

# Creation and Intelligent Design



Weeks 11-12

## Intelligent Design

Greg Nordstrom  
Bruce Zupa

*The hearing ear and the seeing eye,  
the LORD has made both of them.*

Proverbs 20:12



And what  
is this?

(Sperm cell entering the  
outer layer of an egg)

# The Watchmaker

- **William Paley**, Anglican priest (1743-1805)
- Wrote *Natural Theology* in 1802 arguing for **design** (and thus a designer) in **nature**



Let's read a  
few passages...



# The Watchmaker



*In crossing a heath, suppose I pitched my foot against a **stone**, and were asked how the stone came to be there; I might possibly answer, that, for anything I knew to the contrary, it had lain there forever.*

*But suppose I had found a **watch** upon the ground, and it should be inquired how the watch happened to be in that place; I should hardly think of the answer I had given before.*



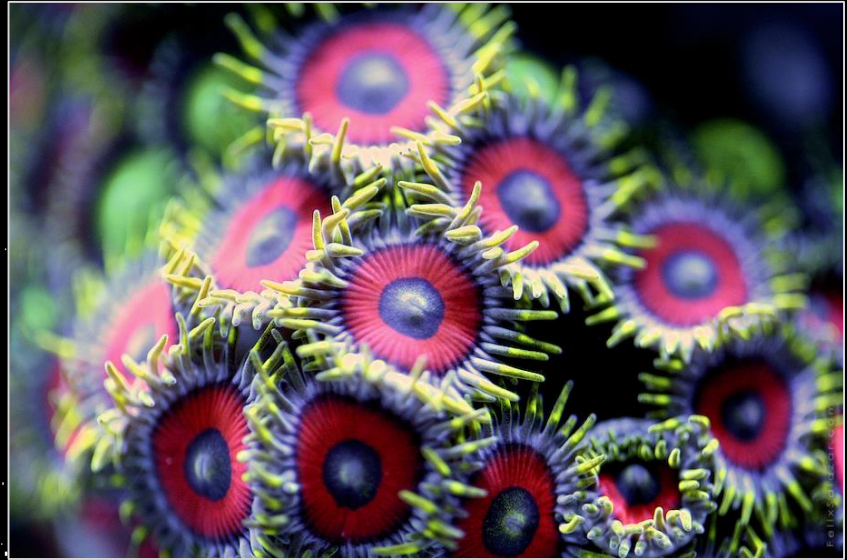
# The Watchmaker



*[For] when we come to inspect the watch we perceive—what we could not discover in the stone—that its several parts are **framed** and put together for a **purpose**, e.g. that they are so formed and adjusted as to produce **motion**, and the motion so regulated as to point out the **hour of the day**; that if the different parts had been **differently shaped** from what they are, or **placed in any other manner** or in **any other order**... either **no motion at all** would have been carried on in the machine, or none which would have answered the use that is now served by it.*



# The Watchmaker



*[We see that] every indication of contrivance, every **manifestation of design**, which existed in the watch, exists in the works of **nature**; with the difference, on the side of nature, of being **greater or more**, and that in a degree which **exceeds all computation**. ”*

William Paley

# The Watchmaker

Or said another way...

*For since the creation of the world His invisible attributes, His eternal power and divine nature, have been clearly seen, being understood through what has been made...*

Rom 1:20



# Irreducible Complexity

- What remains when you remove all the “extras”
- The **minimum set of parts** needed for a thing to be what it is
  - A **car** without a trunk is still a **car**
  - A **house** without a door is still a **house**
  - **Tyra Banks** without hair is still **Tyra Banks**



**IC:** “*A single system composed of several well-matched, interacting parts that contribute to the basic function, wherein the removal of any one of the parts causes the system to effectively cease functioning.*”

Michael Behe, *Darwin's Black Box*, p.39

# Irreducible Complexity

- Irreducible complexity is a strong argument against evolutionary theory
- An irreducibly complex system **cannot be produced by continuous improvement** to original functionality
  - An irreducibly complex system is **already the minimum** in terms of its parts and its organization
  - Natural selection only gradually improves **existing, functional systems**
- You can't evolve an irreducibly complex system

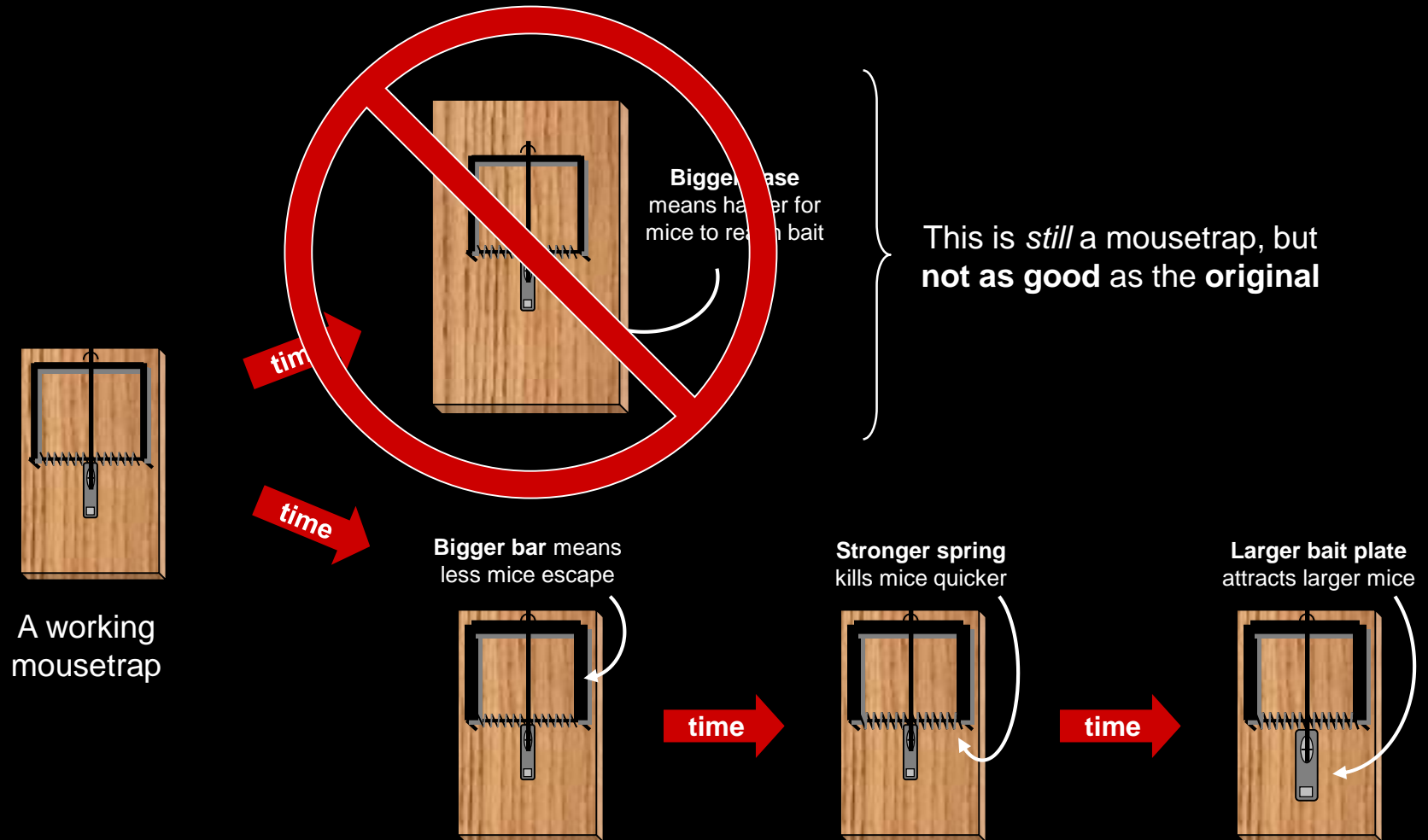
# Irreducible Complexity

*“If it could be demonstrated that any complex organ existed which could not possibly have been formed by numerous successive, slight modifications, my theory would absolutely break down.”*

Charles Darwin



# Evolving a Better Mousetrap



These **improvements** make the mousetrap **better**, but it's **still a mousetrap**, and each one evolved from a previous mousetrap

# Evolving the First Mousetrap

*IC: “A single system composed of several well-matched, interacting parts that contribute to the basic function, wherein the removal of any one of the parts causes the system to effectively cease functioning.”*

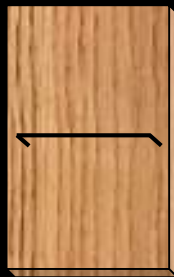
Michael Behe, *Darwin's Black Box*

**None of these is a mousetrap!**

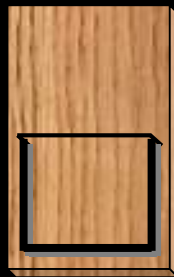
(and the Universe has **no idea** what a mousetrap is)



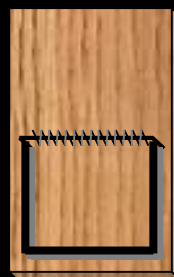
Wood  
block



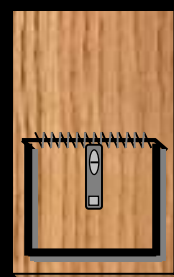
Block  
with bar



With a  
2<sup>nd</sup> bar



With a  
spring



With a  
plate



***This*** is a mousetrap.

And it's **irreducibly complex**!  
(anything less isn't a mousetrap)

Is this an **improved block of wood**? Is the block **better off** because of the **bar**? The new “**species**” only **survives** if the bar is an **improvement** which gives the block an **advantage** when **competing** for **food** and a **procreation partner**!

*The theory of evolution says  
nature only selects **improvements**.  
Are these intermediate forms  
improvements if you don't know a  
mousetrap is coming later?*

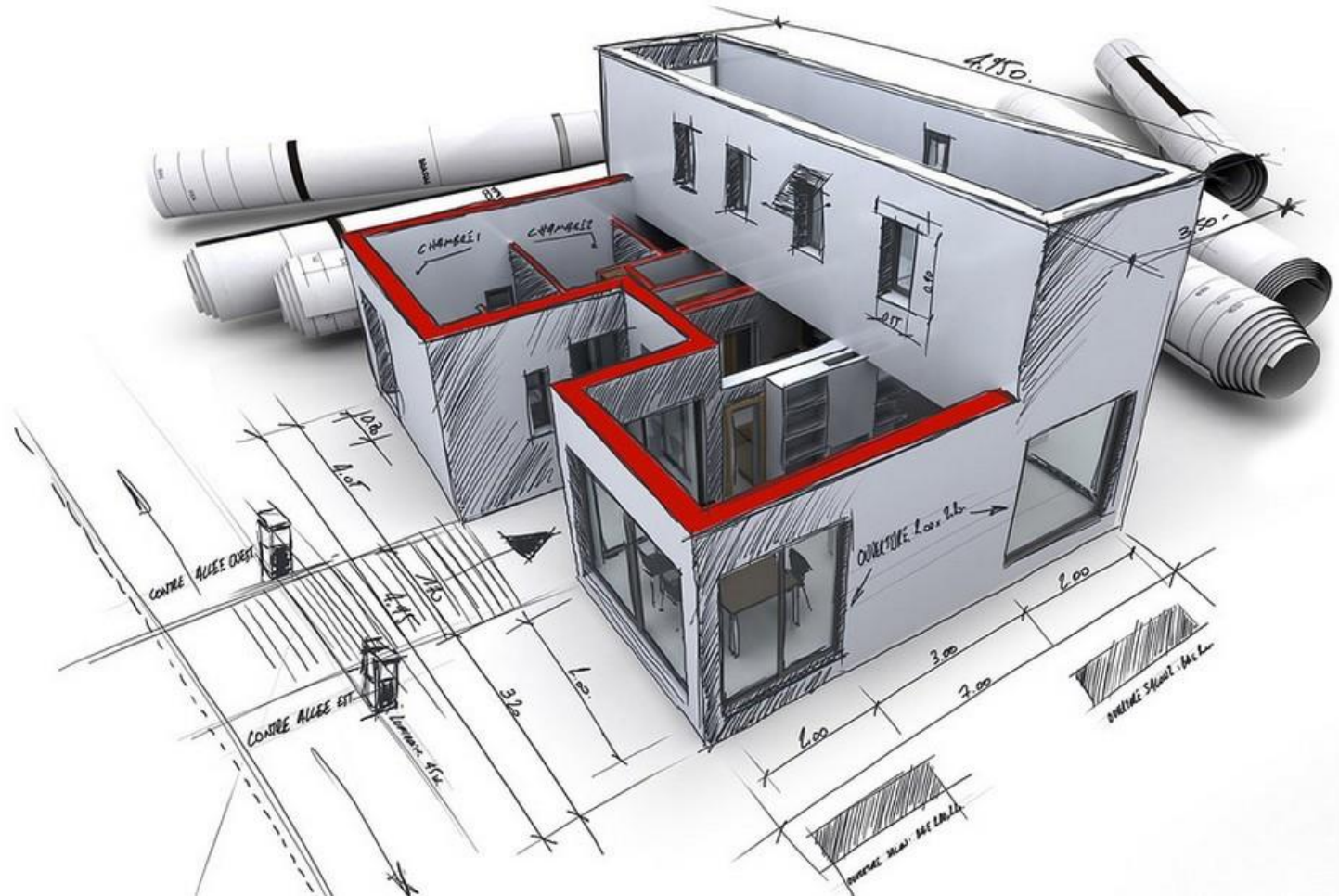




# *What all is needed to build a house?*



Building plans are essential,  
but what's **not** in the plans?



*For every house is built by someone,  
but He that built all things is God.*

Heb 3:4



# History of Modern Genetics

- 1838 Darwin proposes “Theory of Evolution”
- 1869 Miescher discovers DNA in nucleus
- 1919 Levene proposes basic G-T-A-C structure
- 1953 Watson and Crick discover “double helix”
- 2003 Human Genome Project declared “complete”
- 2006 Collins publishes his book...

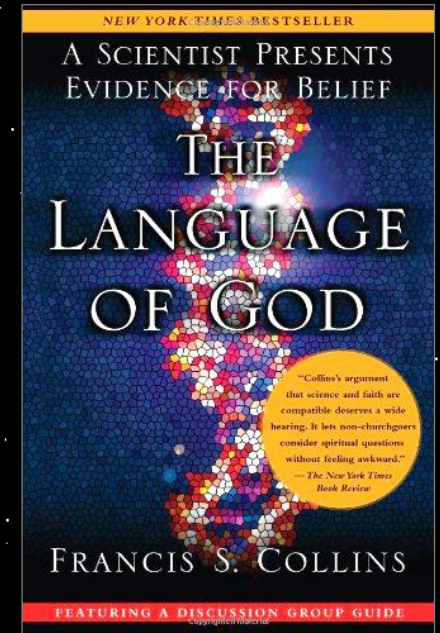
## *“The Language of God: A Scientist Presents Evidence for Belief”*

F. Collins (MD, PhD):

Leader, Human Genome Project (1993-2003)

Presidential Medal of Freedom (2007)

National Medal of Science (2009)



# Hmmm...

*“All living organisms store genetic information using the same molecules—DNA and RNA. Written in the genetic code of these molecules is **compelling evidence of the shared ancestry of all living things.**”*

DNA from the Beginning

An animated primer of 75 experiments that made modern genetics

[www.dnafb.org/40](http://www.dnafb.org/40)

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*“Or a good example of infrastructure design and code reuse.”*

—GGN

# Biochemical Challenge to Evolution

- Life is a **molecular phenomenon**
  - **Molecules** are the **nuts, bolts, pulleys**, and **gears** of biological systems
  - Molecular biology is all about **precise detail**
  - Simple **changes** cause life-threatening **disease**
- In Darwin's day **no one understood cells**
  - But cells were assumed to be **fairly simple**

*[A cell] is an intricate... unit of harmoniously coordinated parts and chemical pathways. Its spontaneous assembly out of the environment, granting the unlikely simultaneous presence together of all the parts, is not a believable possibility.*

J. Keosian

*The Origin of Life and Evolutionary Biochemistry*

(And Keosian is an **evolutionist!**)



# The Man-Making Contest

A scientist says to God...

Scientist: "We can now clone humans, make life, and take care of ourselves, so we really don't need you any more."

God: "Really? Well then I propose we have a man-making contest."

Scientist: "Alright."

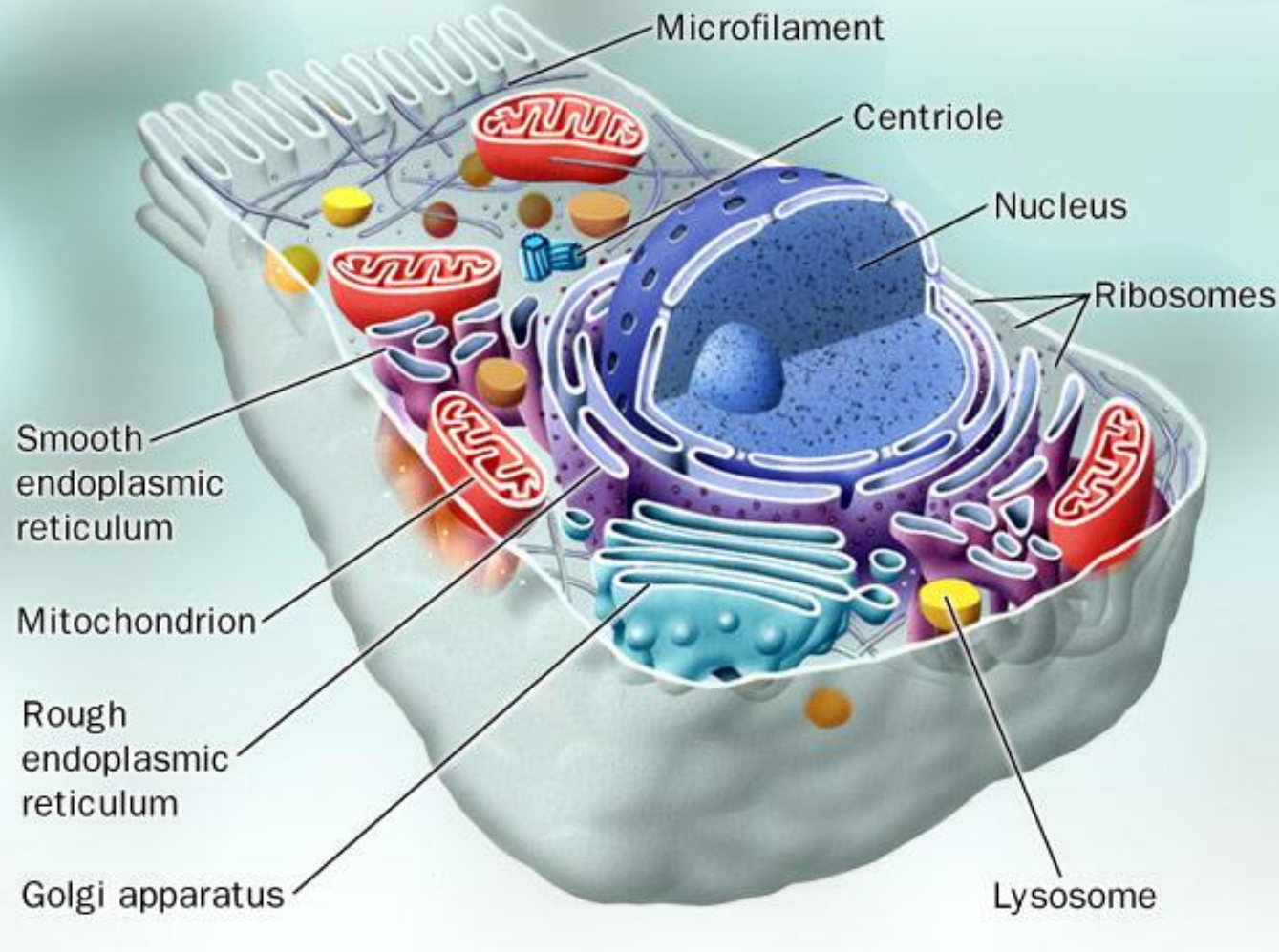
God: "And just to make it interesting, let's do it the old-fashioned way, just like I did with Adam."

Scientist: "No problem, I'll just grab myself a handful of dirt..."

God: "Oh no! You get your own dirt!"



# Cells



Proteins enable virtually every process in a cell

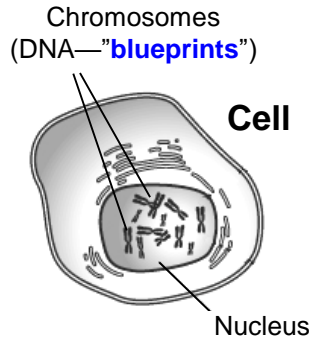
- Structural components (physical stability)
- Motorized “molecule movers”
- Waste-disposal sites
- Energy-production sites
- Protein-production sites
- Protein-modification sites
- Protein-destruction sites
- And much, much more!

# Why Are Proteins So Important?

*Proteins are the **workhorses** of biological **macromolecules**. Some form **enzymes** that **catalyze biochemical reactions**, which are necessary for **metabolism**. Others give cells **structure** and **support**, such as proteins in the cytoskeleton. They also play vital roles in **cell signaling**, **immune responses**, the **cell cycle**, and **many other biological activities**. You can think of it this way: Anything that you can describe happening in a living organism, most likely proteins are either making it happen or regulating it.*

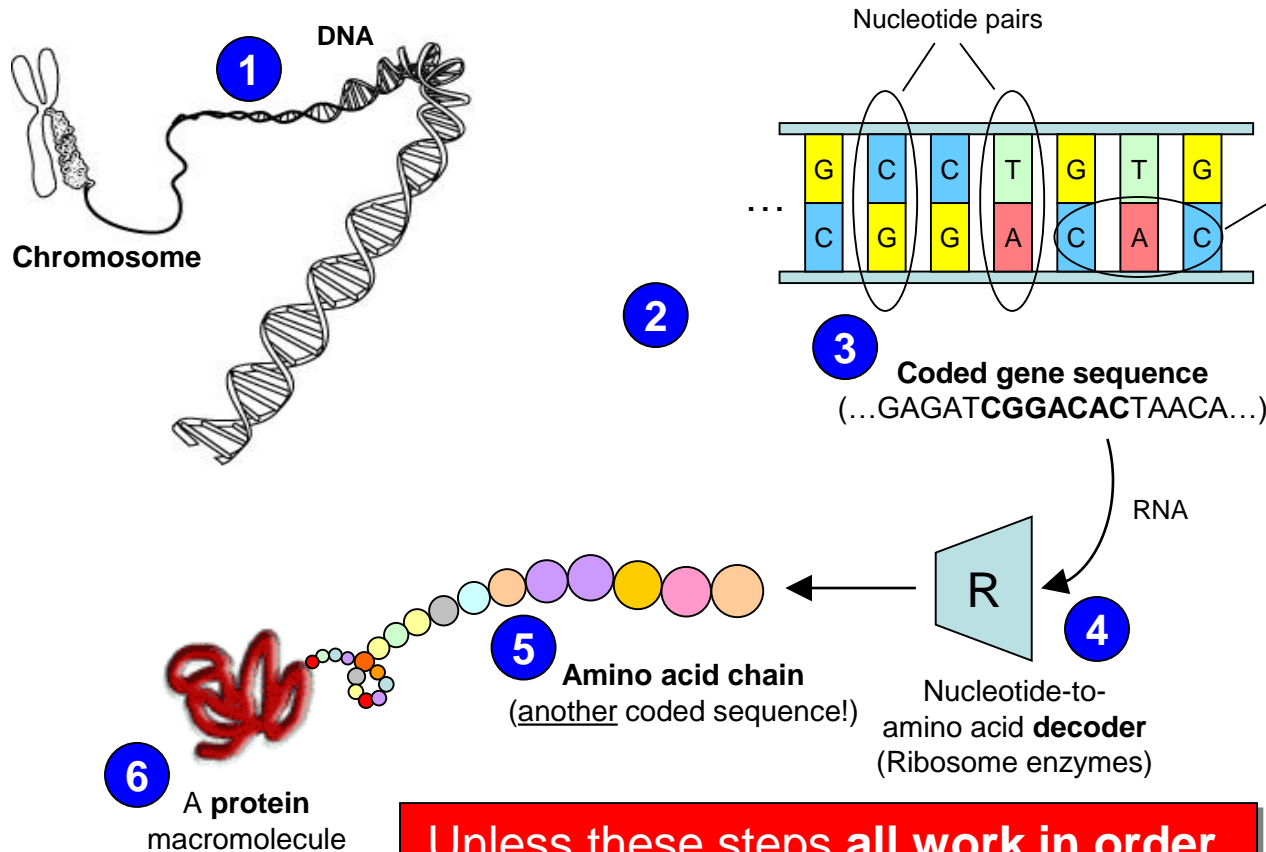
From WikiAnswers, found on Answers.com

OK, proteins are **critical for life**.  
But where do they **come from**?



- Energy-production sites
- **Protein-production** sites
- Protein-modification sites
- Protein-destruction sites
- Structural components (physical stability)
- Motorized "molecule movers"
- Waste-disposal sites
- Much, much more!

# Protein Production



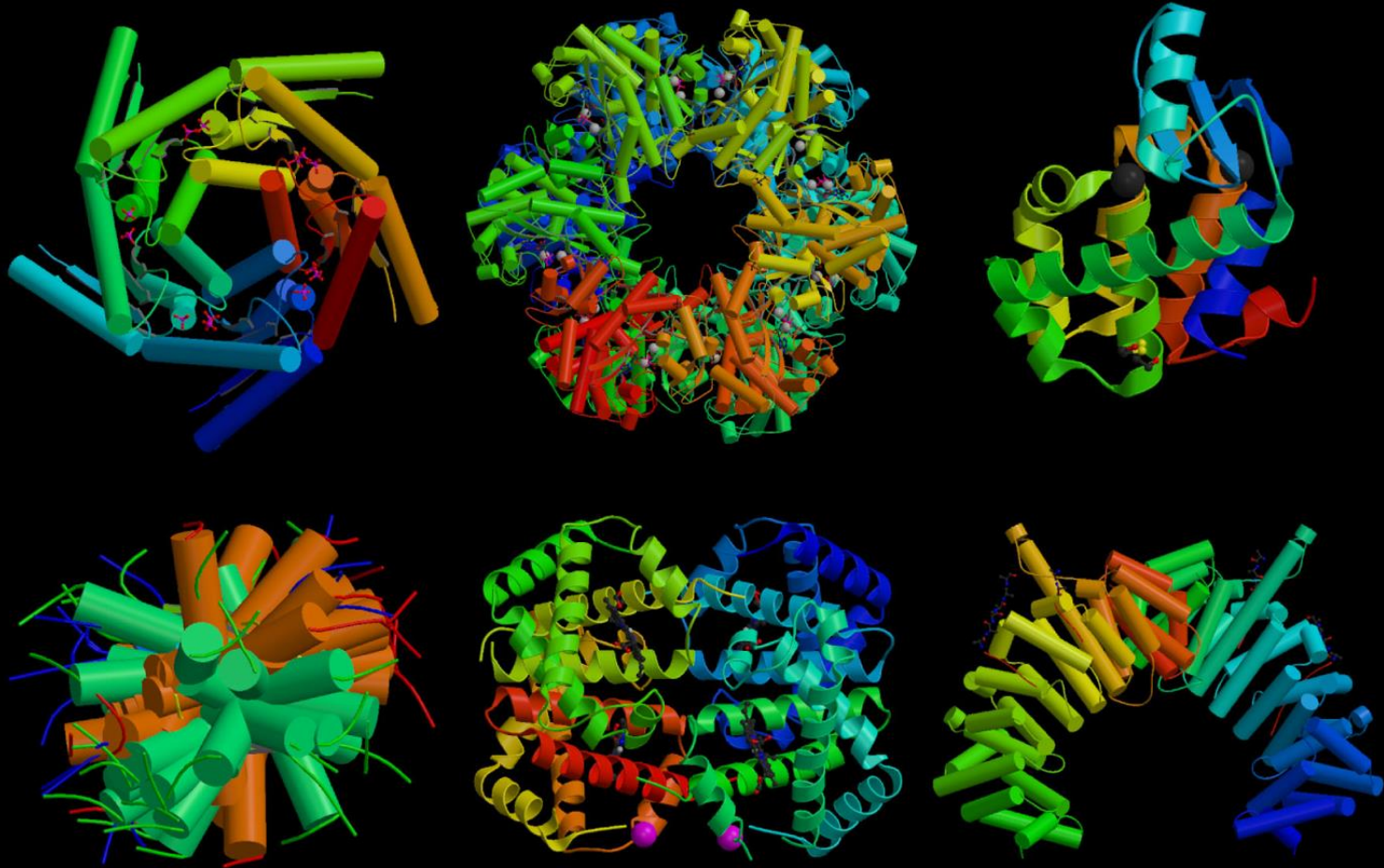
Each set of 3 nucleotides form a "codon" (e.g. CAC) representing one of 20 different **amino acids** (Note the redundancy—such a scheme reduces mutation error!)

1. Chromosome is unwound, revealing the DNA
2. The gene (blueprint) representing the desired protein is selected
3. The nucleotide-coded gene sequence is read and copied (RNA)
4. One of 20 different amino acids is produced for each codon
5. Amino acids are ordered and bonded together
6. The completed protein is ready to do its job

**Unless these steps all work in order,  
no protein production and no life!**

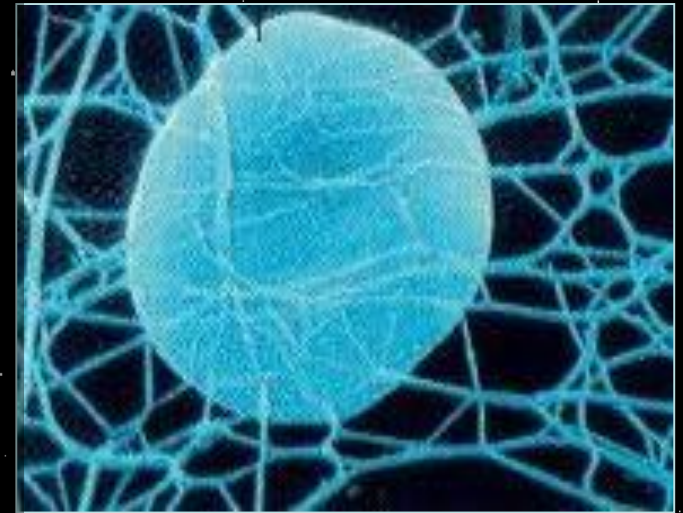


Six of the estimated 100,000  
proteins in the human body!



# Blood Clotting

- Bleeding must stop quickly
  - Shock, death can result
- Process: Coagulation (clotting)
- **Fibrous strands** trap cells
  - Strands are the protein **Fibrin**
- Strands formed through a **complex sequence** of events called the **clotting cascade**
  - Also causes platelets to get “sticky”
- At least **15 different proteins** involved in process
  - They have **no other function** except to create Fibrin
- Later, a second process **dissolves** the clots

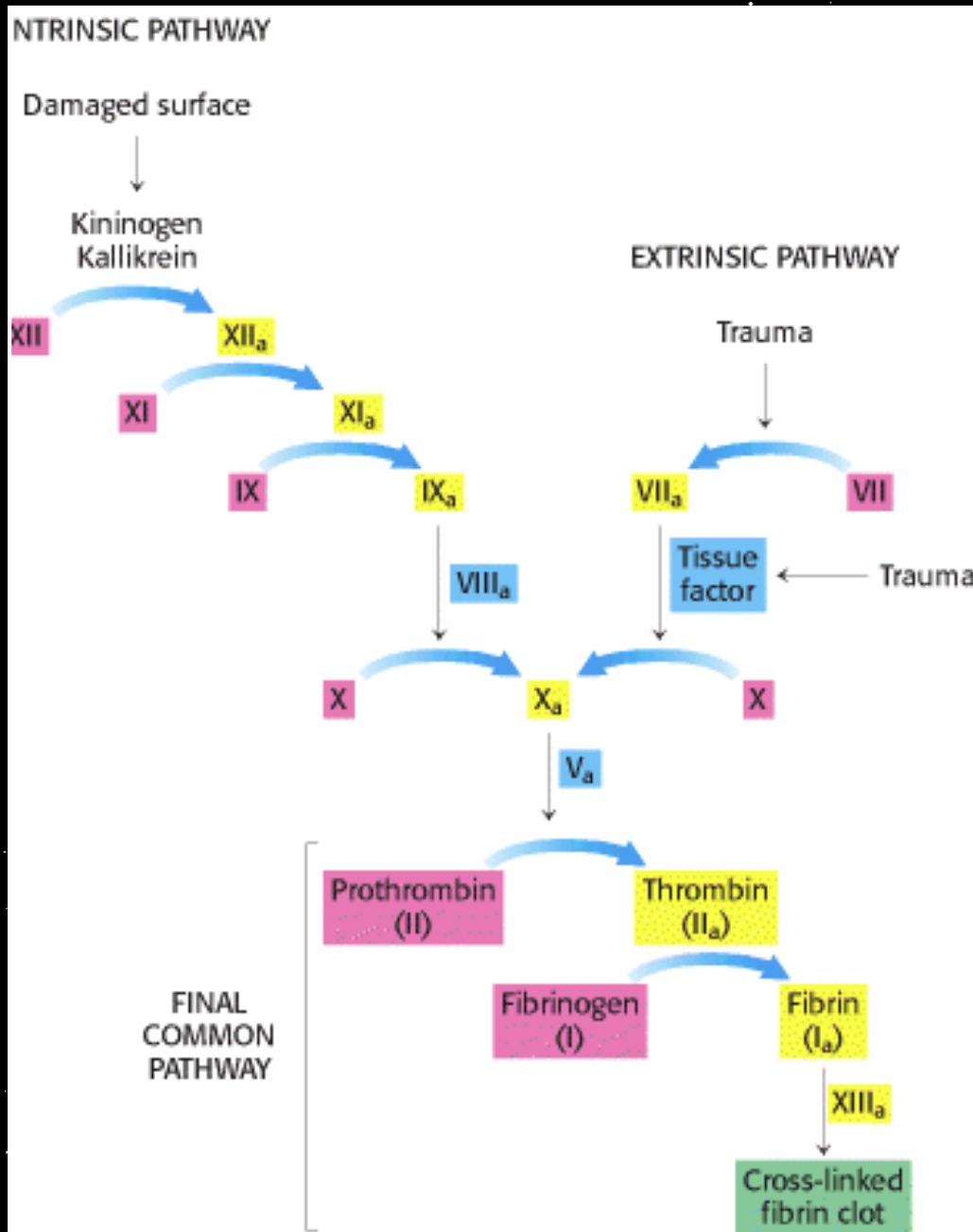


Red blood cell trapped in a fibrin strand web

# Clotting Cascade

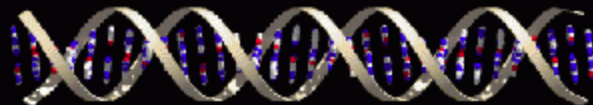
A fibrin clot is formed by the interplay of the **intrinsic**, **extrinsic**, and **final common** pathways. All paths rely on **inactive** proteins (“factors”) being **activated** to finally produce **Thrombin** and then **Fibrin**. Both slow and fast clotting is possible, depending on the situation. Inactive clotting factors are shown in red; their activated counterparts are in yellow. A striking feature of this process is that the activated form of one clotting factor catalyzes the activation of the next factor, hence the name “**cascade**.”

Could this process have evolved over long, long periods of time?



# Figure the Odds...

- Without God, you must believe life “**just happened**”
- Proteins, enzymes, amino acids, DNA and everything else evolved from chemicals that happened to be “**lying around**”
  - Of course, **no explanation** how those chemicals got there
  - Yet another **big problem** for evolutionists
- **Little** written about the evolution of microbiological systems
  - What *is* written often contains phrases like “**appeared,**” “**arose,**” “**was born,**” “**sprung forth,**” or “**came into being**” when referring to how complex proteins came about
  - **Defies logic** and **scientific/mathematical** training!
- Let’s do some math on **tPA**, one of the proteins needed for blood clotting...





# Figure the Odds...

- Animals with blood-clotting cascades have roughly 10,000 genes and 30,000 gene pieces
- Odds of getting the right gene pieces together to make **tPA** is 30,000 to the 4<sup>th</sup> power or **1 in  $8.1 \times 10^{17}$** 
  - **Enormous luck** involved in getting just the **right pieces** in just the **right places** at just the **right time**
  - If Tennessee lottery had same odds, and 1,000,000 people played every year, it would take **1000 billion years** before anyone would win!
- Scientists say Earth is “only” 4.5 billion years old
- And remember, **15 proteins** necessary for clotting!
- And all 15 must exist together for clotting to work!

*“Biologists make great scientists but lousy mathematicians.”*

Mark Briski

# Heed the Master's Words

So, how *did* those proteins come to exist?

- Genesis 1:1, “*In the beginning, God created...*”
- God **planned** and **designed** it all!

*Thus says the LORD, “Heaven is My throne and the earth is My footstool. Where then is a house you could build for Me? And where is a place that I may rest? For My hand made all these things, thus all these things came into being,” declares the LORD.*

Isaiah 66:1-2

# In Conclusion

*Many, O LORD my God, are the wonders you have done. The things you planned for us no one can recount to you; were I to speak and tell of them, they would be too many to declare.*

Psalm 40:5 (NIV)

*The world's a huge stockpile of GOD-wonders and God-thoughts. Nothing and no one comes close to you! I start talking about you, telling what I know, and quickly run out of words. Neither numbers nor words account for you.*

Psalm 40:5 (The Message)

## Next week:

- Quick review of this quarter
- Science and religion in conflict
  - Our culture of confusion
  - Spiritual warfare
- Believing without the need for “full proof”