to the continental makers.” The standard continental model was featured in the 1898, 1900 and 1904 Nachet catalogues, but had already disappeared in the 1910 catalogue.

This microscope can be considered as a meeting point between two different branches of 19th century French microscope manufacture. On the one hand, there is the branch founded by Vincent & Charles Chevalier, of which Camille and Alfred Nachet were the true successors. (Charles Chevalier son, Arthur, died in 1874 without a true successor.) On the other hand, there was the ‘German’ – more rational – branch founded by Georges Oberhaeuser, succeeded by Edmund Hartnack, Adam Prazmowski, Bézu & Hausser. (With the Véric-Stiassnie firm as one of the side branches.) In this the microscope of the continental form the two branches finally came together – albeit reluctantly.

Unsurprisingly, few examples of this continental model made by Nachet are known.