DOWNLOAD PDF REGULATING DANGER

Chapter 1 : JCI - Danger signals in regulating the immune response to solid organ transplantation

Regulating Danger is the first extended study of the coal-mining industry in Colorado, New Mexico, Utah, Wyoming, and Montana. It exceeds the scope of traditional labor history in focusing on working conditions and the problems of workers instead of unions and strikes.

DAMPs derived from intracellular constituents High-mobility group box 1. High-mobility group box 1 HMGB1 is a nuclear protein that maintains chromosomal architecture but, when released into the extracellular space by damaged cells, can also act as a DAMP. HMGB1 release occurs in the context of IRI of each commonly transplanted solid organ, including the kidney 5 , heart 18 , liver 19 , and lung 7. The clinical significance and consequences of HMGB1 release on allograft function were illustrated in a translational study of kidney transplant donors. Finally, the organs from kidney donors with loss-of-function TLR4 genetic variants were protected against the development of early allograft dysfunction and exhibited diminished intragraft inflammatory cytokine transcript expression 6. In a similar translational study of lung transplantation, elevated serum HMGB1 in cadaveric donors correlated with impaired oxygenation of the donor lung before and early after lung transplant. Consistent with these clinical observations, experimental data from murine lung transplant models demonstrated brain death occurring after traumatic brain injury a common mode of death among lung donors induced pulmonary dysfunction and increased RAGE levels. Studies in heart transplant models suggest additional mechanisms linking HMGB1 to graft rejection, including promotion of dendritic cell DC maturation, stimulation of Th1 immunity, and activation of ILâ€”producing invariant NKT cells 20 â€” While these and other studies have established the importance of HMGB1 in acute allograft rejection, recent experimental and clinical studies have extended the role of HMGB1 to chronic graft dysfunction in heart and lung transplantation. In an experimental model of chronic cardiac graft dysfunction, HMGB1 inhibition reduced graft inflammation and organ fibrosis Further support for HMGB1 in chronic graft dysfunction after lung transplantation was provided in a clinical study demonstrating elevated HMGB1 in the lung fluid of patients with restrictive allograft syndrome, a recently described phenotype of chronic lung allograft dysfunction hallmarked by parenchymal pulmonary fibrosis The direct relevance of extracellular ATP as a DAMP in the context of SOT was highlighted by a study demonstrating that expression of P2X7 was elevated in graft-infiltrating lymphocytes in patients and mice after heart transplantation. Targeting P2X7 with the irreversible antagonist periodate-oxidized ATP for 14 days after fully mismatched murine heart transplant promoted long-term cardiac transplant survival, which was associated with reduced donor-specific T cell activation, reduced Th1 and Th17 differentiation, and inhibited STAT3 phosphorylation in T cells. Finally, in a separate murine model of chronic heart transplant dysfunction, P2X7 inhibition prevented the development of chronic heart allograft vasculopathy Moreover, Treg frequency and overall graft survival were significantly reduced in CDdeficient livers Nucleic acids and mitochondrial DAMPs. Such nucleic acid or mitochondrial products accumulate in the extracellular space and enter into the circulation as a consequence of IRI or in the context of acute or chronic allograft rejection 29 â€” Consistent with this idea, recent work in heart, lung, and kidney transplantation has identified accumulation of donor-derived cell-free DNA in the blood of rejecting organ recipients Defining the influence of these cell-free DNA fragments on intragraft immune responses is an important area for further study. In particular, there is interest in understanding whether the cell-free fraction includes mtDNA, which contains unmethylated CpG motifs similar to bacterial DNA and has been associated with proinflammatory responses in nonâ€”transplant-related experimental or human studies 35 , The highly conserved heat shock response, characterized by upregulation of HSPs, is triggered in a range of potentially damaging situations, including hypoxia, oxidative stress, inflammation, or infection. In keeping with this idea, graft-infiltrating lymphocytes from a rodent heterotopic heart transplant model showed a marked increase in proliferation when exposed to donor MHC in the presence of HSP65 or HSP70 as compared with donor MHC in isolation Early clinical studies in heart and renal allograft recipients corroborated these findings and suggested that human allograft-derived T cells demonstrate HSP reactivity 38 , HSP expression has since been demonstrated to be increased in the context of kidney 40 â€” 42 , heart 43

â€” 46 , and lung 47 , 48 transplant rejection; however, some of these studies have yielded conflicting results. For example, while HSP27 has been shown to be significantly increased in rejecting as compared with nonrejecting cardiac allografts 45 , loss of vascular HSP27 has also been associated with the development of chronic cardiac allograft vasculopathy Additional findings in clinical liver transplantation point to a role for increased HSP70 expression in protecting against early graft rejection These inconsistent findings potentially relate to context-dependent actions of HSPs. While some studies have demonstrated immune-stimulating properties of HSPs, other experimental evidence supports an immune-inhibitory role. HSPs have been proposed as resolution-associated molecular patterns that induce the production of immunoregulatory cytokines such as IL to mitigate further tissue damage Consistent with this idea, studies in skin transplant models have demonstrated that elevated HSP expression increases IL levels and Treg recruitment, and prolongs allograft survival 52 â€” These studies emphasize that the impact of HSP expression on the subsequent alloimmune response is likely to be highly context-specific and possibly even organ-specific. DAMPs derived from extracellular constituents Haptoglobin. Haptoglobin is an acute-phase serum protein that, in addition to binding free hemoglobin, influences free radical formation and angiogenesis. More recently, haptoglobin has been described as a novel mediator of innate immune activation after heart transplantation 55 , Haptoglobin expression is increased in the context of both human and experimental cardiac transplant rejection, and targeted depletion of haptoglobin led to sustained costimulatory blockadeâ€”induced tolerance in an experimental heart transplant model, suggesting that its presence impairs maintenance of tolerance. In vitro studies demonstrated that haptoglobin exerts its immune effects through increased expression of the proinflammatory cytokines IL-6 and macrophage inflammatory protein-2 MIP-2 , while reducing levels of the antiinflammatory cytokine IL Haptoglobin also enhanced DC graft recruitment and augmented antidonor T cell responses Previous studies using a murine skin transplant model demonstrated that haptoglobin activates donor DCs in a MyDdependent manner, implying a role for TLR signaling in mediating the effects of haptoglobin in transplantation The relevance of haptoglobin in driving the alloresponse to other solid organs remains unknown and represents a promising area for further exploration. HA has been shown to mediate a wide array of biological functions owing to the breadth of HA receptors including alternatively spliced and variant forms in addition to its modification to lowerâ€”molecular weight HA LMWHA fragments or cross-linked leukocyte-adhesive HA matrices 57 , This early increase in HA was followed by an exaggerated T cell inflammatory infiltrate, increased Threlated cytokines, and worse graft fibrosis In another study using a rodent model of chronic heart allograft dysfunction, chronically rejecting hearts had extensive graft accumulation of extracellular HA, and fibroblasts isolated from affected hearts demonstrated increased CD44 mRNA when compared with fibroblasts isolated from nonrejecting heart allografts. Furthermore, HA promoted in vitro fibroblast adhesion and migration in a CDdependent manner and potentiated ex vivo fibroblast survival In a translational study of human and murine lung transplantation, Todd and colleagues demonstrated that human lung allografts with chronic graft dysfunction have extensive tissue accumulation of HA in regions of airway fibrosis, in addition to increased lung fluid HA, and significantly upregulated tissue transcripts for HAS1â€”3. While previous studies suggested that PAMP exposure could break established tolerance after SOT 2 , 3 , this study demonstrated that even in the absence of infectious stimuli, DAMPs can overcome tolerance to promote alloimmunity and graft rejection. Cui and colleagues extended these findings to demonstrate increased HA expression in acute lung rejection in humans Further experiments in a murine lung transplant model showed that LMWHA accumulates in acute lung rejection as a result of diminished clearance through the lymphatic vessel endothelial HA receptor LYVE This finding is particularly notable in light of the prior study by Todd and colleagues that demonstrated that LMWHA, at least when given exogenously, can break established tolerance. Taken together, these studies suggest that LMWHA accumulation in the setting of acute rejection may represent a mechanism by which the alloresponse to the graft is perpetuated and ultimately contributes to graft fibrosis and failure. Notably, in the experimental model, therapeutic lymphangiogenesis improved HA clearance and attenuated acute rejection histology 65 , indicating a potentially novel approach to mitigate HA-induced endogenous innate immune activation in the context of transplantation. Further studies are needed

to determine whether this approach would be specific to lung transplantation or whether similar mechanisms of impaired lymphatic LMWHA clearance exist and contribute to graft rejection in other commonly transplanted solid organs. Heparan sulfate HS is a proteoglycan ubiquitously expressed on cell surfaces and in the ECM of normal human tissues. HS can interact with a wide array of proteins to regulate functions including endothelial cell integrity, blood coagulation, and complement activation. In the context of SOT, expression of the HS proteoglycan perlecan, an important component of the vascular matrix, is elevated in arteries affected by transplant vasculopathy in a rodent model of chronic renal allograft dysfunction Furthermore, perlecan has been shown to interact with FGF2 to contribute to fibroblast activation in the development of chronic graft impairment Studies in human renal transplant recipients have confirmed the clinical relevance of perlecan expression in kidney rejection, as higher serum or urinary levels of the perlecan C-terminal fragment associate with acute vascular rejection or advanced chronic allograft nephropathy, respectively 71 , A recent translational study by Adepu and colleagues also implicated the HS syndecan-1 as important in contributing to graft outcomes in experimental and clinical kidney transplantation Elevated tissue TNC expression has been reported in rodent models of chronic allograft dysfunction involving kidney 74 , lung 75 , and heart 76 transplantation. The mechanistic role for TNC in organ transplantation remains to be fully determined; however, a role for TNC as a DAMP in allograft rejection and fibrosis is suggested by studies of cardiac remodeling, wherein TNC-deficient mice are protected against postâ€”myocardial infarction fibrosis Consistent with this observation, TNC augmented expression of proinflammatory cytokines and proteins important to tissue remodeling in cardiac myofibroblasts in a TLR4-dependent manner Still other nontransplant models point to a potential role for TNC in mediating DC maturation and promoting Th17 immunity In the setting of tissue damage, cellular fibronectin containing an alternatively spliced exon encoding type III extra domain A EDA is generated. Fibronectin expression was increased in the context of chronic vascular rejection in a nonhuman primate kidney transplant model, and plasma EDA-fibronectin levels correlated with acute rejection in human renal transplant recipients 81 , Other experimental and clinical studies have examined the role of EDA-containing fibronectin in the pathogenesis of cardiac allograft vasculopathy and cardiac fibrosis after heart transplantation 83 â€” Booth and colleagues used a murine heterotopic cardiac transplant model to demonstrate that although heart allografts in EDA-fibronectinâ€”deficient recipients experienced acute rejection similarly to those in WT recipients, they were protected from the development of allograft fibrosis and chronic graft dysfunction Importantly, a clinical study by Franz and colleagues noted tissue expression of EDA-fibronectin associated with inflammation and histological signs of chronic rejection in human heart transplant biopsies These data provide a strong rationale for further studies examining the exact signaling pathways stimulated by EDA-fibronectin in organ transplant rejection and indicate that strategies targeting fibronectin may hold promise to aid in diagnosing, preventing, or treating cardiac rejection in particular. Beyond these DAMPs of known importance in solid organ transplant, many additional endogenous danger molecules have been recognized to exert effects through innate immunity 88 â€” A critical area of future research will be to elucidate the potential role for these DAMPs in the transplant setting. Other ECM proteoglycans, such as biglycan or decorin, are likely to be modified in the setting of allograft injury similarly to HA or fibronectin. In particular, soluble decorin has been demonstrated to exert antifibrotic effects and confer protection from apoptosis in nontransplant models of renal disease 91 , making it an attractive area for further study in chronic allograft nephropathy after kidney transplantation. Understanding the full range of DAMP expression in SOT will be essential to provide a more comprehensive view of the role of DAMPs in directing the immune response to the allograft and potentially identify promising strategies to improve graft outcomes. Much remains to be understood with respect to the role of DAMPs in regulating adaptive alloimmunity. Furthermore, significant gaps remain in understanding the exact mechanisms by which DAMPs contribute to chronic graft dysfunction and the extent to which certain DAMPs are unique to individual organs or potentially drive organ-specific differences in the frequency or manifestations of rejection. To this point, a particularly exciting area is the development of a more nuanced understanding of the manner in which DAMPs may drive fibrosis-biased tissue remodeling within an allograft. Specifically, in response to TNC, macrophages increased synthesis and phosphorylation of matrix, while in

response to LPS, the macrophage capacity for matrix degradation was increased. Collectively, these observations extend the existing conceptual model in which DAMPs activate TLRs to promote alloimmunity, which in turn drives acute rejection and chronic graft dysfunction, and implicate novel DAMP-driven innate mechanisms that could drive graft fibrosis. Another gap in our understanding of clinical outcomes after SOT relates to organ-specific differences in the rates of acute rejection and manifestations of chronic graft dysfunction among the transplanted solid organs. Furthermore, a key feature of chronic allograft dysfunction in heart transplantation is intraluminal obliteration of the coronary vasculature, while in lung transplantation histological manifestations of chronic graft dysfunction generally include intraluminal obliteration of the epithelialized airways. It is plausible that these differences could be, at least in part, explained by the location and type of DAMPs expressed in response to early transplant IRI or alloimmune-mediated injury, consistent with the organ-specific differences in significant DAMPs identified across the commonly transplanted organs Table 1. This line of investigation represents an important area of future study with potential to impact the development of organ-specific treatments. At the same time, increasing application of ex vivo organ preservation systems presents a unique opportunity to manipulate donor organs before implantation so as to reduce IRI, thereby diminishing innate activation and potentially promoting immune tolerance. For example, in lung transplantation organs procured through ex vivo perfusion have been used successfully for clinical transplantation and have been successfully manipulated in experimental models to reduce IRI through adenovirus-mediated IL production 97 â€” To this point, interestingly, laboratory studies have suggested that low-level DAMP exposure prior to transplantation, or preconditioning, can reduce the impact of IRI. Similarly, genetic overexpression of HSPs in the donor organ can alter alloimmunity in the context of experimental heart transplantation. Specifically, hearts transplanted from transgenic mice overexpressing HSP27 experienced a delayed onset of acute rejection and reduced IRI-induced apoptosis as compared with HSPnegative hearts from littermate controls A potential mechanism to explain these observations is innate immune-driven immunological memory occurring as a result of epigenetic reprogramming after stimulation. While immune memory was previously thought to be driven exclusively by adaptive immunity, new evidence suggests that tissue-derived signals can induce epigenetic changes to regulate the magnitude and type of future immune responses Such epigenetic modifications can diminish subsequent responses, as is the case with LPS tolerance. Further understanding the mechanisms of innate memory could provide avenues to dampen the response to endogenous DAMPs induced in the transplant setting. Thrombomodulin treatment attenuated levels of HMGB1 and inflammatory cytokines, decreased markers of liver graft injury, and improved organ function Other studies suggest that HA production may be an actionable target. The HAS inhibitor 4-methylumbelliferone, a drug approved for use in Europe in patients with colon cancer, has been shown to reduce expression of HA and the severity of IRI in the kidney, suggesting it could be used to treat donor allografts to reduce early graft dysfunction Beyond these therapeutics directed at modulating DAMP accumulation, several TLR antagonists are under development for treatment of inflammatory diseases or cancer Progress with such agents has moved slowly and proved ineffective in the treatment of conditions such as sepsis. Additionally, while an abundance of experimental data suggests that treatments targeting TLRs have potential to attenuate the alloresponse in the context of organ transplantation, substantial concerns exist regarding the increased risk for infectious complications with these agents. Ultimately, strategies targeting specific DAMPs or precise points in innate pathways may represent more promising avenues to effectively prevent acute rejection and chronic graft dysfunction after SOT. Recent evidence suggests that allograft-induced persistent immune stimuli could promote DAMP release. Furthermore, DAMPs may activate distinct downstream signals that could promote tissue remodeling and fibrosis.

Chapter 2 : The Danger of Over-Regulation | FreedomWorks

White House advisor Larry Kudlow says regulation of "social media" is being looked at as President Trump calls out the corporate censorship of Google, Apple, Facebook, Twitter. But the censorship â€" both shadow banning & overt banning â€" is being done at the request of both political parties of the DeepState.

Find out the current fire danger rating in your area and other information about fire weather. The BC Wildfire Service operates about weather stations, which send reports on an hourly basis. With it, fire managers can assess the potential for ignition, spread and burning intensity. This information is used for making fire prevention, preparedness and suppression decisions, as well as other general fire management decisions. Temperature, relative humidity, precipitation, wind speed and wind direction are recorded by the fully automated stations. This data is transmitted to BC Wildfire Service headquarters every hour from April through October, but less frequently and from fewer stations during the winter months. Fire Danger Rating The fire danger rating i. What the danger class ratings mean Low: Fires may start easily and spread quickly but there will be minimal involvement of deeper fuel layers or larger fuels. Forest fuels are drying and there is an increased risk of surface fires starting. Carry out any forest activities with caution. Forest fuels are very dry and the fire risk is serious. New fires may start easily, burn vigorously, and challenge fire suppression efforts. Extreme caution must be used in any forest activities. Open burning and industrial activities may be restricted. Extremely dry forest fuels and the fire risk is very serious. New fires will start easily, spread rapidly, and challenge fire suppression efforts. General forest activities may be restricted, including open burning, industrial activities and campfires. For regulated forest operations, the danger class value must be derived from weather data representative of the site on which operations are being conducted. Danger Class Report A detailed danger class report provides estimated and forecast fire danger rating values for specific weather stations. The danger class report is updated every day based on weather station data collected from around the province. To find out what the fire danger rating is near you, please select a region from the list below or view all regions.

Chapter 3 : History of Workplace Safety in the United States,

Regulating Danger - University of Nebraska Press The Struggle for Mine Safety in the Rocky Mountain Coal Industry. James Regulating Danger is the first.

Applications-to-Operate vs In-Operation For public choice theorists , regulatory capture occurs because groups or individuals with a high-stakes interest in the outcome of policy or regulatory decisions can be expected to focus their resources and energies in attempting to gain the policy outcomes they prefer, while members of the public, each with only a tiny individual stake in the outcome, will ignore it altogether. We propose the general hypothesis: In addition, the regulatory policy will often be so fashioned as to retard the rate of growth of new firms. The theory of regulatory capture is associated with Nobel laureate economist George Stigler , [4] one of its main developers. Alternatively, it may be better to not create a given agency at all lest the agency become victim, in which case it may serve its regulated subjects rather than those whom the agency was designed to protect. A captured regulatory agency is often worse than no regulation, because it wields the authority of government. However, increased transparency of the agency may mitigate the effects of capture. Recent evidence suggests that, even in mature democracies with high levels of transparency and media freedom, more extensive and complex regulatory environments are associated with higher levels of corruption including regulatory capture. These states or provinces then becomes the voice of the industry, even to the point of blocking national policies that would be preferred by the majority across the whole federation. Moore and Giovinazzo call this "distortion gap". Very large and powerful industries e. When regulators form expert bodies to examine policy, this invariably features current or former industry members, or at the very least, individuals with contacts in the industry. Capture is also facilitated in situations where consumers or taxpayers have a poor understanding of underlying issues and businesses enjoy a knowledge advantage. Businesses have an incentive to control anything that has power over them, including institutions from the media, academia and popular culture, thus they will try to capture them as well. This phenomenon is called "deep capture". It holds that regulation is the response of the government to public needs. Its purpose is to make up for market failures, improve the efficiency of resource allocation, and maximize social welfare. Posner pointed out that the public interest theory contains the assumption that the market is fragile, and that if left unchecked, it will tend to be unfair and inefficient, and government regulation is a costless and effective way to meet the needs of social justice and efficiency. Mimik believes that government regulation is a public administration policy that focuses on private behavior. It is a rule drawn from the public interest. Irving and Brouhingan saw regulation as a way of obeying public needs and weakening the risk of market operations. It also expressed the view that regulation reflects the public interest. At least until the s, in terms of regulatory experience, regulation was developed in the direction of favoring producers, and regulation increased the profits of manufacturers within the industry. In potentially competitive industries such as the trucking industry and the taxi industry, regulations allow pricing to be higher than cost and prevent entrants. In the natural monopoly industries such as the electric power industry, there are facts that regulation has little effect on prices, so the industry can earn profits above normal profits. Empirical evidence proves that regulation is beneficial to producers. These empirical observations have led to the emergence and development of regulatory capture theory. That is, the regulator is captured by the industry. The basic view of the regulatory capture theory is that no matter how the regulatory scheme is designed, the regulation of an industry by a regulatory agency is actually "captured" by the industry. The implication is that regulation increases the profits of the industry rather than social welfare. The above-mentioned regulatory capture theory is essentially a purely capture theory in the early days, that is, the regulators and legislators were captured and controlled by the industry. Because these models all reflect that regulators and legislators are not pursuing the maximization of public interests, but the maximization of private interests, that is, using "private interest" theory to explain the origin and purpose of regulation. Regulatory capture theory has a specific meaning, that is, an experience statement that regulations are beneficial for producers in real life. In fact, it is essentially not a true regulatory theory. Although the analysis results are similar to the Stigler model provide interpretation and support for the

regulatory capture theory is beneficial for producers, however the analysis methods of the latter are completely different. Stigler used standard economic analysis methods to analyze the regulation behavior, then created a new regulatory theory - regulatory economic theory. Types[edit] There are two basic types of regulatory capture: These forms of capture often amount to political corruption. Non-materialist capture, also called cognitive capture or cultural capture, in which the regulator begins to think like the regulated industry. This can result from interest-group lobbying by the industry. Another distinction can be made between capture retained by big firms and by small firms. Patterson, a member of the Arizona House of Representatives , said "Salazar has a disturbingly weak conservation record, particularly on energy development, global warming, endangered wildlife and protecting scientific integrity. The agency seems to think its mission is to help the oil industry evade environmental laws. Three weeks later, at least five more permits had been issued by the minerals agency. Painter, one of the two Commodity Futures Trading Commission CFTC administrative law judges , retired, and in the process requested that his cases not be assigned to the other judge, Bruce C. A report by the Department of Transportation that found FAA managers had allowed Southwest Airlines to fly 46 airplanes in and that were overdue for safety inspections, ignoring concerns raised by inspectors. Audits of other airlines resulted in two airlines grounding hundreds of planes, causing thousands of flight cancellations. Boutris said he attempted to ground Southwest after finding cracks in the fuselage , but was prevented by supervisors he said were friendly with the airline. James Oberstar , former chairman of the committee said its investigation uncovered a pattern of regulatory abuse and widespread regulatory lapses, allowing aircraft to be operated commercially although not in compliance with FAA safety rules. Pai , a former lawyer for Verizon, is the current FCC chairman. During the financial crisis, several major banks that were on the verge of collapse were rescued with government emergency funding. By purchasing these contracts, the banks received a "back-door bailout" of cents on the dollar for the contracts. One example cited by critics is the approval of recombinant Bovine somatotropin , in which were involved three FDA employees with ties to Monsanto , the company that was seeking approval, namely Margaret Miller, Michael R. Taylor , and Suzanne Sechen. Quotations are from the GAO report ". The creation of the ICC was the result of widespread and longstanding anti-railroad agitation. Olney, formerly a prominent railroad lawyer, was asked if he could do something to get rid of the ICC. It satisfies the popular clamor for a government supervision of the railroads, at the same time that supervision is almost entirely nominal. Further, the older such a commission gets to be, the more inclined it will be found to take the business and railroad view of things. Carolina Coach Company the ICC had ruled against every black petitioner bringing a racial segregation complaint, earning the nickname "The Supreme Court of the Confederacy ". Carolina Coach, attempting to justify segregation on a separate but equal basis for six years before being forced by the Department of Justice under then Attorney General Robert F. Kennedy to act in response to the Freedom Riders protests of Nuclear power is a textbook example of the problem of "regulatory capture"â€”in which an industry gains control of an agency meant to regulate it. Regulatory capture can be countered only by vigorous public scrutiny and Congressional oversight, but in the 32 years since Three Mile Island, interest in nuclear regulation has declined precipitously. A year-long Associated Press AP investigation showed that the NRC, working with the industry, has relaxed regulations so that aging reactors can remain in operation. Taylor and Frank A. Wolak compared the financial services and nuclear industries. While acknowledging both are susceptible in principle to regulatory capture, they concluded regulatory failure â€” including through regulatory capture â€” has been much more of a problem in the financial industry and even suggested the financial industry create an analog to the Institute of Nuclear Power Operations to reduce regulatory risk. The SEC has been found by the U. Mack was suspected of giving insider information to Arthur J. Walker , [75] Gary Lynch [76] and Paul R. Darcy Flynn , an SEC lawyer, the whistleblower who exposed this case also revealed that for 20 years, the SEC had been routinely destroying all documents related to thousands of preliminary inquiries that were closed rather than proceeding to formal investigation. The SEC is legally required to keep files for 25 years and destruction is supposed to be done by the National Archives and Records Administration. The lack of files deprives investigators of possible background when investigating cases involving those firms. Documents were destroyed for inquiries into Bernard Madoff , Goldman Sachs , Lehman Brothers , Citigroup , Bank of America and other major Wall

Street firms that played key roles in the financial crisis. The SEC has since changed its policy on destroying those documents and the SEC investigator general is investigating the matter. From a forensic accounting standpoint, there is no difference between a Ponzi-scheme like the Madoff scandal, and a pyramid scheme , except that in the latter the money is laundered through product sales, not investment. Forbes [85] though legal opinion has been very supportive in some quarters, such as Prof. Inadequate inspections are reviewed by expert panels drawn primarily from academia and rarely challenge the agency. Some former ministry officials have been offered lucrative jobs in a practice called amakudari , "descent from heaven". In this case, the Department of Health , which is the primary technical agency for disease control and prevention, was held to be without authority to create tobacco control regulations unless the IACT delegates this function.

Chapter 4 : DANGER! Regulating high blood pressure in older patients | The Ponchatoula Times

Note: Citations are based on reference standards. However, formatting rules can vary widely between applications and fields of interest or study. The specific requirements or preferences of your reviewing publisher, classroom teacher, institution or organization should be applied.

The financial industry is particularly sensitive to excessive regulation given that capital can flow from one regulatory jurisdiction to another at almost the speed of light. Appropriate regulation and the rule of law can strengthen finan- cial markets and the domestic economy by attracting flows of foreign capital. Excessive regulation has the opposite effect when it imposes costs that cause capital and companies to flee a jurisdiction, writes Dr Richard Rahn. Cayman has been successful because it has used a riskbased approach with regard to regulation. Over the years, we have seen many countries wound or destroy their financial industries by placing the heavy foot of government on the windpipes of those who create jobs and wealth. Unfortunately, my home country, the United States, has become the newest poster child for the consequences of excessive regulation. The former General Counsel of the U. Treasury, and now a fellow at the American Enterprise Institute www. Wallison found ample evidence of the decline of the U. Specifically he found that: In , nine of every ten dollars raised by foreign companies were raised in the United States; in , nine of the ten largest offerings were not registered in the United States, and of the largest twenty-five global offerings, only one took place in the U. The government accounting office GAO found that the number of public companies going private increased from in to in In , nearly half, However, in , only 5. The specific reasons for this documented decline in U. The Securities and Exchange Commission SEC has placed a number of costly, new regulations on companies that have not been justified by competent cost-benefit studies and engaged in a number of enforcement abuses, notably, charging companies in the press with a possible securities violation without sufficient proof, which makes them subject to SEC staff blackmail. All jurisdictions are subject to pressures for unjustified and destructive regulation. These pressures come from: Cayman, like all jurisdictions, suffers from the above pressures to over-regulate, but it also suffers from attempts of large and less financially attractive jurisdictions and international institutions that they control to impose unjustified costs on Cayman. CIMA Legal Counsel, Langston Sibblies, has properly noted that there is an unfair imbalance between the number of financial regulatory regime reviews for offshore jurisdictions. But if there was some sort of crisis, that same private sector would ask what we had been doing ourselves. There is no question that regulation is needed, but we must strike a balance to remain competitive. Log in or register to post comments. Default Sidebar Signup Form Want more freedom? Become a member today!

Chapter 5 : Smarter regulation for the sharing economy | Science | The Guardian

Nala Rogers is a staff writer and editor at Inside Science, where she covers the Earth and Creature beats. She has a bachelor's degree in biology from the University of Utah and a graduate certificate in science communication from U.C. Santa Cruz.

Share via Email Alcobendas, Spain. Increasing numbers share their homes Airbnb , cars Relayrides and rides BlaBlaCar , and people are also now sharing boats, tools, gardens, pets and clothes. This week in Paris entrepreneurs, innovators, regulators and academics will come together at OuiShare Fest , a major three day celebration of the new sharing economy. But the sharing economy is controversial, because it can lead to more precarious jobs and induce unfair competition. Many of its practices are illegal in some jurisdictions. We believe that smart regulation can solve many of these current controversies. However, we first need to understand what the sharing economy is - and is not. By parsing this definition into three elements, we can clearly distinguish the sharing economy from other economic forms. Sharing is about consumer-to-consumer C2C platforms and not about renting or leasing a good from a company business-to-consumer. In the latter case we would speak of product-service economy, where a consumer gains access to a product whilst the service provider retains ownership. An example is car-rental see Figure 1. Sharing is about consumers providing each other temporary access to a good, and not about the transfer of ownership of the good. Thus, the sharing economy does not include the second-hand economy, in which goods are sold or given away between consumers as occurs on online platforms such as Ebay or Facebook. Sharing is about more efficient use of physical assets and not about private individuals delivering each other a service. After all, physical goods can go unused, but people cannot. An example of such a platform is Taskrabbit, through which you can hire people to carry out work around the house. Figure 1 - The sharing economy and other related economic forms Take the example of a drill. Consumers can avoid buying a new drill by using one out of the four platforms: For cars, the same logic applies. You can buy a second-hand car using a site Ebay , you can rent a car at a car-rental company Car2Go , you can hire on-demand an individual to drive you UberX , or you can rent a car from a private individual Relayrides. Increasing criticism There is little doubt that the sharing economy can make a contribution to a more sustainable economy. While sharing used to be limited to a small circle of family and friends, the internet platforms allow us to share with anyone in society. This means that physical assets can be used more efficiently, and less energy and materials are needed in our economy. At the same time, the sharing economy has come under fire. Critics have pointed to undesirable effects, such as platform monopolies, privacy violations, exploitation of labour, and unfair competition. Our scheme can be used to place the various criticisms in the context in which they engage. The first two critiques monopoly, privacy are not specific to the sharing economy, but are problems associated with all sorts of internet-based businesses, including search engines Google , social media Facebook and data storage Dropbox. All platforms that enable interactions between people are characterized by network effects: For this reason, monopolies emerge and privacy-sensitive information gets concentrated in the hands of the businesses concerned. Concerning new forms of exploitation, many point to the increased flexibility and precariousness of work for freelancers who work for a platform for example, UberX drivers. This criticism applies to the on-demand economy and not to the sharing economy as we have defined it. The last criticism is that of unfair competition between the new platforms and existing businesses. Individuals providing their goods or services to others are competing with existing providers but are not necessarily bound by the same rules and regulations. Notably, Uber has continued offering UberX despite court bans in various countries, and Airbnb only barely cooperates with municipalities in their aim to collect taxes and to help combat illegal hotels. The need for smart regulation Regulation will determine whether businesses like Uber and Airbnb will be integrated into the sharing economy or not. An illustration is the regulatory process that the Dutch municipality of Amsterdam has initiated with Airbnb. The municipality wants to ensure that people only occasionally rent out their house whilst away sharing economy , rather than run a permanent, unregulated hotel not sharing economy. It has chosen to allow its residents to rent out their homes for up to 60 days per year. Customers are also supposed to

pay tourist tax via Airbnb, although its enforcement leaves much to be desired not least because Airbnb does not want to share its data with the municipality. The philosophy of the policy is important here: Without this regulation, Airbnb would create an incentive for illegal renting with negative consequences for the local residents higher rents, nuisance and speculation. In the case of Uber, regulation is still largely lacking. Many options for regulating UberX are possible. The debate tends however to be narrowly focused on what requirements UberX drivers must meet compared with regular drivers - that is on regulating Uber as a provider of taxi services. On this type of platform, drivers post trips that they are going to make anyway, and other people can join these rides. The risk of monopoly in the sharing economy is a real one. As with any other market, regulations are required to ensure sufficient competition between platforms. For example, new rules are needed to let users switch easily between platforms, and to take with them their personal reviews and ratings from one platform to the other. This stops users from getting locked in in one platform which can then extract most of the value generated by platform interactions and transactions. Most of all, the ownership of data generated by users through use of sharing platforms should be a major issue of regulatory concern. On Twitter he is kfrenken. His main research interests are the sharing economy and the diffusion of electric vehicles. On Twitter he is martijnarets. Pieter van de Glind is a co-founder of shareNL , the Dutch network and knowledge platform for the collaborative economy.

Chapter 6 : [PDF/ePub Download] regulating danger eBook

Gun control refers to domestic regulation of firearm manufacture, trade, possession, use, and transport, specifically with regard to the class of weapons referred to as small arms revolvers and self-loading pistols , rifles and carbines , assault rifles , submachine guns and light machine guns. In particular, a number of quantitative studies tend towards demonstrating a firearm prevalence-homicide association. The three laws most strongly associated with reduced firearm mortality were laws requiring universal background checks , background checks for ammunition sales, and identification for guns. The same study concluded that "These findings suggest that more restrictive gun sales laws and gun dealer regulations do make it more difficult for criminals to acquire new guns first purchased at retail outlets. They found that some laws prohibiting gun possession by people under domestic violence restraining orders or who had been convicted of violent misdemeanors were associated with lower violence rates, as were laws establishing more procedures to see if people were prohibited from owning a gun under these laws. They also found that multiple other gun regulations intended to prevent prohibited individuals from obtaining guns, such as "rigorous permit-to-purchase" laws and "comprehensive background checks", were "negatively associated with the diversion of guns to criminals. A study in the Journal of the American Medical Association found evidence that child access prevention laws were "associated with a modest reduction in suicide rates among youth aged 14 to 17 years. Kleck and Patterson analyzed the impact of 18 major types of gun control laws on every major type of violent crime or violence including suicide in U. Gun laws in Canada Rifles and shotguns are relatively easy to obtain, while handguns and some semi-automatic rifles are restricted. The same study found that "These decreases may be only partly due to the legislation. According to a study, after this law was passed, firearm-related suicides and homicides, as well as the percentage of suicides involving firearms, declined significantly in that country. The overall suicide rate was essentially the same in the two locations, but the suicide rate among 15 to 24 year olds was about 40 percent higher in Seattle than in Vancouver. The authors concluded that "restricting access to handguns might be expected to reduce the suicide rate in persons 15 to 24 years old, but According to the study, "other factors found to be associated with homicide rates were median age, unemployment, immigration rates, percentage of population in low-income bracket, Gini index of income equality, population per police officer, and incarceration rate. Gun laws in Australia In and , gun control laws were enacted in the Australian state of Victoria , both times following mass shootings. A study found that in the context of these laws, overall firearm-related deaths, especially suicides, declined dramatically. The study also found, however, that non-gun suicide and homicide rates declined even more quickly after the NFA, leading the authors to conclude that "it is not possible to determine whether the change in firearm deaths can be attributed to the gun law reforms. Overview of gun laws by nation A study found evidence that gun control laws passed in Austria in reduced the rates of firearm suicide and homicide in that country. Gun-related hospitalizations also reversed their previous trend by decreasing 4. The same study found a decline in overall youth suicide after the laws were passed, but also concluded that "it is not possible to determine the extent to which this was accounted for by changes in firearms legislation or other causes.

Chapter 7 : Stress-regulating brain area larger in depression, bipolar

This condition, known as postural or orthostatic hypotension, poses a danger of fractures and other serious injury. This is especially a concern in frail older people who often suffer as well from thinning bones (osteoporosis). Therefore, many doctors now set a target of /90 mmHg, /80 mmHg, or /85 mmHg for older individuals.

When states regulate markets, it often causes unintended consequences. This is particularly true in the housing sector, as examples from across the world show us. Axel Kuhlmann Housing is a human right. It is a dangerous step into the wrong direction. Just look at the underlying economic theory. There is too little housing! For years, the construction activity in our cities has been lagging behind the predicted housing requirements. In Berlin alone, And throttling the rent prices is supposed to fix that? Dangerous effects Make no mistake about it, publicly fixed rent prices do have an effect â€" as we have seen in Spain and the U. They lead to an unfair validation of apartment units, which are then rented out under value. This leads to an overall imbalance in the rental market. Apartments and houses start decaying, homelessness rises. The effects are so dramatic that the Swedish economist and socialist! The United States took another road to affordable housing. The American Dream was supposed to include housing for everyone, including minorities with a small income. Presidents of both parties expected to win votes by bringing down rental prices. They enabled banks to grant mortgages, even to people whose credit rating was too low to let them enter as much as a cellphone contract. When this scheme collapsed, it brought about a crisis we have been struggling with ever since. Ill-advised political initiatives cause gentrification. The only thing cities can do now is to change zoning laws and pass out construction authorizations. There is no better way towards affordable housing.

Chapter 8 : Fire Danger - Province of British Columbia

There is no question that regulation is needed, but we must strike a balance to remain competitive." The CIMA Board of Directors is very much aware that too little regulation can lead to major problems, and too much, like the U.S. has been experiencing, will kill the golden goose.

Postwar Trends, The economic boon and associated labor turnover during World War II worsened work safety in nearly all areas of the economy, but after accidents again declined as long-term forces reasserted themselves Table 4. In addition, after World War II newly powerful labor unions played an increasingly important role in work safety. In the s however economic expansion again led to rising injury rates and the resulting political pressures led Congress to establish the Occupational Safety and Health Administration OSHA and the Mine Safety and Health Administration in The work of these agencies had been controversial but on balance they have contributed to the continuing reductions in work injuries after Johns Hopkins University Press, Work Relations in the Coal Industry: The Hand Loading Era. University of West Virginia Press, The best discussion of coalmine work for this period. University of Pittsburgh Press, The best discussion of coal mine labor during the era of mechanization. The Case of Company Unions. Soft Coal Hard Choices: Oxford University Press, The best economic analysis of the labor market for coalmine workers. Fishback, Price and Shawn Kantor. A Prelude to the Welfare State: University of Chicago Press, Coal Mining Safety in the Progressive Period. University of Kentucky Press, Great Britain Board of Trade. General Report with Statistics for , Part I. From the American System to Mass Production, Men, Cities, and Transportation. Working for the Railroad. Princeton University Press, Where the Sun Never Shines. Covers coal mine safety at the end of the nineteenth century. An accessible modern discussion of safety under OSHA. National Academy of Sciences. Toward Safer Underground Coal Mines. Root, Norman and Daley, Judy. A New Look at the Data. Technology and American Economic Growth. Harper and Row, Analyzes the forces shaping American technology. Rosner, David and Gerald Markowity, editors. Indiana University Press, Department of Commerce, Bureau of the Census. Technological Innovation in the American Railroad Industry, Regulating Health and Safety in the Workplace. Harvard University Press, The most readable treatment of modern safety issues by a leading scholar. Provides a superb discussion of early anthracite mining and safety. Whaples, Robert and David Buffum. Insurance a Century Ago. The American Railroad Freight Car. The definitive history of freight car technology. University of Nebraska Press, Worker Protection Japanese Style: Occupational Safety and Health in the Auto Industry. ILR, Worrall, John, editor. Safety and the Work Force: For example, if ten workers are injured out of workers during a year, the rate would be. For readability it might be expressed as 6. Rates may also be expressed per million workhours. Department of Commerce, Historical Statistics, Series For earlier data are in Aldrich, Safety First, Appendix Wallace, Saint Clair, is a superb discussion of early anthracite mining and safety. An early discussion of factory legislation is in Susan Kingsbury, ed. Shaw, Down Brakes, discusses causes of train accidents. Compensation in the modern economy is discussed in Worrall, Safety and the Work Force. Much of the modern literature on safety is highly quantitative. For readable discussions see Mendeloff, Regulating Safety Cambridge: MIT Press, , and Citation: Net Encyclopedia, edited by Robert Whaples. Net - Economic History Services.

Chapter 9 : Regulatory capture - Wikipedia

When states regulate markets, it often causes unintended consequences. This is particularly true in the housing sector, as examples from across the world show us.

What is intravenous fluid regulation? Intravenous fluid regulation is the control of the amount of fluid you receive intravenously, or through your bloodstream. The fluid is given from a bag connected to an intravenous line. Fluids are administered this way for various reasons, all of which require control of the amount given. Without control, the rate of fluid administration relies on gravity alone. This can result in receiving either too much or too little fluid. The flow in an IV is regulated either manually or by using an electric pump. Regardless of how flow is regulated, nurses or medical caregivers must check IVs regularly to ensure both rate of flow and delivery of the correct dosage. There are several reasons why you might need to have fluids administered intravenously. For instance, some treatments rely on IV delivery. The rate and quantity of intravenous fluid given depends on your medical condition, body size, and age. Regulation ensures the correct amount of fluid drips from a bag down the IV into your vein at the correct rate. Complications can result from receiving too much too quickly, or not enough too slowly. What are the types of intravenous fluid regulation? There are two ways to regulate the amount and rate of fluids given during intravenous therapy: Manual regulation The rate of fluid dripping from a bag into an IV can be regulated through a manual technique. Your nurse increases or decreases the pressure that a clamp puts on an intravenous tube to either slow or speed the rate of flow. They can count the number of drops per minute to make sure the rate of flow is correct, and adjust it as needed. Electric pump The rate of flow in your IV can also be modulated with an electric pump. Your nurse programs the pump to deliver the desired amount of fluid into the IV at the correct rate. What can you expect during the procedure? A nurse will then disinfect the skin over the injection site. This is often on your arm, but could be elsewhere on your body. The nurse locates a vein at the site and inserts an IV catheter into it. The nurse then adjusts the IV manually or with a pump to set it to the correct rate of flow. Are there complications with intravenous fluid regulation? A few minor risks are associated with receiving fluids intravenously. These include infection at the injection site, a dislodged IV catheter, or a collapsed vein. All of these are easily corrected or treated. You can avoid dislodging your IV catheter by staying still or being careful not to pull on the tubing during fluid administration. A collapsed vein is more likely to occur if you need to have an IV catheter in place for an extended period of time. Complications related to the regulation of fluids include giving too much fluid too rapidly, causing fluid overload. Overload can cause symptoms such as a headache, high blood pressure, anxiety, and trouble breathing. But if you have other health problems, it can be dangerous. The symptoms of a low flow rate may vary depending on the person and the reason for having fluids administered. The administration of intravenous fluids via IV infusion is common and very safe. If you notice the flow seems to be going too fast or too slow, ask your nurse to check the flow rate. Alert them right away if you experience symptoms such as a headache or trouble breathing while receiving IV treatment.