

Oliphenol LLC brings the Health Benefits of Olive Polyphenols to the World



Dr. Roberto Crea
CEO and CSO

Oliphenol LLC
www.oliphenol.com

Contact:
Roberto Crea
650-703-2718
robertocrea@oliphenol.com
info@oliphenol.com

Interview conducted by:
Lynn Fosse, Senior Editor
CEO CFO Magazine

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Dr. Roberto Crea

CEO CFO: Dr. Crea, what is the concept behind Oliphenol™, LLC?

Dr. Crea: The basic concept is to take key scientific discoveries in the field of olive polyphenols to commercialization. Polyphenols is a natural class of active compounds present in the fruit of olives. Our mission is basically to bring the health benefits of olive polyphenols, worldwide, to both consumers and other companies for valuable applications.

CEO CFO: What is in olives that make them so useful?

Dr. Crea: Historically, the olive has always been considered to be a unique fruit in nature for its recognized health and wellness properties. The story of the olive as medicinal fruit goes back, I would say, eight thousand years ago. Olives have always been a symbol of wellness, health and peace; and recently we discovered the reason. In the last, I would say, forty or fifty years, there has been a number of studies worldwide, starting with the well-known Mediterranean Diet clinical study in the '60, trying to understand why olives and the products that we create from olives, like olive oil, are so unique in health, longevity and prevention of many diseases.

We know today is that olives, besides containing olive oil, unique among vegetable oils with its high content of oleic acid, are rich in polyphenols, a class of natural compounds that provides the majority of the health benefits that we experience from consuming olives and olive oil in the Mediterranean diet.

About twenty years ago we and other scientists around the world started isolating these polyphenols in large amount and we found that they

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provide all kinds of health benefits, like cardiovascular, anti-inflammatory activity for the skin and organs, antimicrobial and antiviral activity, and even some benefits for cancer. That is the reason why we and many other laboratories started exploring how to use olive polyphenols as potential nutritional ingredients for applications for health and wellness. We also started exploring the possibility of developing applications in health care and medicine as well.

CEO CFO: *Where does Hidrox® come into play? What have you created?*

Dr. Crea: When we started in 1999 as a small company, a garage operation in Northern California, we discovered that the olive industry in general, when they process olives to make olive oil, they only care about the oil and everything else is considered agricultural waste. We decided to look into the by-products or waste products for active molecules. We had a feeling that something was missed. The olive oil is only a small fraction of the olive, 10 to 15 %. Olives contain all kinds of active compounds and we realized that the majority of these molecules were discarded in the wastewater as waste products. No one really had paid attention to the wealth of products that get lost during the olive oil production.

We were the first company to develop Hidrox®, which is a natural, solvent free formulation of olive polyphenols, found not in the olive oil but in the wastewater, in the “juice” of the olives as we call it now. The missing link that we discovered in 2000 was the ground basis to develop a unique process to harvest the natural polyphenols and create an industrial formulation we called “Hidrox.”

We do not particularly look at the olive oil as a source of these polyphenols, because most of the polyphenols are mainly soluble in water, but we harvest them from the juice of the fruit.

We then developed Hidrox®, which is a proprietary formulation, totally natural from 100% organic olives that contains very high concentration of polyphenols. From the contents of one Hidrox tablet or one capsule, today you can get the same amount of polyphenols that you would get from a liter of the best olive oil. Thus, you can get the benefits of olives from their juice in a capsule, in a tablet or in a liquid form, without the fats and calories of the oil. Once we had Hidrox available in large amount, we spent many years focused upon the science of these olive polyphenols to understand the full range of health benefits that you can expect by including olive polyphenols into your diet.

CEO CFO: *How do you get the waste water from the olives?*

Dr. Crea: That is a great question, Lynn! We work with an olive oil processing company, a company that normally harvests the olives to produce olive oil. They press the olives, crush them with mechanical means, extract the olive oil and that is their primary business. We work with them and take everything else that they do not use. Everything else, an agricultural waste, does not work for them, but is a valuable raw material for us.

Every year when it is time for harvesting the olives and starting the olive oil campaign, we go to this plant or many other similar olive oil factories,

and get the byproduct, called "olive pomace" which we then process independently. With our proprietary process, which we called "Integrale" we essentially squeeze the juice from the pomace, which is the biomass that is left after they extract the oil. Once we separate the juice out of the biomass, we start processing this juice in a very natural form, without any use of solvents, and produce an organic polyphenol formulation which is extremely rich in polyphenols.

CEO CFO: *Is the medical community and the health community onboard with what you are doing? Do they understand the process and do they recognize the effectiveness?*

Dr. Crea: The answer is yes! We have seen an incredible increase in interest by the dietary supplement industry and skincare first, but now we work also with the medical community and clinical research investigators. When we first started, more than twenty years ago, there were a few publications in medical journals. Today, you can find more than a thousand scientific reports in the medical literature. The number of these publications and the number of clinical investigations, all over the world, has increased exponentially. Why? Because of the olive polyphenols perform. They deliver benefits in a number of health conditions and they do it in a very consistent and safe way, so that people do not have to worry about side effects or any other safety concerns.

Safety is of the utmost importance to us! From the very beginning, we invested in safety studies as recommended by the US health authorities because we want to introduce a new ingredient in the food and beverage industry with all of the criteria used for medical products. We produced what is called a GRAS (Generally Recognized As Safe) certification for our product.

The European Food Safety Authority (EFSA) has also formally recognized that the olive polyphenols work as a strong antioxidant in the blood stream and if taken by mouth, on a daily basis, olive polyphenols can prevent the development of some very serious diseases, like atherosclerosis and stroke.

CEO CFO: *Where does COVID come into play for Oliphenol?*

Dr. Crea: I have spent more than forty-five years in bioscience research and biotechnology. I was one of the first scientists and directors of Genentech, Inc, so my life has been dedicated to research and discoveries. When I started getting interested in the area of olive polyphenols, I was really amazed about the range of health benefits that you can get from these natural molecules, especially from one compound in particular, called hydroxytyrosol. This component of Hidrox® is prominent among the olive polyphenols as the most potent and the most available in the blood stream (bioavailable). Hydroxytyrosol has basically been confirmed to have many health properties, from antioxidant to anti-inflammatory and antimicrobial. In particular, we got interested in its antiviral activity as we have experienced this terrible pandemic since the beginning of last year, called Covid-19. When I read that in Japan, three years ago, a prominent scientist of the Obihiro Veterinary University had discovered that that purified hydroxytyrosol had a strong killing activity against the Influenza virus, I got very intrigued by the similarity between Influenza virus and SARS-CoV-2 virus

(Covid-19). I then contacted Professor Haruko Ogawa, the leading scientist who published the paper on Influenza, and I explained that we have this formulation called Hidrox® that might potentially be useful against COVID-19, so we agreed to do a joint research collaboration to investigate the antiviral activity of our product in Japan. That was the beginning. Using a set of old and new tests, my Japanese colleagues confirmed the unique anti-viral activity of Hidrox®, twenty-five times better than purified hydroxytyrosol in killing the virus in the laboratory and preventing it from infecting cells. We are extremely excited by this discovery. Now we can hope to offer, as an additional therapy for managing the COVID pandemic, our olive polyphenols in a capsule or in a juice. I am not saying that everything is done. I am saying that there is great proof of concept in a prestigious laboratory that can kill this and other viruses by the ingestion of olive polyphenols, and because the product is natural and safe and has been in commerce for many years, we are now able to take the Hidrox directly to the patients without having to redo all the safety and toxicity testing. The product is already available in health stores. We are now start testing it with people with COVID-19 to monitor its benefits.

CEOCFO: *How is business with your regular products today? Are people gravitating more to one or another of the products you offer?*

Dr. Crea: Right now, just to give you an idea of our organization, we have distributors for North America, we have distributors in Japan, we have offices and pretty soon distributors in China and we have an office in Sweden for the European market. Therefore, in the last two years, we have really built the structure, the marketing organization to be very effective in promoting and selling our products. To take a snapshot today, I would say that the product is doing very well, but it is still early to answer your questions because the effort to take the product globally has just started back about five months ago.

CEOCFO: *It is very exciting times for Oliphenol!*

Dr. Crea: It is very exciting because we are working with several research institutions for two important areas of medical applications! One is the field of neurodegenerative diseases; Parkinson's, maybe Alzheimer's, and many other neurological diseases where the olive polyphenols seem to be effective. This is a very fascinating story. The hydroxytyrosol we harvest from olives is very similar to the most important molecule in our brain, that we call dopamine. As you know, dopamine is one essential for the healthy functioning of our central nervous system. Lack or depletion of dopamine leads to severe diseases like Parkinson's and many others. We have already seen some anecdotal potential use for diseases like Parkinson's and similar diseases, so we are now working with some very prestigious laboratories in the USA and Europe to run some pre- and clinical trials with people with early Parkinson's.

The other area of applications is the one that we just published about, the COVID-19. We believe that because of the particular mechanism by which hydroxytyrosol might destroy the integrity of the spike proteins of the SARS-CoV2 virus, there may be another way to cripple the virus and stop it from being infective. That is extremely exciting as it could lead to a complementary therapy where we manage viral diseases with nasal and

oral spray with a readily available natural and safe product! We think that our track record and our research and safety studies will allow us to go quickly into pre-clinical and clinical studies. The future of our company is going to be a mix of strong commitment to clinical studies and basic research but we also want to be the best in the industry for the quality, safety and reliability of our product, Hidrox®. We want to offer the market something that works, is inexpensive and is readily available for a variety of uses.