

10 YEARS
THAT
CHANGED
MEDICINE
FOREVER

Matthias Rath, M.D.

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Pioneer of Cellular Medicine

1st Edition

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Breakthroughs in the history of medicine that saved millions of lives



Dr. Rath identified vitamin deficiency as the primary cause of these health conditions

How often is the cause of disease unknown

| | Before | | After |
|----------------------|-----------------|---|-----------------|
| | Dr. Rath's work | | Dr. Rath's work |
| Heart Attacks | 80% | → | 5% |
| Strokes | 80% | → | 5% |
| High Blood Pressure | 90% | → | 5% |
| Heart Failure | 90% | → | 1% |
| Irregular Heart Beat | 70% | → | 5% |
| Adult Diabetes | 95% | → | 1% |

Each reduction accounts for millions of lives saved.

INTRODUCTION

*“We had suffered, starved and triumphed,
grown bigger in the bigness of the whole.
We had reached the naked soul of man.”
Sir Ernest Shackelton, Polar explorer, 1908*

The two-time Nobel Laureate Linus Pauling stated that Dr. Rath's discoveries will be seen as the most important discoveries of the second half of the 20th century. This book tells the story about these discoveries.

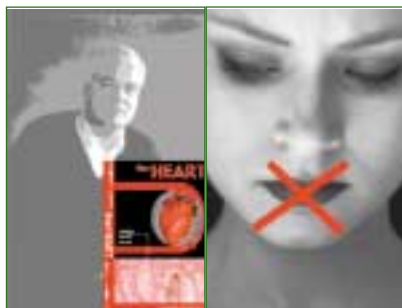
Never before has a medical breakthrough so directly and immediately affected the lives of millions of people as Dr. Rath's discoveries. This book explains to a layperson the immediate consequences of these discoveries for millions of patients.

David Against Goliath

Never before has the medical truth been fought so fiercely by a multi-billion-dollar industry, the pharmaceutical industry, whose very basis is the “business with disease.” This is the war diary of this battle.

Never before was a David-Goliath situation so heavily dependent on one man to be resolved for the benefit of millions of people. This is the historic account of the scientist who forced the pharmaceutical Goliaths to accept the scientific truth and embark on large-scale vitamin research.

The last decade of the 20th century will go into the records as the period when the multi-billion-dollar business with disease by the pharmaceutical companies was turned into a "business towards health," a monumental step in human history and the precondition to the ultimate stage, when health will become a human right.



David & Goliath

Triggering the Vitamin-Cartel

Ten years ago large pharmaceutical companies including Roche, BASF and Archer Daniels Midland, formed a vitamin cartel conspiring in criminal price fixing of vitamin raw materials. These criminal actions artificially raised the price of vitamins for every household in America.

While these companies paid billions of dollars in fines, no one has asked the most important question of all: What triggered the pharmaceutical giants to fix the prices? A multi-billion dollar price-fixing conspiracy requires expectations of a growing consumer demand for these vitamins. This book describes how Dr. Rath informed Hoffman-LaRoche about the medical breakthrough that triggered some of the largest pharmaceutical companies in the world to become involved in criminal activities.

Fighting the Pharmaceutical Cartel

This book also explains the background of one of the great victories for human health in America: The Dietary Supplement Health and Education Act (DSHEA) of 1994. This "Vitamin Freedom Act" was the answer of the American people to a two year long campaign by the American pharmaceutical companies and the FDA to make vitamins prescription items.

Again, no one asked the most important question: What triggered this bizarre effort? Why did the pharmaceutical companies want to make vitamins prescription items - against the will of over 100 million vitamin consumers. This unethical effort by the pharmaceutical companies and the FDA are not an action, but a reaction to a scientific discovery that threatened a multi-billion-dollar market in cardiovascular prescription drugs. For the first time, this book documents the background of this unethical effort.

Did you know that there is a United Nations commission called "Codex Alimentarius" (regulation for nutrition) that has been trying since 1996 to outlaw vitamin therapies on a worldwide scale? This book is the account of the historic battle how thousands of patients Dr. Rath had already helped, came to Berlin in June 2000 and successfully stopped these unethical plans.

Turning Nutritional Medicine Into Established Medicine

Read how within 8 weeks after this historic defeat pharmaceutical giants were forced to enter the vitamin research field. Hoffman LaRoche announced that they would establish an independent vitamin research subsidiary. BASF - one of the companies spearheading the unethical "Codex" plans - was buying Takeda, the second largest manufacturer of vitamin C.

With the global players forced to join in and substantiate health benefits of vitamins on a large scale, nutritional medicine will become established medicine within the next five years. With this encouraging development foreseeable, new challenges arise.

Nutritional health and medicine must not fall into the hands of a monopoly. All mankind must share nutritional health. In this situation the health food stores and the natural health community, including the 150 million Americans who take vitamins on a regular basis, share a particular responsibility.

Receiving the Torch from Linus Pauling

This book breathes history. Join Dr. Rath as he talks about his close relationship with the late Nobel Laureate Linus Pauling, who saw in him his successor. Witness the interests they shared in science and vitamin research, the joint zest of these two scientists for making health a human right and contributing to a better world.

Join them at their historic press conference at the Mark Hopkins Hotel in 1992 when Linus Pauling publicly supported Dr. Rath's first discovery in the Nobel Laureate's last public appeal. Read how the two courageous scientists launched their historic Call for A Scientific Effort to Abolish Heart Disease.



Linus Pauling, Ph.D & Matthias Rath, M.D.

Developing Cellular Medicine

Now, less than ten years later, after having developed the foundations of Cellular Medicine, Dr. Rath has identified many more common health conditions as being primarily caused by vitamin deficiency. They include high blood pressure, heart failure, diabetic circulatory problems and many forms of cancer.

Moreover, through the relentless and uncompromising efforts led by Dr. Rath, this call has been heard. Small and large vitamin companies are heavily embarking in research and clinical studies to finally substantiate the broad health benefits of vitamins.

Health Food Stores as Cornerstones of a New Health Care System

Every health food store in America now has the opportunity to become a cornerstone of a new health care system that focuses on natural prevention of today's common diseases, including cardiovascular disease and cancer.

After fighting this battle for more than a decade, Dr. Rath decided to share the historic record of it with the world. The authenticity of this book leaves no doubt who has been leading the historic breakthrough towards natural health on a worldwide scale.

“Touching the Naked Soul of Man”

Standing up as an individual scientist against one of the largest industries on earth, the pharmaceutical industry, has been a tough road. It has been a battle that reached the “naked soul” of those who fought it.

Political maneuvers at the highest level of government against Dr. Rath, boycotts, attacks on his scientific achievements and on his personal integrity in mass media that are economically dependent on the pharmaceutical industry, are just a few of them.

In one of the last conversations before his death in 1994, Linus Pauling said to Dr. Rath: “Never forget that you are fighting one of the most important battles for human health. It will be long and hard.” That was an understatement. The stakes were one in a thousand for the truth of David to prevail against the economic and political power of Goliath.

By sharing this information with the people in America and other countries, Dr. Rath offers them a strong message of empowerment: You can do it too. Start taking charge of your own health now. Help to spread this information and help make health a human right that is available to everyone.

Setting a Personal Example

Dr. Rath's life sets an example for that path. He's the son of farmers, born and raised in southern Germany. He left the farm and studied medicine. After graduation he started to follow his interest in cardiovascular research. After his first publication appeared in the Journal of the American Heart Association, he accepted the invitation of two-time Nobel Laureate Linus Pauling to become the first Director of Cardiovascular Research at the Linus Pauling Institute in California.

Dr. Rath's scientific achievements are a good example that young people make some of the greatest discoveries in science. They have the advantage that their minds are not preoccupied by existing dogmas.

Medical Breakthroughs

Several times before in human history the discoveries of one scientist ultimately helped to save millions of lives. When Dr. James Lind discovered that scurvy, the sailor's disease, is caused by a lack of citrus fruits, it still took 40 years until that knowledge was applied. The story of Dr. Lind and other single-minded pioneers are deliberately placed at the beginning, to put this book into perspective.

Of course, Dr. Rath does not compare himself with these historic persons. However, the medical breakthrough he led, revealing that today's most common diseases are primarily caused by vitamin deficiencies and are largely preventable, have already today saved tens of thousands of lives.

The fact that it has taken him less than ten years to become widely accepted speaks for his determination.



Breakthroughs

in the History of Medicine
that saved millions of lives

*"New truths go through three stages.
First they are ridiculed,
second they are violently opposed and then,
finally, they are accepted
as being self-evident."
Arthur Schopenhauer*

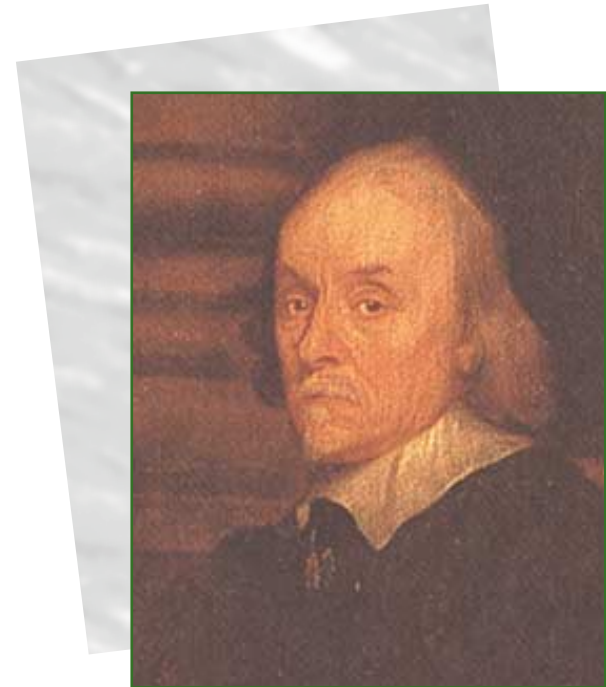
How the heart started to beat

Until the 17th century there was no blood circulation in the human body. From Greek and Roman doctors to the medical students in medieval European universities, the medical profession was taught that everything that moves in the human body, including life itself, was driven by three spirits: the veins carried the “natural spirit”, the arteries carried the “vital spirit”, and the nerves carried the “animal spirit” from the brain.

As long as these ancient beliefs continued, life could not be understood from a scientific or medical point of view - only from a spiritual perspective. Accordingly, for more than a thousand years little progress was made in understanding the basic function of the human body, and millions of people died as a result of this medical illiteracy.

One man made all the difference. In 1628 William Harvey (1578 - 1657) published *The Motion of the Heart and Blood in Animals*. In this book he publishes for the first time that the heart is the motor of the cardiovascular system and that the blood circulation, not “vital spirits”, is the measure of life. But above all, it was the readiness of William Harvey to question the teaching of thousand year old medical dogmas and discard everything that did not hold truth.

The life's work of this man terminated the medieval times in medicine. He had studied the motion of the heart in animals; he conducted strikingly simple and conclusive experiments to prove blood circulation, for example, by tying a bandage tightly around the arm until no pulse could be felt.



*William Harvey (1578-1657)
Founder of Modern Medicine*

When the oceans stopped turning red

One of the greatest threats to sailors of earlier centuries was an increased weakness of their blood vessels, bleeding, and ultimate death from massive blood loss both inside and outside their bodies. From the first efforts to circumnavigate the globe under Magellan, only a handful of sailors returned. No one knew the cause of this terrible disease that killed tens of thousands of sailors from the sixteenth to the eighteenth century.

Until Scottish physician, James Lind (1716-1794) came along. Through a simple experiment Lind proved that providing sufficient quantities of lime and lemon juice to the sailors could prevent bleeding and blood loss. He saved thousands of lives by searching for and finding the natural way to prevent and cure scurvy, the sailor's disease.

Today, of course, we know that the vitamin C contained in these fresh fruits is required for optimum production of collagen, connective tissue, and for optimum stability of the blood vessel walls. When Lind made his discoveries, no one cared about the exact mechanism. The main thing was that it worked.

But more surprising, it took the British Admiralty more than 40 years to put the discoveries by James Lind into practice and distribute limes to the British sailors. Apparently, old dogmas about the mysteries of scurvy lasted about that long, until they were overcome. During those 40 years thousands of British sailors died unnecessarily because of adherence to antiquated dogmas by the Admiralty.



*James Lind (1716–1794)
Tens of Thousands of sailors owe him their lives*

Why epidemics are no longer a curse of heaven

Until the middle of the 19th century, such epidemics as plague, cholera, and smallpox were considered a curse of heaven. The sudden onset of these diseases and the lack of access to microscopes to study its real causes had kept this medieval belief flourishing since the beginning of mankind.

Throughout the centuries hundreds of millions of people have died from epidemics, and the giant industry of infant traders, witch hunters, and other economic and philosophical interest groups thrived on the “business with the epidemic diseases.” Of course this business with disease would last only as long as the true nature of epidemics remained unknown.

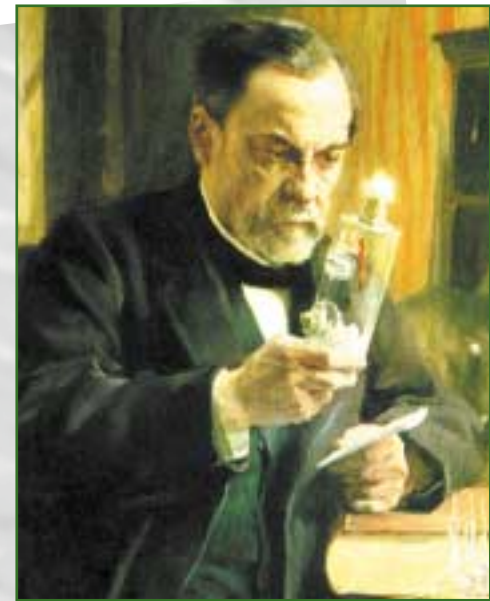
Everything changed with the life of the French chemist, Louis Pasteur (1822-1895). By using a microscope he was able to detect the true nature of epidemics: microorganisms. Not only did Pasteur discover the germs that caused one of the most devastating diseases of its time, rabies; he also developed the first vaccination therapy against it.

Again, one man made the difference that paved the way to the discovery of other infectious germs like tuberculosis, cholera, diphtheria and tetanus. More importantly, it enabled the development of vaccines and, later, antibiotics. Even today, hundreds of millions of people owe their lives to Louis Pasteur – mostly without knowing it.

Were the discoveries by Pasteur immediately acclaimed by the scientific community? Of course not. The French medical academy in Paris disclaimed and discredited Pasteur because he was not a doctor, but “only a chemist”.

But the people of the world did not care about old dogmas. They wanted to take advantage of the new knowledge to save their own lives and those of their children. Against all initial resistance, vaccination therapy and antibiotics have led to the effective control of infectious diseases as the number one killer over the millennia.

When Pasteur died in 1895, he was honored like a hero throughout the world for his lasting contributions to mankind.



*Louis Pasteur (1822-1895)
Millions of people owe him their lives*

How we learned where diseases come from

The advent of the microscope also allowed a breakthrough in other areas of medicine. Until the middle of the 19th century the cause of diseases (not only infectious diseases) was not known. They were thought to be caused by evil spirits or bad blood. At the same time that microorganisms were discovered to cause infectious diseases and epidemics, another medical breakthrough illuminated how many other diseases develop in the body.

With the help of a microscope the German physician, Rudolf Virchow (1821-1902) discovered that the human body is made up of billions of cells. Furthermore, he found that diseases do not just “happen” or “possess” the body or one of its organs. He found that the cause of diseases are malfunctioning cells.

These millions of malfunctioning cells eventually lead to the development of a serious health problem or disease. In 1858 Virchow published his “cellular pathology” explaining for the first time that diseases originate at the level of cells. Until this day, Virchow's cellular pathology is the basis of pathology lessons throughout the medical schools of the world.

Interestingly, while Virchow correctly identified the cells as the starting point for any disease, he did not identify the most frequent cause for their malfunction, a lack of bioenergy molecules essential for the optimal energy supply to each cell. The explanation is simple: vitamins and other essential carriers of cellular bioenergy were not discovered until the early decades of the 20th century – long after Virchow's death.



Rudolph Virchow (1821-1902)

Founder of “Cellular Pathology”

I listed these examples for good reason: they tell an invaluable story about human history, the history of medicine, how millions of people had to die because antiquated and false medical or scientific dogmas were upheld against better knowledge, how the quest for the truth carried on by individuals ultimately paid off, how these pioneers in science and humanity had to endure personal attacks, stonewalling by believers in the old system, and other hardships.

These examples also tell us the encouraging story that nothing, absolutely nothing, can hold up the truth once its time has come. This is the message that I hope will stay with my readers throughout this book and beyond. My scientific achievements in the area of cardiovascular disease and cancer will lead to control of today's most common diseases.

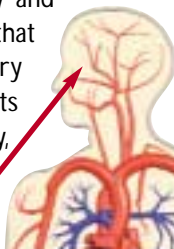
Heart attacks are the number one killer in the industrial countries today. They are followed by cancer (number two) and stroke (number three). The natural control of these diseases during the next two decades and their reduction to a fraction of today's cases will inevitably lead to increased life expectancy. Thus, these discoveries are laying the scientific basis for an old dream of mankind coming true: longevity.

Let's look at the scope of these discoveries from another angle.

Extending the human body

Some of the most recent discoveries of our time that have changed human life – and were also considerable economic successes – had one thing in common: they were inventions that extended certain parts of the human body.

Thomas Edison (1847-1931). From the dawn of time human activity was confined to daylight. With the exception of torches, candles and other fire tools, human productivity and social life were cut in half by the simple fact that human beings cannot see in the dark. The discovery of electricity, the invention of the light bulb and its mass production, changed that forever. Suddenly, **eye vision** was extended – and thus human life – to a 24-hours a day option.



Alexander Graham Bell (1847-1922). Since the inception of mankind, communication between people had been confined to a shouting distance. The telegraph and its precursors made first steps to change that. But it was the invention of the telephone and its network that **extended the mouth and ears** of everyone. Suddenly communication became possible from any one place to another place halfway across the world and in an instant. With this invention an old dream of mankind had come true and confounded the economic success of this invention.



Henry Ford (1863-1947). Another ancient dream of mankind was to travel anywhere at any time. Although others invented the automobile, Henry Ford allowed this dream to come true for a majority of the population. It was he who **extended the legs** of millions and fulfilled this old dream of mankind and who was one of the first entrepreneurial benefactors.

Bill Gates. Since the beginning of mankind its progress was confined by the limitations of one's own brain to store information, do calculations, writings, information exchange and other brain functions. Even though computers were developed earlier, Bill Gates is credited for understanding the need for personal computers to serve the individual human being. He enabled millions of people to **extend their brain functions.**



But one of the greatest discoveries remained to be made: The extension of not just a single organ or body function, but of life itself – **longevity.** This book is an account of this discovery.

The scientific key to longevity

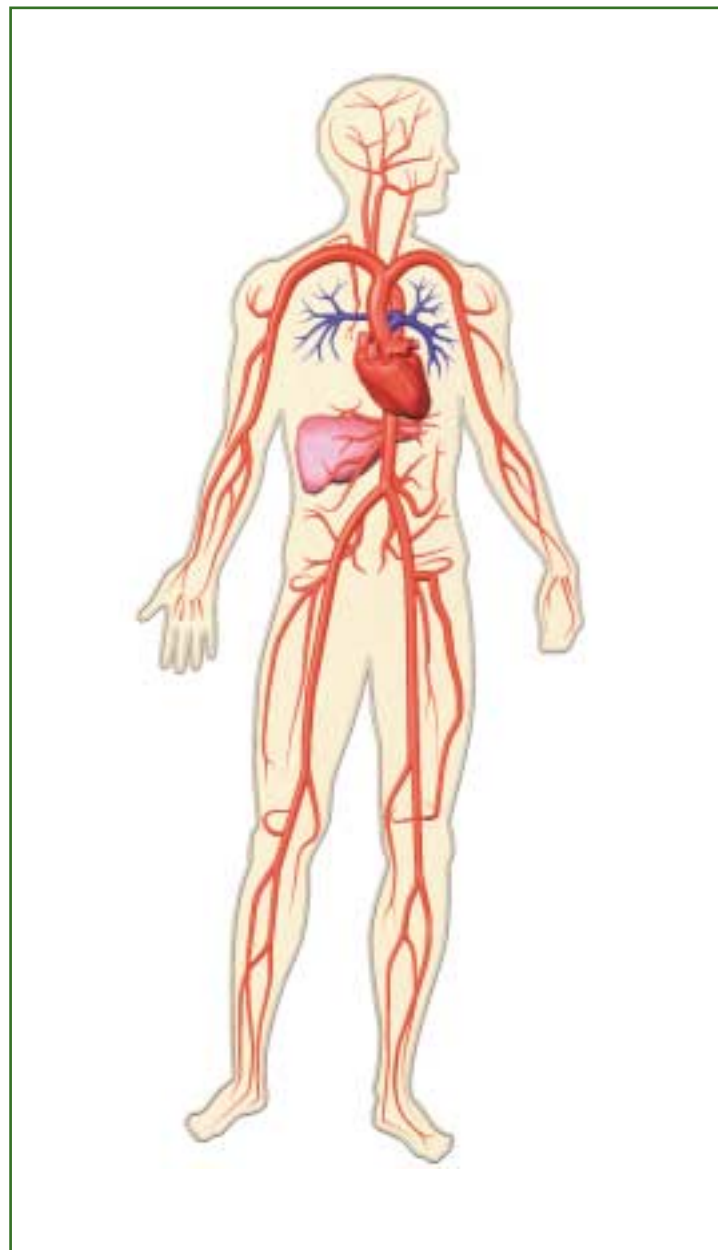
The largest of all human organs is the blood vessel system. Arteries, veins, and millions of capillaries in one body together amount to 60,000 miles in length, and equal the surface area of a football field. The blood vessel system has the tremendous task of providing oxygen and nutrients to literally each cell of the human body. If blood flow is impaired millions of cells suffocate or cease to function properly because of malnutrition.

Our body is as old as our blood vessel system. This is a medical law. Thus, the earlier blood vessels harden, the shorter our lives. Vice versa, optimum health of our cardiovascular system adds years to our lives.

Maintaining the stability and proper function of the blood vessel pipeline and preventing its hardening is the first and foremost goal to extending life expectancy.

The scientific discovery that, similar to scurvy, vitamin deficiency weakens the blood vessel walls and facilitates the development of cardiovascular disease, is therefore of utmost importance for every human being. The first patented therapy for the natural prevention and reversal of cardiovascular disease is the scientific key to longevity.

This discovery, supported by progress made in other areas of vitamin research, is likely to push the average life expectancy beyond 100 years within the first half of this century.





Breakthroughs in Natural Health

that will save millions of lives

*"Discovery is seeing what everyone saw and thinking
what no one thought."*

*Albert Szent-Györgyi
Nobel Laureate, Discoverer of Vitamin C*

Solving scientific puzzles

A scientific breakthrough rarely consists of one single observation. They are made by finding the answers to a series of questions that had remained unanswered in the past. Of particular importance are scientific breakthroughs in medicine - the sooner they are made, the fewer people have to die from diseases for which no preventive or therapeutic solution had previously been found. Thus, medical breakthroughs can save millions of lives today and in generations to come. The solution to cardiovascular disease is no exception.

Solving scientific puzzles is like a chess game. The pictures on the opposite page exemplify that. The chess board represents the entire problem - in this case cardiovascular disease and the question: "Why do millions of people die from heart attacks and strokes."

The black figures represent all the fundamental unanswered questions, for example:

- Why animals don't get heart attacks, but among people it is the number one killer.
- Why do people get infarctions in the coronary arteries of the heart - heart attacks - but we don't have nose attacks, ear attacks or infarctions in most other parts of the body.
- Why do animals with generally high levels of cholesterol in the blood not get heart attacks? The bear and other animals that sleep during winter time have cholesterol levels of 600 mg/dl and higher. Why are they not extinct from a heart attack epidemic?



The **cholesterol heart disease theory** can not answer the most basic questions about cardiovascular disease: The black figures (unanswered questions) are still standing.

The **scurvy/heart disease discovery** provides answers to literally all basic questions about cardiovascular disease: The white figures (answers) have eliminated the black ones (questions). This means: "**Checkmate to heart disease!**"



The white figures represent the answers that the scientist finds to the basic questions. The scientist leading a breakthrough gradually answers all the questions that have remained a mystery. Alternative explanations are ruled out and the problem is cornered. A breakthrough is the "Checkmate" of a scientific or medical problem.

The discovery of the scurvy/heart disease connection can answer all the questions about cardiovascular disease that were unanswered by previous theories. This discovery represents the "Checkmate" to heart attacks, strokes, high blood pressure and other common diseases.

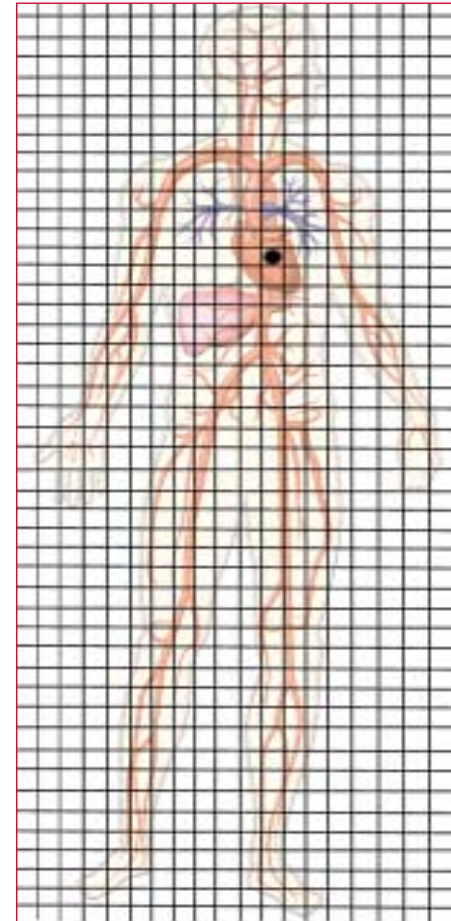
$E = mc^2$ of Medicine

The puzzle of human cardiovascular disease was no coincidence. Once the initial observation was made, the lipoprotein(a)/vitamin C connection, the entire puzzle was solved with mathematical precision. On the following pages I will take you along on the path my own mind went through during this discovery process.

The blood vessel system in your body - the arteries, veins and capillaries together - measures more than 60,000 miles! If high cholesterol levels were the culprit, damaging the blood vessel wall and thereby starting cardiovascular disease, clogging would occur along the entire length of the blood vessel system - we would get infarctions of the nose, ear, toes, elbows at about the same frequency. However, more than 95% of all infarctions occur in the coronary arteries of the heart - with a total length of 10 inches!

The adjacent picture illustrates this phenomenon. The total surface area of all blood vessels in your body is about the size of a football field. Each of the squares in the picture represents an area of 10 square feet. Yet the system fails again and again at the same spot, as small as the cross section of a football. The likeliness that this is a coincidence is 1 in a hundred trillion - in other words: it is no coincidence. Finding the answer to this phenomenon was the second scientific step towards solving the puzzle of cardiovascular disease.

Since 95% of all clogging occurs in one organ, the heart, the answer to this question must lie in the organ itself - the heart. What sets the heart apart from all other organs in our body?



With a surface area of more than half an acre, the cardiovascular system is the largest organ in our body. Yet in 95% of the cases clogging occurs at exactly the same spot - an area of less than 1 square foot. (Each of square represent 10 square feet).

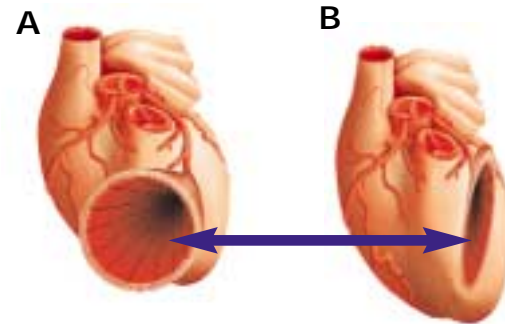
The heart is the only organ that constantly moves. With 100,000 heartbeats each day, the heart has the greatest amount of mechanical stress among all organs. Particularly stressed are the walls of the coronary arteries “riding” on the surface of the heart. With each heartbeat, these arteries are squeezed flat by the muscle tension and sheer forces of the pumping heart.

After I had identified the answer to this puzzle, I moved on to the next question: why do not all people get heart attacks? If the mechanical stress from the pumping heart is such an important factor, then everyone should automatically get a heart attack from the gradual deterioration of the coronary arteries with more than 2 billion squeezes over a 60-year life-cycle.

The answer: There must be a second factor involved that determines, whether someone gets a heart attack. This factor is the stability of the artery wall itself. But what determines this stability? The walls of the coronary arteries, just as any other blood vessels, are made up of connective tissue. The key architecture molecule of the connective tissue is collagen. Collagen has a function in the walls of the blood vessels similar to iron reinforcement rods in a skyscraper - guaranteeing stability.

Do all people have the same amount of functional collagen molecules in their arteries? Of course not. The production of collagen molecules in the body primarily depends on the supply of available vitamins and other essential nutrients like the amino acids lysine and proline. Since we human beings are unable to manufacture vitamin C or lysine in our bodies - essential nutrients in our body come from our diet or in form of nutritional supplements.

Why We Get Heart Attacks and Not Nose Attacks



The heart beats 100,000 times a day. This has an immediate effect on the coronary arteries supplying blood to the heart muscle. They “ride” on top of the heart and with every pumping action of this huge muscle, these small arteries are squeezed flat.

The above figure shows the rhythmical change in the diameter of the coronary arteries during the heart pumping cycle. During the filling phase of the heart (A), the heart muscle is relaxed and the coronary artery is wide. In contrast, during the pumping phase (B), the heart muscle is tense and the coronary artery is squeezed flat.

This constant change occurs with every single heart beat, about 4,000 times every hour. Imagine stepping on a garden hose 4,000 times. If the hose is new, nothing will happen. However, if the hose is weak, it will become brittle and cracks will form at precisely the spot that is constantly squeezed.

That is why we get infarctions of the heart and not of the nose or ears or toes.

Thus, we have identified the second factor in our heart attack equation:

$$\text{Heart Attack} = 1. \text{Stress on Coronary Arteries} \times 2. \text{Vitamin Deficiency}$$

The first factor cannot be changed, it is a *constant*. The heart beats, otherwise we are dead. We can only change the second factor, the amount of vitamins we take (variable). The laws of mathematics allow the elimination of a constant. What remains is the remarkable equation:

$$\text{Heart Attacks} = \text{Vitamin Deficiency}$$

The basic puzzle of cardiovascular disease was solved with mathematical precision. No scientist, no mathematician, no health professional, no regulatory agency and above all, no logically thinking person can dispute this fact any longer. Because of its striking similarity to Einstein's formula $e=mc^2$ I baptized this formula the "Emc² of Medicine".

This scientific formula is the basis for the eradication of heart

disease as a cause of human death and disability. It will save millions of lives for generations to come.

The most frequent objection I have heard from medical professionals is that the solution to the number one health problem cannot be so simple. But it was Albert Einstein who said that the greatest scientific discoveries are so simple that they can be expressed in a way that it can be understood by a everyone. The "emc² formula of medicine" is no exception.

Of course there are genetic and metabolic risk factors and other mechanisms that play a role in the build-up of atherosclerotic deposits and heart attacks. But as we shall see from the further discoveries, they are all connected to vitamin-deficiency.



Cardiovascular disease is an early form of scurvy.

Vitamin C deficiency leads to a weakening of the arteries. Centuries ago, thousands of sailors died from vitamin deficiencies at a time when vitamins were unknown.

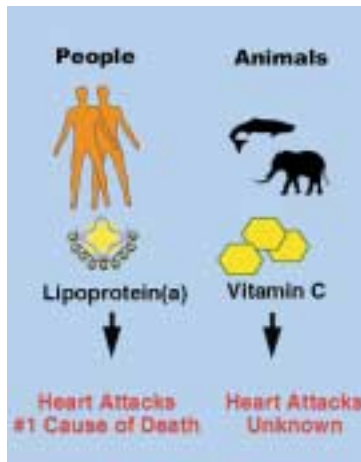
Today, vitamins are known and available for everyone. And yet, millions of people die from cardiovascular disease and other vitamin deficiency conditions.

Why Animals Don't Get Heart Attacks - But People Do

The next puzzle I solved was the question "Why do animals not get heart attacks?" The answer is: They produce their own vitamin C, sufficient for optimum collagen production and stability of their arteries. We humans cannot manufacture vitamin C and our ancestors through thousands of generations were prone to scurvy. Threatened by extinction, their bodies developed biological repair molecules to repair the artery walls weakened by vitamin deficiency.

The next discovery was identification of the most important mechanism; how our body repairs the artery walls. Among these repair molecules one is particularly efficient - lipoprotein(a). This molecule not only carries cholesterol and other fats as building blocks for new artery wall tissue, but it also has a biological adhesive tape wrapped around it that sticks inside the artery walls. Inside the artery walls, lipoprotein(a) binds to the most important clotting factor, fibrin, in order to counteract leakage of the artery wall and early scurvy.

The next question I answered was: "Why do the deposits in the artery wall develop, and eventually clog them?" With too little vitamin intake over many years, the artery wall becomes weaker and more and more repair becomes necessary. Eventually the repair efforts overshoot and the deposits develop. Thus, the deposits leading to heart attacks are no longer the result of fate. Their true nature has been revealed: Atherosclerotic deposits are Nature's plaster cast for an artery wall weakened by vitamin deficiency.

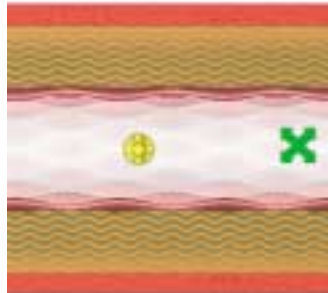


People
Lipoprotein(a)
↓
Heart Attacks #1 Cause of Death

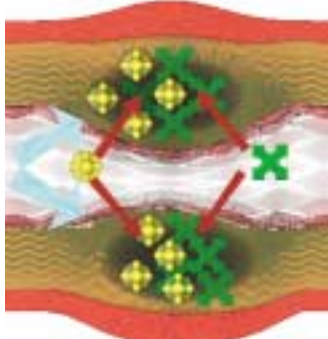
Animals
Vitamin C
↓
Heart Attacks Unknown

Animals don't get heart attacks because they produce their own vitamin C. We humans can not manufacture vitamin C and - instead - use repair molecules to mend the artery walls.

Lipoprotein(a) molecules (yellow) enter the blood vessel wall through the cracks and crevices that form in a vitamin deficient artery wall.



Inside the wall they bind to the clotting factor fibrin (green) and other clotting molecules. Over time this repair overshoots and atherosclerotic deposits form.



Atherosclerotic deposits are Nature's plaster cast for an artery wall weakened by vitamin deficiency.

Why Most Inborn Disorders Lead to Heart Disease

One of the most amazing discoveries I made is the answer to the question, why almost all congenital diseases - in one way or another - lead to a thickening of the artery wall. The answer is so logical that the question arises why has no one else thought about it before?

During thousands of years of the Ice Ages half of Europe and half of the North American continent were covered with glaciers. From skeletons we know that our ancestors lived in tundra regions. The irregular structure of these bones also tell us of the biggest problem for the survival of our ancestors: malnutrition. In areas of frozen soil there were few plants or other vitamin-rich nutrition.

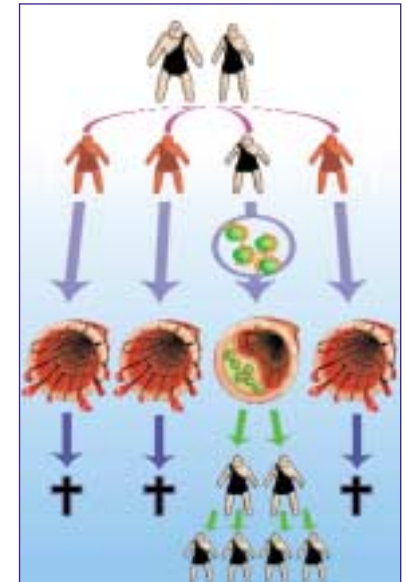
Unable to manufacture their own vitamin C, the lack of this vitamin in the diet of our ancestors was particularly detrimental. During the Ice Ages mass scurvy became the greatest threat to the survival of our ancestors - not just during one winter - but over hundreds of generations. Children of Ice Age families could only survive these harsh conditions to reach adulthood if they had inherited repair molecules. These repair molecules had to accomplish one task: to mend or thicken the artery walls during long periods of vitamin deficiency. Once these repair factors had appeared in one generation, they were passed on to all following generations in the genes. Today we call them "congenital diseases" and we now understand why most of them cause cardiovascular disease.



The last Ice Age lasted several tens of thousands of years. The sites of Chicago, New York and other regions of North America and Europe were covered with thick ice. Malnutrition became a major cause of death.

During thousands of years of the Ice Ages, most children died from scurvy and blood loss.

The only children to survive had inherited lipoprotein(a) or another repair molecule.



Winning the Battle Against Heart Disease

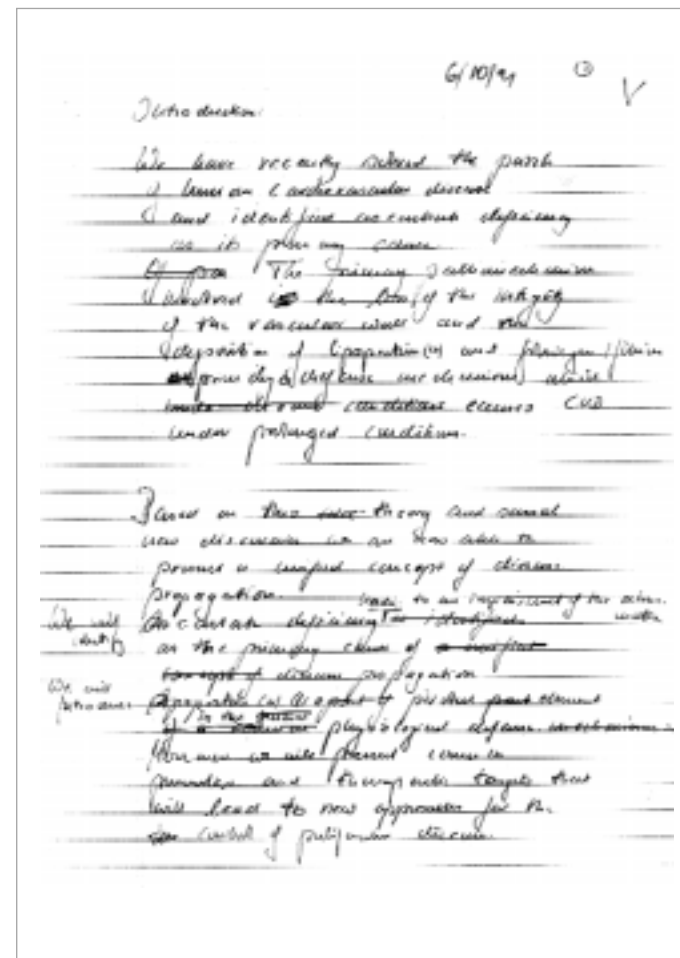
Every year 12 Million people die from heart attacks and strokes worldwide, and this number is increasing. Whenever a disease expands further it means that its true nature has not been understood.

The only country where cardiovascular disease has decreased over the last three decades is the United States. This decrease is exactly paralleled by a more than 5 fold increase in the average intake of vitamins and other essential nutrients. This obvious connection, however, is disputed by interest groups that want to maintain the "business with disease".

My two scientific publications "Solution to the Puzzle of Cardiovascular Disease" and "Unified Theory of Cardiovascular Disease Leading to the Abolition of this Disease" provide the foundation of a new understanding of heart disease that ends any speculation about its true nature as a vitamin deficiency condition.

Here are the cornerstones of this new understanding:

- The stability of the blood vessel wall - not the level of cholesterol in the blood - determines the development of this disease.
- Cholesterol is a risk factor only if the blood vessel wall is already weakened by vitamin deficiency. Bears and other hibernating animals producing their own vitamin C in optimum amounts do not develop cardiovascular disease even with blood cholesterol levels of 600 mg/dl and more.



A page from the first draft of my manuscript of the publication "Unified Theory of Cardiovascular Disease Leading to the Abolition of This Disease", dated June 10, 1991.

- Cardiovascular disease is caused by a deficiency of vitamins and other essential bio-energy factors in artery wall cells responsible for the integrity and stability of the blood vessel wall.
- The atherosclerotic deposit is identified as Nature's plaster cast for an artery wall weakened by vitamin deficiency.
- We now understand why most people get infarctions of the heart and in only a few cases infarctions of other organs.
- We now know that all metabolic risk factors for cardiovascular disease known in cardiology today are associated with vitamin deficiency.
- We also know that all congenital diseases leading to cardiovascular disease are associated with and aggravated by vitamin deficiency.
- We now understand why animals don't get heart attacks - but people do.
- We now know why cardiovascular disease increases dramatically after age 45.
- Optimum supply of vitamins to the cells of the blood vessel walls is the key for prevention of cardiovascular disease.



Fundamentally new discoveries that change the medical universe are rarely made in the laboratory. They are mostly made in an environment that stimulates creative thinking.

The Pacific Ocean near the small coastal town of Pescadero was my favorite location, and many of the discoveries summarized in this chapter were first conceived there.

The details of this medical breakthrough are explained in an illustrative and easy to understand manner in my book "The Heart".

Cellular Medicine

The next step in the series of medical breakthroughs was the most important one: The generalization of vitamin deficiency and lack of cellular bio-energy as the primary cause not only of atherosclerosis but of today's most common diseases.

The principles of Cellular Health are:

1. Health and disease are determined on the level of millions of cells which compose our body and its organs.
2. Vitamins and other essential nutrients are needed for thousands of biochemical reactions in each cell. Chronic deficiency of these vitamins and other essential nutrients is the most frequent cause of malfunction of millions of body cells and the primary cause of cardiovascular and other diseases.
3. Cardiovascular diseases are the most frequent diseases because cardiovascular cells consume vitamins and other essential nutrients at a high rate due to mechanical stress on the heart and the blood vessel wall from the heartbeat and the pulse wave.
4. Optimum dietary supplementation of vitamins and other essential nutrients is the key to prevention and effective treatment of cardiovascular disease, as well as other chronic health conditions.

Over the years studies were published that one or the other vitamin or mineral benefits patients with one or the other health condition. But these were like mosaics. The complete picture was not seen until the foundation of Cellular Health.

Never before in was deficiency of cellular energy described as the primary cause of an entire group of diseases, including high blood pressure, heart failure, diabetic circulatory problems, and others. The application of this knowledge in daily medical practice will help millions of people and greatly reduce these diseases.



Vitamins and other essential nutrients are required as bio-energy molecules or cell fuel for the proper function of cells - irrespective of the type of cell and the organ it belongs to. The blue cellular power plants (mitochondria) are the sites where vitamins are needed for cellular energy production.

My recommendation for patients with any form of cardiovascular disease: Take this book to your doctor. Start as soon as possible on a well defined vitamin program. Inform your doctor about it. Take the vitamins in addition to your prescription medication and do not discontinue or change any of this medication without the advice of your doctor. Above all, start soon to take advantage of this knowledge.

How it all started

Matthews Roth and Linus Pauling



"My dear Kepler, what do you say of the leading philosophers here to whom I have offered a thousand times of my own accord to show my studies, but who, with the lazy obstinacy of a serpent who has eaten his fill, have never consented to look at the planets, or moon, or telescope?"

Galileo Galilei in a letter to Johannes Kepler, who had discovered that the earth circles the sun and not vice versa (1630 A.D.)

How I got interested in cardiovascular research

During my last year in medical school my father had died from a heart attack. There was nothing anyone could do about it. This situation left me with the strong desire to dedicate some of my time as a medical doctor to cardiovascular research. It is the dream of every researcher to help prevent cardiovascular disease more efficiently and perhaps control this disease. Little did I know at that time that I would one day have the privilege to solve the puzzle of cardiovascular disease - thereby helping to save million of lives.

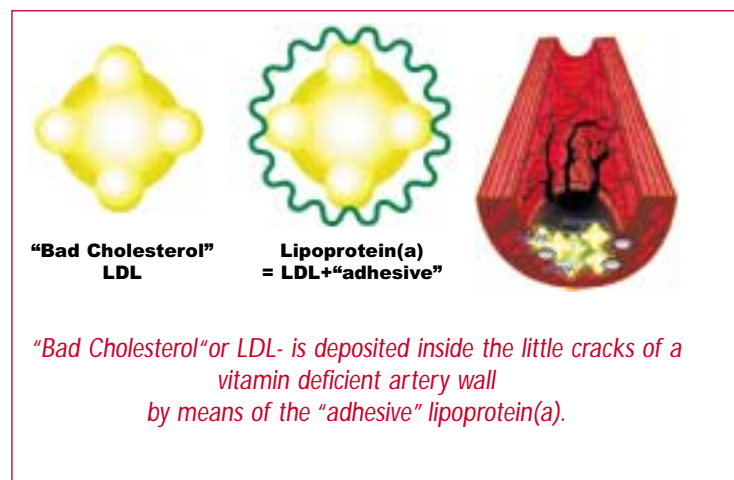
It was Linus Pauling who had told me in the early eighties that "If you want to be a good doctor you need to do research first." I followed that advice and immediately after graduation went into a research project sponsored by the German Research Foundation at the medical clinic of Hamburg University. The goal of this research project was to identify the ways by which cholesterol and other fat particles get stuck inside the blood vessel wall. The mid eighties were the heydays of cholesterol-lowering drugs and accordingly the focus of the international research community was on "bad cholesterol", or LDL, being the main factors that cause atherosclerotic plaques and eventually heart attacks and strokes.

Rather than following this conventional research I was intrigued by lipoprotein(a), a new risk factor - like "adhesive". Our own studies involving more than ten thousand research data and measurements left no doubt that, in order for the "bad cholesterol" to stick inside the blood vessel wall, it needs the biological adhesive lipoprotein(a). The results established together with my colleagues were an important

milestone towards the understanding about the nature of cardiovascular disease. What we found was that everywhere cholesterol was deposited in the blood vessel wall there was the biological adhesive tape apo(a). It was clear that the deposits were not dependent on the amount of cholesterol but on the amount of "adhesive" present in the body. At that point we did not know that this, also, would only be the partial truth and that heart attacks and strokes would turn out to be primarily the result of vitamin deficiencies.

These discoveries on the "sticky cholesterol" lipoprotein(a) were so new, that the American Heart Association (AHA) did not accept the presentation of these data at their annual convention in 1988. They simply did not believe it. It was not until one year later that the AHA invited me to give a presentation at their annual convention in Anaheim in November 1998. At the same time the AHA accepted these findings in their official journal *Arteriosclerosis*.

Lipoprotein(a) turned out to be a ten times greater risk factor than cholesterol. More importantly, no drugs, not even cholesterol-lowering drugs were able to lower this risk factor in the blood. But by far the most intriguing question about this



new risk factor for heart attacks and strokes was the fact that it was only found in humans - but rarely in other living species.

It was back in 1987 when I made the following decisive discovery that should change medicine forever: The sticky risk factor lipoprotein(a) was only found in humans and other species that had lost the ability to manufacture their own vitamin C. Apparently, there was an inverse relationship between the lipoprotein(a) molecule and the deficiency in vitamin C. I immediately started to do experiments on vitamin C and lipoprotein(a) and later conducted a clinical pilot study where vitamin C was shown to lower elevated lipoprotein(a) levels.

Imagine the year 1987. Vitamin C was considered quackery and no reputable medical institution was even willing to consider conducting clinical studies with vitamins. The knowledge about vitamin C as a carrier of cellular bio-energy was entirely lost in the medical education, and patentable pharmaceutical drugs were considered the only form of acceptable medicine. I introduced my discoveries about the lipoprotein(a) - vitamin C connection to prominent researchers, among them Nobel Laureate Michael Brown from Southwestern Medical School in Dallas. They all rejected my discovery as a crazy idea. But I did not give up.

How I came to work with Linus Pauling

I had known Linus Pauling from the times when I was a medical student. I first met him at a conference on the island of Mainau in Southern Germany. At this conference young scientists had the opportunity to meet with Nobel Laureates. Later I met Linus again during the Nuclear Freeze movement and in 1983 I was accompanying him on a lecture tour, where he also talked about his Nobel Peace Prize for helping to bring about the atmospheric nuclear test ban treaty. I continued to see Linus several times during the 1980s but none of the meetings was as crucial as the one at his ranch in Big Sur in late autumn of 1989.

The last two weeks in October that year I made a lecture tour through the United States, presenting the work on athero-



Linus Pauling's ranch on the shores of the Pacific Ocean

sclerosis and new risk factor lipoprotein(a) that had just been published in *Arteriosclerosis*, the journal of the American Heart Association. I had been invited to present this exciting research at the Metabolic Disease branch of the National Institutes of Health in Bethesda, at the Medical School of the University of Chicago, at the Baylor College of Medicine in Houston, the Arteriosclerosis Research Department at the University of California in La Jolla and at Genentech, the famous biotech company in San Francisco. The lipoprotein(a) story was “hot news” at those ivory league research centers but any connection to vitamin metabolism was ignored.

On the last weekend that October I had arranged a visit with Linus Pauling at his ranch in Big Sur. I had sent a copy of my publications and some supporting materials to his institute - but they had never reached him. On that Saturday I drove from San Francisco - where I had given a lecture at Genentech on Friday - to Big Sur. It was a beautiful 4 hour drive South on scenic Highway 1 along the Pacific coast. I had visited Linus at his ranch before, but this time - I knew - would be different.

After passing the cattle gates on the small windy road from Highway 1 down to his ranch, I finally reached the wooden ranch house that Linus had chosen as his refuge for the last decades of his life. The door of his house was never locked and I entered, making my way through mountains of scientific journals that had piled up over many years along the hallway connecting the entrance with the living room. Linus was sitting in a wire chair that apparently had survived several decades. The living room looked like the epicenter of a continuous scientific whirlwind. There were books, scientific articles and handwritten notes lying around about one of the unsolved puzzles in physics, the atomic structure of quasi crystals. Linus had been working for the past months identi-

fying these structures - using only his mind and a calculator.

Linus had not noticed me coming in. When he did he jumped up “Hello Matthias, good to see you. I understand that today we are talking about your scientific work. I am glad you became a researcher.” With that he moved his chair to the balcony window and offered me the chair opposite him. I



*The two-time Nobel laureate at age 90
in front of his house in Big Sur*

started to talk with Linus about the new risk factors lipoprotein(a) and about my discovery that this molecule only appears in humans and other species that had lost the ability to manufacture their own vitamin C. I immediately came to the point: “Linus there is an obvious connection between lipoprotein(a) and a lack of vitamin C that no one had seen before.” With the waves of the Pacific Ocean smashing against the rocks below, Linus listened and asked questions. He had never heard of lipoprotein(a) before. After about an hour he stood up and said: “Well there are about a thousand

papers on vitamin C each year, what is really new about this?"

It was one of these typical tests by which the eminent scientist who had seen a century in science tested the young scientist about how convinced he was about his own discoveries. Of course I was! I replied: "Linus I would like to make a suggestion, I'll leave these papers here for you to read and I will stay overnight in the Ragged Point Inn. I will come back tomorrow and we can talk some more." I had passed Linus' test and he replied smiling: "Very well." I drove back to Highway 1, convinced that the next day I would know from the brightest scientist alive whether my observations are only coincidence or whether it is a principle of nature

The Ragged Point Inn Motel is several miles south of Linus' ranch directly above the pacific. I stayed there in room No. 11 on the ground floor reading and working late into the night to prepare myself further for next morning's discussion. I knew that the amino acid lysine would possibly block the lipoprotein(a) fat particles from being laid down inside the artery walls. I drew figures, about how the combination of lysine with vitamin C could modify these lysine molecules to hydroxy-lysine possibly preventing blood vessel deposits, heart attacks and strokes.

For California the next morning was the beginning of another beautiful late autumn day. For mankind it was a historic day - the beginning of the end of the cardiovascular epidemic. When I reached Linus' ranch at nine o'clock he was already waiting for me. He jumped up from his chair and welcomed me with excitement. "I read your stuff and it is pretty interesting", he said trying to appear controlled. However, there was no way he could hide his excitement. We talked for another three hours, during which I introduced Linus to the possible therapeutic value of vitamin C in combination with lysine not only to prevent the deposition of this dangerous fat

particle inside the artery walls but also to reverse cardiovascular diseases naturally - by releasing lipoprotein(a) from these deposits.

Linus agreed but he seemed to be more fascinated with the evolutionary connection, the loss of vitamin C production in the ancestor of man and the sudden appearance of lipopro-



*The Linus Pauling Institute
on 440 Page Mill Road in Palo Alto in 1990.
The building was torn down in 1998.*

tein(a) a few hundred thousand generations ago. "Isn't it amazing that this particle popped up in such a short time during evolution" he asked. I realized that Linus looked at scientific problems in a fundamentally different way than all the other scientists I had met. The bandwidth of his brain covered millions of years in evolution as easily as the atomic structure of atoms no one had ever seen.

I felt pretty proud of having excited this scientific giant with my discoveries. This Sunday morning ended in small talk with Linus asking me about continuing my research in

California and even explaining to me the size of his property and the possibility to build one or two more houses on that property. I did not immediately understand the reason why he brought this matter up until much later. He was a scientist buried alive with his life's work on vitamins. He had just met a young scientist with whom he not only shared his views for a better world, but now also a common scientific drive to get the health benefits for vitamins accepted on a worldwide scale.

We parted, with Linus stating: "Matthias this is a very important discovery. But I don't think I should get more involved in this than just talking to you." Apparently, Linus felt he had not contributed to this discovery and that he should rather continue his current research in physics. For me this was all I needed to hear, a confirmation of my discovery as a principle of nature by the two-time Nobel laureate. I literally jumped in my rental car and drove the eight hours South on Highway 1 until I reached San Diego that night. The next day I would have a presentation at the cardiovascular research department of the University of La Jolla. But this was today - my day! I remember honking at cows, seals and just about any other creature that crossed my way South that sunny October afternoon.

Four days later I was back in Berlin, Germany, and another two days later I received a letter from Linus Pauling. He had given up his portrayed indifference and given way to open enthusiasm. He proposed to immediately write a scientific publication for the Proceedings of the National Academy of Science about the connection between lipoprotein(a) and vitamin C deficiency. More importantly he invited me to join his institute, start a cardiovascular research group and become his personal collaborator.

Of course, Linus did not escape the dreadful state of affairs

at his institute at that time. In his letter I found the sentence "I even think we have a ultracentrifuge at the institute." The availability of an ultracentrifuge, of course, was just about the minimum equipment for any reputable research laboratory. I knew, the research possibilities at Linus' institute would be very limited.

I slept over this gracious invitation for a night and the next day I called Linus. I thanked him for the invitation but turned it down. I had decided to continue this research project at the Baylor College of Medicine in Houston, one of the ivory league medical institutions in the country. My explanation to Linus was straight forward: "Linus, if I come to work with you on vitamin C it is like all Catholics moving to the Vatican. I want to take vitamin research into established medicine in order to accelerate its acceptance for mainstream medicine." After a long pause, Linus responded noticeably disappointed and somehow tired: "Very well." I had made my decision at that time.

Little did I know that this decision would not last more than 6 weeks. After a short interlude at the Baylor College of Medicine in January 1990 my fascination to become the personal collaborator of a two-time Nobel Laureate was overwhelming. I packed my suitcases and moved from Houston to Palo Alto.

Working at the Linus Pauling Institute

I remember the day in early 1990 when I drove into Palo Alto on Page Mill Road having just dismantled my tents in Houston. I was full of ideas, plans determination to swiftly confirm this principle of nature at the experimental level at the Pauling Institute.

At 440 Page Mill Road I stopped my car. This was the Linus Pauling Institute where I had been several times before meeting with Linus during my student times. This time it was different. Here would be my new workplace and one of the greatest rides in the history of medical science was waiting for me. I was excited.

Besides Linus, no one knew about the forthcoming scientific earthquake and the sequence of explosion that would detonate at this rather uneventful institute. In order to cover the true nature of this discovery and to protect it from curious colleagues, Linus and I agreed on code language about this project. Even the lecture I had given in early January to the employees of the Pauling Institute had been on the lipoprotein(a) work alone - without mentioning any connection to vitamin C which of course was the truly exciting part of it.

The next morning Linus and I met with the President of the Linus Pauling Institute. Linus addressed him directly: "I want everyone at the institute to know that Matthias is my personal protégé." Later I realized that the two-time Nobel Laureate had made this statement not only based on his friendship and common scientific interests with me but also because he was aware that his institute had become a minefield.

For two decades the Pauling Institute had been in existence

but had lost its profile of being a vitamin research institute. Only one out of ten researchers even worked on vitamin C and millions of dollars in donations from around the world



Colleagues from the Linus Pauling Institute at the Nobel laureate's 90th birthday in 1991. Several of them later joined Dr. Rath's research firm and work with him until today. Among them Dr. Alexandra Niedzwiecki (beside Linus Pauling) and Martha Best (same row far left). At the center of the bottom row is Dorothy Munro, Linus Pauling's secretary during two decades..

were wasted for research not even remotely related to documenting the health benefits of vitamins. Linus' last book "How to live longer and feel better" listed two hundred supporting references but less than a handful came from his own institute! Clearly, the Nobel Laureate had entrusted his institute into the hands of people who were shy of leading the battle for the acceptance of vitamins for health! Tens of thousands of readers of Linus Pauling's books connected his name with ongoing vitamin research, but the administration of his institute was ashamed of controversies and taking up the good fight for natural health.

In this situation, Linus at age 90, had obviously realized what could be his last opportunity to find a young and enthusiastic researcher to carry on his life's work. However, his announcement of me as his personal protégé could not have been more threatening to the existing leadership of the Linus Pauling Institute. And I should soon feel the consequences. Instead of getting a decent work place with a desk and chair I was allocated the corner seat in the windowless storage area of the Pauling Institute. My request to the institute's administration for a research assistant who could help in laboratory was met with the argument that the institute does not have money. Not willing to give up, I trained the janitor to run the electrophoresis experiments in the laboratory so I could concentrate on elaborating the details of this medical breakthrough. Weeks, perhaps months were lost and it was not until a year later that I finally got a qualified research assistant.

Key experiments for the medical breakthrough

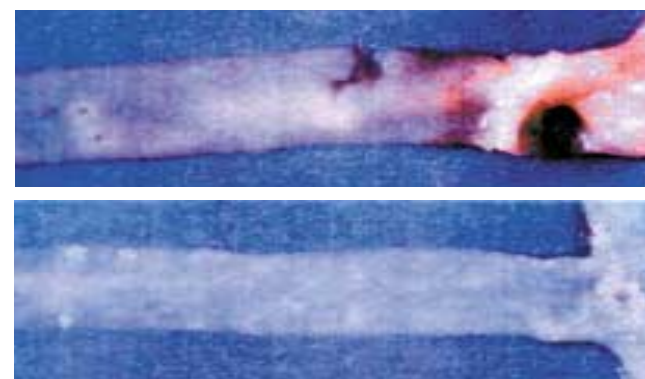
Well the scientific concept of the vitamin C- lipoprotein(a) connection had already been made. The door was wide open but I needed more scientific proof. But I was not to be deterred. I set up a study with guinea pigs, an animal model that shares the same genetic defect as human beings. They cannot produce their own vitamin C. The experiment was straight forward. My theory was that guinea pigs develop arteriosclerotic deposits once they are put on a vitamin C deficient diet. Moreover, by analyzing the deposit in the artery walls we would find the sticky lipoprotein(a) fat molecules.

The significance of this key experiment for the lives and health of millions of people could not be underestimated. This experiment would allow the conclusion, that a similar

mechanism takes place in the human body. The lack of vitamin C would weaken the blood vessel walls similar to scurvy, the sailor's disease and subsequently lipoprotein(a), cholesterol and other risk factors in the blood would be deposited inside the artery walls in a desperate effort to mend this wall. That would prove that the fatty deposits in the arteries are no longer a coincidence or just 'fate', but that cardiovascular diseases develop as an inevitable response of our body to repair the blood vessel walls weakened by vitamin deficiency.

The moment of truth

This key experiment was carried out over five weeks, one of the longest five weeks in my life. Of course, animal experiments have to be kept to absolute minimum, but since this experiment would have meaning for health and lives of millions of people it had been approved by the animal care committee of the institute. I still remember the day when the



Top: Guinea pigs receiving too little vitamin C in the diet develop cardiovascular disease

Bottom: Guinea pigs receiving optimum vitamin C have clean arteries

experiment was over and I looked at the artery walls of the guinea pigs under the microscope. The guinea pigs were receiving vitamin C comparable to the human RDA had developed the same deposits in the artery walls that caused heart attacks and strokes in human beings. Those animals that had received two teaspoons full of vitamin C per day, comparable to the human body weight, had maintained clean arteries. Most importantly, this striking difference was not obtained by *adding* cholesterol or fat to the diet but by *omitting* one single factor from the diet /Vitamin C.

That day I felt like Columbus must have felt at the first sight of land in 1492 - after years of struggle and overcoming adversities. I went to Dorothy Munroe, the secretary of 17 years to Linus Pauling and asked her where I could reach Linus to share the exciting news with him. She noticed my excitement and said: "Go right in, he is in his office". I didn't even care to close the door behind me and shouted: "Linus, you got to come and see this!"

He had been dictating letters and correspondence in his typical posture half lying in his chair with his feet on the desk and his black beret drawn deep over his eyes in order to dim the neon light of his office. He literally jumped up adjusted his beret and walked with me to the room where the guinea pig arteries were placed under the microscope. The visibly documented results left no doubt: Optimal amount of vitamin C was the solution to the cardiovascular epidemic.

After looking through the microscope for a few minutes, Linus rose, turned around and beamed at me: "I am happy as a clam". He took me by the arm and we went to his office to immediately discuss the next steps as well as the implications for human health.

That evening, when I drove home along El Camino Real from

Palo Alto to Menlo Park I knew that medicine would never again be the same. Thoughts were appearing like flashes in my mind and a breathtaking perspective was opening up. I saw people around the world embracing this discovery and researchers tuning in to further confirm them at all levels. I imagined the morning news opening up with the headline: "Heart disease close to eradication". I could see a new research institute rising into the sky. How could I know that the fight for the acceptance of this simple truth had just began and years of fierce battles lay ahead of me.

Irritation Everywhere

The first reactions to this medical breakthrough, the publications and the lipoprotein(a)/vitamin C connection were sheer irritation. Imagine the times in 1991. The world was in full swing on the cholesterol/heart disease connection. Every major pharmaceutical company had invested multi-million dollar advertising budgets for new cholesterol-lowering drugs in the hope of capitalizing on the illusion of combating heart disease by lowering cholesterol. Only the top one percent of the research community had even heard about lipoprotein(a) and accepted the fact that it is a ten times greater risk factor for heart disease than cholesterol.

And now, along comes a young German scientist publishing the outrageous conclusion that this prominent risk factor, lipoprotein(a), can be successfully neutralized by optimum intake of vitamin C. Moreover, with a flash of his scientific mind he shook almost every scientific explanation for heart disease that had existed since the beginning of time. To top it off, for these bold conclusions he got the support of Linus Pauling, the only scientist ever to receive two unshared Nobel Prizes.

Only during the times of Harvey, Pasteur, and a few others, had the medical world been as challenged as it was during the year 1990-91.

Both Linus and I were fully aware of the significance of these discoveries. Before one of the inevitable business negotiations Linus said: "I can't give you any specific advice. You have to use your own judgment. But no matter what happens, never forget that your discovery is one of the most important discoveries in medicine ever." Even more surprising was the fact that a public debate about this breakthrough essentially did not take place. Only later would I understand the reason why.

The business with disease maintained by the pharmaceutical industry was the most lucrative business on our planet. The single largest market segment of this "business with disease" was the global market of pharmaceutical drugs alleviating the symptoms of cardiovascular disease without curing it. A public debate in mass media about the vitamin C/scurvy/heart disease connection would have decimated this business within months and meant that the pharmaceutical industry would lose hundreds of millions of dollars. This was not to be.

Instead, the reactions at this time were a mixture of astonishment, irritation, and desperate efforts to contain the bush fire started by this medical breakthrough. As we shall see throughout this book, it was a mixture of containing the spread of the message that the medical world is round and not a plate, combined with economic greed of stratospheric proportions.

Of course, it was clear that neither the pharmaceutical industry nor any of the scientists or doctors on their payroll would be able to publicly contradict the logic of this medical breakthrough. Ever since James Lind showed that lime and lemon juice prevent scurvy it was clear that vitamin C would stabilize the artery wall and therefore also protect it against the damages associated with cardiovascular disease. It was the power of this logic that had the multi-billion dollar pharma-

ceutical "strato-dwellers" shaking in their boots.

Every strategic move they planned during those years was only viable under one condition: it would have to make sure that the information about this medical breakthrough would be contained and no public education about the possibility of eradicating heart disease with vitamins could be spread. Since my discovery was a global threat to the "Business with Disease", the pharmaceutical companies reacted in a global way.

They formed two cartels, one became infamous as the so-called "vitamin cartel," an effort by the manufacturers of vitamin raw materials to participate in this medical breakthrough through criminal price fixing practices. The other became known as the "Pharma-Cartel", an effort by the pharmaceutical industry to limit health claims and the dissemination of any preventive and therapeutic health information on vitamins and other non-patentable natural therapies. The common denominator of these two cartels was that none of them required the release of the medical breakthrough about the role of vitamins in prevention of heart disease, information that hundreds of millions of people were waiting for because it could have saved or prolonged their lives.

As an expression of the erratic behavior of the leading scientists and pharmaceutical companies, I would like to share some of the moments during that year that tell more than any historic analysis the revolution that was going through medicine.

"Cholesterol-popes" and shattered dogma

In 1985 Goldstein and Brown, two researchers from the University of Texas, received the Nobel Prize for discovering a pathway by which cholesterol enters the cells. While this discovery was significant, the Nobel Prize for these two gentlemen was sold by the pharmaceutical companies that manufactured cholesterol-lowering drugs as the final proof for their questionable theory that cholesterol would cause heart disease. Of course, these two researchers were not independent, but had rather lucrative consulting arrangements with a number of pharmaceutical companies, among them Genentech in South San Francisco.

Our first paper about the lipoprotein(a)/vitamin C connection had just been published by the National Academy of Sciences, in May 1990. Shortly thereafter there was a meeting of scientific advisors for Genentech, at which Goldstein and Brown participated. According to eyewitnesses, the two gentlemen had not even sat down when they started to ask everyone in the room whether they had read the Rath/Pauling paper on lipoprotein(a) and vitamin C. For the two scientific gurus who had been the architects of the Babylonian tower of the cholesterol/heart disease connection, this very tower had just experienced a 10.0 earthquake.

Linus and I had great fun thinking about the event at which one of us would first detonate the bomb in person. It is always one thing that a scientific discovery is put down in formal scientific publication, and the other when the discoverer first appears to present it in person. I had a standing invitation to an arteriosclerosis meeting in Venice, Italy in August, 1990. Nearly the entire cream of medical researchers and medical opinion leaders in the area of cholesterol and heart disease were present. Among them were Daniel Steinberg from the University of California in La Jolla

and Toni Gotto, the former president of the American Heart Association, from the Baylor College of Medicine in Houston, Texas.

My talk was on the role of antioxidants in the prevention of cardiovascular disease, and at the end of this talk I mentioned in a few sentences the discovery about lipoprotein(a), vitamin C deficiency and heart disease. During the lunch hour I distributed copies of the publication from the Proceedings of the National Academy of Sciences. From that moment on, the conference was not the same. The mood changed to that of a funeral, and Toni Gotto summarized the mood in his presentation, as follows: "If Rath and Pauling are correct, then everything is different anyway, and of course we have been corrected!" In hindsight the former president of the AMA may have regretted that statement, but at the time it was a genuine expression of the fact that the medical universe had just been redesigned.

Even within the Linus Pauling Institute the irritation about this medical breakthrough was noticeable. It did not go unnoticed that Linus Pauling was supporting these far-reaching conclusions. Yet, for the researchers and the leadership of the Linus Pauling Institute at that time, bold conclusions like the solution to the puzzle of cardiovascular disease were unheard of. I remember that some of the researchers from other groups wanted to join me in the quest to eradicate heart disease. They were held back by their colleagues, who stated that these publications were just too bold. "If you work with Dr. Rath you will ruin your career." Of course, today we know that none of that was true, and those who joined me in this quest to eradicate heart disease have the ride of their lives.

One of the most remarkable events surrounded the publication of our scientific papers in the *Proceedings of the National*

Academy of Sciences. This scientific journal is unique because it is a rather exclusive circle of authors who are allowed to publish there. Members of the Academy may contribute a certain number of papers each year. They themselves are the reviewers for publications to be submitted. There was an unspoken arrangement between Linus and me that I would write the papers and he would submit them for publication in this prestigious journal.

The first two publications were published without any major obstacles. The problems started with the third one. For this groundbreaking publication I had suggested the rather unpretentious title, "Solution to the puzzle of human cardiovascular disease: its primary cause is ascorbate deficiency leading to a deposition of lipoprotein(a) and fibrin/fibrinogen in the vascular wall." Linus Pauling submitted this publication to the Academy of Science. The editor in chief replied that he would publish it if we would agree to some minor changes. We did. However, suddenly the editor in chief of PNAS changed his mind. Against all rules of the academy, he decided to send the manuscript submitted by Linus Pauling to reviewers. They rejected the publication of this landmark paper with the argument: "Since there is no puzzle of cardiovascular disease, there can be no solution to this puzzle."

I remember talking with Linus about this open act of censorship. We agreed that we should not allow ourselves to be drawn on the chessboard of special interest groups and members of the Academy of Sciences who served those interests.

We decided to immediately publish this landmark publication in the *Journal of Orthomolecular Medicine*. I could not resist adding in the foreword the quotation from a letter from Kepler to Galilei: "My dear Kepler, what do you say of the leading philosophers here to whom I have offered a thousand times

of my own accord to show my studies, but who, with the lazy obstinacy of a serpent who has eaten his fill, have never consented to look at the planets, or moon, or telescope? Verily, just as serpents close their ears, so do men close their eyes to the light of truth."

I also wrote a short introduction to this publication, essentially telling about the censorship at PNAS to everyone who would hold this historic publication in his/her hands. Never again should it be forgotten that there are interest groups so powerful that they can block publication of the truth. A truth that in this case was so important that it could have saved the lives of millions of people in the meantime.

I remember talking with Linus about this censorship, and said to him: "One day those people responsible for the rejection of this publication will be tracked down by scientific historians. I would not want to be in their shoes. They share the responsibility for unnecessary suffering and premature death of thousands, perhaps millions, of people." Linus agreed.

During all those months neither Linus nor I ever doubted that we were writing history. Our only question was how long it would take until the whole world would know and benefit from this medical breakthrough.

In the next chapter of this book I shall summarize the milestones of this process over the last ten years. In the subsequent chapter I shall focus on overcoming the obstacles placed in my way to accomplishing this global perception change in the area of natural health. These two chapters gave this book the title, "Ten Years That Changed Medicine Forever."

Milestones

of the Medical Breakthrough

THE GOAL OF ELIMINATING
HEART DISEASE AS THE
MAJOR CAUSE OF DEATH
AND DISABILITY IS

NOW IN SIGHT!

Matthews Roth and Linus Pauling

"Today it may seem difficult to understand why it was so hard for physicians to accept the role of germs as the cause of infectious diseases.

Perhaps they found it impossible to conceive of the idea that profound alterations of organs of our body could be due to living creatures as small as bacteria."

*Patrice Debre,
Biography of Louis Pasteur*

Scientific Earthquake

To fully comprehend the significance of this medical breakthrough for worldwide human health we simply go back a decade. When I came to America in late 1989 with the discovery in my suitcase that would eventually eliminate heart disease as the number one cause of death, vitamins were by no means accepted. To the contrary, they were ridiculed by the medical profession and considered a commodity by most people. The health benefits of vitamins in the prevention of cardiovascular disease and most other common diseases were neither scientifically established nor known to the public or patients.

Of course, that was no coincidence. Over more than a century the pharmaceutical industry had systematically worked to discredit vitamins and other non-patentable therapies in order to establish their global market of patentable prescription drugs. They had infiltrated not only the medical schools, but also regulatory agencies like the Food and Drug Administration (FDA) to eliminate competition from medical use of vitamins and other natural health therapies.

Vitamin products could not be sold with any reasonable health information associated with it. A health food manufacturer who ignored these strict laws did so at his own risk, and also at his own peril. Spreading health information associated with multi vitamin products was considered a criminal act because - in the eyes of the law - this constituted the "criminal act" of selling an unlicensed drug.

Of course, these laws had not been made in the interests of hundreds of millions of Americans and abroad, but to serve the interest groups that had built up the pharmaceutical

industry as an investment. To maintain their grip on the lawmakers, the pharmaceutical companies built up an army of lobbyists and spent billions of dollars for political "donations." In fact, the number of lobbyists in Washington surpassed the legal PR efforts of any other industry. For every Senator and Representative in Congress there were two lobbyists paid by the pharmaceutical industry and working tirelessly around the clock to influence legislation according to the specifications of the drug companies.

The health food stores and the manufacturers of vitamin and natural health products had largely surrendered. No vitamin company would put out a product showing information about any life-saving health benefits of vitamins because they risked not only having to pull back the product, but also facing penalties under the existing laws. Worse, since you could not use any health information relating to vitamins, vitamin companies spent insignificant amounts of money to document the health benefits of vitamins and other natural health products through research or clinical studies.

The 20th century will be known as the dark ages of medicine. Under the influence of the pharmaceutical industry, mankind's knowledge about the life saving health benefits of vitamins, minerals, amino acids, and other basic components of the metabolism of every cell in our body had been censored, ostracized, discredited and even criminalized.

As a direct result, hundreds of millions of people worldwide died from health problems that are not diseases, they are the result of vitamin deficiencies, and therefore preventable. How could these millions of people know if no one told them? How could they know if patients and doctors alike were systematically disoriented and threatened by global media campaigns organized by the PR firms of the pharmaceutical companies to discredit the health benefits of vitamins and spread lies about totally unproven health risks?

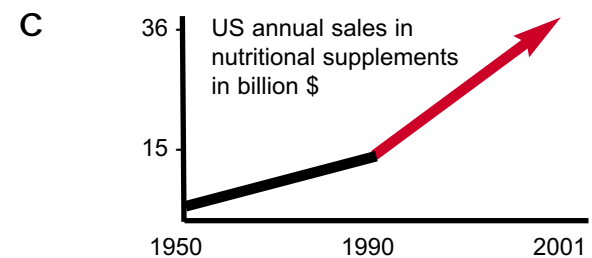
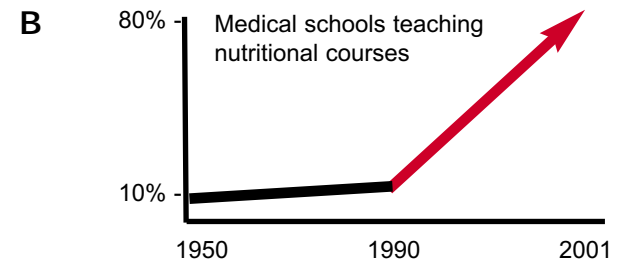
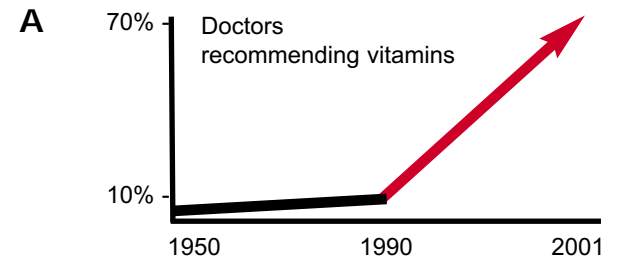
That was the state of affairs when I came to America with the discovery that heart disease could eventually be eradicated forever by simple knowledge about the health benefits of vitamins and other essential nutrients. With this background we also begin to appreciate the accomplishments over the last decades and the milestones achieved on this way. They will be summarized on the following pages.

When writing this report I do not, by any means, want to leave the impression that without Dr. Rath we would still live in the medieval times of medicine, as we found them at the end of the 1980's. To the contrary, many have contributed to implementing the changes towards liberating human health that have occurred over the last ten years.

But the fact remains that without my discoveries in the area of vitamins and cardiovascular health, without the foundation of cellular medicine, and without the determination to defend all these against the powerful interests of the pharmaceutical industry, few, if any, of the following changes in medicine and and improvements in global health would have happened:

- Vitamins and other essential nutrients have become part of established medicine. Two out of three doctors in America and Europe are already using vitamins and other natural health remedies in their daily practices. Ten years ago one out of ten used natural therapies
- In the year 2001 more than 80% of all medical schools in the United States have integrated courses on nutritional medicine, among them Harvard, Stanford, Johns Hopkins and Tufts. Before the publication of my discoveries 10 years ago less than 5% of the medical institutions offered such courses.

The Natural Health Revolution Between 1990 and 2000



US 1990 to 2000 changes in the percentage of
 A. Doctors recommending vitamins;
 B. Medical schools teaching nutritional courses;
 C. Annual sales in nutritional supplements.

- In 1994 the National Institutes of Health in Bethesda established an “Office of Alternative Medicine.” Among other things, this department provides government grants for vitamin studies nationwide. Nothing like that had ever happened before in the century old history of this institution.
- Over the last ten years the U.S. vitamin market more than doubled, from \$15 billion in annual sales to \$36 billion. In Europe the percentage of people regularly taking vitamins increased during that time from less than five percent to more than 20 percent.
- The public perception of vitamins changed from being commodities with unclear health benefits to these natural compounds becoming a sales pitch for just about any consumer product, from soaps to shampoos. In Europe, the French car manufacturer Citroen has been selling its convertibles with the PR slogan “vitamin C” - apparently for Citroen.
- Around the world millions of people who had been taking vitamins without knowing the health benefits of the products are now making informed decisions. They can select multi vitamin programs that address their individual needs.

In summary, during the last ten years of the 20th century, one of the greatest ever revolutions occurred in medicine and health care. There may still be some die-hard skeptics out there who think these statistical facts are simply coincidence. Well, these are probably the people who also believe in Santa Clause.

The fact remains that driven by scientific breakthroughs in the area of natural health, mankind was able to tear apart the

"iron curtain" covering up the health benefits of vitamins in the interest the pharmaceutical “business with disease”.

This silent revolution in medicine and health care that has been taking place over the last decade has already saved millions of lives.

In the next section of my book I will share the milestones that have been achieved during this decade, allowing this process to go forward.

The Milestones

Scientific breakthrough

The first milestone was the discovery of the lipoprotein(a)/vitamin C deficiency connection outlined in the earlier chapters of this book. In essence, this one molecule lipoprotein(a), triggered my scientific interest and led to all subsequent events. By some good fortune, I had known Linus Pauling and his work on vitamin C even before I knew lipoprotein(a), and years before I was privileged to discover the close association between these two molecules.

An important part of this milestone was also the fact that Linus Pauling put his reputation as a two-time Nobel Laureate behind my discovery and offered me the opportunity to continue working on this important discovery at his institute. Without Linus Pauling, my discoveries would not have received the attention and the initial push that is so important for every major change in history.

In one of our last conversations before his death in August, 1994, Linus and I talked about how history would see his role in relation to vitamins and natural health. I said: "Linus, you will be credited for three things: First, to have held up the banner of health benefits of vitamins for 20 years, during which time vitamins had been demonized by the pharmaceutical industry. Second, for having invited me to join you at your institute, based on my discoveries in the area of cardiovascular health and vitamins. Third, for having given this discovery your personal support and your personal heritage to mankind in the field of human health." Linus agreed.

Early on he had seen that the the vitamin C deficiency /

scurvy/ heart disease connection would eventually integrate with his 20-year struggle for recognition of vitamins and his interests in the area of vitamin C and the common cold and vitamin C and cancer.

MILESTONE:

Informing the Medical Community

The next milestone was the vigorous effort to spread this medical breakthrough to the medical and scientific communities.

Why the Chief Cardiologist of Harvard Had to Go

- I recall sending copies of my papers to the leading scientists and doctors in the field of cardiovascular research. While all of them understood it and knew that I was right, only one dared to answer in a constructive manner. Valentin Fuster, at that time head of cardiology at Harvard Medical School, wrote to me: "You might be quite correct in the prediction of the health benefits of vitamins." This letter also announced his own research interest in this field.

The fact that I published the letter of Dr. Fuster as a first indication of support from medical opinion leaders did not help his career. He was soon ousted from his position at Harvard Medical School for "political reasons".

Dr. Fuster's research has become a "silent support" of the cardiovascular disease mechanisms described in my papers - without openly referring to the benefits of vita-



mins. For example he is supporting the new definition of the deposits in the artery wall as a “plaster cast” for a weakened artery wall. However, despite knowing better, he avoids addressing the most important question of all: What is the primary cause of weak arteries? Everyone knows it anyway: Vitamin deficiency.

Amazingly, in the meantime Dr. Fuster has written a two-volume manual on “Atherosclerosis”, the standard work for the American Heart Association and for generations of doctors interested in this field. On over 2000 pages vitamin C is not even mentioned. I can only conclude that the peer pressure from the medical establishment and those who control the “business with disease” does not allow a scientist - who knows the truth - to say it.

You, the readers of this book, you the people and you the patients, must understand that no one will change that deplorable state of affairs except you. This book is written to support everyone who realizes that the “business with disease” - with all its mechanisms for suppressing the truth - must be stopped and health must become a human right.

I believe, that if together we continue to advocate the health benefits of vitamins in a compelling way, the leading institutions have to follow. Then, sooner or later, scientists and medical opinion leaders will join the vitamin research community.

Calling Upon the World's Cardiologists to Join in the Eradication of Heart Disease

Informing the world's leading cardiologists first hand that the disease they specialized in can be eradicated was another milestone in this historic process.

- Another event I recall is distributing copies of all my scientific publications at the annual convention of the *American Heart Association* in November 1991 in Anaheim, California. There was a special session on lipoprotein(a), the particle that by that time had attracted the world's leading researchers of cardiovascular disease in one conference room at the Anaheim Hilton Hotel. We had prepared a set of the publications documenting how this molecule leads the way to eradicating cardiovascular disease.

My colleague, Dr. Niedzwiecki, placed a folder with these scientific publications on each chair in that room. None of the scientists and doctors could miss it. At the podium some speakers gave lectures about the fiftieth malicious property of the lipoprotein(a) molecule, but scarcely anyone was listening. They were all reading with astonishment that it is precisely this molecule that paved the way to the solution of the puzzle of cardiovascular disease.

To fully appreciate the impact of this event, you have to imagine yourself to be one of 15,000 privileged to be invited to this most important annual event for cardiologists all around the world. Only a select group of cardiologists has the opportunity to attend these conferences. The conference catalogue was more than 100 pages thick, listing several hundred lectures and more than 1000 posters, just about every detail of cardiovascular disease. Cardiovascular disease - so it must have appeared to the senior researchers and the young cardiologists alike - was a huge mystery with many facets at the levels of organs, cells and molecules; in fact so complicated that the riddle could never be solved.

And here were the publications by Dr. Rath, the physician and scientist, whom they all knew from his publications on lipoprotein(a), proudly and boldly announcing the solution to the entire cardiovascular problem. Even more amazing, the solution he offered was not associated with a new surgical technique, a new device, or a pharmaceutical drug artificially developed in a drug company's reagent tube. The solution he offered was the optimum use of one of the most ancient, widespread and affordable substances of all - vitamin C. Put yourselves in the shoes of the researchers and scientists. You are left in disbelief and denial. You probably would have said: "It can't be that the solution to the most widespread disease of our time is so simple!" But it is.

Interestingly, it was this simplicity that became the greatest obstacle for doctors and scientists to accept this medical breakthrough.

Many more stories about irritated doctors and medical institutions could be told. But that is not the purpose of this book. We considered it our responsibility to inform the international research and cardiology community about this breakthrough, so that they could never say: We did not know.

MILESTONE:

The First Patented Therapy for the Natural Reversal of Cardiovascular Disease

The next milestone was the application for patents for this medical breakthrough. We knew early on that the only way it could ultimately be brought to millions of people would be to develop products based on this discovery to prevent and treat cardiovascular diseases. Because of the nature of the health care system and the importance of patents for any new drug development, we decided to apply for patents for this medical breakthrough. The first patent applications were filed in early 1990, and it took four years of communication and further substantiation before the Patent Office finally approved the health claims on the use of vitamin C, lysine and other essential nutrients for the prevention and therapy of cardiovascular disease.

For any patent process the filing date of the application is the critical date. The filing of our first patents in early 1990 enabled us to enter into talks with pharmaceutical companies without fear of their taking over the discovery other than

through a licensing agreement that essentially would preserve the independent nature of this discovery and not subject it to the mercy of any drug company. This was important because we needed to make sure that no matter what happened, these patents would never be allowed to fall into the hands of the wrong people and consigned to deep freeze for fear of competition with their pharmaceutical drugs rather than putting them to good use for improving the health of millions of people.

Subsequently, several more patents were issued but the initial decision to go this way and patent nature in order to improve the health of mankind remains a milestone of this process.



The latest in a series of patents issued by the US patent office for the natural prevention and reversal of cardiovascular disease.

MILESTONE: Unmasking the drug companies' "Business with disease"

After filing the patents we contacted several pharmaceutical companies to inquire about their willingness to use their financial and marketing power to help disseminate this medical breakthrough on a global level. In order to improve our negotiating position Linus and I even incorporated a small company, Therapy 2000. At age 91, he would give the name recognition - I would do the work.

In order to move forward on a fast track, I hired a consultant well established in the biotech community, Dr. Alexander Cross, the former vice president of Syntex, an icon of biotechnology in the early years of Silicon Valley. In recent years he has worked as a consultant for business opportunities between biotech companies on one side, and pharmaceutical companies on the other. Alex Cross was well connected to pharmaceutical companies both in the US and in Europe. He contacted and personally visited more than a dozen of those companies in order to stimulate interest for the patents to be applied on this medical breakthrough.

All his efforts ended in deadlock. None of the pharmaceutical companies contacted was even willing to consider development of a product or pharmaceutical drug based on this technology. All of them were heavily involved with cholesterol lowering drugs and feared that research focus based on stabilizing the artery wall would endanger and ultimately destroy the marketing potential of cholesterol lowering drugs for the prevention of cardiovascular disease.

I personally visited several companies, including Hoffmann-LaRoche, trying to persuade them to market this medical

breakthrough for the benefit of themselves - and of mankind. But they were only interested in the benefit. The dreadful chapter about Hoffmann-LaRoche will be covered later in this book when I write about the origin of the illegal price fixing "vitamin cartel."

Schering Pharmaceuticals - "The Pill" and the "Business with Disease"

Another remarkable chapter in this effort to find global pharmaceutical partners was my contact with Schering Pharmaceuticals. In the summer of 1999 I paid a visit to the Schering Company Headquarters in Berlin. After a brief introduction to the CEO, Mr. DeVito, I met with the head of cardiovascular research of this pharmaceutical multinational Dr. Rubanyi, and other scientists.

One of the reasons I believed that Schering would be interested in promoting the breakthrough in the area of vitamins and cardiovascular health was the fact that Schering is one of the world's leading producers of oral contraceptives ("The Pill"). One of the greatest health problems associated with long-term use of oral contraceptives is the several-fold increase in the risk of cardiovascular diseases. Moreover, several studies unmistakably documented the fact that hormonal contraceptives decrease the body's reservoir of vitamin C.

One and one makes two and it was obvious to me that "The Pill", Schering's best-selling product, causes early scurvy in millions of women, weakening the artery walls and leading to heart attacks and strokes. My discoveries enabled Schering to finally address one of the deadly risks associated with the use of their products around the world. I believed that

Schering had a most direct scientific and ethical responsibility to join in this research on vitamins in the prevention of cardiovascular diseases. By doing so, they could have benefited millions of women taking their "Pills" - saving many from premature death from heart attacks or strokes.

But nothing could be further from the truth. After my visit at their headquarters I never heard from them again.

This was another remarkable example of the unscrupulous conduct of the business with disease by the drug companies. Despite the "smoke screen" of being in business to improve the health of the people, the primary purpose of the drug companies is to make money from ongoing diseases. Preventing heart attacks and strokes is not in the interest of companies that sell drugs for dissolving blood clots after a heart attack has happened.

The market place for the pharmaceutical companies is the human body and the diseases it hosts or develops. Any drugs that prevent or eradicate these diseases endanger this business, they may not be developed and become available for patients for that very reason.

During the decade-long battle towards the eradication of cardiovascular disease, I became one of the leading observers of this inscrupulous "business with diseases" by multi-billion-dollar-interest groups. Among my personal experiences, the direct contact with lead researchers and executives of these companies openly ignoring their responsibility to help save lives of millions of patients was one of the most sobering and eye-opening of experiences.

I consider it my responsibility to share these experiences with you, my readers, in order to enable you to take a more objective look at the interest groups that drive the health care

system. This will empower you to protect yourselves from falling victim to this “business with disease.”

Despite these negative experiences with the pharmaceutical industry, all these efforts have to be regarded as another milestone in this process. Even though we did not win over one single pharmaceutical company to help disseminate this medical breakthrough, I learned two important lessons.

First, the pharmaceutical companies showed their true colors, the primary purpose for their existence is to expand their billion dollar "business with disease." The second lesson was that pharmaceutical companies will never be partners in the eradication of cardiovascular disease, one of their most lucrative sources of income. The total annual sales of cardiovascular drugs - that primarily treat the symptoms, but don't cure - has crossed the 200 billion mark.

If cardiovascular diseases were to be eradicated I needed to do it myself. With Linus' health visibly failing at age 92, it would be up to me to pick up the torch and lead this battle towards the eradication of heart disease and towards making health a human right. As difficult as it was, as high as the mountain appeared that I needed to cross, the task was clear.

MILESTONE:

Informing the media and the public

How vitamins became the title story of *TIME* magazine

In April, 1992 *TIME* magazine printed a cover story entitled "The Real Power of Vitamins." Suddenly, after decades of running amok against the health benefits of vitamins this

opinion shaping journal not only reported rather objectively about progress in vitamin research, but also featured it as the title story. Of course, it was not to its disadvantage; this issue of *TIME* became the best selling issue in its history.

The single most important event that triggered the *Time* Magazine article was a conference held by the *New York Academy of Sciences* in February 1992 on the latest progress in vitamin research. This was only the second conference on the topic of vitamins in the more than one hundred year old history of this academy. The chances that the date of this vitamin conference was a coincidence are zero. It took place less than a year after the publication of our "Solution to the Puzzle of Cardiovascular Disease". Evidently, this recent breakthrough in the area of cardiovascular disease and vitamins triggered a frenzy of activities by reputable scientific organizations to catch up with this development.

But it was not the scientific advances that were in the minds of the organizers or giving credit to the scientist who made these discoveries. The fact that they did not invite either Linus Pauling or me as a speaker shows that the purpose of this conference was that of a placeholder. The motto was obvious: If you can't beat them, join them; or better, try to take over the topic in order to control the public debate. The strategy was to "concede" some of the "power of vitamins" in order to prevent the public explosion of the "Eradicating Heart Disease" message. One more time, scientific organizations like the *New York Academy of Sciences* appeared to be part of the big "Chess Game" played by billion dollar industries. Or why was this Academy symposium the first one ever with such a heavy participation of invited media representatives? The PR effect was obviously planned and intended.

When I found out about this conference by coincidence, I decided to fly to Washington and participate not as a speaker but in the audience. The presentation on vitamins and heart disease was made by Dr. Jialal from the University of Texas. He was invited to present the antiquated theory, that oxidation of cholesterol or lipoproteins would cause cardiovascular disease.

It does not take a medical degree to call this bluff. Oxidation of cholesterol is - at best - a contributing factor, but not the cause of cardiovascular disease. There is a simple explanation for that. If oxidation of cholesterol or other blood components were to start this disease by damaging the blood vessel wall the deposits would develop everywhere along the cardiovascular system. Oxidized cholesterol, lipoproteins and other blood components would have contact with the wall of the arteries, capillaries and veins and would lead not only to clogging of the arteries of the heart but also of the nose, knee and even the veins. But no one has ever heard of such bizarre events as nose attacks or knee infarctions.

The scientist from Texas who gave this presentation at the New York Academy of Sciences was invited in order to put the finger in the dam of an antiquated hypothesis of cardiovascular disease. It is clear: the oxidized-cholesterol" story keeps the cholesterol/heart disease fallacy alive. The vitamin C/scurvy/heart diseases targets the weakness of the artery wall as the primary target. This switch in therapeutic directions is not just of academic importance. In the long run it destroys a multi-billion-dollar market of cholesterol-lowering drugs.

The presentation of Dr. Jialal reminded me of someone who tried to define the medical world as being a plate at the time when its true shape had been identified as a globe. Of course, I felt challenged. My discovery had just defined the

medical world as a globe and I had to fight for it!

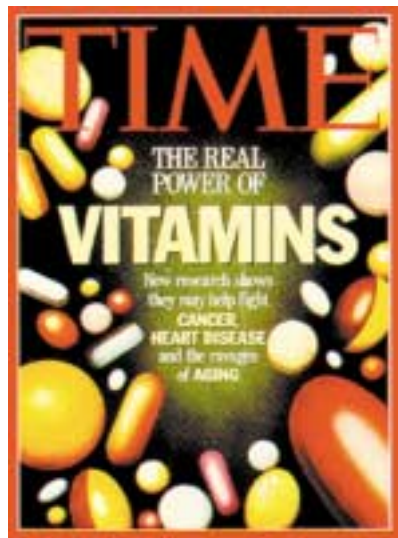
After he had finished his presentation, I went to the floor microphone to present our new understanding about the nature of cardiovascular disease to the researchers and media representatives. In no uncertain terms I stated in front of the research elite and the press that if he was right we would all get infarctions in the nose, ears or knees. The only rationale that could explain heart attacks as the primary cause of cardiovascular diseases was the scurvy/heart disease connection. My contribution to this scientific debate is documented in the official 1992 Academy documentation of of this symposium.

After the symposium one of the participants, a scientist from Hoffman-LaRoche, approached me. "Your contribution was the only really new aspect of this whole symposium." Apparently, the representative of *Time* magazine, who participated in this symposium, felt the same. Only a few weeks later, *Time* magazine came out in April 1992 with a title story "The Real Power Of Vitamins" and the title page prominently promised the readers to get the latest advances in vitamins and heart disease research.

But this title was misleading. Nothing inside the rather objective article on the health benefits of vitamins talked about heart disease. How could that happen? The most likely explanation was that the journalist present at the symposium of the Academy tried to report about the discovery of the scurvy-heart disease connection - after all it was news. Most likely, the "Censor-in-Chief" of *Time* magazine pulled the plug at the last minute on this segment of the report.

What could have been the motive for such a censorship? No leading news magazine in the world is more dependent on multi-million-dollar advertising placements by the pharma-

ceuticals companies than *Time* Magazine. It was in their interest that the bush fire on the "vitamin C-scurvy-heart disease connection" was stopped and not further fuelled by *Time*



Magazine. But apparently, it was too late to change the cover of the magazine and remove the bold announcement on the real power of vitamins in the fight against "heart disease" from the title page. All these observations are just interesting little episodes that reveal the methods, intrigues, tricks and other maneuvers by which this battle for the eradication of heart disease is being waged.

The fact remains that the vitamin C/heart disease connection had forced the largest news magazine in the world to run a title page on the objective health benefits of vitamins. Millions of vitamin consumers and thousands of health food stores could not believe their eyes about the sudden shift in reporting about the health benefits of vitamins.

This *Time* article was truly a watershed event in the century long battle between pharmaceutical drugs and natural health products. After decades of bias and boycotts against vitamins in the media it was this *Time* magazine article that would change medical journalism about vitamins forever. From then on, many epidemiological studies showing the benefits of vitamins in the prevention of heart disease and other ailments got at least a chance for objective reporting. Only

weeks after this *Time* article appeared, an important study by Dr. James Enstrom and his colleagues from the University of Los Angeles received national attention. This study published in the journal *Epidemiology* showed that long term Vitamin C supplementation could cut the rate for heart disease almost in half.

The suddenly available and objective media coverage about the health benefits of natural health products led to a change of public perception in favor of vitamins with worldwide repercussions. Triggering this media coverage was another milestone on the way to eradicate heart disease.

But during the first week of April 1992 another historic development took its course.

MILESTONE: The Rath Pauling Manifesto

Normally, if a medical record is made it will take years until the benefit becomes available because it takes that long to develop the necessary drug or devices. This was not the case in the "vitamin C/scurvy/heart disease" connection. The key substances, Vitamin C, lysine and some other essential nutrients were already available. Thus it was clear that the medical breakthrough would depend on one factor only: how fast the information about this medical advance could be disseminated to millions of patients around the world.

After all the experiences with doctors, scientists, pharmaceutical companies and other players summarized above, I knew we needed to go directly to the people with this message. At age 92, the two-time Nobel laureate would not be around for long as a prominent supporter for this medical

breakthrough. Something needed to be done rather quickly.

With the assistance of the *Canadian Journal of Orthomolecular Medicine*, I convinced Linus to give a keynote lecture to announce this medical breakthrough to the general public. The event was to take place in the King Edward Hotel in Toronto. In late March 1992 Linus and I flew to Toronto. During the flight I suggested to him that we use this opportunity to issue a call to the world to eradicate heart disease.

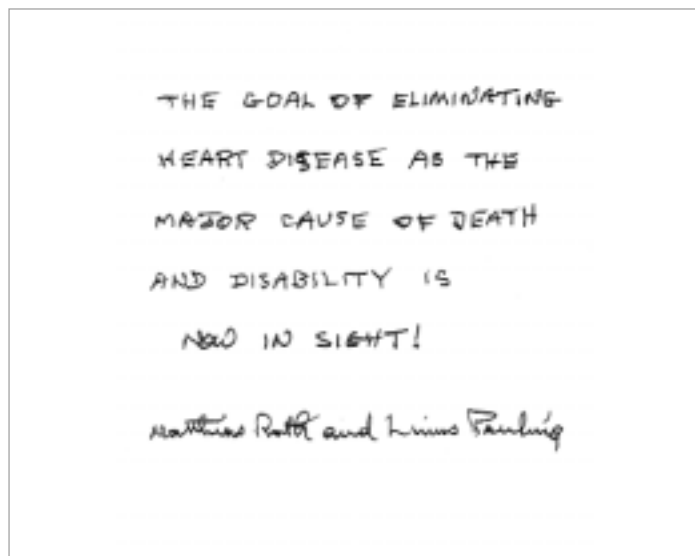
I remember sitting beside Linus Pauling in the airplane and showing him a draft of the document I had prepared and what later would become the Rath-Pauling Manifesto. Linus was reluctant at first. I could feel that there was still the scientist who relies on his conventional channels of communication in scientific journals and only rarely chooses avenues to go directly to the public. I reminded Linus that once before he had addressed the entire world on an issue of life and death.

In 1958 he had issued a call for a global halt to the testing of nuclear weapons in the atmosphere because the radioactive fallout of these tests had led to a dramatic increase of birth defects in the United States and other countries. Within months, more than eleven thousand scientists from around the world had signed this appeal to the governments of the nuclear powers and urged them to sign a nuclear test ban treaty. Shortly thereafter, the "Partial Test Ban Treaty" was signed by the United States, the Soviet Union and other nuclear powers. In 1962 Linus Pauling received the Nobel Peace Prize for having been instrumental in bringing about this treaty that has saved thousands of children from being born crippled, or and with other severe birth defects.

Referring to this event four decades ago, I said "Linus, once before you saw it as your responsibility to call upon the entire world because so many lives were at stake. Now there is another historic situation and our responsibility is even bigger. If we don't speak out now, millions of people will suffer unnecessarily and die prematurely from heart attacks, strokes, and other preventable diseases. Later generations will ask us, what did you do when you knew it? I want to be able to say: we told the entire world!" Linus looked at me; "Let me think about it." The next morning he called me to his room in the King Edward Hotel. He had rewritten the entire "Call to Abolish Heart Disease" in his own handwriting but with only minor modifications to my draft. Linus had lived up to his responsibility.

The Happiest Day in the Life of a Nobel Laureate

That evening Linus gave his lecture to a Quebec audience to over 500 people, including the representative of the British Queen. The speech was well received and the Manifesto was distributed to everyone present. After the talk I brought Linus to his hotel room and he invited me in. Without taking off his blazer or his beret he fell backwards onto the hotel bed and beamed. "Matthias, come here!" He took me in his arms - like a father to a son. No word was spoken - and yet everything was said in this moment. This was the day when Linus knew that his life's work would continue.



The next day, Linus was still elated. He said: "Matthias, I want to thank you. Yesterday was the happiest day in my life!"

In order to further improve the impact of this international call Linus and I held a press conference in the Mark Hopkins

Hotel in San Francisco on July 2, 1992. We had sent press packages to all major media, TV-stations and news agencies, including copies of the publications and the manifesto. The media coverage of this historic press conference left much to be desired. The few reports in newspapers were rather biased. The journalists writing these articles clearly had not understood their responsibility for the health and lives of millions of people.

In spite of this irresponsible role of the media, the Rath-Pauling-Manifesto and this press conference became another milestone on the long way towards eradication of cardiovascular disease.

Three weeks later, Linus Pauling signed a document that it was his wish that I continue his life's work. Based on the common scientific and humanitarian values we shared the two-time Nobel laureate had made his decision to hand over the torch. Despite this encouraging step I later left the Linus Pauling Institute to found my own research firm based on my discoveries. I did this because the children of Linus Pauling - all of them at retirement age and rather skeptical about their father's interest in vitamins - had made it clear that they do not wish the name of their father to be used for a campaign to eradicate heart disease.

I was unimpressed and decided that it is more important to continue this historic health mission than to get involved into a family feud. It remains one of the last acts of the scientific giant that on his deathbed he rose against his very own family and stated under oath: "There is no doubt in my mind that I thought about Dr. Rath as my successor." The fact, that the Nobel laureate had acknowledged the original discoveries and the ownership of the patents and other intellectual property to me in writing facilitated this step.



*At the historic press conference
on July 2, 1992, with Dr. Pauling*

On August 19, 1994, Linus Pauling passed away. That night, shortly after 11 p.m, I got a phone call from a journalist of the *San Francisco Chronicle* who knew about my relationship with Linus Pauling and asked me for a few words. I summarized it in one sentence: "Linus Pauling was a great man and he deserves to be remembered for all the good he did for humanity." That sentence was carried by the AP news service around the world.

MILESTONE

Empowering Millions of People Through Health Information

Now being on my own, the first task I faced was to further disseminate the information about the medical breakthrough. I decided to write a popular health book with many pictures so the health benefits would be understandable and obvious to everyone. "*Eradicating Heart Disease*" and "*Why Animals Don't Get Heart Attacks*" were the first books at that time. Today these books are summarized in the "*Cellular Health Series book: The Heart.*"



Eradicating Heart Disease

Why Animals Don't Get Heart Attacks-But People Do

Ten Years That Changed Medicine Forever

Several unique features determined the worldwide success of my books, which have been translated in more than a dozen languages. For millions of people around the world these books

- Explained for the first time in illustrated form how their cardiovascular system works

- Revealed that cardiovascular diseases develop at the level of cells of the artery walls and the heart
- Showed that heart attacks and strokes are not predetermined by fate but are caused by vitamin deficiencies in the cardiovascular cells
- Empowered them to take greater responsibility for their own health with practical recommendations for natural health
- Answered the question: "Why have I not heard about this before?" unmasking the "Business with Diseases" as the basis for the pharmaceutical industry

Hundreds of thousands of people in Europe and other countries were empowered by these books to take greater responsibility for their own health. Patients took them to their doctors - many of whom were still skeptical - allowing them to win over the support of their doctors for vitamin therapy and other natural health remedies.

The success of my books did not go unnoticed. During the last ten years every major medical school, every doctors association and even pharmaceutical companies came out with their own "self help" health book or information brochure. The once heavily guarded fortresses of medical wisdom had been conquered. This is even more significant since this wisdom had been for centuries encoded in unintelligible languages, like Latin and Greek, in order to protect this information from becoming available to the common person.

Popular health books had been on the market before. But never before were the gatekeepers of established medicine, the *Harvard's*, *Stanford's* and the like, forced to share their information to such an extent with millions of patients in

America than during the last ten years. Never before did the *Mayo Clinic* distribute a "Health Newsletter" for the general public. Now they had to. Never before was there a course on Health and Nutrition taught at *Rutgers University*. Now there was. Never before did *Stanford University* run its own TV-Show on health issues. Now they had to - in order not to miss the train. Even the *American Heart Association* was forced to follow this urge and published "*Your Heart Manual*", tendered to the public like the manual for a car at a car dealer. But these lay books and popular brochures had one caveat: while the information about the function and malfunction of the body finally had to be provided to the people in their own language, this was only a partial concession. Each chapter of these books published by these "gatekeepers" of established medicine made sure that the readers were driven back into the arms of the ever hungry "Business with Diseases."

My books were fundamentally different. They empowered its readers to leave behind the shackles of dependencies from the "Business with Diseases" and liberate themselves by understanding the principles of cellular health.

In the 5th century B.C. Hippocrates, the "father of all doctors", made his students swear that they would not reveal the secrets of medicine to their patients. Today, this oath is still taken at leading medical schools around the world! Considering this state of affairs, my readers may even more appreciate the "liberation" of health information that took place over the last decade.

In the 2500 years following Hippocrates, never was there such a popular demand, such an urge in health information as during the last decade. My books helped patients and people around the world articulate the urge for more truthful health information. They are no longer willing to be kept in illiteracy about their own health and be led like sheep from one disease to the next.

This "liberation of health" was another important milestone on the way to eradicating heart disease as well as other common health problems.

MILESTONE

Cellular Health and Cellular Medicine - Foundations of a New Health Care

One of the most important milestones was the development of the concept of Cellular Medicine. After the discovery that atherosclerosis, heart attacks and strokes are primarily caused by vitamin deficiency the question was: what about the other common health problems associated with cardiovascular diseases such as high blood pressure, heart failure etc.?

There were studies about certain essential nutrients reporting about health benefits. Dr. Folkers showed benefits of Coenzyme Q-10 in heart failure patients, Drs. England and Turlapaty studied magnesium in patients with irregular heart beat, and so on, but these were isolated observations. The following lack of understanding prevented earlier completion of the entire picture of Cellular Medicine:

- The fact that diseases develop at the level of cells was ignored and it was not understood that the primary cause of cellular malfunction is a deficiency of vitamins and other essential nutrients required for cell fuel.
- The fact that the heart is the motor of the body had been ignored and for proper function it requires regular refilling of biological fuel just like your car needs gasoline fuel.

- Since this basic problem had never been properly identified by conventional medicine, the cells of the heart and the artery walls of millions of people literally ran dry of cell fuel.
- As the direct result of this lack of information and knowledge, heart attacks, strokes, high blood pressure, heart failure and other forms of cardiovascular disease that develop as a result of cellular energy deficiency continue to spread like epidemics.
- Moreover, it had not been understood that the pumping heart muscles do not just use one individual vitamin as fuel, but they need replenishing essentially of all vitamins, certain minerals, trace elements and amino acids. This lack of understanding also explains why clinical studies were done involving mostly one individual nutrient rather than the whole range of vitamins and other biochemical cofactors for cellular energy production.
- Finally, it had not been understood by conventional medicine that the treatment of isolated symptoms of CVD such as high blood pressure, heart failure or angina pectoris would be insufficient and short lived, as long as the lack of vitamins and other bioenergy molecules as the underlying cellular cause of cardiovascular disease is not corrected.

I still remember the day when the thought of Cellular Medicine struck me. As I was driving my brain had been constantly working on the discoveries made, sorting new thoughts and assembling them in an orderly fashion. The vitamin programs I had developed resulted in many letters from patients reporting about health improvements from lowering of blood pressure to disappearance of angina pectoris and edema.

I realized that today's most common diseases of the cardiovascular system - not only atherosclerosis - must have the same cause: deficiency of cellular bioenergy. Heart failure was not the result of a lack of CoQ-10 alone, but of a whole range of cellular energy cofactors. In a similar way, deficiency of these bioenergy molecules in the electrical cells of the heart, that are responsible for a regular heart beat would facilitate irregular heart beat. And so on.

I immediately realized the general nature and the significance of this discovery for human health. Back in the office of our research firm, I called my colleagues and we had a little toast on this discovery.

Never before in the history of medicine had anyone proposed such far-reaching conclusions and defined the deficiency of essential nutrients as the primary cause of today's most common diseases.

The new understanding of Cellular Health will help millions of patients and eventually reduce these diseases to a fraction of today's.

Later it also became clear to me that it was no coincidence that the most wide-spread diseases of our time had such a simple explanation as vitamin deficiency. In the interest of the multi-billion dollar pharmaceutical drug market these common health problems were deliberately mystified. Diagnostic code names were used to mask vitamin deficiency as the true nature of these diseases.

The majority of patients with high blood pressure were diagnosed with the cover term "essential" hypertension, most patients with heart failure had "idiopathic" cardiomyopathy and most patients with irregular heart beat went under the code diagnosis "paroxysmal" arrhythmia. The sobering fact

is that the terms essential, idiopathic and paroxysmal are Greek and Latin cover terms for the same message: "cause unknown".

While millions of patients are misled to believe that they have been precisely diagnosed, they in fact received the encoded stamp: "we don't know the cause of your disease". Conventional medicine ignores this mass deception, because it is built on treating symptoms, e.g. lowering high blood pressure - not curing. For treating the symptoms with a pharmaceutical drug, e.g. a blood pressure lowering drug, not even the doctors need to know the cause of the disease. To keep the drug companies happy, all they need to do is to write prescriptions for the symptom drugs.

We have to realize that this pattern of deception towards millions of patients is a precondition of the multi-billion dollar pharmaceutical "business with disease". Preventing, curing and eradicating diseases are all bad for the "business with diseases". Despite the PR efforts of the drug companies portraying them in the light of benefactors to mankind, they seek - like any other business - to expand their markets. And their market place is flourishing diseases.

Now we understand why today's pharmaceutically oriented medicine uses code names for the most common diseases: No one needs to know, no one should ask uncomfortable questions, everyone is kept "happy" and the billion dollar "business with disease" can go on.

However, the fact is that only patients and people "who don't know" will tolerate this deception and pay up to one third of their income for a medicine that merely treats symptoms.

This deplorable state of affairs further underlines the importance of the introduction of Cellular Medicine as the foundation of a new health care system in the US and elsewhere.

Cellular Medicine

- reveals to millions of patients the true nature of today's most common diseases - vitamin deficiency;
- empowers millions of people to take responsibility for their own health and help prevent these health problems in an effective, safe and affordable way;
- delivers the scientific grounds for terminating the “business with disease” and for making health a human right, available to everyone - just like education.

The Breath-Taking Perspective of Cellular Medicine

How often is the cause of the disease unknown

| | Before Cellular Medicine | With Cellular Medicine |
|----------------------|--------------------------|------------------------|
| Heart Attacks | 80% | 5% |
| Strokes | 80% | 5% |
| High Blood Pressure | 90% | 5% |
| Heart Failure | 90% | 1% |
| Irregular Heart Beat | 70% | 5% |
| Adult Diabetes | 95% | 1% |

Each of these reductions accounts for millions of lives saved.

FURTHER MILESTONES

- IN THE USA -

- The next milestone in the US was the development of a basic Cellular Health Program that would allow people to immediately benefit from this medical breakthrough. Towards that end I developed a basic Cellular Health Program including the natural ingredients that had been patented by the US Patent Office for the natural prevention of cardiovascular disease.
- Subsequently we conducted a clinical study with this Cellular Health program in coronary heart disease patients. Using the latest diagnostic technology, Ultrafast Computed Tomography, the so-called “Mammogram of the Heart” we could show that without vitamin supplementation the deposits in the coronary arteries normally grow by 44% each year. With a defined vitamin program the further growth of these deposits could be stopped in its early stages. In some cases reversal and complete disappearance of existing deposits was documented.
- From 1994 to 1996 I gave lectures, radio and TV interviews throughout the United States promoting this medical breakthrough and my books. Tens of thousands were reached by the lectures, millions by the radio and TV shows. The discovery of the scurvy/heart disease connection and the news that heart disease can eventually be eradicated reached doctor’s offices across America.
- Following this information and education campaign, the floodgates of established medicine were opening. Vitamins and essential nutrients entered conventional medicine on a broad front.

- On June 21, the *Journal of the American Medical Association* (JAMA), published for the first time an article on the use of antioxidant vitamins as a basic treatment for coronary heart disease.
- In October, 1995, the leading medical schools in America decided to establish departments of nutritional medicine in order to provide to future generations of doctors with a basic understanding about the health benefits of vitamins and other essential nutrients.
- The National Institutes of Health (NIH) decided to give multi-million dollar research grants to ten leading research institutions in America, among them Stanford University, to study “alternative” treatments, including vitamin therapy.
- In patient brochures, self-help books, and community newsletters, the leading medical schools, including Harvard University, started to recommend vitamins as basic health measures.

FURTHER MILESTONES

- IN EUROPE -

- Following this initial information campaign in the US I decided to bring this important health message to Europe. This was even more significant since the people in Europe lived in Medieval Times with respect to vitamins and nutritional supplements. While in the US every second person was supplementing their diet, these numbers in Europe were below 5%, in some countries below 1%. The primary responsibility for this disastrous state of affairs were the European pharmaceutical companies

who had demonized vitamins or simply outlawed them as “drugs”. With the laws of medicine heavily lobbied by the pharmaceutical drug manufacturers, German law defined a pill containing 500 milligrams of vitamin C as a prescription drug! Selling these vitaminC-“drugs” was considered a criminal offense.

Luckily, the dogs, lambs, goats and sheep of Germany all smiled at the myopathy of the German government: these animals produced 30 times that amount of vitamin C every day in their bodies - without waiting for any prescription or standing in line at the pharmacy and without asking the German government or permission.

- One of the next milestones in Europe was the development of a comprehensive Cellular Health program. It met the additional nutritional needs of people with certain health conditions, including high blood pressure, heart failure, diabetes, high cholesterol levels, circulatory problems, increased susceptibility to infections and others. The immediate success of these programs confirmed the importance of Cellular Medicine as the basis for approaching a multitude of health problems at their roots. Today our Cellular Health programs are the leading nutritional health programs across Europe.
- The next milestone was the clinical testing of these programs in pilot studies. The results of these pilot studies with our Cellular Health programs can be obtained from our Website at www.dr-rath-research.org.
- The next milestone was the decision by one of the leading health insurance companies in Germany to reimburse the costs for the Cellular Health programs we developed. This decision did not come easily. The health benefits had to be documented by an attending doctor, but it was

a wise decision. Economically the health insurance companies and HMO's have a lot to gain by supporting this medical breakthrough. With the help of Cellular Health programs, effective health can now be provided at a fraction of previous costs.

Of course, these milestones are but a few of the events that took place while disseminating the “eradicating heart disease” message on a global level. A more comprehensive report is in preparation and I am confident that scientific historians will join in to elucidate this historic mission for a broad audience.

The milestones and accomplishments summarized in this chapter did not come easily. At every step I met boycotts, intimidations, legal and regulatory threats, personal attacks and just about every trick one can imagine from an industry that is fighting to artificially stabilize a multi-billion market of cardiovascular drugs that is threatened by the discovery of the scurvy/heart disease connection.

In the following chapter I will document the most important of these obstacles to be overcome in order to bring this process forward to this day.

Roadblocks



of the Medical Breakthrough

"There is no more delicate matter to take in hand, nor more dangerous to conduct, than to stand up as a leader in the introduction of change."

For he who innovates will have as enemies all those who are well off under the existing order of things and only luke warm supporters in those who might be better off under the new system."

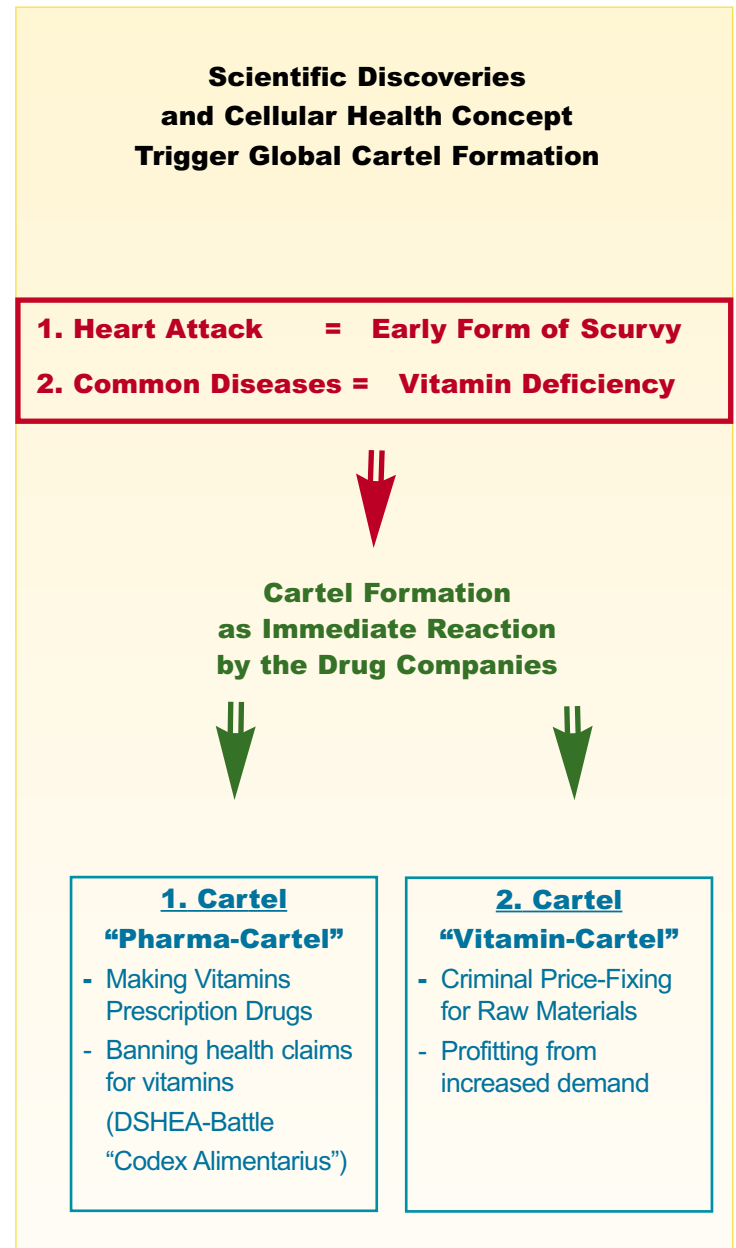
*Niccolo Machiavelli,
Advisor to the Venetian Court
A.D. 1513*

The medical breakthrough of the scurvy/heart disease connection and the foundation of Cellular Medicine was such a threat to the interests of the drug companies that they reacted immediately.

One faction embarked on an effort to ban by law the dissemination of this medical breakthrough and by making vitamins prescription drugs.

The other group of companies embarked on taking economic advantage of this breakthrough by conspiring in criminal price fixing practices.

The following pages summarize these historic events.



Triggering the Vitamin Freedom Act (DSHEA)

Immediately following publication of the scurvy/heart disease connection in 1992, the US Food and Drug Administration (FDA) started a public campaign with the goal of making vitamins prescription drugs. While every vitamin consumer and every health food store in America was outraged about the efforts of the FDA to make vitamins prescription drugs, no one asked the decisive question: What triggered this shameless attack on the freedom of the American people and on their right to choose their own health care? Why was it the fiercest FDA attack on nutritional supplements thus far?

The answer is provided in this book. The rage by the FDA was neither a coincidence nor a long-term plan. It was a direct and deliberate reaction of the pharmaceutical industry to the medical breakthrough and the discovery of the scurvy/heart disease connection. The drug manufacturer executives knew, that if vitamins are the solution to the cardiovascular epidemic, a prescription drug market of over \$100 billion dollars annually is going to collapse.

But why did the FDA lead the attack? Thomas Moore revealed in his book "Deadly Medicine" that most of the FDA experts were also on the payroll of pharmaceutical companies. This explained why this Federal Agency did not act on behalf of the interests of millions of Americans but on behalf of those special interests representing the "business with disease".

But millions of Americans said no to these unethical and transparent plans of the Pharmaceutical Cartel. In August

The Worst Defeat of the FDA in its History

At the beginning of this decade, almost all "experts" of the FDA were on the payroll of pharmaceutical companies and the FDA had turned into a puppet arm of the pharmaceutical industry. Hidden behind this Federal Agency, the Pharma-Cartel attacked. It was clear that hundreds of millions of Americans who had been enjoying free access to vitamins over decades would not understand why the FDA suddenly wants to make vitamins prescription drugs. Thus, a PR camouflage had to be presented to the public to make these unethical plans palatable and acceptable:

- **"Consumer Protection"** In a large-scale public relations campaign the FDA, on behalf of the Pharma-Cartel, tried to make millions of Americans believe that vitamins and other natural therapies had to become prescription items in order to protect them from "overdosing." That house of cards collapsed when the following U.S. statistics became public: From 1983 to 1990, not a single death resulted from intake of vitamins, amino acids, or other natural products. In contrast, during the same period, almost one million Americans died as a consequence of taking prescription drugs that had been approved by the FDA!
- **"Internationalization"** The second cover name under which the FDA and the Cartel tried to limit free access to vitamins was the alleged necessity for internationally unified guidelines for vitamins. Perhaps with their eyes on Germany and other European countries, where one gram vitamin C pills are defined as prescription drugs and where amino acids are on the "black list", these special interest groups tried to turn nutritional medicine back to medieval times.

But the American people were neither interested in "consumer protection" from vitamins nor in "internationalization" back to the medieval ages. In the "largest movement since the Vietnam War" (*Newsweek*) the American People, through their political representatives, secured Vitamin Freedom and defeated the FDA and the Pharma-Cartel.

1994 the U.S. Congress unanimously passed legislation preserving free access to vitamins and other essential nutrients. The so-called Dietary Supplement Health and Education Act (DSHEA) was one of the historic victories of the American people.

How could this attack by the drug companies and the FDA on vitamins be turned into a victory for vitamin freedom? Many contributed to this historic success, but most important were those millions of Americans who made it unmistakably clear to their political representatives that they will have free access to their vitamins today – and in the future!

My first book *Eradicating Heart Disease* contained an Open Letter to the US-President. As an Open Letter, the primary addressees were the American people, in order to empower them to take a stand on this important issue. Health food store owners informed me that copies of this “Open Letter to the President” were picked up in their stores “like hot cakes”, together with the petitions to political representatives to halt the plans of the FDA. Thus, the medical breakthrough in vitamin and heart disease research that triggered this battle also became a contributing factor to winning it.



“Codex Alimentarius” - Effort to Ban Natural Health Information World Wide

Following the loss of the battle to make vitamins prescription items in the U.S., the pharmaceutical industry regrouped at the international level. They started a campaign to outlaw worldwide all preventive and therapeutic health information about vitamins and other natural therapies. Towards this end the pharma industry formed a cartel at the international level. Abusing the United Nation’s “Codex Alimentarius” (food standards) Commission they are trying to ban any natural health claims in all UN member countries, that is worldwide. The decisive Committee on nutritional supplements is headed by the German government. No wonder- Germany is the world’s largest export country for pharmaceutical products.

To make sure these controversial plans, once adopted by this commission, would go through in countries where resistance would be strong, such as the U.S., the Cartel threatened international trade sanctions in case of non-compliance. If the people and the governments of the United Kingdom, the United States, Canada, Australia or any other country refused to accept vitamins as prescription drugs, they would be faced with UN trade sanctions. With this strategy the Pharma-Cartel tried to twist the arms of the entire corporate world and, at the same time, declared war on the health interests of millions of people.

The cartel moved fast. By the end of 1996 the Pharma-Cartel’s “Codex”Plans had already reached stage 5 of an 8-stage process within the United Nations, Covered as “consumer protection” these unconscionable plans were about to

be recommended to the UN General Assembly for adoption. This was the situation until June 21, 1997.

On that day I decided to confront these interest groups on their home turf. I knew that I would be representing the health interests of millions of people. I gave a speech to 3,400 people in the city hall of Chemnitz, Germany. I revealed the connection between the "Codex" Cartel, the German Government and its roots in the tradition of those German chemical and pharmaceutical companies who already were the profiteers of World War II and the holocaust. With a view on the devastating consequences of the "Codex" plans for global human health I stated:



"Twice in this century, indescribable worldwide suffering and death originated from Germany. This must not happen a third time." This speech was immediately distributed via the Internet. Thousands of audio and videotapes followed.

But the cartel did not give up. The most recent meeting of the Codex Alimentarius Commission took place in June 2000 in Berlin. The aim of the meeting was again a worldwide ban on health information concerning natural therapies, in order to keep alive artificially a pharmaceutical market worth billions. To camouflage its activities, the pharmaceutical cartel and its political accomplices hid away from 19 - 23 June in the so-called "Federal Office for Consumer Health Protection" (BgVV), which was hermetically sealed behind barbed wire.

On the eve of this conference we held a health conference with 2000 participants and a rally through the city of Berlin and at the site of the meeting.

Most important, more than half a million protest letters were sent from our Website to the Codex Delegates alerting them not to follow the German delegation.

As a result of this international protest, the debate in the Codex Commission was so controversial that the plans of the pharmaceutical cartel - once again - did not go through.



One more time we had accomplished a victory in the name of the people of the world and for the benefit of their health.

Busting the Vitamin Cartel

On May 20, 1999, the media bomb detonated: The pharmaceutical multinational corporations Hoffmann-LaRoche, BASF, Rhône-Poulenc and other multinational pharmaceutical companies admitted having formed a so-called “Vitamin-Cartel” to conduct criminal price fixing for vitamin raw materials. Hundreds of millions of people worldwide were defrauded for almost a decade and had to pay higher vitamin prices because of these criminal activities. The US-Justice Department declared that this Vitamin-Cartel was the largest cartel ever discovered and named it an economic “conspiracy”. Roche, BASF and the other cartel members agreed to pay almost a billion dollars in fines for committing these crimes.

While the magnitude of these fines made headlines around the world, the events that triggered the formation of this criminal cartel remained obscure. Until now. The background of this illegal Vitamin-Cartel is the scientific breakthrough documented in this book in relation to vitamins and prevention of cardiovascular disease. In the beginning of 1990 I informed the Swiss multinational pharmaceutical company Hoffmann-La Roche about these discoveries. On June 2, 1990, I sent the summary of the discovery that heart attacks and strokes are – similar to scurvy – the result of vitamin C deficiency to Prof. Jürgen Drews, head of Roche research worldwide and member of its executive board.



Roche is the world's leading manufacturer of vitamin C raw material. The Roche executives realized immediately that my discovery would boost their international demand for vitamin C and create a multi-billion dollar market for vitamin C and other vitamins. In order to extract further information from me, the executives of Hoffmann-La Roche signed a confidentiality agreement and invited me to present the new understanding of heart disease at their global headquarter in Basel, Switzerland. However, Roche decided *not* to promote this medical breakthrough, despite the fact that they acknowledged it as a breakthrough. The reasons they gave to me in writing: Roche did not want to finance the dissemination of this understanding of heart disease for all their competitors and they did not want to compete with other in-house pharmaceutical drug developments, such as cholesterol-lowering drugs.

Thus, while they refused to promote this medical breakthrough that could have saved millions of lives, these pharmaceutical companies turned around and decided to conspire in the form of a vitamin Cartel in order to take advantage of this medical breakthrough anyway. Roche conspired with BASF, Rhone-Poulenc, Takeda and other manufacturers of vitamin raw materials in criminal price fixing on a global level. The fraudulent profits these companies made from their criminal practices are estimated to be over 100 billion dollars over the past ten years. Compared to that, the fines these companies had to pay are nothing less than peanuts.

Not only should the US government receive compensation for the damage these companies have done, vitamin companies, and above all consumers worldwide, should sue these companies in class action law suits all over the world. This is even more urgent, since these companies have harmed millions of people twice. First, they refused to pro-

mote and disseminate the live-saving information on the use of vitamins in order to prevent heart disease, thereby causing millions of heart patients to die unnecessarily over the past ten years. Second, they caused financial damage to literally every vitamin consumer on earth.

My correspondence with the Roche executives also proves the statements by Hoffmann-La Roche as a lie that the leadership of Roche did not know about these criminal activities. The opposite is now clear: The executives of Roche, BASF, Rhône-Poulenc and others not only knew about these crimes, they were the organizers. The responsible managers should be held responsible for their actions.

Today everyone can call those companies and their leadership criminals, who distinguish themselves from a street robber only by the magnitude of their crimes. The criminal activities of this vitamin Cartel have opened the eyes of millions of people further to the "business with disease" maintained by major drug companies.

A Breathtaking Perspective

There is no doubt: The turn from the second into the third millennium coincides with a change in health care worldwide. Millions of people are waking up and realizing that they had become dependent on a false health care system that was little more than an illusion.

In ever increasing numbers patients and health professionals alike are taking advantage of the fact that the most common diseases of our time can be effectively prevented and treated by vitamins and other essential nutrients.

With the help of vitamin research and Cellular Medicine, these patients have regained a life that is worth living. Many thousands of these patients in Europe, America and all other continents are living proof that a new health care system has already become reality

