

In our daily lives the concept of 'protein' reminds of a good nutrition. Most people have heard that a healthy body requires taking in large amounts of protein, yet they know nothing more. However, proteins are miraculous molecules that reveal us very significant facts. These giant molecules that form with the lining of different atoms in different sequences, but surely with an orderly plan shows us what a great art creation of Allah is.

This book scrutinizes this art in the proteins and displays the fact that Allah has created the living beings with a superior knowledge.

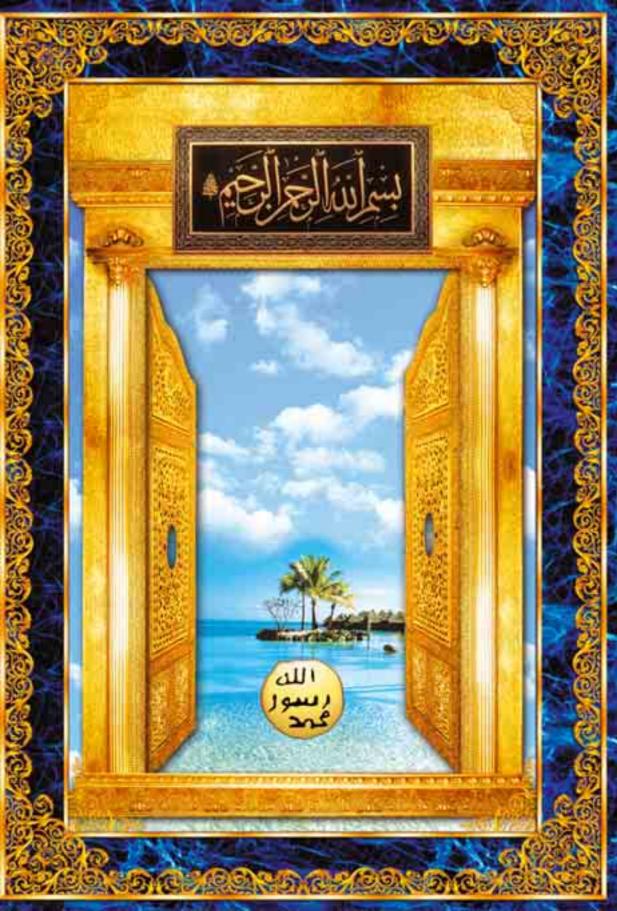
It also examines Darwin's theory of evolution which refuses es creation and proves that this theory is a big deception. Even a single arrangement in the structure of the protein is sufficient to overthrow Darwin's theory of evolution.



#### ABOUT THE AUTHOR

Adnan Oktar, who writes under the pen-name Harun Yahya, was born in Ankara in 1956. Since the 1980s, the author has published many books on faith-related, scientific and political issues. He is well-known as the author of important works disclosing the imposture of evolutionists, their invalid claims, and the dark liaisons between Darwinism and such bloody ideologies as fascism and communism. All of the author's works share one single goal: to convey the Qur'an's message, en-

courage readers to consider basic faith-related issues such as Allah's existence and unity and the Hereafter; and to expose irreligious systems' feeble foundations and perverted ideologies. His more than 300 works, translated into 63 different languages, enjoy a wide readership across the world. By the will of Allah, the books of Harun Yahya will be a means through which people in the twenty-first century will attain the peace, justice, and happiness promised in the Qur'an.



. About the . Author

Now writing under the pen-name of HARUN YAHYA, Adnan Oktar was born in Ankara in 1956. Having completed his primary and secondary education in Ankara, he studied fine arts at Istanbul's Mimar Sinan University and philosophy at Istanbul University. Since the 1980s, he has published many books on political, scientific, and faith-related issues. Harun Yahya is well-known as the author of important works disclosing the imposture of evolutionists, their invalid claims, and the dark liaisons between Darwinism and such bloody ideologies as fascism and communism.

Harun Yahya's works, translated into 63 different languages, constitute a collection for a total of more than 55,000 pages with 40,000 illustrations.

His pen-name is a composite of the names Harun (Aaron) and Yahya (John), in memory of the two esteemed Prophets who fought against their peoples' lack of faith. The Prophet's seal on his books' covers is symbolic and is linked to their contents. It represents the Qur'an (the Final Scripture) and Prophet Muhammad (saas), last of the prophets. Under the guidance of the Qur'an and the Sunnah (teachings of the Prophet [saas]), the author makes it his purpose to disprove each fundamental tenet of irreligious ideologies and to have the "last word," so as to completely silence the objections raised against religion. He uses the seal of the final Prophet (saas), who attained ultimate wisdom and moral perfection, as a sign of his intention to offer the last word.

> All of Harun Yahya's works share one single goal: to convey the Qur'an's message, encourage readers to consider basic faith-related issues such as Allah's existence and unity and the Hereafter; and to expose irreligious systems' feeble foundations and perverted ideologies.

> > Harun Yahya enjoys a wide readership in many countries, from India to America, England to Indonesia, Poland to Bosnia, Spain to Brazil, Malaysia to Italy, France to Bulgaria and Russia. Some of his books are available in English, French, German, Spanish, Italian, Portuguese,

Urdu, Arabic, Albanian, Chinese, Swahili, Hausa, Dhivehi (spoken in Maldives), Russian, Serbo-Croat (Bosnian), Polish, Malay, Uygur Turkish, Indonesian, Bengali, Danish and Swedish.

Greatly appreciated all around the world, these works have been instrumental in many people recovering faith in Allah and gaining deeper insights into their faith. His books' wisdom and sincerity, together with a distinct style that's easy to understand, directly affect anyone who reads them. Those who seriously consider these books, can no longer advocate atheism or any other perverted ideology or materialistic philosophy, since these books are characterized by rapid effectiveness, definite results, and irrefutability. Even if they continue to do so, it will be only a sentimental insistence, since these books refute such ideologies from their very foundations. All contemporary movements of denial are now ideologically defeated, as a result of the books written by Harun Yahya.

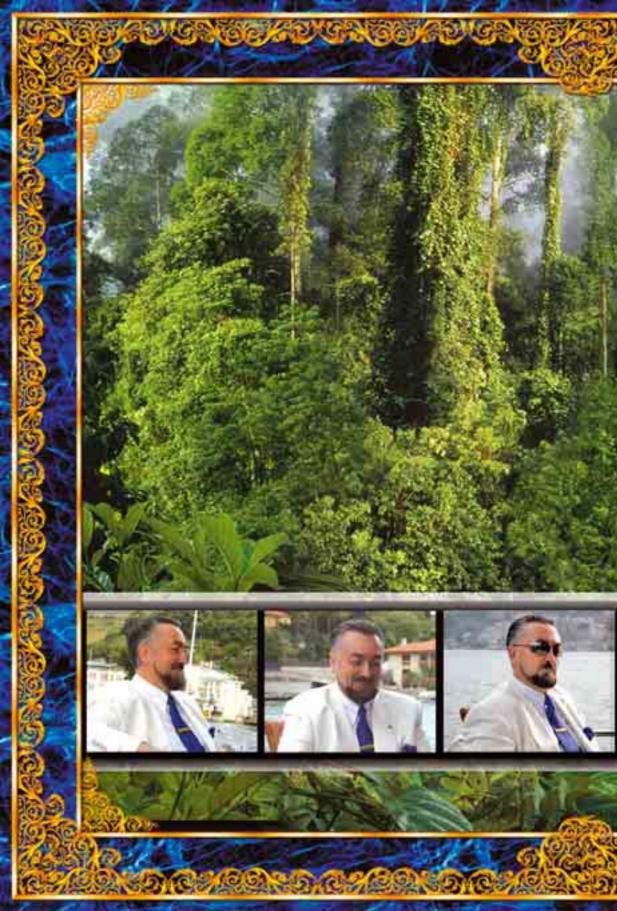
This is no doubt a result of the Qur'an's wisdom and lucidity. The author modestly intends to serve as a means in humanity's search for Allah's right path. No material gain is sought in the publication of these works.

Those who encourage others to read these books, to open their minds and hearts and guide them to become more devoted servants of Allah, render an invaluable service.

Meanwhile, it would only be a waste of time and energy to propagate other books that create confusion in people's minds, lead them into ideological confusion, and that clearly have no strong and precise effects in removing the doubts in people's hearts, as also verified from previous experience. It is impossible for books devised to emphasize the author's literary power rather than the noble goal of saving people from loss of faith, to have such a great effect. Those who doubt this can readily see that the sole aim of Harun Yahya's books is to overcome disbelief and to disseminate the Qur'an's moral values. The success and impact of this service are manifested in the readers' conviction.

One point should be kept in mind: The main reason for the continuing cruelty, conflict, and other ordeals endured by the vast majority of people is the ideological prevalence of disbelief. This can be ended only with the ideological defeat of disbelief and by conveying the wonders of creation and Qur'anic morality so that people can live by it. Considering the state of the world today, leading into a downward spiral of violence, corruption and conflict, clearly this service must be provided speedily and effectively, or it may be too late.

In this effort, the books of Harun Yahya assume a leading role. By the will of Allah, these books will be a means through which people in the twenty-first century will attain the peace, justice, and happiness promised in the Qur'an.



## THE MURACILE OF PROTEIN

### Harun Yahya (Adnan Oktar)







#### To the Reader

- A special chapter is assigned to the collapse of the theory of evolution because this theory constitutes the basis of all anti-spiritual philosophies. Since Darwinism rejects the fact of creation -and therefore, Allah's existence- over the last 150 years it has caused many people to abandon their faith or fall into doubt. It is therefore an imperative service, a very important duty to show everyone that this theory is a deception. Since some readers may find the opportunity to read only one of our books, we think it appropriate to devote a chapter to summarize this subject.
- All the author's books explain faith-related issues in light of Qur'anic verses, and invite readers to learn Allah's words and to live by them. All the subjects concerning Allah's verses are explained so as to leave no doubt or room for questions in the reader's mind. The books' sincere, plain, and fluent style ensures that everyone of every age and from every social group can easily understand them. Due to their effective, lucid narrative, they can be read at one sitting. Even those who rigorously reject spirituality are influenced by the facts these books document and cannot refute the truthfulness of their contents.
- \* This and all the other books by the author can be read individually, or discussed in a group. Readers eager to profit from the books will find discussion very useful, letting them relate their reflections and experiences to one another.
- In addition, it will be a great service to Islam to contribute to the publication and reading of these books, written solely for the pleasure of Allah. The author's books are all extremely convincing. For this reason, to communicate true religion to others, one of the most effective methods is encouraging them to read these books.
- We hope the reader will look through the reviews of his other books at the back of this book. His rich source material on faith-related issues is very useful, and a pleasure to read.
- In these books, unlike some other books, you will not find the author's personal views, explanations based on dubious sources, styles that are unobservant of the respect and reverence due to sacred subjects, nor hopeless, pessimistic arguments that create doubts in the mind and deviations in the heart.



FOREWORD ... 8

INTRODUCTION: THE TRUE ORIGIN OF LIFE...10

THE FLAWLESS CREATION THAT TURNS INANIMATE ATOMS INTO PROTEINS. . . 14

THE INCOMPARABLE PRODUCTION IN THE CELL: PROTEIN SYNTHESIS...58

PROTEINS: THE BODY'S TIRELESS ENGINES...84

A MAJOR DILEMMA FOR DARWINISTS: HOW DID PROTEINS COME TO BE?...112

CONCLUSION...134

THE DECEPTION OF EVOLUTION . . . 136

# FOREWORD



eople who lack sufficient information on a given subject—or who do not think about it much—may arrive at a number of mistaken ideas, or may be deliberately led astray by others.

For example, for those with little interest in how a television works and no idea of what components the mechanism consists, the television set is simply a means of watching films or news programs. Those people will be unable to appreciate the marvelous technology in the apparatus if they remain unaware of how the video and audio signals reach the television, and do not consider how the image appears on the screen. How satellite connections are established, how images originating from another country first head into space and then without encountering any obstruction reach the television in their home with full sound and color, what function its components serve, what materials are used to make it, and the logic behind the remote control device—none of that matters! They view a television as merely an electrical device for watching selected programs.

What, you may wonder, is this analogy doing in the introduction to a book about proteins? To emphasize that lacking information on any particular subject may lead to serious errors or superficiality. When people fail to consider certain issues, they may remain unaware of the most vital matters. True, not understanding how a television set works or not giving the subject much thought may not represent too much of a loss. Yet not considering the question of how life on Earth began and survived—and blindly believing in unrealistic "answers" to that question—may cause people to make the most serious errors and suffer the most serious losses. Therefore, we urgently need to reflect on the origins of life.

How did life begin? By describing various features of proteins—the basic building blocks of life—this book provides the only valid answer: that life began by being created by Allah, the Superior and Mighty Creator.

Allah calls in the Qur'an to those who are unaware of this truth:

Does not man recall that We created him before when he was not anything? (Surah Maryam: 67)

### INTRODUCTION: THE TRUE ORIGIN OF LIFE



ack in the 19th century, the cell, could be examined only under a microscope, and so scientists saw the fundamental unit of life as nothing more than a circular blot. Some imagined that the in-

terior of the cell was filled with only a plasma-like fluid; others that it contained a jelly-like substance. Based on the images seen under the light microscope—widely used at the time, but now regarded as a rather primitive compared with present-day instruments—19th-century scientists imagined the cell to be a very simple structure, and proposed a theory that the cell had developed spontaneously and by chance.

Charles Darwin first proposed the theory of evolution in his 1859 book *On the Origin of Species*. He claimed that under the conditions on the so-called primordial Earth, blind coincidence combined unconscious and inanimate atoms, giving rise to a cell possessed of a flawless creation and all the features necessary for continued life. These same blind coincidences then somehow caused that first cell to allegedly evolve. According to his claim, primitive life forms developed from single cells—again by evolving spontaneously and by chance, eventually giving rise to humans, some of whom became computer engineers, professors, artists and geniuses.

Most scientists were unaware of what a complex, detailed and superior creation the cell is and what substances it contains. And so, a majority of them blindly believed in the theory of evolution, with all its illogical and ignorant claims. One reason for their support was that the theory provided important support for materialist philosophies which were growing stronger in the 19th century, denying the existence of a Creator and advancing a theory of "chance."

Subsequently, however, in the second half of the 20th century, science and technology made especially rapid strides, bringing with them a realization that Darwin's theory of evolution was totally at variance with the newly discovered facts. Indeed, it was devoid of any validity or scientific evidence. It had survived through a deception consisting of an imaginary scenario, reminiscent of primitive mythologies. But some—including scientists unable to break away from this materialist theory and those who denied the existence of a Creator—continued, with great conservatism, to devotedly defend the theory of evolution and to indoctrinate young people that it was the only scientific explanation able to account for the origin of life.

Evolutionists took advantage of the fact that the great majority of people possess little detailed knowledge of scientific matters. In the course of their busy lives, they have no opportunity to think very much about such things, and succumb to a kind of mass hypnosis. Proponents of evolution employed irrational claims, most unbelievable theories, fraudulent proofs, and "very scientific" papers and books—widely adorned with Latin terminology, but actually hollow—to make the public believe that evolution was an established fact.

11

Today, as a result, most people imagine that evolution theory is indeed scientifically proven. They remain unaware of just how illogical and irrational the theory of evolution actually is. Yet for anyone who learns the complex and exquisite biochemical making of not just a single cell, let alone of any one of the protein molecules that comprise it, the theory of evolution is nothing more than imaginary nonsense. It is even more ridiculous when one thinks of the hundreds of concurrent conditions and the coexistence of hundreds of molecules and enzymes that require for a single protein to come about. As will be emphasized in this book, there is a detailed and finely calculated planning in even a single cell. Hundreds of preconditions must be met at once and the same time, and that hundreds of molecules and enzymes must all be present together, for life to maintain itself.

Moreover, it is mathematically impossible for even a single protein molecule to come into existence by chance. Every protein molecule possesses a flawless structure that could be built only by a power possessing intelligent consciousness, information and will.

How is it, you may justifiably wonder, that scientists—who know far more about proteins than most of us—still support the theory of evolution? As already indicated, Darwinists defend the theory of evolution not because it is scientific, but because it denies the existence of a Creator and offers support for materialistic philosophies. What's more, Darwinists themselves often admit as much! For example, Dr. Michael Walker of the University of Sydney, says:

One is forced to conclude that many scientists and technologists pay lip-service to Darwinian theory only because it supposedly excludes a Creator...<sup>1</sup>

Fred Hoyle, another world-famous evolutionist, admits the impossibility of life having begun by chance:

Once we see, however, that the probability of life originating at random is so utterly minuscule as to make it absurd...  $^{\rm 2}$ 

As these prominent Darwinist scientists admitted, it's illogical to maintain that life began spontaneously and by chance. These scientists persist in their claims solely in order to deny the existence of a Creator. The information you are about to read represents only a very small sampling of the data concerning proteins, the building blocks of life. However, any one piece of this information is enough to show just how truly illogical and unbelievable is the evolution deceit that has persisted for the last 160 years.

Every protein molecule is impeccably created. Each one's structure is exceedingly complex. An extraordinarily organized and perfect method is used in the manufacture of protein. The distribution of functions among the proteins and the flawless harmony among those different functions all show evidence of such a superior creation that not even their smallest components could have come into being by chance. Everything in the entire universe—from the particles making up the simplest atoms to the largest galaxies—is the product of a superior creation and infinite intellect and power. The Lord of all these works is our Almighty Lord Who created us all from nothing.

The way that some people, even though they are intelligent and educated, deny this and ignore such an evident truth is a miracle all by itself. Allah addresses such people in the Qur'an as follows:

How can you reject Allah, when you were dead and then He gave you life, then He will make you die and then give you life again, then you will be returned to Him? It is He Who created everything on the Earth for you and then directed His attention up to heaven and arranged it into seven regular heavens. He has knowledge of all things. (Surat al-Baqara: 28-29)

### THE FLAWLESS CREATION THAT TURNS INANIMATE ATOMS INTO PROTEINS





Il living things are known to be made up of cells. The human body, for instance, is composed of some 100 trillion cells. Every one of them constantly produces substances that the living organism will require throughout its life. If you compare the cells of living things to factories equipped with advanced technology, then the proteins that are this book's subject matter are those factories' machinery, walls, floors, stairs, and even bolts and screws. In short, proteins provide the building materials of cells and also their very complicated machinery. That's why proteins, which assume such very different functions, are often referred to as the building blocks of life.

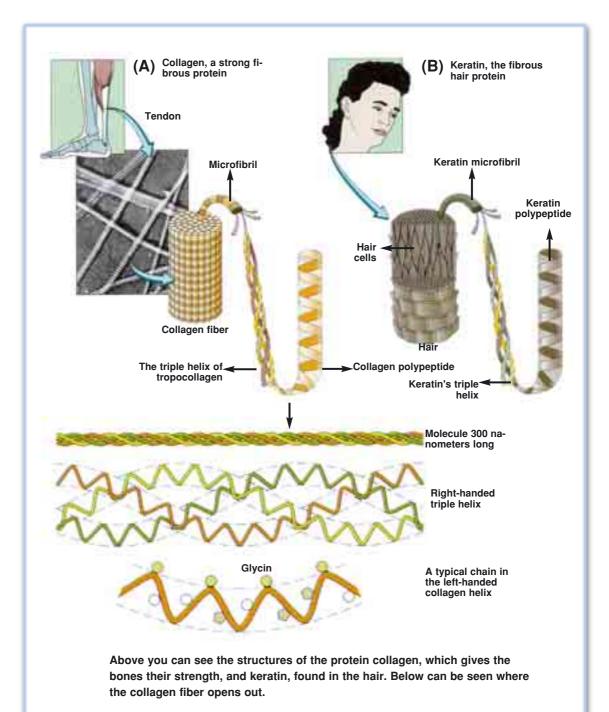
For example, one protein is keratin, the substance that forms the hard structure in hair, nails and feathers. Other proteins form a strong,

nylon-like substance in the tendons that bind the bones to the muscles. Yet another protein, collagen, gives the skin its smooth elasticity and the bones their strength. Still another protein constitutes the elastic rubberlike tissue that surrounds the arteries. When light falls on the eye's retina, the protein rhodopsin initiates the process of vision. Other proteins make up the eye's transparent lens. Special transport proteins serve to help molecules enter and leave the cells. Without proteins, the DNA moleculewhich encodes the data for all life-cannot be copied or preserve its information. In other words, proteins perform various tasks both within the structures of cells, the smallest units of life, and also in innumerable functions throughout the bodies of living things. Certain other proteins act as catalysts in order to speed up intracellular chemical reactions by up to billions of times. By working as a chemical team, they construct all the structural components of the cell. In addition to their construction abilities, they also break down large molecules in the cells into simpler compounds the cells can use. They permit the reactions to occur that provide the cells with energy. Also, special proteins in the muscle cells are necessary for the muscles to contract.

The listing above represents just a few of the thousands of varieties of protein. Even as you read these lines, every variety of protein in your body continues to work ceaselessly for you to enjoy a healthy life. Many needs, from your ability to read this book to being able to digest, and from the development of your body to your resistance to disease, are met through the proteins working constantly in your cells. The essential activities in all living things—not in human beings alone, but also in plants and all animal species down to the simplest bacteria, are based entirely on proteins.

As this book will emphasize throughout, these miraculous molecules, the result of atoms combining in specific numbers and ways, work together in total harmony and fulfill unbelievable responsibilities by demonstrating the result of enormous intellect and consciousness. Every subject that we will consider from here on prompts an important question that every rational person of good conscience needs to ask: How are pro-

15



Specific atoms attach together in specific orders and with specific bonds, becoming miracle molecules like proteins, with specific functions. To the side, you see the internal structures of the atoms that compose a molecule.

tein molecules—that arise from combinations of inanimate atoms, and which we might expect to lack any knowledge or competence—able to perform all these activities and display miraculous intelligence, organizational ability and a sense of responsibility? Everyone who reflects with true sincerity will understand that they are the flawless creations of Almighty and Allknowing Allah, and that all entities in the universe—from the greatest to the smallest—are under Allah's control and command. His dominion over all things is revealed in a verse from the Qur'an:

> I have put my trust in Allah, my Lord and your Lord. There is no creature He does not hold by the forelock. My Lord is on a Straight Path. (Surah Hud: 56)

#### **Talented Proteins Built by Unconscious Atoms**

The diagram on the next page shows the atomic structure of the protein known as cytochrome-c. Just 5 millionth of a millimeter in size, this protein consists of approximately 1,000 atoms. As shown in the illustration, the organization and binding among these atoms is extremely sophisticated and complex.

Consider, now: Darwinists claim that these 1,000 atoms came togeth-

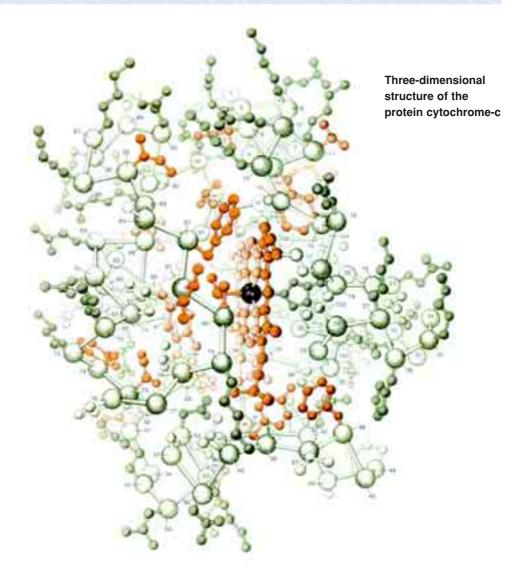
Molecule

Atom -

Neutron -

Quarks <sup>-</sup>

#### THE MIRACLE OF PROTEIN



er by chance and are bound to one another in the way you see. They also state that the protein cytochrome-c, with its vital functions for life, came into being as a result of these accidental combinations. Consider too that these 1,000 atoms include different elements such as iron, carbon and nitrogen atoms. In other words, the different atoms necessary to constitute cytochrome-c must be present all at once in a specific number and a specific place—and must then, as shown in the diagram, attach to one another by means of very different but appropriate chemical bonds. According to evolutionists' utterly illogical claims, all of this happened by chance, and a protein of the very greatest importance to life must have come into being in that unbelievable manner.

Furthermore, Darwinists also offer the same explanation for the origin of all the other thousands of proteins necessary for life. It is a violation of reason and logic to maintain that by combining in specific proportions and structures of inanimate atoms such as carbon, nitrogen, iron and phosphorus, devoid of any awareness of anything, gave rise to not just cytochrome-c but to all the proteins essential for life.

When you consider the tasks undertaken in the living body by these minute structures just 5 millionths of a millimeter in size, you can appreciate just how illogical and irrational it is to claim that unconscious atoms assembled such important structures by chance.

Some proteins, for example, combine to form a substance that constitutes hair, nails and animal fur. Others comprise the tendons that connect muscle to bone. Moreover, proteins also carry the messages reaching the cells, and which receive and evaluate them. The "gates" and "pumping systems" that regulate entry into and departure from the cell are also proteins. Proteins also accelerate chemical reactions. The protein hemoglobin in red blood cells carries the oxygen to the tissues. The protein transferrin carries iron in the blood. Immunoglobulins are proteins that protect the body against bacteria and viruses. Fibrinogen and thrombin permit the blood to clot. Insulin is yet another variety of protein that regulates sugar metabolism in the body.

Other proteins are of great importance in the bodies of other living creatures besides human beings. The "antifreeze" protein in the blood of some fish protects ice crystals from forming in their tissues. The protein resilin possesses an almost perfect elasticity and thus permits the movement of insect wings. It's quite extraordinary how these molecules, which consist of only 20 amino acids—in other words, the combination of a few hundred atoms—can possess such different properties. It is definitely impossible for unconscious atoms to accidentally combine and by chance produce structures that can perform such important tasks, display intent, are able to organize and make the right decisions in the right place.

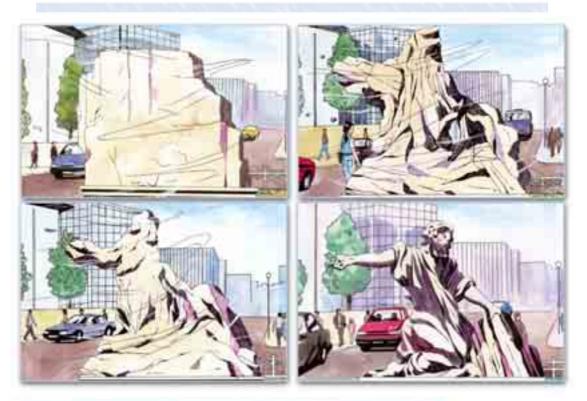
One matter to reflect on is how proteins consisting of more or less the same atoms can show such a wide variety of tasks and functions. When proteins' generally similar atoms are set out in different numbers and sequences, they endow a given protein molecule with different tasks and functions. It is impossible to account for this in terms of coincidence—a fact that Darwinists admit. About the formation of cytochrome-c, for instance, the prominent Turkish evolutionist Professor Ali Demirsoy has this to say:

In essence, the probability of the formation of a cytochrome-C sequence is zero... Otherwise, some metaphysical powers beyond our definition must have acted to form it, but to accept the latter explanation is not appropriately scientific. We thus must look into the first hypothesis. <sup>3</sup>

In another chapter of his book, Demirsoy refers to the probability of cytochrome-C—an essential protein for life—forming coincidentally is "as unlikely as the possibility of a monkey writing the history of humanity on a typewriter without making any mistakes." <sup>4</sup>

Since a monkey cannot type without making a mistake, the cytochrome-c protein can certainly not be formed by chance. However, as Demirsoy states in his first quotation, for Darwinists to accept the existence of supernatural forces is inappropriate. In other words, since the "scientific" objectives of evolutionist scientists are to deny the existence of Allah and support materialism, they are forced to accept that cytochromec came into being by chance. This claim is so illogical that even a little reflection lets you see the terrible error into which Darwinists have fallen. For instance, if someone claimed that powerful winds had turned a collection of stones in Trafalgar Square into a magnificent statue of a human being; or if someone said that powerful waves striking a cliff had produced the architectural façades in the red rock of Petra, Jordan, what would you think about that person's sincerity and psychological well-being? As you have seen, Darwinists are in such a logical impasse that out of all these impossibilities, they prefer the most unlikely of all. They close

#### HARUN YAHYA (ADNAN OKTAR)





Coincidences can never produce a superior, complex model. To say that molecules such as proteins came into being by chance is even more illogical than claiming that a collection of rocks became a statue under the effects of random erosion, or that the waves beating on the seacost turned it into a marina.

their eyes to evident truths, closing the door to their understanding and comprehension. It is plain for all to see that protein molecules were made for life by Allah, the Lord of Boundless Intellect, Knowledge and Power.

#### Flawless Systems in Line with Proteins' Duties

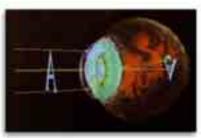
It is the order of their atoms that gives substances their characteristic features. The atoms comprising every substance, organic or otherwise, are arranged in specific groups known as *molecules*. From the book in your hand to the chair you are sitting in, from your own body to trees outside the window, everything is made up of atoms. However, animate and inanimate objects are differentiated from one another by their atoms being grouped and organized differently. In molecules that comprise the structures and systems of living things, the atoms have been ordered specially to enable life.

Protein is one of the four main groups of these organic molecules. (The others are nucleic acids, lipids and carbohydrates.) Again, the atoms in each molecular group are ordered differently. In this way, they acquire different properties and accordingly, undertake different functions.

The order of the atoms is so sensitive and crucial that if the atoms of a single protein molecule fail to align themselves properly, this can cause irreparable damage to your body in a matter of moments. As an example, consider the phenomenon of vision. In the eye, which has a far superior technology than even the most advanced cameras, many proteins are involved in its ability to see. Just as in a camera, a number of components are responsible for the image to form. (However, there is clearly no possible comparison between the eye and the camera, whose components can never form as clear and as perfect an image as do the proteins in the eye.) A defect in any one of a camera's components will lead to either a defective image forming, or none at all. In the same way, if even one of the proteins in the eye fails to possess its correct molecular structure, vision may soon be impaired.

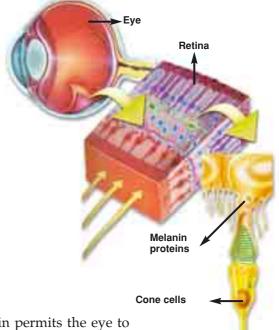
#### HARUN YAHYA (ADNAN OKTAR)





The picture at the top left is a camera produced to imitate the human eye.

The high-tech camera pictured above consists of hundreds of components. Imagine the best quality image you can obtain with it. Quite often, there will be blurring when your hand shakes. Inevitably that image's colors will never be exactly the same as they really appear. Now imagine the image that forms in your eye, consisting solely of proteins and fats. There is never any blurring or shake in that image. Neither does the focus ever go wrong. The colors are always accurate. It is a completely illogical to claim that unconscious atoms by chance began to transmit an image of such quality, which thousands of scientists, technical experts and engineers have been unable to reproduce. Clearly the eye was created, together with all its components, by a superior Creator.



For example, the protein rhodopsin permits the eye to react to light. The slightest defect in the structure of rhodopsin will impair this process. Similarly, defects in the structure of proteins in the retina's cone cells (which enable the perception of color) will prevent the sufferer from being able to see in color. Another example is cataracts, which develop when the protein melanin is unable to protect the eye from the harmful effects of ultraviolet rays. As you can see from these examples, proteins must possess the most appropriate molecular structures if they are to perform their essential duties. Therefore, it is equally essential that the amino acid molecules composing the proteins should also be in their ideal forms. Just as with proteins, detailed systems and flawless functions prevail in the structure of these amino acids.

#### The Order in Amino Acids

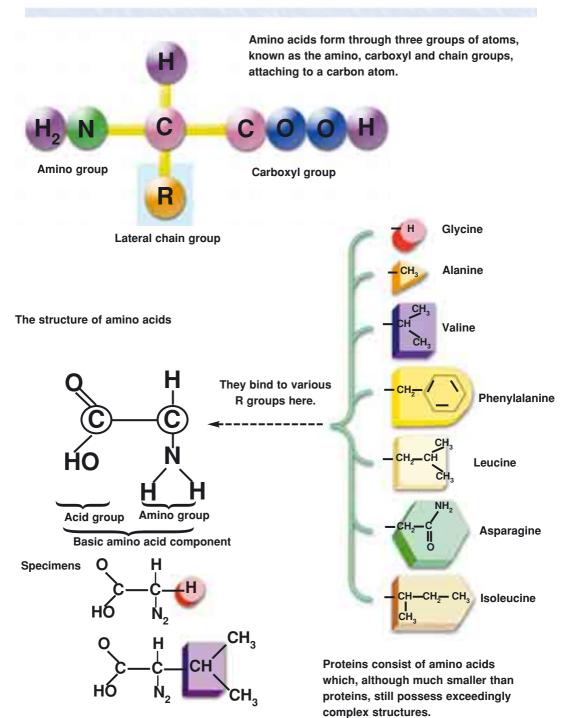
Proteins consist of molecules known as amino acids. Although smaller than proteins, amino acids still exhibit rather complex structures.

The atoms comprising amino acids fall into three separate categories: the *amino* group, the *carboxyl* group and the *side chain* or *radical* group. The amino and carboxyl groups are the same in all amino acids.

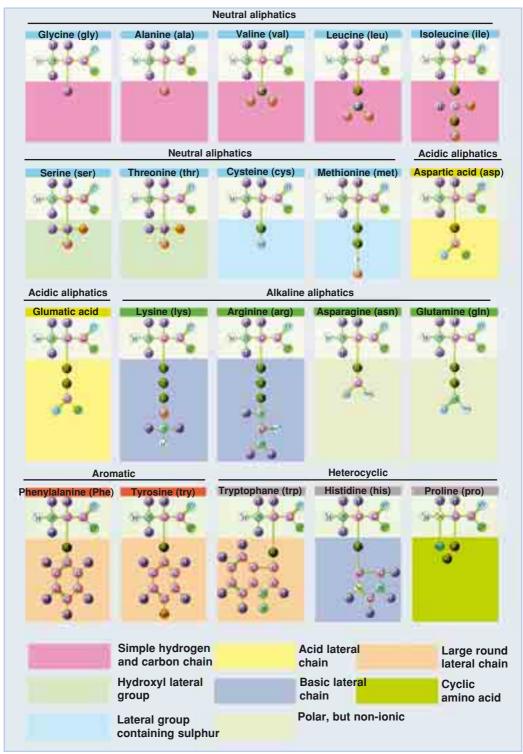
In the same way that various materials are used to produce a machine, there need to be components of various different properties in the protein "machines" if these are to perform their exceedingly complex functions in the body. In the side chain amino acids, the form, number and sequence of atoms, their electrical charges and diverse hydrogen binding capacities all endow the amino acids with considerable variety. And from this widely diverse material are produced widely different proteins. For instance, whether amino acids can dissolve in water or not depends on whether the side chain groups have a positive (+) or negative (-) electrical charge, or else no charge at all.

Amino acids with different properties line up alongside one another in different sequences, permitting the proteins that result to perform an astonishing range of functions in the body. However, the amino acids present in living structures are very special. Although more than 200 amino acids are found in nature, no more than 20 of them are found in proteins.

#### HARUN YAHYA (ADNAN OKTAR)



#### THE 20 VARIETIES OF AMINO ACID IN THE BODY



#### Why Are Proteins Constituted of Only 20 of the 200 Amino Acids?

In theory, one would expect the number of amino acids in nature to be far more than 200. Even in human body, many amino acids not used in human proteins are used in the body's metabolic functions. Why, therefore, do proteins select only 20 amino acids when so many are more available?

We can answer this question by examining proteins' functions and structures. In order to perform their functions essential to life, proteins need to possess specific features, and amino acids are one of the main elements that give them those properties. For instance, it is essential that an amino acid possess hydrophobic (or water-repellent) side chains. But these side chains must not be very large, or else it will be impossible to pack and install them inside the proteins.

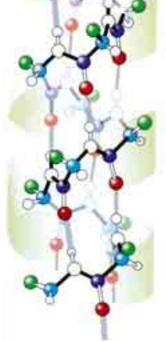
Side chains must also possess two features known as *helix* and *layered* formations. As a result of these, a protein can assume a three-dimen-

sional form, and these are also essential for the protein to work properly.

Research has shown that of the 20 amino acids used in proteins, most are hydrophobic



Left: Side chain amino acid chain with helix. Top: Side chain amino acid chain with layer.



side chains. Half possess a-helix properties and the other half, b-layer properties.

Examine the properties of these 20 amino acids one by one, and you can understand why they have been specially selected for proteins. For instance, even glycine—the smallest and simplest amino acid—has a very important role to play in collagen, which is one of the most important proteins. If the three amino acids that comprise collagen, one is glycine. Its small dimensions play an important role in the structure of collagen, by permitting the chains comprising the protein to bind tightly together, which increases the resistance of the collagen fibers. Collagen fibers have been determined to have greater tensile strength than steel. If another side-chain amino acid were used in place of glycine, the resulting

> collagen fibers could not possess the same level of tensile strength. At the same time, were it not for glycine, the collagen fibers would also lack enough strength to bind cells to one another.

As you can see from this brief description, there is a consciousness and planning behind the selection of these 20 specific amino acids from among the 200 occurring naturally. Had this selection taken place at random, then the proteins necessary for life could never have formed. If only a single amino acid were any dif-

ferent from how it needs to be, a vital function would collapse, and life would therefore become impossible.

As you have seen, there are conscious systems, rational selection, and order in every phase of life.

The amino acid structure of the protein collagen is seen. As you see, one of each three amino acids is glycine (gly). Being very small, glycine is the most suitable amino acid for the structure of collagen.

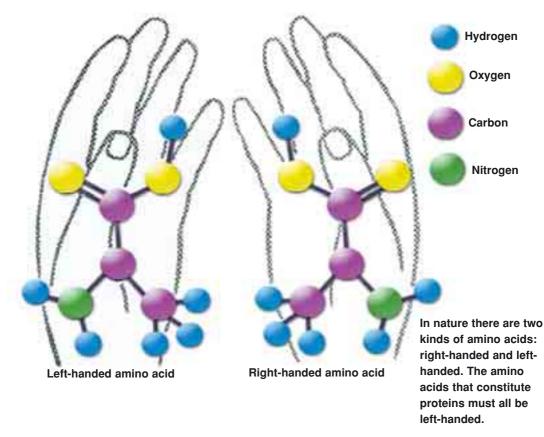
GI

#### Proteins in Living Structures Are Formed from Left-Handed Amino Acids Only

As research has shown, it is not enough for amino acids to combine in different numbers and sequences to form proteins. All 20 of these amino acids must also be *left-handed*.

Of every amino acid found in nature, there are two different types: right-handed and left-handed. Each type is an opposite mirror image of the other, though all their other properties remain the same, just like right- and left-hand gloves.

The reason for this is that in one of the twin amino acids, a carbon atom binds to the amino group from the left and in the other one, from the right, which explains why the twin amino acids are called right-handed



and left-handed. In nature, both types of amino acids are found in large quantities and in the same proportions. Each type of amino acid can just as easily form various compounds by entering into chemical reactions. In short, the only difference between the two lies in their different symmetry.

However, scientists discovered that the proteins in living things consisted only of left-handed amino acids. Not a single right-handed amino acid is found in any living structure.

More detailed studies discovered the important reason why the amino acids constituting proteins are all left-handed. Just like their left-handed counterparts, right-handed amino acids can combine with one another to form amino acid chains, but they prevent the resulting protein from assuming a three-dimensional shape. Yet—as you shall see in due course—in order for a protein to discharge its functions in living things, it absolutely must assume a three-dimensional form. It was realized that this being so, all amino acids had to be selected from among left-handed ones in order for a useful protein to emerge. The inclusion of even one right-handed amino acid would prevent the formation of a functional protein.

The revelation that only left-handed amino acids form the proteins in living things poses a major difficulty for Darwinists. As you have seen, in order for proteins to form, the selection consists of several stages. First of all, the 20 correct left-handed amino acids need to be selected from the more than 200 varieties in existence. A single incorrect amino acid becoming involved in the process—or a single correct but right-handed one—will make the protein functionless and redundant. The *Britannica Science Encyclopedia*, an outspoken defender of evolution, states that the amino acids of all living organisms on earth and the building blocks of complex polymers such as proteins all share the same left-handed asymmetry. This, it adds, is tantamount to tossing a coin a million times and having it always come up heads. The *Encyclopedia* claims that it is impossible to understand why molecules become left-handed or right-handed, and that this choice is fascinatingly related to the origin of life on Earth. <sup>5</sup>

Inasmuch as Darwinists maintain that chance constitutes the origin of life, they cannot understand how random events should make such obviously conscious and well-directed choices. In fact, however, not blind chance but Allah, our Superior Creator, makes these conscious choices. In order to reject the fact of creation, Darwinists make irrational and illogical claims, suggesting that this selection is the work of "coincidences." According to their claim, the amino acids that comprise proteins—and the atoms that give rise to them-all accidently combined in the most appropriate manner to produce the proteins indispensable for life. No doubt, such a "scientific" claim exceeds the bounds of reason.

It is as unlikely for all the amino acids making up proteins to be left-handed as it would be for a coin thrown into the air 10,000 times to always turn up heads.



In fact, scientists estimate that the probability of a small protein being made up of left-handed amino acids alone is 1 in  $10^{210}$ . In mathematics, a probability of 1 in  $10^{50}$  is regarded as zero. Since the number " $10^{50}$ " is obtained by writing 1 followed by 50 zeros, the likelihood of 1 in such a large number is therefore itself zero. That being so, it is even more impossible for any event with a probability of only 1 in  $10^{210}$  (or 1 followed by 210 zeros) to actually occur. <sup>6</sup>

The well-known chemist Walter T. Brown summarizes the impossibility of left-handed amino acids combining to form a single protein:

Each type of amino acid, when found in nonliving material or when synthesized in the laboratory, comes in two chemically equivalent forms. Half are right-handed, and half are left-handed—mirror images of each other. However, amino acids in life, including plants, animals, bacteria, molds, and even viruses, are essentially all left-handed. No known natural process can isolate either the left-handed or right-handed variety. The mathematical probability that chance processes could produce merely one tiny protein molecule with only left-handed amino acids is virtually zero.<sup>7</sup>

The point here is that a *conscious* selection is taking place. Therefore, a conscious Will possessed of reason and information must be doing the "selecting." It's plain to see that this selection is performed by Allah, Who creates all living things within a given order, right down to their subatomic building blocks, and Who possesses a superior intellect, consciousness, knowledge and might. As Allah informs us in the Qur'an:

He directs the whole affair from heaven to earth . . .. (Surat as-Sajda: 5)

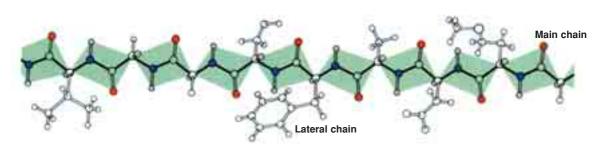
#### The Plan in the Amino Acid Sequences

Fulfilling all the conditions described so far is still not sufficient for the formation of proteins. For every protein, a particular amino acid sequence is required.

Amino acids combine together like the links in a chain. As soon as they do, they assume a different shape and enable the protein to assume a three-dimensional form. As you shall see in detail later on, in order for proteins to fulfill their responsibilities, they must have a three-dimensional shape. But for this to be so, not a single amino acid can be deficient in any way or exchange its place in the sequence with a different amino acid. The absence or impairment of a single component will ruin the harmony of the whole and make the protein's structure inoperable.

Similarly, changing a single letter in a word can change that word's meaning or make it totally meaningless. For example, the word "grand" written with a *t* instead of *d* will produce the word "grant," which has a completely different meaning. If the letter *a* is omitted from "grand," then the meaningless "grnd" results. The same applies to proteins. A single amino acid changing its position will impair the protein "meaning" and

#### HARUN YAHYA (ADNAN OKTAR)



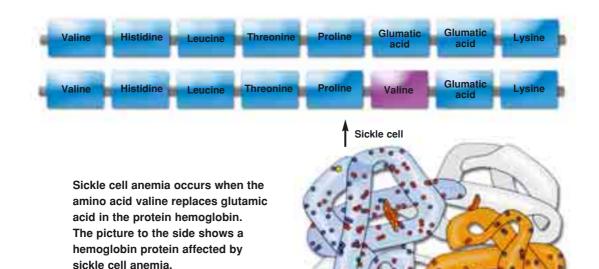
An amino acid chain shown with a side chain. If any of the amino acids in this chain changes place or is removed, the protein will cease to function. Therefore, the sequence here has formed not as a result of chance, but by creation.

make it unable to function. In fact, the protein thus altered will become an entirely different molecule, because every amino acid endows the protein with a particular property, just as a change of letter adds a different significance to a word. With its shape, electrical charge, and manner of entering into chemical reactions, every amino acid resembles a different letter.

Mediterranean anemia, a genetic form of cancer, is an example of the kind of damage caused by the faulty or deficient writing of an amino acid. It is known that erythrocytes in the blood carry oxygen to all the cells in our bodies. The oxygen molecules are transported by the protein called hemoglobin, which is found in erythrocytes and consists of some 600 amino acids. A difference in just one amino acid in the structure of hemoglobin—if the amino acid known as *glutamic acid* is replaced by one called *valine*—gives rise to Mediterranean anemia. This one incorrect amino acid makes the hemoglobin protein unable to carry oxygen. When a mistake occurs in just one amino acid out of 600, a fatal disease results.

But according to the theory of evolution, all these amino acids came together and arranged themselves by chance. As a result, various types of proteins emerged with thousands of beneficial and superior features and functions. Moreover, every one of these proteins "happens" to fulfill its

#### THE MIRACLE OF PROTEIN



duties accurately, without being redundant, and in coordination with all the others. It is clearly impossible for coincidences to establish any system that works with such immaculate order and displays such magnificent planning and programming. Coincidences can only give rise to disorder, confusion and chaos. They can never produce machines, products of advanced technology and a superior genius. Clearly, the fact that varieties of amino acid must be set out in a specific number and in a specific order in order to form useful proteins makes the Darwinist claim completely untenable.

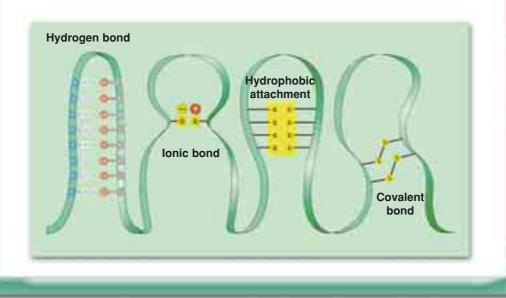
This order belongs to Allah alone, Who created the atoms and molecules together with all the living things on Earth.

#### THE SPECIAL BONDS THAT JOIN AMINO ACIDS TOGETHER

The various chemical bonds that join atoms and molecules are classified as ionic, covalent and weak. Covalent bonds hold together the atoms in amino acids, the building blocks of proteins. Weak bonds keep the amino acid chain in the three-dimensional form it has assumed through folding. Were it not for weak bonds, the proteins formed by the combination of amino acids could not assume their three-dimensional functional forms. In the absence of proteins, life would not be possible. Interestingly, the temperature range that both covalent and weak bonds require is exactly that is found on Earth. Yet the structures and features of weak and covalent bonds are entirely different from each other.

There is no natural reason why they

should both need the same temperature level. Nonetheless, both chemical bonds can be established only in the temperature range prevailing on Earth. If covalent bonds and weak functioned at different temperature ranges, then the formation of the proteins would again be impossible, because protein formation depends on these two chemical bonds being established simultaneously. If the temperature range for covalent bonds were not also appropriate for weak bonds, then proteins would not assume its final three-dimensional forms and would remain a meaningless, ineffective chains. In the same way, if covalent bonds could not be formed at the same temperature as weak bonds, the amino acids could not combine and no protein chain could form.



#### The Peptide Bond That Holds the Amino Acids Together

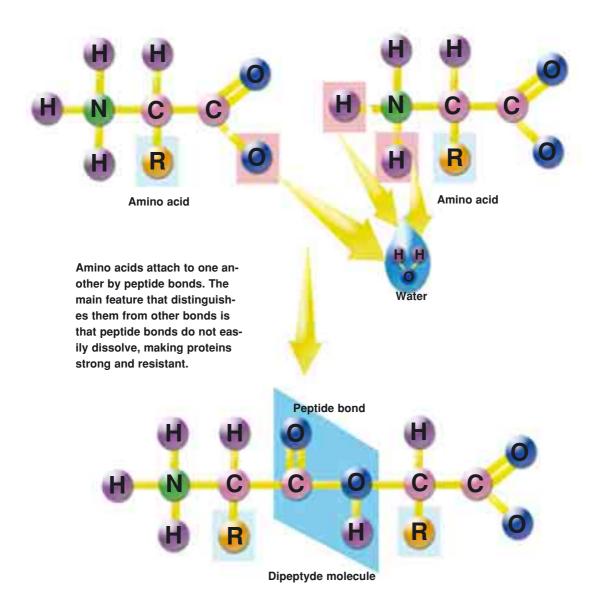
Another precondition must be met for proteins to form: In addition to their correct amino acids being in the proper sequence, they must be correctly bound to one another. This bond between amino acids is literally like a bridge. For each individual protein, the angles at which amino acids will be bound to one another on this bridge, their directions, and the variety and number of atoms within them have all been specially calculated. For example, if two amino acids are joined at an angle different than what it should be, this will prevent the completion of the bridge, and thus prevent the formation of the protein—resulting in an entirely different and useless molecule. These special bridges between amino acids are known as *peptide bonds*.

Scientists studying the biochemistry knew that almost all the atoms in the molecules in the structure of living things were connected by what's known as a *covalent bond*. However, researches revealed that amino acids combining to form proteins established a special bond previously undescribed. This is an unchanging rule for all proteins.

In 1902, Hofmeister and Fisher first uncovered the importance of these bonds in the formation of proteins. These two researchers performed a test in order to reveal the existence of this special bond.<sup>8</sup> As a result, they determined the existence of a special bond occurring in proteins.

The most important characteristic distinguishing peptide bonds is that when moistened, they do not dissolve quickly. Peptide bonds can dissolve only at high temperatures when exposed to strong acids or bases for a long period. These peptide bonds allow proteins to be strong and resistant. In order for this special bond to be established a carboxyl group in an amino acid (in other words a special molecule containing carbon, oxygen and hydrogen atoms) must combine with the amino group in another amino acid (a special molecule containing nitrogen and hydrogen atoms). This establishes an important equilibrium at the connection points along the protein chain. During the formation of these bonds, water is released which constitutes up to 80% of protein molecules.

At this point, you may well ask: While the molecules of all the living things on Earth are joined by a covalent bond, what permits the peptide bond among amino acids?



Research has shown that when amino acids combine, only approximately 50% of the bonds that form among them are peptide bonds, the others being attached to one another by other bonds. When attached by these different bonds, no protein molecule emerges.<sup>9</sup> Just as specific varieties of amino acids must be arranged in specific amounts and in a specific sequence, with each one being left-handed, in order for a protein to form, also there needs to be a peptide bond between them. If just one of these conditions fails to be met, then protein cannot form.

Remember that an average protein molecule contains several *hundred* amino acids. The odds of any amino acid being attached to another one by a peptide bond is one in two, or 50%.

To summarize what features the amino acid chains must possess for a single protein to form:

1. Of the more than 200 varieties of amino acid in nature, only 20 are found in living organisms. The requisite ones for the protein to be made need to be distinguished and selected from these 200 amino acids.

2. The selected amino acids must all be left-handed, not right-hand-ed.

3. After the proper amino acids have been selected in the correct amounts, they need to be arranged in a particular sequence for protein to be formed.

4. After arranging in the correct sequence, the selected amino acids must be joined together with a peptide bond.

It's clearly impossible to account for even one of these conditions for the formation of a single protein in terms of chance. Therefore, it is completely out of question for several conditions, none of which could have occurred by chance, to combine together (again by chance!) and give rise to a protein.

Molecular biologists have carried out a great many probability studies on the impossibility of proteins forming by chance. These include such well-known scientists as Harold Morowitz, Fred Hoyle, Ilya Prigogine, Hubert Yockey and Robert Sauer. Despite being Darwinists, they have

## HOW DID LIFE ON EARTH EMERGE?

Let us imagine that the letters that comprise this sentence are the amino acids that constitute a protein. There is no chance of the letters in this sentence forming a meaningful sentence if they are distributed at random. Such a random action will produce billions of different outcomes. Just three of these possibilities are as follows:

## HOW DID LIFE ON EARTH EMERGE?

First and foremost, some of the letters will fall face down.

## 2] HOM OID -IT ON EVALH MEJADJ?

Some of the letters will fall on their sides or upside down. Moreover, the letters may not line up side by side when they are thrown down. Even if we assume they line up side by side, some will form an oval shape and others a circle.

## 3) OD WHIL DEO EFIN GETARHEINER?

The chances of them lining up side by side are very small. Even if we assume they do line up side by side, against all the odds, they will still be in the wrong order. And the result will be a mass of letters signifying nothing.

As you see from this example, if the amino acids in nature come together by chance, some will be right-handed and others left-handed. When set out at random, they will form a meaningless sequence. Thus no protein will emerge. When you read a meaningful sentence, you can be sure some rational, informed human being wrote it. In the same way, proteins that have existed for billions of years show the existence of a superior Creator Who brought them into being with His intellect and consciousness.

concluded that there is no chance at all of macromolecules like proteins coming into existence spontaneously.

Through a mathematical calculation, you can see for yourself the impossibility of a small protein molecule, 100 amino acids long, coming into being by chance:

The chances of all 100 amino acids in a protein being left-handed as a result of coincidence is approximately  $(1/2)^{100}$ , or 1 in  $10^{30}$ . Since there are 20 amino acids in the proteins of living things, the probability of ob-

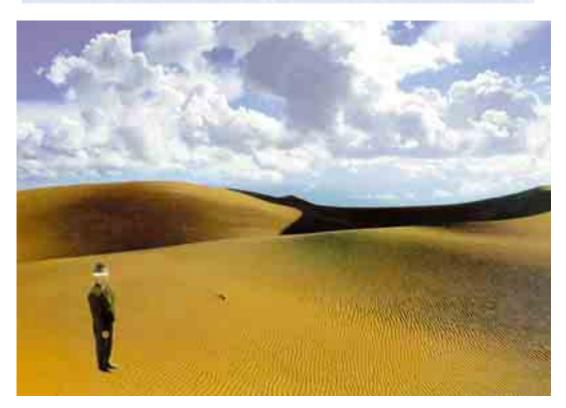
taining a special amino acid in any given region of the amino acid chain is 1/20. The probability of obtaining a special protein 100 amino acids long is  $(1/20)^{100}$  or  $10^{130}$ . The odds of obtaining a peptide bond in any particular amino acid chain are approximately even, or 1 in 2 (50%). The probability of obtaining a 100-amino acid chain in which *all* the bonds are peptide is approximately  $(1/2)^{100}$  or 1 in  $10^{30}$ —a probability so small as to be non-existent.

Now, bearing in mind all these probability calculations, let's compute the likelihood of a chain in which all the bonds are peptide, in which all the 100 amino acids are left-handed, and in which the amino acids are arranged in the proper sequence for a particular protein coming into existence by chance. That probability is approximately 1 in 10<sup>190</sup>. Even if we allowed a period as long as the age of the Earth for such an event to occur, in practical terms there is no chance of its happening. Moreover, if you recall that in mathematical terms, a probability of 1 in 10<sup>50</sup> is zero, we can see that no such thing can ever take place. Indeed, considering that the number 10<sup>190</sup> actually contains four 10<sup>50</sup>s, the impossibility becomes even more apparent ( $10^{50}$  times  $10^{50}$  times  $10^{50}$  times  $10^{40} = 10^{190}$ ). In the light of these findings, the world's famous biochemist Michael Behe has stated that the probability of a protein 100 amino acids long being obtained is even less than that of being able to find a marked grain of sand in the Sahara Desert (which is 8.6 million square kilometers in size) with one's eyes closed. <sup>10</sup>

Given that it's totally impossible for even a single protein to come into being by chance, it's evidently illogical to claim that all the thousands of varieties of functioning proteins in living structures could have formed by chance and given rise to cells. In addition, it is not only proteins that make up the body of a cell. The cell also consists of other organic molecules created with a superior consciousness, and are organized with that same matchless planning.

Every stage of protein formation reveals the presence of consciousness, information, will, intellect, power and planning. These features be-

#### HARUN YAHYA (ADNAN OKTAR)



Professor Michael Behe has stated that the odds of obtaining an appropriate sequence in a protein 100 amino acids long are even smaller than those of finding a marked grain of sand in the Sahara Desert with your eyes shut. This example alone is an indication that proteins were created by Allah.

long to our Lord, a Superior Creator. Those who believe in the creative powers of other entities apart from Allah—or of chance, which is helpless and lacks the power to create anything—make a terrible error and have gone badly astray.

In one verse Allah reveals:

He to Whom the kingdom of the heavens and the Earth belongs. He does not have a son and He has no partner in the Kingdom. He created everything and determined it most exactly. But they have adopted gods apart from Him which do not create anything but are themselves created. They have no power to harm or help themselves. They have no power over death or life or resurrection. (Surat al-Furqan: 2-3)

#### **The Four Different Structures of Proteins**

The physical, chemical and biological properties of proteins, and the resulting functions they perform, determine the type of amino acids in their structures, their sequence, and the arrangement in these amino acids' side chains.

Proteins may have a primary, secondary, tertiary, or quaternary structure.

A *primary* structure emerges from straight amino acid chains. A proteins in a primary structure is not functional, but when added to one of secondary, tertiary or quaternary structures, it may play a role in bodily processes. The *secondary structure* forms with the long amino acid assuming a spiral form. Proteins such as actin, myosin, fibrinogen, keratin and b-keratin exhibit a secondary structure. Proteins with a *tertiary structure* emerge within the amino acid chain folds and bends, resulting in a structure reminiscent of a ball of wool.

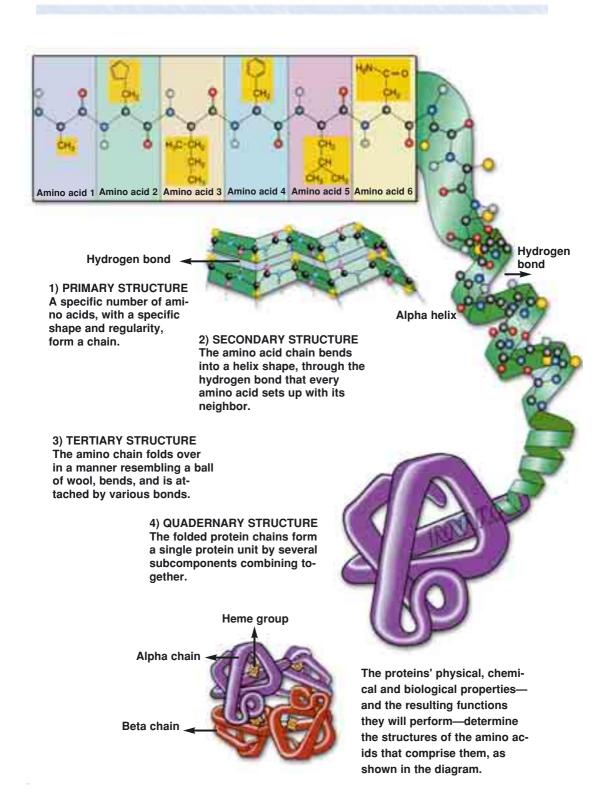
The *quaternary structure* emerges from two or more amino acid chains of equal or different length.

Detailing the features of these different structures and the functions they bestow on proteins can help you see the superior creation with which these molecules were brought into being.

Of course, you can find similar information about protein structure in any biology or biochemistry text. The reason why we consider these matters here is to show how truly complex and interrelated are the structures, effects and systems that give rise to proteins. Darwinists describe the "spontaneous" formation of a protein as if the process were very simple and quite able to accommodate coincidences. Only by concealing the exceedingly complex structure in proteins do they hope to make the myth of chance convincing. In describing the structure of proteins, therefore, they imply that proteins can easily be formed by amino acids binding to

42

#### HARUN YAHYA (ADNAN OKTAR)



one another, like beads on a necklace. In fact, however, as is clear from this account so far, that even if amino acids could combine with one another at random, a number of other conditions need to be fulfilled. In the event that these are not useful, proteins cannot form.

When you read the information that follows, therefore, recall that coincidences cannot make fine planning or calculations, much less bind amino acids to one another with special structures and methods.

#### **Proteins' Primary Structure: Amino Acid Sequence**

The most important determinant of proteins' forms, which are exceedingly important for life, is the sequence of the amino acids that constitute them. Abnormalities in amino acid sequences are the cause of many genetic diseases. From that perspective, the correct sequence of amino acids, is of the greatest importance for health.

The amino acid sequence serves like a backbone for proteins, and the backbone, or sequence, of each variety of protein has been created specially for it. Just as the backbone determines the shape of a vertebrate's body, so the sequence of proteins determine their shape. Every amino acid is analogous to a vertebra in that backbone. Just as every vertebra must be in a specific place in order for the body to function, so every amino acid must be in a specific position for proteins to display certain properties. Though the functions carried out by the "spine" in proteins are similar to those in our bodies, there is one important difference: Protein backbones operate in an area of just one millionth of a millimeter. No doubt, a structure able to operate an important function in such a small space is most miraculous.

Just like the spine and vertebrae in your own body, proteins and amino acids have been specially created to attach to one another in the best possible manner. Their flawless attachment is just as important to proteins as it is to the body. If one amino acid does not bind to the next in an appropriate sequence, then the entire protein loses its function. Reflect a little, and you can discern the delicate and conscious creation here.



The proteins' primary structures emerge with the amino acids being strung out like beads on a necklace.

Miraculous events take place constantly inside all the 100 trillion cells in the human body. In an area of one thousandth of a millimeter, too small to be seen with the naked eye, thousands of proteins comprising the cell, and the hundreds of amino acids that form these proteins, are all in exactly the right positions. That applies to all the billions of human beings on Earth. Contrary to what Darwinists would have you believe, this extraordinary phenomenon is not the work of chance. In addition, never forget that amino acids are not conscious entities with sensory organs and the ability to think, but tiny molecules made up of specific combinations of unconscious atoms. That being so, Who is it Who decides how the proteins necessary for life will come about, and which amino acid are to bind where? Could the various atoms have come to a joint decision one day and said "Let us combine in a particular order and make up an amino acid. Then let us agree with other atoms com prising other amino acids to arrange ourselves in a particular sequence to produce a protein"? Of course, such a claim would be utterly illogical.

Just as unconscious atoms can possess no such ability, neither can proteins or the amino acids that compose them possess any such decisionmaking mechanism. Allah locates all these entities in the appropriate positions, brings the building blocks of living cells into being, and creates life—flawless and of infinite variety—by means of these cells. Allah is Lord of all the worlds, from atoms to giant galaxies.

45

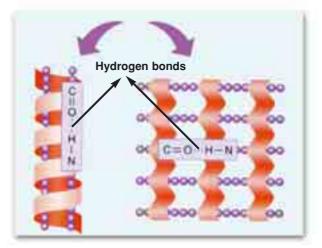
## Proteins' Secondary Structure: Helix and Layered Structure

After the amino acids necessary for a protein line up alongside one another, other miraculous events take place. Along with the peptide bond that every amino acid sets up with the amino acid next to it, hydrogen bonds also form. How these bonds form determines the shape and position that amino acids will assume along the sequence.

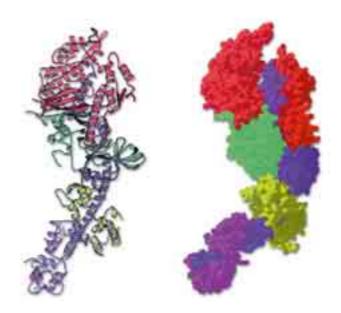
Under some circumstances—for instance, when hydrogen bonds form within the chain—the amino acid forms a spiral structure. When amino acids establish weak bonds with an amino acid outside that chain, then layered structures form, reminiscent of the steps on a staircase.

Proteins whose chains assume a spiral form resemble the springs in mattress or automobile seat and, just like them they twist around a central axis. The proteins in hair, and myosin, a protein in muscles, possess this spiral structure and as a result, are elastic because hydrogen bonds can easily break and reform just as easily.

When amino acids are bound by hydrogen bonds as well as to peptide bonds, the protein chain assumes a helix or layered form, known as the protein's secondary structure.



46



The picture to the side shows the structure of myosin, a muscle protein with a secondary structure. Myosin has a spiral structure and is therefore elastic, and the hydrogen bonds formed between the amino acids can be broken.

The discovery of the effects of hydrogen bonds on body proteins has resulted in various applications in daily life. For example, to straighten curly hair or put curls into straight hair, the hydrogen bonds between the amino acids in hair proteins must be broken and reconstituted. <sup>11</sup>

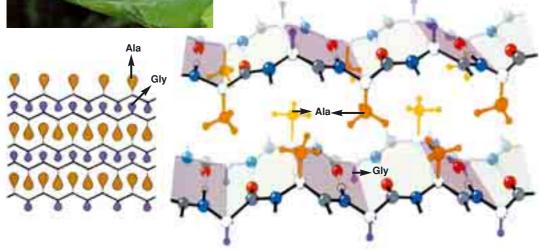
Proteins in layered form with a secondary staircase structure are not as flexible as those arranged in a spiral structure. They do, however, permit the formation of structures that bend, one very important requirement of living things. For example, proteins like the silk fibers in cocoons and spider webs are set out parallel and form chains bound to one another with hydrogen bonds. Because the peptide atoms are bound perpendicularly to the protein chain, the spine of these proteins bends up and down like a strand of yarn. <sup>12</sup>

In living things, the folds in proteins are always exactly where they need to be. If fibroins, the proteins in spider webs, lacked the ability to

#### THE MIRACLE OF PROTEIN



Below is shown the three-dimensional structure of silk fibroins. The proteins in silkworm cocoon fibers and spider webs are set out parallel to one another, consisting of chains bound to one another with hydrogen bonds, making them straight and pliable.



bend, then the webs would serve no purpose. But this protein's structure provides the web with a resilience that keeps prey from escaping. And spider silk is five times stronger than steel of the same thickness  $(1/1,000^{\text{th}})$  of a millimeter in diameter). <sup>13</sup>

As you see, proteins' structures have been created flawlessly and incomparably for the survival of living things, right down to the finest detail. Even if all the atoms in the universe were placed at its disposal, blind coincidence could never operate with such foresight and perform such impeccable calculations. No chain of atoms that comes into being by chance can possess the information, intellect or ability to organize every atom in such a way that the spider web becomes most efficient.

48

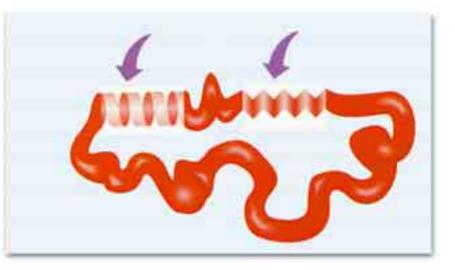
#### **The Tertiary Structure of Proteins**

After assuming the forms in their secondary structures, proteins begin to assume new shapes by bending, folding, or even making sudden U-turns under the influence of amino acids that approach or move away from one another. This bending and folding is enabled by the mutual effects between amino acids' side chains. In this way emerge three-dimensional forms of great functionality. So how does this bending process, the result of these mutual effects, occur?

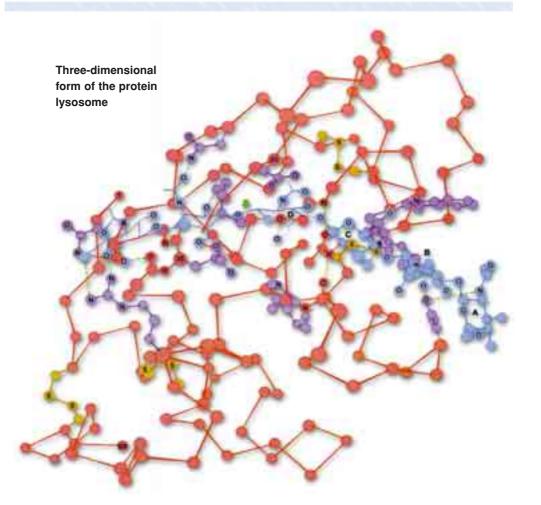
In proteins, the side chains of amino acids attract or repel one another as a result of various influences. Five major agents play a role in this repulsion and attraction: hydrogen bonds, disulphide bonds, ionic bonds, Van der Wallis forces and other polar and non-polar effects of the side chains.

By means of these special bonds, some sections of amino acids draw closer to one another. The amino acid chain folds over itself. Proteins bend at the appropriate sites and angles. The three-dimensional form of the protein is stabilized and kept from dissolving in the extracellular environment.

After proteins assume their secondary structures, they adopt new shapes by bending, folding and making sudden turns. In this way the tertiary structure emerges.



#### THE MIRACLE OF PROTEIN

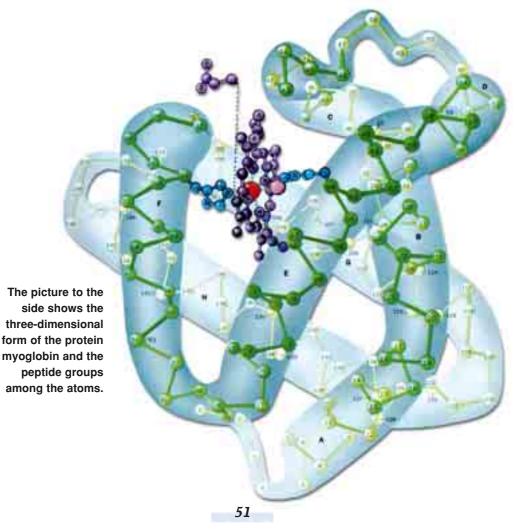


Experiments have shown these bonds to be of crucial importance. Every one of them permits the protein molecule to bend in exactly the desired manner in various sites along its length. For example, disulphide bonds form only in specific regions of the protein molecule, but permit a particular bending in those regions and to the exact extent required. In a similar way, other forces act on amino acid regions to cause certain sections of the chain to approach one another, or to move away. The absence of any one of these necessary folds and curves will render the protein useless.

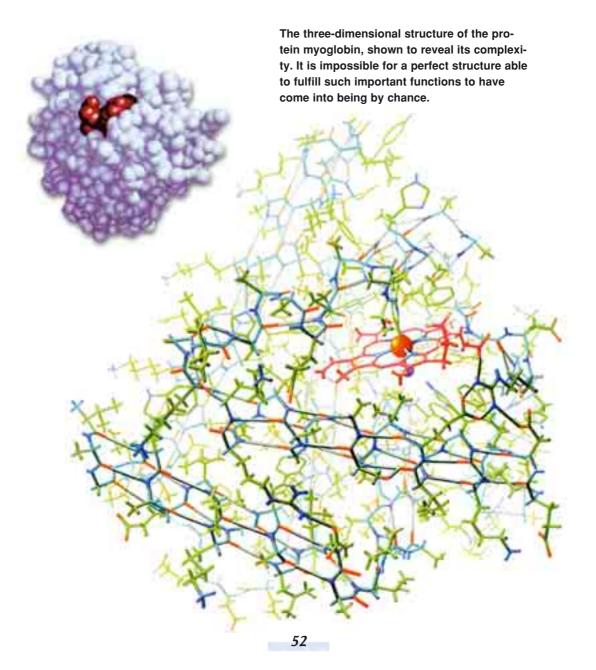
#### The Strength of the Bonds Must Be Ideal

These bonds essential to protein formation are different from other powerful bonds. Proteins' curved three-dimensional forms cannot arise through other powerful chemical forces because the strength of the bond formed would cause the molecules to approach one another too closely and thus cause the protein to lose its properties. Therefore, these bonds whose features and strengths have already been identified are at the ideal strength to let the proteins to bend.

Through these bonds, the protein process is also speeded up. As the well-known biologist James D. Watson explains:



Enzyme-substrate complexes can be both made and broken apart rapidly as a result of random thermal movement. This fact explains why enzymes can function so quickly, sometimes as often as 106 times per second. If enzymes were bound to their substrates by more powerful bonds, they would act much more slowly. <sup>14</sup>



### Proteins' Three-Dimensional Structure is a Flawless Creation

To dramatize the bending of the protein chain in its timing, location, direction and angle, consider the Japanese art of origami, or paper folding. In order to obtain a three-dimensional "sculpture," a two-dimensional piece of paper is subjected to consecutive creasing and folding operations. By following predetermined instructions, you can fold a flat, rectangular sheet of copier paper into a model of a ship or a bird. In much the same way, for a protein to assume a three-dimensional form, its amino acid chain must fold at specific intervals and specific angles, in specific lengths and directions.

In origami, it is impossible to obtain the three dimensional forms by random folding. For every model that will be obtained, experts have designed in advance which part of the paper is to be folded in which order

> The bends in the protein chain are the work of a superior creation. If you fold a sheet of paper into the 3-D model of a bird by following the instructions, even one incorrect fold will keep your origami bird from emerging. Naturally, the necessary folds in any protein are much more complex, and could never come about by chance.

and in which way. A single fold out of sequence, in the wrong direction or the wrong length will prevent the desired shape from emerging, and the resulting form will be defective and impaired. (For instance, miss out one fold while making a paper airplane, and the plane's wing will fail to emerge at the proper angle, due to that single faulty fold.)

When it comes to proteins, however, the situation is far more detailed. One single sequence error or faulty combination in just one amino acid will cause the protein molecule to assume a faulty shape that will not function. For instance, the spherical shape of the protein myoglobin is responsible for the transport of oxygen in the muscles. When impaired, its length can becomes 20 times greater than its width, and it becomes unable to carry oxygen molecules. <sup>15</sup>

On their own or even together, amino acids cannot undertake vital functions inside the body. But through these folds and curves, they acquire enormous potential, in the same way that a sheet flat piece of paper assumes the shape of a ship or bird through planning, design, and conscious bending and folding. Remember, a protein's structure is a great deal more complex and organized than the most sophisticated origami. Even though the protein molecule is too small to be seen with the naked eye—or even under an electron microscope!--the atoms arranged into such a minute space are first set out according to a planned goal and then bent and folded—again in line with that goal All these features are far more extraordinary and astonishing than in any arrangement you may see around you.

In these most minute building blocks of life there is absolutely no room for chance formation. For such a flawless, complex, multi-stage and multi-component structure in order to come into being by chance is manifestly impossible. Moreover, this description is merely a simplified summary of the countless details regarding proteins' structure. More detailed investigations reveal still more complex features of these protein molecules, and a great many questions have still not been fully answered to this day.

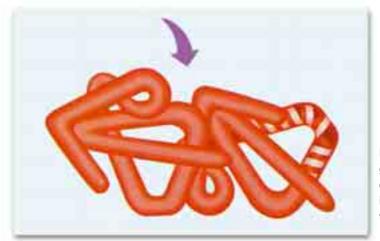
54

## The Quaternary Structure of Proteins: Combined Proteins

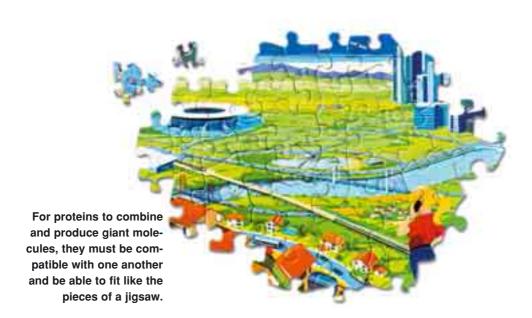
Imagine a desk with several telephones on it, whose cords all become tangled up with one another. At first sight, it appears impossible to determine which cord belongs to which phone. Proteins, too, also intertwine with one another in very complex ways.

Many proteins become able to perform their functions only after combining with one another. However, in order for proteins to combine into giant molecules, very delicate balances have to be established. If two proteins are to combine, their shapes must be as suited to one another as a hand to a glove. Think of jigsaw puzzles as an example of this essential compatibility. If the curves and extensions of one single piece do not match the next, then completing the picture will be impossible. The same applies to proteins. If the bonds of just one protein is not correct, the giant combined molecule will serve no purpose. <sup>16</sup>

Furthermore, if combined proteins are to discharge their functions, it is also essential that they come together in the right numbers. The hormone insulin is an example. This protein organizes the giving of the order



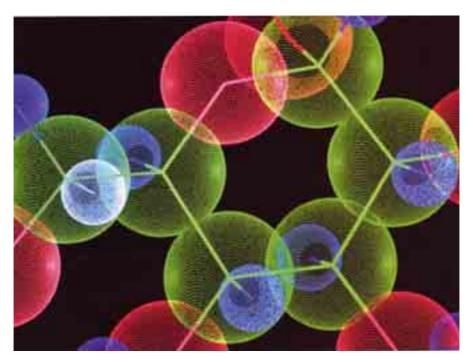
Proteins combine together by means of complex folds, giving rise to their quaternary structure.



to store excess sugar in the bloodstream by the combination of more than one amino acid chain. Any flaw in the insulin molecule's structure will make it useless and cause the individual to suffer from diabetes. When insulin fails to function, the sugars that enter the bloodstream are excreted without being fully metabolized or stored against future need. As a result there can be insufficient sugar in the blood, and the cells' energy requirements are not met. In such a situation, weakness and even death are inevitable.

Similarly, there must not be a single error in the structure or form of any single protein in any of the 200 or so types of cell in your body. Every stage of this formation is planned and acted upon according to the last stage in it, in other words, the target information. Only when the hormone adrenalin—a protein secreted by the adrenal glands—has the correct structure can the heart and muscle cells recognize it and be stimulated into action, to protect the body against physical and psychological stress. In the same way, all the enzyme proteins in our bodies can carry

#### HARUN YAHYA (ADNAN OKTAR)



Insulin molecule

out their functions—such as cell division, energy production, molecule transport and a great many more—only by means of the shape they possess.

Biochemists use modern-day technology to research these molecules of life. Every new piece of amazing formation they obtain has revealed this incomparable creation even further, and demonstrated the illogicality of claims that chance could "evolve" such a system. By a most defective logic, Darwinists believe in coincidences as a creative deity and claim that structures with such a complex and superior system came into being as a result of chance. Only sincere, rational individuals of good conscience are able to see the truth, Allah reveals us in the Qur'an:

Allah is One God. There is no god but Him, the All-Merciful, the Most Merciful. (Surat al-Baqara: 163)

# THE INCOMPARABLE PRODUCTION IN THE CELL: PROTEIN SYNTHESIS

roteins, which are of vital importance to the survival of living things, are produced by a flawless organization in the cell, whose complexity and regularity cannot be compared with any other production system.

In this complex system, there is no room for the slightest error. A flaw arising at any stage is corrected immediately, due to a reliable control system. In this way the proteins that permit the living organism to survive are manufactured in exactly the right forms and locations, with no disruptions arising.

Protein production takes place at a miraculous speed. For example, the E. coli bacterium synthesizes a protein molecule bearing 100 amino acids in only 5 seconds. No factory on Earth is able to complete a flawless production process so rapidly. This speed is of great importance, because for life to be maintained, the cells need new proteins every moment. <sup>17</sup>

During protein production, a great many proteins act together. All the components necessary for protein production work flawlessly together in the cells. More than 80 ribosome proteins, more than 20 amino acid messenger molecules, more than a dozen helper enzymes, over 40 RNA molecules, and more than 100 enzymes that carry out the final processes,-a total of around 300 macromolecules-play a coordinated role in protein synthesis.<sup>18</sup> This flawless production, which even a team of engineers would have trouble coordinating, maintains life in a space just 1,000th of a millimeter in size, through the actions of hundreds of much smaller molecules. In the event that a single one of those molecules fails, the entire production chain is ruined. This indicates that protein production is one of the irreducibly complex processes in living things. In an irreducibly complex system, if only one of its components is removed, then the entire structure is ruined. For example, if only one protein fails to emerge, that puts an end to production of new proteins. The existence of such a planned and communal consciousness is possible only by Allah's creation.

In the pages following, you can read some astonishing details in this miracle of creation, whose every stage embodies great information and conscious organization. But first, let us remind you that the production elements you'll be reading about are organelles and molecules inside the cell. When we examine these molecules' structure, amino acids emerge—smaller molecules in other words—and the unconscious, inanimate atoms that comprise them. With an intellect and consciousness one would never expect from them, these combinations of atoms such as carbon, oxygen and nitrogen carry out processes far beyond the capacities of human beings.

But what makes unconscious atoms carry out conscious actions? What makes these atoms more efficient than chemistry professors? This achievement, to be explained out in the following pages, is due to inanimate atoms and unconscious molecules behaving under the Might of Allah, Who regulates all things from Heavens to Earth.

#### **Production Begins: The First Signal**

Whenever the body needs any protein, a message expressing that need is transmitted to the DNA molecule in the nucleus of cells that will carry out that protein's production. Whenever need for any protein arises in the body, various messenger proteins can locate the exact location where they have to go inside the darkness of the body and can transmit the message to the exact correct place and in the right form. The protein that establishes that communication reaches its location without becoming lost and without causing any harm to any part of the body. Clearly every component shows a great awareness of its responsibilities.

When the message arrives, the cell nucleus creates protein following a series of most complex and organized processes. The protein request reaches the correct cells among the 100 trillion or so in the body. The cells receiving the message understand what is required and immediately go to work. Eventually, a flawless protein is obtained— all astonishing phenomena, because we are discussing not a community of conscious, intelligent human beings possessed of free will, but rather minute entities consisting of such substances as phosphorus, carbon and fat. These molecules themselves do not possess the power and free will. Like all molecules, they display conscious behavior to identify, understand and communicate by acting in accord with the special inspiration with which Allah endows them .

Once the order has been received, first the information regarding the protein whose production is required is taken from the DNA.

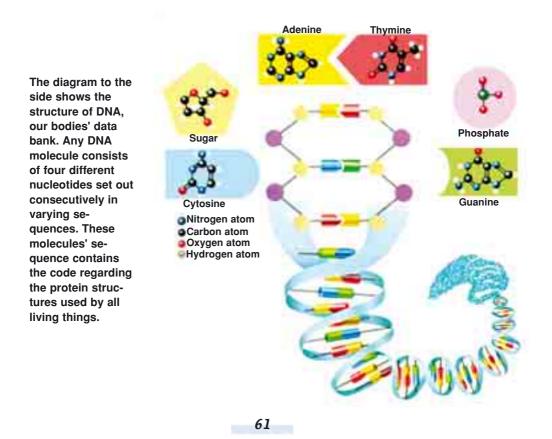
#### And the Order Is Placed

Data regarding all of our bodies' functions is stored in the DNA molecule within the cell nucleus. When a protein is to be produced, the information regarding that protein is taken from DNA. However, the DNA

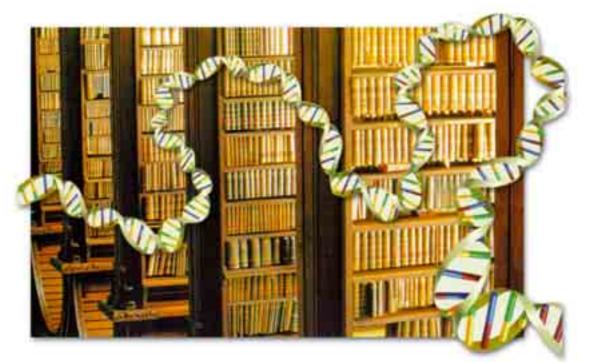
60

must correctly understand the data concerning that protein and also provide the correct information. When chemists want to produce a compound, they make an oral or written request for all the raw materials they will need. Similarly, a special language is used in order to request a protein formula from DNA, in a language with an alphabet consisting of four letters.

The DNA molecule consists of four different nucleotides, set out in different sequences. These nucleotides are referred to by the initials of their base molecules; A (adenine), B (guanine), C (cytosine) and T (thiamin). The sequence of these molecules establishes the structures of all the proteins used by a living thing. The information in every human being's DNA about the proteins that determine his own characteristics—so much information that it could fill a library of encyclopedias—is written in a four-letter alphabet.



#### THE MIRACLE OF PROTEIN



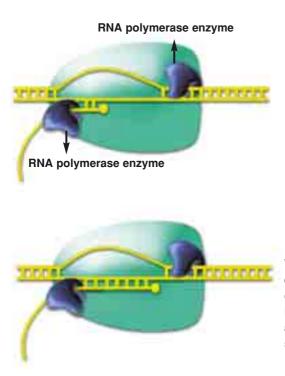
The truly extraordinary data contained in DNA is equivalent to a 20-volume encyclopaedia condensed into an area of less than 1 nanometer, or 1 billionth of a meter. It is impossible for human to conceive of such a data-storage system, let alone manufacture one. Through computer technology, microchips have been manufactured to store data, but they have nowhere near the capacity of DNA.

That enough information to fill hundreds of encyclopedias is encoded in a space smaller than 1,000th of a millimeter is truly extraordinary. Written out, this information would fill a thousand 500-page encyclopedias—nearly 20 times as long as the *Encyclopedia Britannica*.<sup>19</sup> Computer chips have been modeled with very high data storage capacities, and highcost research is being performed to increase that capacity with different coding systems. But the protein data in the DNA molecule has been encoded in a manner incomparably superior to any technology yet produced.<sup>20</sup> Such flawless data storage could not have come into existence by chance.

For life to continue, processes inside the cell must not be disrupted, its needs must be accurately met, with the correct proteins being produced. Therefore, after the message is received concerning which protein needs to be produced, the correct information must be selected and taken from the DNA. But Who makes that selection?

This vitally important selection is not made by a scientist capable of seeing and hearing, with years of education followed by years of scientific experience, but by a molecule consisting of unconscious molecules. The enzyme RNA polymerase, another protein with a perfect structure, carries out this essential selection. This enzyme performs an exceptionally difficult job. First, it must select the requisite letters for the protein to be produced from among the 3 billion in the DNA molecule. The way that the polymerase enzyme extracts a few lines of information from inside the DNA molecule's 3 billion letters is analogous to quickly finding a few lines of information hidden in a 1,000-volume encyclopedia, but with no description of it.

Including the worldwide Human Genome Project, hundreds of the



world's most eminent scientists, in laboratories equipped with the most advanced technology have been working to read part of the information in human DNA. They have been able to read a large part of it, but have still not determined which letters are used for which protein or gene. Nonetheless, at every moment,

When a protein is to be produced, the enzyme RNA polymerase selects and copies the necessary data from the DNA. What we refer to as an enzyme, a collection of atoms, displays consciousness in a truly miraculous way. trillions of RNA polymerase enzymes in the 100 trillion cells in your body are able to read the information in DNA from the beginning to the end and, moreover, to extract it in an error-free manner. This task requires competence, intelligence, information and research. What performs it at enormous speed is a molecule, a combination of unconscious atoms. Astonishingly, Darwinists claim that such a system came into being by coincidence, under the effects of lightning on primordial tide pools.

After the polymerase enzyme has found in the DNA molecule information regarding the protein to be produced, it must now exhibit another sign of consciousness and ability, by copying this information to the site of production.



Humans have been using the most advanced technology for years, but only managed to decipher DNA in 2000. Yet proteins invisible to the naked eye have been using DNA constantly, flawlessly for billions of years.

#### The Requisition Is Copied

It is of the greatest importance that the information extracted from the DNA be copied accurately. All the information to be used during the course of producing the protein is read from that requisition, and the slightest error could have fatal consequences for the organism. For example, if only one of the 600 amino acids changes place in the protein hemoglobin. The hemoglobin will assume an entirely different defective structure and be unable to carry oxygen in the blood to the tissues. The fatal disease known as Mediterranean anemia is the result.

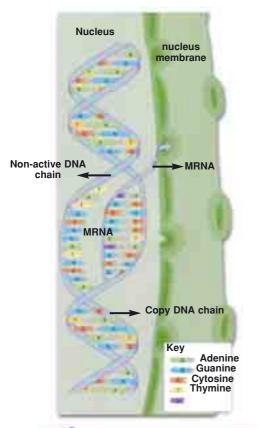
For the copying process to start, one major hurdle must be overcome. The strands of DNA twine around one another like a spiral staircase and must be separated before the copying process can begin. During this process, the RNA polymerase enzyme again goes into action. First the RNA polymerase binds to 35 letters from the beginning of the gene to be coded, and opens up the various stages of the DNA helix just like a zipper. This opening up takes place so very quickly that there is a danger of the DNA heating up because friction. Yet as a result of a system of finely regulated precautions, even this danger has been eliminated: A special enzyme attaches to the two ends of the opened DNA helix and prevents friction from taking place. Other special enzymes prevent the DNA rejoining again during opening.

Were it not for Allah's miraculous creation of these enzymes, the order requisition known as *messenger* RNA could not be copied. Before the copying process began, the arms of the DNA spirals would wind around one another again, and friction would damage the DNA structure. As you have seen, dozens of proteins and enzymes are involved in every stage of the operation, and all perform their functions in the greatest harmony.

Never forget the agents involved, both enzymes and proteins, are unconscious molecules made up of specific quantities of atoms. By Allah's will, every one of these molecules discharges its own functions in line with superior knowledge and a sense of responsibility.

65

Copying of protein data from DNA



After these special precautions are taken, a few more obstacles are still to be overcome. For one thing, information regarding the amino acid sequence of the protein to be produced may be located in any region of the long DNA molecule. What will the polymerase enzyme do to copy codes indicated in different areas of the amino acid string? It cannot tear the DNA apart and throw away the unwanted sections. If it continues along the same path, it will end up copying unwanted data and the desired protein will not form.

To resolve this difficulty, an extraordinarily conscious phenomenon now takes place. As if the DNA were aware that it had to assist the copying process, it bends and presents to the outside the

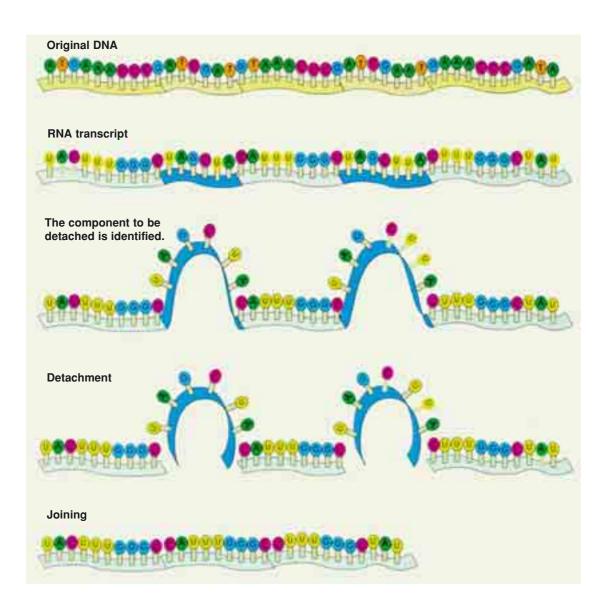
## FAULTY COPYING CAUSES CANCER

Research into bladder cancer has revealed that proteins wrongly produced in a cell play a major role in cancer. Genes copied incorrectly during the DNA copying process lead to the production of incorrect proteins. Faulty copying in the single stage in a special 5,000-step gene in the DNA impair the entire cell. [Robert A. Weinberg, *One Renegade Cell, How Cancer Begins*, New York: Basic Books (1st Edition) 1998, p. 42] By using flawed data to produce proteins, these faulty genes damage the cell rather than benefiting it. region containing the unwanted information. In this way, codes that need to be read consecutively but which have other codes between them are able to come together from distant parts of the sequence. The codes to be copied thus form a single line, so that the polymerase enzyme can easily copy the order for the protein to be produced.

To eliminate unwanted codes, a different method is sometimes employed. The RNA polymerase enzyme copies the entire gene from beginning to end, including the unnecessary codes. Then, *spliceosome* enzymes arrive to bend the unnecessary codes and eject them in ring form. To make this happen, these enzymes have to compare the prescription they carry with the information copied from the DNA and identify the unnecessary elements. Were you given two long lists of letters and asked to identify the superfluous ones among them, you would have to examine each list very carefully and check it against the other, line by line. For that reason, you should not be deceived by reading "it selects," "vends," or "ejects" in any biology textbook or documentary. What is actually doing the comparing, identifying, examining, distinguishing, selecting, bending and ejecting is unconscious substances, that consist of inanimate materials such as carbon, nitrogen and phosphate, under the command of Allah.

This is by no means the end of the amazing and extraordinary events that take place during the copying of the order requisition from the DNA. The copying units also have to be halted, or else the polymerase enzyme will copy the gene from beginning to end. At the end of the protein encoding gene is a codon that indicates that its finish. (Every group of three nucleotides making up the code in DNA is known as a codon.) When the RNA polymerase comes to a codon, it understands that it has to cease copying and it separates from the DNA and messenger RNA carrying the necessary message for the protein. At this point, however, it still acts with the greatest care. The messenger RNA must leave the cell nucleus and travel an extremely long way until it reaches the ribosome where production will take place. In the process, the message it carries must come to no harm. Therefore, it emerges from the cell nucleus under the protection of certain special enzymes.

#### THE MIRACLE OF PROTEIN



The information determining any one protein may sometimes be found in different places in DNA. Enzymes known as sliceosomes then arrive and bend the chain in such a way that the two ends of the unwanted DNA region touch. This "loop" is removed and discarded. In order to do this, enzymes need to display enormous conscious brainpower. They must be careful to flawlessly identify and eliminate the appropriate genes from the millions in the helix. How a small molecule of unconscious atoms can display such intelligence shows the perfection of Almighty Allah's creation.

## The Copied Information Reaches the Production Center

Once the necessary information for protein production has been found and copied from the cell's DNA, that information must now reach the ribosomes where the protein will be produced. These organelles, present in every cell, are rather a long distance from the DNA in the nucleus and are distributed throughout all the cytoplasm (the fluid in the cell). The production orders have to be rushed to these factories in a flawlessly accurate manner. Messenger RNA (mRNA) heads straight for the ribosome without losing its way among the many organelles and molecules in the cell. When it finds the ribosome, the mRNA settles in a line on its outer surface. In this way, information regarding the amino acid sequences of the protein to be manufactured reaches the production center in the correct form. The copied mRNA also carries information about what it must do to produce a protein, when the process needs to start and finish. Therefore, when this command reaches the ribosome, messages begin to be sent to other regions of the cell to bring to the ribosome those amino acids necessary for the protein's manufacture.<sup>21</sup>

#### **Raw Materials Head for the Production Center**

At this point in the production of protein, one of the miracles of perfect organization takes place.

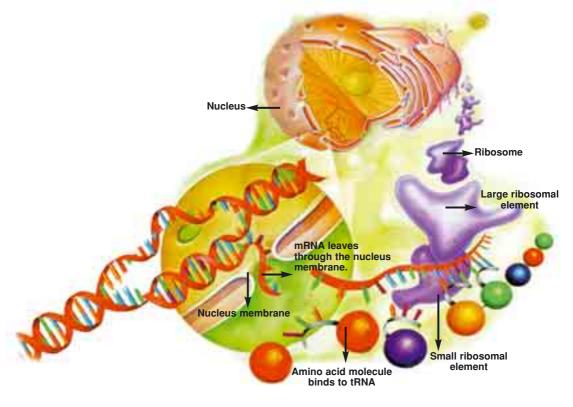
After the RNA carrying the protein data reaches the ribosome, another form of RNA, transport RNA (or tRNA) enters the equation—a molecule specially produced according to information in the DNA. Since these RNAs are charged solely with transporting to the ribosomes those amino acids to be used as raw materials in the production of protein they are known as transporters. These RNAs are like forklifts carrying raw materials for production inside a factory. Yet in the delivery system of these RNAs, there is one very different property.

As already mentioned, there are 20 varieties of amino acids, or raw material, in every living cell. Each of these 20 amino acids is carried by a

transporter peculiar to itself.<sup>22</sup> The bonding of amino acids to the tRNA that will transport them takes place as a result of a series of complex processes. A special enzyme activates every variety of amino acid and also permits the amino acid to bond to the tRNA. This means that the enzyme (amino acid synthetase) must possess structures to let it attach to both the amino acid and to the tRNA.

At every stage, as you have seen, there are many components with interconnected processes and functions. In the absence of just one of these, the ensuing damage will make survival impossible. For example, if

The information determining the protein to be produced leaves the cell nucleus with the mRNA and arrives at the ribosome, where manufacture will take place, in other words. At this point, the tRNAs begin bringing the necessary materials to the ribosome.



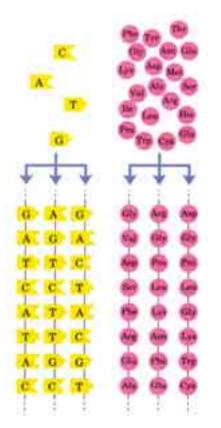
these special enzymes did not exist to activate the amino acids and bind them to the tRNA, those amino acids needed for protein synthesis would not reach the ribosome. Therefore, the entire system must have been outlined beforehand and created together with the specifics of all the materials it requires.

Every amino acid that the tRNA brings to the ribosome must be processed in specific locations in the production line determined by the mRNA. Throughout the entire process, if even a single amino acid is processed in an incorrect unit, the protein molecule will become useless. Yet this process takes place in a flawless manner in all living cells. Every tRNA engaged in delivery carries its amino acid to the site specified in the production order, ensuring that the function is not disrupted. As you know, the production order is recorded in the mRNA. This behavior reveals the perfect conception of discipline, consciousness and responsibility in these unconscious molecules—a striking indication that each and every one has submitted to Allah, the Omniscient and Almighty, and acts under His control.

## **The Necessary Translation Prior to Production**

The requisition order—the information regarding the protein to be produced—and the raw materials are now ready. The order has been transmitted to all the machines along the production line, but another problem now needs to be resolved. The production data, or order, is written down in a special language in the DNA, and production must take place according to the information in this special language. However, the sequences of the amino acids to be used as raw materials are written in a different language.

We can express this problem in the following analogy. The written instruction in the "requisition docket" is the language of the code comprising the DNA, written in a special alphabet consisting of four letters. But since 20 varieties of amino acid make up the proteins, the language of the proteins to be produced is different, consisting of a 20-letter alphabet.



During protein synthesis, the alphabet making up the DNA needs to be translated into an alphabet that manufactures protein. For example, the writing at left must be translated into the "protein language" on the right.

In short, the production information from the DNA is not in a language the amino acids can understand. In order for them to understand which amino acid the DNA information refers to, the DNA language has to be translated into the requisition language.

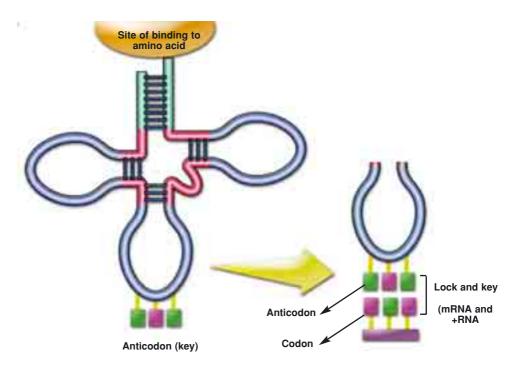
The ribosome factory has been equipped with a mechanism that resolves this problem in the best way. A translation system between the two languages has been created in the ribosome "factory." This translation system, known as the codon-anticodon method, works just like an expert translator, in a manner far superior to the most advanced present-day computers, translating the special DNA language written in a fourletter alphabet into the protein language consisting of 20 letters. In this way, it expresses which amino acids are to be placed alongside

one another, and eventually the desired protein emerges in its correct form. The perfection in this translation process, whose details we shall examine in due course, is most noteworthy. There can be room for only one or two errors in the production of proteins essential for the life of the cell. No manmade technology can translate and write down the equivalent of 2,000 novels in such an error-free and flawless manner. <sup>23</sup>

## The Codon-Anticodon or "Lock and Key" Method

Through this method, the translation system permits amino acids to join together and work without any mistakes. The mRNA that first transports and installs the order information in the combining center in the ribosome comes together with the tRNA that carries amino acid on one of its ends. Every three letters in the mRNA are regarded as a *codon*, or a lock. The tRNA's three-dimensional structure resembles a plus sign and is bound to the amino acid being carried on its upper end. An *anticodon*—a key able to open the tRNA lock—moves opposite it. Through this special translation system used by the ribosome, proteins are produced in a flawless chain.

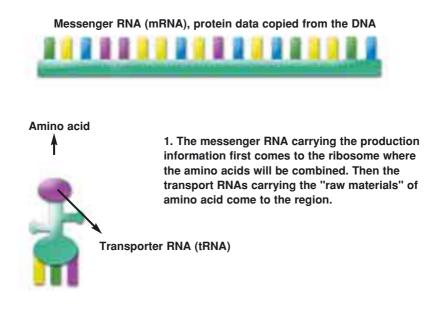
For the DNA language to turn into protein information, mRNA and tRNA come together like a lock and key. Every three letters in the mRNA are analogous to a lock. The bottom of the tRNA that serves as the key to open it moves exactly opposite this "lock."



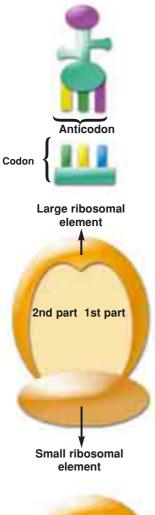
So that it can work in the best way together with this translation system, helper molecules on the ribosome's surface work together in complete coordination. These molecules are special RNAs sent to the production center and proteins, most of them specialized.<sup>24</sup> The most important of these is *ribosomal RNA*, which lets information brought to the ribosome by the messenger RNA to be understood and read in a different language. During the error-free translation process, each one of these prepared mechanisms works in a flawless manner for the correct protein to emerge.

## Step by Step in the Factory

During production, doubtless the most important process is the flawless combining of amino acids. We may summarize the events that take place during this combination process thus:



#### HARUN YAHYA (ADNAN OKTAR)



2. Because of the *codon-anticodon* method, the translation system lets the combination process to be performed without error. Under this method, the messenger RNA and the transport RNA carrying the amino acid at one end come together like a lock and key. Every three letters in the messenger RNA are regarded as a *codon*, or lock. The end of the transport RNA, the anticodon capable of opening this lock, moves opposite it just like a key.

3. Where the messenger RNA and transport RNA line up opposite each other, ribosomal RNA goes into action. There are two special compartments in ribosomal RNA. The messenger RNA attaches to the smaller section, and the transport RNA to the larger one. Also, a special mechanism allows the tRNA and mRNA to harmonize in the region where they will bind, so they can easily assume their places.

Most importantly, this indicates that when the ribosome was first created, an Intelligence knew the properties of mRNA and tRNA, knew that they would use the ribosome for a specific purpose, and created the appropriate compartments in the ribosome. They display a compatibility that cannot possibly have come about gradually and by chance. In addition, this detailed organization and fine calculations go even further. In the region where the tRNA will attach, there are two special compartments. The tRNA newly arrived at the ribosome uses the first one, and the other is used by tRNA that now departs the ribosome, having done its job.

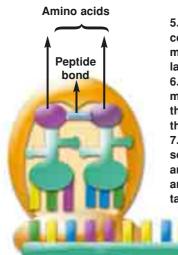


4. In order for the translation process to begin, the first amino acid of the desired protein is brought by the tRNA opposite a special codon, known as the *initiating codon*, on the order requisition. The ribosome cannot start production before it receives information in this first codon about the protein to be manufactured. For all proteins, the initiating codon is the same: methionine.

mRNA

Initiating code

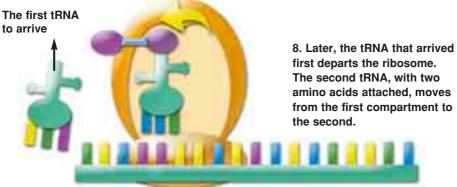
#### THE MIRACLE OF PROTEIN



5. Once the combining center has recognized this initiating codon, the codons (the order requisitions) that are determined for each protein start to be read, that is to say translated, one after the other.

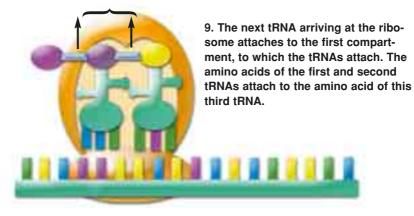
6. First, the initiating codon attaches to the small compartment in the ribosomal RNA-the translation unit-which then goes into action by passing over this codon carrying the order information on to the mRNA.

7. At the same time, the tRNA assumes its place in the ribosome, together with the anticodon code written on it and the amino acid it carried. The amino acid (whose job is done) and the amino acid newly arriving to the ribosome is attached by means of a peptide bond.

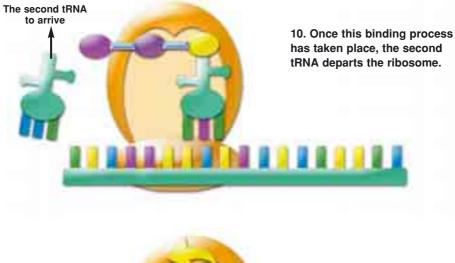


first departs the ribosome. The second tRNA, with two amino acids attached, moves from the first compartment to

Peptide bond



#### HARUN YAHYA (ADNAN OKTAR)



11. At the same time, the third tRNA in the first compartment moves to the second compartment with the three amino acids attached to it. The ribosomal continues these processes along on the mRNA thread.

The emerging protein chain

77

tRNA encountering the stop code

12. When the ribosomal RNA recognizes the halting codon on the mRNA, this process comes to an end.

Stop codon

During the combining process, these events do not need to occur at specific time intervals, though all the processes take place at a great speed. In general, for example, the mRNA thread continues copying the order while its other end is still attached to the DNA, continuing the translation process from the other end.<sup>25</sup> Indeed, a single mRNA thread can attach to several ribosomes or "factories" from different points to begin production, and can continue to place the order. In the same way, the mRNA can copy orders for proteins in more than one region of the DNA at the same time.<sup>26</sup> Performing this exceedingly complex multi-stage process in several places simultaneously without a single mistake calls for enormous care and competence. How many tasks can a rational, conscious human handle at the same time? How many products can he supervise at once? Answer these questions, and you can more clearly understand the abilities possessed by a mRNA molecule.

Now, could this process have come into being by chance? Could millions of unconscious atoms have planned a system requiring such intelligence, identified the chance of natural events they needed to take place and then have waited for these circumstances to occur? Even if all the atoms in the universe were brought together, no matter what physical and chemical processes this assemblage collection was subjected to, still atoms devoid of consciousness, information and will could not have come up with such a system.

Furthermore, that organization does not end there. Once protein production has been carried out, the final step is to check whether the ordering and other features of the emerging amino acid chain are those of the desired protein.

#### **Quality Control**

As you now know, the slightest error in the needed proteins leads to many dysfunctional mechanisms in the cell. The cell is unable to survive and in many such cases, this leads to serious illnesses. Many diseases are genetic in origin, arising from errors in one or more of these protein-synthesizing phases. However, as if they were consciously aware of these processes' importance, the cells behave with great care and check the proteins over and over again at various stages during synthesis. <sup>27</sup>

During the production of a single protein, the necessary quality control is carried out by several proteins. These enzymes are just like the quality-control department in a factory: Each enzyme must possess detailed information about the protein under construction and be aware of every stage of the production process, or it cannot satisfactorily check the emerging result. The interesting fact, however, is that proteins themselves—with no free will of their own—perform these quality controlchecks. These molecules have no knowledge or means of recognition. Indeed, they themselves can exist only if the system is functioning in an ordered manner. How can proteins consisting of unconscious atoms carry out this control process? Answers to these questions are plain to see. Each atom behaves according to the form and structure created for it by Allah.

### The Order Is Delivered

After all these control checks are completed, the proteins are ready for use and will head straight for wherever they're to be employed. These valuable protein molecules must be transported to that location without suffering any damage. But how?

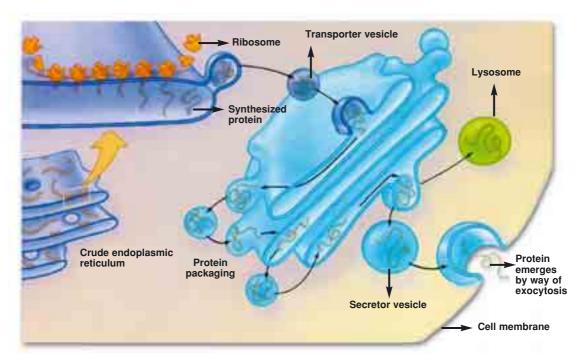
The answer to that question has not yet been fully understood. From what is known so far, this process is astonishingly complex.<sup>28</sup>

If proteins produced inside the cell were deposited where they are made, all that constant production would go to waste. However, just as in all other living systems, there is a flawless perfection in the transport of proteins. As a result, every new protein produced is carried by a special means to where it will either be used or else stored for later use. For example, different varieties of proteins—those to be dispatched outside the cell, those to be used in the mitochondria (the organelles responsible for producing energy), and those to be used in the nucleus—are all carried to

their destinations by different mechanisms and routes known as *protein targeting* systems.<sup>29</sup>

These system's knowledge of which protein is to go where is a miracle all by itself. The determination of the means of transport according to the destination, packaging, and the support from enzymes to keep the protein from damage en route—all are feats that create utter amazement.

The Nobel Prize winners Günter Blobel and George Palade spent many years researching this subject. They were amazed to discover that the newly produced proteins use a special amino acid sequence to be able to reach their destinations, and that once they do so, they separate from this so-called *signal sequence*.<sup>30</sup> The protein setting out with the aid of this signal needs a great deal of help on its journey. Inside the cell, many new-



After the protein has been manufactured, intense activity continues inside the cell. The protein is either removed from the cell by a special transporter and is sent to where it will be used in the body, or else is deposited in the Golgi bodies, to be stored until needed.

ly produced proteins encounter molecular mechanisms, some of which hold on to the protein and transport it where it needs to go. Endoplasmic reticulum and Golgi bodies are examples of the important organelles that direct the protein where it has to go. For example, after the protein garbageaseis manufactured, it travels a distance of about one ten-thousandth of an inch (0.00025 of a centimeter). On this journey from the cytoplasm to the lysosome, dozens of different proteins are needed to ensure its security.<sup>31</sup>

While you sit reading this book, how busy are all the cells in your body performing all these tasks! You feel no movement, even though trillions of cells in your body carry out this production, each one using hundreds of mechanisms.

Moreover, this entire production, whose general lines have taken many pages to describe, occurs in only 10 seconds, or two minutes at most. And remember, this system operates within an area too small to be seen with the naked eye. Darwinist scientists who claim, in the face of the fact of creation, that the proteins that enable life came into being by chance, know that in fact, the concept of chance cannot explain such vast complexity.

The evolutionist biologist Professor Muammer Bilge describes the Darwinist despair in the face of this system that works too perfectly as to leave any room for chance:

We may say that the protein synthesis industry is carried out with an organizational perfection and flawless foresight inside the cell, which is able to produce these outcomes when necessary, creates no danger or damage to itself, and never goes down a one-way street . . . Everything in the cell happens like this. But how is it managed? How is it achieved? We are still unable to understand. We merely see the results and have only been able to distinguish a few points of this perfect organization that yields them.<sup>32</sup>

In the face of the extraordinary systems they encounter during their observations and research, Darwinist scientists invariably employ similar expressions, such as "a flawless foresight" or "organizational perfection." Yet their own theory cannot account for this flawlessness and perfection.

They themselves are well aware of this, which is why they express their despair by saying they are "still unable to understand" how these extraordinary events take place. Clearly, however, unconscious atoms themselves cannot set up and maintain such a perfect organization. Every atom behaves under the inspiration, intellect and might of Allah.

## An Important Truth Revealed by Protein Synthesis

The manufacture of a single protein molecule requires hundreds of different proteins and enzymes. In addition to these, many molecules and ions stand ready and waiting. That being so, how could the very first protein have come into being?

This is one of the most crucial impasses facing Darwinists, as the biologist Carly P. Haskings described in an article in *American Scientist:* 

... But the most sweeping evolutionary questions at the level of biochemical genetics are still unanswered. How the genetic code first appeared and then evolved and, earlier even than that, how life itself originated on earth re-

main for the future to resolve... The fact that in all organisms living today, the processes both of replication of the DNA and of the effective translation of its code require highly precise enzymes and that, at the same time the molecular structures of those same enzymes are precisely specified by the DNA itself, poses a remarkable evolutionary mystery... Did the code and the means of translating it appear simultaneously in evolution? It seems almost incredible that any such coincidence could have occurred, given the extraordinary complexities of both sides and the requirement that they be coordi-

of both sides and the requirement that they be coordinated accurately for survival. **By a pre-Darwinian (or a skeptic of evolution after Darwin), this puzzle would surely have been interpreted as the most powerful sort of evidence for special creation.** <sup>33</sup>

Three-dimensional view of a protein

As this scientist states, for protein synthesis to come about, all the systems inside the cell have to exist simultaneously. In the absence of just one component in this system, proteins cannot be produced, and life cannot continue. But as Haskings admits, in the absence of one component, the others clearly cannot form at all.

Allah has created all living things together with all their systems. He reveals His flawless creation in the Qur'an as thus:

He is Allah—the Creator, the Maker, the Giver of Form. To Him belong the Most Beautiful Names. Everything in the heavens and Earth glorifies Him. He is the Almighty, the All-Wise. (Surat al-Hashr: 24)

# PROTEINS: THE BODY'S TIRELESS ENGINES





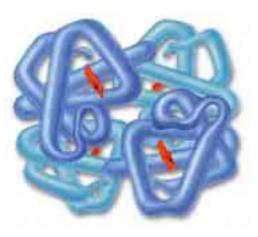
o far, we have described protein molecules' special structures and how they are manufactured in the cell. When we examine proteins' functions, we again encounter any number of miracles of creation.

## Hemoglobin: Oxygen-Hunting Protein in the Blood

One feature of blood that makes it indispensable for life is the proteins it contains. The bloodstream is the ideal place where special proteins can discharge their duties because blood transmits them wherever they are required, by means of the circulatory network of reaching all points of the body. Every day, for example, the hemoglobin protein in the red blood cells (or erythrocytes) carries oxygen to the 100 trillion or so cells in the body.

#### HARUN YAHYA (ADNAN OKTAR)

Hemoglobin, a rather large protein, covers a volume of up to 90% of the red blood cell. Under normal conditions, such a sizable protein molecule would be unable to fit into the cell. However, just as if the erythrocyte knew it must make room for the hemoglobin molecule it will have to carry, before entering the bloodstream, the red blood cell ejects its nucleus, mitochondria, ribosomes and other organelles. These ejected components are immediately



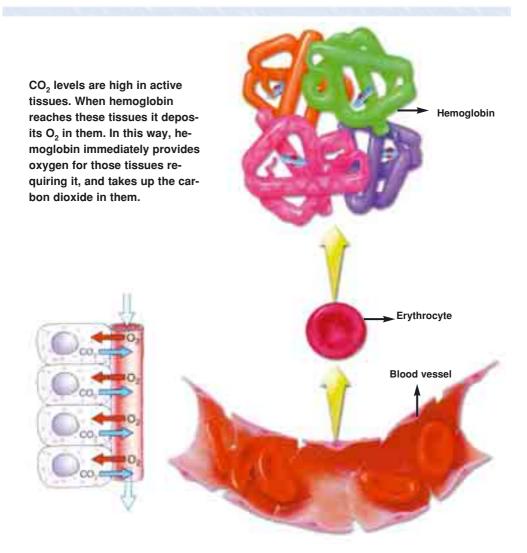
Hemoglobin, a rather large protein

destroyed by the body's cleansers—the white blood corpuscles, or leucocytes. In this way, no waste or unnecessary products remain in the body. Red blood cells do not create any new protein when they expel their organelles. In any case there is no need to do so<sup>34</sup> because the red blood cells' essential task is to transport hemoglobin and carry oxygen to wherever it is needed.

Hemoglobin's most important feature is its ability to carefully select and capture oxygen molecules from among the billions of other molecules in the blood leaving the lungs. Because any molecule that attaches randomly to an oxygen molecule will oxidize and become non-functional, trapping oxygen molecules calls for a particular talent. Therefore, hemoglobin captures its prey as if holding it with tongs, without actually touching it. Hemoglobin's unique creation endows it with this property.

Hemoglobin emerges from a combination of four different proteins, containing special sections known as *heme groups* that carry iron atoms. These iron atoms are the "tongs" in by which the hemoglobin holds oxygen molecules. Each heme group can hold one oxygen molecule.<sup>35</sup> Special folds and angles inside the molecule allow the heme groups to capture oxygen without coming into contact with it, to hold it to and later deposit it in the tissues.

## THE MIRACLE OF PROTEIN

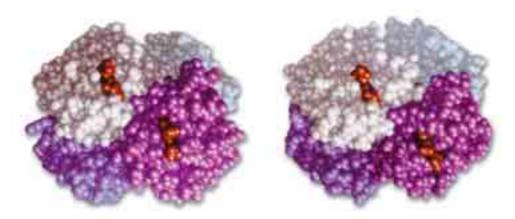


These angles change at specific rates during the binding process.<sup>36</sup> After oxygen is trapped, changes occur in the structure of the hemoglobin. The first heme group folds over, facilitating the capture of oxygen by the other heme groups.<sup>37</sup> During this process, if the hemoglobin combines directly with the oxygen—in other words, if it becomes oxidized—the result is *methemoglobinemia*,<sup>38</sup> a disease that causes the skin to lose its color and turn blue. The victim suffers shortness of breath and a weakening of the mucous membranes. Every detail of this flawless structure is proof of a previously determined plan. The way the red blood cells eject the organelles inside them to make room for hemoglobin, how these expelled substances are immediately cleaned up by functionaries standing by, and the features that keep hemoglobin from being harmed by the oxygen and allow it to deposit the oxygen into the tissues are all features of a flawless planning. It is clearly impossible for unconscious, inanimate atoms to organize such a perfect system as a result of chance. Furthermore, hemoglobin takes precautionary measures and transports oxygen as if it were fully able to calculate how oxygen could damage it and later, transports the oxygen to exactly where it needs to go. The way that hemoglobin recognizes and selects oxygen molecules is a miraculous system, impossible to have come into being by chance. In addition, this established system has been made in an ideal form to be totally compatible with the entire human body.

In his book *Nature's Destiny*, the famous microbiologist Michael Denton refers to the flawless structure of hemoglobin:

As the efficient transport of oxygen is essential to the viability of any large active organism with a high metabolic rate, a molecule with the properties of hemoglobin would seem to be essential. Might there be any alternatives to hemoglobin? None of the many other oxygen-carrying molecules which occur in the blood of invertebrates, such as the copper-containing proteins of the mollusks, come close to the efficiency of hemoglobin in transporting oxygen in blood. As Ernest Baldwin commented, "Mammalian hemoglobin is far and away the most successful of the respiratory pigments from this point of view"... The evidence is consistent with the possibility that hemoglobin is the ideal and unique respiratory pigment for metabolically active air-breathing organisms such as ourselves... <sup>39</sup>

As Denton says, hemoglobin is the ideal form for this type of transportation. The way that a collection of molecules can make this distinction in a pitch-black environment unbelievably larger than itself, distinguishing between oxygen and other molecules, and able to bind to oxygen in the most appropriate way reveals the existence of a Superior Intellect and Art.



When hemoglobin combines with oxygen a number of structural changes take place. On the left can be seen hemoglobin in its normal state and on the right its state after binding to oxygen.

## **Proteins That Allow Cells to Travel Within The Body**

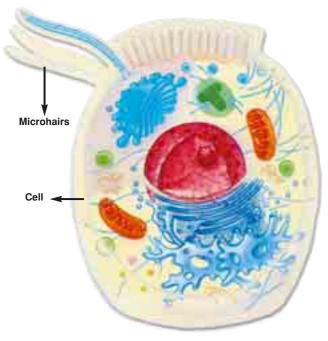
The movement of some cells in the body is of great importance to the continuity of metabolism. As with all vital bodily functions, it is again proteins which allow this process. These particular proteins, known as *tubulin*, form minute hairs that permit the cell to float in bodily fluids. These hairs come in two varieties. As cell moves itself either by using these tiny hairs, resembling eyelashes, in much the same way as oars propel a rowboat; or else it moves forward by thrashing the hairs like whips. Spermatozoa, for example, perform their difficult journey in the mammalian fallopian tubes by means of these hairs.

These minute hairs are also used by cells that remain fixed rather than mobile, whose objective is to move other cells in the fluid.

For example, every one of the stationary cells along the respiratory passage possesses several hundred minute hairs, most of which are in motion at the same time. Their appearance closely resembles the oars moving in unison that propel racing sculls. By this motion, the hairs propel water over the mucus and up through the throat. In this way, they prevent fluids from falling into the windpipe with each breath. As you have seen, this motion is most rational and conscious and has been planned beforehand.

In addition, these proteins seem to take joint decisions, acting as one to propel a free-floating cell in a particular direction. Anyone who reflects without prejudice will clearly see that such an organized harmony and ordered activity could not have arisen by chance.

When the structure of these micro hairs is examined, their exceedingly complex structure shows them to be the product of a superior creation. Such a perfectly interconnected mechanisms have been squeezed into these tiny hairs—which can be seen only under an electron microscope that it is impossible to claim that they came into being as the result of chance phenomena. Let us examine these tiny hairs' structure in broad terms.



Some cells possess microhairs that allow them—or bodies around them—to move.

### The Detailed System in Minute Hairs

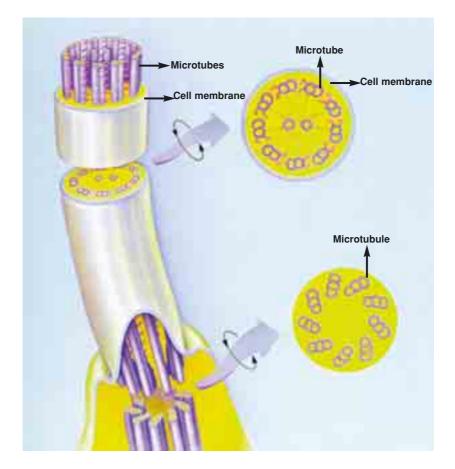
A micro hair consists of a membrane-covered fiber. The hair's membrane is an extension of the cell membrane, for which reason the interior end of the hair is in contact with the interior of the cell. If you cut a hair in cross section and examine it under an electron microscope, then you will see nine rod-like structures. One point worth emphasizing is that these tiny hairs are incomparably smaller than the hairs on your head. It might appear impossible for a visible human hair to contain nine tiny separate rods, there are indeed nine rods in each of the hundreds of minute hairs at the end of a cell, itself too small to be seen with the naked eye.

These rods are known as *microtubes*, each of which consists of two interconnected rings. And detailed research has shown that each of these microtubes is made up of 13 separate strands!

But that is by no means the end of the details. The second link, attached to the first, consists of 10 separate strands. The nine microtubes comprising the tiny hairs are made up of the proteins known as tubulin, molecules set out like bricks laid atop one another to form a cylindrical shape.

In books and journals about biology, biochemistry, and genetics, and similar subjects, you will frequently come across sentences like "Protein molecules coming together in a specific ways to give rise to particular shapes." But such statements avoid stating that protein molecules are merely assemblages of unconscious atoms. In some way, these entities devoid of consciousness, information or free will, with no brain or ability to plan or reason—manage to locate one another and then to act in such a regulated manner as to form a cylindrical shape. Who commands them to join together with other tubulin molecules and then set themselves out in cylindrical form? It is the Almighty Allah Who creates them out of nothing and Who commands them to do so.

In addition, the tubulin molecules are laid out not in a random sequence, but in an order ideally compatible with their pattern and purpose. If normal conditions (that is, normal calcium levels and temperature at a specific level) have been established within the cell, the tubulin proteins that serve as bricks come together automatically to form microtubes. The surfaces of tubulin molecules are such that one side fits the back of a second tubulin molecule. A third tubulin molecule attaches itself to the back of the second, a fourth molecule then attaches to the back of the third, and so forth. To make a comparison, this resembles a stack of tin cans of the same brand, one on top of the other, each one arranged to fit perfectly



The cell's microhairs possess a flawless organization. A cross-section reveals nine rod-like microtubes, each of these which consists of two interconnected links, and each link consists of 13 separate strand

into the top of the can below it. However, since the tops and bottoms of cans of different brands will not fit perfectly together, if piled atop one another, they will collapse at the slightest movement. And cans of the same brand will still topple over if you align them wrongly. The top of the first can will not fit the top of the next one, and they will again topple over.

The order within the assembly of the tubulin proteins is much more exact, in that the front of one fits exactly into the one in back.<sup>40</sup>

So Who created this arrangement? Could the cells that produce the tubulin proteins have first determined how to assemble them in the most efficient manner? Assuming that the proteins were produced with these features in some way, Who told them to arrange themselves back to front, and not back to back? Moreover, how did the proteins understand this command and then arrange themselves without a single mistake? If you remember your school days, it takes a great deal of patience to line up 20 students up in one particular direction without disorder ensuing. If this requires some effort, even from human beings possessed of consciousness and intelligence, as well as the ability to act towards a specific goal end, how do protein molecules consisting of fats, carbohydrates and phosphorus manage to do this regularly, without making a single error? This excellence and perfection in the cell belongs to the Almighty Allah Who has Superior Power over all things and Who is the Lord of the Heavens and the Earth. It is our Mighty and Gracious Lord Who has created each one of these cells and bestowed on them many superior features.

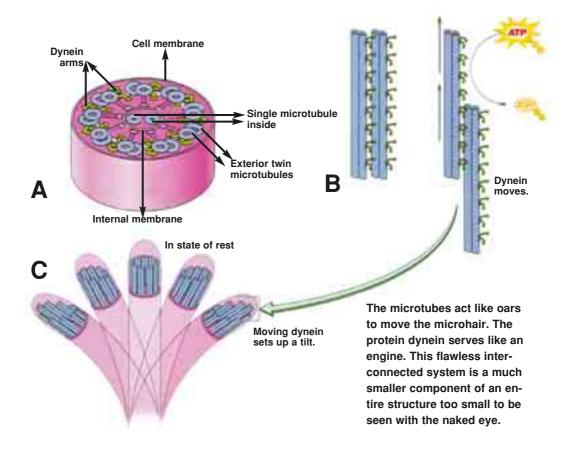
Don't forget that tubulin molecules select other molecules of their own kind from among all the millions of molecules around them, move alongside them and immediately assume their places. Tubulins can easily enter into contact with microtubes, but microtubes need the help of other molecules to combine with one another. In other words, the nine rods that make up the microhair must combine together and need other proteins to do so. Since microtubes are composed of proteins with very different functions within the body, they need to be separate and independent for these functions. For that reason, they rove independently until binding to another protein. But in order for tubulins to form, these helper proteins come and select free and independently traveling microtubes and bind them to one another.

In this process, there is a most conscious and purposeful organization. Certain proteins decide that the cell's minute hairs should be constructed, know what is needed for their formation of these and gather up and combine these haphazardly roaming materials.

Photographs of these tiny hairs taken under an electron microscope showed that different kinds of connectors bind the microtubes to one another. There is one protein at two centers in the middle of the microtubes that binds them together in the form of a bridge. There's also an extension from the microtubes to the center of the tiny hairs. A protein known as *nexin* binds each microtube to the one beside it, ensuring that they do not break away and disperse. There are also two different protrusions on every microtube, known as the inner arm and the outer arm. Biochemical analyses have revealed that each contains a protein called *dynein*. Among its functions are to operate like an engine and set up a mechanical force within the cell.

Once again, reflect on this structure of a great many parts, every one of which complements the others in an exceedingly rational way. With enormous expertise, millions of atoms combine to form very different structures inside a volume itself too small to be seen with the naked eye. They then assemble these structures with the assistance of other molecules. The result is an exceedingly complex machine, whose workings we shall briefly summarize.

Imagine all the machines you know that consist of a number of parts. Open a computer, for example, and you'll see a number of circuits, cables and pieces of metal all combined together in complex ways. To anyone who does not know much about computers these may not mean much, but a computer engineer will know just what purpose each complicated connections serves. He will know, for instance, that if the smallest wire is attached to the wrong place, the computer will be unable to function. Every component inside is therefore of the greatest importance for the computer to run. In a similar way, every component making up the cell's



minute hairs is of vital importance if they are to function properly. The absence of any one structure will mean that either the hair cannot move the cell or permit the cell to move moisture around it; or else the hair will fail to develop in the first place.

Biochemists have performed experiments to determine what happens to these hairs in the absence of any of their components. For example, if the dynein protein arms separate, the hairs will not move. In the absence of the protein nexin, which serves as a bridge between the microtubes, the microtubes will separate and begin to move away from each another. In that event, their structure also becomes impaired. As you see, not one part of this complex system can be dispensed with.

In an area so small it passes comprehension, every part of this system has been arranged for the continuation of life and for cells' functions.

Realizing this, you can better understand the importance of perfect structure in every component.

## The Microhairs' Movement System

You may compare the movement of these tiny hairs to a boat floating on the water. The microtubes making contact with the water function like oars. The nine interconnected rods can slide like a single oar, through the bonds between them. Like engines, the arms of the protein dynein lend strength to the propulsion system. The nexin arms are the connecting tubes, passing the power of the engine from one microtube to another. Whether boat or a cell is being propelled, for this motion to be provided, a great many components must be bound to one another and operate together in great harmony. If not all placed in the right positions, the components serve no purpose.

A fine example of this is the large amount of scrap in a junkyard all waste products. However, when a mechanical engineer visits this collection of discards, selects those parts that will be of use and assembles them in line with the machine he has formulated in his mind, then the product of his intelligence emerges as a complex and functional machine

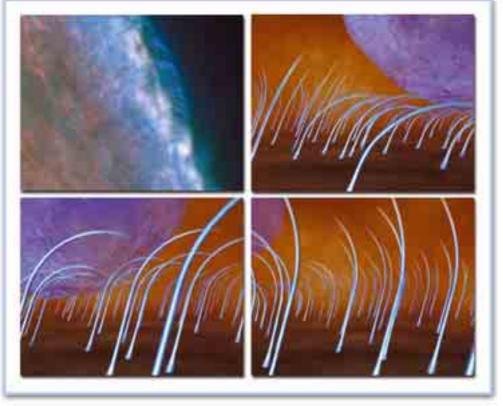
As you have seen, that intelligence and consciousness are necessary for every component to come into being. In the same way, intelligence, consciousness, planning and purpose are needed to produce useful proteins structure. Even if we assume that proteins did happen to form in some way, when we inject them all into a cell, we still cannot expect them to have given rise to such flawlessly functioning structures as microhairs. Allah is the One Who has organized and combined them in an appropriate manner.

The theory of evolution is absolutely unable to account for the formation of proteins and how they combine to form structures in which every single component is indispensable. Coincidences cannot possibly give

## THE MIRACLE OF PROTEIN



Just like oars, the microhairs all move in the same direction, thus enabling the cell to move quickly. At the same time they can also propel certain substances in a particular direction. Below can be seen microhairs that cause a woman's ovum to move through the fallopian tube toward the womb.



rise to such complex and impeccable systems. Moreover, to form even the smallest systems, such as the microhairs in the cell, hundreds of proteins, enzymes and molecules must combine at the same time. Indeed, biochemists have determined that cell motion is supported by up to another 200 proteins not mentioned here. The absence of just one out of hundreds of proteins will cause the others to become useless.

The theory of evolution, which maintains that life emerged gradually and through minute changes, is thus unable to account for the formation of the microhairs. The microbiologist Michael Behe's book, *Darwin's Black Box*, contains powerful criticisms of the theory of evolution, devotes considerable space to proteins and the hairs in cells, and describes the theory of evolution's inadequacy in trying to explain them:

As biochemists have begun to examine apparently simple structures like cilia and flagella, they have discovered staggering complexity, with dozens or even hundreds of precisely tailored parts. It is very likely that many of the parts we have not considered here are required for any cilium to function in a cell. As the number of required parts increases, the difficulty of gradually putting the system together skyrockets, and the likelihood of indirect scenarios plummets. Darwin looks more and more forlorn. New research on the roles of the auxiliary proteins cannot simplify the irreducibly complex system. The intransigence of the problem cannot be alleviated; it will only get worse. Darwinian theory has given no explanation for the cilium or flagellum. The overwhelming complexity of the swimming systems push us to think it may never give an explanation... Cilia and flagella are far from the only problems for Darwinism. 41

As Behe states, the minute hairs that propel the cells are just one of the realities that refute Darwinism. Life has been equipped with countless such miracles of creation, each of which introduces us to the infinite Might, Intelligence, Knowledge, and incomparable creative Artistry of our Lord. On seeing these proofs, anyone of intelligence and a good conscience will comprehend that Allah is the Lord of all:

He said, "The Lord of the East and the West and everything between them if you used your intellect." (Surat Ash-Shu'ara': 28)

## **Enzymes: Special Accelerators for Life**

In a single second, more processes than can possibly be counted take place in the bodies of living things. These processes are so detailed that *super regulators* must intervene to keep confusion at bay, establish order and accelerate events. These super regulators are enzymes.

Inside every living cell there are thousands of enzymes, which assist in the copying of DNA, breaking down nutrients, producing energy from foodstuffs, and permitting large molecules to form from simple ones—to give only a few examples.

Enzymes consist largely of proteins, the remainder being vitamins and vitamin-like substances. Were it not for the inspiration of Allah on these enzymes, produced by mitochondria inside the cell, then no functions of yours, from the simplest to the most complex, would be possible, or else they would slow to practically a halt. In either case, the result would be the same. You would be unable to breathe, eat anything, digest, see or speak; in short, you would die.

One of enzymes' most important functions is to initiate, halt and accelerate a series of chemical reactions in the body. As your cells fulfill their functions, the chemicals within them must enter into reactions. A certain level of heat is needed for chemical reactions to begin. However, higher temperatures also poses a threat to cells, which can lead to injury or death. Enzymes resolve this difficulty. They initiate or accelerate chemical reactions without the need for high temperatures, but do not enter into such reactions themselves.

To cite one instance from daily life as an example of how enzymes accelerate events in our cells: As you breathe, carbon dioxide is cleansed from your blood through an enzyme known as anhydrase speeds the process by up to 10 million times.<sup>42</sup> With similar speeds, enzymes possess the capacity to effect changes in 36 million molecules in a minute.

Enzymes enable vital reactions to take place at the greatest speed possible and to also use the body's energy in the most economical way. If you compare the human body to a factory, and enzymes to that factory's means of production, then no source of energy can be sufficient to power it. The energy requirements of trillions of "machines," or cells of 2,000 different varieties, working flawlessly at maximum speed will be enormous. Therefore, in order to carry out a simple reaction within the cell, high levels of heat and energy are needed—under laboratory conditions.<sup>43</sup>

In fact, however, silently working enzymes perform all their functions to the letter, using the heat and nutrients they take from the body. These properties alone are enough to show that enzymes are talented elements especially made to make every reaction

Enzymes are manufactured in the mitochondria within the cell.

taking place in the body error-free and effective. As you

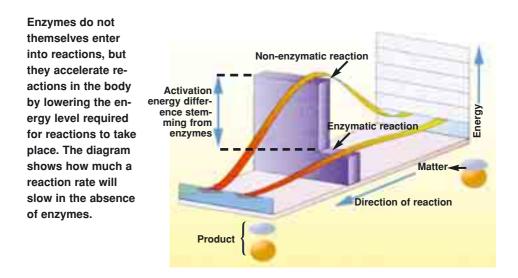
read these words, a great many enzymes are controlling reactions throughout your body, and raising them to a speed that ensures the health of your cells. Although you are largely unaware of what is going on in your body, enzymes are aware of these processes and make important and accurate interventions. In addition, every enzyme accelerates

specific reactions in the body. No enzyme can perform the task of any other, because each one has been created to perform its own particular duty.

While a large number of enzymes can be effective in neutral-state liquid environments, the enzymes charged with digesting foodstuffs in the stomach can operate only under acidic conditions. The enzyme amylase in saliva breaks starch down into maltose



Three-dimensional image of the protein anhydrase



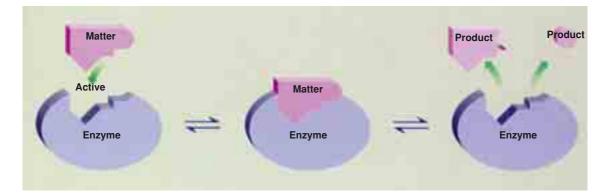
and accompanies food down the oesophagus, and when it arrives the stomach, the acid environment there neutralizes it. But once it reaches the stomach, the enzyme's work is done.

Enzymes' shapes are fully compatible with the substances they will combine with and operate on, working like a lock and key in a complicated three-dimensional geometry. The way that enzymes locate compatible substances in the body and then attach to them shows particularly conscious behavior. Furthermore, like hunters who wait for prey to pass by, enzymes are all found just in the right places, in accordance with their structures and properties. They avoid environments where they might come to harm or else lose their effectiveness. They assume responsibility for initiating and accelerating all reactions, but requiring the absence of any agent to stop them, enzymes would keep initiating and halting reactions throughout the body, causing overproduction of specific proteins or the impairment of particular biochemical balances.

The individual cells regulate enzyme activity. When a cell decides that the time has come to stop the enzyme, it distracts the enzyme with extraordinary consciousness and planning, dispatching a substance similar to the one with which the enzyme normally combines. The enzyme attaches to it, and this imitation substance prevents unnecessary activity by keeping the enzyme busy for a while. In order to immobilize enzymes, however, this imitation has to compete with the true substances, and so obstruction of enzymes in this manner is known as *competitive inhibition*. This distraction method halts enzyme activities until the product emerging as a result of that enzyme's reaction falls below a specific level.

What is told above is not some information to pass by. Recall that we are not talking about educated, responsible human beings who are able to take decisions, make conscious calculations and put these plan into action but proteins, fats, carbohydrates and vitamins composed of unconscious atoms. The cell determines the quantities of the substance produced, like an inventory controller. And when it decides that enough has been manufactured, it implements a clever plan to suspend production for a while.

The way the cell produces a "decoy" substance to inhibit the enzyme and dispatches it at exactly the right time displays conscious decision. If these imitation materials were always present, they would obstruct production at times of need by distracting the enzymes. However, the cells'

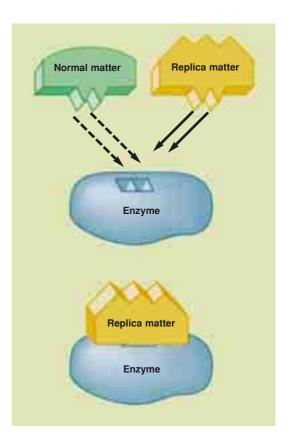


Enzymes' structures in complete harmony with the structures of the substance they will affect. They combine easily, like the pieces of a jigsaw puzzle and locate the substances suited to them in a most conscious manner. Above is a diagrammatic representation of how an enzyme and substance join together.

timing is always accurate. The way that such intelligent and organized displays of behavior take place, one after the other, and are achieved by molecules too small to be seen with the naked eye, are indications of the superior nature of Allah's creation. It is evident that all these microscopic entities act under the command of Allah.

Nowadays, as ever more details emerge regarding enzymes, proteins and similar structures, the more the theory of evolution seems invalid. Whether scientists like it or not, the structures in this microworld force them to admit the flawless creation in life. One such scientist is the microbiologist Malcolm Dixon:

Enzyme systems are doing every minute what battalions of full-time chemists cannot... Can anyone seriously imagine that naturally occurring en-



When enzymes do not need to accelerate a reaction, the cell sends out an imitation substance to distract the enzyme. This imitation has all the features to make it compatible with the enzyme. This extraordinarily deliberate behavior is a proof of the superior nature of Allah's creation. zymes realized themselves, along with hundreds of specific friends, by chance? Enzymes and enzyme systems, like the genetic mechanisms whence they originate, are masterpieces of sophistication. Further research reveals ever finer details of design...<sup>44</sup>

By using probability calculations, the well-known biochemist Michael Pitman describes why enzymes' structures are far too complex to have come into being by chance:

There are perhaps 10<sup>80</sup> atoms in the universe, and 10<sup>17</sup> seconds have elapsed since the alleged "Big Bang." More than 2,000 independent enzymes are necessary for life. The overall probability of building any one of these polypeptides can hardly be greater than one in 10<sup>20</sup>. The chance of getting them all by a random trial is one in 10<sup>400000</sup>, an outrageously small probability that could not be faced even if the whole universe consisted of organic soup.<sup>45</sup>

As is clear from the words of the scientists quoted above, it is absolutely impossible for a single enzyme to appear spontaneously as the result of chance. Yet 50 enzymes work together in order to form one single enzyme! An enzyme needs nine other enzymes to synthesize a single amino acid. A cell with no enzymes cannot survive because it cannot perform any actions. However, the *other* enzymes in the cell are essential for enzymes to appear. That being so, how did the first enzyme emerge when there were no other enzymes around? Darwinists can never answer that question.

Yet this is by no means the end of Darwinists' difficulties. If the proper conditions are not preserved when enzymes emerge, they may soon disappear or be lose their ability to function.<sup>46</sup> Consequently, for a single enzyme to be in a functional state, all the other enzymes, and the systems and structures of the cell itself must also be ready and present. So how did the first enzyme come into being? The plain answer is that every living thing was created, together with all its molecules, cells, enzymes and proteins, by Allah.

# Antibodies: Proteins That Protect Your Body from Foreign Substances

As you know, living things are very delicate. The slightest change in the systems that maintain life, or the entry of a foreign substance no larger than a millionth of a meter, may inflict severe damage or even destroy the entire system. So how can such a delicate system be protected? In the body of every living thing, a defense team stands ready to protect it from harmful substances. Indeed, this immune system represents the largest army in the world today. Of the 100 trillion or so cells in the human body, a large part represent *defense system cells*. These cells are present in the blood throughout the body and monitor every cubic millimeter of it. These "troops" also use weapons equipped with the most developed technology—a kind of protein known as antibodies.

These antibodies proteins have a spherical structure and play a crucial role in the body's defenses. Known as *immune globulin*, these proteins found on the surface of the cell are generally referred to by the letters Ig for short.

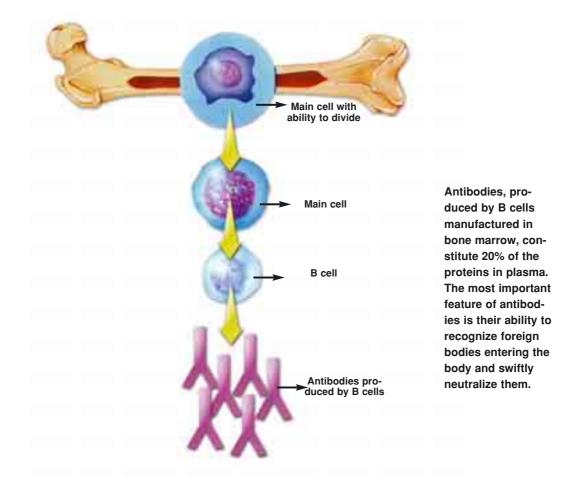
Antibodies, manufactured by B cells produced in the bone marrow, are wide-ranging weapons specially prepared for use against foreign substances. Antibodies constitute 20% of the proteins in plasma. These proteins' most important feature is their ability to distinguish cells belonging to the body from foreign substances, and to swiftly eliminate the latter. How do these proteins manage to accomplish such a difficult task? Proteins, composed of specific combinations of inanimate atoms, can identify foreign and harmful substances, even though they have no sensory systems to perceive nor brains with which to interpret their perceptions.

In addition to targeting foreign substances entering the body, antibodies can also combine with them and create antigens—perfect three-dimensional compounds with specific molecules or molecular components identified as foreign to the body. These antigens are stimulating molecules that attach to foreign bodies and initiate the manufacture of antibod-

ies. When the defense cells patrolling in the bloodstream identify an antigen, the defense system goes on alert and begin manufacturing the appropriate antibodies to the foreign body that has entered. When the antigen and its appropriate antibody join together, five separate chemical reactions take place, which may be summed up as follows:

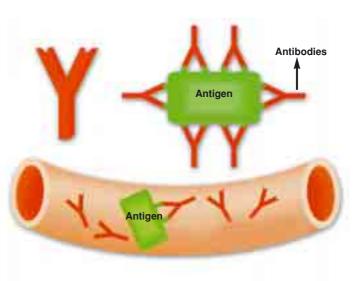
**Agglutination:** The antigens and antibodies bind together, thus preventing the antigens' activities.

**Precipitation (Sedimentation):** Antibodies and antigens form a complexity, and this forms a sediment by separating from the solution.



### THE MIRACLE OF PROTEIN

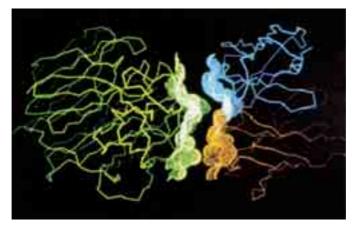
Antibodies recognize foreign antigens that enter the body, in other words, and neutralize these substances by completely surrounding them.



**Neutralization:** The antibody blocks the harmful portion of the foreign substance and prevents it doing any damage.

**Dissolution:** After binding to the antigen, the antibody causes the foreign cell membrane to dissolve. As the cell structure is impaired, the antigen is neutralized.

**Unification system:** This system is contained in the plasma, but not normally in an active state. The combining of the antigen and antibody

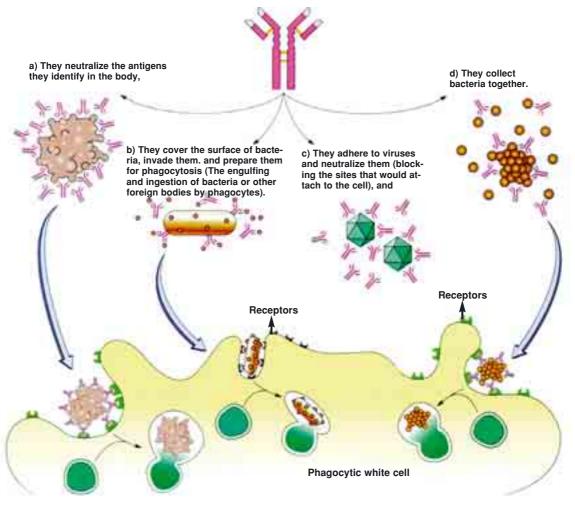


Antibody (right) attaching to an antigen (left).

makes this system active. As a result the stimulated system enters a series of reactions. The enzymes of the system destroy the disease structures.

This information about the body's defense system contains very important messages for those who reflect on it without ignoring the truth.

Antibodies battle the body's enemies in a number of ways:



Antibodies discharge their functions in a number of ways. As the diagram shows, they cling to the surfaces of viruses, bacteria and fungi and then invade and neutralize these antigens. Sometimes they collect the bacteria together first, before preparing to destroy them. They can also block the points where a virus will attach to a cell, thus prevent the virus from binding to the cell and injecting itself.



You never realize it, but all the molecules in your body are in constant activity. Usually it's impossible to become aware of a foreign substance entering your body, but the molecules which comprise your antibodies have assumed this duty and are equipped with miraculous abilities for your protection. In this defense system, atoms identify and recognize other atoms from the very outset. Unconscious proteins and molecules, made entirely of atoms, can recognize harmful substances, instantly produce the most effective weapons against the enemy, and immediately disable it. To Whom belongs the power and intelligence that helps them display such conscious behavior? All of these belong to Allah, the sole Lord of living things' flawless creation.

Like all other miracles of creation, the defense system represents a major dilemma for Darwinists. This system can manufacture 100 million different types of antibodies, can recognize an intruder at once and produce the appropriate antibody.<sup>47</sup> Exactly how this takes place is still a mystery to scientists, but clearly that this system could not have come into being by chance.

Despite his being an evolutionist, California University Professor of Biology Christopher Wills states in *The Wisdom of the Genes* that the body's defense system raises one of the most complex and controversial questions in the whole field of biology. The human race has been the target of diseases for millions of years, but we also know how to defend ourselves against





diseases we may encounter in the future. The immune system uses immunoglobulins and proteins able to bind to molecules they have never seen before. Wills states that this state of affairs seems to drag scientists into an area field that they prefer to avoid when discussing evolution. He goes on to ask how the immune system can foresee the future and produce immunoglobulins capable of defending against future attacks.<sup>48</sup>

Darwinists are unable to answer his question. To such questions as "How did antibodies come about?" or "How did the immune system come into being?" the only reply they can give is "By chance." Yet when they examine the defense system and similar structures, Darwinists either avoid touching on the subject or else admit their bafflement. It would be blatantly illogical to say "by chance" in answer to the question of how these systems came to be.

Since it is so evident that life was created by Allah down to its very smallest component, it is truly surprising that Darwinist scientists still blindly deny this fact. Allah refers to such people in the Qur'an:

We created you, so why do you not confirm the truth? Have you thought about the sperm that you ejaculate? Is it you who create it, or are We the Creator? We have decreed death for you and We will not be forestalled in replacing you with others the same as you and re-forming you in a way you know nothing about. You have known the first formation, so will you not pay heed? (Surat al-Waqi'a: 57-62)



## ANTIBODIES' RANGE OF WEAPONS

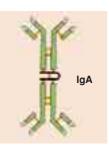
Different kinds of antibodies warn other defense cells of the presence of antigens or attach to antigens themselves to initiate full-scale war. How can these minute molecules successfully discharge this responsibility? Where do their orders come from?

To understand the importance of each antibody in the defense system, and these



tiny molecules' awareness of their responsibilities, let's examine their duties in general terms.

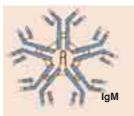
**IgE Antibodies :** (Immune Globulin E) are antibodies that travel through the bloodstream. These warrior antibodies are also responsible for calling other blood cells to the fray, and are involved in allergic reactions. IgE levels are therefore high in allergic individuals.



**IgA Antibodies ):** (Immune Globulin A) are found in moist environments ideal for bacteria and viruses, such as tears, mother's milk, blood, air sacs, mucosa, stomach and intestines—particularly sensitive regions where the body must combat antigens. IgAs resemble each other closely in structure. As reliable

sentries, they settle in strategically important locations where it is easy for germs to enter the body.

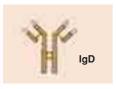
The antibodies protect babies in their mothers' wombs from disease, and continue to protect and defend them after birth. Babies do need assistance from their mothers because IgA antibodies are not found in the body of every newborn. The IgAs in mother's milk protect a baby's digestive system from the effects of many germs. Just like IgG antibodies, these antibodies disappear when the baby is a few weeks old, once they have served their purpose. These are all the results of a most rational, pre-planned creation containing essential information. As you have seen, protecting the baby at every stage of development has been taken into account. These antibodies, standing by to protect the baby when necessary, do not take up valuable space when no longer required. No coincidence can engineer such a flawless and perfect plan, nor impose its will on collections of atoms. All this planning and system evidently belongs to Allah, the Compassionate and the Merciful.



**IgM Antibodies**: (Immune Globulin M) are found in the blood, lymph glands and B cells. Whenever the body encounters any antigen, it produces IgM antibodies —compounds of five IgG molecules—to fight the enemy.

IgG

**IgD Antibodies :** (Immune Globulin D) are found in the blood and on the surface of defense system B cells. Unable to act alone, they enable certain defense cells (T cells) to trap antigens by installing themselves on their surfaces.



**IgG Antibodies :** (Immune Globulin G) is the most fundamental and most numerous, comprising 33% of all antibodies. While a few days are sufficient for their synthesis, their life spans range from a few weeks to at most a few years. These antibodies, present in the blood, lymph glands and intestines, travel through the bloodstream and adhere to foreign substances entering the body. Their powerful antibacterial and anti-

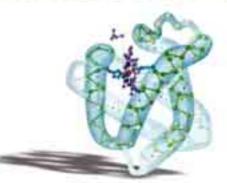
gen-destroying properties protect against bacteria and viruses and neutralize the acidic effects of toxins.

In addition, they squeeze between the cells to neutralize micro-invaders that have entered the skin. By means of these abilities and their small size, they are the only antibodies able to enter a pregnant woman's placenta, to protect a baby whose defense system has not yet developed.

Had these antibodies not been created with the ability to enter the placenta, then babies in the womb would be defenseless against germs, at risk of death before they were even born.

As you have just seen, antibodies come in several varieties, with an impeccable division of labor among them. Since every antibody discharges its responsibilities to the full, then what force, will and intellect has equipped the same protein with different characteristics? Who has instructed them what to do in the body, train them with that end in mind, and provide them with information? Could proteins have spontaneously decided to protect the body by establishing a flawless division of labor and organization? Anyone who reflects on these questions will clearly see the work of Allah, the Superior Creator.

# A MAJOR DILEMMA FOR DARWINISTS: HOW DID PROTEINS COME INTO BEING?

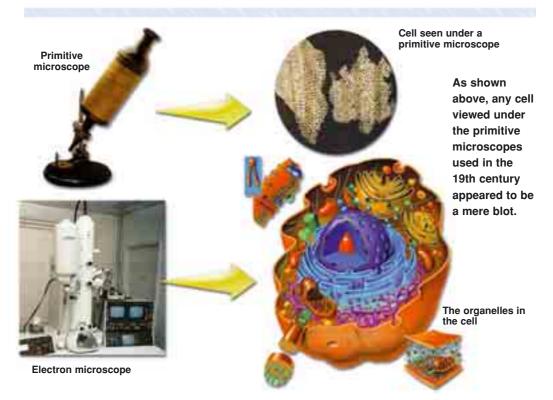




ne of the theory of evolution's greatest errors is maintaining that the complex structure of life, with such superior characteristics and processes, came into existence spontaneously, by

chance. Back in the 19th century when Charles Darwin first proposed his theory, very little was known about the basic structure of life. Under the microscopes of the day, the cell resembled nothing more than a blot, which some described it as "a jelly-like substance." For that reason, when Darwin claimed that life arose through the spontaneous and chance development of a cell, he received little opposition. However, later science and technology (during the second half of the 20th century in particular) revealed just what a complex and superior structure the cell actually pos-

#### HARUN YAHYA (ADNAN OKTAR)



sessed, together with a great many features that could not have come into being by chance, as Darwinists maintained. Instead, the cell rather resembled a biochemical factory, but one superior to any on Earth.

As has been discussed throughout this book, proteins and other cellular subcomponents all possess exceedingly complex structures, and among them is an extraordinary organization and impeccable planning. Every protein fulfils vitally important functions in the human body; with a plan so detailed as to amaze. It is utterly illogical to maintain that such structures emerged after inanimate and unconscious atoms came together by chance to form such complex structures, with flawless organization and a division of labor. Yet Darwinists still blindly defend the theory of evolution, despite its having been discredited scientifically, solely in order to keep alive their materialist ideologies and deny the existence of a Creator. They shamelessly set out their most irrational claims, even using An amino acid chain

false proofs to influence uninformed people who do seldom reflect on these issues.

For example, in order to make the theory sound convincing, a Turkish evolutionist wishing to propound the theory of evolution describes the chance appearance of proteins as something very easy. Yet someone with only the most basic knowledge of proteins can recognize the bias and distortions in his account:

Evolution is the passage, in both animate and inanimate nature, from the simple to the complex, over the course of time (over billions of years; through millions or even billions of reactions). To formularize, the process began with two elements for example; let us say that the odds of A combining with B are fifty percent. Once AB has formed, the odds of C joining are also fifty percent. The odds of D then combining with ABC are fifty percent, or similar probabilities. The idea that this happened in a moment, and the impossibility of this, cannot be laid at Darwinists' door. <sup>49</sup>

These words describe a scenario astonishing to anyone with the slightest knowledge of biochemistry. This evolutionist is unaware or else ignoring the facts that proteins consist of strings of amino acids arranged as if on a bead necklace; that there are 20 different types of amino acids; and that even more importantly, for a chain of amino acids to be regarded as a protein, they must be arranged in a specific order.

This is like imagining that a poem is a random combination of letters and then saying, "It's easy for a poem to emerge by chance. Put two letters together, then a third and then a fourth, and you can easily wind up with a poem thousands of letters long." In fact, however, in order for a poem to emerge, letters need to be set out in a particular sequence to acquire

114

meaning. And amino acids are arranged to constitute proteins in a far more difficult and complex process.

Since amino acid strings must be arranged in a particular order to produce a protein, the odds of such a sequence coming about by chance are zero. (For instance, the odds of 400 amino acids adopting a specific sequence are 1 in 10<sup>520</sup> —in other words, the chances are 1 followed by 520 zeros.)

Even the most dyed-in-the-wool Darwinists accept the fact that proteins cannot emerge by chance. As one example, the Russian scientist Alexander Oparin, regarded as the father of the theory of molecular evolution, said: "The spontaneous formation of such an atomic arrangement in the protein molecule would seem as improbable as the accidental origin of Virgil's *Aeneid* from scattered letters." <sup>50</sup>

The same calculations have been performed, and the same probability figures obtained, by such well-known Darwinists as David Shapiro, Harold Morovitz, Francis Crick, Carl Sagan, Lecompte du Nuoy and Frank Salisbury.

115

For years, it has been known that every protein's properties and functions depend on its amino acid sequence and bonds. For example, the protein histone turns into a three-dimensional shape with a positive charge distributed on its surface. As a result

> Histone protein

Due to its structure, the protein histone assumes a three-dimensional form that lets DNA revolve around itself and store information. of this shape and charge distribution, it enables DNA to adopt an appropriate form and to store data. The density of data storage in DNA is thus several billion times that of the most advanced computers.<sup>51</sup> And by means of this protein, the DNA molecules possess the capacity to store and encode all the information in the body.

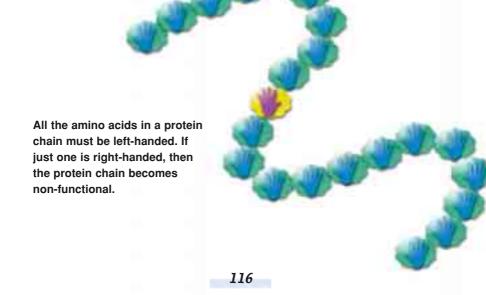
With the discovery that proteins and DNA molecules have such a complex structure, it was understood that even were the whole universe filled with amino acids, still life could never emerge from them spontaneously. The evolutionist geologist William Stokes admits this fact:

[Protein] would not occur during billions of years on billions of planets, each covered by a blanket of a concentrated watery solution of the necessary amino acids. <sup>52</sup>

In addition, as stated before, a number of preconditions must be met before even a single protein molecule can form, making this definitely impossible. To briefly summarize some of them:

- For even the smallest protein to form, hundreds of amino acids have to be arranged in specific numbers, varieties and sequences.

- A single amino acid too many—or too few, or in the wrong place—will render the protein useless.



- All the amino acids in a protein need to be left-handed. The appearance of a single right-handed amino acid will impair the protein's structure.

> - The protein's three-dimensional structure endows it with functionality. Protein synthesis is carried out in the ribosome inside the cell with the help of special enzymes, and in a wide variety of proteins, this three-dimensional form cannot form spontaneously. Therefore, when the first functional protein came into being, other enzymes must have existed beforehand—which demonstrates the invalidity of the theory of evolution.

The bonds attaching the amino acids that comprise proteins must all be peptide bonds.

Peptide bond

- Proteins cannot be synthesized without enzymes, and enzymes are all proteins.

- Around 100 proteins need to be present in order for a single protein to be synthesized. There therefore need to be proteins for proteins to exist.

- DNA manufactures the protein-synthesizing enzymes. Protein cannot be synthesized without DNA. DNA is therefore also needed in order for proteins to form.

- All the organelles in the cell have important tasks in protein synthesis. In other words, in order for proteins to form a perfect and fully functioning cell needs to exist together with all its organelles.

It is definitely impossible for even one of these preconditions to have come into existence by chance. Other proteins need to be in existence for a protein to form and this totally eliminates the possibility of a protein forming by chance.

Another point that Darwinists hope to ignore is that in order for life to emerge, all the necessary components must be present together at the same time. All these components need to be fully formed if they are to serve any purpose. A flawed structure cannot function and—according to

117

the theory of evolution's own claims— will be eliminated under natural conditions. This *irreducible complexity* represents one of those factors that demolish the theory of evolution.

The prominent Turkish evolutionist Professor Ali Demirsoy describes how all their components must be present together in order for living structures to become functional:

The most crucial point of the problem is how mitochondria acquired this property. For a single individual to acquire this feature as the result of chance, we have to combine an inconceivable number of such infinitesimal possibilities... Enzymes, which permit respiration and serve as catalysts in different forms at every level, represent the essence of the mechanism. A cell either possesses this full string of enzymes, or else it is meaningless. If some enzymes are missing, no result can emerge. In order not to conflict with scientific thinking and not to engage in a more dogmatic explanation and speculation we must accept, albeit unwillingly, that all the respiratory enzymes are present in the cell at one time and with none missing, before making contact with oxygen. <sup>53</sup>

In a despairing tone, this evolutionist states that all the respiratory enzymes must be present at the same time in the cell. This means that all the organs, cells, enzymes and mechanisms of the respiratory system must have been created at one and the same time. Yet for some reason, this scientist views this self-evident truth as dogmatic and speculative, contrary to scientific thinking, and avoids admitting the facts. Yet in reality, denying the proofs of creation that are plain to see represents a dogmatic violation of scientific thinking.

Professor Russell Doolittle, another world-famous evolutionist, admits that the very existence of proteins and their ability to function depend on other proteins—and that this represents an impasse for Darwinists:

How in the world did this complex and delicately balanced process evolve?...The paradox was, if each protein depended on activation by another, how could the system ever have arisen? Of what use would any part of the scheme be without the whole ensemble? <sup>54</sup>

In the present day, a great many Darwinists honestly confess the impossibility of proteins and life emerging by chance. However, they still continue to defend the theory for the sake of their ideologies. Below you'll find a number of statements by world-famous Darwinists admitting the impossibility of proteins coming into existence as a result of coincidence:

Harold Blum: "The spontaneous formation of a polypeptide of the size of the smallest known proteins seems beyond all probability." <sup>55</sup>



Prof. Russell Doolittle

Hoimar von Ditfurth: "These two polymers [egg white and nucleic acids] have been constructed in such a complex manner and, as if that were not

enough, their structures exhibit such a high level of individuality that to imagine these came to that level by acquiring wealth solely as the result of chance goes far beyond being even an astronomically and inconceivably small possibility."<sup>56</sup>

"The statistical impossibility of the living structures in question emerging as the result of chance alone is a rather current example of the present-day level of development of science. Indeed, looking at those extraordinary individual features in the formations of a single protein carrying out biological functions, it appears impossible to explain a large number of atoms combining together, all in the correct and requisite sequence, at the right time and moment and with the right electrical and mechanical features, all in terms of chance."  $^{57}$ 

"No matter how large the universe may be, chance giving rise to the birth of protein and nucleic acid is [an] impossibility..." <sup>58</sup>

David A. Kaufman (Florida University): "Evolution lacks a scientifically acceptable explanation of the source of the precisely planned codes within cells, without which there can be no specific proteins and hence, no life. "59

The information provided throughout this book regarding the structures, functions and production of proteins invisible to the naked eye shows that it is impossible for them to have formed by chance. Remembered that this information about proteins is just a short summary of the total. In addition, there still remain many secrets about proteins that science has yet to fathom.

It's very important that people learn about proteins and other miracles of creation in order to grasp the logical mindset and thinking of those who maintain that proteins came into being by chance. Lacking a good knowledge of the structures of proteins, the cell and enzymes, someone may well attach little importance to a theory that claims they came to be by chance. However, after comprehending the details, that person will understand the serious threat posed by any theory that ascribes divine status to coincidences, and that it needs to be forestalled right away.

Believing in chance despite so much evidence to the contrary signifies a collapse of logic, understanding and comprehension. These people may be professors or researchers who have written dozens of scientific books and may even have won a Nobel Prize, but that does not change the facts.

The collapse of reason by some people refusing to understand what they see and hear is one of the greatest dangers facing humanity. For that reason, those of reason and conscience must prevent that collapse by taking the requisite precautions, and ensure that others receive accurate information and explanatory proofs.

The second reason for learning about proofs of creation such as proteins is the revelation of Allah's infinite might, intellect, knowledge and incomparable creation, and to introduce them to its extraordinary splendor. Those who believe in the existence of Allah reflect on the proofs of His creation on Earth and in the heavens. This enhances their love of Allah, and also their fear of Him. As He has revealed in one verse:

And humanity and beasts and livestock are likewise of varying colors. Only those of His servants with knowledge have fear of Allah. Allah is Almighty, Ever-Forgiving. (Surah Fatir: 28)

## The Miller Experiment: A Lesson in Failure

In the 20th century, Darwinists began seeking an answer to the question of how the first cell came into being. The first work on this subject was done by Alexander L. Oparin, a Russian biologist who proposed the "chemical evolution" model. But Oparin was unable to obtain any results from his research, and finally admitted:

Unfortunately, however, the problem of the origin of the cell is perhaps the most obscure point in the whole study of the evolution of organisms. <sup>60</sup>

After Oparin, a great many Darwinists performed countless experiments attempting to prove that cells came into being as the result of coincidences, but every one ended in failure. The most highly highly regarded of these doomed experiments was carried out in 1953 by the American researcher Stanley Miller.

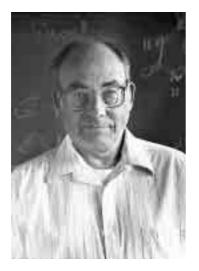


Alexander I. Oparin

Miller prepared a mechanism conforming to Oparin's chemical evolution model. A mixture of the gasses assumed to represent the primordial atmosphere, methane (CH<sub>4</sub>), ammoniac (NH<sub>3</sub>), steam (H<sub>2</sub>O) and hydrogen (H<sub>2</sub>) was placed in a tank containing an electrical apparatus. Miller then sent a high-voltage electrical charge through the tank to simulate the effect of ultraviolet light on the pre-life atmospheric gasses. He then heated this gas mixture to 100 degrees for a week, while continuing to supply an electrical current, and eventually observed that three of the 20 amino acids essential to life had been synthesized. He immediately separated these molecules from the

tank using a mechanism known as the cold trap. Other experiments also obtained various other amino acids under similar conditions.

This experiment carried out by Miller under allegedly primordial conditions was a source of great rejoicing among Darwinists, who portrayed the experiment as an enormous success. From their point of view,



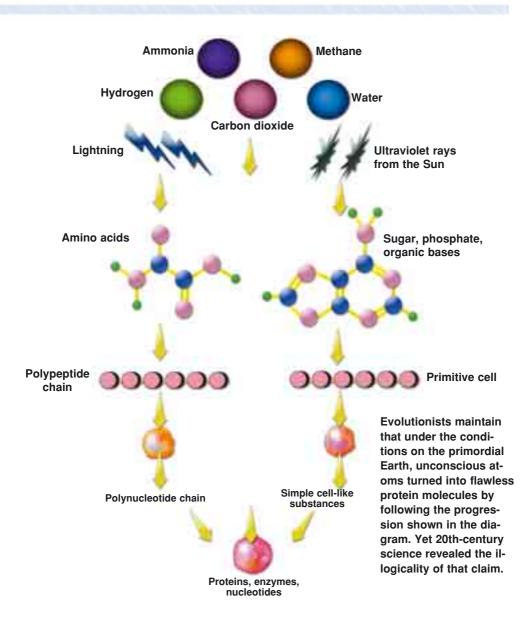
**Stanley Miller** 

the experiment showed that biological building blocks could have been produced from simple atmospheric gasses in the primitive world—an important step in Oparin's scenario, which would thus provide experimental support for Oparin's theory of chemical evolution. Some circles, aware of the experiment's importance, sought to provide their own support for it. The famous astronomer Carl Sagan, for instance, described the Miller-Urey experiment "as the single most significant step in convincing many scientists that life is likely to be abundant in the cosmos."61

Considerable space began to be devoted to the Miller experiment in textbooks and public media such as *Time* magazine. Inspired by the Miller experiment, fictitious evolutionary scenarios based on chemical evolution—and describing it as the origin of life—lost no time in appearing in school books. Indeed, as a result of this experiment, the belief known as "neovitalism"—the idea that matter possesses the inherent ability to reproduce itself—was resurrected.<sup>62</sup>

However, the Miller experiment was based on preconceptions of Oparin's and actually contained a great many elements far removed from scientific fact. The experiment was prepared to confirm the theory of chemical evolution that Oparin had dreamed up, and was intended to prove the validity of the theory of evolution. The setup used to produce amino acids bore no relation to the actual atmospheric conditions on the primordial Earth. Furthermore, it included several multilateral mechanisms for the production of amino acids that were not to be found in any natural environment. In the light of scientific standards, this experiment clearly contained prejudiced mechanisms.

#### HARUN YAHYA (ADNAN OKTAR)



## **Unrealistic Elements in the Miller Experiment**

Shortly after Miller carried out his experiment formulated to prove that amino acids could form spontaneously under primordial world conditions, it was realized that this experiment was incompatible with the scientific facts in a number of ways. Considering the points that demonstrate the scientific invalidity of the experiment, it is clear that scientific objectivity was not its aim.

# 1. The "primordial atmosphere" in Miller's setup did not reflect the facts. Actual conditions of the primordial atmosphere do not permit the formation of amino acids and other building blocks essential for life.

When Oparin proposed his theory of chemical evolution, he suggested that the atmosphere on the primordial Earth was very different from what it is today.<sup>63</sup> Stanley Miller sought to recreate these primordial atmospheric assumptions set out in Oparin's book in 1936. Therefore, in seeking to reproduce the formation of amino acids, Miller assumed that the primordial atmosphere consisted of methane ( $CH_4$ ), ammonia ( $NH_3$ ) and hydrogen ( $H_2$ ), as hypothesized by Oparin. In addition, he suggested that the Earth's atmosphere did not contain free oxygen. But in the years that followed his experiment, new geochemical evidence and experiments performed in the light of them clearly revealed that Oparin and Miller's estimates were inaccurate. On the contrary, the evidence demonstrated that the dominant gasses in the primordial atmosphere were carbon dioxide, nitrogen and water vapor; there was no methane, ammonia or hydrogen. This information showed that Miller's and similar experiments had been built on a false assumptions.

In any case, however, Miller had used these gasses deliberately. His objective was to prove experimentally the chemical evolution scenario proposed by Oparin 1924. For that reason, in determining the parameters of his experiment, Miller set out to duplicate the conditions Oparin had assumed. In fact, his aim was not to create the authentic primordial atmosphere before the emergence of life, but to produce the requisite atmosphere for amino acids to emerge.

Richard Kerr of *Science* magazine states that none of the geological and geochemical evidence collected over the last 30 years supports Miller's primordial atmosphere conditions.<sup>64</sup> The only reason for continuing to regard the primordial atmosphere conditions as accurate was that the theory of chemical evolution needed this assumption. The primordial

### HARUN YAHYA (ADNAN OKTAR)

Darwinists seek to prove that under the conditions on the primordial Earth, inanimate substances gave rise to proteins by chance. But today, we know that proteins cannot form by chance.

atmospheric conditions that Oparin and Miller assumed were the most appropriate ones to allow amino acids to emerge. Under normal conditions in a nat-

ural atmosphere, no chemical reactions will take place among atmospheric gasses. Even if they do take place they are not at the level that can give rise to biological building blocks.

Trying to form biological building blocks in a neutral atmosphere is like expecting two inanimate chemicals to react.

In fact, the primordial conditions "recreated" in Miller's experiment and others like it constitute no scientific evidence regarding the origin of life, since they did not take place in the actual primordial environment. After independent geochemical studies demonstrated that in the early atmosphere, chemical conditions prevailed that would never permit amino acids to form, it was realized that Miller's experiment was actually meaningless. Not only do experiments of this kind show that chemical evolution is impossible, but they also prove the presence of a rational Creator in the planning of living systems.

## 2. At the time when amino acids were suggested to have formed, so much oxygen was concentrated in the atmosphere that all amino acids would have been broken down.

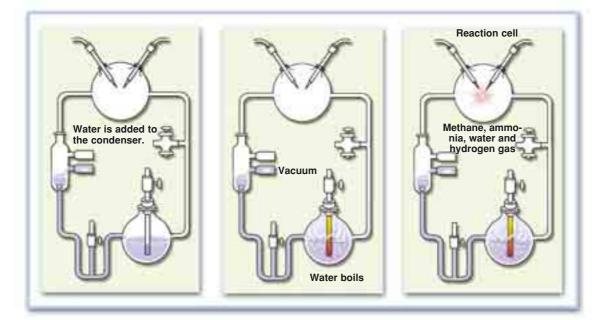
A series of geological studies showed that even prior to the emergence of plant life, significant levels of free oxygen and volcanic gasses were present due to photo dissociation in water evaporation. In rocks estimated to be around 3.5 billion years old, the presence of oxidized iron and uranium showed that there had been oxygen in the atmosphere.<sup>65</sup> These findings indicated that the level of oxygen at that time had not been low, as Darwinists maintained, but was actually much higher than they had suggested. Research also showed that during that period, 10,000 times more ultraviolet light reached the Earth than Darwinists had estimated. Inevitably, such intense ultraviolet light would break down the water molecules in the atmosphere, producing free oxygen.

This fact, which Miller neglected to take it into account, made his experiment totally invalid. If he had used oxygen in the experiment, the methane would have broken down into carbon dioxide and water, and ammonia into nitrogen and water. On the other hand, in an oxygen-free atmosphere before the ozone layer had come into existence, any amino acids directly exposed to ultraviolet rays would have broken down. Whether it contained oxygen or not, an atmosphere on the primordial earth would destroy amino acids.

## 3. In his experiment, Miller immediately isolated the amino acids that formed, using a mechanism known as the cold trap.

Assuming that Stanley Miller did use gasses that actually resembled those in the primordial atmosphere, shouldn't the results of the experiment support chemical evolution? No! In addition to such building blocks as amino acids and nucleic acid bases, his experiments also produced non-biological substances. Barring human intervention, these substances would enter into reactions with other useful substances, to form chemical compounds with no biological significance. As soon as the amino acids appeared, Miller was obliged to protect them from other substances and from the harmful effects of other conditions in that environment, so his experiment used a mechanism known as the cold trap". Otherwise, the same conditions that gave rise to the amino acids would have destroyed these molecules as soon as they formed.

On the primordial Earth of course, there was no such thing as a cold trap. Yet without one, even if a variety of amino acid were produced, those molecules would immediately be broken down in the prevailing environment. As the chemist Richard Bliss stated, "Actually, without this trap, the chemical products would have been destroyed by the energy source."<sup>66</sup>



Stanley Miller's experimental setup. In his experiment, Miller set up a number of conditions that were incompatible with the originals. For that reason, the scientific world has regarded his experiment as invalid.

Indeed, before Miller installed a cold trap, he had been unable to obtain a single amino acid in experiments he had performed.

In fact, Miller's experiment totally discredited the claim that life emerged as the result of unconscious coincidences. He demonstrated that amino acids can be obtained only when there is conscious intervention, in a laboratory environment where all the necessary conditions are provided.

Even though the Miller experiment is still depicted as an important scientific discovery in some quarters, it has effectively been abandoned by evolutionary authorities. In recent years, Western scientific journals have stated that in terms of accounting for the origins of life, the experiment is meaningless. For instance, the following comment, appeared in the February 1998 issue of the well-known evolutionist journal *Earth*, under the title "Life's Crucible":

Geologists now think that **the primordial atmosphere consisted mainly of carbon dioxide and nitrogen**, gases that are less reactive than those used in the 1953 experiment. And even if Miller's atmosphere could have existed, how do you get simple molecules such as amino acids to go through the necessary chemical changes that will convert them into more complicated compounds, or polymers, such as proteins? Miller himself throws up his hands at that part of the puzzle. "It's a problem," he sighs with exasperation. "How do you make polymers? That's not so easy."<sup>67</sup>

As you have seen, Miller himself realized that his experiment added nothing to explain the origin of life. In the March 1998 edition of *National Geographic* magazine, an article titled "The Rise of Life on Earth," contained the following:

Many scientists now suspect **that the early atmosphere was different from what Miller first supposed.** They think it consisted of carbon dioxide and nitrogen rather than hydrogen, methane, and ammonia. That's bad news for chemists. When they try sparking carbon dioxide and nitrogen, they get a paltry amount of organic molecules—the equivalent of dissolving a drop of

128

food coloring in a swimming pool of water. Scientists find it hard to imagine life emerging from such a diluted soup.<sup>68</sup>

In short, neither the Miller experiment nor any other evolutionist endeavor can answer the question of how life on Earth appeared. All their researches show the impossibility of life coming into being by chance and therefore, that it was created. Darwinists refuse to accept this because they hold to a series of preconceptions that fly in the face of science. In fact, Harold Urey—Stanley Miller's student and who helped set up his experiment—made the following admission:

All of us who study the origin of life find that the more we look into it, the more we feel it is too complex to have evolved anywhere. We all believe as an article of faith that life evolved from dead matter on this planet. It is just that its complexity is so great, it is hard for us to imagine that it did.<sup>69</sup>

## Another Failure: The Fox Experiment

Despite its invalidity, some Darwinists still seek to use the Miller experiment as proof that amino acids might have formed from inanimate substances. But even if that were the case, it would still not resolve Darwinists' difficulties! Even more impossible hurdles stand in their way: Amino acids would have to combine to form proteins—which are vastly more complex structures. And it is even more unrealistic to maintain that proteins formed by chance under natural conditions. You have already seen the mathematical calculations demonstrating the impossibility of amino acids combining in the sequences needed to give rise to proteins. And it's also chemically impossible for proteins to have emerged in the primordial Earth's atmosphere.

## The Problem of Synthesizing Proteins in Water

As already made clear, when amino acids combine to form proteins, they establish special peptide bonds among themselves. When this bond is established, a water molecule is released.

This invalidates the Darwinist account of primordial life emerging in the seas because according to the law of chemistry known as the Le Chatelier principle, any reaction that *releases* water (a so-called condensation reaction) cannot take place in an environment that *contains* water. Specifically, such a reaction taking place in a watery environment is described as having the "lowest probability of taking place."

Therefore, the ocean—which Darwinists describe as the place where amino acids formed and life began—is an absolutely unsuitable environment for amino acids to combine and give rise to proteins. <sup>70</sup>



Sydney Fox

But in the face of this fact, proponents of Darwinism cannot alter their claims and maintain that primordial life first appeared on land. The oceans and seas are the only environment that could have protected amino acids from the harmful effects of sunlight coming through the primordial atmosphere. On land, amino acids are quickly broken down by ultraviolet rays. Yet the Le Chatelier principle makes it impossible for them to emerge in the sea. As far as the theory of evolution is concerned, this represents two dead ends.

## The Fox Experiment

Faced with the dilemma described above, Darwinist researchers set about producing various scenarios to overcome the "water problem" that demolished all their theories. To resolve the difficulty, the well-known Sydney Fox advanced one interesting theory: that after the first amino acids had formed in the primordial ocean, they must have immediately been cast up onto cliffs near a volcano. The high temperatures on those rocks must have evaporated the water containing amino acids. In this way, the "dried" amino acids could have combined to form proteins.

However, this sophistry convinced no one, because amino acids could not have exhibited heat resistance to the extent proposed by Fox. Research has revealed that at high temperatures, amino acids are immediately destroyed.



Fox suggested that after amino acids had formed in the ocean, they were washed onto rocks on the side of a volcano. However, since amino acids are unable to withstand such high temperatures, Fox's claim enjoyed little support from scientific circles. However, Fox did not give in. Under "very special conditions in the laboratory," he combined purified amino acids by heating them in a dry environment. The amino acids did combine, but Fox still failed to obtain proteins, only randomly connected, simple and irregular amino acid links—a far cry from the proteins in any living thing. In any case, had Fox maintained the amino acids at that same temperature, then the useless links that did emerge would have broken down.<sup>71</sup>

Another point depriving the experiment of any significance is that rather than the amino acids obtained in the Miller experiment, Fox used the pure amino acids found in living organisms. Since he claimed his experiment to be a continuation of Miller's, he should have started off from where Miller left off. Yet neither Fox nor any other researcher used the useless amino acids that Miller produced.<sup>72</sup>

Fox's experiment received no welcome from Darwinists because it was plain that the meaningless chains of amino acids (or proteinoids) that Fox obtained could never have emerged under natural conditions. In addition, he had still not obtained the proteins that constitute the building blocks of living things, so the problem of the origin of proteins had still not been resolved. An article published at the time in *Chemical Engineering* magazine commented on Fox's experiment: Sydney Fox and the other researchers managed to unite the amino acids in the shape of "proteinoids" by using very special heating techniques under conditions which in fact did not exist at all in the primordial stages of Earth. Also, they are not at all similar to the very regular proteins present in living things. They are nothing but useless, irregular chemical stains. It was explained that even if such molecules had formed in the early ages, they would definitely be destroyed. <sup>73</sup>

Indeed, the proteinoids that Fox obtained were far from having the function and structure of real proteins. The difference was as great as between a pile of scrap metal and a complex technological device.

Furthermore, this meaningless collection of amino acids had no way of survival in the primordial atmosphere. Under the destructive conditions of the time, intense ultraviolet rays and uncontrolled natural phenomena would cause these proteinoids to break down with no opportunity to continue combining. The Le Chatelier principle removes any question of amino acids being underwater where ultraviolet rays could not reach them. In light of these facts, scientists rapidly began to doubt the hypothesis that proteinoid molecules could represent the beginning of life. CONCLUSION



s already stated, the aim of this book is very different from those of ordinary books on biology, biochemistry or genetics. We have intended to show the might, intellect, incomparable

creation of Allah Who, with His superior knowledge and Intellect, created the entities, systems, living things and orders studied by all branches of science, from biology to physics, from anatomy to astronomy.

Hundreds of thousands of scientists are presently specializing in the study of proteins day and night, thus acquiring sufficient information about them to fill an encyclopedia consisting of a great many volumes. Yet all this information still fails to save some of them from errors and nonsense. Although they realize what complex and flawless structures proteins are, many scientists still believe that thousands of atoms combined by chance under just the right conditions and—for example—became hemoglobin and decided to transport oxygen in the bloodstream!

In the same way that they believe these incredible claims, these scientists also use their status to convince others. This book's objective has been to exhibit the facts to anyone who believes in the nonsense of "coincidence" and to provide corroboration for those who already believe in Allah's creation. This book gives them the facts about that creation, so that they can tell others.

The 21st century will be the time when people will comprehend the fact of creation and free themselves of superstitions. Sincere believers, therefore, must discharge their responsibilities to the letter, using the most rational means, reason and science and—most important of all—in the light of the truths Allah reveals us in the Qur'an, call on others to reflect on the question posed in the verse below:

O man! What has deluded you in respect of your Noble Lord? He Who created you and formed you and proportioned you and assembled you in whatever way He willed. (Surat al-Infitar: 6-8) THE DECEPTION OF EVOLUTION

D

arwinism, in other words the theory of evolution, was put forward with the aim of denying the fact of Creation, but is in truth nothing but failed, unscientific nonsense. **This theory**,

which claims that life emerged by chance from inanimate matter, was invalidated by the scientific evidence of miraculous order in the universe and in living things, as well as by the discovery of more than 300 million fossils revealing that evolution never happened. In this way, science confirmed the fact that Allah created the universe and the living things in it. The propaganda carried out today in order to keep the theory of evolution alive is based solely on the distortion of the scientific facts, biased interpretation, and lies and falsehoods disguised as science.

Yet this propaganda cannot conceal the truth. The fact that **the theory of evolution is the greatest deception in the history of science** has been

expressed more and more in the scientific world over the last 20-30 years. Research carried out after the 1980s in particular has revealed that the claims of Darwinism are totally unfounded, something that has been stated by a large number of scientists. In the United States in particular, many scientists from such different fields as biology, biochemistry and paleontology recognize the invalidity of Darwinism and employ the fact of Creation to account for the origin of life.

We have examined the collapse of the theory of evolution and the proofs of Creation in great scientific detail in many of our works, and are still continuing to do so. Given the enormous importance of this subject, it will be of great benefit to summarize it here.

## The Scientific Collapse of Darwinism

As a pagan doctrine going back as far as ancient Greece, the theory of

evolution was advanced extensively in the nineteenth century. The most important development that made it the top topic of the world of science was Charles Darwin's The Origin of Species, published in 1859. In this book, he opposed, in his own eyes, the fact that Allah created different living species on Earth separately, for he erroneously claimed that all living beings had a common ancestor and had diversified over time through small changes. Darwin's



**Charles Darwin** 

theory was not based on any concrete scientific finding; as he also accepted, it was just an "assumption." Moreover, as Darwin confessed in the long chapter of his book titled "Difficulties on Theory," the theory failed in the face of many critical questions.

Darwin invested all of his hopes in new scientific discoveries, which he expected to solve these difficulties. However, contrary to his expectations, scientific findings expanded the dimensions of these difficulties. The defeat of Darwinism in the face of science can be reviewed under three basic topics:

1) The theory cannot explain how life originated on Earth.

2) No scientific finding shows that the "evolutionary mechanisms" proposed by the theory have any evolutionary power at all.

3) The fossil record proves the exact opposite of what the theory suggests.

In this section, we will examine these three basic points in general outlines:

## The First Insurmountable Step:

## The Origin of Life

The theory of evolution posits that all living species evolved from a single living cell that emerged on Earth 3.8 billion years ago, supposed to have happened as a result of coincidences. How a single cell could generate millions of complex living species and, if such an evolution really occurred, why traces of it cannot be observed in the fossil record are some of the questions that the theory cannot answer. However, first and foremost, we need to ask: **How did this "first cell" originate?** 

Since the theory of evolution ignorantly denies Creation, it maintains that the "first cell" originated as a product of blind coincidences within the laws of nature, without any plan or arrangement. According to the theory, inanimate matter must have produced a living cell as a result of coincidences. Such a claim, however, is inconsistent with the most unassailable rules of biology.

138



## Life Comes From Life

In his book, Darwin never referred to the origin of life. The primitive understanding of science in his time rested on the assumption that living beings had a very simple structure. Since medieval times, spontaneous generation, which asserts that non-living materials came together to form living organisms, had been widely accepted. It was commonly believed that insects came into being from food leftovers, and mice from wheat. Interesting experiments were conducted to prove this theory. Some wheat was placed on a dirty piece

Louis Pasteur

of cloth, and it was believed that mice would originate from it after a while.

Similarly, maggots developing in rotting meat was assumed to be evidence of spontaneous generation. However, it was later understood that worms did not appear on meat spontaneously, but were carried there by flies in the form of larvae, invisible to the naked eye.

Even when Darwin wrote *The Origin of Species*, the belief that bacteria could come into existence from non-living matter was widely accepted in the world of science.

However, five years after the publication of Darwin's book, Louis Pasteur announced his results after long studies and experiments, that disproved spontaneous generation, a cornerstone of Darwin's theory. In his triumphal lecture at the Sorbonne in 1864, Pasteur said: "Never will the doctrine of spontaneous generation recover from the mortal blow struck by this simple experiment."<sup>74</sup>

For a long time, advocates of the theory of evolution resisted these findings. However, as the development of science unraveled the complex structure of the cell of a living being, the idea that life could come into being coincidentally faced an even greater impasse.

## **Inconclusive Efforts of the Twentieth Century**

The first evolutionist who took up the subject of the origin of life in the twentieth century was the renowned Russian biologist Alexander Oparin. With various theses he advanced in the 1930s, he tried to prove that a living cell could originate by coincidence. These studies, however, were doomed to failure, and Oparin had to make the following confession:



Unfortunately, however, the problem of the origin of the cell is perhaps the most obscure point in Alexander Oparin the whole study of the evolution of organisms.<sup>75</sup>

Evolutionist followers of Oparin tried to carry out experiments to solve this problem. The best known experiment was carried out by the American chemist Stanley Miller in 1953. Combining the gases he alleged to have existed in the primordial Earth's atmosphere in an experiment setup, and adding energy to the mixture, Miller synthesized several organic molecules (amino acids) present in the structure of proteins.

Barely a few years had passed before it was revealed that **this experiment**, which was then presented as an important step in the name of evolution, was invalid, for the atmosphere used in the experiment was very different from the real Earth conditions.<sup>76</sup>

After a long silence, **Miller confessed that the atmosphere medium** he used was unrealistic. 77

All the evolutionists' efforts throughout the twentieth century to explain the origin of life ended in failure. The geochemist Jeffrey Bada, from the San Diego Scripps Institute accepts this fact in an article published in *Earth* magazine in 1998:

Today as we leave the twentieth century, we still face the biggest unsolved problem that we had when we entered the twentieth century: How did life originate on Earth?<sup>78</sup>

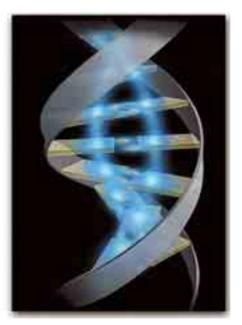
### The Complex Structure of Life

The primary reason why evolutionists ended up in such a great impasse regarding the origin of life is that even those living organisms Darwinists deemed to be the simplest have outstandingly complex features. The cell of a living thing is more complex than all of our man-made technological products. **Today, even in the most developed laboratories of the world, no single protein of the cell, let alone a living cell itself, can be produced by bringing organic chemicals together.** 

The conditions required for the formation of a cell are too great in quantity to be explained away by coincidences. However, there is no need to explain the situation with these details. Evolutionists are at a dead-end even before reaching the stage of the cell. That is because the probability of just a single protein, an essential building block of the cell, coming into being by chance is mathematically "0."

The main reason for this is the need for other proteins to be present if one protein is to form, and this completely eradicates the possibility

One of the facts nullifying the theory of evolution is the incredibly complex structure of life. The DNA molecule located in the nucleus of cells of living beings is an example of this. The DNA is a sort of databank formed of the arrangement of four different molecules in different sequences. This databank contains the codes of all the physical traits of that living being. When the human DNA is put into writing, it is calculated that this would result in an encyclopedia made up of 900 volumes. Unquestionably, such extraordinary information definitively refutes the concept of coincidence.



of chance formation. This fact by itself is sufficient to eliminate the evolutionist claim of chance right from the outset. To summarize,

1. Protein cannot be synthesized without enzymes, and enzymes are all proteins.

2. Around 100 proteins need to be present in order for a single protein to be synthesized. There therefore need to be proteins for proteins to exist.

3. DNA manufactures the protein-synthesizing enzymes. Protein cannot be synthesized without DNA. DNA is therefore also needed in order for proteins to form.

4. All the organelles in the cell have important tasks in protein synthesis. In other words, in order for proteins to form a perfect and fully functioning cell needs to exist together with all its organelles.

The DNA molecule, which is located in the nucleus of a cell and which stores genetic information, is a magnificent databank. If the information coded in DNA were written down, it would make a giant library consisting of an estimated 900 volumes of encyclopedias consisting of 500 pages each.

A very interesting dilemma emerges at this point: DNA can replicate itself only with the help of some specialized proteins (enzymes). However, the synthesis of these enzymes can be realized only by the information coded in DNA. As they both depend on each other, they have to exist at the same time for replication. This brings the scenario that life originated by itself to a deadlock. Prof. Leslie Orgel, an evolutionist of repute from the University of San Diego, California, confesses this fact in the September 1994 issue of the *Scientific American* magazine:

It is extremely improbable that proteins and nucleic acids, both of which are structurally complex, arose spontaneously in the same place at the same time. Yet it also seems impossible to have one without the other. And so, at first glance, one might have to conclude that life could never, in fact, have originated by chemical means.<sup>79</sup>

No doubt, if it is impossible for life to have originated spontaneously as a result of blind coincidences, then it has to be accepted that life was

142

"**created.**" This fact explicitly invalidates the theory of evolution, whose main purpose is to deny Creation.

#### **Imaginary Mechanism of Evolution**

The second important point that negates Darwin's theory is that both concepts put forward by the theory as "evolutionary mechanisms" were understood to have, in reality, no evolutionary power.

Darwin based his evolution allegation entirely on the mechanism of "natural selection." The importance he placed on this mechanism was evident in the name of his book: The Origin of Species, By Means of Natural Selection...

Natural selection holds that those living things that are stronger and more suited to the natural conditions of their habitats will survive in the struggle for life. For example, in a deer herd under the threat of attack by wild animals, those that can run faster will survive. Therefore, the deer herd will be comprised of faster and stronger individuals. However, unquestionably, this mechanism will not cause deer to evolve and transform themselves into another living species, for instance, horses.

Therefore, **the mechanism of natural selection has no evolutionary power. Darwin was also aware of this fact** and had to state this in his book The Origin of Species:

*Natural selection can do nothing until favourable individual differences or variations occur.*<sup>80</sup>

#### Lamarck's Impact

So, how could these "favorable variations" occur? Darwin tried to answer this question from the standpoint of the primitive understanding of science at that time. According to the French biologist Chevalier de Lamarck (1744-1829), who lived before Darwin, living creatures passed on the traits they acquired during their lifetime to the next generation. He asserted that these traits, which accumulated from one generation to an-



Lamarck believed that giraffes evolved from such animals as antelopes. In his view, the necks of these grass-eating animals gradually grew longer, and they eventually turned into giraffes. The laws of inheritance discovered by Mendel in 1865 proved that it was impossible for properties acquired during life to be handed on to subsequent generations. Lamarck's giraffe fairy tale was thus consigned to the wastebin of history.

other, caused new species to be formed. For instance, he claimed that giraffes evolved from antelopes; as they struggled to eat the leaves of high trees, their necks were extended from generation to generation.

Darwin also gave similar examples. In his book *The Origin of Species*, for instance, he said that some bears going into water to find food transformed themselves into whales over time.<sup>81</sup>

However, the laws of inheritance discovered by Gregor Mendel (1822-84) and verified by the science of genetics, which flourished in the twentieth century, utterly demolished the legend that acquired traits were passed on to subsequent generations. Thus, natural selection fell out of favor as an evolutionary mechanism.

#### **Neo-Darwinism and Mutations**

In order to find a solution, Darwinists advanced the "Modern Synthetic Theory," or as it is more commonly known, Neo-Darwinism, at the end of the 1930s. Neo-Darwinism added mutations, which are distortions formed in the genes of living beings due to such external factors as radiation or replication errors, as the "cause of favorable variations" in addition to natural mutation. Today, the model that Darwinists espouse, despite their own awareness of its scientific invalidity, is neo-Darwinism. The theory maintains that millions of living beings formed as a result of a process whereby numerous complex organs of these organisms (e.g., ears, eyes, lungs, and wings) underwent "mutations," that is, genetic disorders. Yet, there is an outright scientific fact that totally undermines this theory: **Mutations do not cause living beings to develop; on the contrary, they are always harmful.** 

The reason for this is very simple: **DNA has a very complex structure**, **and random effects can only harm it.** The American geneticist B. G. Ranganathan explains this as follows:

First, genuine mutations are very rare in nature. Secondly, most mutations are harmful since they are random, rather than orderly changes in the structure of genes; any random change in a highly ordered system will be for the worse, not for the better. For example, if an earthquake were to shake a highly ordered structure such as a building, there would be a random change in the framework of the building which, in all probability, would not be an improvement.<sup>82</sup>



Accidental mutations develop into defects in humans as well as other living beings. The Chernobyl disaster is an eye-opener for the effects of mutations.

Not surprisingly, no mutation example, which is useful, that is, which is observed to develop the genetic code, has been observed so far. All mutations have proved to be harmful. It was understood that mutation, which is presented as an "evolutionary mechanism," is actually a genetic occurrence that harms living things, and leaves them disabled. (The most common effect of mutation on human beings is cancer.) Of course, a destructive mechanism cannot be an "evolutionary mechanism." Natural selection, on the other hand, "can do nothing by itself," as Darwin also accepted. This fact shows us that **there is no "evolutionary mechanism" in nature.** Since no evolutionary mechanism exists, no such imaginary process called "evolution" could have taken place.

#### **The Fossil Record:**

#### **No Sign of Intermediate Forms**

The clearest evidence that the scenario suggested by the theory of evolution did not take place is the fossil record.

According to the unscientific supposition of this theory, every living species has sprung from a predecessor. A previously existing species turned into something else over time and all species have come into being in this way. In other words, this transformation proceeds gradually over millions of years.

Had this been the case, numerous intermediary species should have existed and lived within this long transformation period.

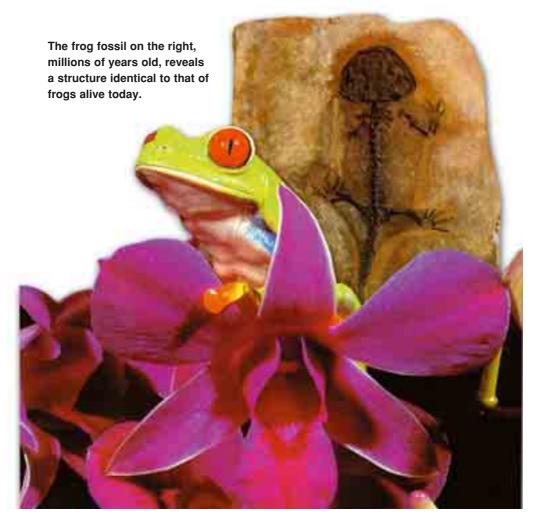
For instance, some half-fish/half-reptiles should have lived in the past which had acquired some reptilian traits in addition to the fish traits they already had. Or there should have existed some reptile-birds, which acquired some bird traits in addition to the reptilian traits they already had. Since these would be in a transitional phase, they should be disabled, defective, crippled living beings. Evolutionists refer to these imaginary creatures, which they believe to have lived in the past, as "transitional forms."

If such animals ever really existed, there should be millions and even billions of them in number and variety. More importantly, the remains of these strange creatures should be present in the fossil record. In The Origin of Species, Darwin explained:

If my theory be true, numberless intermediate varieties, linking most closely all of the species of the same group together must assuredly have existed... Consequently, evidence of their former existence could be found only amongst fossil remains.<sup>83</sup>

However, **Darwin was well aware that no fossils of these intermediate forms had yet been found.** He regarded this as a major difficulty for his theory. In one chapter of his book titled "Difficulties on Theory," he wrote:

Why, if species have descended from other species by insensibly fine gradations, do we not everywhere see innumerable transitional forms? Why is not all nature in confusion instead of the species being, as we see them, well defined?.. But, as by this theory innumerable transitional forms must have existed, why do we not find them embedded in countless numbers in the crust of the earth?.. Why then is not every geological formation and every stratum full of such intermediate links?<sup>84</sup>



# LIVING FOSSILS REFUTE EVOLUTION

Fossils are proof that evolution never happened. As the fossil record reveals, living things suddenly appeared together with all the characteristics they possess, and they never undergo the slightest change so long as they remain in existence. Fish have always existed as fish, insects as insects, and reptiles as reptiles. There is no scientific validity to the claim that species emerged gradually.

<u>Sea Urchin</u> Period: Paleozoic Age, Carboniferous Period Age: 295 million years





<u>Sun Fish</u> Period: Cenozoic Age, Eocene Period Age: 54-<u>37 million years</u>



<u>Crane Fly</u> Period: Cenozoic Age, Eocene Period Age: 48-37 million years





<u>Starfish</u> Period: Paleozoic Age, Ordovician Period Age: 490-443 million years



<u>Birch Tree Leaf</u> Period: Cenozoic Age, Eocene Period Age: 50 million years



Cicada Period: Mesozoic Age, Cretaceous Period Age: 125 million years



<u>Sequoia Leaf</u> Period: Cenozoic Age, Eocene Period Age: 50 million years

#### **Darwin's Hopes Shattered**

However, although evolutionists have been making strenuous efforts to find fossils since the middle of the nineteenth century all over the world, no transitional forms have yet been uncovered. All of the fossils, contrary to the evolutionists' expectations, show that life appeared on Earth all of a sudden and fully-formed.

One famous British paleontologist, Derek V. Ager, admits this fact, even though he is an evolutionist:

The point emerges that if we examine the fossil record in detail, whether at the level of orders or of species, we find - over and over again - not gradual evolution, but the sudden explosion of one group at the expense of another.<sup>85</sup>

This means that in **the fossil record**, **all living species suddenly emerge as fully formed**, **without any intermediate forms in between**. This is just the opposite of Darwin's assumptions. Also, this is very strong evidence that **all living things are created**. The only explanation of a living species emerging suddenly and complete in every detail without any evolutionary ancestor is that it was created. This fact is admitted also by the widely known evolutionist biologist Douglas Futuyma:

Creation and evolution, between them, exhaust the possible explanations for the origin of living things. Organisms either appeared on the earth fully developed or they did not. If they did not, they must have developed from pre-existing species by some process of modification. If they did appear in a fully developed state, they must indeed have been created by some omnipotent intelligence.<sup>86</sup>

Fossils show that living beings emerged fully developed and in a perfect state on the Earth. That means that "the origin of species," contrary to Darwin's supposition, is not evolution, but Creation.

#### The Tale of Human Evolution

The subject most often brought up by advocates of the theory of evolution is the subject of the origin of man. The Darwinist claim holds that man evolved from so-called ape-like creatures. During this alleged evolutionary process, which is supposed to have started 4-5 million years ago,

some "transitional forms" between man and his imaginary ancestors are supposed to have existed. According to this completely imaginary scenario, four basic "categories" are listed:

- 1. Australopithecus
- 2. Homo habilis
- 3. Homo erectus
- 4. Homo sapiens

Evolutionists call man's so-called first ape-like ancestors Australopithecus, which means "South African ape." These living beings are actually nothing but an old ape species that has become extinct. Extensive

research done on various Australopithecus specimens by two world famous anatomists from England and the USA, namely, Lord Solly Zuckerman and Prof. Charles Oxnard, shows that these apes belonged to an ordinary ape species that became extinct and bore no resemblance to humans.<sup>87</sup>

Evolutionists classify the next stage of human evolution as "homo," that is "man." According to their claim, the living beings in the Homo series are more developed than Australopithecus. Evolutionists de-

Evolutionist newspapers and magazines often print "reconstructions" or "artist's conceptions" of primitive man. The only available source for these pictures is some artist's imagination. Evolutionary theory has been so refuted by scientific data that today we see fewer and fewer of such depictions in the serious press. vise a fanciful evolution scheme by arranging different fossils of these creatures in a particular order. This scheme is imaginary because it has never been proved that there is an evolutionary relation between these different classes. Ernst Mayr, one of the twentieth century's most important evolutionists, contends in his book One Long Argument that "particularly historical [puzzles] such as the origin of life or of Homo sapiens, are extremely difficult and may even resist a final, satisfying explanation."<sup>88</sup>

By outlining the link chain as Australopithecus > Homo habilis > Homo erectus > Homo sapiens, evolutionists imply that each of these species is one another's ancestor. However, recent findings of paleoan-thropologists have revealed that Australopithecus, Homo habilis, and Homo erectus lived at different parts of the world at the same time.<sup>89</sup>

Moreover, a certain segment of humans classified as Homo erectus have lived up until very modern times. **Homo sapiens neandarthalensis and Homo sapiens sapiens man) co-existed in the same region.**<sup>90</sup>

This situation apparently indicates the invalidity of the claim that they are ancestors of one another. The late Stephen Jay Gould explained this deadlock of the theory of evolution although he was himself one of the leading advocates of evolution in the twentieth century:

What has become of our ladder if there are three coexisting lineages of hominids (*A. africanus, the robust australopithecines, and H. habilis*), none clearly derived from another? Moreover, none of the three display any evolutionary trends during their tenure on earth.<sup>91</sup>

Put briefly, the scenario of human evolution, which is "upheld" with the help of various drawings of some "half ape, half human" creatures appearing in the media and course books, that is, frankly, by means of propaganda, is nothing but **a tale with no scientific foundation**.

Lord Solly Zuckerman, one of the most famous and respected scientists in the U.K., who carried out research on this subject for years and studied Australopithecus fossils for 15 years, finally concluded, despite being an evolutionist himself, **that there is, in fact, no such family tree branching out from ape-like creatures to man.**  Zuckerman also made an interesting "spectrum of science" ranging from those he considered scientific to those he considered unscientific. According to Zuckerman's spectrum, the most "scientific"-that is, depending on concrete data-fields of science are chemistry and physics. After them come the biological sciences and then the social sciences. At the far end of the spectrum, which is the part considered to be most "unscientific," are "extra-sensory perception"-concepts such as telepathy and sixth sense-and finally "human evolution." Zuckerman explains his reasoning:

We then move right off the register of objective truth into those fields of presumed biological science, like extrasensory perception or the interpretation of man's fossil history, where to the faithful [evolutionist] anything is possible - and where the ardent believer [in evolution] is sometimes able to believe several contradictory things at the same time.<sup>92</sup>

The tale of human evolution boils down to nothing but the prejudiced interpretations of some fossils unearthed by certain people, who blindly adhere to their theory.

#### **Darwinian Formula!**

Besides all the technical evidence we have dealt with so far, let us now for once, examine what kind of a superstition the evolutionists have with an example so simple as to be understood even by children:

The theory of evolution asserts that life is formed by chance. According to this irrational claim, lifeless and unconscious atoms came together to form the cell and then they somehow formed other living things, including man. Let us think about that. When we bring together the elements that are the building-blocks of life such as carbon, phosphorus, nitrogen and potassium, only a heap is formed. No matter what treatments it undergoes, this atomic heap cannot form even a single living being. If you like, let us formulate an "experiment" on this subject and let us examine on the behalf of evolutionists what they really claim without pronouncing loudly under the name "**Darwinian formula**":

Let evolutionists put plenty of materials present in the composition of living things such as phosphorus, nitrogen, carbon, oxygen, iron, and magnesium into big barrels. Moreover, let them add in these barrels any material that does not exist under normal conditions, but they think as necessary. Let them add in this mixture as many amino acids and as many proteins as they like. Let them expose these mixtures to as much heat and moisture as they like. Let them stir these with whatever technologically developed device they like. Let them put the foremost scientists beside these barrels. Let these experts wait in turn beside these barrels for billions, and even trillions of years. Let them be free to use all kinds of conditions they believe to be necessary for a human's formation. No matter what they do, they cannot produce from these barrels a human, say a professor that examines his cell structure under the electron microscope. They cannot produce giraffes, lions, bees, canaries, horses, dolphins, roses, orchids, lilies, carnations, bananas, oranges, apples, dates, tomatoes, melons, watermelons, figs, olives, grapes, peaches, peafowls, pheasants, multicoloured butterflies, or millions of other living beings such as these. Indeed, they could not obtain even a single cell of any one of them.

Briefly, **unconscious atoms cannot form the cell** by coming together. They cannot take a new decision and divide this cell into two, then take other decisions and create the professors who first invent the electron microscope and then examine their own cell structure under that microscope. **Matter is an unconscious, lifeless heap, and it comes to life with Allah's superior creation.** 

The theory of evolution, which claims the opposite, is a total fallacy completely contrary to reason. Thinking even a little bit on the claims of evolutionists discloses this reality, just as in the above example.

#### Technology in the Eye and the Ear

Another subject that remains unanswered by evolutionary theory is the excellent quality of perception in the eye and the ear.

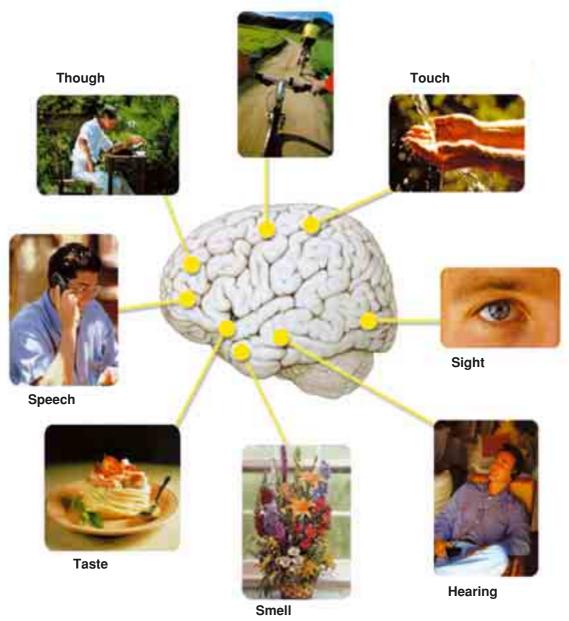
Before passing on to the subject of the eye, let us briefly answer the question of how we see. Light rays coming from an object fall oppositely on the eye's retina. Here, these light rays are transmitted into electric signals by cells and reach a tiny spot at the back of the brain, the "center of vision." These electric signals are perceived in this center as an image after a series of processes. With this technical background, let us do some thinking.

The brain is insulated from light. That means that its inside is completely dark, and that no light reaches the place where it is located. Thus, the "center of vision" is never touched by light and may even be the darkest place you have ever known. However, you observe a luminous, bright world in this pitch darkness.

The image formed in the eye is so sharp and distinct that even the technology of the twentieth century has not been able to attain it. For instance, look at the book you are reading, your hands with which you are holding it, and then lift your head and look around you. Have you ever seen such a sharp and distinct image as this one at any other place? Even the most developed television screen produced by the greatest television producer in the world cannot provide such a sharp image for you. This is a three-dimensional, colored, and extremely sharp image. For more than 100 years, thousands of engineers have been trying to achieve this sharpness. Factories, huge premises were established, much research has been done, plans and designs have been made for this purpose. Again, look at a TV screen and the book you hold in your hands. You will see that there is a big difference in sharpness and distinction. Moreover, the TV screen shows you a two-dimensional image, whereas with your eyes, you watch a three-dimensional perspective with depth.

For many years, tens of thousands of engineers have tried to make a three-dimensional TV and achieve the vision quality of the eye. Yes, they have made a three-dimensional television system, but it is not possible to watch it without putting on special 3-D glasses; moreover, it is only an artificial three-dimension. The background is more blurred, the foreground appears like a paper setting. Never has it been possible to produce a sharp and distinct vision like that of the eye. In both the camera and the television, there is a loss of image quality.

#### Movement



We live our whole life in our brains. People we see, flowers we smell, music we hear, fruit we taste, the moisture we feel with our hands—all these are impressions that become "reality" in the brain. But no colors, voices or pictures exist there. We live in an environment of electrical impulses. This is no theory, but the scientific explanation of how we perceive the outside world.

Evolutionists claim that the mechanism producing this sharp and distinct image has been formed by chance. Now, if somebody told you that the television in your room was formed as a result of chance, that all of its atoms just happened to come together and make up this device that produces an image, what would you think? How can atoms do what thousands of people cannot?

If a device producing a more primitive image than **the eye could not have been formed by chance**, then it is very evident that the eye and the image seen by the eye could not have been formed by chance. The same situation applies to the ear. The outer ear picks up the available sounds by the auricle and directs them to the middle ear, the middle ear transmits the sound vibrations by intensifying them, and the inner ear sends these vibrations to the brain by translating them into electric signals. Just as with the eye, the act of hearing finalizes in the center of hearing in the brain.

The situation in the eye is also true for the ear. That is, **the brain is insulated from sound** just as it is from light. It does not let any sound in. Therefore, no matter how noisy is the outside, the inside of the brain is completely silent. Nevertheless, the sharpest sounds are perceived in the brain. **In your completely silent brain, you listen to symphonies, and hear all of the noises in a crowded place.** However, were the sound level in your brain measured by a precise device at that moment, complete silence would be found to be prevailing there.

As is the case with imagery, decades of effort have been spent in trying to generate and reproduce sound that is faithful to the original. The results of these efforts are sound recorders, high-fidelity systems, and systems for sensing sound. Despite all of this technology and the thousands of engineers and experts who have been working on this endeavor, no sound has yet been obtained that has the same sharpness and clarity as the sound perceived by the ear. Think of the highest-quality hi-fi systems produced by the largest company in the music industry. Even in these devices, when sound is recorded some of it is lost; or when you turn on a hifi you always hear a hissing sound before the music starts. However, the

sounds that are the products of the human body's technology are extremely sharp and clear. A human ear never perceives a sound accompanied by a hissing sound or with atmospherics as does a hi-fi; rather, it perceives sound exactly as it is, sharp and clear. This is the way it has been since **the creation of man**.

So far, no man-made visual or recording apparatus has been as sensitive and successful in perceiving sensory data as are the eye and the ear. However, as far as seeing and hearing are concerned, a far greater truth lies beyond all this.

# To Whom Does the Consciousness that Sees and Hears within the Brain Belong?

Who watches an alluring world in the brain, listens to symphonies and the twittering of birds, and smells the rose?

The stimulations coming from a person's eyes, ears, and nose travel to the brain as electro-chemical nerve impulses. In biology, physiology, and biochemistry books, you can find many details about how this image forms in the brain. However, you will never come across the most important fact: Who perceives these electro-chemical nerve impulses as images, sounds, odors, and sensory events in the brain? **There is a consciousness in the brain that perceives all this without feeling any need for an eye, an ear, and a nose.** To whom does this consciousness belong? Of course it does not belong to the nerves, the fat layer, and neurons comprising the brain. This is why Darwinist-materialists, who believe that everything is comprised of matter, cannot answer these questions.

For **this consciousness is the spirit created by Allah**, which needs neither the eye to watch the images nor the ear to hear the sounds. Furthermore, it does not need the brain to think.

Everyone who reads this explicit and scientific fact should ponder on Almighty Allah, and fear and seek refuge in Him, for He squeezes the entire universe in a pitch-dark place of a few cubic centimeters in a three-dimensional, colored, shadowy, and luminous form.

#### HARUN YAHYA (ADNAN OKTAR)



You live out your entire life in your brain. The people you see, flowers you smell, music you hear, fruit you taste, the moisture you feel with your fingers—all these are impressions that become "reality" in the brain. But no colors, voices or pictures actually exist there. You live in an environment of electrical impulses. This is no idle theory, but the scientific explanation of how you actually perceive the outside world.

#### **A Materialist Faith**

The information we have presented so far shows us that **the theory of evolution is incompatible with scientific findings.** The theory's claim regarding the origin of life is inconsistent with science, the evolutionary mechanisms it proposes have no evolutionary power, and fossils demonstrate that **the required intermediate forms have never existed.** So, it certainly follows that the theory of evolution should be pushed aside as an unscientific idea. This is how many ideas, such as the Earth-centered universe model, have been taken out of the agenda of science throughout history. However, the theory of evolution is kept on the agenda of science. Some people even try to represent criticisms directed against it as an "attack on science." Why?

The reason is that this theory is an indispensable dogmatic belief for some circles. These circles are **blindly devoted** to materialist philosophy and adopt Darwinism because it is the only materialist explanation that can be put forward to explain the workings of nature.

Interestingly enough, they also confess this fact from time to time. A well-known geneticist and an outspoken evolutionist, Richard C. Lewontin from Harvard University, confesses that he is "first and fore-most a materialist and then a scientist":

It is not that the methods and institutions of science somehow compel us accept a material explanation of the phenomenal world, but, on the contrary, that we are forced by our a priori adherence to material causes to create an apparatus of investigation and a set of concepts that produce material explanations, no matter how counter-intuitive, no matter how mystifying to the uninitiated. Moreover, that materialism is absolute, so we cannot allow a Divine [intervention]...93

These are explicit statements that **Darwinism is a dogma** kept alive just for the sake of adherence to materialism. This dogma maintains that there is no being save matter. Therefore, it argues that inanimate, unconscious matter brought life into being. It insists that millions of different living species (e.g., birds, fish, giraffes, tigers, insects, trees, flowers, whales, and human beings) originated as a result of the interactions between matter such as pouring rain, lightning flashes, and so on, out of inanimate matter. This is a precept contrary both to reason and science. Yet Darwinists continue to ignorantly defend it just so as not to acknowledge, in their own eyes, the evident existence of Allah.

Anyone who does not look at the origin of living beings with a materialist prejudice sees this evident truth: **All living beings are works of a Creator**, Who is All-Powerful, All-Wise, and All-Knowing. **This Creator is Allah**, Who created the whole universe from non-existence, in the most perfect form, and fashioned all living beings.

#### The Theory of Evolution:

#### The Most Potent Spell in the World

Anyone free of prejudice and the influence of any particular ideology, who uses only his or her reason and logic, will clearly understand that belief in the theory of evolution, which brings to mind the superstitions of societies with no knowledge of science or civilization, is quite impossible.

As explained above, those who believe in the theory of evolution think that a few atoms and molecules thrown into a huge vat could produce thinking, reasoning professors and university students; such scientists as Einstein and Galileo; such artists as Humphrey Bogart, Frank Sinatra and Luciano Pavarotti; as well as antelopes, lemon trees, and carnations. Moreover, as the scientists and professors who believe in this nonsense are educated people, it is quite justifiable to speak of this theory as "the most potent spell in history." Never before has any other belief or idea so taken away peoples' powers of reason, refused to allow them to think intelligently and logically, and hidden the truth from them as if they had been blindfolded. This is an even worse and unbelievable blindness than the totem worship in some parts of Africa, the people of Saba worshipping the Sun, the tribe of the Prophet Abraham (pbuh) worshipping idols they had made with their own hands, or some among the people of the Prophet Moses (pbuh) worshipping the Golden Calf.

In fact, Allah has pointed to this lack of reason in the Qur'an. In many verses, He reveals that some peoples' minds will be closed and that they will be powerless to see the truth. Some of these verses are as follows:

As for those who do not believe, it makes no difference to them whether you warn them or do not warn them, they will not believe. Allah has sealed up their hearts and hearing and over their eyes is a blindfold. They will have a terrible punishment. (Surat al-Baqara, 6-7)

... They have hearts with which they do not understand. They have eyes with which they do not see. They have ears with which they do not hear. Such people are like cattle. No, they are even further astray! They are the unaware. (Surat al-A'raf, 179)



In the same way that the beliefs of the anient Egyptians who worshipped crocodiles now seem odd, so the beliefs of Darwinists are now seen as just as incredible. Darwinists regard chance and lifeless, unconscious atoms as creative forces, and are as devoted to that belief as if to an established religion.

Even if We opened up to them a door into heaven, and they spent the day ascending through it, they would only say: "Our eyesight is befuddled! Or rather we have been put under a spell!" (Surat al-Hijr, 14-15)

Words cannot express just how astonishing it is that this spell should hold such a wide community in thrall, keep people from the truth, and not be broken for 150 years. It is understandable that one or a few people might believe in impossible scenarios and claims full of stupidity and illogicality. However, "magic" is the only possible explanation for people from all over the world believing that unconscious and lifeless atoms suddenly decided to come together and form a universe that functions with a flawless system of organization, discipline, reason, and consciousness; a planet named Earth with all of its features so perfectly suited to life; and living things full of countless complex systems.

In fact, in the Qur'an Allah relates the incident of the Prophet Moses (pbuh) and Pharaoh to show that some people who support atheistic philosophies actually influence others by magic. When Pharaoh was told about the true religion, he told the Prophet Moses (pbuh) to meet with his own magicians. When the Prophet Moses (pbuh) did so, he told them to demonstrate their abilities first. The verses continue:

He said: "You throw." And when they threw, they cast a spell on the people's eyes and caused them to feel great fear of them. They produced an extremely powerful magic. (Surat al-A'raf, 116)

As we have seen, Pharaoh's magicians were able to deceive everyone, apart from the Prophet Moses (as) and those who believed in him. However, his evidence broke the spell, or "swallowed up what they had forged," as revealed in the verse:

## We revealed to Moses: "Throw down your staff." And it immediately swallowed up what they had forged. So the Truth took place and what they did was shown to be false. (Surat al-A'raf, 117-118)

As we can see, when people realized that a spell had been cast upon them and that what they saw was just an illusion, Pharaoh's magicians lost all credibility. In the present day too, unless those who, under the influence of a similar spell, believe in these ridiculous claims under their scientific disguise and spend their lives defending them, abandon their superstitious beliefs, they also will be humiliated when the full truth emerges and the spell is broken. In fact, world-renowned British writer and philosopher Malcolm Muggeridge, who was an atheist defending evolution for some 60 years, but who subsequently realized the truth, reveals the position in which the theory of evolution would find itself in the near future in these terms:

I myself am convinced that **the theory of evolution**, especially the extent to which it's been applied, **will be one of the great jokes in the history books in the future.** Posterity will marvel that so very flimsy and dubious an hypothesis could be accepted with the incredible credulity that it has.94

That future is not far off: On the contrary, people will soon see that "chance" is not a deity, and will look back on **the theory of evolution as the worst deceit and the most terrible spell in the world.** That spell is already rapidly beginning to be lifted from the shoulders of people all over the world. Many people who see its true face are wondering with amazement how they could ever have been taken in by it.

They said, "Glory be to You! We have no knowledge except what You have taught us. You are the All-Knowing, the All-Wise." (Surat al-Baqara, 32)

### NOTES

1. Dr. Michael Walker, "Quadrant", October 1982, p. 44. 2. Fred Hoyle, Chandra Wickramasinghe, Evolution from Space, London: J.M. Dent and Company, 1981, p. 141. 3. Prof. Dr. Ali Demirsoy, Kalitim ve Evrim ("Inheritance and Evolution"), Ankara: Meteksan Publishing Co., 1984, p. 61 (emphasis added). 4. Ibid. 5. Fabbri Britannica Science Encyclopedia, Vol. 2, No. 22, p. 519. 6. Vance Ferrell, Dna, Protein and Cells, Harvestime Books, 1996, p. 24. 7. Walter T. Brown, In the Beginning: Compelling Evidence for Creation and the Flood (7th Edition) ; http://www.creationscience.com/onlinebook/LifeSciences40.html 8. Prof. Dr. Engin Gozukara, Inonu University Medical Faculty, Department of Biochemistry, Biochemistry, Nobel Tip Kitabevleri 1997, 3rd Edition, Vol. 1. pp. 123-124 9. P.A.Temussi, et al., "Structural Characterization of Prebiotic Polypeptides," Journal of Molecular Evolution 7, (1976): 105. 10. Mere Creation: Science. Faith and Intelligent Design, Edited by William A. Dembski, Intervarsity Press, Illinois, 1998, pp. 125-126. 11. Curtis Barnes, Invitation to Biology,

New York: Worth Publishers, Inc., 1985, p. 49.

 Michael Behe, *Darwin's Black Box,* New York: The Free Press, 1996, p. 264.
 "Structure and Properties of Spider Silk," *Endeavour,* January 1986, Vol. 10, p.
 42.

14. James Watson, *The Molecular Biology of the Gene,* New York: W. A. Benjamin, Inc., 1965, p. 126.

15. Prof. Dr. Engin Gozukara, *Biochemistry*, p. 157.

Michael Behe, *Darwin's Black Box*, p.
 52.

17. Albert Lehninger L., Late University Professor of Medical Sciences, The Johns Hopkins University; David L. Nelson, Professor of Biochemistry, University of Wisconsin, Madison; Michael M. Cox, Professor of Biochemistry, University of Wisconsin, Madison; *Principles of Biochemistry* (Second Edition), New York:Worth Publishers, p. 892. 18. *Ibid*.

 19. Aaldert Mennega, "Reflections on The Scientific Method," *Creation Research Society Quarterly*, June 1972, p. 36.
 20. Werner Gitt, *In The Beginning Was Information*, Christliche Literatur-Verbreitung e.V., CLV Bielefeld Germany, 1997, pp. 95-96.

21. "Cell's Energy Use High for Protein Synthesis," *Chemical & Engineering News,* 

August, 20, 1979, p. 6. 22. Albert Lehninger L., David L. Nelson, Michael M. Cox, Principles of *Biochemistry*. Fourth Edition, New York: W. H. Freeman and Company, p. 1035. 23. Mahlon B .Hoagland, The Roots of Life, Boston: Houghton Mifflin, 1978, p. 24. 24. Albert Lehninger L., David L. Nelson, Michael M. Cox, Principles of Biochemistry, p. 1054. 25. Curtis Barnes, Invitation to Biology, p. 191. 26. Ibid. 27. "Cell's Energy Use High for Protein Synthesis," Chemical & Engineering News, August 20, 1979, p. 6. 28. Albert Lehninger L., David L. Nelson, Michael M. Cox, Principles of Biochemistry, p. 1068. 29. Ibid. 30. Ibid. 31. Michael Behe, Darwin's Black Box, p. 108. 32. Prof. Dr. Muammer Bilge, Cell Science, Cerrahpasa Medical Faculty, Chairs of Physiology and Biophysics (3rd Edition), pp. 131-132. 33. Caryl P. Haskins, "Advances and Challenges in Science in 1970," American Scientist, May 1971, p. 305. 34. http://www.madsci.org/posts/ archives/mar97/853519068.Cb.r.html; "What regulates the activities of a hemoalobin cell?" 35. Curtis Barnes, Invitation to Biology, p. 51. 36. Prof. Dr. Engin Gozukara, Biochemistry, p. 176.

37. Albert Lehninger L., David L. Nelson, Michael M. Cox, Principles of Biochemistry, p. 134. 38. http://www.britannica.com/bcom/ eb/article/ 7/0,5716,53637+1+52330,00.html?guery=methemoglobinemia; Encyclopedia Britannica 39. Michael Denton, Nature's Destiny, New York: Free Press, , pp. 201-202. 40. Michael Behe. Darwin's Black Box. p. 61. 41. Michael Behe, Darwin's Black Box, p. 73. 42. Prof. Dr. Engin Gozukara, Biochemistry, p. 580. 43. Ibid., pp. 579-580. 44. Michael Pitman, Adam and Evolution, (1988), p. 144. 45. Ibid., p. 148. 46. Lester McCann, Blowing the Whistle on Darwinism, Lake Mills, Iowa: Graphic Publishing Company, 1986, p. 70. 47. Curtis Barnes, Invitation to Biology, p. 419. 48. Christopher Wills, The Wisdom of the Genes, Istanbul; Sarmal Yayınevi, March 1997, pp. 151-152. 49. Alaeddin Senel, "The Evolution Deception? Or the Deception of the Age?," Bilim ve Utopya Magazine, December 1998. 50. Alexander I. Oparin, Origin of Life, New York: Dover Publications, 1936 (Reprint, 1953), pp. 132-133. 51. Stephen C. Meyer, The Intercollegiate Review 31, No: 2 (Spring 1996). 52. W. R. Bird, The Origin of Species

*Revisited,* Nashville: Thomas Nelson Co., 1991, p. 305.

53. Ali Demirsoy, *Kalitim ve Evrim*("Inheritance and Evolution"), Ankara: Meteksan Publishing Co., 1984, p. 94.
54. Michael Behe, *Darwin's Black Box*, p.
91; Prof. Russell Doolittle, "The Comparative Biochemistry of Blood Coagulation", Harvard PhD thesis, 1961.
55. W. R. Bird, *The Origin of Species Revisited*, Nashville: Thomas Nelson Co., 1991, p. 304.

56. Hoimar Von Ditfurth, *Dinozorlarin Sessiz Gecesi 1*, ["The Silent Night of the Dinosaurs1"], p. 122.

57. Ibid., p. 123.

58. Ibid., p. 126.

59. David B. Loughran, SBS Vital Topics, April 1996, Stewarton Bible School, Stewarton. Scotland:

http://www.rmplc.co.uk/eduweb/sites/ sbs777/vital/evolution.html

60. Alexander I. Oparin, *Origin of Life*, New York: Dover Publications, 1936, (reprint 1953), p. 196.

61. Robert Shapiro, *Origins: A Skeptic's Guide to the Creation of Life on Earth,* New York: Summit Books, 1986, p. 99.

62. Klaus Dose, "The Origin of Life: More Questions Than Answers," *Interdisciplinary Science Reviews,* Vol. 13, no. 4, 1988, p. 348.

63. *Mere Creation*, Edited By William A. Dembski, Illinois: Intervarsity Press, 1998, pp. 116-119.

64. Stephen C. Meyer, "The Origin of Life and the Death of Materialism," reprinted from the *Intercollegiate Review 31*, No. 2, (Spring 1996). 65. "New Evidence on Evolution of Early Atmosphere & Life," Bulletin of the American Meteorological Society, Vol. 63, November 1982, pp. 1328-1330. 66. Richard B. Bliss, Gary E. Parker, Duane T. Gish, Origin of Life (3rd edition), C.L.P. Publications, 1990, pp. 14-15. 67. "Life's Crucible," Earth, February 1998, p. 34 (emphasis added). 68. "The Rise of Life on Earth," National Geographic, March 1998, p. 68 (emphasis added). 69. Wendell R. Bird, The Origin of Species Revisited, Nashville: Thomas Nelson Co., , 1991, p. 325. 70. The chemist Richard E. Dickinson explains the reason for this: "If protein and nucleic acid polymers are to consist of pri-

mary molecules, then one water molecule has to be released when each monomer binds to the polymer chain. It is hard to see how polymerization can proceed when the presence of water causes polymers to break down rather than form."

71. Richard B. Bliss, Gary E. Parker,

Origin of Life, 1979, p. 25.

72. *Ibid.* 

73. P. W. Fox, K. Harada, G. Kramptiz, G. Mueller, "Chemical Origin of Cells," *Chemical Engineering News*, 22 June, 1970, p. 80.

74. Sidney Fox, Klaus Dose, *Molecular Evolution and The Origin of Life*, W. H. Freeman and Company, San Francisco, 1972, p. 4.

75. Alexander I. Oparin, *Origin of Life*, Dover Publications, NewYork, 1936, 1953 (reprint), p. 196.

#### THE MIRACLE OF PROTEIN

76. "New Evidence on Evolution of Early Atmosphere and Life," Bulletin of the American Meteorological Society, vol 63, November 1982, 1328-1330. 77. Stanley Miller, Molecular Evolution of Life: Current Status of the Prebiotic Synthesis of Small Molecules, 1986, p. 7. 78. Jeffrey Bada, Earth, February 1998, p. 40. 79. Leslie E. Orgel, "The Origin of Life on Earth," Scientific American, vol. 271, October 1994, p. 78. 80. Charles Darwin, The Origin of Species by Means of Natural Selection, The Modern Library, New York, p. 127. 81. Charles Darwin, The Origin of Species: A Facsimile of the First Edition, Harvard University Press, 1964, p. 184. 82. B. G. Ranganathan, Origins?, Pennsylvania: The Banner of Truth Trust, 1988, p. 7. 83. Charles Darwin, The Origin of Species: A Facsimile of the First Edition, p. 179. 84. Charles Darwin, The Origin of Species, p. 172. 85. Derek A. Ager, "The Nature of the Fossil Record," Proceedings of the British Geological Association, vol 87, 1976, p. 133. 86. Douglas J. Futuyma, Science on Trial, Pantheon Books, New York, 1983, p. 197. 87. Solly Zuckerman, Beyond The Ivory Tower, Toplinger Publications, New York, 1970, 75-14; Charles E. Oxnard, "The Place of Australopithecines in Human Evolution: Grounds for Doubt", Nature, vol 258, 389.

88. "Could science be brought to an end

by scientists' belief that they have final answers or by society's reluctance to pay the bills?" *Scientific American*, December 1992, p. 20.

89. Alan Walker, *Science*, vol. 207, 7
March 1980, p. 1103; A. J. Kelso, *Physical Antropology*, 1st ed., J. B. Lipincott Co., New York, 1970, p. 221; M. D. Leakey, *Olduvai Gorge*, vol. 3, Cambridge
University Press, Cambridge, 1971, p. 272.
90. Jeffrey Kluger, "Not So Extinct After
All: The Primitive Homo Erectus May Have
Survived Long Enough To Coexist With
Modern Humans," *Time*, 23 December
1996.

91. S. J. Gould, *Natural History*, vol. 85, 1976, p. 30.

92. Solly Zuckerman, *Beyond The Ivory Tower*, p. 19.

93. Richard Lewontin, "The Demon-Haunted World," *The New York Review of Books*, January 9, 1997, p. 28.
94. Malcolm Muggeridge, *The End of*

*Christendom*, Grand Rapids: Eerdmans, 1980, p. 43.