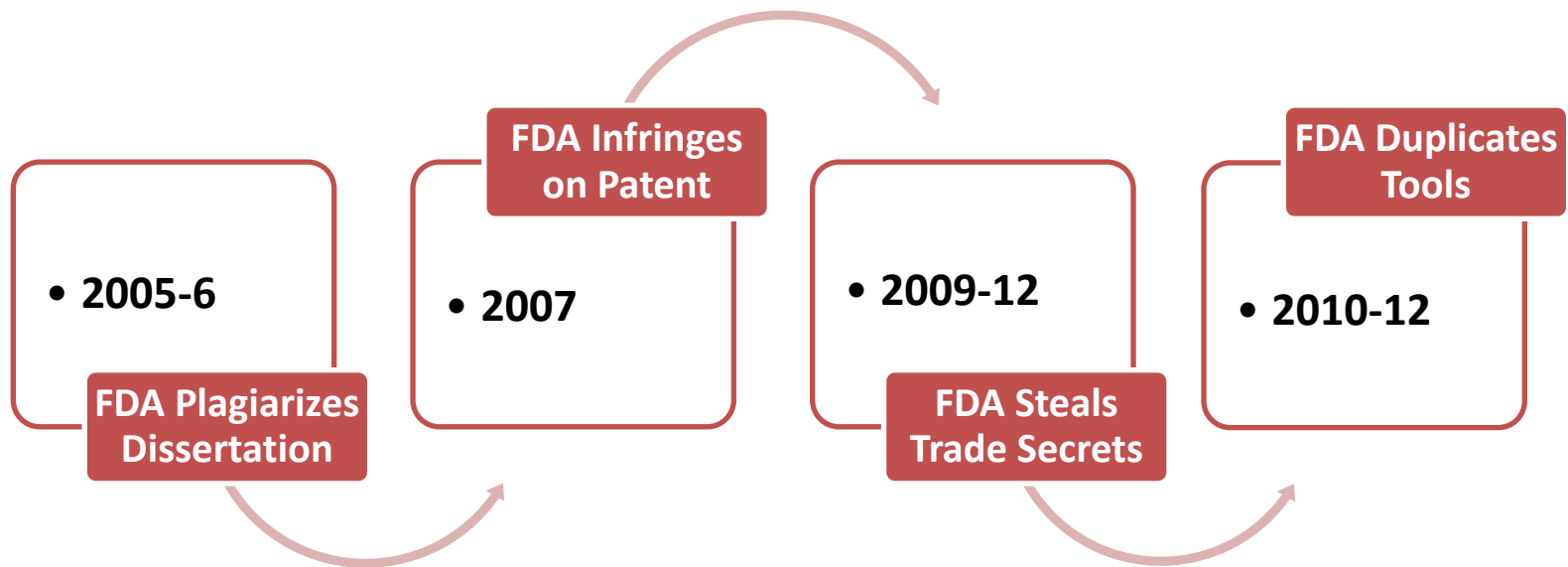


# ENCLOSURE 1:

Plagiarism evaluation of Dr. Hnatio's 2006  
doctoral dissertation and the subsequent  
2007 FDA Food Protection Plan

# FDA Plagiarism Timeline



## Fourteen Examples of Plagiarized Content in the Food and Drug Administration's (FDA) Food Protection Plan

1. Systems approach of prevention, intervention and response

8. Developing and testing the effectiveness of operational plans

2. *A priori* thinking and the consideration of threats and risks to prevent harm before an event occurs

9. Minimizing the consequences of adverse events

3. Scientific extrapolation of the extended order effects of adverse events ahead of time

10. Indicators and warnings and intelligence collection strategies

4. Increased focus on prevention

11. Application of science and information technology to identify vulnerabilities and determine the most effective countermeasures

5. Targeting areas of highest risk for attention

12. Determining and managing risk

6. Validating the effectiveness of prevention measures and reducing risk

13. Holistic view of complex systems

7. Earliest possible detection of adverse events to speed responses

14. Integrating safety and security

**Food and Drug Administration (FDA)**  
**Plagiarism of 2000-2006 Doctoral Dissertation Research**

<b>Complexity Systems Management Method®</b>		<b>FDA Food Protection Plan</b>
<b>Plagiarized Content</b>	<b>Pages in Doctoral Research Dissertation</b>	<b>Plagiarized Pages in Food Protection Plan</b>
1. Systems approach of prevention, validation [FDA uses the substitute term “intervention” for validation], and response	9, 18, 39, 43, 45, 47, 49, 59, 64-66, 73, 75-76, 79, 80, 85-87, 94, 111-13, 117, 123, 126-8, 133, 155, 158, 159, 163, 164, 170,-71, 174,-76, 178-79, 182-86, 188-90, 192, 196, 199, 200, 203-04, , 211-12, 215, 217-18, 224, 227, 229, 232-33, 237	1-4, 6-7, 11, 13, 14-24 , 26-29, 32
<b>Representative Quotation from 2000-2006 Doctoral Research Dissertation</b>		<b>Page</b>
“For risk applications scenarios are structured along a time continuum that begins with earliest possible detection of an adverse event moving sequentially through deterrence , prevention, response, immediate mitigation of consequences, and long term recovery.”		85
<b>Samples of Plagiarized Quotations from 2007 FDA Food Protection Plan</b>		<b>Page</b>
“FDA's integrated approach, within the Food Protection Plan, encompasses three core elements: prevention, intervention [FDA uses the substitute term intervention for validation] and response.”		6
“Along with prevention and intervention [FDA uses the substitute term of intervention for validation], faster and more focused response is needed once a problem is detected.”		14
“Prevention is the first essential step for an effective, proactive food safety and defense plan.”		17
“Expand the Understanding and Use of Effective Mitigation Measures”		17

**Food and Drug Administration (FDA)**  
**Plagiarism of 2000-2006 Doctoral Dissertation Research**

<b>Complexity Systems Management Method®</b>		<b>FDA Food Protection Plan</b>
<b>Plagiarized Content</b>	<b>Pages in Doctoral Research Dissertation</b>	<b>Plagiarized Pages in Food Protection Plan</b>
2. <i>A priori</i> thinking and the consideration of threats and risks to prevent harm before an event occurs	47, 76, 80, 85-86, 90, 93, 97, 103, 113, 122, 128-30, 134, 155, 157-58, 160-62, 166-68, 171-73, 176, 178-81, 183-85, 188, 191, 202, 225	1-4, 6, 14-22, 29, 32

<b>Representative Quotation from 2000-2006 Doctoral Research Dissertation</b>	<b>Page</b>
“So, what we may really need is a new cultural perspective — one that encourages us to think on an <i>a priori</i> basis about complex events and situations and to take appropriate actions to prevent serious problems before they happen and, if they occur, to have taken a close look at how to mitigate their adverse consequences .”	113

<b>Samples of Plagiarized Quotations from 2007 FDA Food Protection Plan</b>	<b>Page</b>
“By preventing most harm before it can occur...FDA can provide a food protection framework that keeps the American food supply safe.”	2
“Driven by science and modern information technology, the Plan aims to identify potential hazards and counter them before they can do harm.”	6
“The Plan focuses FDA's efforts on preventing problems first...”	6
“This shift to an increased emphasis on prevention is at the core of FDA's Food Protection Plan...”	13

**Food and Drug Administration (FDA)**  
**Plagiarism of 2000-2006 Doctoral Dissertation Research**

<b>Complexity Systems Management Method®</b>		<b>FDA Food Protection Plan</b>
<b>Plagiarized Content</b>	<b>Pages in Doctoral Research Dissertation</b>	<b>Plagiarized Pages in Food Protection Plan</b>
3. Scientific extrapolation of the extended order effects of adverse events ahead of time	i, ii, 1-2, 12,32, 43, 44, 45, 47-48, 50, 52, 57-58, 61-62, 64-66, 69, 73, 76, 77, 83, 87-88, 90-92, 94-95, 97, 99, 103, 111, 113, 118, 121-23, 131-32, 134, 136-37, 155	2, 4, 6, 14-22, 27-28
<b>Representative Quotations from 2000-2006 Doctoral Research Dissertation</b>		<b>Page</b>
“For risk applications...what information had it been known before the adverse situation occurred could have used to mitigate its consequences?”		75
“...the potential outcomes...are structured, catalogued and archived in a supporting computer knowledgebase.”		77
“Science-based models that show participants the extended order effects of decisions are used.”		94
<b>Samples of Plagiarized Quotations from 2007 FDA Food Protection Plan</b>		<b>Page</b>
“By preventing most harm before it can occur...FDA can provide a food protection framework that keeps the American food supply safe.”		2
“It [the FDA Food Protection Plan] is a forward-oriented concept that uses science and modern information technology to identify potential hazards ahead of time.”		2
“Driven by science and modern information technology, the Plan aims to identify potential hazards and counter them before they can do harm.”		6

**Food and Drug Administration (FDA)**  
**Plagiarism of 2000-2006 Doctoral Dissertation Research**

Complexity Systems Management Method®		FDA Food Protection Plan
Plagiarized Content	Pages in Doctoral Research Dissertation	Plagiarized Pages in Food Protection Plan
4. Increased focus on prevention	47, 73, 75, 76, 79-80, 85-86, 90, 93, 97, 103, 112-13, 122, 127-30, 134, 155, 157-58, 160-62, 166-68, 170-73, 176, 178-85, 188, 191, 202, 225	1-2, 6-7, 12-15, 17-19, 21, 32

Representative Quotations from 2000-2006 Doctoral Research Dissertation	Page
"...the current center of gravity for risk management rests on reaction with principal attention focused on <i>ex post facto</i> response to events."	79
"Figures 2 illustrates the shift in the center of gravity from react and respond to the anticipation and prevention of adverse events under the complexity systems management method."	80
"So, what we may really need is a new cultural perspective — one that encourages us to think on an <i>a priori</i> basis about complex events and situations and to take appropriate actions to prevent serious problems before they happen and, if they occur, to have taken a close look at how to mitigate their adverse consequences."	113

Samples of Plagiarized Quotations from 2007 FDA Food Protection Plan	Page
"Driven by science and modern information technology, the Plan aims to identify potential hazards and counter them before they can do harm. A cornerstone of this forward-thinking effort is an increased focus on prevention."	6
"While American consumers enjoy one of the safest food supplies in the world, growing challenges require a new approach to food protection at FDA — an increased emphasis on prevention."	13
"This shift to an increased emphasis on prevention is at the core of FDA's Food Protection Plan..."	13

**Food and Drug Administration (FDA)**  
**Plagiarism of 2000-2006 Doctoral Dissertation Research**

**Complexity Systems Management Method®**

**FDA Food Protection Plan**

**Plagiarized Content**

**Pages in Doctoral  
Research Dissertation**

**Plagiarized Pages in  
Food Protection Plan**

5. Targeting areas of highest risk for attention

74-76, 77-80, 83-86, 88-89, 90-91, 93-95, 97-100, 124-27, 130-31, 134-37, 155-56, 158, 161-63, 165-66, 169-78, 181-192, 210

6, 14, 15, 16-18, 20-22, 24, 26, 29

**Representative Quotations from 2000-2006 Doctoral Research Dissertation**

**Page**

“The critical nodes of a complex system [i.e., areas of highest risk] are those core interrelationships within the system itself that are particularly sensitive to changes in initial conditions.”

74

“This [risk] data includes...those points in a simulated event [ i.e., areas of highest risk] where decisions must be made in order to avoid catastrophic system failure ...”

91

“CSM simulations are tied to a supporting computer knowledgebase that characterizes each of the critical safety, security and programmatic nodes of operation of a product cycle [i.e., areas of highest risk] including associated fixed site food processing/manufacturing facilities.”

169

**Samples of Plagiarized Quotations from 2007 FDA Food Protection Plan**

**Page**

“The intervention element focuses on...high risk points in the food supply chain.”

6

“Prevention needs to be augmented by targeted intervention that focuses inspection and testing on the areas of greatest risk.”

14

A comprehensive risk-based approach must consider the many variables that define risk. Such variables include...where contamination is most likely to occur...”

15

“Examining all aspects of the product life cycle helps define the areas of greatest risk.”

16



**Food and Drug Administration (FDA)**  
**Plagiarism of 2000-2006 Doctoral Dissertation Research**

**Complexity Systems Management Method®**

**FDA Food Protection Plan**

**Plagiarized Content**

**Pages in Doctoral  
Dissertation Research**

**Plagiarized Pages in  
Food Protection Plan**

6. Validating the effectiveness of prevention measures and reducing risk [FDA uses the substitute term “intervention” for validation]

45, 59, 66-8, 70-1, 75-76, 79-80, 83, 85-86, 88-89, 90, 93-94, 99-103, 112-13, 136-37, 155, 157-58, 169-180, 185, 187

2, 6, 14, 16, 21-23, 27, 32

**Representative Quotations from 2000-2006 Doctoral Research Dissertation**

**Page**

“The *immersion process* can also be used to test operational responses to high consequence agro-terrorist events involving America's food supply system including product cycle, fixed site food processing/manufacturing operations, supply chain distribution and retail sales.”

169

The same knowledgebase can be used at the tactical level to test operational safety and security responses to agro-terrorism using hypothetical simulations before a similar event happens in the real world.

173

CSM immersions use scientifically accurate simulations of hypothetical attacks for both threat analysis and to test actual operational capabilities in response to high consequence terrorist attacks against America's food supply.

174-75

**Samples of Plagiarized Quotations from 2007 FDA Food Protection Plan**

**Page**

“Intervention - Verify prevention and intervene when risks are identified”

2

“...enhancing our intervention methods at key points in the food production system...can provide a food protection framework that keeps the American food supply safe.”

2

“The Plan focuses FDA's efforts on preventing problems first, and then uses risk-based interventions to ensure preventive approaches are effective.”

6

Food and Drug Administration (FDA)		
Plagiarism of 2000-2006 Doctoral Dissertation Research		
Complexity Systems Management Method®		FDA Food Protection Plan
Plagiarized Content	Pages in Doctoral Research Dissertation	Plagiarized Pages in Food Protection Plan
7. Earliest possible detection of adverse events to speed responses [FDA also uses the substitute terms “surveillance” and “signals” as aids to early detection ]	43, 75-77, 81-83, 85-86, 93, 98, 127, 129, 135, 157-163, 165-68, 170-71, 173-74, 176, 179, 181, 182-83, 185-86, 188, 190, 192	4, 6, 11-14, 16-17, 21-24, 26, 27
Representative Quotations from 2000-2006 Doctoral Research Dissertation		Page
“For risk applications...a time continuum that begins with <b>earliest possible detection</b> [emphasis added] of an adverse event moving sequentially through deterrence, prevention, response, immediate mitigation of consequences, and long term recovery.”		75
“The simulations used in immersions are referred to as "full spectrum" because they are specially crafted to address the agro-terrorist threat from “field to fork” for different product cycles across the entire terrorist threat continuum from <b>early detection</b> [emphasis added], deterrence, deceit, deception, prevention, response, mitigation of immediate consequences and long-term economic recovery.”		155
“These indicators and warnings are catalogued and archived in the supporting knowledgebase and can be used to facilitate focused intelligence collection strategies for the <b>earliest possible detection</b> [emphasis added] and interdiction of terrorists before they can successfully attack critical nodes of agricultural product cycle, distribution and fixed site food manufacturing operations.”		170-71
Samples of Plagiarized Quotations from 2007 FDA Food Protection Plan		Page
“The intervention element focuses on...surveillance at high risk points in the food supply chain.”		6
“However, even the best system in the world cannot prevent all incidents of foodborne illness. Along with prevention and intervention, faster and more focused response is needed once a problem is detected.”		14
“Improve the Detection of Food System ‘Signals’ that Indicate Contamination”		22

**Food and Drug Administration (FDA)**  
**Plagiarism of 2000-2006 Doctoral Dissertation Research**

<b>Complexity Systems Management Method®</b>		<b>FDA Food Protection Plan</b>
<b>Plagiarized Content</b>	<b>Pages in Doctoral Research Dissertation</b>	<b>Plagiarized Pages in Food Protection Plan</b>
8. Developing and testing the effectiveness of operational plans	16, 46-47, 64,67-68, 76, 78-79, 83, 86, 88-89, 90-95, 97-103, 121-24, 130-31, 134-35; 137, 155-58, 160-62, 164, 169-75, 177-79, 180-85, 187, 189,190-91	6, 14, 16-19, 21-24, 27-31

<b>Representative Quotations from 2000-2006 Doctoral Research Dissertation</b>	<b>Page</b>
“The resulting knowledgebase can be used for educational, strategic and tactical operational uses as a planning and response tool to manage analogous events that confront decision makers in the real world.”	94
“The same knowledgebase can be used at the tactical level to test operational safety and security responses to agro-terrorism using hypothetical simulations before a similar event happens in the real world.”	173
“The complexity systems management method is a tool that can be used by the agricultural sector as part of terrorism threat, risk and operational response planning where current risk assessment tools fail to systematically identify the critical nodes of operation of complex food production, processing and supply and distribution chains for assessing potential catastrophic outcomes.”	177

<b>Samples of Plagiarized Quotations from 2007 FDA Food Protection Plan</b>	<b>Page</b>
“Interventions, in the form of targeted inspections and testing, verify that preventive controls are working and that resources are being applied to the areas of greatest concern ...”	14
“...developing a contingency plan to aid in a response in the event of contamination.”	17
“Develop written food protection guidelines for industry to a) develop food protection plans for produce and other food products, and b) implement other measures to promote corporate responsibility.”	18
“FDA will continue to work with industry in a) developing food protection plans that address safety and defense vulnerabilities, b) implementing prevention steps, and c) developing contingency plans to improve response to an outbreak of foodborne illness.”	19

**Food and Drug Administration (FDA)**  
**Plagiarism of 2000-2006 Doctoral Dissertation Research**

**Complexity Systems Management Method®**

**FDA Food Protection Plan**

**Plagiarized Content**

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Research Dissertation**

**Plagiarized Pages in  
Food Protection Plan**

9. Minimizing the consequences of adverse events

75-76, 79-80, 85-86, 113, 123, 126, 128, 170, 175, 176, 182, 187-88, 193, 200, 211, 217, 224

4, 17, 21-22

**Representative Quotations from 2000-2006 Doctoral Research Dissertation**

**Page**

“For risk applications...a time continuum that begins with earliest possible detection of an adverse event moving sequentially through deterrence, prevention, response, **immediate mitigation of consequences and long term recovery** [emphasis added].”

75

“The simulations used in immersions are referred to as "full spectrum" because they are specially crafted to address the agro-terrorist threat from “field to fork” for different product cycles across the entire terrorist threat continuum from early detection, deterrence, deceit, deception, prevention, response, **mitigation of immediate consequences and long-term economic recovery** [emphasis added].”

155

“These teams [immersion teams] also identify the **range of potential consequences** [emphasis added] of a successful attack ...The results are catalogued and archived in the supporting computer knowledgebase...to ‘baseline’ onsite and external resources that could be called upon **to respond to and mitigate the consequences** [emphasis added] of a successful terrorist attack...”

170

**Samples of Plagiarized Quotations from 2007 FDA Food Protection Plan**

**Page**

“Expand the Understanding and Use of Effective Mitigation Measures”

4, 17

“1.3 EXPAND THE UNDERSTANDING AND USE OF EFFECTIVE MITIGATION MEASURES “

21

“Develop new mitigation tools and implement appropriate risk management strategies.”

22

Food and Drug Administration (FDA) Plagiarism of 2000-2006 Doctoral Dissertation Research		
Complexity Systems Management Method®		FDA Food Protection Plan
Plagiarized Content	Pages in Doctoral Research Dissertation	Plagiarized Pages in Food Protection Plan
10. Indicators and warnings and intelligence collection strategies [FDA uses the substitute term “signals”]	76, 83, 86, 89, 93, 98-99, 122, 135, 156-61, 163-68, 170-71, 173-74, 179, 181-83, 185-86, 190, 192, 221, 224, 228	4, 12, 14, 21, 22, 24, 26-27, 31
Representative Quotations from 2000-2006 Doctoral Research Dissertation		Page
“For risk applications, the precursor warning signals that can lead to disasters or cause disasters to escalate to become catastrophes are identified.”		93
“...the warnings of impending adverse situations are validated by immersion participants and strategies to implement highly focused intelligence collection are considered.”		98
“Critical nodes of product cycle, distribution and fixed site food processing/manufacturing operations...are analyzed...to identify the indicators and warnings...These indicators and warnings are...archived in the supporting knowledgebase...to facilitate focused intelligence collection strategies for the earliest possible detection and interdiction of terrorists before they can successfully attack critical nodes of agricultural product cycle, distribution and fixed site food manufacturing operations.”		170-71
Samples of Plagiarized Quotations from 2007 FDA Food Protection Plan		Page
“Signals of potential problems come in the form of consumer complaints, inspection data, positive test results, adverse event reports, and other reports of illness.”		12
“A successful and fully integrated food protection system will identify signals that indicate the need for intervention.”		14
“Working with its food safety partners, FDA will improve its response system to more rapidly react when signals indicate either potential or actual harm to consumers.”		14
“An integrated, IT infrastructure with data gathering, sorting, mining, and trending capability built into the systems is critical to the success of FDA's food protection efforts		31

**Food and Drug Administration (FDA)**  
**Plagiarism of 2000-2006 Doctoral Dissertation Research**

Complexity Systems Management Method®		FDA Food Protection Plan
Plagiarized Content	Pages in Doctoral Research Dissertation	Plagiarized Pages in Food Protection Plan
11. Application of science and information technology to identify vulnerabilities and determine the most effective countermeasures	I, 3-4, 6-8, 10, 12-13, 17, 25, 33, 43, 49, 51-53, 56-58, 64, 67-68, 73, 76-77, 83-84, 90, 91-95, 98-100, 103, 108, 110, 123-24, 132-136, 155-58, 164, 167-73, 169, 179-85, 190-92, 197, 208, 220-22, 225	2-7, 14-17, 24-25, 30-32
Representative Quotations from 2000-2006 Doctoral Research Dissertation		Page
“Quantitative, i.e., science-based, [computer driven] models are used to scientifically extrapolate the extended order effects of the outcomes of possible decisions that could be made to manage each scenario.”		76
“Analogously derived science-based [computer driven] simulations of hypothetical events and situations involving systems relationships among critical nodes of operation of a complex system are used during immersions.”		90-91
“Science-based [computer driven] models that show participants the extended order effects of decisions are used.”		94
“...science-based scenarios and critical decision points of simulations involving potential future events and situations should be systematically “reverse engineered” using...cutting edge information technology developments including quantitative and computational social science modeling, advanced simulations and computer knowledgebases where all information is structured for repeatability.”		123
Samples of Plagiarized Quotations from 2007 FDA Food Protection Plan		Page
“It [the FDA Food Protection Plan] is a forward-oriented concept that uses science and modern information technology to identify potential hazards ahead of time.”		2
“A successful plan for food protection is based on science. FDA's Food Protection Plan emphasizes the need to know the science underpinning how and where food becomes contaminated and the associated risks. The Plan also highlights the use of science to determine optimal interventions to reduce the likelihood of contamination.”		16

Food and Drug Administration (FDA) Plagiarism of 2000-2006 Doctoral Dissertation Research		
Complexity Systems Management Method®		FDA Food Protection Plan
Plagiarized Content	Pages in Doctoral Research Dissertation	Plagiarized Pages in Food Protection Plan
12. Determining and managing risk	9, 75-76, 79-80, 83, 85, 88-89, 93-95, 97-100, 127, 131, 134-35, 136, 154-56, 158-59, 160-62, 168-71, 174-77, 180-83, 186-89, 191, 193	2-4, 6, 11, 14-22, 24-29, 31-32
Representative Quotations from 2000-2006 Doctoral Research Dissertation		Page
“The same red teams determine the outcomes and extended order effects of a range of different decisions for each of the critical nodes [i.e., determine areas of highest risk]”		95
“Subject matter experts are asked to determine those points in the simulation where decisions must be made in order to avoid unacceptable outcomes [i.e., determine areas of highest risk].”		156
“CSM food production cycle, distribution and processing/manufacturing facility immersions can be repeated with different participants to update a supporting knowledgebase in order to continuously refine product cycle, distribution and fixed food processing/ manufacturing site threat and risk plans, e.g., design basis threat.”		169
“A critical aspect of the CSM immersion process is...how to focus limited resources in the most efficient manner to achieve reasonable risk before a similar event happens in the real world. The CSM method considers the entire threat continuum from early detection, deterrence, prevention response, near term mitigation to long-term programmatic recovery.”		176
Samples of Plagiarized Quotations from 2007 FDA Food Protection Plan		Page
“A comprehensive risk-based approach must consider the many variables that define risk.”		15
“Establish a risk-based process [i.e., methods to determine risk] to continuously evaluate which FDA-regulated products cause the greatest burden of foodborne disease.”		20
“A comprehensive, risk-based approach allows the FDA to maximize the effectiveness of its available resources by focusing on food products that have the potential to pose the greatest risk to human and animal health.”		21

**Food and Drug Administration (FDA)**  
**Plagiarism of 2000-2006 Doctoral Dissertation Research**

**Complexity Systems Management Method®**

**FDA Food Protection Plan**

**Plagiarized Content**

**Pages in Doctoral  
Research Dissertation**

**Plagiarized Pages  
in Food Protection Plan**

13. Holistic view of complex systems  
[FDA uses the terms production  
life cycle and supply chains]

8, 10, 11, 21, 23, 52-56, 61, 169, 170-  
74, 177-80

2-3, 6, 14-16, 19-21, 27-28, 32

**Representative Quotations from 2000-2006 Doctoral Research Dissertation**

**Page**

“...multidisciplinary groups of experts examine, from the holistic frame of reference, real (or imagined) systems to identify patterns of interest, i.e., behaviors, exhibited by a complex system or systems of systems at  $t_1$ .”

74

“The complex system is viewed holistically to determine the critical nodes of a system’s operation, i.e., those core interrelationships or activities unique to a given system that are particularly sensitive to changes in initial conditions.”

84

“CSM food production cycle, distribution and processing/manufacturing facility immersions can be repeated with different participants to update a supporting knowledgebase in order to continuously refine product cycle, distribution and fixed food processing/ manufacturing site threat and risk plans, e.g., design basis threat.”

169

“The simulations used in immersions are referred to as “full spectrum” because they are specially crafted to address the agro-terrorist threat from “field to fork” for different product cycles across the entire terrorist threat continuum from early detection, deterrence, deceit, deception, prevention, response, mitigation of immediate consequences and long-term economic recovery.”

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**Samples of Plagiarized Quotations from 2007 FDA Food Protection Plan**

**Page**

“Examining all aspects of the product life cycle helps define the areas of greatest risk.”

16

“FDA designed its Plan for the full life cycle of food—from production to consumption...”

17

“By analyzing data collected throughout the food product life cycle, we are better able to detect risks posed by food products.”

21



**Food and Drug Administration (FDA)**  
**Plagiarism of 2000-2006 Doctoral Dissertation Research**

<b>Complexity Systems Management Method®</b>		<b>FDA Food Protection Plan</b>
<b>Plagiarized Content</b>	<b>Pages in Doctoral Research Dissertation</b>	<b>Plagiarized Pages in Food Protection Plan</b>
14. Integrating safety and security	42, 45, 48-49, 59, 114, 154, 169, 171-78, 183, 187-88, 190	3, 7, 15-17, 19-20, 32

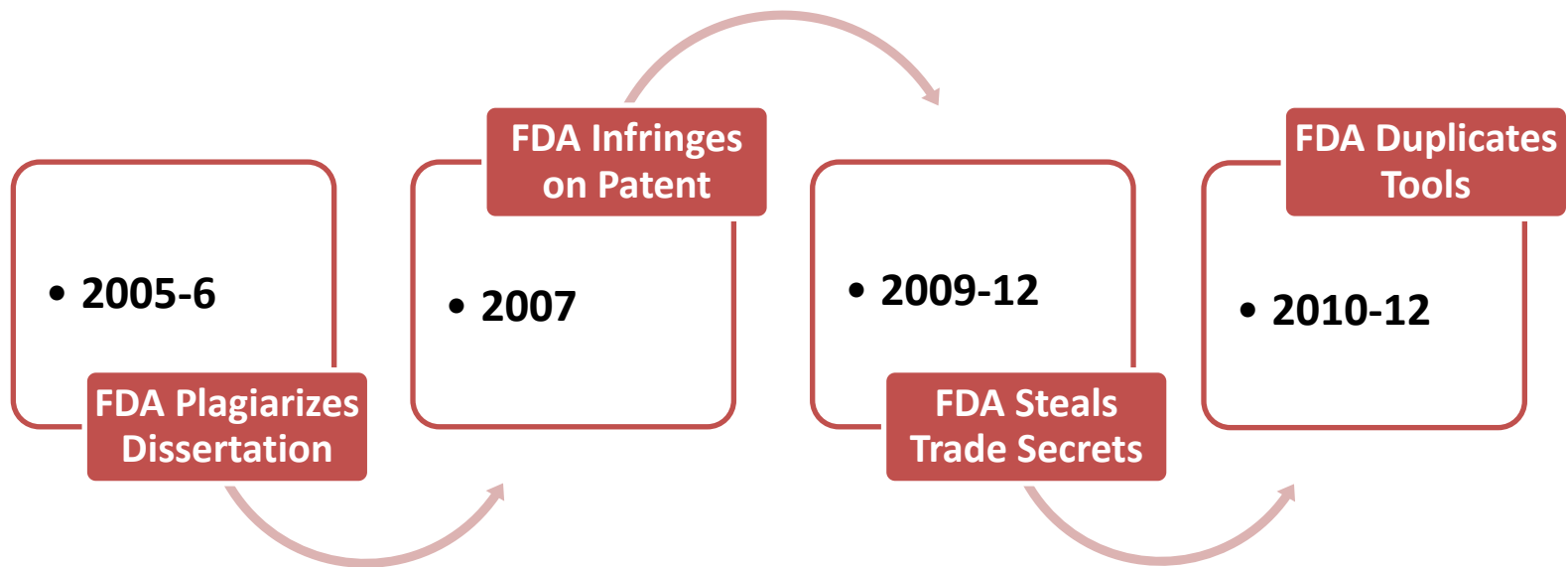
<b>Representative Quotations from 2000-2006 Doctoral Research Dissertation</b>		<b>Page</b>
“CSM simulations are tied to a supporting computer knowledgebase that characterizes each of the critical <b>safety, security</b> [emphasis added] and programmatic nodes of operation of a product cycle including associated fixed site food processing/manufacturing facilities.”		169
“The process is designed to break down traditional stove piping between and among safety, security, and policy and scientific personnel at all levels from the local business, central government, to the individual states to local communities.”		175
“The CSM process recognizes the symbiotic relationship between food safety and security across the threat continuum. Investments already made in food safety, when integrated with security, can have significant collateral benefits.”		176

<b>Samples of Plagiarized Quotations from 2007 FDA Food Protection Plan</b>		<b>Page</b>
“FDA is implementing a Food Protection Plan (the Plan) that addresses both food safety and food defense for domestic and imported products.”		3
“Encompasses [i.e., the FDA Food Protection Plan] food safety (unintentional contamination) and food defense (deliberate contamination)”		7
“The best way to handle food safety and food defense is to develop approaches that appropriately address both.”		16

## ENCLOSURE 2:

Ideas contained in Dr. Hnatio's 2007  
patent disclosure that have been  
plagiarized by the FDA

# FDA Plagiarism Timeline



# TWENTY PATENT CLAIMS REDUCED TO PRACTICE FOR FOOD AND AGRICULTURE

Complexity Systems Management Method, Patent No.: US 8,103,601 B2					
Projectioneering LLC Patent Claims		Patent Claims as Reduced to Practice for Food and Agriculture by FoodQuestTQ		Trade Secret for Food	Business Confidential
1. A method of assessing and managing behavior of a complex adaptive system, comprising the steps of:	A. Inputting a first plurality of data defining parameters of said complex adaptive system;	1. Manage and assess the performance of the food life cycle across supply chain:	A. Determine the rules of operation for the different segments of the food supply chain, i.e., what they do and how they operate;	No	Yes
	B. Defining a plurality of fundamental events which determine behavior of said complex adaptive system;		B. Gather, study and group into categories past food safety, food defense and site safety and security events as they affect different segments of the food supply chain;	Yes	Yes
	C. Modifying at each of a plurality of times at least one of said first plurality of data to define a plurality of initial conditions;		C. Identify the operational conditions, i.e., the environment in which the different segments of the food supply operate;	Yes	Yes
	D. Testing each of said first plurality of data to determine a first subset of said first plurality of data which are most relevant to said plurality of fundamental events for each of said plurality of initial conditions in order to develop a plurality of scenarios of behavior of said complex adaptive system, and;		D. Develop scenarios of past and imagined events affecting different segments of the food supply chain, and;	No	Yes
	E. Measuring an effect of each one of said plurality of initial conditions of each respective one of said developed plurality of scenarios on said first subset of data to provide status information which is capable of being tested to indicate likelihood of an event occurring in said complex adaptive system.		E. Use the scenarios to determine the combinations of rules and operational conditions that indicate when, where and how likely an adverse event will occur.	Yes	Yes

# TWENTY PATENT CLAIMS REDUCED TO PRACTICE FOR FOOD AND AGRICULTURE

## Complexity Systems Management Method, Patent No.: US 8,103,601 B2

Projectioneering LLC Patent Claims		Patent Claims as Reduced to Practice for Food and Agriculture by FoodQuestTQ		Trade Secret for Food	Business Confidential
2. The method of claim 1 further including the steps of:	A. Testing each of said scenarios to determine for each scenario precise events which must occur to cause said complex adaptive system to exhibit said scenario; and determining for each tested scenario critical decision points.	2. The method of claim 1 further including the steps of:	A. Reverse engineer scenarios of past and imagined events to develop event paths that cause different events; determine where, when and why human interventions are required to prevent and mitigate adverse outcomes.	Yes	Yes
3. The method according to claim 1 including the further step of applying to said status information a first algorithm providing an estimate of an event sequence interruption.		3. Apply the CSM systems approach, i.e., deterrence, detection, communication, response time, response quality, consequence and mitigation to determine strengths and weaknesses using scenarios.		Yes	Yes
4. The method according to claim 3 wherein values obtained from said applying of said first algorithm provide an event quotient for each of said first subset of data.		4. Apply values for deterrence, detection, communication, response time, response quality, consequence and mitigation.		Yes	Yes
5. The method according to claim 3 further including the step of modifying said first plurality of data as a function of a result of said application of said first algorithm.		5. Input additional data to identify weaknesses and introduce risk reduction countermeasures when, where and how they are required.		Yes	Yes
6. The method according to claim 4 wherein said event quotient further includes a functional relationship based on an algorithm related to occurrence of natural events and an effect of said natural events on said first subset of data.		6. Determine the likelihood of weather and geologic events affecting/effecting agriculture and food facilities for the different segments along the food supply chain in different regions.		Yes	Yes
7. The method of claim 1 wherein said first subset of data are critical nodes of the complex adaptive system.		7. Determine the most important factors, i.e., critical nodes, that affect/effect the outcome of different scenarios.		Yes	Yes

# TWENTY PATENT CLAIMS REDUCED TO PRACTICE FOR FOOD AND AGRICULTURE

Complexity Systems Management Method, Patent No.: US 8,103,601 B2					
Projectioneering LLC Patent Claims		Patent Claims as Reduced to Practice for Food and Agriculture by FoodQuestTQ		Trade Secret for Food	Business Confidential
8. The method of claim 2 further including the steps of:	A. Modifying said first plurality of data to simulate predetermined events occurring in said complex adaptive system;	8. The method of claim 2 further including the steps of:	A. Develop simulated scenarios that produce predetermined outcomes; determine the affects/effects on where, when and why human interventions are required to prevent and mitigate adverse outcomes, i.e., critical decisions points; use decision/fault trees and other means to visualize the scenario, the sequence of events and the critical decision points.	Yes	Yes
	B. Determining the effects from said simulated events on said critical decision points; and forming decision fault trees from said determined effects.				
9. The method of claim 8 further including forming decision maps and computer models to manage said predetermined events.		9. Create decision maps and computer models to manage predetermined events.		Yes	Yes
10. A method of increasing the likelihood of behavior of a complex adaptive system, comprising the steps:	A. Defining fundamental elements which control the functioning of the complex adaptive system;	10. Preventing and improving responses to food safety, food defense and food site safety and security events by:	A. Defining the rules of operation for the different segments of the food supply chain across the food life cycle, i.e., what they do, when they do it and how they operate.	No	Yes
	B. Assigning a plurality of sets of initial values at a respective plurality of times to a plurality of features of the complex adaptive system;		B. Assigning baseline values for the probability of different events occurring; how vulnerable the activity is to different food safety, food defense and site safety and security events; the consequences associated with different types of events, and; for deterrence, detection, communication, response time, response quality, consequence and mitigation.	Yes	Yes
	C. Determining which ones of said plurality of features of the complex adaptive system are most directly related to said fundamental elements for each of said plurality of sets of initial conditions in order to develop a plurality of scenarios of behavior of said complex adaptive system, and;		C. Determining which of the features in b., above, are most directly related to the rules of operation, i.e. fundamental elements, and the environment, i.e., operational conditions, and develop scenarios.	Yes	Yes
	D. Measuring an effect of each one of said plurality of sets of initial conditions of each respective one of said developed plurality of scenarios on said ones of said plurality of features most directly related to said fundamental elements to generate sets of data functionally related to the likelihood of a particular occurrence in said complex adaptive system.		D. Measure the affect/effect of fundamental elements and operational conditions and generate scenarios to produce outcomes.	Yes	Yes

# TWENTY PATENT CLAIMS REDUCED TO PRACTICE FOR FOOD AND AGRICULTURE

Complexity Systems Management Method, Patent No.: US 8,103,601 B2					
Projectioneering LLC Patent Claims		Patent Claims as Reduced to Practice for Food and Agriculture by FoodQuestTQ		Trade Secret for Food	Business Confidential
11. The method of claim 10 further including the steps of:	A. Testing each of said scenarios to determine for each scenario precise events which must occur to cause said complex adaptive system to exhibit said scenario, and:	11. The method of claim 10 further including the steps of:	A. Reverse engineer test scenarios and develop event paths that cause different events; determine where, when and why human interventions are required to prevent and mitigate adverse outcomes.	Yes	Yes
	B. Determining for each tested scenario critical decision points.				
12. The method according to claim 10 including the further step of applying to said set of data a first algorithm providing an estimate of an event sequence interruption.		12. Apply CSM Method system process model where the interdiction of an event, i.e., prevention, is a function of deterrence, detection, communication, prevention, response time, response quality to produce an estimate of event sequence interruption.		Yes	Yes
13. The method according to claim 12 wherein values obtained from said applying of said first algorithm provide an event quotient for each of said ones of said plurality of features most directly related to said fundamental elements.		13. Apply values to deterrence, detection, communication, prevention, response time, response quality to produce an event quotient, i.e. event quotient.		Yes	Yes
14. The method according to claim 11 further including the step of modifying said plurality of features as a function of a result of said application of said first algorithm.		14. Modify assigned values through the introduction of risk reduction measures that achieve the interdiction of an event, i.e., prevention.		Yes	Yes
15. The method according to claim 13 wherein said event quotient further includes a functional relationship based on an algorithm related to occurrence of natural events and an effect of said natural events on said ones of said plurality of features most directly related to said fundamental elements.		15. Apply a natural hazards vulnerability ranking based on the probability of weather and geologic events occurring in a region, the consequences should such an event occur, i.e., weather and geologic events ranking, and the actions taken to mitigate the potential consequences, i.e., adjusted event quotient.		Yes	Yes

# TWENTY PATENT CLAIMS REDUCED TO PRACTICE FOR FOOD AND AGRICULTURE

## Complexity Systems Management Method, Patent No.: US 8,103,601 B2

Projectioneering LLC Patent Claims		Patent Claims as Reduced to Practice for Food and Agriculture by FoodQuestTQ		Trade Secret for Food	Business Confidential
16. The method of claim 11 further including the steps of:	A. Modifying said plurality of features to simulate predetermined events occurring in said complex adaptive system;	16. The method of claim 11 further including the steps of:	A. Determine the affects/effects of predetermined event paths for scenarios resulting in different events; determine the affects/effects of different event paths on where, when and why human interventions are required to prevent and mitigate adverse outcomes, i.e., critical decision points, and; use decision/fault trees and other means to visualize the scenario, the sequence of events, and the critical decision points.	Yes	Yes
	B. Determining the effects from said simulated events on said critical decision points; and forming decision fault trees from said determined effects.				
17. The method of claim 16 further including forming decision maps and computer models to manage said predetermined events.		17. Create decision maps and computer models to manage predetermined events.		Yes	Yes



# TWENTY PATENT CLAIMS REDUCED TO PRACTICE FOR FOOD AND AGRICULTURE

## Complexity Systems Management Method, Patent No.: US 8,103,601 B2

Projectioneering LLC Patent Claims		Patent Claims as Reduced to Practice for Food and Agriculture by FoodQuestTQ		Trade Secret for Food	Business Confidential
18. A computer program product for use with a digital computer for assessing and managing behavior of a complex adaptive system, said computer program product including a computer usable medium having a plurality of computer readable program code means embodied in said medium, comprising:	A. A first computer readable program code means containing a first plurality of data defining parameters of said complex adaptive system and a plurality of defined relationships which control the functions of the complex adaptive system;	18. The Food ProtectionTQ suite of automated computer software tools with computer readable codes that apply CSM Method process model comprising:  <ul style="list-style-type: none"> <li>• Food Defense Architect;</li> <li>• Food DefenseTQ;</li> <li>• Food Safety Architect;</li> <li>• Food SafetyTQ;</li> <li>• Food Mapper;</li> <li>• Food Event Analysis and Simulation Tool (FEAST), and;</li> <li>• Food Response Emergency Evaluation Tool (FREE).</li> </ul>	A. A computer readable program code containing data defining the rules and operational conditions of food defense, food safety and food site safety and security and the defined relationships which control the occurrence, prevention and mitigation of different events;	Yes	Yes
	B. A second computer readable program code means causing a modification at each of a plurality of times at least ones of said first plurality of data to define a plurality of initial conditions;		B. A computer readable program code that can adjust the rules, fundamental elements, for food defense, food safety and food site safety as operational conditions change;	Yes	Yes
	C. A third computer readable program code means for testing each of said plurality of data to determine a first subset of said first plurality of data which are most relevant to said plurality of defined relationships for each of said plurality of initial conditions in order to develop a plurality of scenarios of behavior of said complex adaptive system, and;		C. A computer readable program code to determine which rules and operational conditions are most significant in producing outcomes in scenarios, and;	Yes	Yes
	D. A fourth computer readable program code means for determining an effect of each one of said plurality of initial conditions of each respective one of said developed plurality of scenarios on said first subset of data to provide status information which is capable of being tested to indicate likelihood of an event occurring in said complex adaptive system.		D. A computer readable program code for determining the affect/effect operational food defense, food safety and food site safety and security conditions that provide status information that can be tested to indicate the likelihood, i.e., probability, of an event occurring.	Yes	Yes

# TWENTY PATENT CLAIMS REDUCED TO PRACTICE FOR FOOD AND AGRICULTURE

Complexity Systems Management Method, Patent No.: US 8,103,601 B2			
Projectioneering LLC Patent Claims	Patent Claims as Reduced to Practice for Food and Agriculture by FoodQuestTQ	Trade Secret for Food	Business Confidential
19. The computer program product according to Claim 18 including a fifth computer readable code means for testing each of said scenarios to determine for each scenario precise events which must occur to cause said complex adaptive system to exhibit said scenario; and determining for each tested scenario critical decision points.	19. A computer readable code for testing scenarios to determine the precise events, i.e., event paths, which must occur to cause different food defense, food safety and food defense and site safety and security scenarios and determine where, when and why human interventions are required to prevent and mitigate adverse outcomes, i.e., critical decisions points for each tested scenario.	Yes	Yes
20. The computer program product according to Claim 19 including a sixth computer readable code means for applying to said status information a first algorithm providing an estimate of an event sequence interruption.	20. A computer readable program code that applies the CSM Method system process model to the above data where the interdiction of an event, i.e., prevention, is a function of deterrence, detection, communication, prevention, response time, response quality to produce an estimate of event sequence interruption.	Yes	Yes

# ENCLOSURE 3:

Twenty specific examples of Dr. Hnatio's ideas that have been plagiarized by the FDA in the FDA Food Protection Plan, Food Defense Plan Builder, the Mitigation Strategies Database, iRisk and the FREE-B food safety and food defense computer software tools

# FDA Plagiarism Timeline

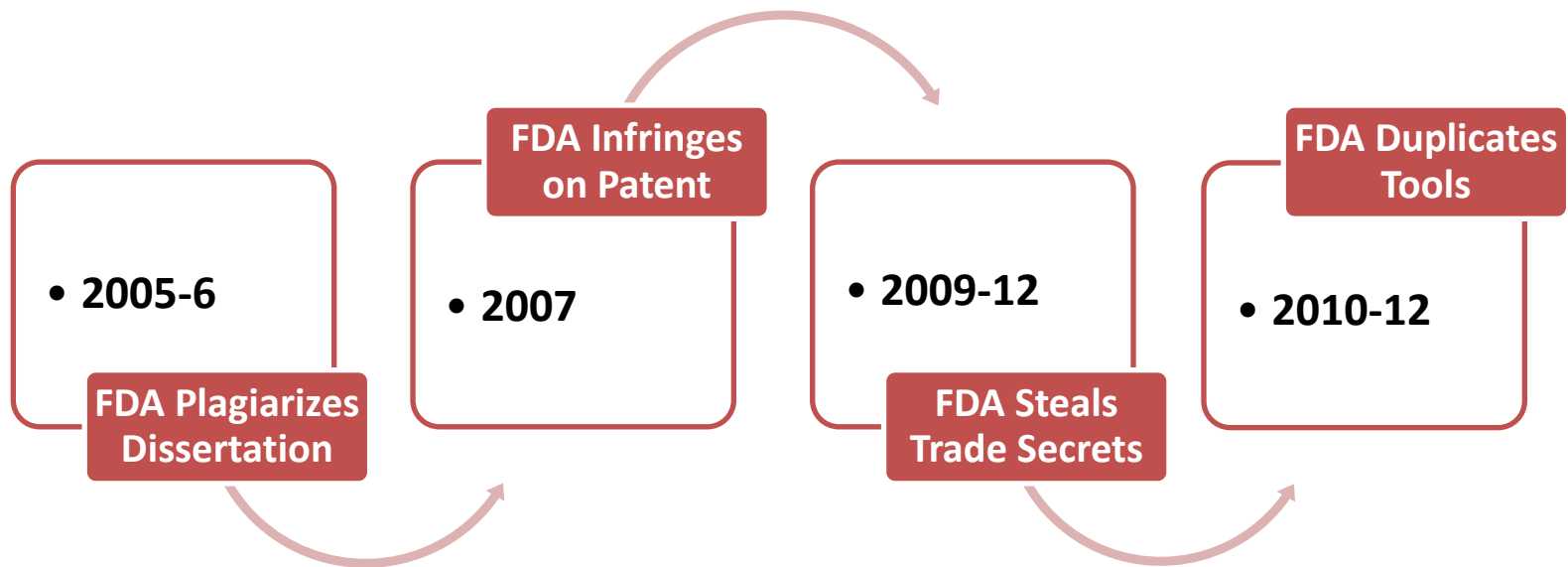


TABLE LEGEND	
TERM	EXPLANATION
<b>FQQT Idea</b>	A FoodQuestTQ LLC protected idea as derived from reducing Projectioneering LLC patent , Complexity Systems Management Method, Patent No.: US 8,103,601 B2, to practice for food and agriculture. The patent is embodied under the registered trademarked name as the CSM METHOD®.
<b>Description</b>	The original protected idea as drawn from the Projectioneering LLC patent, Complexity Systems Management Method, Patent No.: US 8,103,601 B2, that was used by FoodQuestTQ LLC to reduce the patent to practice for food and agriculture.  Ideas developed to reduce the patent to practice were treated as either trade secret or business confidential information prior to their unauthorized publication by the Food and Drug Administration.
<b>Date Conceived</b>	The time that the idea was first documented as the subject of an invention.
<b>Patent</b>	Signifies that the protected idea emanates from the Projectioneering LLC patent, Complexity Systems Management Method, Patent No.: US 8,103,601 B2.
<b>OIP</b>	Acronym for “Other Intellectual Property”, i.e., “business confidential” information
<b>POISON</b>	The FoodQuestTQ metadata repository of accidental and intentional food poisonings, industrial accidents at food facilities, equipment malfunctions of food equipment and natural hazards events affecting food operations and including growers.
<b>Food DefenseTQ</b>	The FoodQuestTQ automated software tool that is used by food operators along the supply chain to build and monitor effective food defense plans by asking what specific mitigating strategies are in place.
<b>Food SafetyTQ</b>	The FoodQuestTQ automated software tool that is used by food operators along the supply chain to build and monitor effective food safety plans by asking what specific mitigating strategies are in place.
<b>Food Defense Architect</b>	A more sophisticated version of Food DefenseTQ used by food operators along the supply chain to build the most effective food defense plans while continuously monitoring their performance.
<b>Food Safety Architect</b>	A more sophisticated version of Food SafetyTQ used by food operators along the supply chain to build the most effective food safety plans while continuously monitoring their performance.
<b>Food Event Analysis and Simulation Tool (FEAST)</b>	The FoodQuestTQ software tool that is used to develop and analyze food safety and food defense scenarios to promote multidisciplinary problem solving in the identification and filling of food defense and food safety gaps.
<b>FREE</b>	The FoodQuestTQ software tool, i.e., Food Response and Emergency Evaluation (FREE) Tool that is used to develop and analyze food safety and food defense scenarios in order to develop optimum food emergency response plans.
<b>FPP</b>	The FDA Food Protection Plan that contains pre-existing elements of the Projectioneering LLC patent as embodied in the Projectioneering LLC registered trademarked CSM METHOD®.
<b>FDPB</b>	The FDA Food Defense Plan Builder that duplicates the pre-existing FoodQuestTQ Food DefenseTQ and Food Defense Architect tools.
<b>MSDB</b>	The FDA Food Defense Mitigation Strategies Database that duplicates the pre-existing FoodQuestTQ Food DefenseTQ and Food Defense Architect tools.
<b>iRISK</b>	The FDA iRISK tool that contains elements of the pre-existing Projectioneering LLC patent as embodied in the Projectioneering LLC registered trademarked CSM METHOD®.
<b>FREE-B</b>	The FDA Food Response Emergency Exercise-Bundled tool that duplicates of FoodQuestTQ LLC’s pre-existing FEAST and FREE tools.

# TWENTY SPECIFIC EXAMPLES OF FDA THEFT OF INTELLECTUAL PROPERTY FROM FOODQUESTTQ LLC

FQTQ Idea	Description	Date Conceived	Sources		FoodQuestTQ LLC Tool							What the FDA has Stolen	Used by FDA Without Permission in the Following FDA Imitation Products				
			Patent	OIP	POISON	FDTQ	FSTQ	FDAR	FSAR	FEAST	FREE		FPP	FDPB	MSDB	iRISK	FREE-B
1. Food Protection Systems Model	The CSM Method® defines the threat continuum elements of deterrence, detection, delay, communication, response time, response quality and mitigation.	Pre-2007	Yes	Yes								The FDA has stolen the threat continuum elements of prevention, interdiction, i.e., the FDA uses the substituted term of “intervention”; communication and response.					
2. Indicators and Warnings	The CSM Method® defines a methodology for identifying the indicators and warnings of impending food events.	Pre-2007	Yes	Yes								The FDA has stolen the method for identifying indicators and warnings of impending food events, i.e., the FDA uses the substituted term “signals”.					
3. Probability of Occurrence as a function of vulnerability and consequence	The CSM Method® defines the probability of a food incident occurring as the combination of how vulnerable you are and the consequences that would result from a food incident.	Pre-2007	Yes	Yes								The FDA has stolen the “probability of occurrence” method that is used to prioritize food system vulnerability and risk.					
4. Steps	The CSM Method® defines a methodology for determining food protection risks and the specific measures that must be implemented by food operations to mitigate risks and identify interventions; these are called “steps.”	Pre-2007	Yes	Yes								The FDA has stolen the “steps” method and associated taxonomy for identifying risks and implementing risk reduction measures; the FDA uses the substitute term of “mitigation strategies” for “steps.”					
5. Immersions	The CSM Method® method of “immersions” and “real” and “simulated events” are used to identify vulnerabilities, risk reduction measures, promote communication and achieve multidisciplinary problem solving.	Pre-2007	Yes	Yes								The FDA has stolen the method of “immersions”; the FDA uses the substitute terms “table top exercise” for “immersions”; “teachable moments” for “lessons learned”, and; “scenarios” for “simulated events.”					

# TWENTY SPECIFIC EXAMPLES OF FDA THEFT OF INTELLECTUAL PROPERTY FROM FOODQUESTTQ LLC

FQTQ Idea	Description	Date Conceived	Sources		FoodQuestTQ LLC Tool							What the FDA has Stolen	Used by FDA Without Permission in the Following FDA Imitation Products				
			Patent	OIP	POISON	FDTQ	FSTQ	FDAR	FSAR	FEAST	FREE		FPP	FDPB	MSDB	iRISK	FREE-B
6. Food Protection Hot Spots	The CSM Method® defines a method for identifying and prioritizing the importance of high risk areas at food operations and along the supply chain based on probability of occurrence.	Pre-2007	Yes	Yes								The FDA has stolen the method for identifying and prioritizing high risk areas in the food supply, along the food supply chain and in operating food facilities based on probability of occurrence; the FDA has substituted the term "high risk areas" for "hot spots."					
7. Reverse engineering of past and simulated events	The CSM Method® defines a method whereby past and simulated food events are gathered, deconstructed and analyzed, i.e., "reverse engineering."	Pre-2007	Yes	Yes								The FDA has stolen the method for gathering, deconstructing and analyzing past and simulated food events to determine their probability of occurrence, lessons learned and to identify mitigating strategies.					
8. Identification of High Risk Agents	The CSM Method® defines a method to identify high risk agents by gathering deconstructing and analyzing poisoning events.	Pre-2007	Yes	Yes								The FDA has stolen the method for gathering, deconstructing and analyzing, as complex systems, food incidents and related data to identify high risk agents.					
9. Actionable Knowledge	The CSM Method® defines a method to identify, gather and analyze information to produce actionable knowledge for risk mitigation.	Pre-2007	Yes	Yes								The FDA has stolen the methods for identifying types of information that should be collected and subjected to analysis in order to identify actionable intelligence to prevent food safety and food defense incidents.					
10. Cradle to grave	The CSM Method® is based on a holistic "cradle to grave" systems of systems view of the food supply from raw ingredients through human consumption, symptomology and health outcomes, i.e., the science-based view of the food supply as a complex adaptive system.	Pre-2007	Yes	Yes								The FDA has stolen the method of using the holistic "cradle to grave" systems of systems science-based view of the of the food supply, i.e., the FDA uses substitute terms such as "from field to fork" and "entire supply chain."					

# TWENTY SPECIFIC EXAMPLES OF FDA THEFT OF INTELLECTUAL PROPERTY FROM FOODQUESTTQ LLC

FQTQ Idea	Description	Date Conceived	Sources		FoodQuestTQ LLC Tool							What the FDA has Stolen	Used by FDA Without Permission in the Following Imitation Products				
			Patent	OIP	POISON	FDTQ	FSTQ	FDAR	FSAR	FEAST	FREE		FPP	FDPB	MSDB	iRISK	FREE-B
11. Risk Reduction Countermeasures	The CSM Method® defines the methods to determine risk and risk reduction measures based on the reverse engineering of past food incidents, the use of futures driven scenarios and the application of advanced science and information technology.	Pre-2007	Yes	Yes								The FDA has stolen the methods used to identify risks and their associated risk reduction measures. i.e., the FDA substitutes the term “mitigation strategies” for risk countermeasures.					
12. Food Risk Model	The CSM Method® defines a systems risk model that subsumes both food safety and food defense.	Pre-2007	Yes	Yes								The FDA has stolen the food protection systems model that subsumes both food safety and food defense.					
13. Perpetual Assessment	The CSM Method® ties continuous operational performance with perpetual assessment and inspection.	Pre-2007	Yes	Yes								The FDA has stolen the method for tying continuous operational performance with perpetual assessment and inspection, i.e., the FDA substitutes the term “inspectional strategies.”					
14. Best Investments	The Food CSM Method® defines methods for targeting the use of resources to obtain the greatest risk reduction value at the most reasonable cost.	Pre-2007	Yes	Yes								The FDA has stolen the methods to determine performance and “best investments” to mitigate risk, i.e., the FDA substitutes the term “mitigation strategies for “best investments.”					
15. Operational Tools	The CSM Method® defines methods for integrally tying the use of specific information technology applications to food industry operational requirements.	Pre-2007	Yes	Yes								The FDA has stolen methods for integrally tying the use of specific information technology applications to food industry operational requirements, i.e., the development of “operational tools” that rely on the application of information technology.					



# TWENTY SPECIFIC EXAMPLES OF FDA THEFT OF INTELLECTUAL PROPERTY FROM FOODQUESTTQ LLC

FQTQ Idea	Description	Date Conceived	Sources		FoodQuestTQ LLC Tool							What the FDA has Stolen	Used by FDA Without Permission in the Following FDA Imitation Products				
			Patent	OIP	POISON	FDTQ	FSTQ	FDAR	FSAR	FEAST	FREE		FPP	FDPB	MSDB	IRISK	FREE-B
16. Food Protection as a Science	The CSM Method® defines a systems model and methods for treating food protection as a science that relies on quantitative statistical methods for determining risk values.	Pre-2007	Yes	Yes								The FDA has stolen the model and methods for treating food protection as a science that relies on quantitative statistical methods for determining risk values.					
17. Modeling, Science-based Analysis and Information Technology	The CSM Method® defines methods that combine advanced modeling, science based analysis and advanced information technology to produce operational software applications.	Pre-2007	Yes	Yes								The FDA has stolen methods that combine advanced modeling, science based analysis and advanced information technology to produce operational software applications.					
18. Critical Nodes	The CSM Method® defines critical nodes as those elements in a system that are most sensitive to changes in their environments and the methods used to identify them.	Pre-2007	Yes	Yes								The FDA has stolen the methods of determining critical nodes.					
19. Food Emergency Response	The CSM Method® defines methods for determining best response alternatives for food emergencies.	Pre-2007	Yes	Yes								The FDA has stolen methods for determining best response alternatives for food emergencies.					
20. Automated Method to Develop Food Defense Plans	The CSM Method® defines the use of automated methods for developing operational software tools.	Pre-2007	Yes	Yes								The FDA has stolen the methods for developing automated food defense tools.					