## Advantage 1: Cooperation –

#### First, our Framework for Cooperation is good – The plan is key to both U.S. and Mexican Biotech innovation and development – it pushes Mexico beyond a simple manufacturing base

Surpin et al 2k7

(Beni Surpin, Bram Hanono and Joseph Panetta, CEO, Biocom, Master of Public Health from the University of Pittsburgh a bachelor of science degree in biology from LeMoyne College Panetta has been actively involved in biotechnology product development and commercialization for more than 20 years, joined Mycogen Corporation, a pioneering San Diego based biotechnology firm where he played a principal role in commercialization of the first recombinant DNA microbes and crops, “Moving Technology Across the Border: The Future of Biotech for the U.S. and Mexico,” pg online @ http://www.latinolawblog.com/2007/10/articles/crossborder-insolvency/moving-technology-across-the-border-the-future-of-biotech-for-the-us-and-mexico/ //ghs-ef)

With so many research institutions….as well as the region as a whole.

#### And, the aff offers a model for Mexican innovation and cooperation on Life Sciences

Surpin et al 2k7

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Historically, the collaborative … biotechnology industry to new levels.

#### And, Mexico is key – Boasts UNIQUE expertise and base of scientific research

SDD 2k7 — San Diego Dialogue, a division of University of California San Diego Extension, contributing to the advancement of research, relationships and solutions to the San Diego-Baja California crossborder region's long-term challenges in innovation, economy, health and education. As a part of the University of California, San Diego (UCSD), Division of Extended Studies and Public Programs, the Dialogue is an entirely self-funded public policy organization (San Diego Dialogue, Crossborder Group Inc., June 2007, “Borderless Biotech & Mexico’s Emerging Life Sciences Industry,” pg online @ <http://www.sandiegodialogue.org/pdfs/Borderless_Biotech.pdf> //ghs-ef)

In most discussions about …. number of start-ups (such as Monterrey-based DeBBiOM) which will serve US firms seeking clinical research options, as well as domestic firms facing Mexico’s new generics bioequivalency requirements.

#### And, IP Protections provide the BEST protections for the poor and encourage Latin American Specific Disease and Pharma Breakthroughs

Bacalski 2k6

(Juan, J.D., University of Arizona James E. Rogers College of Law, 2007; B.S., Animal Physiology and Neuroscience, University of California, San Diego, 1993, “Mexico's Pharmaceutical Patent Dilemma And The Lesson Of India,” Fall, 2006 23 Ariz. J. Int'l & Comp. Law 717 pg lexis//ghs-ef)

Technology thrives when it …. Mexico has abundant potential, and by fostering technological growth in the pharmaceutical industry as well as other industries, it can become an important and competitive player in the world market.

#### Second, the impacts –

#### First, Life Sciences – The impact is multiple scenarios for Extinction

NAS 8 (National Academy of Sciences, “The Role of the Life Sciences in Transforming America's Future Summary of a Workshop” December 3, 2008, Board on Life Sciences Division on Earth and Life Studies, National Research Council)

A Critical Time for the Life Sciences Speaker after speaker at the Summit agreed: the life sciences are poised to usher in a period of unprecedented health and prosperity. Basic scientific research into how living things function ….can humans live sustainably on earth.

#### And, Biotech advances independently solves extinction

Trewavas, 2k – Institute of Cell and Molecular Biology at the University of Edinburgh

(Anthony, “GM Is the Best Option We Have,” 6/5/2000, www.agbioworld.org/biotech-info/articles/biotech-art/best\_option.html)

In 535A.D. a volcano near the present Krakatoa exploded with the force of 200 million Hiroshima A bombs. The dense cloud of dust so reduced the intensity of the sun that for at least two years thereafter, summer turned to winter and crops here and elsewhere in the Northern hemisphere failed completely. The population survived by hunting a rapidly vanishing population of edible animals. The after-effects continued for a decade and human history was changed irreversibly. But the planet recovered. Such examples of benign nature's wisdom, in full flood as it were, dwarf and make miniscule the tiny modifications we make upon our environment. There are apparently ….l civilisations. When the climate is changing in unpredictable ways, diversity in agricultural technology is a strength and a necessity not a luxury. Diversity helps seecure our food supply. We have heard much of the precautionary principle in recent years; my version of it is "be prepared".

#### Third is disease - BSL-4 escapes inevitable and leads to extinction

Wilson 12

Professional Associate at the Global Catastrophic Risk Institute and J.D. from Lewis %26 Clark Law School
Grant, "Minimizing Global Catastrophic and Existential Risks from Emerging Technologies through International Law," Accepted @ Virginia Environmental Law Journal, <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2179094>

\*\*\*\*\*GCR/ER = Global Catastrophic and Existential Risk

**An accidental release ….**establishing a GCR/ER ~**existential risk**~.

#### No vaccines for this strain

Begley 12

(Sharon, et al, "How secure are labs handling world’s deadliest pathogens?," Reuters, http://www.reuters.com/article/2012/02/16/us-health-biosecurity-idUSTRE81E0R420120216)

Last year, labs at the University of ….. still **produce the worst pandemic in history**," said Michael Osterholm of the University of Minnesota and a member of the NSABB, at a symposium at the New York Academy of Sciences this month.

#### We’ve been lucky with past diseases

Klotz 12

(former Harvard University faculty member and biotechnology executive, Senior Science Fellow at the Center for Arms Control and Non Proliferation and a long-time member of the Scientists’ Working Group on Chemical and Biological Weapons. Lynn with Edward Slyvester, "The unacceptable risks of a man-made pandemic," BAS, http://www.thebulletin.org/web-edition/features/the-unacceptable-risks-of-man-made-pandemic)

What is the likelihood … the features of SARS and the 1918 pandemic flu. According to Appendix C pages 31 and 58 in the Final Supplementary Risk Assessment for the Boston University National Emerging Infectious Diseases Laboratories, in the case of each virus, one victim can infect an average of two to three others, the key measure of contagiousness. The 1918 flu PDF killed about 2.5 percent of those infected. SARS, on the other hand, had a fatality rate of 9.6 percent. In other words, SARS appears to have as much pandemic potential as the 1918 flu, but with a fatality potential that is four times greater.

#### Breakthroughs are critical – their defense doesn’t assume mutation, population size, bio-engineering, or globalization

Darling 12

(Astrobiologist Dirk Schulze-Makuch and British astronomer David Darling, Seattle's Big Blog, “9 Strange Ways the World Really Might End,” http://blog.seattlepi.com/thebigblog/2012/03/18/9-strange-ways-the-world-really-might-end/?fb\_xd\_fragment, Washington State University)

Our body is in constant competition with a dizzying array of viruses, bacteria, and parasites, many of which treat us simply as a source of food or a vehicle for reproduction. What’s troubling is that these microbes can mutate and …**survival of our species could be threatened.**

#### No burnout

Casadevall 12

(Prof @ Department of Microbiology and Immunology and the Division of Infectious Diseases of the Albert Einstein College of Medicine, Arturo, “The future of biological warfare,” Microbial Biotechnology, p. 584-5)

In considering the importance of biological warfare as a subject for concern it is worthwhile to review the known existential threats… microbes could poten- tially pose a much greater threat to humanity than the known pathogenic microbes, which number somewhere near 1500 species (Cleaveland et al., 2001; Taylor et al., 2001), especially if some of these species acquired the capacity for pathogenicity as a consequence of natural evolution or bioengineering.

#### And, Drug-resistant TB strains are developing in Mexico – spreads quickly and is airborne

Wall Street Journal 3/8

(“Risk of Deadly TB Exposure Grows Along U.S.-Mexico Border,” pg online @ https://groups.google.com/forum/#!topic/tb-roundtable/N3ec0AnfzZA //ghs-ef)

The Tijuana General Hospital TB Clinic …..connected by the air we breathe," said Thomas Frieden, director of the CDC, and a TB expert who successfully battled a major outbreak of multidrug-resistant TB in New York City in the 1990s, then spearheaded India's TB-fighting program for the World Health Organization.

#### And, XDR TB spread risks becoming a pandemic – puts the global population at risk

**Bio-Medicine 2007** – one of the Internet’s leading online Organizations devoted to biology and medicine,  http://www.bio-medicine.org/medicine-news/The-Dreaded-Disease-Tuberculosis-Raises-Its-Ugly-Head-20674-1/

**The Dreaded Disease ….before it becomes pandemic.** Last week, the WHO asked governments worldwide to pay up the $3 billion a year needed to fund existing TB programs and an additional $1 billion a year to combat XDR TB. In the U.S., Sen. Sherrod Brown (D-Ohio) and others proposed spending $300 million on TB next year, much of it on research. Given that isolating and treating a single XDR patient can cost up to $250,000, the case for spending far more on prevention and control is self-evident. Today, more than one-third of the world's more than 6 billion people have been exposed to the tuberculosis germ. Five to 10 percent of them, or at least 100 million, will develop symptomatic TB. Each will infect 10 to 20 people before they are either successfully treated or they die. Last year, active -- and contagious -- tuberculosis was diagnosed in more than 8.8 million people. Approximately 420,000, or 5 percent, of them have a drug-resistant strain that requires several more medications than drug-sensitive cases do; about 30,000 of these 420,000 cases are even more difficult and expensive to treat, the highly lethal XDR-TB.

#### Second is Biofuels

#### Mexico is a KEY knowledge center for industrial enzymes and genomics – eliminating IPR issues creates opportunities for U.S. Cooperation (To read, or not to read???)

Quezada 2k6

(Fernando Quezada is Executive Director of the Biotechnology Center of Excellence Corporation, a Massachusetts-based organisation advising international public and private sector agencies in biotechnology development programmes. He served on the Presidential Commission for Biotechnology Development for the Republic of Chile and as Consultant to the UN Economic Commission for Latin America and the Caribbean, JOURNAL OF COMMERCIAL BIOTECHNOLOGY. VOL 12. NO 3. 192–199. APRIL 2006 //ghs-ef)

Mexico Mexico represents the tenth biggest economy in the world today and is a destination for significant foreign direct investment. Currently US-based Merck & Co. is sponsoring a comprehensive study of the life sciences sector in Mexico. By providing a major grant to the Council on Competitiveness in Washington, DC, Merck has demonstrated interest in assessing the national and regional policy environment for life sciences innovation in Mexico. The study will determine areas of strengths and weaknesses in the Mexican life sciences sector and provide specific recommendations for the establishment of a ‘cluster’ in the life sciences. At a recent biotechnology conference in the USA, Grey Warner, Merck & Co.’s Senior Vice President for Latin America described this effort and offered his view of Mexico’s potential for innovation in biotechnology and related fields.17 He pointed out that by creating the enabling conditions in which innovation can flourish (such as free trade, respect for intellectual property, marketbased healthcare reform and rule of law), Latin America can deliver on the promise of prosperity for its people. The ability to innovate and absorb innovation and turn it into marketable goods and services has become essential. He said that establishing these conditions will ‘enable countries to use innovation as a platform to improve the health status and standard of living of their citizens while allowing them to compete more effectively in the global marketplace.’ In Mexico, the issue of genetically modified (GM) organisms has been the subject of extensive debate with proponents and opponents arguing both sides. After lengthy deliberations in Mexico’s Congress and as a result of considerable public protest, the Mexican government published its new Biosafety Law for Genetically Modified Organisms in March of 2005 (Figure 3). Complying with Mexico’s obligations under the Cartagena Protocol, this law regulates the creation, development and marketing of GM products. The law essentially removes previous restrictions on the use sale, import, export and farming of GM organisms and provides for governmental coordination of the oversight and permitting processes. One of the groups that …. part of Latin America’s future in commercial biotechnology.

#### Specifically, these genomic breakthroughs are key Algae Biofuels –

Radakovits et al 10

(Randor, 1 Robert E. Jinkerson,1 Al Darzins,2 and Matthew C. Posewitz1, 1Department of Chemistry and Geochemistry, Colorado School of Mines, and 2National Renewable Energy Laboratory, pg online @ <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2863401/> //ghs-ef)

Interest in a variety of renewable biofuels ….water and arable land.

#### Extinction

The Guardian 8

(6/27/2k8, "Microbe economics," pg online @

<http://www.guardian.co.uk/business/2008/jun/27/green.fuel.algae>//ghs-ef)

Already in the US there …. to the planet's survival.

### Advantage 2: U.S. IP Leadership

#### First, Current USTR Focus on 301 Reports Undermines U.S. Trade Policy – Heavy-Handed Approach bullies countries into IP protections

Sutton 2k12

(“Special 301 Report 2012: The USTR’s Bogus List of Countries That "Don't Enforce" Copyrights,” pg online @ <https://www.eff.org/deeplinks/2012/05/special-301-report-2012-ustrs-absurd-list-international-disappointments> //ghs-ef)

The Office of the United States Trade Representative (USTR) released its annual … process in the eyes of other governments. Geist made a submission with Public Knowledge to the USTR this year. It said [pdf]:

#### And, China is the MAIN focus – IP violations are front and center in the relationship

Finance 8/23/13 – (SriLanka Finance, “China Continues to replicate in all fields by violating IP rights” Information, Investment, and Wealth, Available online @ http://www.srilankafinance.lk/corporate-news/483-china-continues-to-replicate-in-all-fields-by-violating-ip-rights)//ghs-mm

According to the latest report …. other developed countries.

#### Failure to enforce Chinese IP protections collapses relations and cooperation on major hotspots-- causes U.S.-China Conflict

Thomson 2k6

(Tom, Executive Director, Coalition for Intellectual Property Rights (CIPR), 15 September 2006 “U.S. Policy Roadmap: Moving China from a Haven for Pirates to a Country of IPR Stakeholders,” pg online @ http://www.tthomsonassociates.com/2006/09/u-s-policy-roadmap-moving-china-from-a-haven-for-pirates-to-a-country-of-ipr-stakeholders/ //ghs-ef)

What are the …. economic engagement.”

#### Goes nuclear

Hunkovic ‘9

[Lee. Prof Military Studies @ American Military University. “The Chinese-Taiwanese Conflict – Possible Futures of a Confrontation between China, Taiwan, and the United States of America” [www.lampmethod.com](http://www.lampmethod.com), 2009]

A war between China, Taiwan and the United States has the potential to escalate into a nuclear conflict and a third world war, therefore, many countries other than the primary actors could be affected by such a conflict, including Japan, both Koreas, Russia, Australia, India and Great Britain, if they were drawn into the war, as well as all other countries in the world that participate in the global economy, in which the United States and China are the two most dominant members. If China were able to successfully annex Taiwan, the possibility exists that they could then plan to attack Japan and begin a policy of aggressive expansionism in East and Southeast Asia, as well as the Pacific and even into India, which could in turn create an international standoff and deployment of military forces to contain the threat. In any case, if China and the United States engage in a full-scale conflict, there are few countries in the world that will not be economically and/or militarily affected by it. However, China, Taiwan and United States are the primary actors in this scenario, whose actions will determine its eventual outcome, therefore, other countries will not be considered in this study.

#### And, Bayh Dole flips the IP process and is a CRITICAL model – Preserves U.S. IP Credibility and ensures China will build-in IP Protections – spills-over globally

Espinel 2k7

(Victoria A., Assistant U.S. Representative for Intellectual Property and Innovation, Office of the U.S. Trade Representative, Washington, DC<http://www.gpo.gov/fdsys/pkg/CHRG-110hhrg38337/html/CHRG-110hhrg38337.htm> //ghs-ef)

So I would direct this to Ms. Espinel and to Mr. Smith. But in light of this apparent desire on the part of the Chinese, are there additional ….. protecting intellectual property and as they see themselves having a greater stake in the international system for protecting intellectual property.

#### And, U.S.-Mexico IP efforts become a GLOBAL MODEL for IP enforcement

Zagaris et al 94

(Bruce Zagaris, Partner, Cameron & Hornbostel, Washington, D.C.; George Washington University, B.A., J.D., LL.M.; adjunct professor, Washington College of Law, American University, and Fordham University School of Law; chair, Committee on International Criminal Law, Section of Criminal Law, American Bar Association, Alvaro J. Aguilary, Associate, Ffbrega, Barsallo, Molino & Mulino, Panama City, Panama; Universidad Santa Marfa Ia Antigua (Panama), LL.B. 1991; Washington College of Law, American University, “Enforcement of Intellectual Property Protection Between Mexico and the United States: A Precursor of Criminal Enforcement for Western Hemispheric Integration?,” Fordham Intellectual Property, Media and Entertainment Law Journal, pg online @ http://ir.lawnet.fordham.edu/cgi/viewcontent.cgi?article=1098&context=iplj //ghs-ef)

The increase in trade liberalization …. Western hemispheric, as well as global, economic integration.

# Text

#### Plan: The United States federal government should provide technical assistance to the government of Mexico for implementation of domestic intellectual property protections

## Brain Drain

#### Second, Mexican Brain drain –Mexico’s Economy is on the brink – brain drain stunts innovation, growth, and S&T base

Rosen 2k11

(Cecilia Rosen is a science journalist based in Mexico. She completed an MSc in science communication at Imperial College London and lives in Mexico City, pg online @ http://www.scidev.net/global/migration/feature/rebuilding-mexico-s-science-and-technology-capacity-1.html //ghs-ef)

[MEXICO CITY] Despite being one of the richest countries in Latin America, Mexico has made little …. the expense of basic research," adds Rosaura Ruiz, ex-president of the Mexican School of Sciences, who believes technology development has been favoured over basic research.

#### And, robust IP protection for University scientists is necessary to spur genomic medicine in Mexico and prevent Mexican brain drain

March et al 2k8

(Gerardo Jimenez-Sanchez1, Irma Silva-Zolezzi, Alfredo Hidalgo, and Santiago March, National Institute of Genomic Medicine, Mexico, “Genomic medicine in Mexico: Initial steps and the road ahead,” pg online @ <http://genome.cshlp.org/content/18/8/1191.full> //ghs-ef)

Developing genomic …. for public R&D in Mexico and maintain up-to-date technological infrastructure. To ease this challenge, there are several initiatives to secure additional support for genomic medicine, including competing for international grant opportunities and increasing the participation of the private sector in research and development. Currently, ∼35% of expenditures in science and technology in Mexico are funded by the industrial sector (OECD 2008). Although this percentage is on the lower end of the OECD country members, strategic alliances are being established between industry and public research institutions for specific projects, including those in genomic medicine.