



Christ in Creation

TEACHING AND DISCUSSION SERIES

with GEORGE GRANT, AARON ANDERSON, TOM MILLIGAN & BRIAN KROUSE

In the beginning was the Word, and the Word was with God, and the Word was God. He was in the beginning with God. All things were made through him, and without him was not any thing made that was made.

John 1:1-3 ESV

[congregational reading] I don't think we can comprehend the depth of what this passage means. But for our time in these Christ in Creation sessions, one minimal facet of these verses will become clear: Before there was matter, energy, space, and time, there was a personal Mind. And that Mind can create a universe from nothing by the mere expression of His will.

The heavens declare the glory of God, and the sky above proclaims his handiwork . Psalm 19:1

For his invisible attributes, namely, his eternal power and divine nature, have been clearly perceived, ever since the creation of the world, in the things that have been made. So they are without excuse. Romans 1:20 ESV

And this universe, the God of the bible's creation, His general revelation, reveals His own eternal power and divine nature so clearly that even without knowledge of the scriptures themselves, we are held accountable to honor Him and give thanks to Him.
[congregational reading]



April 12 Mind over Materialism: The Design Inference in Biology



April 19 Mind before Matter: Design in the Cosmos



April 26 Mind and Matter – Soul and Brain

So this evening, we begin our journey of discovering some of the latest ways this Mind, this immaterial Designer, this God of the Bible, and this Logos of creation reveals himself through what he has made.

We'll discuss what sort of evidence merits an inference to a Creator or designer generally, and then investigate evidences for design specifically in living systems.

Next week, Tom will extend this investigation to our planet, our solar system, the galaxy and the entire universe as revealed through physics.

Then on April 26, Brian will tour the fields of psychology, neurology, and artificial intelligence to counter the materialist claims that there are no minds, and you have no soul; that we are merely deterministically operating meat machines with an illusion of free will.

Christ & Culture

TEACHING AND DISCUSSION SERIES

Materialist Philosophy: *Matter created mind for no purpose*

Biblical Theism: *Mind created matter on purpose.*

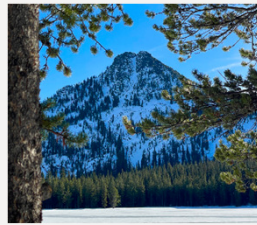
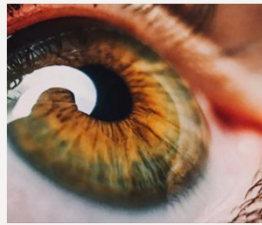
In Christ and Culture, we learned that the **philosophy of scientific materialism** drove the notion of life springing from chemicals and evolving upwards with no plan – for no purpose.

Dr. Grant reminded us that Charles Darwin didn't *demonstrate* the evolution, much less the origin, of species. He merely made an argument from ignorance and doubt, built on unwarranted extrapolations, that satisfied his desire for a **designer substitute**.

But now in **Christ in Creation**, we going to see there is, in fact, a Designer and He has, through His word, literally written his Word into every fiber of our being.

Mind over Materialism

The Design Inference in Biology



So let's go! Let's take a look at how mind is revealed in creation. How word, or *words*, are woven into the fabric of living systems. And we'll do that by first considering how we **recognize design generally**. What makes us think something is designed, planned, and the result of intentionality?

Inferring Design

“We infer design when we witness a highly improbable object or event that matches an independently given pattern.”

- William Dembski

“We recognize design by the purposeful arrangement of parts.”

- Michael Behe

Leaders in the Intelligent Design Movement define the design inference in a couple of ways:

Dr. William Dembski has developed a mathematically rigorous approach that he summarizes by saying, “We infer design when we witness a highly improbable object or event that matches an independently given pattern.”

Michael Behe simplifies the inference even further by telling us, “We recognize design by the purposeful arrangement of parts.”

Inferring Design



Let's see how these definitions play out in real life. In the first image, there is a highly improbable object, but it does not match an independently given pattern or a purposeful arrangement of parts. The rock formation is certainly highly improbable, but the arrangement isn't a pattern specified by some other object or blueprint.

How about the second picture? New Hampshire's "Old Man of The Mountain" that collapsed twenty years ago resembles a man's profile, but there's no actual person or even sketch of a person that looks like this.

We recognize the figures on Mt. Rushmore from paper currency, paintings in the national gallery, or photographs which are entirely independent of the chiseled granite in the Black Hills of South Dakota.

Inferring Design



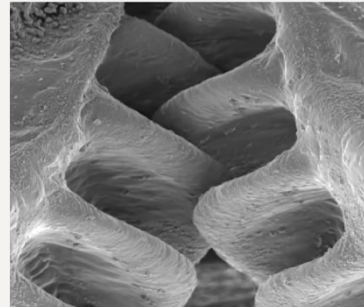
On the first two photos, we see arrangements of atmospheric moisture that are highly improbable, but they do not match an independently given pattern. They are not demonstrations of the purposeful arrangement of parts. Like the man of the mountain, only the general form of something recognizable. There is no specificity to the arrangement. What we really have here is an *analogy* rather than an *identity*.

Why do we, virtually *instantly*, infer the skywriting “clouds” are designed and not the result of the winds? (They are highly improbable, they match an independently given pattern (English letters, words, and syntax), and are the purposeful arrangement of parts.

Inferring Design in Biology

Molecular Machines

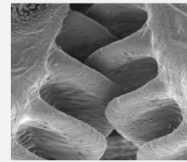
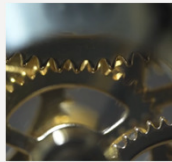
[Bugs with Gears \(Secrets of the Cell with Michael Behe, Ep. 3\)](#)



Let shift gears, pun intended, from inanimate things to living systems and see if any of these contain a **purposeful arrangements of parts**.

This video is on YouTube and can be found by searching for the series “**Secrets of The Cell – Michael Behe.**”

Inferring Design in Biology



- Darwin didn't know that changes we see are driven by molecular changes we can't see.
- The more we discover, the more we see precision and purpose.
- New traits come from degrading genes – not new or improved ones.
- Did we see purposeful arrangements of parts?

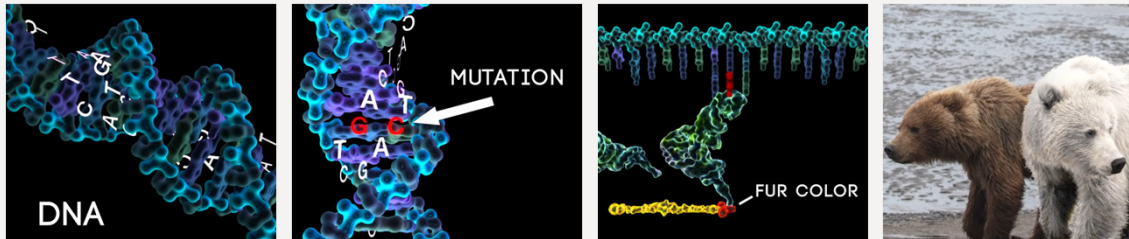
Summary Points from the Video:

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Inferring Design in Biology

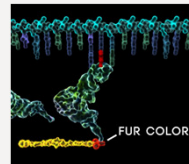
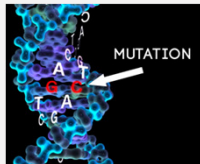
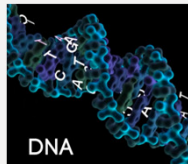
Molecular Machines

[The Effects of Mutation \(Secrets of the Cell with Michael Behe, Ep. 4\)](#)



This video is on YouTube and can be found by searching for the series “**Secrets of The Cell – Michael Behe.**”

Inferring Design in Biology



- Do mutations in dogs or bears *construct* the genes associated with traits we see?
- Mutations don't install new features; they change existing ones.
- What is degrading, disabling, or destroying genes called?

Devolution

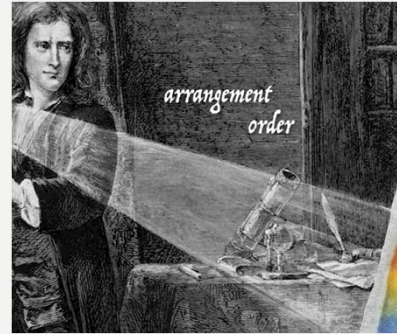
Summary points from the video:

- Do mutations in dogs or bears *construct* the genes associated with traits we see? No
- Mutations don't install new features in DNA; they change existing ones.
- What is degrading, disabling, or destroying genes called? (**devolution**, not evolution.)

Inferring Design in Biology

Molecular Machines

[The X Factor in Life \(Secrets of the Cell with Michael Behe, Ep 5\)](#)



This video is on YouTube and can be found by searching for the series “**Secrets of The Cell – Michael Behe.**”

Inferring Design in Biology



- Molecular machines: *vast* amounts of information & *irreducibly* complex.
- The **purposeful arrangement of parts** is done intentionally with an end purpose in mind, and it's the **ONLY** way we recognize the work of a ***mind***.
- The more intricate the arrangement, the stronger the design inference.
- ***Intelligence*** is what accounts for the complexities in life.
- The exquisite and purposeful designs found in nature are overpowering evidence a ***mind*** is behind nature.

Summary Points from the Video

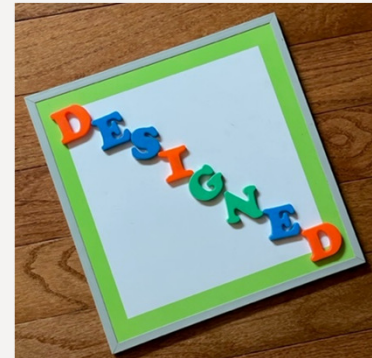
- Molecular machines require *vast* amounts of information and are *irreducibly* complex.
- The **purposeful arrangement of parts** is The **purposeful arrangement of parts** is done intentionally with an end purpose in mind, and it's the **ONLY** way we recognize the work of a ***mind***.
- The more intricate the arrangement, the stronger the design (mind) inference.
- ***Intelligence*** is what accounts for the complexities in life.
- The exquisite and purposeful designs found in nature is overpowering evidence.

Inferring Design

Physical causes (law-following) cannot to create specified information (contingency).



Only *minds* create **purposeful arrangements of parts.**



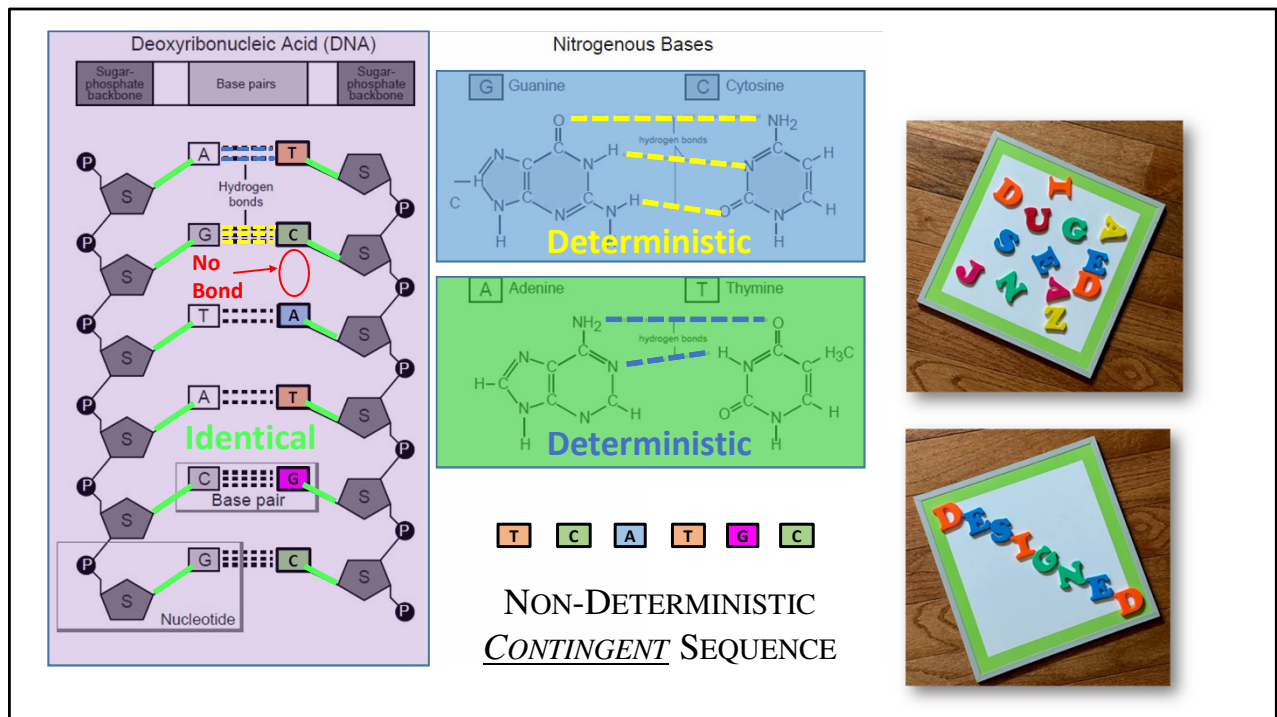
But, can't some unguided processes such as gravity, earthquake vibrations, or magnetism arrange things in nature? Arrange? Yes. Arrange for function or purpose? No.

Allow me illustrate the difference between a **physical cause** and **agency (or mind) causation:**

The magnets holding the letters to the board are *identical* and operate according to physical law. There is no preference for *where* the letters stick to the board and the attraction is "necessary" or "deterministic" rather than "contingent" or capable of doing otherwise.

A mind, or personal agent, is required to *choose* where the letters go in order to create specified information that performs a function, provides directions, or communicates a message.

The chemical bonds in your DNA work the same way...



Now let's apply this understanding to the chemical bonds in genetic information.

- The hydrogen bonds between G's and C's (yellow) are always three and only C's can bond to G's.
- The hydrogen bonds between A's and T's (blue) are always two and only T's can bond to A's.
- The same determinism is present in the bonds between the bases and the sugar-phosphate backbone structure (green).
- But! What matters for genetics is the sequence of letters and there ARE NO BONDS (red) running the length of the DNA molecule connecting adjacent nucleotide bases. Remember, it's the sequence to DNA bases that constitute the genetic information just like the order of the letters, words, sentences, and paragraphs constitute the story in a book.

T T T T T T T T T T T T T T T T

C C C C C C C C C C C C C C C C

A T A T A T A T A T A T A T A T A

C G C G C G C G C G C G C G C G

C A T C A T C A T C A T



If chemical bonding laws were involved in the sequencing of your DNA, the only possibilities for the bases would be repeating patterns.

Determinism destroys contingency – which destroys the possibility of specified information – which destroys the possibility for life.

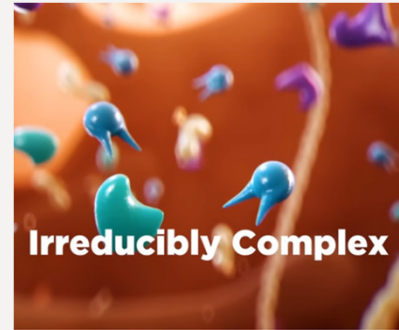
Even cat lovers would be dead if CAT CAT CAT CAT CAT CAT was in their DNA!

Hopefully you now understand the distinction between physical causes (necessity) and what minds can do (contingency).

Inferring Design in Biology

Molecular Machines

[Blood Clotting: The Body's Emergency Response System \(Episode 7\)](#)



This video powerfully illustrates not just design in your genes, but the design of a multi-level hierarchical **system** exquisitely engineered to keep you alive in a dangerous world.
[video] - Stop at 4:36

“A beautiful, finely-tuned system.” Indeed, I lost count on how many purposefully arranged parts there were.

Let's now look inside just one of those many parts, the red blood cell, and consider the **information content** in the hemoglobin protein that carries the oxygen in your blood.

This video is on YouTube and can be found by searching for the series “Secrets of The Cell – Michael Behe.”

Inferring Design in Biology



Sections of DNA bases (A's, C's, T's & G's): hemoglobin subunits

Alpha-globin gene (HBA1):	CCTCCTGGGCCTCCTCCTGGTCACTGTGTCAGATTCT
Beta-globin gene (HBB):	CACCACGCCTGTGAGGAGAGCCAGGGCAGAGGTCTCAGGCAA
Delta-globin gene (HBD):	CTCTAACTGGCCTCCTGGTCACTGTGTCAGATTCTGAAGGCAG
Gamma-globin gene (HBG1/2):	CCTCCTGAGGCCTCCTCCTGGTCACTGTGTCAGATTCCTGAAGG

Hemoglobin is built from several genetic subunits. Here's a small sampling of the DNA bases that make them up.

Inferring Design in Biology

The entire sequence of genes for hemoglobin protein typically ranges from **50,000 to 60,000 DNA bases** (A's, C's, T's, & G's).



Did you know that we need over **50,000** of these “A’s, C’s, T’s, and G’s!?” Over 50,000!! Do you want to see what only 10,000 bases looks like?

[illegible]

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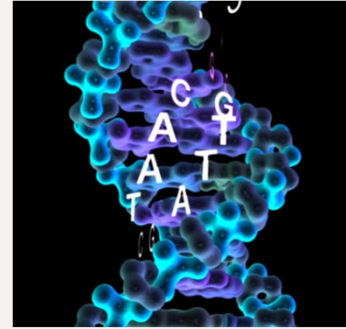
Inferring Design in Biology

Each base (A, C, G, or T) can be represented by 2 bits.

50,000 bases x 2 bits = 100,000 bits of information

Convert Information to English Words:

- Average English letter = 5 bits
- Average English word = 5 letters
- $100,000/25 = 4,000$ words



The 100,000 bits in hemoglobin protein = **4,000 English words** (~16 pages)

Spell one word wrong in hemoglobin's 16-pages...you're likely sick or dead.

Note: Numerical figures are accurate illustrative approximations and are not intended to represent precision.

For perspective, let's do some quick calculations to see how much **specified information** is involved in **hemoglobin**.

Each base (A, C, G, or T) can be represented by 2 bits; 50,000 bases x 2 bits = 100,000 bits of information

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Inferring Design in Biology

The Word in Biology

- The Bible has ~750,000 words.
- The human genome has the equivalent of 150,000,000 words
- We have 200x *more* **WORDS** in our genome than the Bible has.
- And, whether written in ink or molecules, words must be ***purposefully arranged*** in order to function.
- How do we recognize design? ***The purposeful arrangement of parts***

- KJV Bible = 31.2 million bits; human genome = 6 billion bits; 5 bytes per word average
- Note: Numerical figures are accurate illustrative approximations and are not intended to represent precision.

Let's do another rough information calculation to see the equivalent number of bibles in your entire genome...

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- We have 200x *more* **WORDS** in our genome than the Bible has.
- Whether written in ink or molecules, words must be ***purposefully arranged*** in order to function.
- How do we recognize design?
 - ***The purposeful arrangement of parts***

Inferring Design in Biology - Summary

- We infer design by the **purposeful arrangement of parts**.
 - Law-like physical processes (e.g. magnetism or gravity) cannot produce specified information (contingency).
 - Darwinian processes only *degrade, disable, or destroy* genetic information. (***devolution***)
 - Human genomes contain the equivalent of 200 bibles worth of English words (***specified information***).
-
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Inferring Design in Biology - Summary

- Special revelation (scripture) is based on *words*.
- General revelation in biology is based on *words*.
- Words are *only* created by minds.
- Matter did not create mind for no purpose.
- *Mind created matter on purpose.*
- *Christ, the Word, is literally in Creation.*

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Christ in Creation

Materialist Philosophy: ~~Matter created mind for no purpose~~

Biblical Theism: Mind created matter on purpose.

He has, as THE Word, written his Word into every fiber of our being.

Mind triumphs over materialism

In the beginning was the Word, and the Word was with God, and the Word was God. He was in the beginning with God. All things were made through him, and without him was not any thing made that was made.

John 1:1-3 ESV

Q & A

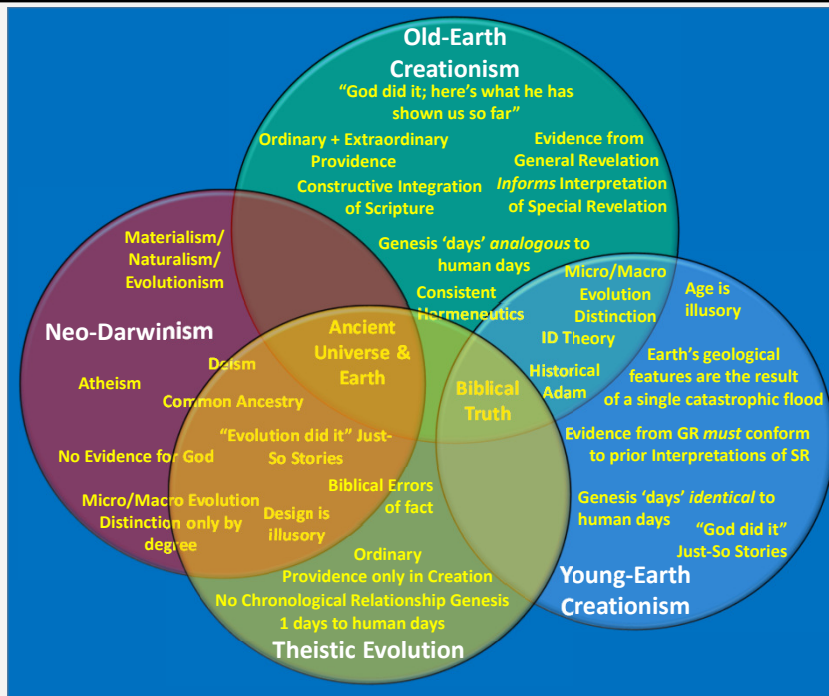
Extra Slides for Q&A

Inferring Design in Biology

[Meyer on Shapiro – Quantum Cosmology](#) (2:33)

[DNA Replication](#)

Let's do a quick primer on DNA replication and cell division. [video]



Design Inference Logic



Not due to a *law of nature* or
regularity?

Vastly *improbable* with respect
to available resources?

Does it conform to an
independently-given *pattern*?

Information

Event or Object

Contingent?

No

necessity

Yes

Complex?

No

chance

Yes

Specified?

No

chance

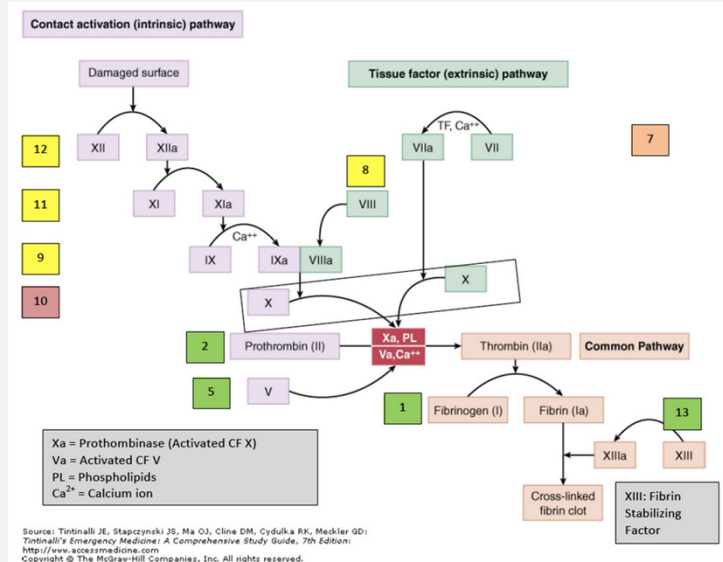
Yes

Design

Specified Complexity

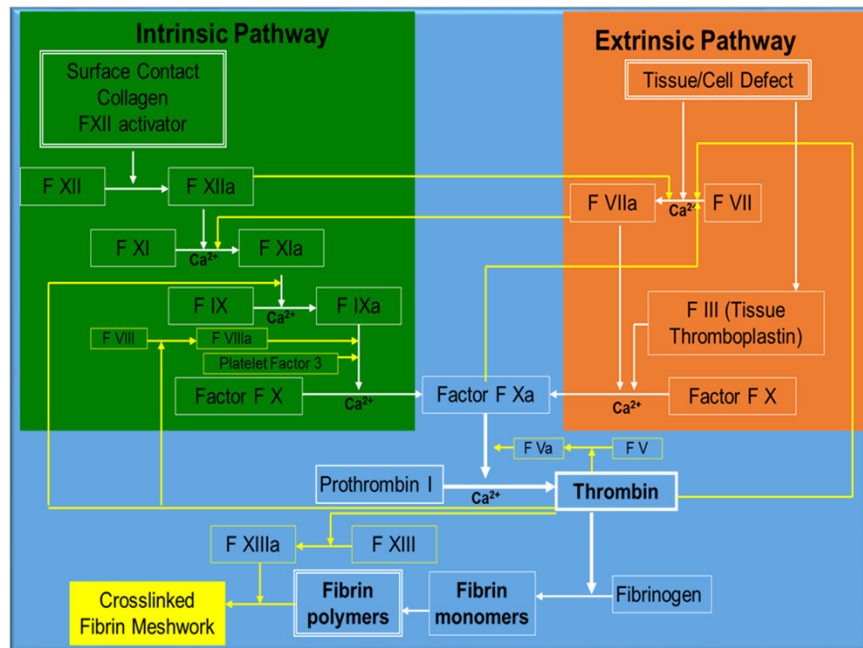
Inferring Design in Biology

Blood Clotting Cascade (>20 proteins)



One cannot be blamed for incredulity toward the idea the blood clotting cascade could evolve by an unguided Darwinian process. Behe's video and description was much simplified. Here's a flowchart of the chemical and protein interactions. Think you could be a working system from the ground up by small, gradual Darwinian steps with every step having a survival value?

There are more than 20 proteins involved in regulating blood clotting.



Christ in Creation

Constructive Integration of God's Revelations

- **Special Revelation** (Holy Scripture) is the *Word* of God.
- **General Revelation** (Creation) was formed, and is sustained, by the *Word*.

Scientific discoveries should reveal *Word* (information/plans) is somehow associated with creation itself.

- We discover *Word*, the activity of a *Mind*, in:
 - **Biology** – Informational foundation (textual, independent of matter & energy)
 - **Physical Sciences** – Design/fine-tuning is pervasive (exquisite planning & execution)
 - **Mind/Brain** – Mind is non-physical (the brain does not explain the mind)

Throughout these Christ-in-Creation sessions, we will seek a constructive integration of God's revelations.

God's special revelation, the Word, and [click] his creation he spoke into existence and sustains by his Word, **must** agree.

And therefore, science as an investigation of God's general revelation, should reveal *Word* is somehow associated with creation itself. And indeed, it is!

In biology, we've discovered information is fundamental to living systems.

In physics, we've found the laws and constants of creation are finely-tuned for our existence to an almost incomprehensible degree.

And in neurology, the evidence affirms the mind is not the same thing as the organ we call the brain.