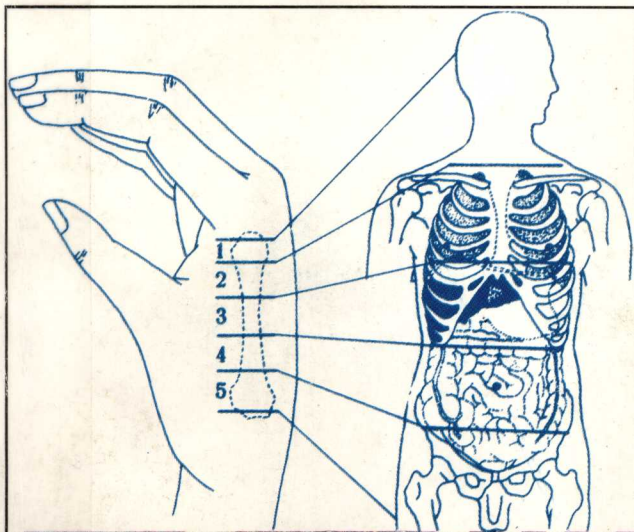


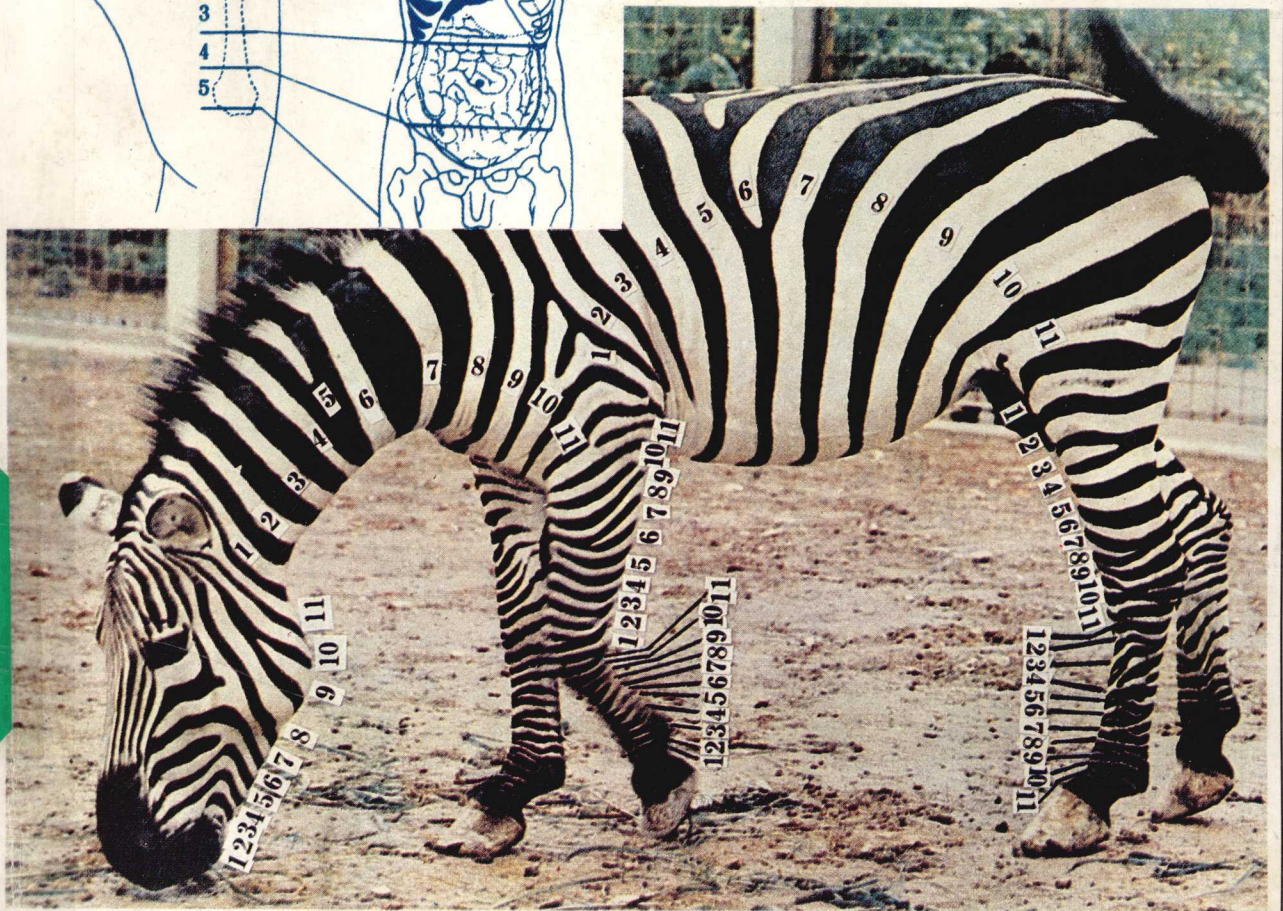
ECIWO and Its Application to Medicine

New Discoveries of the Unity Among the
Different Structural Units of an Organism
and the Physiological or Pathological
Correlation in a Human Body



by
YINGQING ZHANG

* *
Translated from Chinese by
HU ZHAOYUN



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by

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全息胚及其医学应用
——生物体不同结构单位的统一性和人体生理或病理相关性的新发现

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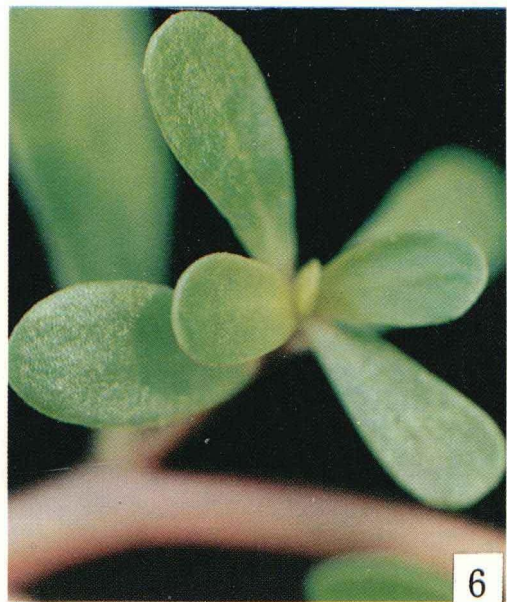
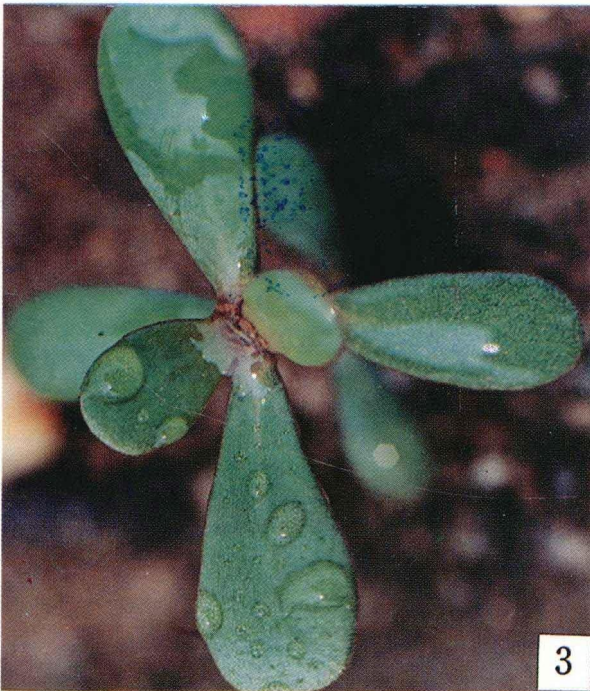
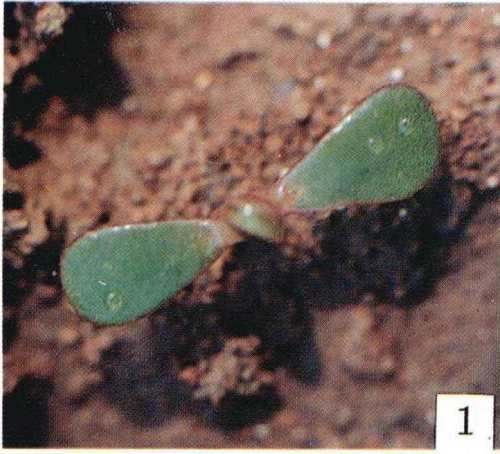
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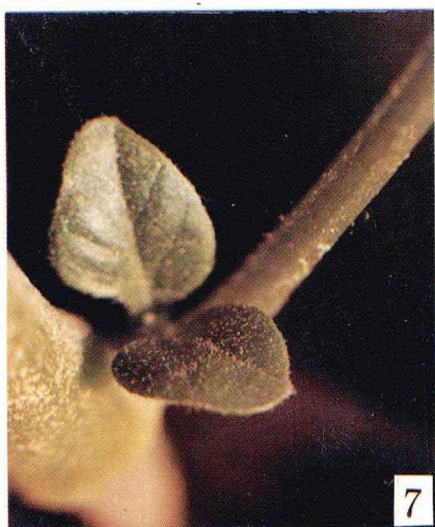
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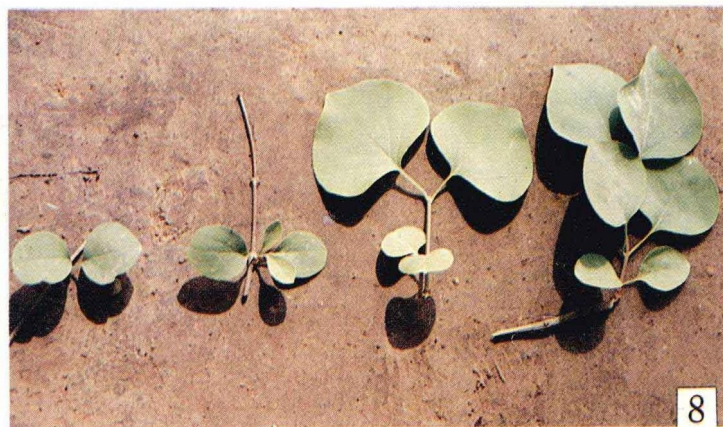
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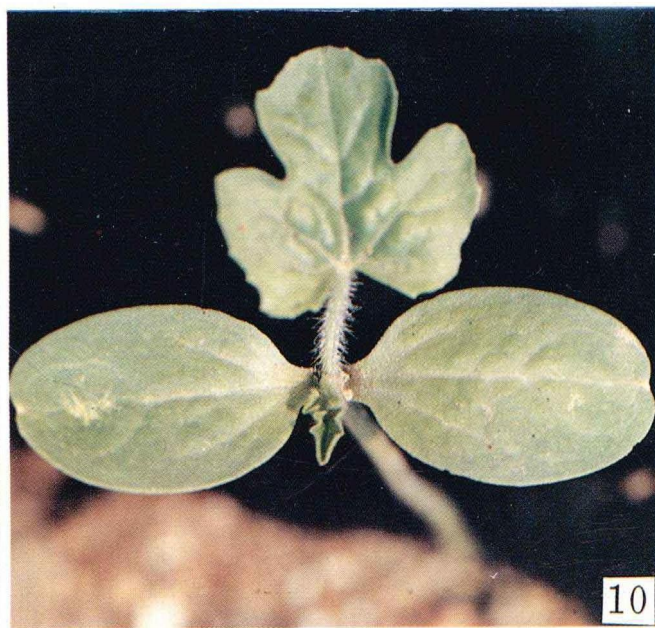
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Introduction

In the photo on the front cover of this book is an ordinary zebra. I have discovered that the distribution of the stripes of a zebra is of certain regularity. When I have marked the numbers of the stripes of the head, the neck, the trunk and the segments on the fore and the hind legs of this zebra, this photo of zebra will become surprising. It turns out that the numbers of stripes on these different relatively independent parts of the zebra are actually the same!

This fact and many other similar ones have persuaded me to make an important discovery, that is, the revelation of the unity among the different structural and functional units of an organism. I have found that the different structural and functional units of an organism, such as the head, the neck and a segmentum of an animal, or a leaf, a branch and a petal of a plant, are in essence the same thing — ECIWO (Embryo Containing the Information of the Whole Organism). An ECIWO is a specialized embryo at a certain stage of development, which is a component of an organism, or in common words, an ECIWO is a small individual living on the parent body, which has become an organ or a part of the parent body. An organism is composed of multilevel ECIWOs at different stages of development and with different specializations. This has given a completely new view of the organism. It urges man to understand the organism anew. It will bring about a revolutionary conceptual change in the previous anatomy-based understanding of the organism, and will exert an important revolutionary impact on medicine and other fields of science related to biology.

My another important discovery is that the various regions of each long bone segmentum (e.g. the second metacarpal segmentum) of a human body correspond to the various regions of the whole body one to one; there exists a physiological or pathological correlation between each pair of corresponding regions. The distribution of the correlated regions on each long bone segmentum is in an epitome-of-the-whole-body style. This has opened up a new orientation for the diagnosis and treatment of diseases. That is, to diagnose and treat the diseases on the whole body through a long bone segmentum, such as the second metacarpal segmentum. This is the ECIWO diagnosis and therapy I have founded. This diagnosis and therapy has been applied successfully to over 100,000 cases in more than 30 countries.

Chapter 1

A New Discovery of the Unity Among the Different Structural Units of an Organism— The Different Structural Units of an Organism Are All ECIWOs. An ECIWO Is a Specialized Embryo at a Certain Stage of Development, Which Is a Component of an Organism. An Organism Is Composed of Multilevel ECIWOs at Different Stages of Development and with Different Specializations

1.1 ECIWO: A Specialized Embryo at a Certain Stage of Development in an Organism, Which Is a Component of an Organism

At the level above that of the cell, what is an organism composed of?

This seems to be a simplest and self-evident question. Obviously, a plant is composed of different organs and parts such as roots, stems, leaves, flowers and fruits, and an animal is composed of different organs and parts such as the head, limbs and internal organs. Such an answer is the basis of modern biology in its understanding of the organism.

However, I have discovered that such an answer is incomplete; it has not got to the essence of the matter.

My studies have revealed that, if we expand the original sense of embryo and refer to embryo generally as “a developmental unit developing toward a new individual or a small individual”, then an organism is composed of numerous embryos. Such an embryo has three characteristics: 1. Such an embryo lives on the parent body. 2. Such an embryo stays at a certain stage of development toward a new individual; in

addition, in many circumstances, it stops its development at a certain stage of development and cannot continue to develop into a new individual adult living independently. 3. Such an embryo is specialized, so that it performs a certain function in an organism to serve the whole organism.

To distinguish it in terminology from the embryo in the previous sense. I name such an embryo constituting an organism as an ECIWO. The definition of an ECIWO is : A specialized embryo at a certain stage of development, which is a component of an organism. The standard to tell whether a certain part in an organism is an ECIWO is: An ECIWO has relatively clear boundaries to its surrounding regions in both structure and function. I have translated it into English as ECIWO, an acronym for Embryo Containing the Information of the Whole Organism.

The ECIWO theory can be summed up into the following 4 key points:

1. An ECIWO is a specialized embryo at a certain stage of development, which is a component of an organism. An ECIWO is first a relatively independent unit of life, and then a component of an organism. ECIWOs may have different degrees of development, and many also have different directions and different degrees of specialization, so they have the ability of boundless metamorphoses and can thereby become the different organs or parts of an organism.

2. The ECIWO is a universal structural and functional unit constituting an organism. An organism is composed of multilevel ECIWOs at different stages of development and with different specializations. In an organism any relatively independent part with relatively clear boundaries to its surrounding regions in both structure and function is an ECIWO. A certain ECIWO can be divided into many ECIWO of lower levels, and many ECIWOs can compose an ECIWO of a higher level. In a multicellular organism, between the level of the individual whole body and the level of the cell, there exist ECIWOs contained grade by grade. An individual whole body is an ECIWO whose developmental degree is the highest, and a single somatic cell is an ECIWO whose developmental degree is the lowest. They are both special cases of the ECIWO.

3. A certain ECIWO develops from an ECIWO with a lower degree of development. In an organism coming from sexual reproduction, the common origin of all the ECIWOs is a zygote. Starting from cleavage, it is a process in which ECIWOs are constantly reproduced asexually, in which ECIWOs engage in development and specialization. The products, namely new ECIWOs, of each asexual reproduction do not break away from the parent body. An organism is a clone composed of ECIWOs. The essence of the ontogenesis of an organism is the multiplication and the respective specializations of ECIWOs in the organism itself, a common natural cul-

ture medium.

4. In an organism, there exists constant substance exchange between different ECIWOs, so that the different ECIWOs in an organism may have basically the same living conditions and can coordinate with each other to serve the whole body.

1.2 Evidences for the ECIWO Theory

To prove the ECIWO theory is, in the final analysis, to prove that in an organism any relatively independent part with relatively clear boundaries to its surrounding regions in both structure and function, namely an ECIWO, is a specialized embryo or a small individual and has the basic properties of an embryo or a small individual.

I have definitely proved the ECIWO theory by the following 12 factual observations.

1. In its developmental course an ECIWO has the same dynamic character changes as a genuine embryo or a small individual in the corresponding developmental course; or in other words, an ECIWO at a certain stage of development has recapitulated the developmental process of ontogenesis from a zygote to this stage of development. This has evidently proved in the developmental process of the ECIWO that an ECIWO is an embryo or a small individual. For example, the ontogenesis of the whole plant of common purslane (*Portulaca oleracea*) proceeds from the two-cotyledon seedling stage (Photo 1 in the inner front cover) 4-leaf seedling stage (Photo 2 in the inner front cover), and then further to the multi-leaf seedling stage (Photo 3 in the inner front cover). The three photos in the left column of the inner front cover (Photos 1-3) are the plants of purslane in the three successive stages of development. It is to be noted that the dynamic character change in the development of such an ECIWO as a branch of purslane is the same as that in the ontogenesis of the whole plant of purslane. That is, it will also undergo the three developmental stages. First, the branch ECIWO also undergoes the two-cotyledon developmental stage. At this time, the branch ECIWO is a two-cotyledon seedling living on the main plant. (Photo 4 in the inner front cover is a seedling at the two-cotyledon seedling stage living on the main plant.) The next developmental stage of the branch ECIWO is the 4-leaf seedling stage. At this time the branch ECIWO is a seedling with 4 leaves living on the main plant (Photo 5 in the inner front cover). The further next developmental stage of the branch ECIWO is the multi-leaf seedling stage. At this time, the branch ECIWO is a seedling with many leaves, living on the main plant (Photo 6 in the inner front cover). Thus, in the inner front cover, the three photos from above to below in the left

column show the ontogenetic process of the whole plant of purslane, while the three photos from above to below in the right column show that such an ECIWO as a branch of purslane, a relatively independent small individual or a small plant living on the main body of the whole plant, undergoes the same developmental process as the ontogenesis of the large plant. The ontogenesis of dicotyls all have a two-cotyledon seedling stage and the subsequent developmental stages when the nomophyllas germinate and the main stem extends, so a highly developed ECIWO of a dicotyl such as a branch also recapitulates such development of the individual whole plant, in which a pair of fore-leaves first germinate and then a branch sprouts. Photo 7 in the inner back cover is a new bud germinating from the main stem of a four-o'clock (*Mirabilis jalapa*). Before a new branch sprouts, a pair of leaves grow out first. This pair of leaves are the cotyledons of the branch, an ECIWO. Photo 8 in the inner back cover shows the developmental process of a branch of lilac (*Syringa vulgaris*) recapitulating the ontogenesis of the whole plant. A leaf is an ECIWO or a small plant living on the main body, so a leaf also recapitulates a corresponding developmental process of ontogenesis. Photo 9 in the inner back cover is a seedling of water melon in the two-cotyledon seedling stage. It is to be noted that a three-lobed nomophylla of water melon is an ECIWO at a developmental stage equivalent to that when the whole plant of water melon has altogether three leaves, so this nomophylla is trifid; the two lobes at the left and right sides amount to a pair of cotyledons of this nomophylla ECIWO, and the middle lobe amounts to a nomophylla of this nomophylla ECIWO (Photo 10 in the inner back cover). It is precisely the same reason that causes the dehiscence of a leaf. There are innumerable instances of the case that leaves have lobes. For example, the leaf of London planetree (*Platanus acerifolia*) in Photo 12 in the inner back cover.

The stipules of a generalized complete leaf are exactly a pair of cotyledons of the complete leaf ECIWO or a pair of cotyledons living on the main body. Photo 11 in the inner back cover is a complete leaf of common floweringquince (*Chaenomeles lagenaria*). At the base of the leaf is a pair of stipules. In the leaf ECIWO, just like in the whole plant, it is also the case that the cotyledons namely the stipules first germinate, and then the leaf grows out. In a human body, the rudiments of the various organs in the embryonic stage all present a state of cell multiplication; later, cystic or cavitory structures appear. It is to be noted that this is precisely the case that ECIWOs such as the organs are recapitulating the developmental process of the cleavage and morula stages characterized by cell multiplication and the later cystic blastula stage or the cavitory gastrula stage in the process of ontogenesis.

2. Now that an ECIWO is an embryo, it is similar in total character to a genuine

embryo at the same stage of development. In Photo 4 in the inner front cover, the ECIWO composed of the pair of newly-sprouting fore-leaves is the same in total character as a seedling at the same developmental stage, the cotyledon-seedling stage (Photo 1 in the inner front cover). In Photo 5 in the inner front cover, the 4-leaf ECIWO living on the main stem is similar in total character to the seedling with 4 leaves living on the ground (Photo 2 in the inner front cover). A multi-leaf ECIWO living on the main stem (Photo 6 in the inner front cover) is the same in total character as a seedling with many leaves living on the ground (Photo 3 in the inner front cover). In a dicotyl, in the embryonic stage when the two cotyledons are being formed, there is an invagination at the top of the whole embryo. A petal of many plants (e.g. Photo 12 in the inner back cover, a petal of largeflowered purslane) is an ECIWO at the developmental stage equivalent to that of the ontogenetic stage when there is an invagination at the top of the whole embryo, so that the top of the petal is concave. A human cancer is a specialized embryo, namely an ECIWO, at the cleavage or morula developmental stage, so it has the properties of a genuine embryo at this embryonic stage, such as rapid cell division, no differentiation and no clear boundaries. A cancer is an ECIWO whose development has stopped at the cleavage or morula developmental stage. This is the nature of cancer. I have discussed this problem in my three other monographs ^[1-3], so its discussion is omitted here.

3. A genuine embryo is a relatively independent life, and has automacy of life. This is an important characteristic of an embryo as a new individual. It is to be noted that an ECIWO is also a relatively independent life. So ECIWOs such as the finger, hand, liver, kidney and heart can still survive when separated from the main body. This makes the reconstruction and transplantation of organs possible. A bud or a scion of a plant can survive upon grafting. This is also because an ECIWO such as a bud or a scion has a relatively independent life of its own.

4. A genuine embryo can stop its development at a certain stage and no longer develops forward, such as the dormancy of seeds and the diapause of insects. Like a genuine embryo, an ECIWO can also stop its development at a certain stage and no longer develops forward. In fact, many ECIWOs have stopped their development at certain developmental stages and no longer develop toward new individuals; besides, they have specialized, so they have become the parts or organs of the whole organism. For example, a plant's petal with an invagination at the top is an ECIWO which has stopped development at the embryonic stage of the formation of the cotyledons with invaginations at their tops. An ECIWO such as a leaf has stopped its development at either the cotyledon-seedling stage or at the nomophylla seedling stage. Of course, a leaf may also have a relatively high degree of development to flower or fruit on itself,

such as the plant Japan helwingia (*Helwingia japonica*). A human long bone segmentum stops development at the embryonic developmental stage with the existence of an axial primitive bone and no longer develops forward so that each segmentum also has an axial long bone. Any factor that can cause the developmental stop of an embryo can also cause the developmental stop of an ECIWO, a kind of specialized embryo, of an organism of the same species. For example, the lack of water can cause the developmental stop of a seed, and it also causes the developmental stop of an ECIWO such as a bud. In a human being, X-rays and α -rays may cause the developmental stop of an entire embryo, so they cause microcephalia^[4]. Correspondingly, X-rays and α -rays may also cause the developmental stop of ECIWOs. In a human body, if an ECIWO stops development at the cleavage or morula stage, then it is a cancer. For another example, herpes simplex virus can cause developmental stop, and can cause deformities such as microcephalia, microphthalmia and retinal aplasia^[5]. So herpes simplex virus can also inhibit the development of ECIWOs. In a human body, if an ECIWO stops development at the cleavage or morula stage, it induces a cancer. True, facts do tally with this conclusion. Z. H. Naib's discovery in 1966 can support this conclusion of mine. He used cytological and histopathological methods to examine the incidence of cervical carcinoma among patients of genital herpes, and found that the incidence of cervical carcinoma among such patients was 4 times higher than that among general in-patients. Later, with seroepidemiological methods, some researchers found that the genital herpes viral infections in females were closely related to cervical carcinoma^[6].

5. A genuine embryo has the property of development. Before it reaches the stage of its developmental stop, an ECIWO also has the property of development. The development of a leaf or a branch of a plant or an organ of an animal has been discussed previously. In addition, some ECIWOs whose development has stopped can also continue to develop under certain conditions. For example, the development of a dormant seed. Any factor that can promote the development of a genuine embryo can also promote the development of an ECIWO. Any factor that can inhibit the development of an embryo can also inhibit the development of an ECIWO. For example, thyroxin is a hormone that can promote development. If iodine is deficient in the diet of a pregnant woman, or if she has taken some antithyroid agents, the baby's height and cerebral development will be affected, and the baby will be a cretin. When a tadpole loses its thyroxin, it will continue to grow without metamorphosing. On the other hand, when a tadpole is fed with thyroxin, it will metamorphose ahead of time. According to W. Etkin, "The thyroid is unique in its relationship to metamorphosis."^[7] It is to be noted that thyroxin can

also promote the development of ECIWOs and reduce the chances of ECIWO developmental stop at the cleavage or morula stage, thus reducing the risk of the incidence of cancer. Hyperthyroids had a much lower incidence of breast cancer than those with euthyroidism, while breast cancer occurred concomitantly in 24.9% of patients suffering from simple goiter. ^[8]

6. A genuine embryo has regulativity, and an ECIWO also has regulativity. When an embryo at an early stage is cut into several halves, each half can be regulated into a complete new embryo. This has been proved by the numerous experiments of the cutting of animal embryos. In the case of an ECIWO such as the heart, if at the early stage of its development (the rudiment stage) it is separated, then it will develop into several hearts. For example, it was reported that, in a chicken embryo, when the rudiments on both sides of a heart were blocked and could not combine with each other, they could develop into two hearts ^[9]. Verocay reported that a hen had been found to have 7 hearts of approximately equal size ^[10]. The repairment of any injury and the regeneration of any organ in an organism is due to the regulativity of the ECIWO at the injured region.

7. The development of a genuine embryo is mosaic, and has a fate map corresponding to the various regions of the future whole organism. This is an important expression of an embryonic property. It is to be noted that the development of an ECIWO is also mosaic, and an ECIWO has a fate map corresponding to the various regions of the whole organism. The fate map of a highly developed ECIWO is an epitome of the whole body. This is also an important expression of the embryonic properties of an ECIWO. For example, the development of a leaf is mosaic. Photo 13 in the inner back cover is a leaf of London planetree. Under the big leaf in the center of the photo there is a small leaf which has newly germinated. The big leaf and the small one are basically similar in shape; either of them has three lobes. The area of the big leaf is 37 times that of the small one; that is to say, a leaf can extend its area mosaically by at least 37 times. The ECIWOs in the same organism have the same origin, so in an organism the isonymous regions in the fate maps of two ECIWOs share a greater extent of similarity in biological properties. I have termed this the bio-holographic law. An individual whole organism is also an ECIWO, so the bio-holographic law is also suitable to express the relation between general ECIWOs and the whole organism. I have discovered that an ECIWO such as each long bone segmentum of a human body has an epitome-of-the-whole-body fate map. When a certain region of a human body is affected by a disease, the organism will produce antibodies to the focal region. Owing to the circulation of body fluids, such antibodies are widespread in the body, so the antibodies will also attack the regions isonymous with the focal

region in the fate maps of the various long bone segmenta. The reason is that such isonymous regions and the focal region have a similar biological property, namely similar antigenicity. Such isonymous regions will have inflammatory reaction and become pathological reaction points. Therefore, by examining the presence or absence and the location of a pathological reaction point on a long bone segmentum, it can be diagnosed whether and where there is a disease in the whole body. The electro-ciwograph for diagnosis I invented can be used to find out pathological reaction points. (The invention was awarded the highest prize of the 80th Paris International Fair of Inventions---Prix de la Mairie de Paris.) This apparatus can make an automatic scanning examination on the second metacarpal side from the head region to the foot region in the fate map of the ECIWO of the second metacarpal side of a human hand, and synchronously record a potentiometric curve reflecting the electric resistance differences of the various regions. An analysis of the presence or absence and the location of any high peak region in the curve can determine whether and where there is a disease in the whole body. Acupuncturing the pathological reaction points can produce a new immune cross reaction in the organism to eliminate the immunosuppression or immunohypersensitivity, and cure the disease at the focal region. The fate map of an ECIWO such as each long bone segmentum is precisely the map of the holographic law of distribution of correlated regions or the map of the holographic law of distribution of acupoints (For detailed discussion, see Chapter 2). Such maps have been tested, verified and applied by doctors in nearly 30 countries. They have been used in over 340,000 cases of the diagnosis and treatment of more than 150 kinds of diseases. The fate map of a highly developed ECIWO of an animal is an epitome of the whole organism; sometimes this can be seen from the external appearance of an animal. For example, the main body (trunk) of a zebra has 11 stripes, and each long bone segmentum or relatively independent part also has 11 stripes (Front cover). In the case of plants, the distribution of bio-chemical substance is also consistent with the bio-holographic law.

With the above 7 aspects, an ECIWO is compared with a genuine embryo or a small individual. In the various chief properties, an ECIWO is similar to a genuine embryo or a small individual. The numerous new facts I have discovered in these 7 aspects are sufficient to show that an ECIWO is a specialized embryo at a certain stage of development. Furthermore, I have found from the following 3 aspects the transitional links between the most distinct and the most indistinct expressions of the embryonic properties of the ECIWO. Consequently, the conclusion that an ECIWO without fairly distinct external expression of embryonic properties is a specialized embryo is rendered acceptable.