

BEAT DIPG

Intensive Bootcamp

*We use Sakharoff Protocol
to change the brain cell environment and stop tumor growth
- Instead of only fighting the symptoms with targeted therapies*

Contents

Diagnosed with DIPG?	4
Time for Paradigm Shift	5
Is There Any Hope?	7
The Sakharoff Protocol - Non-Pharmacological Metabolic Approach	11
How Can we Stop Growth of a High-Grade Brain Tumor Without Drugs?	12
Is BEAT DIPG Bootcamp for you?	19
Inclusion Criteria.....	20
Why You Need to Act Now	21
How Can the Non-Pharmacological Metabolic Approach Save DIPG Lives - Where the Conventional Medicine Can Not?	23
But We Don't Know The Cause of DIPG – Do We?	24
But... You Need To Break the Taboo and Change the Rules of the Game	27
Why Can Doctors Not Advise on Metabolic Approaches?	29
Why Is It So Hard Both For Us and The Doctors To Break the Taboo?.....	31
Taking Personal Responsibility - Our Only Chance.....	33
We have a plan!.....	34
The DIPG BOOTCAMP Content	36
What Happens After You join	37
What to Expect - Stages of Healing	40
Sakharoff Protocol - Why It Works	42
Sakharoff Protocol - Main Strategy	43

Sakharoff Protocol - How It Works	45
Why this BOOTCAMP works	50
This approach won't overwhelm you	54
Reality Check. Is There An Alternative?	55
Personal message for you.....	56
References - Scientific Studies	59
About Sakharoff.com	63

Diagnosed with DIPG?

Your son, your daughter or yourself are diagnosed with DIPG, the most aggressive brain tumor that interferes with all bodily functions and leads to a very fast decline, slowly depriving a person of the ability to move, to communicate, and even to eat and drink.

It's a terrible situation that pushes you up a blind alley - or a flooded tunnel. It's even harder in a situation where the conventional medicine apparently does not offer options.

But there is an option. Please read on carefully.

Time for Paradigm Shift

Scientific research on stopping DIPG started in the seventies. Since then the medical profession has tried to apply chemotherapy, surgery, radiation and proton therapy to fight this terrible condition.

All conventional therapies have until now failed to show any ability to prolong life expectancy for DIPG patients. Radiotherapy is still the one and only therapy that show a positive result - adding scant extra 3 months to the average DIPG life expectancy ^[1,2].

Despite these disappointing results the medical profession is still putting all their eggs in the same basket as before - trying to discover genetic expression pathways to use with the new targeted approaches^[3]. The recent decades of genetic research for reversal of lifestyle diseases have resulted in a myriad of drug types that have proven to be useless and, at worst, life-shortening. The expenditure in the field of neurodegenerative diseases is called by some scientists "The Game of Throws", relating to the immense amount of money spent on research and development of targeted approach medicines - with no result whatsoever.

These scientists start realizing that DIPG, GBM (Glioblastoma Multiforme) and other brain tumors are, in fact, multifactorial syndromes ^[4]- and not single factor diseases as they are being treated by the mainstream science, still trying to find one "magic pill".

The single-factor approaches targeted at particular genetic expression pathways can not be expected to show results with multi-factorial syndromes. There are hundreds of genes involved in the complex multifactorial syndromes as DIPG and GBM - just as in the cases of other types of cancer.

Targeting single genes will always remain the strategy of targeting single symptoms. Targeting single genes will never be able to address the real causes of a complex disease. This strategy has been shown to be a complete fallacy ^[4].

DIPG is still 100% deadly - just as 40 years ago. Conventional approaches failed finding the cure for DIPG and GBM.

I think it's high time to use a different approach - a paradigm shift.

Is There Any Hope?

Many recent scientific studies show that metabolic approaches can stop and reverse terminal stages of brain tumors as GBM that are incurable by conventional medicine.

Experimental metabolic approaches by Prof. Thomas Seyfried from Boston College Biology Department ^[5,6], Dr. Dominic D'Agostino from University of South Florida College Of Medicine ^[7,8] and Dr. Scaba Toth from Paleomedicina Hungary ^[9] prove this, as well as the experimental work of Mina Bisell ^[10] with the normalization of cancer cell environment called extracellular-matrix (ECM).

I used the inspiration from these doctors' novel metabolic approaches and combined it with something they all are lacking. I'm talking about optimization of oxygenation on the cellular level that are powerful features of Buteyko ^[11] breathing therapy - as well as a whole array of other novel techniques. The resulting Sakharoff Protocol is engineered to combine optimization of the 5 main areas of human health to achieve dramatic synergistic effect on the brain cell environment.

I formulated this protocol during the last 8 years work as a therapist with my 1-on-1 clients. In the process I combined my experience as engineer, project manager, mental trainer, bodywork instructor and breathing therapist.

The healing effect of Sakharoff Protocol is fully trackable through daily measurements of blood, breathing, sleep quality and other parameters.

The Sakharoff Protocol has helped a number of clients with Glioblastoma brain tumors and other forms of cancer. There are a lot of aspects that give hope for this approach to also work for DIPG.

That's exactly why I decided to make this BEAT DIPG Intensive Bootcamp. I want to use all my experience to build an intensive framework for a structured daily attempt to stop DIPG.

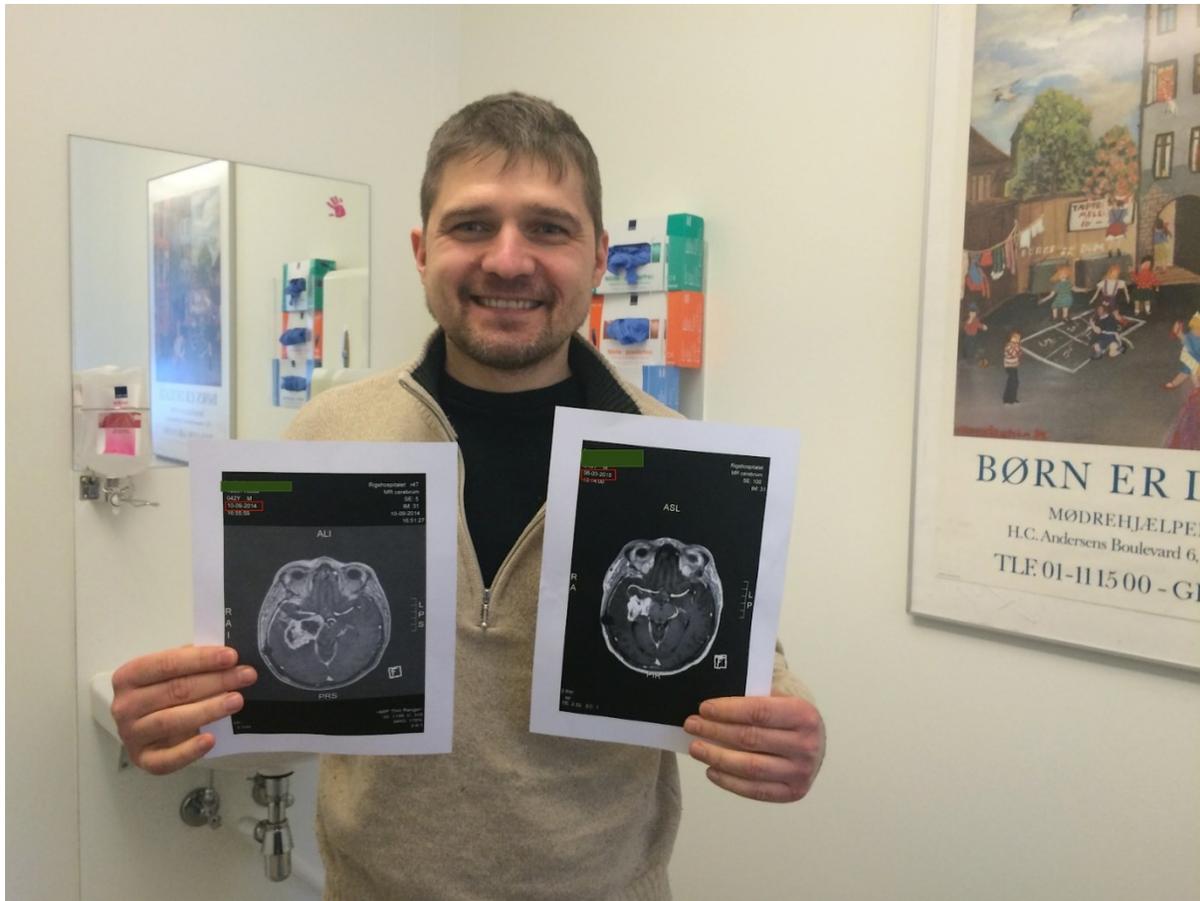
BEAT DIPG Intensive Bootcamp uses Sakharoff Protocol as a metabolic approach optimizing the brain cell environment to stop tumor growth - instead of only fighting the symptoms with invasive targeted therapies.

The Sakharoff Protocol can be used both in parallel with the course of radiation as prescribed by your doctor - as well as a stand-alone therapy, if you might decide to opt-out of radiation. Both ways could work and have their own pros and cons.

BEAT DIPG Intensive Bootcamp will provide you with the knowledge, the training routines and the 7-days a week support for an assisted lifestyle change and structured exercise needed to transform the brain environment to an **uninhabitable place for cancer cells**.

The image below pictures a hope - and a victory. *“I don't really understand how to explain this with my knowledge of physiology”*, one of the most experienced neurosurgeons in Denmark said looking at the latest brain scan of my client with Glioblastoma Multiforme IV – the most aggressive malignant brain tumor. ***“It looks like the tumor is gone – the only thing left is scar tissue...”*** [12,13]





The Sakharoff Protocol - Non- Pharmacological Metabolic Approach

The Sakharoff Protocol is a Non-Pharmacological Metabolic Approach (NPMA) that integrates the 5 main areas of human health into one structured program of training and assisted lifestyle change. It targets cellular environment of the brain as a whole - rather than the genetic expression of single genes involved in the brain tumor progression.

A Non-Pharmacological Metabolic Approach has a few prerequisites in order to succeed:

- **The shift from targeting symptoms to working with the causes of the disease**
- **Lifestyle change and exercise have to be 100% supported to ensure compliance**
- **The earlier we start the better the outcome - best to start right after the diagnosis**

How Can we Stop Growth of a High-Grade Brain Tumor Without Drugs?

Personal message from Misha Sakharoff, the author of Sakharoff Protocol

You probably know everything about DIPG, you got some information from the doctor. Then you surfed the web and you asked Dr. Google, and the answer was that there were some therapies - but there was not so much hope. Because what the conventional medicine can offer is only life prolonging with the average of three months - and it's not a lot. There is no cure.

Diffuse Intrinsic Pontine Glioma (DIPG) just like Glioblastoma Multiforme (GBM) are the most aggressive brain tumors that share something in common. They share the highest degree of heterogeneity, which means that there's a lot of different populations of cancerous cells that have different mutations - so they have to be targeted one by one. But there are so many mutations (probably between 50 and 60) that it's simply not possible to target them all. That's why targeted invasive therapies like radiation, chemo and surgery keep on failing. And DIPG is worse than glioblastoma because it's situated in the pons, which is in the middle of the brain - in the brainstem, actually. Which makes it totally impossible to remove surgically.

So, what to do? Are there any alternatives to the conventional treatments?

Yes, it is possible that we have an alternative. In this book I will tell you something that you probably don't know.

The first aspect you need to understand is that the conventional treatments for cancers and brain tumors are all 'targeted' approaches. They are all targeted at the symptoms - but not on the causes of the cancerous cells proliferate and form tumor.

You might say - okay, but we don't know what the causes of DIPG are? Right, you've been probably told that we don't know what the causes of DIPG are. Because the DIPG hits very often young children, that may have not been affected by the environment in such degree, that their genetic expression was triggered - leading to formation of a cancerous tumor.

Look, it's not exactly right. All the cancers are in a way genetic, and the genetics are always triggered by some kinds of stress. Sometimes the stressors or the triggers are hardly identifiable, like for example in the case of DIPG. Because we are not talking about 40, 50 or 60-years old persons - but children. Very young children that probably didn't accumulate this environmental stress for so long time in a row, so it's hard to know what really has triggered the tumor development. One of the ideas could be that it could have been triggered by the mother's hormones - already in the fetal stage of development. I will talk about that later in this book.

But doesn't matter what the nature of the DIPG tumor is - it's very close to glioblastoma and some other brain tumors, that are curable. Many cases of recovery from glioblastoma appeared in the media over the last years - a brain tumor bearing the name of King Tumor because of its severity and high rate of mortality. I can tell you that the knowledge about the aspects that made these people recover can be also used as a basis for recovery from DIPG. And what is more crucial yet - I know some of those cases from my own experience and my own practice.

What I'm talking about is not targeting the symptoms, but instead - addressing the underlying causes of cells to mutate and become cancerous. I'm talking about the Non-Pharmacological Metabolic Approaches. Conventional medicine doesn't really use them

because they would require a lot of time and involvement from the doctor. They require such a level of intensity that the conventional medicine simply can not afford.

You need to approach this in a very different way. You need to work with a person intensively every single day, teaching, asking and answering the questions, adjusting the lifestyle change, the training regimen etc.

The NPMA (Non-Pharmacological Metabolic Approaches) are not using any kind of invasive methods, there is no chemistry involved in the reversal and the cure - there's no medicine, there's no chemotherapy, it's not about radiation and it's not about the surgery. It is only about lifestyle change and structured daily training.

What is the effect of Non-Pharmacological Metabolic Approaches?

The effects arise from the fact, that we are actually changing the environment in the brain that is shared by all the cells in the brain. And even more so - we are changing the environment in a way that does not support cancer proliferation anymore. So our target is, or I'd better say our vision is - to stop proliferation of cancer. And we can do it by changing the cancer cell's environment in such a drastic way, so they will not be able to survive in the long term. This is called remission.

Specialist in spontaneous remission

My name is Misha Sakharoff. I'm an author of Sakharoff protocol which is an NPMA (Non-Pharmacological Metabolic Approach) that I basically engineered because I am an M.Sc. in engineering. I made this protocol to involve all the areas of human health in order to change the environment and to be able to reverse the diseases like diabetes 1 and 2, asthma, different kind of cancers and neurodegenerative diseases like Alzheimer's and Parkinson's. I am now specializing more and more in the reversal of diseases of the brain - the neurodegenerative diseases and the brain tumors. And what I want to tell you is, that these very different diseases are triggered by the change in the very same environment - the brain environment. And when I succeed I'm often called a 'Specialist In Spontaneous Remission'. Because spontaneous remission is what the

doctors using conventional methods call the situations where they have no explanation to the reversal of the tumor. If they knew how much continuous daily effort it takes from me as a therapist and trainer and from my client with whole of his/her family to succeed in this battle...

Well, back to basics. Basically, we have two kinds of brain cells. The neurons that are the communicators. - and their supporting cells, the glial cells or glia, the janitors. These two kinds of cells have two very different functions. Neurons communicate and the glia provide for the right environment for the neurons to communicate.

When the environment changes, some of us have a genetic code that makes neurodegeneration more probable. Because neurons are not flexible enough to survive a dangerous change of the environment and the corresponding deleterious change in the energy supply pathways. In the situations like this the neurons are most probable to die - being literally starved to death. It's called *low level of metabolic flexibility*.

But the glia cells do not die when the same environment changes deleteriously - because they have a *high level of metabolic flexibility*. Which means that they can mutate towards other ways of receiving energy from the environment. And that's exactly what they do - they mutate. When we are working with GBM or with DIPG, we can make a difference by changing the environment in a way that does not support the ongoing mutation and proliferation of cancerous cells anymore.

It also applies to diffuse, intrinsic and multiforme tumors like GBM and DIPG. Because their diffuse nature basically means that the cancer cells live among the normal cells and that there's no clear border - so we cannot really rely on surgery without causing too much damage to the healthy areas of brain. Also the intrinsic placement of DIPG in the middle of the brain stem makes the surgical removal virtually impossible. But we can naturally change the cell environment from the inside - and we can do that with non-invasive methods!

How can we change the cell environment naturally - with non-invasive methods?

Well, being an engineer, I used to connect the dots - that's what the engineers do. The best engineers are multi-instrumentalists and generalists which allows them to see the big picture - as opposed to specialists that have mostly highly specialized knowledge. Specialized knowledge - without necessarily having trained the ability to see and connect many different factors from a bird view perspective.

A breathing specialist will tell you that cancer cells are promoted to division, and you cannot stop them from growing because of hypoxic conditions. Hypoxic environment means that there's too little oxygen in the tissue, so we have a person with breathing dysfunction - and a cellular respiration dysfunction too. This point of view of a breathing specialist is 100% right, there are many studies showing that brain tumors thrive in hypoxic environments.

A nutritionist will tell you that cancer is promoted by the environment where there is a lack of nutrients. Nutritionists talk about availability of macro-nutrients that provide for normal functionality of all body membranes, including cellular and mitochondrial membranes and the energy production in the mitochondria, our body's energy plants. Nutritionists also talk about lack of readily bioavailable micro-nutrients that sustain normal cell life, which always leads to bad cellular communication - a disrupted signaling. And that specialist point of view of a nutritionist will be 100% right.

And then we have physiotherapists, immunologists, psychotherapists, physical and mental trainers. For example, let's say - okay, physical movement and immunity are connected together. If you want to have a strong immunity then you have to know something about the posture, something about the tension of antagonist muscle groups. These aspects when connected together will also allow you to optimize the oxygenation on the cellular level - and at the same time make immunity strong, so it can talk to the cells, communicate in the right ways and send the right soldiers to put a lid on the cancerous populations. And when the immunity is weak it will fail doing that...

And then a psychotherapist would step up and say - there are many studies showing that cancer cell proliferation in the brain that forms high-grade brain tumors like glioblastoma and DIPG - is caused by high levels of psychological stress. We also call it pathways of genetic expression, pathways that make the genes express themselves - which in turn helps tumor proliferate. If we learn to diminish our reaction to the environmental stressors - we can stop the tumor proliferation!

Well, all of those the kinds of knowledge that specialists use are well known. They all are based on profound scientific research. But nobody has really connected all these aspects of physiological knowledge together in one practical process that is practically doable. Nobody has really connected all these aspects - and also made an attempt to give the knowledge of physiology to the patients - and also to track the changes - and to nudge them every single day to help them not falling off the wagon. And this is a different way of addressing brain tumors. And that is exactly what I do with my Sakharoff Protocol.

We can connect these specialist points of view and say - well, we have a Warburg effect described already 100-years ago and it says that in the highly hypoxic environment where there's a lot of glucose in the blood in the same time - the cancers will turn into using fermentation of blood glucose as the main energy source. And we can reverse that - optimizing nutrition and oxygenation for all the body cells at the same time. That will be a point of view of a generalist!

Sakharoff Protocol involves teaching of human physiology, it goes over six months and every single week you have a lot of learning, as well as a lot of nudging. You have also a lot of direct communication with me, as we are working very closely together. That is actually my life purpose to found a scientific based approach for non-invasive cure for brain tumors - and I call it Non-Pharmacological Metabolic Approach. I also do scientific research with my newest article about the synergetic effects of optimization of breathing and radical change of nutrition published by Elsevier, world's leading publisher of health-related scientific research.

Basically, being an integrative health engineer implies that I'm looking at the world with the eyes of an engineer, connecting the dots, researching the human health - but also having a responsibility for my clients as an experienced therapist. Being an integrative health engineer, I want to tell you that there is an alternative to the conventional DIPG cures and this alternative in form of a therapeutic course of six months is now available. It's intensive, it's going to work every single day, we're going to have a contact every single day for six months. It's completely unique, because we are going to work in a group, which means that we are going to have intensive knowledge sharing - we are going to learn from each other. And also, there will be a possibility to tailor some processes for every one of the people involved in our bootcamp. And because it's a group work, where I previously mostly worked building personal one-to-one processes with my clients - with his intensive bootcamp working in a group it became much more affordable to be a part of it.

We plan to run these 6-month intensive bootcamps twice a year starting in autumn and spring. Nearest starting dates are October 1st 2018 and April 1st 2019. We are looking forward to our close and fruitful cooperation in our common attempt to BEAT DIPG.

So please read the content of this book, decide and act. We have no time to waste.

Is BEAT DIPG Bootcamp for you?

BEAT DIPG Intensive Bootcamp is for you if your son, your daughter or yourself are newly diagnosed with a high-grade brain tumor as DIPG or GBM and can say YES to one or more of the following criteria:

- **Your son, your daughter or yourself did not receive radiation yet**
- **Your son, your daughter or yourself have just finished the course of radiation**
- **You are aware that the conventional therapies don't change survival rates for DIPG**
- **You understand the difference between targeting symptoms and addressing causes**
- **You are eager to learn how addressing the 5 main areas of cell environment can save lives**

Inclusion Criteria

Unfortunately, we need to have inclusion criteria because the only chance to help you or your children recover with our program is through intensive daily exercise and nutritional change. Those are absolute prerequisites to succeed.

These regimens require the ability to stand and move, as well as ingest/digest strictly animal sourced fats and protein. That's why admission to our program requires the following:

- **Diagnosis: malignant high-grade glioma, DIPG, GBM**
- **Phase of treatment: right after the diagnosis or after the completion of initial radiation**
- **Musculoskeletal Function Requirements: Ability to stand upright and move for at least 15-20 minutes at a time**
- **Organ Function Requirements: Functioning gastrointestinal system, i.e. ability to chew and swallow**

Why You Need to Act Now

It is crucial to understand that there are only two short periods of time that open up for the opportunity to stop proliferation of the tumorous cells:

1. **Shortly after the diagnosis and before the course of radiation**
2. **Shortly after the completion of the initial course of radiation**

Why? Because these two short periods give the diagnosed person the best chance to endure the course of intensive structured training and lifestyle change. Both situations represent a **window of opportunity**.

I call it the **window of opportunity** because I know that when we cross the line of the later stages of tumour proliferation it will be too late. At this stage the severe side effects of anti-inflammatory steroid and other medications prescribed as supportive or palliative treatment will reduce the quality of life in such extent that - it will rule out the ability to endure intensive structured training ^[14].

Crossing the line of the later stages of tumour proliferation is called **point of no return** because the quickly degrading physical ability (musculoskeletal, organ function) as well as attention, awareness will eliminate all chances of active daily effort. I'm talking about **3 prerequisites of success related to the window of opportunity** and ability to endure a structured daily effort:

- **Physiological prerequisites - is biochemical change reversible?**
- **Psychological prerequisites - is readiness to change intact?**
- **Consciousness prerequisites - is attention and awareness intact?**

Sakharoff Protocol is engineered to utilize this **window of opportunity** with maximum efficacy.

We strongly prioritize starting with the changes that are most crucial and promote maximum effectiveness already during week 1 of our BEAT DIPG Intensive Bootcamp.

In this way we can help you to start establishing a strong and lasting process of healing - right away. This can be done through prioritizing enhancement of the body's energy supply and utilization - through coordinated effort on the fields of: optimization of breathing, nutrition, physical training, and lifestyle intervention.

How Can the Non-Pharmacological Metabolic Approach Save DIPG Lives - Where the Conventional Medicine Can Not?

This question doesn't have only one answer. In fact, there are several factors that explain why NPMA healing strategy should be the choice for you to battle a high-grade brain tumor:

Heterogeneity

The most aggressive brain tumors like DIPG (Diffuse Intrinsic Pontine Glioma) or GBM (Glioblastoma Multiforme) require intensive therapy, because of their highly mutated DNA with a great degree of heterogeneity.

Heterogeneity means that the population of cancer cells is derived from many different DNA mutations. The higher the heterogeneity, the harder it is to target tumors with the conventional therapies. That is why Glioblastoma is called “the king tumor” and it is said that once we can defeat DIPG we can defeat all the cancers.

The terms 'Multiforme' in GBM and 'Diffuse Intrinsic' in DIPG are all closely related/ synonymous and describe the tumor cells' ability to spread diffusely throughout the normal structures of the brain.

Multifactorial conditions

As I already said, I don't believe that it will be possible to find a single-factor treatment or a 'magic pill' for this type of tumors, because just as other types of cancers - they are multi-factorial conditions. Targeted approaches are not efficient against multi-factorial conditions - and they will never be. The magic pill is a beautiful picture - but also an absolute illusion.

But We Don't Know The Cause of DIPG – Do We?

Many scientific studies on metabolic approaches show that changing the cell environment can inhibit tumor cell growth and disrupt the tumor metabolism, reversing the disease by eliminating its causes ^[5,6,7,8,9,10,11].

But you might say - We don't know the causes of DIPG, right?

DIPG as all other brain tumors is caused by genetic mutations in the brain cells. Cell mutations occur mostly because of the abnormal cell environment. They are called epi-genetic mutations.

In Case of DIPG the population of the cancerous cells **might** have started accumulating in the brain stem already in the fetus during pregnancy. Because mothers share their blood components, hormones and metabolites with the fetus - it makes the unborn child susceptible to the same triggers that affect the mother in her own environment during the course of pregnancy. These triggers might be not strong enough to bring genetic expression to life in the mother's cell environment - while being strong enough to cause genetic expression in the fetus.

Thus the initial environmental triggers might have triggered epi-genetic mutations already in the fetus brain during pregnancy or in the early infancy - both critical periods in the development of the child's brain.

Scientific research on DIPG

There are several studies that show that epi-genetic mutations and modulators are involved in the genetic pathways as EZH2, BET, HDAC, Histone H3 that are connected

specifically to development of DIPG tumors ^[15,16,17,18]. This profound scientific research is targeted on better understanding of epi-genetic pathways which inhibit genetic expression and which lead to cancer proliferation - gene inhibition and transcription disruption.

The strategy of targeting single genetic pathways is a fallacy. Cells within a single tumor can acquire different mutations, such that "even if there is an effective agent, it is likely to have limited benefit because molecular pathways that are active in other parts of the tumor will lead to tumor growth from different clones of tumor cells".

Unfortunately, this research is focused on development of drugs targeting these particular genetic pathways - and not on metabolic approaches. Despite the fact that these approaches target the same biochemical and epigenetic pathways - but non-invasively, through exercise and nutritional lifestyle change. There are many examples to this:

- Breathing - optimization of cell oxygenation

Using hyperbaric oxygen therapy HBOT though there is evidence showing that it can have deleterious effect on oxygen saturation in the tissue and increase the production of reactive oxygen species (ROS) causing oxidative stress in body tissues ^[19]. At the same time an NPMA as Buteyko therapy would exert a more perfectly graded hormetic effect here being potentiated by the increased sensitivity of the sick person during training.

- Nutrition - optimization of lipid breakdown by the cells

There are studies showed that BHOB (Beta-hydroxy-butyrate) one of products of fat breakdown in the liver is inhibiting the genes causing oxidative stress in the tissue - that promotes tumor growth ^[20]. BHOB is naturally abundant in the body in the later stages of ketogenic adaptation, which can be achieved by assisted lifestyle change and strict compliance to the nutritional regimen ^[21].

- Mental resilience

There are also studies showing that psychological factors increase gene expression which might trigger genetic DIPG pathways ^[22].

Tumor reversal is possible only through change in the cell environment

I believe that the most aggressive cancers and brain tumors can be reversed through multifactorial NPMA. It means that we can reverse the complex disease by induce the change in the dysfunctional cells - through changing their environment.

In order to reach strong synergetic effect of multifunctional therapy we need to combine several strong therapeutical approaches in one highly structured and supervised process of self-healing. If we make the process of change highly structured we can beat cancer - against the heavy odds. Especially when it is newly diagnosed.

But... You Need To Break the Taboo and Change the Rules of the Game

When a doctor has told you that you are about to lose your own life or your child's life to this dreadful tumor, you go into a phase of shock and disbelief. The first thoughts are:

- **This can not be true**
- **There MUST be something we can do**

We are used to perceiving doctors as the helpers who can always make a difference. But the habitual view is deceiving. Unfortunately, it is correct when the doctor points out that using conventional medicine, the **best forecast for DIPG and GBM is an extra few months' survival.**

It is important to understand that the battle for survival is not yet lost. You must keep your head cold and make responsible decisions for yourself or/and your child. You must be able to talk about what is probably the biggest challenge you have ever faced.

In this situation, we often end up being **uncertain and undecided**. This situation triggers emotions so strong that we can hardly speak about it - and even less relate analytically to it. The dreadful truth might turn into a closed **taboo subject**. And it often does.

More often than not the newly diagnosed choose to follow the recommendations of the hospital and the doctor - forced by the following **questions that remain unanswered**:

- **The doctor says that alternative therapies won't work on brain tumors - is that right?**
- **Will everybody think it's very unwise to refuse the hospital's medical treatment - will they?**

- **After all, we do not have any other possibilities besides radiation and steroids - do we?**
- **The situation is so acute we don't have time to research the other possibilities - do we?**

You need to take personal responsibility for breaking the taboo and answering the questions above.

The doctors can simply not be your **only** advisers here. You also need to have your voice heard here - and be able to change the rules of the game.

Why Can Doctors Not Advise on Metabolic Approaches?

Doctor's specialization

Truth is that most doctors are strictly specialized in their own field and know nothing or close to nothing about Non-Pharmacological Metabolic Approaches (NPMA). They are professional in analyzing the symptoms to make a diagnose and prescribe a combination of medicines that fits your condition - and can eliminate the symptoms.

Most doctors are simply not educated in approaches addressing the metabolic triggers - the causes of the disease.

Doctor's field of experience

They are simply not aware of the strength of metabolic therapies, because they have never used them. They never had a close personal experience with the healing cases based on metabolic approaches. Most of the doctors never had any education targeted on understanding of metabolic causes of cancer.

Doctor's belief system

Most of the doctors - just as most of the patients - are induced to believe by the pharmaceutical industry to think that cancer is a strictly genetic disease. The fact is - it is NOT, because the genes are triggered towards expression by our degenerative lifestyle. So, the genetic link is a secondary downstream phenomenon - not the primary one. Hence, we can not simply count on our genes - without taking care of their environment.

Doctor's time and the guidelines

Most of the doctors don't have time to follow the latest developments in the fields neighboring to their own. Furthermore, they need to follow their guidelines assigned by their medical authorities. Those guidelines contain protocols as chemo, radiation and surgery - invasive protocols that don't influence the survival rates in case of DIPG - and do so negligibly little in case of GBM.

Why Is It So Hard Both For Us and The Doctors To Break the Taboo?

Fear and ignorance

Truth is that most of us are ignorant when we are in the pressed situation. To break a taboo and think independently of the official conventional advice requires education from one side - and openness and readiness from the other. Which is virtually impossible because fear drives people from the moment they get a cancer diagnosis.

Only a few have intelligence and the guts to go against the strong current of conventional thinking and the one-sided industry propaganda promoting pills and other products. It makes chemo, radiation and surgery the only viable option for the most of us ^[23].

Education model

The existing education model is not integrative enough to cover all the aspects of our physiology. The basis of the current model is professionals telling the population that their area is the strongest one. This model is not viable enough to be able to establish and support a really strong healing process. For that, we need the synergetic effect of multifunctional training in different fields of health - in parallel.

The integrative education, based on long-term intensive bootcamps with both teaching, assisted training, daily nudging and thorough process building did not exist in the field of cancer treatment. Until now.

Broad definition of alternative

Education is very limited and of very differing quality. Alternative medicine is often defined by the broad spectrum of techniques ranging from the use of healing stones and

reading the aura to herbs and acupuncture. Some of the methods are more scientifically proven than others.

Ingrained patient role

The basis of many therapies are interventions made by another person - hence the word patient. Why? Because it is about patiently waiting while the doctor or another medical professional fixes your condition.

In contrary, all the strongest metabolic therapies are based on the ill-health individual him-/herself working on a daily basis on reversing his/her condition. There is not necessarily a healer on the other side. But hopefully, an educator, coach and philosopher - for teaching, daily support and inspiration.

Role of cancer organizations

All the cancer foundations refuse to work with unconventional metabolic therapies, simply because they will lose their support from the medical companies and the government. They also lack the knowledge to be able to explain and promote the unconventional non-invasive metabolic therapies to their members.

What is the taboo anyway?

All of these aspects altogether make it very hard both for the doctors from one side and us as their patients to break the taboo. This **taboo is about an individual him-/herself taking responsibility for own health.**

Taking Personal Responsibility - Our Only Chance

If you wait and see what the hospital and doctors can set up, the time will go by. The hours will be days and days will be weeks. Your **window of opportunity** to apply NPMA approach and have a chance to let it work will shrink all too fast.

When we are talking about the cures for DIPG and GBM, we have to be aware of the fact that all the conventional medical recommendations given by the hospital and the doctor have until now showed to be blind alleys.

This fact applies to all DIPG-diagnosed and to almost all of the GBM-diagnosed persons. This is about your or your child's life - **this is now that you have to take responsibility** in your own hands.

You have to be aware that the doctor's conventional medical advice - and this BEAT DIPG Intensive Bootcamp have two very different horizons:

- **The doctor's only option is to add extra months of life - with unavoidable decrease**
- **The BEAT DIPG Bootcamp vision is to help you stop the tumor - and get the whole life back**

We have a plan!

There is an alternative to the conventional approach to DIPG and GBM that can be both real and workable.

We view tumors as systemic syndromes

Brain tumours as DIPG and GBM are multifactorial syndromes - and not single factor diseases as they are still treated by the mainstream medicine.

There are hundreds of genes involved in the complex multifactorial syndromes that feed tumors via a myriad of pathways. Tumors consist of abnormal cells. Cell abnormality is a symptom of a biochemical imbalance in the body that is constantly maintained by a myriad of pathways. That biochemical imbalance can be corrected with a well-designed, metabolic program which can stop tumorous growth.

We help you build a non-toxic tumor reversal program

Building up a non-toxic, biologically sound program, focusing on the whole body and not just the tumour, we can provide all the biochemical building blocks and cell environment conditions necessary to stop and reverse the tumor, restoring normal health.

It's a different concept of cancer and chronic degenerative conditions than the one promoted by conventional medicine. There is no magic bullet, no miracle drug or botanical ingredient that can heal cancer.

We help you to take responsibility

You have to take responsibility for your healing process, and the BEAT DIPG Intensive Bootcamp program will support you by giving you tools and training.

You will learn how to make your body's immunity as strong and inhospitable to cancer cells as possible. Our plan is to help you reach a strong synergetic healing effect.

We help you to make a transition

During the course of 6 months we will help you make a transition to a health regimen that includes breathing optimization, therapeutic nutrition, structured movement, stress management and immunity work.

The DIPG BOOTCAMP Content

The healing doesn't happen overnight. We engineered this BOOTCAMP to help you take active steps every single day during a period of 6 months. And we have a plan that have already succeeded reversing illnesses inclusive brain tumors as Glioblastoma Multiforme and other cancers, as CLL and AML leukemias, breast and ovarian cancers among others.

Week by week during 6 months you will learn the theory and practice of Non-Pharmacological Therapeutic Approach and apply it in your own daily practice - in the environment of your home. Our plan includes the following areas of active daily effort:

- **Weekly learning physiological background for the areas targeted by Sakharoff Protocol**
- **Daily assisted implementation through exercise and practice of lifestyle change**
- **Daily measurements of blood, breathing and sleep parameters and other health data**
- **Daily registration of data in our unique online log sheet to track progress of healing**
- **Weekly inspiration from leading cancer scientists for better understanding of the process**
- **Daily nudging for mental resilience to avoid procrastination and ensure compliance**
- **Daily follow up possibility with 60-min live Q&A - upon questions sent before the session**
- **Closed Facebook Group for posting questions before the daily Q&A session etc.**

What Happens After You join

BEAT DIPG is an online bootcamp. That means you will receive all the learning materials in the safe environment of your home 7 days a week. So it's not just another online bootcamp. It's a **very intensive bootcamp** tailored specially for people diagnosed with acute high-grade brain tumor as DIPG or GBM. The structure of BEAT DIPG Intensive Bootcamp reflects this.

You will have a possibility to join the 1 hour LIVE Q&A sessions to answer your questions 5 days a week - from Monday to Friday. You will also be a member of a closed Facebook group. This means that you get an indispensable community with the other participants of the BEAT DIPG Intensive Bootcamp and direct access to being guided personally by me.

The BEAT DIPG Intensive Bootcamp will last for 6 months - with a possibility for extension. This means that you will get the material in manageable portions, and you will have plenty of time for implementation - diminishing the risks for overwhelm. If you meet the **inclusion criteria** and decide to join the bootcamp after the **personal interview**, you will **start on Monday 1st of October**.

The weekly program for The BEAT DIPG Intensive Bootcamp is as follows - all the times beneath are in your own time zone (except the daily Q&A time):

Monday

- Every Monday at 5am you will receive the **introduction video** of the week, which introduces the week's physiology topic in relation to healing of cancer and what you should pay particular attention to.

- Every Monday at 6am you receive the **week's first video package** with 3 videos: Video-1 is a general introduction to the week's topic. Video-2 talks about the week's

topic in relation to basic physiology and recent research. Video-3 introduces the practical training of the week. It is important that you always watch these videos in the order you receive them.

- Every Monday you can join our **60-min Online Q&A**. To be sure to have your questions answered you will have to submit your questions to our closed Facebook group at least 2 hours before the session begins.

Tuesday

- On Tuesdays, you get extra material (audio file or PDF) to assist and nudge you in your own training process.

- Every Tuesday you can join our **60-min Online Q&A**. To be sure to have your questions answered you will have to submit your questions to our closed Facebook group at least 2 hours before the session begins.

Wednesday

- On Wednesdays, you receive the **second video package of the week**, which has the same structure as Monday: Video-1 - General Introduction. Video-2 - on the subject in relation to basic physiology and recent research. Video-3 - Practical training of the week. It is important that you always watch these videos in the order you receive them.

- Every Wednesday you can join our **60-min Online Q&A**. To be sure to have your questions answered you will have to submit your questions to our closed Facebook group at least 2 hours before the session begins.

Thursday

- On Thursdays, you get extra material (audio file or PDF) to assist and nudge you in your own training process.

- Every Thursday you can join our **60-min Online Q&A**. To be sure to have your questions answered you will have to submit your questions to our closed Facebook group at least 2 hours before the session begins.

Friday

- Friday is the day of research on cancer, where we present some of the researchers behind the studies we refer to as well as practitioners who are leaders in their field.

- Every Friday you can join our **60-min Online Q&A**. To be sure to have your questions answered you will have to submit your questions to our closed Facebook group at least 2 hours before the session begins.

Saturday

On Saturday you receive a nudging audio-file with inspiration from the nature, made specially to encourage you to get out into the nature and be energized.

Sunday

Sunday you receive an audio file that recaps all the main learnings of the week.

Your daily Q&A time Monday-Friday - in different time zones:

Location	Local Time	Time Zone	UTC Offset
New York (USA - New York)	8:00:00 am	EDT	UTC-4 hours
Copenhagen (Denmark)	2:00:00 pm	CEST	UTC+2 hours
Los Angeles (USA - California)	5:00:00 am	PDT	UTC-7 hours
Sydney (Australia - New South Wales)	10:00:00 pm	AEST	UTC+10 hours
London (United Kingdom - England)	1:00:00 pm	BST	UTC+1 hour
Corresponding UTC (GMT)	12:00:00		

What to Expect - Stages of Healing

1st stage target

Our first target in the process of healing brain tumor is to **stop intracranial pressure from building up**. The build-up of intracranial pressure is the main issue of brain tumors because it directly causes the disabilities that can prevent and in the end disallow the active daily effort towards healing.

Less intracranial pressure will expand our **window of opportunity** with possibility for active daily effort and give us extra time to heal. We can prevent intracranial pressure build-up by a combination of intensive breathing exercise, stage-wise shift to nutritional ketosis and daily structured movement. All these regimens are taught during the first month of our BOOTCAMP.

The effect of our program is measurable. The most important measurement here is the amount of pain experienced. We expect the pain to stagnate and slowly reduce during the first month of intensive - and full compliant training.

It's very important that we start reducing the daily doses of steroid medication right away. Steroids are known to cause severe side effects and have a potential to slowly reduce quality of life in such extent that it will rule out the ability to endure intensive structured training. We need to avoid ⁽¹⁴⁾that!

2nd stage target

When the pain is slowly reducing we will experience **stagnation and slow reduction of other symptoms and disabilities**. The signs of bettering could be seen in the improved ability to move, to do physical exercise, better digestion and better mood.

3rd stage target

To **make the tumor shrink** is our absolute and most crucial goal. It happens as a result of strong synergetic effect derived from all of the practiced regimens combined.

Sakharoff Protocol - Why It Works

There's a lot of serious research going on in the field of non-invasive metabolic therapies. Several university hospitals in US and Europe are running metabolic studies about normalizing the gut flora, optimizing breathing, stopping systemic inflammation, activating lymphatic/ glymphatic flow, optimizing sleep, going through structured movement training programs - making a strong and lasting lifestyle change. Some of them are using supplementation and sometimes some additional targeted drugs.

Examples are Dr. Thomas Seyfried's ^[5,6,24] and Dr. Dominic D'Agostino's ^[7,8,25] successful work with cancers/ brain tumors and Dale Bredesen's work with reversing Alzheimer's without medicine - with success in 9 out of 10 cases ^[26].

Our anti-tumor solution is based on **Sakharoff Protocol**, that integrates several main areas of human health into one structured process of training and lifestyle change. This protocol is inspired by the work of the beforementioned scientists and other researchers in the field of metabolic approaches. The idea behind **Sakharoff Protocol** is to visualize and map the connection between the cellular and the human environment in order to open up for measurable effects on health and resilience through training and lifestyle change.

As engineer I'm inspired by the theory of "dynamic reciprocity" ^[10] proposing that the cellular microenvironment in form of the extracellular matrix (ECM) exerts physical and biochemical influences on a cell, which ultimately affect changes in gene expression in the nucleus. Latest research on metabolic origins of lifestyle diseases, including the experimental work of Mina Bisell with the normalization of cancer cell environment called extracellular-matrix (ECM), further confirms the critical role of the microenvironment in regulation of genetic expression and cellular health ^[27].

Sakharoff Protocol - Main Strategy

My idea with the **Sakharoff Protocol** is that the main areas of cellular microenvironment can be optimized through structured training and lifestyle change. Hereby the 5 main areas of practical training (human macro-environment) are structured to fit 5 main areas of cellular health (cellular micro-environment, ECM).

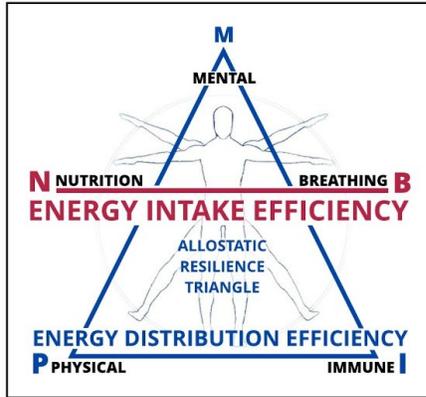
The strategy is to integrate all the 5 main areas of practical training and lifestyle change, so they can be exercised interdependently through 1-pointed focus with Progressive Active Relaxation (PAR). This contributes to optimized energy utilization and performance coefficient minimizing energy loss. Kaizen process philosophy is used to establish strong practical approach to process implementation into small daily routines

[28]

The figure below presents a mapping of dependencies in the connection between the main 5 areas of the human and the cellular environment.

SAKHAROFF PROTOCOL - CONNECTING THE DOTS

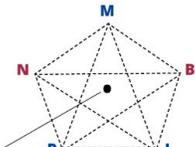
HUMAN ENVIRONMENT ——— OPTIMIZES ——— CELLULAR ENVIRONMENT



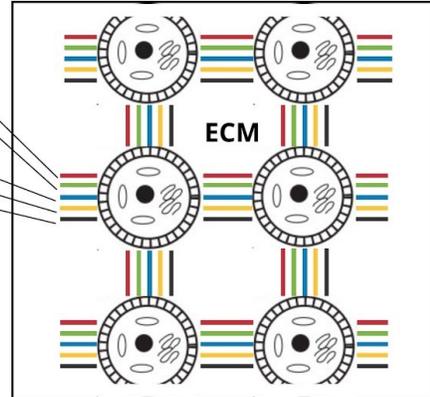
5-POINTED STAR GIVES 10 UNIQUE PAIR COMBINATIONS, AS SYNERGETIC INTERDEPENDENCIES OF HUMAN PHYSIOLOGY
 NPMA - NON-PHARMACOLOGICAL METABOLIC APPROACH

ENERGY INTAKE
 NUTRITION BREATHING → NUTRITION RESPIRATION

ENERGY DISTRIBUTION
 MENTAL PHYSICAL IMMUNE → SIGNALING STRUCTURE DETOX/ ECF FLOW



1-POINT FOCUS 10 UNIQUE PAIRS: MB, MI, MP, MN, BI, BP, BN, IP, IN, NI



TISSUES - MUSCLES, BONES, ORGANS, BLOOD, LYMPH
 ECM - EXTRACELLULAR MATRIX, ECF - EXTRACELL. FLUID

SAKHAROFF PROTOCOL - UNIVERSAL PROTOCOL FOR HEALTH AND RESILIENCE ©SAKHAROFF.COM

Sakharoff Protocol - How It Works

These 5 main areas of practical training create a strong synergetic effect when combined together into one structured process and can be divided into two groups, as follows:

GROUP 1 - Optimization of Energy Intake

Energy acquisition from the environment can be optimized through fields of breathing and nutrition. Energy intake can be subdivided into two main areas of practical training and lifestyle change as follows:

- Nutrition

Effective transition to therapeutic nutrition through cancer-fighting and immune-boosting nutritional regimen. This dietary regimen will shift brain cells to full range fat burning and independency from glucose. That will drastically lower body glucose under the levels that stop chronic inflammation - which correlates with cancer proliferation and metastatic activity.

At the same time this regimen will ensure full elimination of all possible foods that can trigger autoimmunity and inflammation.

Optimization of nutrition has a direct effect on digestion of nutrients through the digestive system and absorption by the cell. Tools used in Sakharoff Protocol combine restricted ketogenic diet (CRKD) with a strict elimination protocol to avoid the main dietary triggers of autoinflammation. It also involves fasting regimens - both intermittent fasting (IF) and extended water fasts (2–5 days) ^[29].

The whole BEAT DIPG Intensive Bootcamp framework is targeted on the novel metabolic markers that are known to stop brain tumors - instead of traditional gene-specific tumor markers.

The **progress is measured** through **clearly defined measurement targets** metabolic markers. G/K ratio is one of the novel metabolic markers, which is a ratio of blood glucose to blood ketones. It is defined in the experimental metabolic approach for brain tumors by Prof. Thomas Seyfried from Boston College Biology Department ^[30]. According to the scientific research and several case studies it showed clear correlation with diminished inflammation markers in the brain tumors and regression and remission of the tumor.

- Breathing

Optimization of cellular oxygenation with Buteyko breathing normalization technique (BBT). It slowly normalizes cell metabolism and stop inflammation through optimization of breathing patterns. It activates the body's natural production of hormones and chemical substances. Some chemicals used by the pharmaceutical industry in the production of modern medicinal drugs.

Optimization of breathing has a direct effect on mitochondrial respiration. Tools used in Sakharoff Protocol to optimize automatic breathing patterns combine BBT with breathing devices mentioned previously in this chapter.

The **progress is measured** through **clearly defined measurement targets** metabolic markers. Control Pause (CP) is one of the novel metabolic markers, that reflects the normality of the regulation of gas balance in the lungs, as well as the blood and body pH and thus reflects the level of disease. The CP can be measured with a stopwatch as a timing of involuntary reflexive muscle contractions - as a reaction to an unforced breath-holding. The founder of Buteyko Breathing optimization Technique (BBT) Dr. Konstantin Buteyko stated that the measurement target of 60 seconds correlates with the cell environment that is uninhabitable for cancerous tumor cells - while making the normal cells thrive ^[11,31]. This is especially useful for inoperable intrinsic, diffuse and multiforme tumors such as DIPG and GBM. People diagnosed with brain tumors often have a CP of 5-10 seconds.

GROUP 2 - Optimization of Energy Distribution and The 3 Areas of Resilience

Energy distribution and utilization by the body can be optimized through training of allostatic resilience to minimize energy loss—the difference between acquired and utilized energy. The effectiveness and allostatic resilience can be viewed as the ratio of Q (energy output) to W (energy input), called performance coefficient (CoP) ^[32].

NPMA in general can optimize energy utilization and CoP through structured training and lifestyle change, thus minimizing energy loss and increasing systemic efficiency. Energy distribution can be subdivided into three main areas (Allostatic resilience triangle) of practical training and lifestyle change.

Resilience in general affects ability to return to high utility state following perturbations ^[33]. It is hypothesized that resilience in humans can be enhanced through training of its three parts—mental, physical, and immune. In Sakharoff Protocol this is called “allostatic resilience triangle”.

- Mental resilience

In the human environment, mental resilience is a part of allostatic resilience that reflects the ability of the body to withstand psychological stressors and adapt to life tasks, maintaining normal hormonal balance and neuroendocrine signaling ^[34]. To optimize mental resilience, Sakharoff Protocol uses training of relaxation patterns through progressive active relaxation in combination with training of 1-pointed attention.

In the cellular environment, this resilience corresponds to the ability by the cell environment (ECM - ExtraCellular Matrix) to maintain proper signaling function by the cell.

- Physical resilience

In the human environment, physical resilience is a part of allostatic resilience that reflects the ability of the body to withstand, adapt, and recover from physical load and stressors. To optimize physical resilience, Sakharoff Protocol uses multipurpose training

inspired by Dharma-Marga and Tibetan yoga, forefoot walking, jogging, bodyweight exercise, rebounder bouncing, as well as kettlebell training.

In the cellular environment, it is hypothesized that this resilience corresponds to the ability by the cellular environment (ECM) to maintain proper structural and adhesive support function by the cell mediated through the interstitial matrix and connective tissue ^[35].

- Immune resilience

Building up the vital immune system through structured daily exercise, activating the cascading effect of venous and lymphatic valve/ pump functions, starting from the plantar venous lymph pump in the feet and all the way upwards to the heart.

Paying special attention to sleep optimization for eliminating toxins from your body by cleansing/detoxing, restoring, and protecting the body cells on a daily basis, including the three pathways of cellular autophagy ^[36].

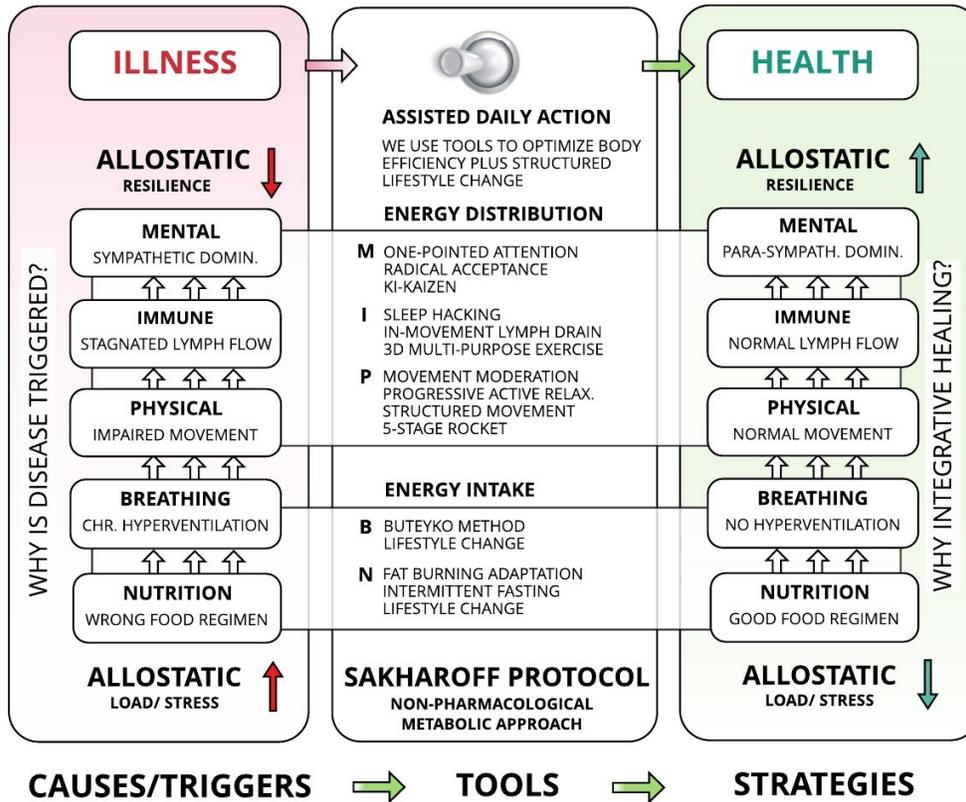
In the human environment, immune resilience is a part of allostatic resilience that reflects the ability of the body to withstand, adapt, and recover from opportunistic organisms and pathogens as bacteria, viruses, fungi, or protozoa. Among techniques used in Sakharoff Protocol to optimize immune resilience are forefoot walking/ jogging, 3D multipurpose exercise to promote in-movement lymph drain, as well as different types of cold exposure.

In the cellular environment, this resilience corresponds to the ability by the ECM to maintain proper flow, viscosity, and composition of extracellular fluid (ECF) as well as blood and plasma.

SAKHAROFF PROTOCOL - CONNECTING THE DOTS

NON-PHARMACOLOGICAL METABOLIC APPROACH - INTENSIVE ONLINE BOOTCAMP PROGRAM

HOW DO WE ENABLE THE HEALTH SWITCH?



MISHA SAKHAROFF © SAKHAROFF.COM

Why this BOOTCAMP works

I see that it's mostly the strongest and most knowledgeable people that are able to choose non-invasive metabolic therapies. Because it's actually requires absence of fear. I see many people like that succeed in my own practice.

The healing doesn't happen overnight. We engineered this BOOTCAMP to help you take active steps every single day during a period of 6 months. And we have a plan that have already succeeded reversing illnesses inclusive brain tumors as Glioblastoma Multiforme and other cancers, as CLL and AML leukemias, breast and ovarian cancers among others.

The environment is tailored to help healing succeed

The BEAT DIPG Intensive Bootcamp environment is tailored specially for the newly diagnosed and their close relatives. The close relatives must take part in the learning process - because the profound lifestyle change can not be managed by a patient alone without deep understanding of the process by his/her close relatives.

The measurement of progress is an integral part of the process

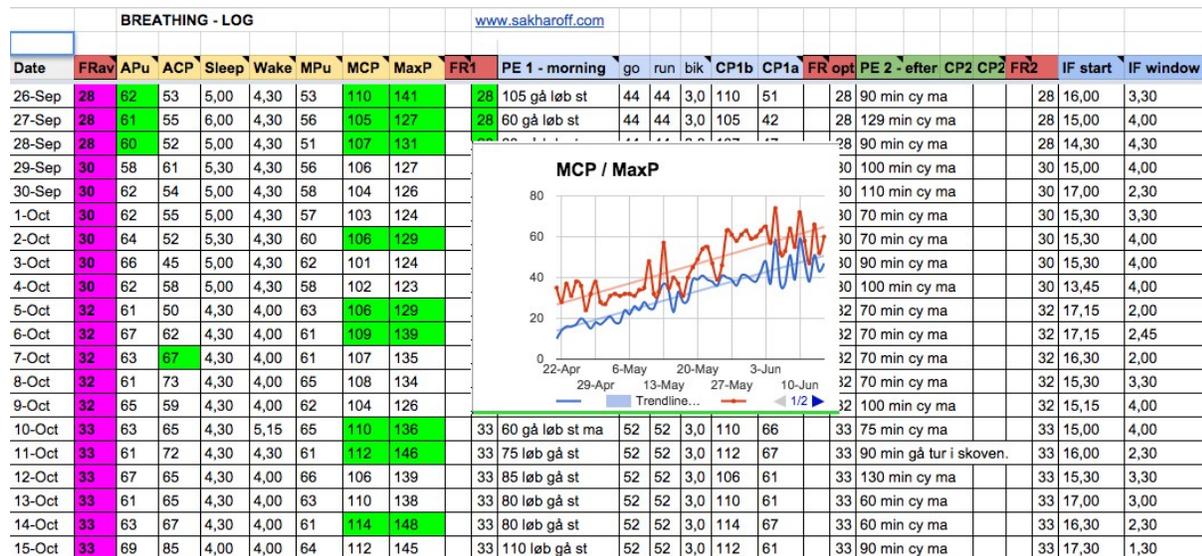
This is a training environment where each family member and the family as a whole work each day together intensively - to cope with a terrifying diagnose. The whole family helps the diagnosed person to enter a domain of structured exercise and therapeutic lifestyle - and also to measure progress in the personal online sheet. The healing effect of Sakharoff Protocol is fully trackable through daily measurements of blood, breathing, sleep quality and other parameters - with automated graph building.

Clearly defined measurement targets

The whole BEAT DIPG Intensive Bootcamp framework is targeted on several metabolic markers that are known to stop brain tumors (instead of traditional gene-specific tumor markers):

- Control Pause

We aim to reach Control Pause (CP) measurement target of 60 seconds. According to the founder of Buteyko Breathing optimization Technique Dr. Konstantin Buteyko and also according to my own experience training cancer clients this target CP makes the cell environment challenging - and later in the process uninhabitable for cancerous tumor cells - while making the normal cells thrive. This is especially useful for inoperable intrinsic, diffuse and multiforme tumors as DIPG and GBM. People diagnosed with brain tumors often have a CP of 5-10 seconds. Below you can see a graph showing the healing process of GBM, where the initial CP=10 sec reaches the target of CP=60 sec during 3 months. This is achieved by extensive training with The Sakharoff Protocol:



- G/K ratio

G/K ratio is a ratio of blood glucose to blood ketones. It is defined in the experimental metabolic approach for brain tumors by Prof. Thomas Seyfried from Boston College Biology Department^[30]. According to the scientific research and several case studies it showed clear correlation with diminished inflammation markers in the brain tumors and regression and remission of the tumor.

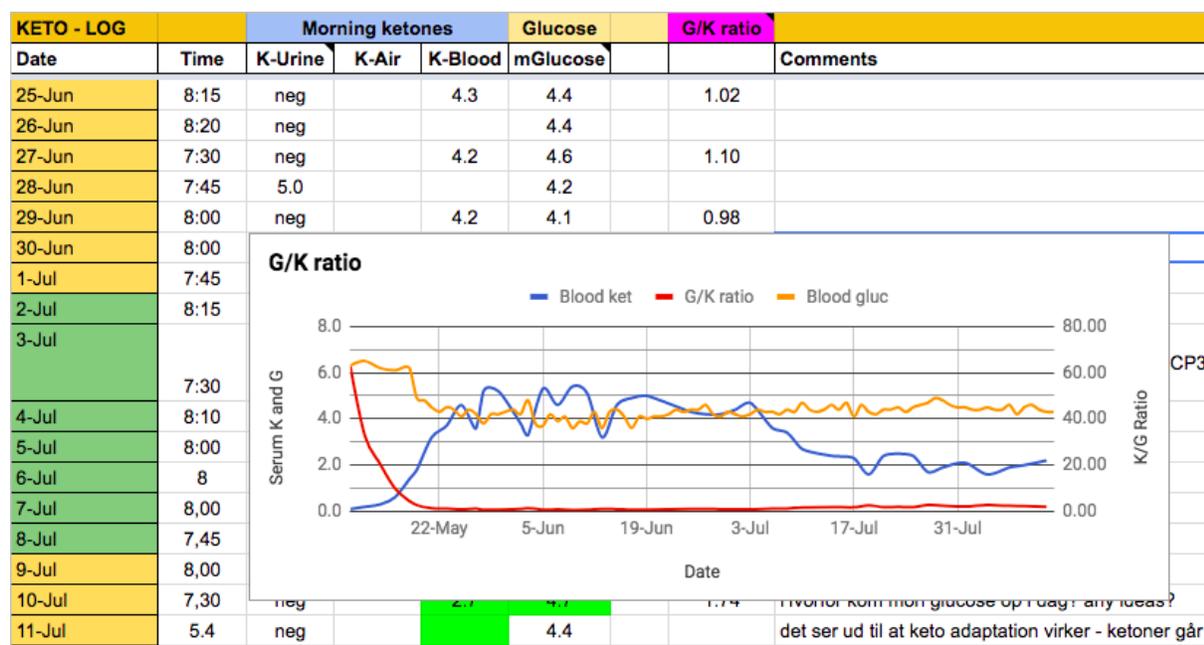
Target value depends on condition and stage of keto-adaptation. Following target values are defined for brain tumors:

< 1 is the target value for 2nd adaptation stage

1-3 is the target value for the 3rd adaptation stage

We aim to reach the target value of G/K ratio at 2nd stage of ketogenic adaptation and slowly changes towards the 3rd stage of adaptation. With full compliance and strict nutritional regimen, the 2nd stage of ketogenic adaptation can already be reached during the first month of the nutritional lifestyle change.

Below you can see a graph showing the healing process of GBM, where the initial average ratio G/K=60 reaching the target ratio of G/K=1 during 1 month (left side of the graph):



- Other measurement targets

Sleep measurement: nightly CP change (CPΔ), nightly pulse fall (PΔ) and others

Metabolic/ inflammation markers: Triglycerides/HDL ratio, CRP, Homocysteine, Vit D and others.

The process and support setup is tailored to help healing succeed

We will also provide you with daily support to help you build a strong process and overcome the hardships with full compliance and minimum procrastination. Helping you to avoid procrastination by weekly nudging and practical daily application of psycho-physiological mental training techniques inspired by martial arts legacy - instead of psychotherapy as we know it. All of this is made especially to ensure your compliance - and by that ensure healing to happen.

Helping the family and friends to show empathy and understanding for the situation and what you are doing about it by including them into the daily work sessions.

Prerequisites that ensure healing to happen

Daily structured training according to our BOTCAMP guidelines can ensure healing to happen. It has following prerequisites:

- **Full compliance with the daily training plan - this is the absolute main prerequisite. Expect 2-4 hours of training every day to help the healing process succeed**
- **Full compliance with the daily meal plan of essential nutrients**
- **Full compliance with the elimination protocol to avoid the dietary auto-inflammatory triggers**
- **Full compliance with the measurement plan - we need to track the progress of healing**
- **Inquisitiveness and ability to ask questions on the daily Q&A to further tailor the process**
- **Full support and cooperation from the close family and relatives - openness to change**

This approach won't overwhelm you

After reading this amount of information you might feel overwhelmed. It's understandable, especially because of the need to take over personal responsibility for a deadly health condition.

Asking you for compliance with 2-4 hours daily effort might also seem overwhelming, especially because of tiredness and lack of energy that you might experience right now.

On the other hand - our bootcamp framework consist of small steps - that are perfectly manageable. They are tailored to be implemented with small daily routines - at slowly incrementing pace.

The bootcamp will give you community with active peers dedicated to understand and implement the daily learning. You will greatly benefit from this form of active support.

Last but not least you will feel energized by the fact that you are taking personal responsibility and active steps on the quest to win the life back.

The completely unique part of this bootcamp is the ability to directly contact the main trainer and educator every day during the week. You can not find this personal level of support anywhere else.

Remember, it's only action that brings change – grab this unique opportunity.

Reality Check. Is There An Alternative?

DIPG survival rates are the shortest of all brain tumors, inclusive GBM (Glioblastoma Multiforme):

- **Median: 6-9 months after the diagnose**
- **1 year survival after the diagnose: 30%**
- **2 year survival after the diagnose: 10%**
- **5 year survival after the diagnose: 1%**

Clinical trials of targeted therapies have not brought any survival benefits to DIPG patients yet [1,37]. As you might already know, their life prolonging effect is three months in average, despite of lots of scientific trials [37,38].

DIPG is incurable by conventional targeted approaches because:

- **Chemotherapy - 250 clinical trials in the latest 30 years failed to show any benefit for survival**
- **Radiation - shows 70-80% improvement that lasts about 3-5 months, unfortunately followed by relapse and unavoidable steep decline**
- **Proton Therapy - can not be used effectively because of not well-defined edges of tumor**
- **Surgery - total removal impossible because of risk connected with the central placement in the pons, and the diffuse character of the tumor cells proliferation**

Personal message for you

Can one human being be a telecom engineer, a project manager, a jazz musician, a breathing therapist - at the same time? For me the answer is yes – with the addition of love and excitement.

Thus I am hardly really surprised that I recently found myself working as a practical health trainer and at the same time writing my first scientific paper on integrative health for the medical publisher Elsevier while at the same time teaching doctors and other health professionals in my own certification program, The Sakharoff Protocol.

What has driven me all the way is a deep belief in balance - all things in nature, society and technology are interdependent. Imbalances can be solved when we detect the point of failure.

I have also been driven by a deep longing after purpose, and today I can say that not only did I find my purpose. It also found me. And we are working overtime together to bring a new health paradigm into the world.

In my work with Alzheimer's patients and Glioblastoma patients I have found a striking common cause. In both cases it seems that the human environment and behaviour can cause different problems in the brain environment for the 2 different groups of brain cells.

In one case, when the human environment is suboptimal, it can make the neurons degenerate and die. Then the neurodegenerative disease is triggered - one of which is Alzheimer's disease.

In another case, when the human environment is suboptimal it can make helper cells (glia) become cancerous and form cancerous tumors as Glioblastoma or DIPG.

In both cases the causes are the same - human environment and lifestyle. The only difference is in the personal genetic setup of the two people, that will trigger uninhibited cell division for one case - or cell degeneration and death in another case.

The difference lies in the different degree of metabolic flexibility of the two groups of brain cells. The neurons are very simple and inflexible cells. The helper cells (glia) have more sophisticated and flexible structure and function.

When your genetic setup includes some compromised gene pairs that mostly affect brain neurons - they are forced to change. Being simple and inflexible they can only degenerate and die. Then you are most probable to develop Alzheimer's.

When your genetic setup includes some compromised gene pairs that mostly affect glia cells - they are forced to change. Being more sophisticated and flexible in structure and function they can mutate to survive. Then you are most probable to develop a brain tumor.

These and other severe conditions caused by human environment and behaviour - also share another similarity. When targeted with medicine, surgery or radiation, the causes are left untouched to eventually produce new symptoms in the future.

The metabolic approach is a slow process, but it does the job changing the human environment and behaviour - thus improving the environment for the cells and the whole body. If and when you comply and stick to the strict regimen, compliance heals. If not – passivity can be and very often is mortal.

Working with such deadly diagnoses can be an ordeal. In my work I have had both wins and losses. A close friend first won, and then lost, his battle with GBM. And I witnessed a young girl diagnosed with DIPG having the last few months of her life darkened by a whole array of medical errors.

Luckily, I have also seen many clients recover from diseases regarded by conventional medicine as incurable and reach a state of what they claimed was better health than ever before.

These life lessons learned from experience have helped me formulate the following:

- **It is possible to reverse a GBM tumor by strict compliance to a metabolic approach**
- **A GBM sufferer can not return to the old lifestyle after tumor remission – that kills**
- **It is very likely that DIPG can also be reversed by strict compliance - just as GBM**

Misha Sakharoff



References - Scientific Studies

1. DIPG Facts, Michael Mosier Foundation: <https://www.defeatdipg.org/dipg-facts/overview/what-is-the-treatment-for -dipg/>
2. Integrated Molecular Meta-Analysis of 1,000 Pediatric High-Grade and Diffuse Intrinsic Pontine Glioma:
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5637314/>
3. Ian F. Tannock, M.D., Ph.D., and John A. Hickman, D.Sc., Limits to Personalized Cancer Medicine:
<https://www.nejm.org/doi/pdf/10.1056/NEJMs1607705>
4. Altered energy metabolism in cancer – A unique opportunity for therapeutic intervention:
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3572003/>
5. Cancer as a metabolic disease: implications for novel therapeutics:
<http://www.ncbi.nlm.nih.gov/pubmed/24343361>
6. T.N. Seyfried, Cancer as a metabolic disease: on the origin, management, and prevention of cancer, John Wiley & Sons, Inc, A. Hoboken, NJ, 2012. ISBN: 978-0470584927, ISBN:
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4102745/>
7. Metabolic alterations in cancer cells and therapeutic implications:
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4013402/>
8. T. Ferriss, Tools of Titans, Boston, Houghton Mifflin Harcourt Publishing Company, 2016. Interview with Dominic D'Agostino.
9. Z. Clemens, C. Toth, Treatment of high-grade brain tumor using the paleolithic ketogenic diet (pkd): three cases:
https://www.researchgate.net/publication/322570681_treatment_of_high-grade_brain_tumor_using_the_paleolithic_ketogenic_diet_pkd_three_cases
10. M.J. Bissell, H.G. Hall, G. Parry, Dynamic reciprocity: How does the extracellular matrix direct gene expression?, J Theor Biol 99 (1982) 31–68:

<https://www.sciencedirect.com/science/article/pii/S0022519382903885?via%3DiHub>

11. Normalbreathing.com. All clinical trials of the Buteyko method:
<http://www.normalbreathing.com/practice-trials.php>
12. M. Sakharoff, The Taste of Victory – Beating Cancer Natural Way:
<https://sakharoff.com/the-taste-of-victory-beating-cancer-natural/>
13. M. Sakharoff, Learning points from the remission of Glioblastoma Multiforme brain tumor:
<https://sakharoff.com/learning-points-remission-brain-cancer/>
14. State of affairs in use of steroids in DIPG: an international survey and a review of the literature:
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4901114/>
15. Small molecule epigenetic screen identifies novel EZH2 and HDAC inhibitors that target glioblastoma brain tumor-initiating cells:
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5312317/>
16. Potential New Therapies for Pediatric Diffuse Intrinsic Pontine Glioma:
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5525007/>
17. Combination of EZH2 inhibitor and BET inhibitor for treatment of diffuse intrinsic pontine glioma:
https://www.researchgate.net/publication/320724464_Combination_of_EZH2_inhibitor_and_BET_inhibitor_for_treatment_of_diffuse_intrinsic_pontine_glioma
18. Gang Wu et al, Somatic histone H3 alterations in pediatric diffuse intrinsic pontine gliomas and non-brainstem glioblastomas:
<https://go.nature.com/2Nxcm0b>
19. C.A. Godman, et al., Hyperbaric oxygen treatment induces antioxidant gene expression, *Ann N Y Acad Sci* 1197 (2010) 178–183:
<https://doi.org/10.1111/j.1749-6632.2009.05393.x>
20. T. Shimazu et al, Suppression of Oxidative Stress by Beta-Hydroxybutyrate, an Endogenous Histone Deacetylase Inhibitor:
<http://www.insanemedicine.com/wp-content/uploads/2016/05/Suppression-of->

[oxidative-stress-by-%CE%B2-hydroxybutyrate-an-endogenous-histone-deacetylase-inhibitor..pdf](#)

21. Mithu Storoni and Gordon T. Plant, The Therapeutic Potential of the Ketogenic Diet in Treating Progressive Multiple Sclerosis:
<https://www.hindawi.com/journals/msi/2015/681289/#B66>
22. F. Karami, P. Mehdipour, Cancer Genetics and Psychotherapy:
<https://bit.ly/2wpuUZU>
23. M.A. Makary, M. Daniel, Medical error—the third leading cause of death in the US, *BMJ* 353 (2016) i2139:
<https://doi.org/10.1136/bmj.i2139>
24. B.T. Seyfried, M. Kiebish, J. Marsh, P. Mukherjee, Targeting energy metabolism in brain cancer through calorie restriction and the ketogenic diet, *J Cancer Res Ther* 5 (Suppl 1) (2009) S7–S15:
<http://www.cancerjournal.net/article.asp?issn=0973-1482;year=2009;volume=5;issue=9;spage=7;epage=15;aulast=Seyfried>
25. A. Poff et al, Targeting the Warburg effect for cancer treatment: Ketogenic diets for management of glioma:
<https://www.ncbi.nlm.nih.gov/pubmed/29294371>
26. D.E. Bredesen, Reversal of cognitive decline: a novel therapeutic program, *Aging* (Albany, NY) 6 (2014) 707–717:
<https://doi.org/10.18632/aging.100690>
27. Bissell, M.J. and Radisky, D. (2001) Putting Tumours in Context. *Nature Review Cancer*, 1, 46-54.
<https://www.ncbi.nlm.nih.gov/pubmed/11900251>
28. R. Maurer, One small step can change your life, Workman Publishing., New York, NY, 2004
29. Fasting – Molecular Mechanisms and Clinical Applications:
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3946160/>
30. Joshua J Meidenbauer, Purna Mukherjee and Thomas N Seyfried, The glucose ketone index calculator: a simple tool to monitor therapeutic efficacy for metabolic management of brain cancer:

<https://nutritionandmetabolism.biomedcentral.com/articles/10.1186/s12986-015-0009-2>

31. S.N. Paschenko, Study of application of the reduced breathing method in a combined treatment of breast cancer, *Oncology (Kiev, Ukraine)* 3 (1:) (2001) 77–78.
32. C. Borgnakke, R. Sonntag, *The second law of thermodynamics, Fundamentals of thermodynamics,* 8th ed., Wiley Publishers, Hoboken, New Jersey, 2013244–245.
33. B.S. Oken, I. Chamine, W. Wakeland, A systems approach to stress, stressors and resilience in humans, *Behav Brain Res* 282 (2015) 144–154
34. P. Sterling, J. Eyer, Allostasis: a new paradigm to explain arousal pathology, in: S. Fisher, J. Reason (Eds.), *Handbook of life stress, cognition and health*, John Wiley & Sons, Chichester, UK, 1988, pp. 629–649, 1988.
35. M. Abedin, N. King, Diverse evolutionary paths to cell adhesion, *Trends Cell Biol* 20 (12) (2010) 734–742.
<https://doi.org/10.1016/j.tcb.2010.08.002>
36. J. Backer, J. Dice, Covalent linkage of ribonuclease S-peptide to microinjected proteins causes their intracellular degradation to be enhanced by serum withdrawal, *Proc Nat Acad Sci USA* 83 (1986) 5830–5834.
37. M.H.A. Jansen et al, Diffuse intrinsic pontine gliomas: A systematic update on clinical trials and biology:
<http://www.stichtingsemmy.nl/wp-content/uploads/Jansen-Cancer-Treatment-Rev-20121.pdf>
38. B. Benitez, *Brainstem Tumours in Children:*
http://www.zora.uzh.ch/id/eprint/93570/1/Sarnthein_J_Dissertation_BST_130_218.pdf

About Sakharoff.com

OUR VISION

- To empower people through integrative approach to rediscover the natural healing powers of their body, so they can take back responsibility for their health.
- To move from sick-care to health-care and towards non-invasive metabolic therapies – instead of constantly finding new genetic pathways to promote the current business model based on creation of new highly invasive chemical drugs.
- To bring forth a paradigm shift towards education instead of medication.
- To move back to the old model of medicine. Here, doctors were rewarded for their success in keeping their patients healthy - instead of being paid for trying to heal them when they got sick.

SAKHAROFF INTEGRATIVE HEALTH

- Sakharoff Integrative Health protocol is a NPMA - Non-Pharmacological Metabolic Approach. As such it does no harm in the medical extent, it does not use any medical substances and basically doesn't require any special equipment. We don't sell neither the substances or the equipment - we only do

education and training.

- Sakharoff Integrative Health protocol promotes not either-or, but both-and. It means that the idea of integrative health has to be promoted. We connect the dots - not only nutrition, not only breathing, not only movement but all of that combined in one process.
- Sakharoff Integrative Health protocol is in many ways complementary to the work of doctors that are openminded. Our common understanding is that the source of chronic diseases is metabolic dysfunction triggered by wrong lifestyle, through expression of a person's unique DNA.
- Sakharoff Integrative Health protocol uses scientific research studies as a basis for its core teachings and exercises.
- Sakharoff Integrative Health protocol looks at triggers and causes of the disease - not only the symptoms. The protocol promotes understanding of lifestyle disease as syndrome with metabolic dysfunction - multi-factorial condition with a bouquet of symptoms. Eg. people with Alzheimer's most often than not get both diabetes and cardiovascular disease and other symptoms of metabolic dysfunction.
- Sakharoff Integrative Health work on two levels of interest. Firstly, helping individual person taking responsibility for his/her own health. Secondly, with the whole society, facilitating the paradigm shift from the practice of conventional allotropic medicine towards the idea of integrative metabolic health.