

<https://www.youtube.com/watch?v=7Hk9jct2ozY>

DNA animations

Does Modern Science Support Evolution?

Cancer/Medical Science versus Social Psychology

VERY CURSORY OVERVIEW



Antonino Del Popolo

GOD OR SCIENCE?

Is Science Denying God?



 World Scientific

Fake Binary

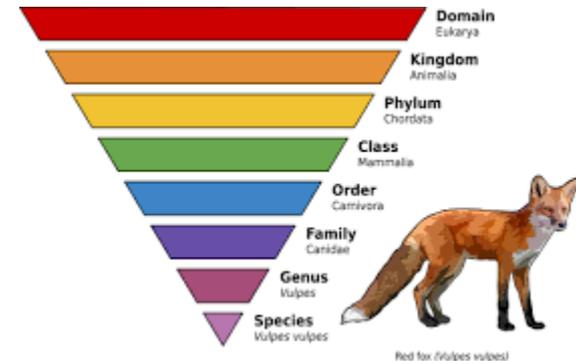


OR



That's never how science works

- It really is
 - Evidence for this theory OR
 - Evidence for an alternate theory
- Examples
- Never ... “It is this, because it can’t be that”
- Never ... “Well it’s the best we have, so it must be true”
- It’s wise to say, “We don’t know”



Today

- DNA Processes
- Define what “evolution” is today (1859 science!)
 - Deconstruct that definition with modern research findings
 - DNA Replication (and self repair)
 - Immune system actions (killing mutated cells)
 - End results of “evolution” today
 - Snark and barks of today
 - “But, But, how about?”

The Real Big Picture

- The smaller we look the more complex it gets
- What evolution does not talk about
 - DNA self repair
 - Immune system response
 - Cancer research

Resources

- Several hundred complementary medical and chemist/Physics journal articles
 - I picked six
- If I were to do this “right,” I would cite each journal article each time we referenced it:
 - “According to Ball, Blackwell, and Hanna, et al, 2014, the DNA investigation and repair is accomplished with RAD5HELICASE “



The Rad5 helicase activity is dispensable for error-free DNA post-replication repair



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Ball LG, Xu X, Blackwell S, Hanna MD, Lambrecht AD, Xiao W. The Rad5 helicase activity is dispensable for error-free DNA post-replication repair. *DNA Repair (Amst)*. 2014 Apr;16:74-83. doi: 10.1016/j.dnarep.2014.02.016. Epub 2014 Mar 13. PMID: 24674630.



DR-GAS: A database of functional genetic variants and their phosphorylation states in human DNA repair systems



Manika Sehgal, Tiratha Raj Singh*

Department of Biotechnology and Bioinformatics, Jaypee University of Information Technology (JUIT), Waknaghat, Solan, HP 173234, India

Sehgal M, Singh TR. DR-GAS: a database of functional genetic variants and their phosphorylation states in human DNA repair systems. *DNA Repair (Amst)*. 2014 Apr;16:97-103. doi: 10.1016/j.dnarep.2014.01.004. Epub 2014 Feb 16. PMID: 24548788.

Oncogenic stress sensed by the immune system: role of natural killer cell receptors

David H. Raulet and Nadia Guerra

Abstract | A growing body of research is addressing how pathways that are dysregulated during tumorigenesis are linked to innate immune responses, which can contribute to immune surveillance of cancer. Components of the innate immune system that are localized in tissues are thought to eliminate early neoplastic cells, thereby preventing or delaying the establishment of advanced tumours. This Review addresses our current understanding of the mechanisms that detect cellular stresses that are associated with tumorigenesis and that culminate in the recognition and, in some cases, the elimination of the tumour cells by natural killer cells and other lymphocytes that express natural killer cell receptors.

Raulet DH, Guerra N. Oncogenic stress sensed by the immune system: role of natural killer cell receptors. *Nat Rev Immunol*. 2009 Aug;9(8):568-80. doi: 10.1038/nri2604. PMID: 19629084; PMCID: PMC3017432.



available at www.sciencedirect.com



journal homepage: www.elsevier.com/locate/bihy



The immune system as key to cancer treatment: Triggering its activity with microbial agents

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Received 10 August 2009; accepted 18 August 2009

Walther-António, Marina & Schulze-Makuch, Dirk.
(2009). The immune system as key to cancer
treatment: Triggering its activity with microbial agents.
Bioscience Hypotheses. 2. 388-392.
[10.1016/j.bihy.2009.08.003](https://doi.org/10.1016/j.bihy.2009.08.003).



Seminars in Cancer Biology 16 (2006) 344–347

seminars in
CANCER BIOLOGY

www.elsevier.com/locate/semcancer

Review

The DNA damage response, immunity and cancer

Stephan Gasser, David Raulet*

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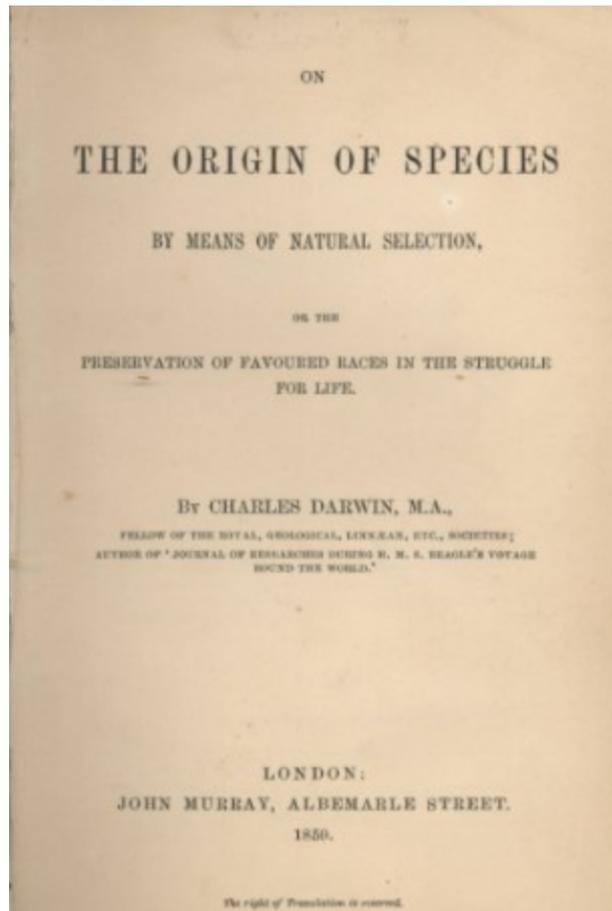
Gasser S, Raulet D. The DNA damage response, immunity and cancer. *Semin Cancer Biol.* 2006 Oct;16(5):344-7. doi: 10.1016/j.semcancer.2006.07.004. Epub 2006 Jul 7. PMID: 16914325.

Cancer as an evolutionary and ecological process

Lauren M.F. Merlo^{}, John W. Pepper[†], Brian J. Reid[§] and Carlo C. Maley^{*}*

Abstract | Neoplasms are microcosms of evolution. Within a neoplasm, a mosaic of mutant cells compete for space and resources, evade predation by the immune system and can even cooperate to disperse and colonize new organs. The evolution of neoplastic cells explains both why we get cancer and why it has been so difficult to cure. The tools of evolutionary biology and ecology are providing new insights into neoplastic progression and the clinical control of cancer.

Merlo LM, Pepper JW, Reid BJ, Maley CC. Cancer as an evolutionary and ecological process. *Nat Rev Cancer*. 2006 Dec;6(12):924-35. doi: 10.1038/nrc2013. Epub 2006 Nov 16. PMID: 17109012



“Evolution Resources”. Washington, DC: National Academies of Sciences, Engineering, and Medicine. 2016. Archived from the original on 2016-06-03.

What is “evolution” today?

- 1859 Science
- All life on Earth
 - Common ancestor
 - 3.5–3.8 billion years ago
- Different characteristics result from **mutation**, genetic recombination, and other sources of **genetic variation**
- Change in the heritable characteristics over successive generations
- Genes are passed on from parent to offspring during reproduction
- Natural selection

Evolution Resources Washington, DC: National Academies of Sciences, Engineering, and Medicine. 2016. Archived from the original on 2016-06-03.

What is “evolution” today?

- Boil that down
 - DNA mutates
 - Cells change their behavior
 - Over billions of years, get more functional
 - Higher function is passed on genetically
 - Higher functioning cells give natural selection
 - LET’S LOOK DEEPER/SMALLER

Terms

- DNA (Deoxyribonucleic acid)
- RNA (Ribonucleic acid)
 - (mRNA messenger, tRNA transfer, rRNA ribosomal)
- Helicase (cell enzymes w/specific function)
- Nucleotide (base of the DNA)
- Microtubules (scaffolding for replication)
- Okazaki fragment (Dr. Okazaki)
- 5 prime to 3 prime (5 or 3 carbon atoms)

Genes are woven DNA

- Double helix (1.8 meters long)
- Not a recording system
- Four nucleotides attachment points with four different nucleotide potential values
 - 256-Bit Operating System
 - The gene short strand has 1 terabyte of data
 - Estimated about 7-8 terabytes
- Digital programming in an analog/liquid hormones/electric feedback and control/chemically powered machine (you)

DNA Replication

- DNA in each cell gets copied
- How cells replicate:
 - Explanation <https://youtu.be/TNKWgcFPHqw>
 - Animation <https://youtu.be/v8gH404a3Gg>

OK, if that's not all that impressive?

- Here are the jaw-dropping events:
 - When there are mutations/errors
 - DNA REPAIRS ITSELF
 - Explanation <https://youtu.be/vP8-5Bhd2ag?t=7>
 - Animation (18 sec to 1:35)
https://youtu.be/2yI_SoOWFMU?t=15

What is “evolution” today?

- Boil that down
 - DNA mutates (yes it does - VERY complex)
 - Cells change their behavior (not in a good way!)
 - Over billions of years, get more functional
 - Higher function is passed on genetically
 - Higher functioning cells give natural selection
 - LET’S LOOK DEEPER/SMALLER

DNA Repair System

- DNA
 - 256-Bit Operating System at about 7 - 8 Terabytes
- The REPAIR systems (RAD5HELICASE)
 - 256-bit memory of desired DNA
 - Compares the 256-bit strand by 256-bit potential errors
 - Selects the correction needed
 - Orders the materials needed from around the cell
 - Coordinates the repair itself
 - Min 1024-bit estimated 4096-bit Operating system 15-17 terabytes of data

DNA Repair System

- Most important microbiological discovery in the history of the world! RAD5HELICASE
- Listen to the amazement!
 - Cell division
https://youtu.be/X_tYrnv_o6A?t=189 (animation)

 - <https://www.youtube.com/shorts/JTLi-HdUFEA>
(picture)
- How could that “just happen”?

Questions/Comments to this point?

Immune system

- Distributed decentralized storage and control
<https://youtu.be/qkIfYwnaYqc?t=683>
- Communicates all throughout the body; B cells are the factories
- It has killers
 - Neutrophils
 - Designer killers (Cytotoxic, Memory, Helper, Regulating T cells, etc.)
- Cytotoxic T cells (the bulldozers)
 - Tenacious! <https://youtu.be/ntk8XsxVDi0?t=3>

And so what?

- Once in a while, the immune system can't kill it
- We've all heard them hint at it, earlier
 - NOT CALLED "EVOLUTION"
IT IS CANCER
- Explain the definition of cancer
 - Mutated DNA that:
 - Is NOT repaired by the RAD5HELICASE
 - Evades the immune system
 - Grows into blobs
- "Cancer is a disease of clonal evolution within the body."
- "Cancer cells are the result of the evolutionary process."
- The word is getting out!

What is “evolution” today?

- Boil that down
 - DNA mutates (yes it does!)
 - Highly complex repair and troubleshooting!
 - Cells change their behavior (yes they do!)
 - Degrade function
 - Immune system kills them
 - CANCER FIGHT

Just a Confirmation

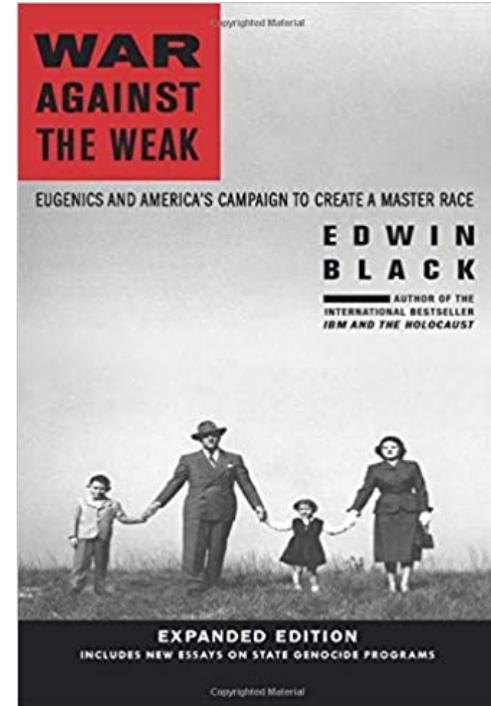
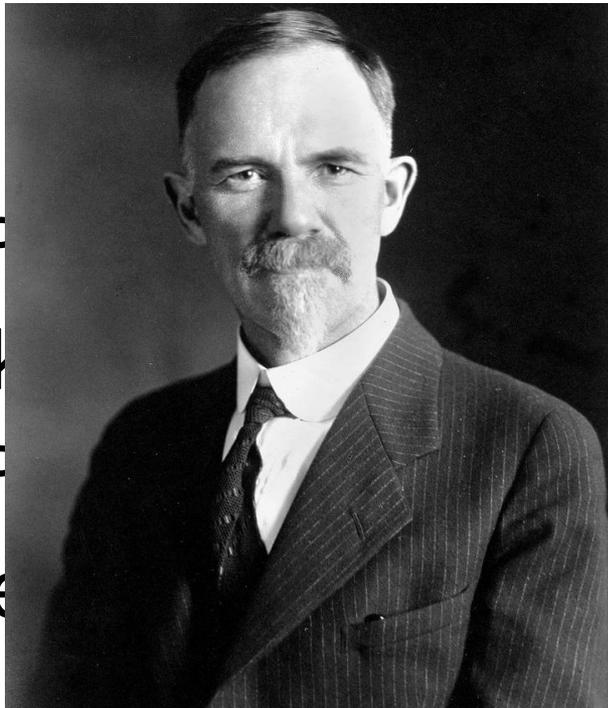
- Google search
 - Evolution and cancer (41 pages of results)
 - Cancer and evolution (24 pages of results)
- Academic databases
- EBSCO
- AMA (restricted to only medical people)
- Internationally
 - Baidu (China), Yandex (Russia), Naver (South Korea)
- Books and books

New Cancer Research

- Try to stop the cells that are misbehaving
chemo/radiation/gene therapy
 - Stop DNA transfer/replication/kill fast growing cells/target certain cells/block migration, etc.
- Ensure the RAD5HELICASE is powerful in the cell
- Ensure the immune system is ramped up to detect and kill these cells

Why isn't there a retraction?

- Academia doesn't do that
 - Eugenics 1920 Cold Spring Harbor
 - Davenport took it to the State Department
 - Kaiser Wilhelm Institute for Anthropology



Snark and Barks



OR



God IS science!

“Intelligent Design” Snark and Barks

- “But over millions and millions of years ... !”
 - DNA regression has us no older than 120,000 years
 - We are getting less intelligent over time
 - More cancer over time
 - More immune system malfunctions
- “Eve” and “Adam” was “found” in 1991
- “Yeah, cancer is cells that just divide uncontrollably when they should stop”
 - That’s the beginning of the scientific method!
OBSERVATION! WHY?
 - (<https://pmc.ncbi.nlm.nih.gov/articles/PMC10618731/>)

More Snark and Barks

- We have dinosaurs!
 - I need jet fuel
- What about the Galapagos islands?
 - Hungry short neck turtles leave
- Looking for another source of our DNA
- WE REALLY DON'T KNOW

How can we answer them?

- 256-bit DNA operating system 7-8 terabytes that mutates ... then
 - REPAIRS Min 1024 bit up to 4096-Bit Digital Operating System the DNA 15-16 terabytes
 - Why would the DNA try to repair itself if mutations are good? When that fails ...
- Your immune system kills it
 - Why would the immune system try to kill a higher functioning cell? When that fails ...
- You get CANCER
- The smaller we go, the more complex it is
- Pure Science?

DISCUSSION, PLEASE

Gene Manipulation?

Designer babies?

RAD5HELICASE to do?

Immune System to do?

Not a part of OSLC curriculum

If you want me to guest speak

603-393-1963

BACKUPS

What are they doing now?

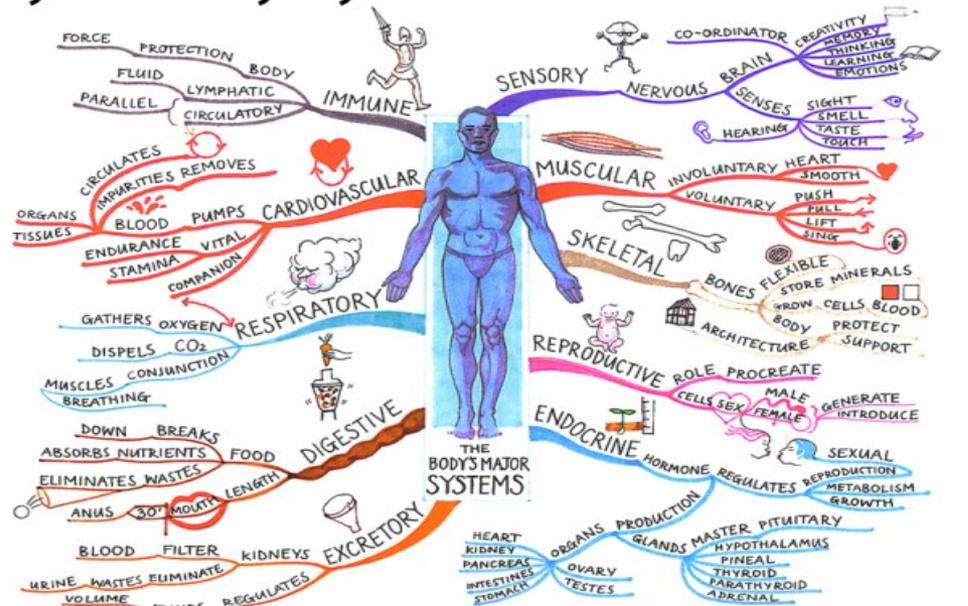
- Looking for another source of our DNA
- Suppress of
DNA self repair and immune system
- DNA regression evidence:
 - Six continents
 - ADAM and EVE
 - Time regression
- Trying to silence the cancer guys

Next Time

Why Evolution is Dead: Part 2

- Part 2: Human body systems

Study of Body Systems



Science itself screams “designed”

- $F=MA$
- $V=IR$
- $D=VT$
- $V=AT$
- $E=MC^2$
- $F=G_1G_2C/R^2$