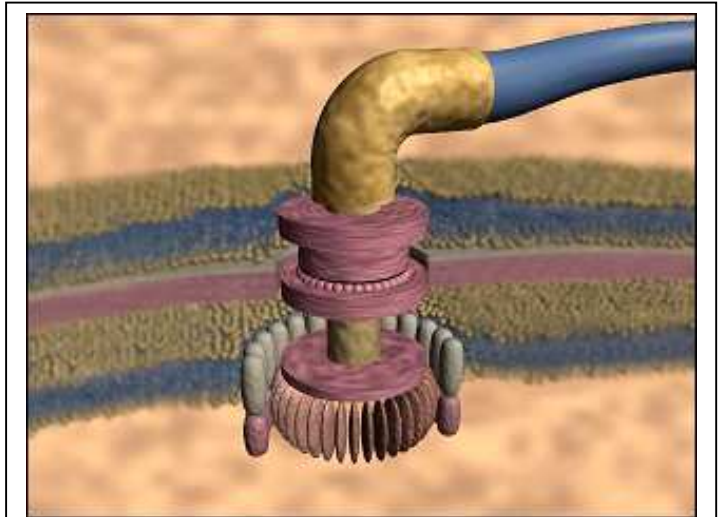# Intelligent Design Theory in a Nutshell

Intelligent design is a scientific theory which holds that certain features of the universe and living things are best explained by an intelligent cause, and are not the result of an undirected, chance-based process such as Darwinian evolution.

Intelligent design begins with observations about the types of information produced by intelligent agents. Even the atheist zoologist Richard Dawkins says that intuitively, "[b]iology is the study of complicated things that give the appearance of having been designed for a purpose." Darwinists believe natural selection did the "designing" but intelligent design theorist Stephen C. Meyer notes, "in all cases where we know the causal origin of 'high information content,' experience has shown that intelligent design played a causal role."

Many proponents of intelligent design have cited the bacterial flagellum as an example of intelligent design and irreducible complexity in the cell. Graphic courtesy of the Access Research Network (ARN.org).

Intelligent design is thus heavily dependent upon "information theory." One of its fundamental premises is that "information" which is complex (highly ordered) and specified (fits a pre-existing pattern) is not produced by naturally occurring events (chance or law-governed processes), but rather this sort of observable information and complexity is best explained as the product of intelligent action.

Intelligent design implies that life is here as a result of the purposeful action of an intelligent designer, standing in contrast to Darwinian evolution, which postulates that life exists due to the chance, purposeless, blind forces of nature.

Intelligent Design through the Scientific Method:

Observation → Hypothesis → Experiment → Conclusion

Basic Intelligent Design:

i. Observation:
The ways that intelligent agents act can be observed in the natural world and described. When intelligent agents act, it is observed that they produce high levels of "complex-specified information" (CSI). CSI is basically a scenario which is unlikely to happen (making it complex), and conforms to a pattern (making it specified). Language and machines are good examples of things with much CSI. From our understanding of the world, high levels of CSI are always the product of intelligent design.

ii. Hypothesis:
If an object in the natural world was designed, then we should be able to examine that object and find the same high levels of CSI in the natural world as we find in human-designed objects.

iii. Experiment:
We can examine biological structures to test if high CSI exists. When we look at natural objects in biology, we find many machine-like structures which are specified, because they have a particular arrangement of parts which is necessary for them to function, and complex because they have an unlikely arrangement of many interacting parts. These biological machines are "irreducibly complex," for any change in the nature or arrangement of these parts would destroy their function. Irreducibly complex structures cannot be built up through an alternative theory, such as Darwinian evolution, because Darwinian evolution requires that a biological structure be functional along every small-step of its evolution. "Reverse engineering" of these structures shows that they cease to function if changed even slightly.

iv. Conclusion:
Because they exhibit high levels of CSI, a quality known to be produced only by intelligent design, and because there is no other known mechanism to explain the origin of these "irreducibly complex" biological structures, we conclude that they were intelligently designed.

Intelligent Design as a Theory of Information:

Created by the Darwinian mutation-selection mechanism or some other natural process.		Created by Intelligent Design

Complex-Specified Information Content →

Putting Intelligent Design to the Test:

Table 1: Ways Designers Act When Designing (Observations)

(1) Take many parts and arrange them in highly specified and complex patterns which perform a specific function (i.e. create CSI).

(2) Rapidly infuse any amounts of genetic information into the biosphere, including large amounts, such that at times rapid morphological or genetic changes could occur in populations.

(3) 'Re-use parts' over-and-over in different types of organisms (design upon a common blueprint).

(4) Be said to typically NOT create completely functionless objects or parts (although we may sometimes think something is functionless, but not realize its true function).

Table 2. Predictions of Intelligent Design (Hypothesis)

(1) High information content machine-like irreducibly complex structures will be found.

(2) Forms will be found in the fossil record that appear suddenly and without any precursors.

(3) Genes and functional parts will be re-used in different unrelated organisms.

(4) The genetic code will NOT contain much discarded genetic baggage code or functionless "junk DNA".

Table 3. Examining the Evidence (Experiment and Conclusion):

Line of Evidence	Data (Experiment)	Prediction of Design Met? (Conclusion)
(1) Biochemical complexity / Laws of the Universe.	High information content machine-like irreducibly complex structures are commonly found. The bacterial flagellum is a prime example. Specified complexity found in the laws of the universe may be another.	Yes.
(2) Fossil Record	Biological complexity (i.e. new species) tend to appear in the fossil record suddenly and without any similar precursors. The Cambrian explosion is a prime example.	Yes.
(3) Distribution of Molecular and Morphological Characteristics	Similar parts found in different organisms. Many genes and functional parts not distributed in a manner predicted by ancestry, and are often found in clearly unrelated organisms. The "root" of the tree of life is a prime example.	Yes.
(4) DNA Biochemical and Biological Functionality	Increased knowledge of genetics has created a strong trend towards functionality for "junk-DNA." Examples include recently discovered functionality in some pseudogenes, microRNAs, introns, LINE and ALU elements. Examples of DNA of unknown function persist, but discovery of function may be expected (or lack of *current* function still explainable under a design paradigm).	Yes.