INTERVIEW with DR. DAWSON CHURCH

Marco Chiera - Accademia Mibes: Hi everyone! I am Marco Chiera, co-founder of Academia MIBES, and today we have as our special guest Dr. Dawson Church. Dr. Church, thanks for accepting our invitation.

Dr. Dawson Church: It is great to be here, and I so admire the work you are doing there. Thank you so much for being a leader in that field.

Marco Chiera - Accademia Mibes: Dr. Church is a researcher, author, and speaker in the field of integrative health and mind-body medicine. He is known for his work on the effect of stress, emotions, and meditation on the brain and the body, and in particular for his research on Emotional Freedom Techniques (EFTs). He has published several scientific papers and bestselling books, such as *Bliss Brain*, exploring how mental and emotional states can influence health and wellbeing. Dr. Church is also the founder of the National Institute for Integrative Healthcare and has been involved in several educational initiatives focused on stress reduction and human resilience.

Dr. Church, thanks again for being here with us to share your expertise.

We can now begin our interview. And here the first question: your work focuses on how emotions shape our health. How does a feeling translate into a measurable biological event? And if they are known, what are the markers that can be used to assess this change in the body?

Dr. Dawson Church: That is a great question, and I will answer it briefly because the full answer would fill up several medical textbooks. If you look back at the history of Western medicine, what we find is that it became very focused on material medicine and very disconnected from feelings, thoughts, and other kinds of ways of intervening in well-being. In the 1970s, when I was in college, there was the first effort to bring them together: it was called mind-body medicine, and the journal *Psychosomatic Medicine* was founded to try and connect mind and body again.

The research done in Western societies during the last century followed a very mechanistic approach and gave us a huge focus on drugs, surgery, and those kinds of interventions, with a very small focus on the rest. For example, at the National Institutes of Health here in the US, the dollars spent on alternative therapies, mind-body therapies, is 1/3 of 1% of our research spending. However, the research done by me and many other health professionals has shown that there is an absolutely provable, measurable, demonstrable, and enormously effective link between our thoughts, our feelings, and what goes on in our bodies.

For example, imagine you are driving home from work: you are on the road and another person swerves in front of you. There is almost a collision, so you have to pull over to the side. It is a dangerous moment and you are feeling really stressed. As a result, your cortisol rises. What has happened here is that an event “external” to your body has produced molecules “inside” your body. There is a rise in cortisol, norepinephrine, and adrenaline, as many other biochemical signals are affected. The interesting thing is that, if you get home and tell your family the story about the

collision, you can get very upset again. Even in the aftermath of the collision, when there is no threat to your survival, your body reacts the same way. Your body cannot tell this is not an actual event happening in real time: when you are talking about a stressful event, your cortisol and adrenaline rise again, even if there is no actual physical threat.

Indeed, in chronic or traumatic stress what we see is that people show high levels of these neurochemicals. Examples of chronic stress are people with traumatic stress, post-traumatic stress disorder (PTSD), looping thoughts about trauma (e.g. a terrible divorce), or a serious illness, as well as people injured in serious ways or involved in a very difficult business situation, a car crash, a financial crash.

All these events can result in high levels of cortisol: not just during the actual stressful event (e.g., the few seconds it took you to evade the other driver on the road, if we come back to our previous example), but even for years after if the system remains on high alert. When the event is remembered, when the body is being called on by the mind and emotions, cortisol, norepinephrine, and adrenaline are produced day after day, after day. Indeed, people with chronic stress are acting as though they are under imminent threat all the time.

Their body does just what it is being told to do but, in doing so, it scavenges the precursors of cortisol from other sources. And the precursors of cortisol are pregnenolone and progesterone, which form our most important cell communication and repair hormones. Therefore, under chronic stress, we are actually breaking down our cell repair hormones to build cortisol, and that over time produces reduced muscle mass, reduced bone mass, reduced skin elasticity. In this process you see the incredibly corrosive effect of chronic stress. So, that is the way a thought and an emotion becomes a molecule and has a very direct effect on our bodies and our long-term health and longevity.

Marco Chiera - Accademia Mibes: Thanks for this answer, very precise and easy to understand. Now, you talked about the biochemical and hormonal aspects of the stress response, but in the last decades several scientific papers showed that thoughts and emotions can influence gene expression, too. Could you explain what this means and the biochemical mechanism behind such “epigenetic” modification?

Dr. Dawson Church: Cortisol is a steroid hormone. Most of the molecules in our bodies are proteins, and proteins are large and very complicated molecules. If you look at a diagram of a protein, it has got a lot of folds, many different dimensions, and a certain size and shape. Our bodies need instructions about how to build these complex molecules called proteins, and those instructions are found in the genes.

When, for example, we have a stress response, we turn on a gene called CYP17B1, which is one of the genes that instructs our bodies on how to build cortisol. In other words, when we are stressed we trigger our gene expression. Another gene that is triggered by stress is called CFOS, which is very readable to researchers in the brain. By seeing which areas are expressing CFOS, we can see which brain regions are active. During stress, we see a lot of CFOS in regions like the mid-prefrontal cortex (MPFC), right between the eyeballs.

When people are stressed, MPFC is highly active. In patients with major depressive disorder, MPFC is one of the most active parts of the brain. On the contrary, in people who meditate, who are taking care of their stress, or who are reducing their stress, you see a reduction in their cortisol, a reduction in the activity in the MPFC, and you also see a downregulation of the CFOS gene. Therefore, you can see that we can give our bodies very different instructions based on our emotions.

In fact, there is a whole suite of genes we can trigger or inhibit. About 15% of our genes are fixed. For instance, I am just short of 2 meters tall: that is a fixed gene for height. I have gray eyes: that is a fixed gene for eye color. These genes do not fluctuate. But many of our genes are fluctuating. When you eat a meal, the genes that are coding for your digestive juices will turn on over the course of a few minutes. The class of genes that codes for neurotransmitters like norepinephrine and adrenaline reach peak expression in 3 seconds. Therefore, when we are stressed, we are dynamically and extremely quickly turning on this class of genes called immediate early genes. Like CYP17B1, these genes code for the neurochemicals that we need to get out of danger, but that can degrade our health over time if we experience chronic stress.

Marco Chiera - Accademia Mibes: Thanks again for this full detailed response. We talked about stress in a "negative" way until now, but we know that stress can also be positive. You said that after a car accident, when I think about that accident, my body starts to show the same stress response experienced during that accident. But this can happen even in a positive way: in fact, in your book *Bliss Brain*, you describe the possibility of rewiring the brain toward a state of ecstasy and resilience. So, speaking about emotion, can we think about a form of neuroplasticity of emotion or empathy?

Dr. Dawson Church: What is one of the most startling features of neuroplasticity is how quick it is. I did one randomized controlled trial in which we used magnetic resonance imagings (MRIs) to measure the structure and function of people's brains. We used very advanced high-resolution MRIs, and we divided participants into two groups. One group got a placebo, which was a form of meditation that had them think about positive events in their lives and also doing mindful breathing while listening to a pleasant audio track. That was the control group. The experimental group got a procedure I designed called ECO meditation, which is an evidence-based form of meditation that includes heart coherence breathing, self-hypnosis, EFT tapping on acupressure points, and several other evidence-based modalities.

We had the two groups do meditation for 1 month, 22 minutes a day, after which they came back into the laboratory where we did a second MRI scan of their brains. The absolutely staggering result was that we found structural and functional changes in the brain after only 1 month and with only 22 minutes a day of meditation. That is how quickly your brain is rewiring itself!

Of course, your brain will rewire itself way more if you do ECO meditation or other forms of self-care for 6 months, a year, or more. In Alzheimer's patients, for example, other researchers found that these kinds of body-based meditations performed for 6 months stopped the shrinkage of the Alzheimer's brains, which instead began to grow again. With just 6 months of meditation!

So if you meditate for longer than a month, even more things can happen. There are monks who have been studied whose brains are 10 years biologically younger than their chronological age. They are 50 years old, but their brains are 40 years old. So, meditation can produce major remodeling of the brain over long periods of time. But even in just 30 days, with 22 minutes a day, we found there was a decrease in activity in the MPFC that handles stress and rumination. MPFC is very active in depressed patients: however, it became relatively inactive after one month of ECO meditation. On the other hand, we found that activity in the insula of the brain had greatly increased. The insula is the part of the brain that handles compassion, altruism, optimism, joy, positivity, kindness, awe, and that part of the brain was really lit up after only one month of ECO meditation.

The startling thing about these meditative practices is that they do produce neural plasticity. If you look at one of the diagrams in my book, *Bliss Brain*, it shows two neurons that are being photographed under a scanning electron microscope: you see them twitching as they are firing together. As they fire, they get closer and closer, and closer. They eventually wire together, and the whole process from firing to wiring takes only 12 seconds: 12 seconds of repeat signaling is going to produce a shift. 1 hour of repeat signaling can double the number of synapses in a neural synaptic cleft.

Our brains are remodeling themselves really quickly, and I recommend people very strongly that they remodel their brains for those 3 characteristics: resilience, creativity, and joy. We know that people who do this are a lot more joyful. We know that they are dramatically more happy. In one of my studies, we found that they are 20% more productive within a month.

Eventually, all kinds of things happen when you meditate, and the process of neural remodeling can happen so very quickly that it can be detectable on an MRI within 30 days.

Marco Chiera - Accademia Mibes: Well, we are talking about very awesome results, results that can be achieved, as you said, in a very little amount of time. But besides joy, in your works you are saying that even something like empathy can be trained, can be viewed as a skill that we can learn through our brain neuroplasticity.

Dr. Dawson Church: Absolutely. We just practice these things. If you look at the brain of a person who is practicing compassion, you see the insula becoming highly activated and the MPFC getting really quiet. Other things happen elsewhere in the brain, too: the parietal and the temporal lobes are engaged, as the temporoparietal junction where those two lobes connect and talk to each other.

In my book *Spiritual Intelligence*, I showed a study about the brains of highly creative people: what we see in their brains is a pattern of what in neuroscience is called “binding”. It is a technical term meaning that you are collecting information from many different parts of your brain for synthesizing it into new ideas – that is, what creative people naturally do. It is a pretty interesting image because it shows signals traveling from the visual cortex all the way up into the dorsal prefrontal cortex, signals traveling from the limbic system into the hindbrain. We used to think that the hindbrain was just handling automatic autonomic functions. But, I am predicting, new research will show that the hindbrain has way more plasticity.

We know that a lot of habits change when you meditate or when you take care of yourself. Even though we have thought the hindbrain, the cerebellum, the back of the brain – the "ancient reptile" brain – as areas mildly interesting while the real fireworks are all in the prefrontal cortex – the "modern primate" brain – what we see in these high creative people is that all these different parts of the brain are being recruited. In people who do not have the benefit of such a high creativity, only two or three brain regions might be active. In highly creative people, you may find even 15 brain regions active.

That is what is going on in our brains: it is remarkable to see the difference in creativity, resilience, and joy of the people who are using spiritual intelligence practices to really support their well-being.

Marco Chiera - Accademia Mibes: Thanks for the very interesting research that you are sharing with us, Dr. Church. And speaking about joy, empathy, and spiritual intelligence, is there a correlation between them all and inflammation? I mean: in physiological terms, can spiritual intelligence, emotional connection, or empathy act as a biological "shock absorber" for cortisol levels and systemic stress?

Dr. Dawson Church: We all experience stress in our lives. There are very few people who have had no stress in their lives. You might think celebrities have a perfect life, but then you read about one celebrity couple who got divorced and discover a lot of information that came out in court about their relationship: the fights, the misery, the anger, the conflict, the emotional violence, etc. In fact, even people who look like they have perfect lives have emotional issues to deal with.

Given that life needs stress, you want to arrange your life to manage your stress well. As you were pointing out earlier, a bit of stress is good. For instance: now, you are sitting over there, I am sitting over here, and we are both a little bit stressed. We are here sharing an interview, we are thinking, we are needing to connect and communicate. We want to make this a great experience for everybody who is participating in this conversation. That is a mild stress level, and that actually is very healthy.

It is when stress gets out of control and too high that problems arise, and it is when stress becomes continuous without people having periods of real relaxation: that is when stress becomes corrosive. Then, you want to introduce things in terms of "shock absorbers", things that can really counter the stress. There are plenty of such practices, and they are well researched now in the scientific literature. Gratitude has been shown to change gene expression in positive ways. Empathy and compassion have been shown to affect a whole suite of genes. Giving thanks for the good things in your life.

When you introduce such practices, when you are compassionate, grateful, or socially connected, when you meditate and activate your spiritual intelligence, you still have stress coming in (you read the news, there are problems in your own personal life, etc.), but you are able to deliberately use practices to release that stress. You want to have a robust suite of practices that you can use in your life to release your stress. Not everybody can meditate for 2 hours in the morning. I personally like to have the first 2 hours of my day to journal, to pray, to meditate, to exercise, and I

do all those things early in the morning before the world hits me. Because that is prioritizing me: it is prioritizing my own well-being, and I am far more resilient if I do that.

So, what will work for your lifetime, for your lifestyle? It may not be 2 hours in the morning, but it might be, for example, taking short breaks. Research shows that people who every 2 hours take a short break – you can get outside, meditate, do some deep breathing, do some Qigong or Tai chi, – are more productive at the end of the day than those that do not take breaks. So, take a nap, take a break, get away, get out of your head for a little while.

Find things that work for your lifestyle, and that is going to build up your resilience and make you better able to handle the stressors of your life.

Marco Chiera - Accademia Mibes: You are so right, Dr. Church. We really have this need of taking our time, taking back the time of nature, taking back our "being essence", if I can use such an expression. And as you said, we have to make use of thoughts and emotions that heal us instead of ruin us. Because as ancient wisdom has it, "thought is information". Especially today where we are overflowed by information that is nothing but useless or negative, we really have the need to come back to ourselves, to our connection to what you call our spiritual intelligence.

And speaking of which, you talked about several mind-body therapies. In your practice, you make a large use of EFT, Emotional Freedom Techniques. Can you tell us something about it, about its rationale, or whether there are scientific papers about its effectiveness.

Dr. Dawson Church: EFT, or Emotional Freedom Techniques, is often called tapping because, during this practice, while people think about their problems and daily life stressors, they stimulate acupressure points on their body with their fingertips. When people do that, it is very interesting what happens to the brain as documented by more than 200 studies on EFT done all over the world.

When people remember a stressful event (e.g. a car accident), they think about the extreme level of emotions felt at that moment. While they recall that, their brain lights up, especially the emotional brain or the limbic system that handles threats. That part of the brain gets highly active whether people are in the middle of an actual threat or they are remembering an old threat.

When people start to tap while remembering the stressful event, the limbic system calms down within a few seconds. It is absolutely remarkable to look at their brain scans: these people calm within a few moments, even though they are still remembering the event. When they tell the same story about the stressful event later after tapping, their limbic system does not light up. They become able to process the memory, to recall the event, without the stressful body response.

This happens not only with people who have experienced just small stressors, but even with people in dire circumstances. We are doing a project now in Ukraine and we are training practitioners at the Ukraine Institute for Trauma Therapy (we have just had the EFT manual translated into Ukrainian). The people in Ukraine are suffering from extreme levels of stress. We also did a lot of work, volunteer work, in Rwanda after the Rwandan Holocaust starting in the late 1990s: we were working with orphans whose families have been killed in the Rwandan genocide.

Those children, now adults, had unbelievably high levels of PTSD. Through our research, we found that tapping was able to help even people who were in those kinds of highly stressful situations.

EFT calms the emotional brain: you still remember the bad thing that happened, but you no longer have an emotional response. Your cortisol drops. We have done several cortisol studies, and in one study I did, we compared people getting regular talk therapy from a psychotherapist to people getting EFT tapping. Whereas the cortisol level did not change much through regular talk therapy, we found that it dropped over 20% after an hour of EFT. A replication of that study found that cortisol dropped over 40% in an hour. Therefore, we can say EFT rapidly makes the brain quiet: it makes the stress centers of the brain get quiet.

And while neurochemicals like cortisol go down, we find that genes that code for inflammation control and immunity are dialed up. We have done several epigenetic studies, and we found that EFT literally is dialing up the activity of the genes that help the body deal with inflammation, keep inflammation down, and keep immunity high. In one study on the immune system, we found there was a more than 100% rise in immune markers in a week of doing ECO meditation and tapping. During a one-week retreat where people tapped and meditated every morning, their baseline cortisol dropped by 36% while their immune markers rose 113%.

Generally speaking, when all of the stress hormones and neurotransmitters drop, all kinds of beneficial ones rise because the body is taking apart the stress molecules to obtain material available to build things like immunity. There is this inverse relationship between those two groups of molecules in the body, and EFT very rapidly changes that in your favor.

Marco Chiera - Accademia Mibes: Well, that is some very interesting research, and it should be spread around the world since, right now as we speak, horrible things are happening. We have too many places with war, famine, and many other kinds of things that should have never existed. Speaking of these profound changes we are all experiencing, we lived through the COVID pandemics and its many problems.

After seeing all these catastrophes, what do you think about human empathy? Do you think it is in a phase of crisis? Do you think we have to train it to adapt to these new environmental stimuli? And do you think that empathy can be trained also through digital devices, or since we are social beings, touch and physical presence is required to properly train empathy?

Dr. Dawson Church: That is a very good question. Obviously, you want to have a lot of touch early in life. For the first 2 years of our lives, when we are babies, the limbic system and the emotional brain is the fastest growing part of the brain. Therefore, babies need all the touch they can get. You will know if you have a baby: you cannot give them enough touch. They will take all the touch you can give them, and that will help their limbic brain grow and develop properly.

People who did not get that kind of touch could do things like self-touch: for example, we usually teach the “butterfly hug”, where you simply rub your own skin as if you were giving yourself a hug. Or you can also tap yourself as it is used in EMDR (Eye Movement Desensitization and Reprocessing) and other forms of energy psychology. These are ways we, as adults, can start to

rebuild the emotional parts of the brain that suffered from lack of touch, especially if we did not get very good care when we were young.

Empathy is vital as we are growing up. For example, rats, mice, and monkeys that do not get skin contact (i.e. touch) at an early age tend to grow up being fearful. They have high levels of anxiety when they are adults. Therefore, it is really important for you to re-parent yourself: if you were not well-parented, then there are things you can do like butterfly hugs, tapping, and other forms of self-care that are going to start to rebuild the neural and emotional complexes in your brain and in all your body.

Although touch is so important, there is a lot of emotional transmission that happens as well when we are online. Indeed, I have done several studies now comparing the effects of in-person EFT – we are all in a room together – and Zoom EFT where we are all in a Zoom room together without physically being in the same location. I have also done studies of ECO meditation comparing the two, and we found that the effects are very similar: they are both able to produce significant drops in anxiety, depression, and PTSD symptoms. There is a lot of community that people are getting digitally that used to not be the case. Even the thing called "Zoom fatigue", which was measured during COVID where people were having too much screen time, has been gotten over: people now may benefit from Zoom and virtual connection and virtual. So, yes, touch is important, but there are other things we can do to help build those capacities neurologically in our brains.

As far as the question about where society is going, about learning compassion, there is really good news coming from science. In the last chapter of *Spiritual Intelligence*, I cover global trends about today's war, violence, massacre, genocide, and famine. Those things should, as you were saying, never be happening, and yet they do happen. However, without minimizing in any way their seriousness and the need to properly address them, they have to be put in context.

Looking back at the historical record, you can find that in the last 1,000 years we have been seeing a measurable increase in empathy and compassion in the human race. The murder rate, for example, is a statistic that has always been tracked by governments: in Italy, Germany, France, China, India, Japan, and other parts of the world, the murder rate has gone from about 45 people per 100,000 to under 1 person per 100,000. That is, there has been a steady decrease in the murder rate for the last 1,000 years. You see the same trend with individual interpersonal violence.

If you look at the wars between great powers and go back 1,000 years, there was not even one year without a war going on. Since 1500, there were a few years with no wars going on between great powers. Then, there were more years like that in the 1600s, more in the 1700s, and even more years like that in the 1800s. You can find this trend of war going down even looking at the number of people killed in wars. During World War II in the mid 1900s, 40 million people died. That was a huge mass slaughter. In World War I, 19 million people died. And yet you go back to the 1800s and you find that, as a proportion of the population, more people died in global wars in that century than in the 1900s, and even more people died in global wars in the 1700s.

On the other hand, in the 1900s our spending in developed countries on people who needed help – poor people, sick people, the elderly, children – was about 2% of our economies. Today, it is about 22%, meaning that our spending has gone up tenfold on people in need. There are literally hundreds of trends like these.

It is like looking out the window and saying: “Oh, it is raining today, there is a thunderstorm today”. But what science says is: “Let us zoom out and let us look at the weather pattern of this place for a whole year of data, for 10 years of data, even for a century of data”. Doing that, you discover a very different picture from looking out the window and seeing just today’s weather. When we look at the news, we become very focused on today's headlines, on today’s shocking acts of violence. Of course, these facts should never be condoned: we need to stamp out war and inequality. But if you zoom out to the big picture, the trend you find is for greater and greater compassion. These acts of violence are the aberration: they are the exception to the rule we have seen over the last 1,000 years. That is the comfort science gives us.

Marco Chiera - Accademia Mibes: Dr. Church, I really thank you for this message of hope because we need it. We need light in our lives, especially these days. So, to conclude our interesting and very engaging interview, I ask you one last question based on the picture you just showed us about empathy. If you had to define empathy, would you see it as a neurobiological trait, a moral choice, or maybe something more intimate to our nature, something that our species has shaped for allowing us to survive and to live with joy.

Dr. Dawson Church: Empathy is an innate trait of the human brain, and it is processed in a very large lobe of the brain called the insula. In people who are compassionate, their insula is highly active. But insula activation is involved also in all the other positive emotions like gratitude, altruism, and joy. So, if you are empathetic, you are automatically going to feel more joy and higher levels of altruism, gratitude, and happiness. All kinds of other things happen when you are empathetic, and this is literally built into the human brain: you just need to turn on that part of the brain, and there are many ways you can do that.

For example, in ECO meditation, people focus on either a higher power or an archetype, something that is a symbol to them of unconditional love. When you connect with unconditional love, which we encourage meditators to do, then the insula in your brain turns on: as a result, you feel very different. Your heart rate variability (HRV), which is an excellent overall measure of health, rises when you feel that sense of connection, that sense of oneness with a power higher and greater than yourself.

As you practice these types of feelings over and over again, you eventually get to what we call “non-duality”: the non-dual experience described by research in which our sense of consciousness shifts from being highly focused on our immediate personal self, to a sense of oneness with everything. Buddhism, Vedanta, Hinduism, the great Christian mystics, Judaism, Kabbalism, and Taoism: all talk about the experience of leaving your sense of isolation, your sense of being a lonely little person stumbling through life, to being one with the All-that-is. When you do that, you reach the non-dual state, the transcendent state. We have shown that people doing ECO meditation are able to reach that state in just a few days, and then they begin living with a sense of connection with the universe and with the All-that-is.

Reaching this sense of connection changes how your brain functions: your insula becomes more active and actually begins to get bigger. You get more capacity to experience empathy, altruism, joy, kindness, compassion, gentleness, forgiveness, and all of these positive emotions. In one study, the researchers found that a key part of the brain grew by over 20% in only 2 months: a very big

increase! Not all parts of the brain grow that fast, but certain parts of the brain that are stimulated by meditation can grow really quickly. You do not just have the software of your mind, but you also have the hardware of your brain: with meditation, you literally have more hardware to meet the challenges of your life. In fact, you are more resilient not as "an idea," but you are more resilient neurologically. You literally have more neurons in those resilient circuits. Therefore, when bad stuff happens, and unfortunately bad stuff will happen, you have that hardware to rely on.

That is why I advocate for people to develop these skills and to develop these neural bundles before you need them. Do not wait until you have a tragedy, and then try and learn to fall back on meditation practice. Learn that skill early and build those bundles so you are resilient. This way, when bad things happen, you have that hardware in place.

We can learn all of these practices, thus making parts of our brain such as the insula get bigger. As these areas get bigger, we have better and better lives: we are more creative and joyful. And all of these things are bundled together with empathy, which is a wonderful trait to cultivate and whose accompanying benefits are absolutely enormous in terms of mood, physical well-being, and brain capacity.

Let us end with one last study. The US government did a massive study that went on for more than a decade: they looked at people who were really taking care of themselves and saw what happened to their health and their well-being over time. They then compared them to people who were not taking care of themselves. In fact, there is a whole range of people who are eating well, exercising and really paying attention to their mental and emotional well-being, whereas other people are at the opposite end of the spectrum. In that study, the lifespan difference between the group really taking care of themselves and the group not taking care of themselves was 24 years.

Marco Chiera - Accademia Mibes: You get 24 more years of life…

Dr. Dawson Church: A quarter of a century. Absolutely! When we talk about all these wonderful emotional ideas and emotional resilience, we are not talking about some kind of vague concept. If you are practicing all these things, you are literally going to add years to your life, and those are much healthier years, too. The people who died early were a lot sicker as well. So, you really need this for your well-being in the short term and your longevity in the long term.

Marco Chiera - Accademia Mibes: Well, Dr. Church, thanks for everything, for this interview, and thanks for your last words about the promotion of health and longevity, which match perfectly with our mission at Accademia Mibes since we are an academy based on integrative medicine, well-being, and health. I really thank you for sharing your knowledge and invaluable experience with us. We hope to have other opportunities in the future to collaborate, to work together, and to spread all this essential knowledge. Thank you again for being with us today from all Academia Mibes staff.

Dr. Dawson Church: Marco, it has been a great pleasure. Thanks for having me and thanks again for the wonderful work you do.

Marco Chiera - Accademia Mibes: To everyone who is reading us, see you next time and take care of yourself.