

1: HIV vaccine - Wikipedia

Flu vaccine. 2 months ago. Parents are being warned against underestimating the dangers of influenza in children as the state prepares for the traditional late-August seasonal peak of flu infections.

Gubb When President Jimmy Carter publicly disclosed his cancer diagnosis in August, he also brought up some unfinished business. The former president was referring to a parasitic worm that grows inside the human body for up to a year until it finally emerges through a painful blister. Women and girls typically carry water in containers balanced atop their heads. That changed in when President Carter took a trip to a small village in Ghana. Among the many villagers afflicted with Guinea worm, he saw a lovely young woman holding a baby in her arms and went over to coo at the child. Upon closer look, he realized she was holding not a baby but her swollen, painful breast, from which a long, thin white worm was emerging. He decided then to make the eradication of Guinea worm disease a mission of The Carter Center. This mission is nearly accomplished. When President Carter took up the fight, there were an estimated 3. More cases could certainly emerge in the coming year. And when it does, it will be the first parasitic disease, and perhaps the second human disease in history, to be eradicated. The Carter Center was striving for perfection so that no one would have to suffer from this disease again. Soon Guinea worm disease will pass from being a plague that returned to villages year after year for centuries to being a tale passed from generation to generation. The only toolâ€”convincing deeply traditional people in remote regions of the world to change the way they have collected and consumed water for generations. Once inside the stomach, the copepod breaks down and releases the larvae, which mature and roam inside the abdomen until they find a mate. The male dies and the female continues to growâ€”reaching lengths of two to three feet. Nine to 12 months later, the worm finally emerges through an excruciating, burning blister. Immersing the wound in water soothes the burn and also causes the worm to release hundreds of thousands of larvae. The cycle begins anew. The treatment is the same as it has been for thousands of years. The worm must be pulled gently from the wound, centimeter by centimeter, and wound around a twig or piece of gauze. The process is agonizingly slow, requiring anywhere from a few days to a month or more to tug the worm free. Breaking an emerging worm will cause it to pull back into the body, where it will die, calcify, and possibly cause deformities or crippling. Compounding their toll, worms typically emerge during the agricultural season in sub-Saharan Africa. That means the fortunes of a struggling family can be decimated by a white worm the width of a spaghetti noodle. It devastated the entire village. Those days are gone, thanks to the low-tech, boots-on-the-ground efforts led by Carter Center professionals, many of them Rollins alumni. Living in a large canvas tent on a spot of land donated by a local chief, Peterson recruited and oversaw a staff of more than 30 local field officers and at least village volunteers. From her rudimentary hub with a hand-dug latrine, Peterson would trek via truck, motorbike, and foot to ever more remote villages. At each stop, she and her field officer used stories, skits, and songs to educate the residents about Guinea worm disease, how it spreads, and how to prevent it by using simple cloth water filters. They searched out any locals who showed signs of an imminent worm or an emergent one, and then tried to convince them to go to a containment center or, at the very least, to stay out of the local water source. If they were too late to prevent contamination, they would treat the water source with a larvicide. The first defense against contracting the disease is filtering the water. Callahan and other Carter Center colleagues fashioned and distributed filters to attach to the top of water barrels. Then the women who collected the water and carried it in containers balanced atop their heads could pour it directly into the barrels, filtering out the larvae-infected copepods. In areas where household filters were not feasible because residents had either been displaced by civil conflict or were nomadic, The Carter Center borrowed the idea for a portable straw filter from nomads in West Africa. During her time in South Sudan, Callahan was part of an effort that employed more than 1, Sudanese refugees in Kenya to assemble more than 9 million personal pipe filters and distribute them all within a six-month period. Convincing people to use the filters presented its own set of challenges. Some tribesmen in endemic areas held deep-rooted myths about the disease that were hard to dislodge. Over time, we can win some people over. Though primitive by Western standards, the centers offer the promise of faster, more sanitary worm

extractions, along with three meals a day and safe water and sanitation facilities. We try to make a compelling case for them to come to a center. Areas within these countries are periodically inaccessible due to conflict and heavy rains during peak transmission season. And in a troubling development in Chad, dogs have begun to be infected with Guinea worm. Eradication workers in the area suspect the dogs are eating infected fish entrails, which are typically strewn on the ground during the annual fish harvest. They have begun a program to bury the entrails and offer rewards to tether infected dogs to trees. Last year in South Sudan alone, eradication workers monitored more than 7, people who exhibited symptoms consistent with Guinea worm—swelling, itching, or blisters. Of those, five actually had Guinea worm. Keeping attention focused on the issue is another challenge. We are not going to give up. Untold millions of people will be spared the misery of a painful disease, lifting their fortunes along with their health. But when you eliminate it from a region, you can see people go from starvation and hardship to thriving in a very short period of time. The most powerful legacy, however, will be hope. Hopkins, special adviser for the Guinea worm eradication program at The Carter Center. President Carter comforts a young girl as a Guinea worm is pulled from her leg, above. President Carter answers questions about Guinea worm.

2: Getting to zero | Public Health Magazine | Emory University

Thanks to vaccines, diseases that used to be common in our countries and around the world, including measles, polio, diphtheria, whooping cough, mumps and tetanus, can now be easily prevented.

For the treatment of HIV-infected individuals, Highly Active Antiretroviral Therapy HAART medication has been demonstrated to provide many benefits to HIV-infected individuals, including improved health, increased lifespan, control of viremia, and prevention of transmission to babies and partners. Options for the prevention of HIV infection in HIV-uninfected individuals include safer sex for example abstinence, partner reduction and condom use, antiretroviral strategies pre-exposure prophylaxis [4] and post-exposure prophylaxis and medical male circumcision. However, HIV-1 remains a challenging target for a vaccine. Many factors make the development of an HIV vaccine different to other classic vaccines: Most effective vaccines are whole-killed or live-attenuated organisms; killed HIV-1 does not retain antigenicity and the use of a live retrovirus vaccine raises safety issues. HIV structure[edit] The epitopes of the viral envelope are more variable than those of many other viruses. Furthermore, the functionally important epitopes of the gp protein are masked by glycosylation, trimerisation and receptor-induced conformational changes making it difficult to block with neutralizing antibodies. The ineffectiveness of previously developed vaccines primarily stems from two related factors: First, HIV is highly mutable. Second, HIV isolates are themselves highly variable. HIV can be categorized into multiple subtypes with a high degree of genetic divergence. Therefore, the immune responses raised by any vaccine need to be broad enough to account for this variability. Any vaccine that lacks this breadth is unlikely to be effective. The difficulties in stimulating a reliable antibody response has led to the attempts to develop a vaccine that stimulates a response by cytotoxic T-lymphocytes. However, the well-proven route of trying to induce neutralizing antibodies by vaccination has stalled because of the great difficulty in stimulating antibodies that neutralise heterologous primary HIV isolates. The animal model can be extremely useful but at times controversial. Typically, virus replication and dissemination occurs within days after infection, whereas vaccine-induced T cell activation and recruitment to sites of viral replication takes weeks. Researchers hypothesized that vaccines designed to maintain activated effector memory T cells might impair viral replication at its earliest stage. Mammalian derived envelope preparations have been better inducers of neutralizing antibody than candidates produced in yeast and bacteria. Although the vaccination process involved many repeated " booster " injections, it was very difficult to induce and maintain the high anti-gp antibody titers necessary to have any hope of neutralizing an HIV exposure. The availability of several recombinant canarypox vectors has provided interesting results that may prove to be generalizable to other viral vectors. CTLs from volunteers were able to kill peripheral blood mononuclear cells infected with primary isolates of HIV, suggesting that induced CTLs could have biological significance. In addition, cells from at least some volunteers were able to kill cells infected with HIV from other clades, though the pattern of recognition was not uniform among volunteers. The first phase I trial of the candidate vaccine in Africa was launched early in with Ugandan volunteers. In , a Phase I trial called HVTN , chaired by two South African researchers Linda-Gail Bekker and Fatima Laher, tested the combination of a canarypox vector and a gp protein adapted for the subtype C HIV virus common in sub-Saharan Africa, and initial results showed that those who received the vaccine regimen produced strong immune responses early on. Specifically, candidate vaccines that induce one or more of the following are being sought: HIV used in the vaccine was chemically and physically deadened through radiation. The trial, conducted in Canada in , demonstrated a good safety profile and elicited antibodies to HIV In previous smaller trials, this vaccine was found to be safe, because of the lack of adverse effects on the participants. The vaccine showed induced cellular immune responses against HIV in more than half of volunteers. Subtype B is the most prevalent HIV subtype in the regions of the study sites. Adenoviruses are among the main causes of upper respiratory tract ailments such as the common cold. Because the vaccine contains only three HIV genes housed in a weakened adenovirus, study participants cannot become infected with HIV or get a respiratory infection from the vaccine. It was announced in September that the trial for V would be stopped after it determined that vaccination with V appeared

associated with an increased risk of HIV infection in some recipients. Adenovirus vectors and many other viral vectors currently used in HIV vaccines, will induce a rapid memory immune response against the vector. This results in an impediment to the development of a T cell response against the inserted antigen HIV antigens [24] The results of the trial prompted the reexamination of vaccine development strategies. Monoclonal antibodies mAbs are a passive vaccination strategy. HIV and the aluminum phosphate-adjuvanted Clade C gp vaccines which are designed to prevent infection of all HIV subtypes around the world. The study involved 16, participants who did not have HIV infection, of whom were given treatment consisting of two experimental vaccines targeting HIV types B and E that are prevalent in Thailand, while were given a placebo. The participants were tested for HIV every six months for three years. Viruses collected from vaccinated participants had mutations in the V2 region. Tests of a vaccine for SIV in monkeys found greater resistance to SIV in animals producing antibodies against this region. Therefore, further research is expected to focus on creating vaccines designed to provoke an IgG reaction against the V2 loop.

3: Vaccine Victims™ Injury Compensation System Flawed

Human Vaccines Project/NYAS Workshop - Ethical and Regulatory Issues Symposium Resources: ACIP in the Health Care Era ACIP Symposium Slides + (password protected).

Bellman is a board certified internist and currently an associate attending in the Department of Medicine at St. He is a graduate of the New York University School of Medicine and has been involved in the clinical care of HIV-positive people since the epidemic began. Bellman actively participates in clinical research as well as the clinical practice of HIV medicine. The contents of this essay should not be construed as specific medical advice regarding the treatment or prevention of HIV. If questions arise regarding treatment or prevention based on this essay, please consult your physician. This essay is also not intended to suggest that carefully considered current safe-sex guidelines regarding HIV prevention such as those available from the Centers for Disease Control and Prevention CDC website should be ignored or changed as a result of some of the research on HIV transmission reported on here. Please follow current safe-sex guidelines carefully until, and if, revisions to those guidelines are made. In his speech, Obama claimed that the very act of electing the first African-American president was itself an indicator of change. As the number of people living with HIV globally tops 30 million and as we discovered this year that the HIV infection rate in the United States is 40 percent higher than previously estimated, it is clear that our approaches to preventing HIV are not working optimally. It is my belief that the key to stopping AIDS lies in the destigmatization of people living with HIV—and a key to that lies in illuminating the fact that people on treatment are less infectious than is generally understood. There has been new progress in medical treatment for HIV-positive people. The goals shared by doctors and people living with HIV—for HIV-positive people to have a normal life span and a great quality of life—are increasingly possible. Recently FDA-approved medications are proving to be highly effective in treating what were previously very difficult to treat drug resistant HIV-positive patients. This development is one of the most important and helpful in HIV treatment since antiretroviral ARV therapy was first introduced 20 years ago. It means physicians can now treat almost every HIV-positive person who needs medical care. In , we experienced the first major breakthrough in treatment: However, over the years since, a significant number of patients developed drug resistance to their initial HAART cocktails or certain combinations of medications. To address this, new ARV medications were developed. However these new meds were often reformulations within existing classes of drugs and they were too few and too ineffective against drug-resistant virus to help some patients. As a result, we have needed either more potent drugs with different mechanisms of interference with viral replication or drugs that remain effective even when some degree of drug resistance has been developed to other drugs in that class. Fortunately, today, both types of new drugs are available and the results are extraordinary. Even the most difficult-to-treat, multi-drug-resistant patients in my practice are responding to drug cocktails utilizing these new medications. The way some of my sickest patients are rebounding to health reminds me of the days when the lifesaving powers of HAART first became available. It appears that effective treatment that reduces the viral load of HIV positive patients to undetectable levels for more than six months and if no other sexually transmitted infections are present severely limits the chance that HIV might be transmitted through sex from an HIV-positive person to an HIV-negative one. If this finding is correct, then its proper incorporation into HIV prevention strategies could have an enormous impact in reducing the incidence of new HIV infections. He led an investigation about new HIV infections and the conditions under which they occur. Hirschel found that no new infections were observed in the HIV-negative partners of HIV-positive people when the HIV-positive partner was on effective treatment as measured by an undetectable viral load. According to Hirschel, effective treatment of HIV-positive people—and not whether or not they practiced safe sex—was the most reliable means of stopping HIV transmission. Hirschel advised that his finding applies only to monogamous, sero-discordant couples in which the positive partner has been on fully effective treatment for six months as defined by an undetectable viral load. Hirschel urges that strict safe-sex precautions be followed in all other situations. He also acknowledges that his assertion is based exclusively on studies of heterosexual couples and that further

study is required to determine whether the same outcomes would be seen in gay couples. Prevention strategies based on the notion of effectively treating HIV-positive people to the point that they are noninfectious or at least minimally infectious would, of course, have to stress compliance and monogamy. Still, while perhaps the majority of people might not meet the criteria necessary for being able to forgo safe sex in a serodiscordant heterosexual relationship, I believe it would help people understand the necessity for strict safe-sex precautions in the many situations in which the conditions for non-infectiousness or extremely low infectiousness can not be met. And I believe most people would more cheerfully and consciously be more adherent to their medications if they understood the potential for treatment to bring about a state of sexual non-infectiousness. People would need to know their HIV status and be comfortable communicating it to potential sexual partners before having sex. It also requires that public health authorities further evaluate and if appropriate endorse changes in current safe-sex recommendations and then carefully educate the HIV-positive and HIV-negative public about those changes. These guidelines should be strictly followed. The very possibility that HIV-positive people may not be infectious sexually or otherwise could itself be the foundation to remove the enormous burden of shame, guilt and stigma that HIV-positive people suffer daily. A comprehensive public health education campaign should be launched to destigmatize HIV-positive people and the disease itself. Historically, HIV prevention efforts have been based on safe-sex or abstinence-only messages. This approach has led at best to a stabilization of the HIV infection rate but it has not succeeded in reducing the number of new infections even though HIV is preventable. Interestingly, the rate of new HIV infection is climbing most dramatically in communities in which stigma, prejudice and marginalization are particularly intense. It is well known that fear and loathing around HIV in America are barriers that interfere with HIV testing and appropriate medical care and, as a result, drive new infections. Stigma also increases the likelihood that proper HIV care will be delayed until serious medical complications force people into care—sometimes tragically too late. Imagine if more people at risk for HIV were comfortable getting tested and had access to testing centers and follow-up care? The majority of new cases of HIV are the result of the virus being transmitted from one person to another with neither partner knowing that one partner is HIV positive. Imagine how encouraging it would be for the countless number of people too frightened to be tested or treated to learn how effective HIV treatment has become—and, most important, that the treatment not only saves lives but also dramatically reduces the risk of HIV transmission. Imagine for a moment the way the HIV community could be healed if it were widely known by everyone—positive or negative—that having the virus does not intrinsically mean that one can sexually transmit HIV. The CDC underscores its recommendations that all sexually active people with HIV use condoms consistently and correctly with all sex partners. They believe that the more HIV-positive people who are effectively treated within a community, the less likely it is for new HIV transmissions to occur. Its more generalized success in other communities and other countries depends upon effectively treating the greatest proportion of HIV-positive people possible. Many patients with high CD4 cell counts remain healthy for years—sometimes even for decades—without treatment. I believe as we continue to learn more about drug toxicity and how to prevent it and manage it when it occurs, our insight will allow us to explore earlier treatment for more HIV-positive people. Some of the new drugs that are helping overcome the problem of drug resistance appear in clinical practice to be less toxic and better tolerated than older drugs. Drug toxicity is not the only factor that can reduce the number of people on treatment. Poverty, discrimination, lack of resources and inefficient use of health care resources can and do limit our ability to best treat our patients. In addition, as I mentioned before, so does an atmosphere of blame, shame and fear. I strongly believe that we will see a change in the way people view those living with HIV once the general public understands that HIV-positive people are not intrinsically infectious and that almost every HIV-positive person can be treated effectively and thus be noninfectious or at least minimally infectious. Historically, HIV-positive men and women have been marginalized, stigmatized and even actively discriminated against in society. People living with HIV have experienced misery, social isolation, fear, blame and shame. I believe that by reviewing and understanding how such outdated and wrong ideas arose historically we can help put them where they belong—in the past. It was just a short step from that view to the idea that gay men were to blame for the disease itself. In addition,

even when the specific cause of GRID was identified and the modes of transmission better understood, the fears of the American public were constantly stoked, leading many to worry that homosexual men would ignite an epidemic of heterosexual AIDS. Around that time it was realized that GRID did not only occur in gay men. In fact, it was next given a new name or at least a new acronym in the medical profession. The scarlet letter was an H. The general public was afraid of people who could be identified as belonging to one of these H groups who were marginalized and discriminated against even before the AIDS epidemic. In the HIV virus was identified and the means of transmission was more clearly defined as being sexually transmitted or transmitted by blood contact by a transfusion or a shared needle. Regular people were relieved somewhat but were still terrified of associating with HIV-positive people or even people who could be identified as a member of one of the at risk H groups. Today in America an increasing number of new HIV infections are occurring in another at risk group: It is time to correct broadly held misconceptions. For example, the Harris survey also revealed that the majority 86 percent of the American public believes that HIV-positive women should not have children. In fact HIV-positive women who receive medical care are quite capable of giving birth to healthy children, and they can expect to be capable and healthy mothers who can expect to live to be grandmothers. The public must also understand, however, that some HIV-positive people do have AIDS and that they require ongoing public support and services. The significant advances we are seeing for people living with HIV should and must continue to translate into better understanding about what it means to be HIV-positive and into better lives for HIV-positive people. Progress should also enable HIV-positive men and women to more participate as fully empowered and respected participants in societyâ€™ in the workplace, in their families and in their love lives. Some people in society are still afraid of HIV-positive people, and it is no wonder that when HIV-positive people sense that fear they suffer devastating emotional and life consequences. Humans are very sensitive to how we are perceived by others and sometimes shut down all together when we sense moral judgment, criticism and fear. As an example, I have observed that some of my HIV-positive patients are afraid to tell family members about their HIV status to protect their loved ones from what they fear will be emotional suffering as a consequence of that disclosure. People have both a conscious and an unconscious mind. At times, we may seem to be consciously managing to be okay, but inside we may be hurting. It requires a lot of loving support at an individual as well as on community and cultural levels to heal this kind of hurt. From my vantage point as a physician who is privileged to care for and get to know many HIV-positive men and women, I have observed that a diagnosis of HIV is, for almost every one of my patients, a trauma to their individual psyches and a shock to their souls. It is a shock than can have after shocks, and the trauma caused by hearing you are HIV-positive can compound challenges and traumas that pre-date an HIV diagnosis. Obviously the impact of this trauma differs from person to person. I have found that the time at which a person was first diagnosed as HIV positive is connected to the impact of that news. HIV-positive people diagnosed before when HAART first became available are likely to be more impacted by the fear of illness and death than a person diagnosed more recently. Greater knowledge about current advances in HIV treatment also helps considerably. But even well-informed, newly diagnosed HIV-positive people with a prognosis for excellent health can be greatly impacted by the fear of getting sickâ€™ perhaps to a greater degree than they might be consciously aware of. When a lack of treatment options meant than a diagnosis of HIV often led to a premature death, even belonging to a high risk group for HIVâ€™ even in the absence of a test resultâ€™ was equally terrifying and traumatizing. Coping mechanism such as shutting down emotionally, chronic anxiety and alcohol and drug abuse arise in an attempt to escape its impact. It is highly traumatizing to believe as a consequence of being HIV positive one is at some level a threat to others and for others a danger to them. In fact HIV-positive people only place negative people at risk for HIV as a result of specific unsafe sexual practices or a sharing of drug paraphernalia. This most often occurs today as it did 20 years ago due to psychological distress and poor choices made in an atmosphere of fear, stigma and marginalization that inhibits the discussion and disclosure necessary for risk reduction. I believe what is most of all necessary to prevent new HIV infections is an atmosphere of concern, respect and inclusion that facilitates discussion, disclosure and importantly HIV testing that includes real education and fully informed consent. Recently a well-known writer on HIV and gay-related issues told me that one of my colleagues, a well-regarded and

excellent HIV doctor, told him that when he sees new HIV positive gay patients today he chastises them for not being more careful. If so, I disagree with his approach to the clinical counseling of a newly diagnosed HIV-positive person. My approach would be to be supportive and understanding. But the experience of my patients resonates with the general sentiment in our society as reported by the Harris survey cited earlier.

4: Two Guys and Guy - "Vanquishing The Darkness"

1 Center for Vaccine Development and Global Health, 3 Perinatal HIV Research Unit, The Challenge of Vanquishing HIV for the Next Generation"Facing the Future.

In this photo, Jeffrey McCord, who suffered from violent and unexplained seizures as a baby, demonstrates his guitar at home in St. A respected neurologist had drawn a connection that a dozen other doctors missed: The doctor explained that Jeffrey could apply for lifelong care paid for by the federal government. But 11 years would pass before the McCord family would receive its first check. And they are not alone in their frustration. A system intended to speed help to vaccine-injured Americans has instead heaped additional suffering on thousands of families, The Associated Press has found. That database was current as of January ; the government has refused to release an updated version since. The court offers a financial incentive to over-file -- unlike typical civil court cases, attorneys are paid whether or not they win, as was the case with more than 5, losing claims that vaccines caused the developmental disability autism. Those who double-bill for their time or consistently submit questionable expenses are not disciplined. Another doctor cribbed his material from an anti-vaccine website. Some of the most prominent experts set up nonprofits questioning vaccine safety, further fueling public skepticism. Meanwhile, many doctors hired by the government to defend vaccine safety in court have ties to the pharmaceutical industry. The court was created with relaxed standards of evidence and a burden of proof more easily met than civil lawsuits. Less than 7 percent of 7, claims not involving autism met the day target. Add in autism claims, which were postponed so the court could hear all of them at once, and just 4. Most non-autism cases take at least two and a half years, with the average case length more than three years, not including cases unresolved at the end of Hundreds have surpassed the decade mark. Several people died before getting any money. Caught in the middle are families that need help. Department of Justice attorney who handled vaccine injury claims but resigned after concluding his bosses had no desire to fix the major flaws he saw. And yet, by the mids, those gains seemed fragile. Pharmaceutical companies were facing a barrage of lawsuits from parents who believed the diphtheria-tetanus-pertussis shot had disabled their kids. Their profits imperiled, vaccine makers signaled they would leave the U. In response, Congress gave a break both to pharmaceutical companies and to those who received a vaccine to prevent one illness, yet suffered another. Vaccines are widely available, and profitable. Government doctors and lawyers review claims. That fund is replenished by a cent tax on each vaccine. If the government concludes the vaccination was not likely the cause, it contests the claim in a special vaccine court, based several blocks from the White House. Though much is in dispute regarding the vaccines and their side effects, the court remains obscure. But largely due to an influx of adult flu claims, the volume of new cases has increased, averaging more than annually in recent years. But the system has not worked as Congress envisioned. Many claims fall into a vast gray area: The science is clear on only nine of vaccine-injury combinations that a shot could -- or could not -- cause the illness. Amid this fundamental uncertainty, the kind of litigation the court was created to avoid is routine. A precautionary brain scan showed he was fine. Within 48 hours of his September vaccination, the seizures began. An MRI showed black lesions where there had been gray matter. His mother quit her job. His father worked out of their northern Virginia home. They ploughed tens of thousands of dollars into treatments, borrowing on credit cards. Not until an appointment with Dr. Court of Federal Claims. Shafrir did because he had testified for the government against vaccine claims. In , the family filed. Justice Department lawyers fought -- hard. Four months later, they abruptly took the case to trial. Though vaccine court is part of the federal judiciary, those who oversee cases are called "special masters," not judges. It took another three years before the family received a check, as the family and the government haggled over details of how to care for Jeffrey. As for Shafrir, the government never hired him to testify again. In the first 20 years of vaccine court, government doctors recommended compensation up front in 18 percent of non-autism cases. From through -- the most recent data the government would release under a Freedom of Information Act request -- they recommended compensation in just 5 percent of claims. Vaccine skeptics are a resilient and effective minority. Vaccination rates have dropped in some affluent, coastal cities -- but also across other regions, including areas

of the upper Midwest. One called it "part of the daily work context. On March 6, , the parents of 7-year-old Hannah Poling revealed that the government had agreed to compensate their claim. Geoffrey Evans told a commission that advises the program, referring to parents who might resist vaccinating if they conclude payouts mean shots are unsafe. In a January letter, autism attorney John R. Fabry recounted that Department of Justice attorney Vincent Matanoski told him federal doctors "would not want a settlement to be perceived as an admission that vaccines are dangerous, which could lead to a reduction in the vaccination rate. The court in December compensated two cases filed years earlier as autism claims. One case took six years to adjudicate; the other nearly a decade. Both the Justice Department and Division of Vaccine Injury Compensation, whose doctors within the Department of Health and Human Services assess claims, said in written statements that while perception of vaccine safety is important, individual claims are evaluated based on scientific evidence and legal standards. Both also defended the compensation program, which has "succeeded in providing a less adversarial, less expensive, and less time-consuming system of recovery than the traditional tort system that governs medical malpractice, personal injury and product liability cases," Justice Department spokeswoman Nicole Navas said. The legal standards governing vaccine court have shifted over time. Gradually, compensation became harder due to rule changes and precedent from court decisions. In , a higher court ruled it had become too hard to show that a vaccine "more likely than not" caused the injury. Winning compensation became easier. The government began settling far more cases. Vaccine program officials argue that settlements are resolved more quickly and claimants get money they might not at trial. And some claimants accept lowball offers because they need money now. Settlements offer the government several advantages. There is no admission that the vaccine caused harm, and they are confidential. Few of the suggestions have been implemented. After The AP published this story in November, officials vowed to publicize the program better. They told investigators with the Government Accountability Office they would use "plain language" in program literature, improve its website and target promotions to "health care providers, parents and expectant parents, adults aged 50 years and older including Spanish-speaking older adults , and civil litigation and health attorneys. By pushing quantity of cases over quality, a practice known as "churning," Churning is necessary to make good money, several attorneys said. One was Michael Kerensky, a Houston lawyer who filed 81 cases claiming injury from diphtheria-tetanus-pertussis vaccines. Kerensky acknowledged that many cases lacked basic medical records. Waiting to investigate a case until after filing can make financial sense. File the claim, then do the research -- and the court pays billable hours. One special master wrote that this dynamic encourages "gaming the system. In the summer of , attorney Clifford Shoemaker was juggling a heavy caseload. The court had set an August deadline for filing Hepatitis B claims. Paperwork was flooding his small office. Shoemaker filed cases, often failing to get required medical records first. It was a matter of principle, he explained: Shoemaker said he delayed cases because he knew they would be difficult to win unless he could get Congress to make it easier to prove that vaccines cause injuries. That did not happen. Special masters obliged his requests for delays, though several wrote stinging rebukes. Most of the money is for billable hours; some covers expenses. Some attorneys consistently have requested excessive fees and dubious costs. Shoemaker once submitted a bill that the special master said could "easily exceed the hours available in a day. His payments would be reduced, but AP found no evidence he had been sanctioned. In one early case, he tried to charge the court for repairs to his car, which broke down on the way to a hearing. Shoemaker said his billing problems were honest mistakes and that he now has a better tracking system. He said the European trip was necessary to meet with experts.

5: Vanquishing a virus - The Globe and Mail

Vaccination has proved a powerful public health tool in vanquishing other diseases, and an HIV vaccine is generally considered as the most likely, and perhaps the only way by which the HIV pandemic can be halted. However, HIV-1 remains a challenging target for a vaccine.

I wonder if smallpox will kill more people. I had three shots when I was young, and not a one took. Today, the vaccine for smallpox is a live not dead like most vaccinations such as the flu shot or tetanus virus known as Vaccinia. You receive that virus, and then become immune to smallpox. The issue is, this vaccine may be mostly safe, but it poses some serious risks to young children or those with pre-existing skin conditions. Also, our stockpiles are slim, and cranking out more vaccines is slow and expensive, which would mean some people may not get vaccinated. Furthermore, viruses are extremely adaptable. Viruses only have eight genes, 11 for rotaviruses which allow them to adapt and mutate to avoid being thwarted by vaccines. So you see, there is no "cure" for viruses. Not a single one. While we can destroy bacteria, viruses will always be in your system. If we discovered how to destroy a virus, it would have to be specialized for each virus. And let me assure you, that although smallpox may no longer infect the human population, it is out there and it will be back. We are keeping the virus in case we need to deal with it again and create a vaccine. How was this vaccine originally made? If smallpox broke out again, for whatever imaginable reason, why would we need a store of the original virus to fight the outbreak? BostonIrish Post 5 Renegade I think that we should keep the samples, not just for fear of foreign nations attacking each other biologically, but for fear of free radicals like psychopathic terrorists who want to cause damage. Better safe than sorry. There is also the potential for cyberattacks and nuclear proliferation, which could ruin us. The world should realize that these threats exist and keep a wary eye on them. Renegade Post 3 In keeping smallpox, it seems that there is a residual fear of a "smallpox gap" left over from the Cold War era. If people are genuinely afraid that other nations would use these kinds of weapons for domination, we have a global societal paranoia which affects every area of study and advancement. Only when we realize that the world has no choice but to unite will we be able to advance as a civilization again. On the one hand, you want to believe that all other countries are honest and show good faith by getting rid of all of the samples that we have and hoping that everyone will do the same.

6: Doctor Proves Danger of Vaccines - Dies Unexpectedly at Age 49 : conspiracy

US News World Rep. Jan Feb 4;(3) Closer to vanquishing the virus. Healy B. PMID: [PubMed - indexed for MEDLINE] Viral Vaccines/genetics.

Vanishing White Matter Disease VWM is a genetic disorder that affects the nervous system and causes neurologic symptoms. Although initially recognized as a disease of young children, it is now known that the disease has a highly variable course with a wide range in severity. A striking feature of VWM is that in addition to a generally slow progression of symptoms, patients may show episodes of rapid neurological deterioration in response to certain stressors, such as infection or minor head trauma. The patient may partially recover following these episodes, but in severe cases the episode may even lead to coma and death. What are the symptoms of VWM? The disease characteristics are highly variable. The course varies from antenatal onset with death in the first months of life up to first presentation in later adulthood with only mild neurological problems. Age of onset of disease features is an important predictor for disease course. The largest group of patients presents in early childhood at the age of years. At a certain point, loss of motor function is noticed, which can be triggered by a specific stressor, such as an infection with fever or head trauma. From that moment onwards there is a chronic neurological deterioration, often as well as episodic deterioration caused by stressors. These patients have a less severe disease course. We have listed some possible symptoms below as well as definitions as necessary: Chronic neurological deterioration, mainly with loss of motor skills Febrile episodes episodes of fever can be associated with worsening of symptoms, drowsiness or coma. This means that the child tends to suffer spasms or involuntary contractions of Muscles are abnormally stiff and movement is restricted. Ovarian dysgenesis in female patients: Mental decline may be present, though generally less severe than the motor dysfunction Lethargy: Abnormal drowsiness and indifference to environmental stimuli Coma Death: Patients who present later in life may have a normal life expectancy. The motor difficulties in VWM are progressive, and the progression is often partially stepwise in association with fever or injuries. After an episode of deterioration there may be partial improvement, but some episodes result in permanent loss of neurological function and sometimes coma or death. This protein is necessary for the production of all other proteins in the body and for the regulating the rate of protein production, especially the decrease in protein synthesis during stress conditions, such as fever and infection. It is so important that no one can live when any of these genes are completely non-functional or absent. VWM is caused by small changes in these genes that reduce the function of eIF2B, and specific cells in the brain are particularly vulnerable to this loss of function. How is VWM inherited? VWM is inherited in an autosomal recessive manner. This means that both parents carry one copy of a mutated eIF2B gene and pass it along to their child, who then has two copies of the mutated gene and develops the disease. Parents who have one copy of the mutated gene and a second normal gene are genetic carriers of the abnormal gene, but do not have symptoms. VWM is diagnosed on the basis of the clinical symptoms in combination with the results of a Magnetic Resonance Imaging MRI scan of the brain, which shows a distinctive pattern of abnormalities of the white matter of the brain see our fact sheet on the MRI for more information. What is the treatment for VWM? There is currently no cure for VWM; treatment is directed at the symptoms as they arise. It is extremely important to prevent episodes of deterioration, especially in young children, by preventing and treating infections and fever when possible through the use of vaccinations, antibiotics for minor infections and antipyretics for fever. Prevention of mild head trauma is warranted at all ages. For children, wearing a helmet outside helps minimize the effects of head trauma. How is scientific research on VWM progressing towards improved treatment or diagnosis? The identification of the genetic basis of VWM was a great step forward. First of all, it allows genetic testing for the disease. If you know that the disease runs in your family, you can talk to a genetic counselor about the option of prenatal testing, as well as testing of family members so that they can find out if they are carriers of the disease see our fact sheet on genetic inheritance for more information about this. Secondly, it allows further research on the underlying disease mechanism, which is fundamental for the eventual development of treatment. The current research includes studies on the

understanding of the effect of mutations in eIF2B and on the development of stem cell therapy, gene therapy and medicines that reduce the neurological deterioration. Are there other names for VWM? Other clinical names for VWM include:

7: Jonas Salk: 6 Facts About the Man Who Created the Polio Vaccine

KIE BoB Subject Heading: genetic intervention Contents: Introduction -- pt. 1. Miracles in Medicine -- 1. The new biotech paradigm -- 2. Vanquishing vaccines -- 3. Miniature pharmaceutical factories and medicinal milk -- 4. "Plantibodies" -- 5. The book of angiogenesis -- 6. Medicinal matchmaking -- 7. Ingenious gene therapy -- 8.

Jimmy Carter describes the first time he saw a person with Guinea worm. The former president was referring to a parasitic worm that grows inside the human body for up to a year until it finally emerges through a painful blister. That changed in when President Carter took a trip to a small village in Ghana. Among the many villagers afflicted with Guinea worm, he saw a lovely young woman holding a baby in her arms and went over to coo at the child. Upon closer look, he realized she was holding not a baby but her swollen, painful breast, from which a long, thin white worm was emerging. He decided then to make the eradication of Guinea worm disease a mission of The Carter Center. This mission is nearly accomplished. When President Carter took up the fight, there were an estimated 3. Last year, only 22 people in four countries suffered from the "fiery serpent. More cases could certainly emerge in the coming year. And when it does, it will be the first parasitic disease, and perhaps the second human disease in history, to be eradicated. The Carter Center was striving for perfection so that no one would have to suffer from this disease again. Soon Guinea worm disease will pass from being a plague that returned to villages year after year for centuries to being a tale passed from generation to generation. The only toolâ€”convincing deeply traditional people in remote regions of the world to change the way they have collected and consumed water for generations. Photo by the Carter Center. A person contracts Guinea worm from drinking stagnant water contaminated with microscopic freshwater crustaceans called copepods that are infected with Guinea worm larvae. Once inside the stomach, the copepod breaks down and releases the larvae, which mature and roam inside the abdomen until they find a mate. The male dies and the female continues to growâ€”reaching lengths of two to three feet. Nine to 12 months later, the worm finally emerges through an excruciating, burning blister. In fact, the disease is also known as dracunculiasis, or "affliction with little dragons," because the worm feels like tiny, hot daggers poking through skin. Immersing the wound in water soothes the burn and also causes the worm to release hundreds of thousands of larvae. The cycle begins anew. The treatment is the same as it has been for thousands of years. The worm must be pulled gently from the wound, centimeter by centimeter, and wound around a twig or piece of gauze. The process is agonizingly slow, requiring anywhere from a few days to a month or more to tug the worm free. Breaking an emerging worm will cause it to pull back into the body, where it will die, calcify, and possibly cause deformities or crippling. Compounding their toll, worms typically emerge during the agricultural season in sub-Saharan Africa. That means the fortunes of a struggling family can be decimated by a white worm the width of a spaghetti noodle. It devastated the entire village. Living in a large canvas tent on a spot of land donated by a local chief, Peterson recruited and oversaw a staff of more than 30 local field officers and at least village volunteers. From her rudimentary hub with a hand-dug latrine, Peterson would trek via truck, motorbike, and foot to ever more remote villages. At each stop, she and her field officer used stories, skits, and songs to educate the residents about Guinea worm disease, how it spreads, and how to prevent it by using simple cloth water filters. They searched out any locals who showed signs of an imminent worm or an emergent one, and then tried to convince them to go to a containment center or, at the very least, to stay out of the local water source. If they were too late to prevent contamination, they would treat the water source with a larvicide. The first defense against contracting the disease is filtering the water. Callahan and other Carter Center colleagues fashioned and distributed filters to attach to the top of water barrels. Then the women who collected the water and carried it in containers balanced atop their heads could pour it directly into the barrels, filtering out the larvae-infected copepods. In areas where household filters were not feasible because residents had either been displaced by civil conflict or were nomadic, The Carter Center borrowed the idea for a portable straw filter from nomads in West Africa. During her time in South Sudan, Callahan was part of an effort that employed more than 1, Sudanese refugees in Kenya to assemble more than 9 million personal pipe filters and distribute them all within a six-month period.

8: A timely boost to push forward on a next-generation flu shot - www.enganchecubano.com

3. He also tried his hand at curing cancer and AIDS (and the common cold) After his polio vaccine saw such astonishingly positive results, it was only right that Salk devoted his efforts toward.

Paul Martin is a former prime minister of Canada. What do an Israeli-born classical violinist and a former prime minister of Canada have in common? If you are waiting for a punch line, you can stop. Story continues below advertisement Having survived polio as children in Israel and Canada respectively, we know first-hand what this disease can mean. We were both fortunate to recover from the crippling virus and pursue successful careers doing what we love, in music and in public life. You are lucky to live in a country that has eradicated polio. Canada was one of the first nations to eliminate this potentially fatal disease, which can cause paralysis and other debilitating symptoms. Effective vaccines have made polio a receding memory in the developed world. Israel and Canada and the rest of the Western Hemisphere were deemed polio-free more than two decades ago. On the occasion of World Immunization Week, we are close to making history, as Africa is on the verge of becoming polio-free, with no new cases reported in Nigeria for the past eight months. North Americans might be surprised to learn that polio not only still exists, but continues to infect and paralyze children in some parts of the world. This is despite the fact that the disease is completely vaccine-preventable. Tragically, the children most at risk are the ones with the least hope of meaningful, productive lives once they are disabled. This is just so wrong. In , fewer than cases were reported worldwide, down from about , a year when the campaign began in Today, polio remains endemic in only three countries, Afghanistan, Nigeria and Pakistan, although the virus can re-emerge in areas where it was previously stopped, including Israel, where it returned briefly in Story continues below advertisement Story continues below advertisement Thanks to a vaccine, one of the most terrible diseases in history – smallpox – no longer exists. Thanks to vaccines, diseases that used to be common in our countries and around the world, including measles, polio, diphtheria, whooping cough, mumps and tetanus, can now be easily prevented. During this World Immunization Week, we remind people to be grateful for the progress made against polio. However, as the measles outbreak in North America continues to spread, we recognize the reality that infectious diseases remain a mere airplane ride away and pose a very real threat to every unvaccinated child. Economically speaking, the stakes are high. Without continued commitment, Canada knows that the cost of failure would extend far beyond the estimated , annual polio cases if the last 1 per cent is not wiped out now. The GPEI has assembled a powerful infrastructure of disease prevention and surveillance, multilateral networks equipped to respond to outbreaks such as measles across borders, and well-trained health-care professionals. Over the past year, the largest Ebola outbreak in history has claimed more than 10, lives and continues to spread, but in Nigeria, the extensive polio-eradication infrastructure there was used to successfully thwart the virus within a matter of months. Hundreds of thousands of local health workers have spearheaded vaccination campaigns. In vaccination drives in India, upwards of 85 per cent of health workers are women, as is the case in Nigeria and Pakistan. They take great risks, sometimes paying with their lives when meeting resistance from extremists, to bring the benefits of vaccines to more than 2. Their sacrifice cannot be in vain now that we have reached the final hurdle. Story continues below advertisement So, again, what do this classical violinist and former prime minister have in common? Not only polio but the determination to end it forever.

9: Vanquishing the dragon | Public Health Magazine | Emory University

The Vaccines sought out Dave Fridmann and former Haunted Graffiti member/Julia Holter collaborator Cole M. Greif-Neill to work on their third album, and it's their best yet.

The premise was simple: But the system is not working as intended. The AP read hundreds of decisions, conducted more than interviews, and analyzed a database of more than 14, cases filed in a special vaccine court. That database was current as of January ; the government has refused to release an updated version since. Private attorneys have been paid tens of millions of taxpayer dollars even as they clog the court with more cases than they can handle, some of which the court rejected as totally inadequate. The court offers a financial incentive to over-file “ unlike typical civil court cases, attorneys are paid whether or not they win, as was the case with more than 5, losing claims that vaccines caused the developmental disability autism. Those who double-bill for their time or consistently submit questionable expenses are not disciplined. Prominent attorneys have enlisted expert witnesses whose own work has been widely discredited, including one who treated autism with a potent drug used to chemically castrate serial rapists. Another doctor cribbed his material from an anti-vaccine website. Some of the most prominent experts set up nonprofits questioning vaccine safety, further fueling public skepticism. Meanwhile, many doctors hired by the government to defend vaccine safety in court have ties to the pharmaceutical industry. Lawmakers designed vaccine court to favor payouts, but the government fights legitimate claims and fails its obligation to publicize the court, worried that if they concede a vaccine caused harm, the public will react by skipping shots. The court was created with relaxed standards of evidence and a burden of proof more easily met than civil lawsuits. The government said that while perception of vaccine safety is important, individual claims are evaluated on scientific evidence and legal standards. Cases are supposed to be resolved within days, with options for another days of extensions. Less than 7 percent of 7, claims not involving autism met the day target. Add in autism claims, which were postponed so the court could hear all of them at once, and just 4. Most non-autism cases take at least two and a half years, with the average case length more than three years, not including cases unresolved at the end of Hundreds have surpassed the decade mark. Several people died before getting any money. After The AP published this story in November, officials vowed to publicize the program better. And yet, by the mids, those gains seemed fragile. Pharmaceutical companies were facing a barrage of lawsuits from parents who believed the diphtheria-tetanus-pertussis shot had disabled their kids. Their profits imperiled vaccine makers signaled they would leave the U. In response, Congress gave a break both to pharmaceutical companies and to those who received a vaccine to prevent one illness, yet suffered another. Vaccines are widely available, and profitable. Government doctors and lawyers review claims. That fund is replenished by a cent tax on each vaccine. If the government concludes the vaccination was not likely the cause, it contests the claim in vaccine court, based several blocks from the White House. Serious injuries are extremely uncommon. Though much is in dispute regarding vaccines and their side effects, the court remains obscure. But largely due to an influx of adult flu claims, the volume of new cases has increased, averaging more than annually in recent years. So did the Department of Justice, whose attorneys defend the government against vaccine injury claims. Many claims fall into a vast gray area: The science is clear on only nine of vaccine-injury combinations that a shot could “ or could not “ cause the illness. Amid this fundamental uncertainty, the kind of litigation the court was created to avoid is routine. Caught in the middle are families that need help. Copyright Associated Press. This material may not be published, broadcast, rewritten or redistributed. Was this article valuable?

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