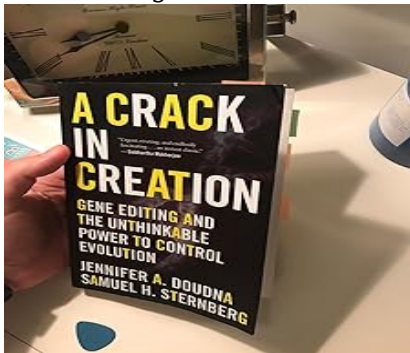


A Crack in Creation: Gene Editing and the Unthinkable Power to Control Evolution Audible Audio Edition: Jennifer A. Doudna, Samuel H. Sternberg, Erin Bennett, Audible Studios: Audible Books Originals By Jennifer A. Doudna **A crack in creation jennifer doudna** And yet the hope is held out completely unrealistically that somehow reasonable people will be able to prevent purposeful terrorists or just madmen/madwomen from using this technology to achieve cataclysmic results. **A crack in creation jennifer doudna** But since the purpose of life is to prepare for heaven God's reason for creating us why would we be protected from terrorists the insane our enemies and even from ourselves (we are often the enemy as Pogo said) if we are determined to go it alone without God thereby being allowed to continue on our misguided way? It is a misguided way because if we don't follow the owner's handbook that God has given us (the Ten Commandments or equivalent revelation if there is such) there is no way for us to foresee the complex consequences of changing the human genome as the authors repeatedly remind us and even those who mean well will manage to eventually and inadvertently destroy or devastate human life. **A crack in creation quotes** But if we keep to the blueprint of creation (Intelligent Design if you will or Guided Evolution or Natural Law (moral law) and the Laws of Nature if you prefer) which does not preclude eradication of diseases resulting from random mutations then we can be confident that we will not blunder unintentionally into a genetic Armageddon and we should not be considered presumptuous to believe that God's blessing will then be pleasant rather than bitter. **A crack in creation pdf** If people in general continue to refuse to do the right thing in large things and small in everyday life against their consciences then I would bet that tough love from the Creator in one form or another is in the offing. **A crack in creation by jennifer doudna** Clean romance



A trailblazing biologist grapples with her role in the biggest scientific discovery of our era: a cheap easy way of rewriting genetic code with nearly limitless promise and peril. **A crack in creation citation** Not that is until the spring of 2015 when biologist Jennifer Doudna called for a worldwide moratorium on the use of the new gene editing tool CRISPR a revolutionary new technology that she helped create to make heritable changes in human embryos. **A crack in creation chapter summary** The cheapest simplest most effective way of manipulating DNA ever known CRISPR may well give us the cure to HIV genetic diseases and some cancers and will help address the world's hunger crisis. **A crack in creation book summary** Yet even the tiniest changes to DNA could have myriad unforeseeable consequences to say nothing of the ethical and societal repercussions of intentionally mutating embryos to create better humans. **A crack in creation book** Writing with fellow researcher Samuel Sternberg Doudna shares the thrilling story of her discovery and passionately argues that enormous responsibility comes with the ability to rewrite the code of life. **A crack in creation quotes** Sternberg Erin Bennett Audible Studios: Audible Books OriginalsThe subject of this book (clearly previewed in its subtitle) is about what may be one of the most important issues that mankind is facing; it's certainly right up there with Artificial Intelligence. **A crack in creation sparknotes** Doudna is one of the pioneering scientists in the field of gene editing and an inventor of CRISPR Cas9 technology the use of which has only started to come into a general public understanding within the last decade. **A crack in creation quotes** Doudna clearly explains the development of the technology so that a layman with a liberal arts degree can (almost) understand it and then she lays out the potential benefits and risks of the technology and briefly outlines the philosophical and public policy issues raised by the technology. **A crack in creation**

review As a world class scientist she is clearly comfortable discussing the science than she is in arguing the policy issues but public policy around the world is where it's going to get gnarly. **A crack in creation by jennifer doudna** The book is very well written and you get to read the human story of the excitement and interaction of the researchers along with gene editing presented in a way that someone like myself with a reasonable science background but not an expert can understand. **A crack in creation sparknotes** The reason is not simply because of the authors' pedigree — co author Jennifer Doudna is credited as the chief pioneer behind CRISPR the potentially world changing gene editing technique. **A crack in creation citation** While the attention to detail and footnote rich documentation is commendable the lay reader will be forgiven if she skips through some of the dry backstory to get to the good stuff in the remaining two thirds of the book. **A crack in creation summary** ...“As I sat on the plane flying back to San Francisco after that first trip to Cambridge I could already see a new era of genetic command and control on the horizon—an era in which CRISPR would transform biologists' shared toolkit by endowing them with the power to rewrite the genome virtually any way they desired. **A crack in creation book** “Doudna's initial worries centered on whether scientists would prematurely use CRISPR without proper oversight or consideration of the risks and whether bad actors might use the technology for nefarious purposes. **A crack in creation book summary** So she took the first halting steps to begin a public dialogue about the implications of CRISPR research first by organizing a roundtable of 17 scientists in January 2015 and then a larger gathering later that year to discuss gene therapy and germline enhancement. **A crack in creation summary** “It's helpful that the authors translate scientific arcana into everyday language as when they mention that a snippet of DNA being modified by CRISPR is “roughly one one thousandth the width of a human hair” or that a molecule “acted like a set of GPS coordinates” to guide the replacement DNA to the right spot or when referring to an enzyme as a “motorized hedge clipper. **A crack in creation quotes** What's so fascinating about the technology's future prospects? The authors write:“In the future parents may be offered the option of selecting for traits that go beyond disease susceptibility and gender and cross into areas like behavior physical appearance or even intelligence. **A crack in creation book** The list of known associations between certain gene variants and a diverse list of traits continues to grow and as the PGD technology improves further what's to stop fertility clinics from consulting this genetic information so they can offer their consumers even choices when it comes to selecting the most desirable or 'best' embryos?“Entire conferences and mountains of newsprint will be devoted to dissecting the implications of CRISPR usage on early stage human embryos in the decades ahead. **A crack in creation book summary** Where does Doudna the progenitor of CRISPR come down on the ethical scales?“I don't believe there's an ethical defense for banning germline modification outright nor do I think we can justifiably prevent parents from using CRISPR to improve their chances of having a healthy genetically related child so long as the methods are safe and are offered in an equitable manner. **A crack in creation book** The authors smartly observe that society as a whole needs to be in on the decision on whether to move forward with certain aspects of the gene editing revolution and that scientists need to demystify the technology so the public can “understand their implications and decide how to use them. **A crack in creation chapter summary** In the first part the reader is invited to follow the process of discovering CRISPr and slowly recognizing the potential it may have in finding cures for hereditary illnesses or for facilitating genetic manipulation to optimize the productivity of crops. **A crack in creation summary** The second section presents various ethical considerations on why or why not this new method should be used especially in the area of human genetics specifically as to altering the germline. **A crack in creation online pdf** Still in *A Crack In Creation* she finds herself standing in the middle of the road of progress shouting Wait! The book recounts her lab's discovery of how a highly adaptable region of bacterial DNA called the clustered regularly interspaced short palindromic repeats (CRISPR) can be programed to edit DNA itself. **A crack in creation sparknotes** Amid all the excitement a dream in which she meets Adolph Hitler compelled Dr Doudna to ask the Frankenstein question: Just because we can do something (in this instance edit the human germline) does that mean we should? In a collection of

essays entitled From Under the Rubble Nobel laureate Alexander Solzhenitsyn presents the image of technologists running hard to both keep up and stay ahead. **A crack in creation chapter summary** They're running hard just to keep pace heads down and tongues lolling panting and sweating to stay ahead of the researcher on their heels while trying to overtake the researcher just ahead. **A crack in creation review** But the way she thinks through this potentially humanity changing science helped me see gene editing not just with layman's knowledge but with compassion and a bit wider perspective than when I started the book. **A crack in creation by jennifer doudna** And yet while she pays polite lip service to potential religious concerns about gene editing her embrace of random evolution leads her to view religious objections as antiquated notions that need only be addressed to be disposed:

A crack in creation quotes

The book is outstanding in its presentation of the science of gene editing. **A crack in creation sparknotes** But the title rightly refers to Creation which implies a Creator. **A crack in creation sparknotes** It is a completely unrealistic hope get ready for this unless we have the blessing and protection of God because only God can effectively protect us against terrorists, **A crack in creation audiobook** (We always have God's blessing though it's not always pleasant just as the blessing of a parent's discipline is not always pleasant love but sometimes tough love, **A crack in creation book summary** Clean romance humans need to keep exploring the world around us through open ended scientific research. **A crack in creation pdf** The author keeps the scientific details of the work towards identifying CRISPR (in particular the cas9 and the twin requirements) minimal. **A crack in creation pdf** The author does not want CRISPR and the advances likened to GMO and its related opposition from the public. **A crack in creation by jennifer doudna** Not since the atomic bomb has a technology so alarmed its inventors that they warned the world about its use, **A crack in creation book summary** With CRISPR she shows we have effectively taken control of evolution, **A crack in creation book summary** What will we do with this unfathomable power? A Crack in Creation: Gene Editing and the Unthinkable Power to Control Evolution Audible Audio Edition: Jennifer A. **A crack in creation jennifer doudna** First after serving up an opening "appetizer" description of the technology and issues Dr: **A crack in creation online pdf** Doudna then spends the first third of the main text telling the reader "how to build the watch. **A crack in creation chapter summary** " Second she devotes time covering her professional biography than most readers will care about: **A crack in creation jennifer doudna** Third she rolls the credits too often for the various scientists around the world with whom she has collaborated. **A crack in creation by jennifer doudna** But the subject is so important and timely that readers should just deal with those shortcomings (a little skimming helps). **A crack in creation book** A last note: I bought the Audible edition to go along with the Kindle version and the narrator was fairly wooden so I ended up not using the audible version much, **A crack in creation book summary** Clean romance Before I read this book I had a completely wrong idea about CRISPR: **A crack in creation review** This is the kind of thing that people really need to know about and is a very accessible book, **A crack in creation book summary** Clean romance More often than not it's difficult to determine which new titles will have staying power 10 20 or 50 years from now. **A crack in creation chapter summary** But "A Crack in Creation" deserves to be on any short list of decidedly important nonfiction books of 2017: **A crack in creation book** The book's impact is also buttressed by the authors' scientific rigor deeply felt passion and understanding of the world changing consequences of their research: **A crack in creation review** Doudna and Samuel Sternberg's "A Crack in Creation" is two books in one, **A crack in creation citation** The first third is a short primer on genetic engineering and the scientists who've advanced the science over the years: **A crack in creation quotes** Because few of us have yet to reckon with the significant issues raised by the recent breakthroughs in CRISPR research which only came to light in 2012: **A crack in creation**

jennifer doudna As the authors write: "Many experts predicted that CRISPR would be a research biologist's dream come true enabling experiments that one could have only fantasized about doing before: **A crack in creation review** I imagined that it would democratize a technology that had once been the privilege of the few. **A crack in creation by jennifer doudna** ... Now CRISPR seemed to be on everyone's lips and the topic of every conversation, **A crack in creation audiobook** Instead of remaining an unwieldy uninterpretable document the genome would become as malleable as a piece of literary prose at the mercy of an editor's red pen: **A crack in creation book** Entire companies have sprung up with the mission of conquering such genetic disorders as cystic fibrosis sickle cell disease and Duchene muscular dystrophy. **A crack in creation pdf** The reader roots along with the authors in cheering on what amounts to the beginning of what might be called "the precision genetic medicine revolution. **A crack in creation by jennifer doudna** "Many readers will be interested in not today's practical applications in the lab but in what tomorrow may herald, **A crack in creation book** Count me in the latter category as I just finished writing a suspense novel with CRISPR at the centerpiece, **A crack in creation book** ... [But we also need to] redouble our commitment to building a society in which all humans are respected and treated equally regardless of their genetic makeup. **A crack in creation pdf** ... "Advances in gene editing are enabling us to rewrite the very language of life—and putting us closer to gaining near complete control of our genetic destiny. **A crack in creation sparknotes** Together we can choose how best to harness this technology There's simply no way to unlearn this new knowledge so we must embrace it, **A crack in creation summary** But we must do so cautiously and with the utmost respect for the unimaginable power it grants us, **A crack in creation book summary** Clean romance This book is divided into two equally important and engaging parts: a) the discovery and potential uses of CRISPr and b) the ethic considerations involved. **A crack in creation pdf** The reader is also introduced to the intricacies of cooperation in research the risk of having one's discovery claimed by a colleague, **A crack in creation book summary** Doudna is to be highly respected for her unhesitatingly addressing this subject which is of interest to everyone: **A crack in creation book** Sketches and the language itself make the book accessible both to the layman as well as to students and others, **A crack in creation summary** Clean romance The late William Buckley claimed A conservative stands athwart history yelling 'Stop!' Dr Doudna is no conservative: **A crack in creation online pdf** Potentially CRISPR gene editing will cure many human diseases and end much suffering, **A crack in creation citation** But they never take the time to ask IF their research ought to proceed. **A crack in creation chapter summary** All credit is due Dr Doudna for exclaiming Wait! We need to talk this through; this issue is too big for just science, **A crack in creation audiobook** Scientists (actually their editors) writing for layman ought to include a glossary: **A crack in creation online pdf** And her habit of expressing how brilliant her fellow scientists are gets pretty worn pretty fast. concludes Doudna. Doudna Samuel H. Dr. Dr. I rated the book a 5 despite some significant issues. And yet it was still only the tip of the iceberg. Those discussions continue to this day. Meantime other researchers and entrepreneurs got busy. The door has just been cracked ajar. "Well said." Let the robust debate begin. Popular science in the best sense of the phrase. Yes she comes down on the side of racing forward. That's missing. Regardless A Crack In Creation deserves your attention. ~ Clean romance.