

The point-by-point reply to the comments from PM International

My comments are in **red color** after PM International's material

1.

[Translated by PM International] *The patented Nutritional Transport Concept is brought up in the company's English-language website. (The Finnish website is lacking the same information). The following is said about NTC:*

"The highly nutritious food supplements in our FitLine series include a unique Nutritional Transport Concept (NTC®). NTC brings nutrients to where they are needed exactly when they are needed, to cell level. "

This NTC-concept is 100% nonsense. Not a single thing has been released relating to the concept and a google search does not bring up any other results apart from the company's official marketing materials.

Statement, Attorney Dr. Peter Pfortner, Certified food chemist

Dr. Peter Pfortner | Hauptstraße 19 | 82319 Starnberg

PM-International developed the Nutrient Transport Concept to ensure that the latest insights in nutritional sciences are considered in all FitLine Products. To achieve this ambitious goal, a team of experts from different disciplines, such as: nutritionists, biologists, biochemists, physiologists and others, are constantly involved in the process of improving existing FitLine products as well as developing new products. The unique Nutrient Transport Concept NTC® comprises various aspects and implements them in FitLine products as far as possible. Liquid dosage forms are preferred as we are of the opinion that solubilised nutrients are the ideal starting point to ensure an optimal uptake of vitamins, minerals and other nutrients. The Microsolve® technologie was developed to enable integration of sparingly water soluble substances in this concept. Synergistic effects of various micronutrients are considered during the development of the formulation of FitLine products to maximize the nutritional benefit of each single product. Although it is not possible to enhance the absorption of nutrients above a physiological level, the thorough combination of vitamins, minerals and other nutrients ensure that the maximum level of physiological absorption of these substances is achieved and unwanted interaction of nutrients disturbing their uptake are avoided. By applying this concept, we provide our customers products that are an ideal source of essential vitamins, minerals and other valuable nutrients ensuring the optimum supply and uptake of these components.

The NTC concept has been attacked several times in court. There is a judgment of the highest competent German court (OLG), which allows the use of the NTC logo and statement in advertising, if the following points, which have been proven and tested in court, are met:

1. Liquid dosage form (see Appendix 3)
2. Synergetic effects in the formulation and in the product concept
3. Microsolve technology (micellization of eg Q 10)

Reply

My original blog text was as follows:

"The highly nutritious food supplements in our FitLine series include a unique Nutritional Transport Concept (NTC®). NTC brings nutrients to where they are needed exactly when they are needed, to cell level. "

Tämä NTC-konsepti on 100% huuhaata. Aiheesta ei ole ensinnäkään julkaistu yhtään mitään eikä edes googlaamalla löydä muuta kuin yrityksen mainosmateriaalia. Konseptin isänä mainitaan Dr. Christian Schwarzer, joka ei lääketieteen tietokantojen mukaan ole julkaissut konseptistaan mitään.

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Medline-haku NTC-konseptista

Biokemian peruskoulutuksellakin on selvää, että tuollainen menetelmä, jolla ”ravintoaineet saadaan kehossa kulkeutumaan juuri niihin soluihin, jotka niitä tarvitsevat ja vain silloin kun niitä tarvitaan”, olisi niin mullistava, että Nobel-palkinto olisi myönnetty.

[Translated: This NTC-concept is 100% nonsense. There are no publications about the concept and a google search does not bring up any other results apart from the company's official marketing materials. The father of the concept is mentioned to be Dr Christian Schwarzer, who has not published anything according to medical databases.

Based on the basic training in biochemistry it is obvious that such a concept that “nutrients will be transported to those cells that need them and exactly when they are needed” would be revolutionary that Noble prize would have been granted.]

Comments:

As seen above from the whole translated text, I criticized the described mechanism of NTC concept. It was stated that with NTC “nutrients will be transported to those cells that need them and exactly when they are needed”. This is 100% nonsense. For some reason, you did not translate the last paragraph of in my blog. This very paragraph was important and justified my statements.

I have not stated that you should not use the term in marketing purposes. Based on your own explanation above, the NTC concept is more like declaration to use number of methods aiming to improve absorption of the compounds. This is naturally fine, and I assume that all food supplement manufacturers will share the same goal.

The fact is, also, that no scientific papers have been published about this NTC concept. The material I have received contained only two scientific papers. Those studied the Nanosolve-technique and Curcumin-formulation. These studies did not study NTC concept and no Fitline products were investigated.

Suggestion: To make sure that everybody will understand my message correctly I have replaced the sentence “This NTC-concept is 100% nonsense.” with the following sentence “The mechanism described above about the NTC-concept is 100% nonsense.”

2.

[Translated by PM International] *In one of the internet's FitLine marketing blogs it is said about the NTC, that the human body cannot utilize fat-soluble nutrients well enough (because the body is based on water-solubility), so NTC's "micelles" intensify the fat-soluble nutrients' absorption. "Thanks to FitLines NTC, the body can absorb large amounts of fat-soluble vitamins."*

To this day, this biological deficiency has been a mystery to both myself and the pharmaceutical industry. Have the producers of FitLine discovered a solution to a problem that was left unfixed by evolution and science?

Please read the statement above and the NTC is based on a scientifically based concept. (Annex 1,2,3,4,5)
The statement cannot be left that way. We do not change the raw material, but we micellize them, as happens in the body itself (Wajda et al. Annex 5). Q10 remains Q10 and omega 3 remains omega 3. There are no chemical additives used, because we micellize among others with Soy - lecithin. This clearly leaves it as a natural product. And the suggestion of the blogger is not tenable.

Incidentally, this technology is also used in the pharmaceutical industry, e.g. in Propofol from the company Fresenius.

Reply

My original blog text was as follows:

Yhdessä netin FitLine-mainosblogissa tästä NTC:stä väitetään, että koska elimistö ei kykene hyödyntämään rasvaliukoisia ravintoaineita tehokkaasti (koska elimistö pohjautuu vesiliukoisuuteen), NTC:n "micellit" tehostavat rasvaliukoisten ravintoaineiden imeytymistä. "Fitlinen NTC:n ansiosta kehoon saadaan tehokkaasti suuria määriä rasvaliukoisia vitamiineja."

Tähän päivään saakka tämä elimistön biologinen vajavuus on ollut sekä minulle että lääketieteelle tuntematon ongelma. Ovatko FitLin tuottajat nyt keksineet ratkaisun yhteen evoluutiolta korjaamatta jääneeseen ja tieteelle tuntemattomaan ongelmaan?

Rasvaliukoisten vitamiinien imeytyminen ei ole tunnettu ongelma, kunhan saanti on asiallisella tasolla. Rasvaliukoisten vitamiinien suuren saannin ongelma sen sijaan voi olla, että ne kertyvät ja voivat aiheuttaa haittoja. Siten en haluaisi kehooni "suuria määriä rasvaliukoisia vitamiineja"

[Translated: In one of the internet's FitLine marketing blogs it is said about the NTC, that the human body cannot utilize fat-soluble nutrients well enough (because the body is based on water-solubility), so NTC's "micelles" intensify the fat-soluble nutrients' absorption. "Thanks to FitLines NTC, we can bring large amounts of fat-soluble vitamins to the body.

To this day, this biological deficiency has been a mystery to both myself and the medicine. Have the producers of FitLine discovered a solution to a problem that was left unfixed by evolution and problem that have been unresolved by science?

The absorption of fat soluble vitamins is not a recognized problem providing the they are received as appropriate amounts. Getting high amounts of fat-soluble vitamins may on the other hand become a problem, as they accumulate and may cause harm. Therefore, I would not like to "bring large amounts of fat-soluble vitamins to the body."]

Comments:

As you see, I do not criticize here NTC concept itself but the claim that human beings have such a major deficiency in absorbing fat-soluble vitamins. That was the whole point in my blog.

Maybe you misunderstood this message as the last paragraph was not translated? That paragraph is crucial to understand my comments. There is no clear benefit of bringing large amounts of fat-soluble vitamins to the body as they may accumulate. It is not automatically better to give vitamins in large amounts, especially fat-soluble vitamins.

Suggestion: I see no need to revise the blog text.

3.

[Translated by PM International] *The author must have not solved, what happens to a tablet when it enters the stomach and how fast it can disintegrate into powder if desired. The form in which the product is ingested does not have a significant effect on the absorption (unless a certain absorption speed is intentionally sought).*

The author states here that each tablet dissolves in the stomach at short notice and is available at the same speed as powder dissolved in water. This does not completely correspond to the galenics of tablets, since the Dissolve can be very different depending on its nature. We do not want to talk about gastric juice resistant galenics here.

As can be seen from the enclosed study, this was even monitored and monitored in a study (Annex 4) and highly judicially reviewed.

Reply

My original blog text was as follows:

Lisäksi sanotaan: *"Tuotteet ovat jauheita, jotka sekoitetaan veteen, jolloin ne imeytyvät todella tehokkaasti verrattuna esim. tabletteihin tai kapseluihin. Kaikki tuotteet ovat vesiliukoisia tai muutettu vesiliukoisiksi, jolloin et voi saada niitä elimistösi liikaa."*

Kirjoittajalta on tainnut jäädä selvittämättä, mitä tabletille tapahtuu, kun se tulee mahaan ja kuinka nopeasti se voi hajota jauheeksi, jos niin halutaan. Valmistemuodolla sellaisenaan ei ole olennaista vaikutusta imeytymiseen (ellei ole tarkoituksellisesti haettu tietynlaista hitautta tai nopeutta).

Mielenkiintoinen on myös väite, että nämä rasvaliukoiset vitamiinit on muutettu vesiliukoisiksi eikä niitä sitten voi saada liikaa. Ja siitä huolimatta tuote on "luonnollinen". Ensinnäkin, jos rasvaliukoinen vitamiini muutetaan vesiliukoiseksi, sen kemiallinen rakenne tulisi muuttua. Silloin se ei olisi kyseinen vitamiini laisinkaan. Toiseksi, rasvaliukoisista vitamiineista ei ole "vesiliukoista" muotoa. Rasvaliukoisten vitamiinien liikasaannista on samat haitat, olipa ne saatu "micelleinä" tai sellaisenaan.

[Translated: It is said also: "The products are powders that are mixed with water, when they are absorbed very effectively as compared to e.g. tablets and capsules. All products are water-soluble or changed to water-soluble, meaning that you cannot get them too much.

The author must have not solved, what happens to a tablet when it enters the stomach and how fast it can disintegrate into powder, if that is desired. The form in which the product is ingested does not have a noteworthy effect on the absorption (unless a certain absorption speed is intentionally sought).

Interesting is also the claim that the fat-soluble vitamins are changed to water-soluble and you cannot get them too much. Despite this, the product is claimed "natural". First, if the fat-soluble vitamin is changed to water-soluble, the chemical composition must be changed. Then it would not be that vitamin any more. Second, there are not water-soluble form of the fat-soluble vitamin. Fat-soluble vitamins may cause the same harm, independently if they have been received as "micelles" or as natural.

Comments:

The single paragraph was taken out of its context and translated incorrectly. Reading the correct translation of the whole section the message becomes clearer. The point is that the form (powder, tables, capsule), if desired so, has not noteworthy effects on absorption. In addition, based on the material provided by PM International (reference 4), it appeared that there were no major difference in absorption when the Fitline product was compressed to tablet form. Furthermore, the speed of absorption of vitamins have no clinical impact.

The second sentence, ignored by PM International is even more questionable. The claim that the fat-soluble vitamins are changed to water-soluble is nonsense. You have already explained above that you just make micelles and do not change the molecule. Here you state that, because of this water-solubility, you cannot get them too much. This is obviously nonsense. If the fat-soluble vitamins are the same molecules, how come they can be different from the natural ones by not accumulating with large amounts?

Suggestion: I see no need to revise the blog text.

4.

[Translated by PM International] *“FitLine nutritional supplements.....have been developed using data from the latest scientific research and findings.”*

The claim may be correct, but no evidence of research is shown. In the Medline-database, not a single keyword brings up any information regarding FitLine products. The name of the company is not mentioned in a single release.

This is surprising, because if the company had carried out any scientific research, there would certainly be scientific reports in the international databases.”



A Medline search with the company's name

A research as the author demand it, is unfortunately not possible in the field of dietary supplements. Direct product-related research on medical topics is not allowed for supplements. Dietary supplements are not medicines. Studies on the effects of dietary supplements or ingredients may only be performed on healthy volunteers under EFSA regulations. Healing statements and impact statements are therefore not permitted.

PM-International's focus is on the prevention.

We never publish studies as a company, instead we support our science partners in their independent scientific research. PM-International has close scientific collaborations with independent researchers and research centers such as University of Applied Sciences in Upper Austria (workgroup of Prof. Dr. Julian Weghuber, Annex 8) and the Luxembourg Institute of Science and Technology (LIST). In collaboration with our scientific partners, we conduct basic research that is designed over several years. All results are directly or indirectly used in product development.

The researchers will publish (and already published) their results in international journals under their own names and not under PM-International AG.

Reply

I did not see any suggestions here to revise my blog writings. In general, my comment was related to your claim: *“FitLine nutritional supplements.....have been developed using data from the latest scientific research and findings.”*

This gives an impression that there are scientific evidence about the products. No information about the studies and data was available. I think this kind of claim is misleading.

I have now received the published material (see the specific comments to the references at the end). There appears to be very little if any scientific publications about Fitline products.

In general, I disagree with the claim that no such studies are allowed. There are studies about food itself with various diets and similar health related studies could be performed with Fitline products. There are studies e.g. curcumin and its effects. Also ginger has been investigated. Studies with vitamin supplementation in smokers have been performed. Of course you cannot make health claims with food supplements beyond what EU allows but it is not true that studies would not be allowed.

Suggestion: I see no need to revise the blog text.

5.

[Translated by PM International] *“Our products are made in accordance with the Good Manufacturing Standard. This guarantees the constant highest possible level of quality and purity. Hundreds of thousands of satisfied customers is proof of this – try it yourself, it’s worth it!”*

Good Manufacturing Practice is a standard of production in the pharmaceutical industry. It defines the way a products production quality control is done and how documentation is handled. It only means that the production of the products is done with this standard. It does not guarantee anything about the efficiency of the product.”

GMP is not a standard for dietary supplements. Instead this is a voluntary quality assurance measure that ensures us a high-quality standard over the years.

[Translated by PM International] *“It does not guarantee anything about the efficiency of the product.”*

The drawn conclusion here is wrong.

In the citation there are no information about product efficiency or any kind of effect statement. Instead, these statements merely provide information on a voluntary quality standard that is not mandatory in the production of dietary supplements but is a voluntary quality assurance measure.

So here the author draws a wrong conclusion in this context, implying a misconduct of the company in the reader’s mind.

[Translated by PM International] *“In addition to this standard, the pharmaceutical industry has to invest almost 10 billion dollars in to the research of each drug to show the efficiency and safety of the drug. Without this, the drug will not get a marketing authorization.*

No indication of a products efficiency is required when it comes to nutritional supplements. To get the products out to the market, only proof that it contains what is claimed it contains is required. No research about the effects or efficiency of the FitLine products has been published.”

The pharmaceutical industry has the approach to treat existing diseases.

Dietary supplements are not meant to treat diseases.

To cite studies which show an effect on diseases is not allowed for dietary supplements. Advertising is only allowed in accordance with the official EFSA health claims regulation. All EFSA health claims have been carefully checked and approved by an international expert commission.

Again, here the author draws a wrong conclusion in this context, implying a misconduct of the company in the reader’s mind. PM-International is accused of failing to fulfill something that cannot be fulfilled within the framework of legal regulations.

Reply

Comment: I pooled these three issues together as they should be discussed simultaneously.

The comment about GMP in my blog was written because the cited text is misleading. The first sentence mentions GMP. The next sentences states that this is somehow linked with the “Hundreds of thousands of satisfied customers”.

As you very well know, GMP cannot have any impact on the satisfaction of the customers. It is simply the manufacturing standard and it has nothing to do with the efficacy of the product. Most of the customers do not know what these standards mean. They may understand that the products have been studied like pharma products. In the feedback I got from readers, it become clear that because of this kind of misleading information, large number of users thought that Fitline products’ efficacy has been studied similar to drugs. These kind of common beliefs can be found in my blog as well as using Google searching.

The last two paragraphs in my writings simply state the current situation in general as related to efficacy studies. There are no claims about misconduct by PM International. Instead, I stated in general: “No indication of a products efficiency is required when it comes to nutritional supplements. To get the products out to the market, only proof that it contains what is promised, is required. No research about the effects or efficiency of the FitLine products has been published.”

These paragraphs were there just make clear that despite the GMP comments, nutritional supplements’ efficacy need not to be studied and that is also the case with Fitline products.

Suggestion: I see no need to revise the blog text.

6.

[Translated by PM International] *“Pseudo-scientific claims, quality standards and logos are used as a garnish. They are used as a cover-up for the fact that scientific research about the products or their efficiency has not been done.”*

All claims are in accordance with the EU health claim regulation. The official EFSA health claims are evaluated by an international expert commission on basis of several scientific studies including safety and toxicological studies.

For more information please visit: https://ec.europa.eu/food/safety/labelling_nutrition/claims_en

[Official statement of the European Commission]

“The objective of those rules is to ensure that any claim made on a food's labelling, presentation or advertising in the European Union is **clear, accurate and based on scientific evidence.**”

The EFSA health claims are regulated in REG (EU) No. 1924/2006.

High quality standards should be the norm, but not all products (especially internet-trade products) meet these requirements. With a GMP compliant production of all PM-International products and an independent quality assurance program with TÜV SÜD ELAB, PM-International customers can be sure to receive safe and top-quality products.

Reply

My original blog text was as follows:

FitLine-tuotteiden markkinointi sopii aikamme trendiin. Ensiksi väitetään, että normaali ravintomme on puutteellista eikä anna meille riittävästi ravinteita. Sen jälkeen medikalisoidaan ihmisten hyvin tavalliset tuntemukset kuten väsymys ja stressi. Ratkaisuksi niihin tarjotaan taikavaikutteisia ylihintaisia lisäravinteita.

Höysteenä käytetään pseudotieteellisiä väitteitä, laatustandardeja ja logoja. Näillä ilmeisesti pyritään peittämään se seikka, että varsinaisia tutkimuksia tuotteesta taikka sen tehosta ei ole tehty.

[Translated: The marketing of Fitline products fits to the current trend. In this trend, it is first claimed that our food lacks nutrients. Thereafter, the most common feelings such as stress and tiredness are subject to medicalization. Thereafter, the offered solution is to use magical overprized nutritional supplements.

Pseudo-scientific claims, quality standards and logos are used as a garnish. They are used as a cover-up for the fact that scientific research about the products or their efficiency has not been done.”]

Comments: Once again, one small paragraph in my blog was taken out of its context. However, in this summary section I discuss about the trends in general and the claims are not specifically focused on the Fitline products.

Suggestion: I see not need to revise the blog text.

7.

[Translated by PM International] *“For years now FitLine has been the number one choice for several top athletes around the world. They are convinced, that as FitLine users, they can trust the products and the achievement of the best possible performance. Their trust is mostly based on the voluntary commitment by PM-International, that FitLine products are regularly checked for doping and anabolic steroids.*

In this claim, two unrelated things are misleadingly combined: doping safety & the efficiency of the product. Of course, it is important for athletes to know, that the product does not contain any doping compounds. However, this does not prove anything about the efficiency of the products.”

As you can easily see, the text is clearly reversed here, as the author needs it. PM International AG says clearly that the athletes are satisfied with the results, that they are simultaneously happy, but that they do not go beyond doping, all products in the Cologne list are managed (Sporthochschule Köln-Labor Prof. Schänzer)

Over 20 years of fantastic product results, over 20 years of thousands of satisfied regular customers, top athletes and sports federations and, as a result, over 20 years of "practical field tests with top scores" as well as over 20 years of absolute safety and purity speak a clear language.

Reply

Comment: It is of course great for the PM International if it has succeeded to market the Fitline products to athletes.

I did not notice any request to revise my text. I still think that the paragraph is misleading for non-athlete users. It gives an impression that Fitline products have been the main player in their success although there is no such evidence.

I apologize that I removed the athlete photos and massive advertisement material as this does not prove anything about the efficacy as you very well know.

Suggestion: I see not need to revise the blog text.

8.

[Translated by PM International] *“One program is called CellRESET. This program is claimed to normalize the digestive system. The term CellRESET is excellent marketing nonsense. As if a human had a red reset-button often found in computers, that resets us. All I can do is congratulate the marketing team for their innovation. Unfortunately, such a button or a process does not exist in the human body.”*

(Clarification 24.8. at 11:46: CellRESET is not PM-Internationals official product even though the core of the program is the use of FitLine products)

Additionally, it is claimed to balance the hormones and purify the insulin receptors. Medicine does not recognize the need to purify insulin receptors, but the text claims, that “When the insulin receptors work, blood sugar levels stay more constant and fat burns in the right places (waist, back, thighs, arms, chin and other areas where fat is difficult to burn). In addition, cells get the energy they need when insulin can move to where it belongs.”

The purification of insulin receptors and the better movement of insulin has pseudo-scientifically been combined with losing fat around the waist and chin.

Statement, Attorney Dr. Peter Pfortner

Certified food chemist

Dr. Peter Pfortner | Hauptstraße 19 | 82319 Starnberg

The statement, the “CellReset” concept would be used to promote FitLine products and trick customers into being business partners of PM-International, is false. The “CellReset” concept is not linked to PM-International in any way. If consumers decide to use FitLine products within their individually chosen life style, which may be linked to whatsoever nutritional concept, they have to acquire the FitLine product via the transparent and clearly described distribution process of PM-International. During this process, every prospective buyer has the choice to register either as consumer or as team partner. This is clearly elucidated in the ordering process before buying the products. As a reason of that, there is no room for misinterpretation regarding the customer’s status and it’s the customers customer’s choice which status they select.

So it is not right, just leave this complete statement with a small note in the blog and to suggest that PM International AG accepts the scientific information from Cell reset.

Reply

Comments: I published my original blog on 21.8. 2016. After the feedback from readers, I corrected this detail on 24.8. 2016, three days after the publication of original writing. The CellReset is one of the main themes with the users of Fitline products. As I got information that it was not the official product of PM International, I added clear note that CellReset is not PM-Internationals’ official product.

This kind of notification is very clear. This is also one of the standard ways, how the writings are corrected. The correction must be clear so that the readers can see what has been corrected and when. This was just one single detail and not major issue for the whole publication.

Now you request nearly two years later that this should have been done differently but do not specify what would have been the appropriate way.

Suggestion: I see no need to revise the blog text. However, If PM International wants to propose better phrase for this added note, I may consider to use that instead.

9.

[Translated by PM International] *From one distributor's web page: "When our bodies are unbalanced, we may feel several "warning signals". We may have physical symptoms, such as digestive problems or fatigue. We may also notice a variety of other feelings, such as unrest, passivity or depression. We also often notice mental symptoms, such as a lack of initiative & motivation. Customers often come to us when they feel that they have not received any help from previous treatments. We talk with the customer to come up with a mutual decision about how we should address the situation. As a start, we often recommend the use of nutritional supplements. Changes in diet and the intake of nutritional supplements often enable a person to get their digestive system back in track."*

Nothing is directly said about curing illnesses, but they are not very far from it. After this, the same pseudo-scientific jargon about naturalness, manufacturing standards and the nutritional transport concept (NTC) is repeated throughout the text.

Statement

Attorney Dr. Peter Pfortner, Certified food chemist

Dr. Peter Pfortner | Hauptstraße 19 | 82319 Starnberg

PM-International does not provide any information or advertising attributing the property of preventing, treating or curing any human disease or create an impression of such characteristics to any of its products and is strict about ensuring that none of its team partners uses this kind of advertising. PM-International's Code of Conduct stipulates very clearly that if the team partner provides the consumers with any kind of medical advice or disease related advertising they will face severe consequences. Actually we are taking this issue extremely seriously and do not tolerate any misbehaviour. The standard procedure in case of non-compliance with this strict Code of Conduct is that PM International is sending immediately a warning e-mail to the specific team partner that had broken the Code of Conduct by offering medical advice or using disease related advertising. Consequently, if the team partner doesn't reply within 48 hours or continues this type behaviour, PM International's Legal Department enforces the Code's stipulations and terminates the contract of collaboration with the respective distributor.

Reply

Comments: I appreciate very much the principles described above. However, the quoted text I cited is from one of your distributor's website. There are number of similar material also in other distributors' websites. You can also find in my blog commentaries that there are large number of blog comments stating that the Fitline products have been marketed for number of diseases and symptoms. Therefore, it appears that the supervision of your Code of Conduct may not be perfect?

Instead of attacking my blog with threatening letters, why PM International has not corrected the false claims? Why has PM Internatioanal not supervised the dealers to ensure they obey the Code of Conduct? After a few minutes Googling I found several Finnish websites, who apparently breach your Code of Conduct as far as I understand. I assume there must be more but here are some:

- 1) The PM International country manager Jussi-Pekka Teräs has his own website <http://fitlinefakta.fi/blog/fitline-tuotteet-laadukkaat-ravintolis%C3%A4t> in which it is stated: "Ravintoaineiden vähäisestä saannista aiheutuvia oireita on niin fyysisiä kuin henkisiä. Ruoansulatusongelmat, jatkuva väsymys, toistuvat päänsäryt, iho-ongelmat yms. voivat kieliä kehon epätasapainosta. Myös muuten selittämättömät passiivisuuden, masentuneisuuden ja ärtyneisyyden tunteet voivat viitata kehon vastustuskyvyn ja hyvinvoinnin laskusta. FitLine on kehitetty tukemaan kehon normaalia toimintaa ja tasapainoa."

[Translated: Nutritional deficit can cause both physical and psychical symptoms. Digestive problems, tiredness, headache, skin problems, etc may tell about the unbalance of the body. Also unexplained passivity, depression and anxiety symptoms may point to decrease in wellbeing. Fitline is developed to support the normal function and balance of the body"]

- 2) Another seller is here <http://hyvinvointiasinulle.fi/fitline-tuotteet/> and in this website includes the comment I cited in my blog. Despite my blog become public nearly 2 years ago, it still exists there.

- 3) Another seller is telling about large number of symptoms and diseases the Fitline products may help <http://so-up.fi/punttiajapusuja/mun-hyvan-olon-ja-terveyden-salainen-eliksiiri>
„Ne ovat auttaneet elimistön paremman toiminnan ohella mm. allergioihin, erilaisiin ihottumiin, diabeteksen arvoihin suotuisasti, kilpirauhasen ongelmiin, migreeniin, hormonitoimintaan, painonhallintaan ja pudotukseen sekä moneen muuhun asiaan mikä vain liittyy ihmiskehoon.“

[Translated: They (Fitline products) have helped to....allergies, skin problems, diabetes, thyroid problems, migraine, hormonal function, weight control and many other issues related to human body.]

- 4) This seller has also questionable comments about various symptoms that can be treated with Fitline products. There is also link directly to the webshop of PM International: <https://www.hyvaatekeva.fi/2017/11/20/fitline-tuotteet/>

Here are the comments about the “scientific papers” you sent:

Annex:

- 1) Gutachten Nr. 090968 Dr. Reimann Gutachterliche Stellungnahme zur Bioverfügbarkeit der FitLine NTC Produkte.

This document is describing in brief what is the idea and the goals of NTC. This is not scientific paper or study. I have not criticized the NTC idea itself but the health claims linked with NTC. Please see the comments 1. and 2.

- 2) Gutachten Nr. 1511189 Dr. Reimann Bioverfügbarkeit von Vitaminen, Mineralstoffen und Spurenelementen aus einer natürlichen Matrix oder aus einer Kombination von natürlichen und hochkonzentrierten, hochreinen und stabilen Rohstoffen.

This document is in German and appears not a scientific paper or study. I cannot comment it specifically.

- 3) Schön, C et al Ernährung und Medizin 2012: 27: 73 – 76 Essentielle Mikronährstoffe zur Verbesserung des Versorgungsstatus bei gesunden Probanden.

This document is in German but the abstract is translated to English. This appears to be a study in which nutritional supplements' effects on certain vitamin concentration is measured and found to be increased. This is fine. I have never claimed that the Fitline products would not have those vitamins. Of course they must contain those vitamins as promised. My writings are focused on specific health claims.

- 4) Biothesys Studie: Vergleichende Bioverfügbarkeit von Pressling und handelsüblichen Vergleichspräparat gegen gelöstes Pulverprodukt eines Multivitaminpräparates und eines Mineralstoffpräparates.

This report has not been published in any scientific journal, not peer-reviewed and subjected to scientific criticism. The PDF contains an original short paper in German language but an English abstract and summary was included. The study tested the bioavailability of two FitLine products against as they would have pressed to a tablet format and also against a „commercial supplement“ in tablet form. The report shows that there was no statistically significant difference in bioavailability whether Fitline products were in powder or tablet form. As compared against the „commercial supplement“ Fitline-products had somewhat higher bioavailability. However, the amount of calcium in comparator was smaller. The results suggest that the tested Fitline products have better bioavailability as compared to chosen comparator.

The major limitation here is that the study results are valid only against this chosen comparator. It is not clear why this comparator was used and not some else known product in which bioavailability is known to be good.

In any case, I did not state that the vitamins in Fitline products would not absorb. My comments were against the specific claims that human beings have a major problem to absorb fat-soluble vitamins. That is clear in my text.

- 5) Wajda et al., Journal of medicinal food 10 (4) 2007 , 731 – 734 Increase of Bioavailability of Coenzyme Q 10 and Vitamin E

This report is the paper published in scientific journal. I have received this earlier already commented in my blog writings. This analysis was performed by Lipoid GmbH and tested the Nanosolve-technique in improving the bioavailability of CoQ10 and Vitamin E. They showed that with this technique the bioavailability is improved. This is fine. However, Fitline products were not studied but the original Nanosolve-method.

In any case, my criticism in the blog was not that against this method but against the concept that "nutrients will be transported to those cells that need them and exactly when they are needed".

- 6) Food supplement Guide (Finland) , Page 14 ff.

This Eviras guideline does not give any information about Fitline products.

- 7) Martin Purpura¹ · Ryan P. Lowery² · Jacob M. Wilson² · Haider Mannan⁶
Gerald Münch^{3,5} · Valentina Razmovski-Naumovski^{3,4} Eur J Nutr DOI 10.1007/s00394-016-1376-9
Analysis of different innovative formulations of curcumin for improved relative oral bioavailability in human subjects

This report is the paper published in scientific journal. I have received this earlier and already commented in my blog writings. The study focused on the method that aims to improve absorption of curcumin using Cyclodextrins. The results showed that the relative bioavailability of total curcuminoids was improved with this method.

This study appears fine. However, it did not study the Fitline products nor NTC itself. More important, my comment in the blog was due to claim that the "fat-soluble vitamins are changed to water-soluble". In addition, there was a statement that, „because of change to water-solubility, users cannot get them too much“. This is obviously nonsense.

- 8) Renate Haselgruebler, Flora Stuebl, Katja Essl, Marcus Iken, Klaus Schroeder, Julian Weghuber
PLOS ONE | <https://doi.org/10.1371/journal.pone.0182788> August 4, 2017
Gluc-HET, a complementary chick embryo model for the characterization of antidiabetic

I do not see any connection with this document to the blog or any other issue discussed here.