

**IN THE UNITED STATES DISTRICT COURT
FOR EASTERN DISTRICT OF TENNESSEE
GREENVILLE DIVISION**

KING PHARMACEUTICALS, INC.;)
MONARCH PHARMACEUTICALS, INC.;)
KING PHARMACEUTICALS)
RESEARCH AND DEVELOPMENT, INC.)
INC.; and GENTRAC, INCORPORATED)

Plaintiffs,)

v.)

ZYMOGENETICS, INC. and JOHN AND)
JANE DOES 1-50,)

Defendants.)

Civil Action No.

JURY TRIAL DEMANDED

**COMPLAINT FOR TEMPORARY RESTRAINING ORDER AND PRELIMINARY
INJUNCTION**

Plaintiffs King Pharmaceuticals, Inc.; Monarch Pharmaceuticals, Inc.; King Pharmaceuticals Research and Development, Inc.; and GenTrac, Inc. (hereinafter collectively referred to in the singular as "King"), for their Complaint against Defendant ZymoGenetics, Inc. and John and Jane Does 1-50, state as follows:

I. THE PARTIES

1. Plaintiff King Pharmaceuticals, Inc. is a Tennessee corporation with its principal place of business located at 501 Fifth Street, Bristol, Tennessee 37620.

2. Plaintiff Monarch Pharmaceuticals, Inc. is a Tennessee corporation with its principal place of business located at 501 Fifth Street, Bristol, Tennessee 37620.

3. Plaintiff King Pharmaceuticals Research and Development, Inc. (“King R&D”) is a Delaware corporation with a principal place of business located at 4000 CentreGreen Way, Suite 300, Cary, North Carolina 27513.

4. Plaintiff GenTrac, Inc. is a Wisconsin corporation with a principal place of business located at 2232 Pleasant View Road, Middleton, Wisconsin 53562.

5. Upon information and belief, Defendant ZymoGenetics, Inc. (“Defendant”) is a Washington corporation with its principal place of business located at 1201 Eastlake Avenue East, Seattle, Washington 98102-3702. Upon information and belief, Defendant does business in the State of Tennessee. Its registered agent for service of process is A. Demarest Allen, 1201 Eastlake Avenue East, Seattle, Washington 98102.

6. Defendants John and Jane Does 1-50 are agents and/or representatives (including, but not limited, paid presenters, opinion leaders, sales representatives, advertising representatives, and medical science liaisons) of Defendant who are not readily identifiable without the benefit of discovery.

II. NATURE OF ACTION

7. False advertising, unfair competition and false designation of origin arising under Section 43 of the Trademark Act of 1946 (“the Lanham Act”), as amended, 15 U.S.C. § 1125; trademark infringement arising under Section 32 of the Lanham Act, as amended, 15 U.S.C. § 1114; common law trademark infringement and unfair competition under Tennessee law; violations of the Tennessee Consumer Protection Act, Tenn. Code Ann. § 47-18-101 *et seq.*; tortious interference with existing business relations, tortious interference with prospective business relations, defamation, and unjust enrichment under Tennessee law.

III. JURISDICTION AND VENUE

8. This Court has subject matter jurisdiction over this action under 28 U.S.C. § 1331 as it involves a federal question; under 28 U.S.C. § 1338 as it involves claims under the Lanham Act; and under 28 U.S.C. § 1332 as the action is between citizens of different States and the amount in controversy in this action, exclusive of interest and costs, exceeds the sum of \$75,000.00. This Court has supplemental jurisdiction over the claims that arise under Tennessee law pursuant to 28 U.S.C. § 1367(a) in that they are substantially related to the claims that arise under the Lanham Act of the United States. Furthermore, this Court has supplemental jurisdiction because both the state and federal claims are derived from a common nucleus of operative facts and considerations of judicial economy dictate the state and federal issues be consolidated for a single trial.

9. This Court has general personal jurisdiction over Defendant based on Defendant's continuous and systematic minimum contacts with residents of Tennessee through the distribution and sale of its products in Tennessee and its sales representative's promotion and marketing activities in Tennessee. This Court also has specific personal jurisdiction over Defendant based on its purposeful direction of its promotional and advertising activities and sales of its products to residents and customers in Tennessee. Further, this Court has personal jurisdiction under Tenn. Code Ann. § 20-2-201 *et seq.*, because (1) Defendant has transacted business in Tennessee; (2) the tortious acts or omissions occurred in Tennessee; (3) the damages occurred in Tennessee to a Tennessee corporation; and (4) jurisdiction based on Defendant's contacts with Tennessee (including, but not limited to, sales of products) is not inconsistent with the Constitution of the State of Tennessee or the Constitution of the United States.

10. Venue is proper in this Court under 28 U.S.C. § 1391(b) and 28 U.S.C. § 1391(c) and because a substantial part of the events giving rise to these claims arose in this District and Defendant is subject to personal jurisdiction pursuant to the Tennessee's long arm statute, Tenn. Code Ann. § 20-2-201 *et seq.*

IV. THE CONTROVERSY

A. INTRODUCTION

11. King and Defendant are competitors in the hemostatic modifier market who sell topical thrombin products that aid hemostasis whenever oozing blood and minor bleeding from capillaries and small venules is accessible. King manufactures and sells a topical thrombin product derived from bovine plasma ("bovine thrombin" or "bThrombin"). Defendant manufactures and sells a topical thrombin product made through recombinant DNA technology that results in what is known incorrectly as "recombinant human thrombin" ("recombinant thrombin", "rThrombin", or "rhThrombin").

12. In an effort to usurp King's sales, customers, and share of the hemostatic modifier market and/or eliminate King from the hemostatic modifier market entirely, Defendant engaged in and continues to engage in a pattern of false and misleading statements and promotional activities that began *before* Defendant's product was approved by the United States Food and Drug Administration ("FDA") less than two (2) years ago and continues today despite admonitions by the FDA. In general, Defendant's false and misleading statements claim, among other allegations, that (1) Defendant's thrombin product is superior in safety in general as compared to King's thrombin product; (2) King's thrombin product causes death; (3) King's thrombin product causes an increase in bleeding disorders and failure to clot (i.e. coagulopathies); (4) King's thrombin product causes an increase in adverse events such as

hemorrhagic and/or thromboembolic events and death; and (5) Defendant's thrombin product is superior in safety and the incidence of adverse events because allegedly there is a greater incidence of the formation antibodies from exposure to King's thrombin product as compared to Defendant's thrombin product.

13. Defendant bases the foregoing claims primarily on its self-sponsored and self-conducted "Phase 3, Randomized, Double-Blind Comparative Study of the Efficacy and Safety of Topical Recombinant Human Thrombin and Bovine Thrombin in Surgical Hemostasis" ("Defendant's Phase III study") that purports to have found an increase in anti-bovine thrombin antibodies in patients after exposure to King's thrombin product and theorizes or assumes without scientific basis that the presence of such antibodies will cross-over to neutralize (i.e. inhibit) a patient's naturally-occurring human thrombin.

14. Defendant's Phase III study had significant flaws in its methodology. Defendant also intentionally manipulated the results of its Phase III study by testing only anti-recombinant thrombin antibodies that arose from exposure to recombinant human thrombin to determine whether such antibodies are harmful to humans. Although Defendant could have very easily conducted the same test on the purported anti-bovine thrombin antibodies, it chose not to do so.

15. Defendant's advertising asserts that the aforementioned formation of antibodies leads to coagulopathies, adverse events, and deaths and, therefore, Defendant's thrombin product is safer and superior. However, the Phase III study itself proves the safety profiles and efficacies of the two products are very similar.

16. The FDA Approval Letter for Defendant's thrombin product provides in part:

RECOTHROM^[TM] is identical in amino acid sequence and structurally similar to plasma-derived human thrombin. In vitro and in vivo biochemical and functional characterization of RECOTHROM^[TM] demonstrated that its hemostatic activities are

comparable (non-inferior) to those of human plasma-derived thrombin. Currently two thrombin products, one purified from human blood and one purified from bovine blood, are licensed in the U.S. The proposed indication for the topical use of RECOTHROM[™] is the same as that for both currently licensed thrombin products.

...

In particular, RECOTHROM[™] was non-inferior to a licensed bovine thrombin product. Monitoring of potential immunogenic responses to RECOTHROM[™] will continue after the approval of the BLA in a Phase IV, repeat-exposure study.

ZymoGenetics will conduct a postmarketing study to evaluate immunogenicity and safety of re-exposure to RECOTHROM[™].

17. On April 25, 2008, the FDA reprimanded Defendant for publicly stating that its Phase III study “showed that [Defendant’s thrombin product] had comparable efficacy and a significantly lower incidence of antibody formation compared to the commercially available bovine thrombin product.” The FDA found that such statement was “false or misleading” because the Phase III study did not demonstrate that the development of antibodies led to any adverse events and the incidence of adverse events was similar between King’s thrombin product and Defendant’s thrombin product in Defendant’s Phase III study. The safety profile of all bovine thrombin products and the Thrombin-JMI® product has been established by decades of safe and efficacious clinical use.

18. King (or its predecessors) have manufactured and/or sold thrombin products derived from bovine plasma for over forty years. King’s current bovine thrombin product (sold under the trademark Thrombin-JMI®) has been on the market since 1995. Despite this long history, there is no empirical or clinical evidence supporting Defendant’s claims of (a) superiority or (b) a causal link between an increase in anti-bovine thrombin antibodies and adverse events due to exposure to a bovine thrombin product. Indeed, any human body can

develop anti-bovine antibodies from exposure to bovine materials, including, but not limited to, the consumption of beef or sitting on leather seats.

19. Notwithstanding the lack of evidence and the reprimand from the FDA, Defendant and its agents and representatives continue to make the aforementioned claims in a willful and malicious attempt to scare away King's existing and potential consumers of King's thrombin product, knowing that without such tactics, consumers prefer King's well-established and clinically tested Thrombin-JMI® product.

20. Despite Defendant's pattern of making false and misleading statements since 2005, King took reasonable steps such as notifying the FDA and attempted to rely on the FDA to stop Defendant from making false and misleading statements. However, King recently learned that Defendant's agents and/or representatives have begun telling King's customers in no uncertain terms that "King's thrombin product causes death" and that those customers should immediately cease using King's thrombin product or risk malpractice lawsuits from their patients. Having exhausted all other means to quell Defendant's wrongful actions, King is left with no other option than to seek relief from this Court.

B. KING'S THROMBIN-JMI® PRODUCT

21. King is a vertically integrated branded pharmaceutical company that develops, manufactures and markets therapies and technologies primarily in specialty-driven markets including neuroscience, hospital and acute care medicines.

22. For over forty (40) years, King or its predecessors have manufactured and marketed thrombin products.

23. Over the years, King or its predecessors have refined and increased the purification of its thrombin products.

24. Among other products, King manufactures and markets a certain thrombin, Topical U.S.P (Bovine Origin) line of products under the trademark Thrombin-JMI®, which was introduced in 1995.

25. Thrombin-JMI® products are indicated as an aid to hemostasis whenever oozing blood and minor bleeding from capillaries and small venules is accessible.

26. The thrombin in Thrombin-JMI® products is a protein substance produced through a conversion reaction in which prothrombin of bovine origin is activated by tissue thromboplastin of bovine origin in the presence of calcium chloride.

27. The thrombin in Thrombin-JMI® products is chromatographically purified and ultrafiltered through a nano-filtration process to eliminate the risk of exposure to viruses or prions when a Thrombin-JMI® product is used in a procedure.

28. As indicated in FDA-approved prescribing information insert for Thrombin-JMI® products, analytical studies demonstrate that King's current manufacturing process's capability to remove significant amounts of extraneous proteins, and result in a reduction of Factor Va light chain content to levels below the limit of detection of semi-quantitative Western Blot assay (<92 ng/mL, when reconstituted as directed).

29. Thrombin-JMI® products are supplied as a sterile powder that has been freeze-dried in the final container.

30. Thrombin-JMI® products are contraindicated in persons known to be sensitive to any of the products' components and/or to material of bovine origin.

31. It has been estimated that Thrombin-JMI® products have been used in over thirteen (13) million procedures over the last fourteen (14) years.

32. King R&D is the owner of a federal trademark registration, U.S. Reg. No. 2,044,605 for the trademark “Thrombin-JMI” for use in connection with “clotting preparation” (the “‘605 Registration”). (A copy of the ‘605 Registration is attached hereto as Ex. 1.)

33. The ‘605 remains valid, subsisting, and incontestable.

C. DEFENDANT’S RECOTHROM® PRODUCT

34. Upon information and belief, Defendant is a biopharmaceutical company with a development pipeline of proteins, antibodies, and antibody-like molecules.

35. Defendant manufactures and sells a certain thrombin, topical (Recombinant) product under the name RECOTHROM®.

36. Upon information and belief, the RECOTHROM® product is the only product developed by Defendant that Defendant currently offers for sale in any market.

37. Defendant’s RECOTHROM® product is a competing product to King’s Thrombin-JMI® products.

38. The RECOTHROM® product is indicated as an aid to hemostasis whenever oozing blood and minor bleeding from capillaries and small venules is accessible.

39. According to Defendant’s U.S. Prescribing Information for its RECOTHROM® product, Defendant’s RECOTHROM® product is rhThrombin created to have the identical amino acid sequence and similar structure as human thrombin. (A copy of the U.S. Prescribing Information for RECOTHROM® is attached hereto as Ex. 2.)

40. Notwithstanding the claimed identical amino acid sequence and similar structure to human thrombin, the rhThrombin in Defendant’s RECOTHROM® product is not identical to human thrombin and cannot be deemed to be human thrombin.

41. According to Defendant’s U.S. Prescribing Information for RECOTHROM®, the thrombin in the RECOTHROM® product is “a coagulation protein produced via recombinant

DNA technology from a genetically modified Chinese hamster ovary cell line. RECOTHROM is identical in amino acid sequence and structurally similar to naturally occurring human thrombin. RECOTHROM precursor is secreted to culture medium as single chain form that is proteolytically converted to a two-chain active form and is purified by a chromatographic process that yields a high-purity product having hemostatic activities similar to native human thrombin.” (Ex. 2.)

42. In short, Defendant’s RECOTHROM® product is created through recombinant technology that uses Chinese hamster ovary cells to produce pre-thrombin that is activated through rattlesnake venom to convert the pre-thrombin into rhThrombin.

43. Defendant’s U.S. Prescribing Information does not mention that the rhThrombin in the RECOTHROM® product is produced through a conversion reaction in which pre-thrombin is activated by rattlesnake venom to produce rhThrombin.

44. The RECOTHROM® product is contraindicated for direct injection in the circulatory system and for the treatment of massive or brisk arterial bleeding. (Ex. 2.)

45. The RECOTHROM® product also is contraindicated for administration to patients with known hypersensitivity to RECOTHROM® or any components of RECOTHROM®. (Ex. 2.)

46. The RECOTHROM® product further is contraindicated of use in patients with known hypersensitivity to hamster proteins. (Ex. 2.)

47. In The RECOTHROM® product’s Prescribing Information under the section “Warnings and Precautions,” Defendant warns of a potential for allergic reaction in patients with hypersensitivity to snake proteins. (Ex. 2.)

48. In The RECOTHROM® product's Prescribing Information, Defendant states that treatment with RECOTHROM® "resulted in a statistically lower incidence of specific anti-product antibody development" as compared to treatment with bovine thrombin in a "Phase 3 clinical trial." (Ex. 2.)

49. In The RECOTHROM® product's Prescribing Information, Defendant states, "Development of antibodies in either group did not lead to any adverse events such as excessive bleeding." (Ex. 2.)

50. The RECOTHROM® product was cleared by the FDA on January 17, 2008. (A copy of the FDA Approval Letter is attached hereto as Ex. 3.)

51. As of the date of filing of this Complaint, The RECOTHROM® product has been on the market in the United States for less than two (2) years, beginning in February, 2008.

52. Defendant has not obtained approval from the FDA's Center for Biologics Evaluation & Research to make a comparative promotional claim or claim of superiority over other products, including Thrombin-JMI® product. (Ex. 3.)

53. Upon information and belief, Defendant contracted with Google, Inc. for the purchase and/or use of the adword "Thrombin-JMI" or a variation thereof (such as "thrombin-jmi" or "THROMBIN-JMI").

54. A link to Defendant's website for The RECOTHROM® product appears as a "sponsored link" directly above the results for a search using the term "thrombin-jmi" on www.google.com. (Copy of search results from www.google.com attached hereto as Ex. 4.)

D. DEFENDANT'S PATTERN OF FALSE AND MISLEADING STATEMENTS IN THE PROMOTION OF RECOTHROM®

55. In an effort to take over the Thrombin-JMI® product's sales, customers, and position in the hemostatic modifier market, Defendant (directly or through its agents or

representatives) has made literally false and impliedly false and misleading promotional statements about King's Thrombin-JMI® product and Defendant's RECOTHROM® product on numerous occasions, including, but not limited to, the following:

(i) Presentation to Financial Analysts and Fund Managers on December 8, 2005

56. On December 8, 2005, at a meeting sponsored by Defendant in New York City, New York, Jeffrey H. Lawson, who is believed to be a consultant paid by Defendant, gave a presentation entitled "The Clinical Use and Immunologic Impact of Thrombin in Surgery" to approximately fifty (50) financial analysts and fund managers (the "December 8th Presentation"). (A copy of the presentation materials is attached hereto as Ex. 5.)

57. During the December 8th Presentation, Lawson displayed a slide with the statement, "More than 100 reports in the worlds literature of adverse events related to bovine thrombin exposure in humans." (Ex. 5 at p. 7.)

58. During the December 8th Presentation, Lawson also displayed a picture of a surfer in front of the shadow of a large shark in reference to bovine thrombin. (Ex. 5 at p. 9.)

59. During the December 8th Presentation, Lawson displayed a slide that contained the statement "Patients with autoantibodies to bovine thrombin preparations should not be re-exposed to these products." (Ex. 5 at p. 18.)

60. Following a slide entitled "Response to Bovine Antigens" displayed during the December 8th Presentation, Lawson displayed a picture of a forest fire. (Ex. 5 at p. 25.)

61. In a slide entitled "Adverse Events Related to Pre-operative Antibody Levels" displayed during the December 8th Presentation, Lawson indicated that clinical complications from "Multiple elevated antibody levels" resulted in an increase in adverse events including hemorrhagic and/or thromboembolic events and death. (Ex. 5 at p. 40.)

62. During the December 8th Presentation, Lawson displayed slides that indicated that patients with “pre-operative elevated antibody levels to *multiple* bovine proteins” had an approximately 39.5% greater likelihood of adverse events than patients without “pre-operative elevated antibody levels to *multiple* bovine proteins.” (Ex. 5 at p. 41 (emphasis in original).)

63. During the December 8th Presentation, Lawson displayed slides that indicated that patients pre-operatively exposed to bovine antibodies had higher actual costs of care than patients who had not been pre-operatively exposed to bovine antibodies. (Ex. 5 at p. 44.)

64. During the December 8th Presentation, Lawson displayed a series of slides entitled “Conclusions” that contained the following statements:

- Bovine topical thrombin is highly immunogenic when used in the setting of cardiovascular surgery.
- Thirty percent of patients exposed to bovine thrombin develop cross-reactive antibodies with the human blood coagulation factors.
- Thirty percent of patients with anti-clotting factor antibodies develop abnormal blood coagulation tests.
- Patients with multiple elevated antibodies prior to surgery are more likely to sustain adverse clinical outcomes.
- Patients with multiple elevated antibodies prior to surgery appear to have increased cost associated with the procedure which is independent of preoperative comorbid conditions.

(Ex. 5 at p. 45-46.)

65. During the December 8th Presentation, Lawson displayed a slide with the statement “Greater than 80% of patients with a history of graft thrombosis have elevated antibody levels to bovine thrombin reagents.” (Ex. 5 at p. 49.)

66. Following a slide entitled “Anticardiolipin Antibody Formation 6 Weeks after CABG” displayed during the December 8th Presentation, Lawson displayed a picture of an

iceberg that had a large portion of the iceberg beneath the surface of the water in reference to bovine thrombin. (Ex. 5 at p. 51.).

67. At the time of the December 8th Presentation, King was the only manufacturer and supplier of a bovine thrombin product in the United States.

(ii) Defendant's News Release on September 5, 2006

68. On September 5, 2006, Defendant issued a "News Release" in which Bruce L.A. Carter (who was President, CEO, and Chairman of the Board of Defendant at that time and currently remains Chairman of the Board) was quoted as stating:

We are very pleased with these positive results [of Defendant's Phase III study], which are in line with our expectations. In this study, recombinant human thrombin showed a *superior immunogenicity profile to bovine thrombin* and was highly effective in treating *acute* surgical bleeding.

(Emphasis added). (Copy attached hereto as Ex. 6 at p. 2.)

69. In the September 5th News Release, Defendant stated:

ZymoGenetics is developing rhThrombin, a recombinant form of human thrombin that is not derived from animal or human blood, for the control of bleeding associated with surgical procedures. Thrombin is used in more than 1 million surgeries each year in the United States. Currently, only thrombin derived from bovine blood is available in the U.S. as a stand-alone thrombin product. Bovine-derived thrombin has been associated with the development of antibodies that may cross-react with human blood proteins and in some cases these antibodies appear to be related to serious bleeding complications.

(Ex. 6 at p. 3.)

70. Upon information and belief, Defendant's September 5th News Release led to an article entitled "ZymoGenetics says rhThrombin trial results positive" by Reuters on September 5, 2006, that contains the statement, "The Seattle-based company . . . said rhThrombin showed a

superior immunogenicity profile to bovine thrombin and was highly effective in treating acute surgical bleeding.” (Copy attached hereto as Ex. 7.)

71. Upon information and belief, Defendant’s September 5th News Release led to an article entitled “ZymoGenetics Reports Positive Results from Pivotal Phase 3 Clinical Trial of RhThrombin” by DowJones Newswires on September 5, 2006, that contains the statement, “The [Phase III study] has a superior immunogenicity profile to bovine thrombin and was highly effective in treating acute surgical bleeding, the company noted.” (Copy attached hereto as Ex. 8.)

72. Upon information and belief, Defendant’s September 5th News Release led to an article entitled “ZymoGenetics clotting drug passes clinical test” in the Puget Sound Business Journal (Seattle) on September 5, 2006, that contains the statement, “ZymoGenetics (NASDAQ: ZGEN) said the phase three clinical study showed that its genetically engineered product, rhThrombin, caused less of an immune response than thrombin derived from cow’s blood, which is currently used in surgeries.” (Copy attached hereto as Ex. 9.)

73. Upon information and belief, Defendant’s September 5th News Release led to an article entitled “Healthy results for ZymoGenetics compound” in Datamonitor News and Comment on September 6, 2006, in which Carter was quoted as stating, “In [Defendant’s Phase III study], recombinant human thrombin showed a superior immunogenicity profile to bovine thrombin.” (Copy attached hereto as Ex. 10.)

74. Upon information and belief, Defendant’s September 5th News Release led to an article by the Associated Press entitled “Ahead of the Bell: ZymoGenetics” on September 6, 2006, that contains the statement, “In a client note Wednesday, Merrill Lynch analyst Hari Sambaivam said the results were in line with expectations that the new drug would perform

better in some ways than bovine Thrombin. For example, it appears the new drug stops bleeding faster than the bovine drug, the analyst said.” (Copy attached hereto as Ex. 11.)

75. Upon information and belief, Defendant’s September 5th News Release led to an article by Luke Timmeran entitled “ZymoGenetics’ Thrombin drug closer to market” in the Seattle Times on September 6, 2006, that contained the following statements:

- ZymoGenetics’ Thrombin proved it was as effective at stopping bleeding as the standard clotting protein made from cow blood. More importantly, it proved to be safer.
- The study showed that 1.5 percent of patients taking ZymoGenetics’ drug developed antibodies against it, which can be dangerous, compared with 22 percent who developed antibodies against the cow-blood product.
- [Mr. Carter] said his company believes it can dominate the market. History has shown that biotech drugs quickly supplant animal-derived ones.
- Small studies have suggested ZymoGenetics’ Thrombin was safe, and other studies have shown cow-derived Thrombin creates antibodies in 40 percent or more of patients.
- In a survey by Infinium, doctors said they would prefer a human-engineered protein over drugs made from human or animal blood, which could harbor contaminants.
- Company surveys reveal the same preference, but not many doctors realize they are using a drug derived from cows, Carter said.

(Copy attached hereto as Ex. 12.)

76. Upon information and belief, Defendant’s September 5th News Release led to an article entitled “Healthy results for ZymoGenetics compound” in Pharmaceutical Business Review Online on September 7, 2006, in which Carter was quoted as stating, “In this study, recombinant human thrombin showed a superior immunogenicity profile to bovine thrombin.”

(Copy attached hereto as Ex. 13.)

(iii) Defendant's Presentation at Bear Stern 19th Annual Healthcare Conference on September 12, 2006

77. At the Bear Sterns 19th Annual Healthcare Conference on September 12, 2006, Carter gave a presentation to attendees at the conference in which he displayed the following statements:

- [In regard to "Recombinant Human Thrombin"] "Replacement for existing bovine plasma-derived protein"
- [In regard to "Safety"] "Reduce risk of antibodies or hypersensitivity to contaminating plasma proteins"
- "rhThrombin had a significantly superior immunogenicity profile [than bovine thrombin]"
- "Pricing premium justified by better safety profile"
- "Improved safety may drive use by surgeons who avoid using bovine thrombin due to inherent risks"
- "Superior product profile"

(Copy of presentation slides attached hereto as Ex. 14 at pp. 3, 6, 8, 9, and 11.)

(iv) Defendant's News Release on September 18, 2006

78. On September 18, 2006, Defendant issued a "News Release" in which it stated, "rhThrombin demonstrated comparable efficacy and a superior immunogenicity profile as compared to bovine thrombin. Both treatments were well tolerated and exhibited similar adverse event profiles in this study." (Copy attached hereto as Ex. 15 at p. 1.)

79. In the September 18th News Release, Defendant also stated, "A superior immunogenicity profile was seen with rhThrombin, based on a significantly lower incidence of post-treatment anti-product antibody development... The incidence of post-treatment anti-product antibody development was significantly lower in the rhThrombin group." (Ex. 15 at p. 2.)

80. In the September 18th Press Release, Defendant further stated, “Bovine-derived thrombin has been associated with the development of antibodies that may cross-react with human blood proteins and in some cases these antibodies appear to be related to serious bleeding complications.” (Ex. 15 at p. 2.)

81. Upon information and belief, Defendant’s September 18th News Release led to an article entitled “ZymoGenetics CEO Sees Strong Market for Clotting Drugs” by DowJones.com on September 18, 2006, that contained the following statements:

- In an interview, Carter said the results [of the Defendant’s Phase III clinical trials] were significant because ZymoGenetics’ product was shown to be equally effective compared to the bovine-based product currently on the market.
- In addition, ZymoGenetics’ drug reduces the danger of serious bleeding complications associated with the production of antibodies developed by some patients using the bovine-based drug, Carter said.
- “Ours is a simple message: Our drug doesn’t have the problem with antibodies that has led to the black box warning” on current drugs, Carter said.
- In addition to concerns about antibodies, there are also concerns about developing products using bovine or human plasma, which can contain such infectious agents as HIV, hepatitis, mad-cow disease and even the West Nile virus, Carter said.

(Copy attached hereto as Ex. 16.)

82. Upon information and belief, Defendant’s September 18th News Release led to an article entitled “rhThrombin ZymoGenetics clinical data (phase III) (hemostatic)” by R & D Focus Drug News on September 18, 2006, that contained the statement, “The rate of antibody formation was 1.5% in patients treated with rhThrombin, compared with 22% in patients treated with the bovine thrombin product (less than 0.0001).” (Copy attached hereto as Ex. 17.)

(v) Defendant's Webcast on September 18, 2006

83. On September 18, 2006, Thomas Reynolds, Vice President of Medical Affairs for Defendant, presented at a webcast entitled "rhThrombin for Surgical Hemostasis" that was sponsored and promoted by Defendant. (Copy of webcast transcript attached hereto as Ex. 18.)

84. In the presentation, Reynolds stated, "rhThrombin demonstrated a superior immunogenicity profile, with a significantly lower incidence of anti-product antibody development compared with bovine thrombin (1.5% versus 22%; $p < 0.0001$)." (Ex. 18 at p. 14.)

(vi) Defendant's Analyst & Investor Briefing on December 8, 2005

85. During Defendant's "Analyst & Investor Briefing" at the Four Seasons Hotel in New York on December 14, 2006, Reynolds gave a presentation entitled "Recombinant human Thrombin (rhThrombin) Clinical/Regulatory Overview." (Copy of presentation slides attached hereto as Ex. 19.)

86. During his presentation, Reynolds made the following statements on his presentation slides:

- Bovine thrombin carries a black box warning for immunogenicity
- rhThrombin demonstrated comparable efficacy to bovine thrombin
- 1 in 20 patients had **pre-existing antibodies** to bovine thrombin
- Immunogenicity of bovine thrombin **confirmed**
- rhThrombin: **superior immunogenicity profile**
- Clear superiority for immunogenicity
- Potential for superior safety profile, based on low rate immunogenicity and lack of infectious disease risk
- [In regard to "rhThrombin: Potential Patient Benefits"] Potential to reduce the antibody-mediated clinical sequelae observed following bovine thrombin administration – *no anticipated black box warning.*

(Ex. 19 at pp. 10, 12, 16, 21 and 27 (emphasis in original).)

87. During his presentation, Reynolds displayed a chart entitled “Clinical Sequelae of Antibody Generation” that suggested a link between the presence of anti-bThrombin antibodies in patients and bleeding or thromboembolic events, hypersensitivity events, or high aPTT in those patients. (Ex. 19 at p. 18.)

88. During Defendant’s “Analyst & Investor Briefing” at the Four Seasons Hotel in New York on December 14, 2006, Michael J. Dwyer, Defendant’s Senior Vice President for Sales and Marketing, gave a presentation entitled “rhThrombin U.S. Commercialization.” (Copy of presentation slides attached hereto as Ex. 20.)

89. During his presentation, Dwyer made the following statements on his presentation slides:

- In 2005, King’s Thrombin-JMI® thrombin accounted for 41% of the approximately \$540 million U.S. topical hemostasis market.
- King made annual sales of Thrombin-JMI® thrombin in the amounts of \$175 million in 2004, \$221 million in 2005, and an estimated \$250 million in 2006.
- “...*Patients with antibodies to bovine thrombin preparations should not be re-exposed to these products...*”
- [In regard to “rhThrombin Target Positioning Statement”] Recombinant human thrombin is the only active topical surgical hemostat that offers surgeons a *safe, effective, convenient* and *reliable source* of thrombin that is *inherently free* from the risks of animal or human blood borne pathogens
- [In regard to “Overall Marketing Strategy”] Focus on top tier hospitals, developing product champions and advocates to drive adoption
- [In regard to “Summary of Key Finding”] rhThrombin replaces bovine thrombin and Surgical
- [In regard to “rhThrombin: An Exciting Opportunity”] Recombinant human thrombin is the only active topical surgical hemostat that offers surgeons a *safe, effective, convenient* and *reliable source* of thrombin that is *inherently free* from the risks of animal or human blood borne pathogens.

(Ex. 20 at pp. 30, 33, 37, 41-42, 51 and 58 (emphasis in original).)

(vii) Defendant's News Release on December 18, 2006

90. On December 18, 2006, Defendant issued a "News Release" entitled "ZymoGenetics Submits Biologic License Application to the FDA for rhThrombin as an Aid to Controlling Bleeding During Surgery" in which it stated, "As previously disclosed, the Phase 3 pivotal study showed that rhThrombin had comparable efficacy and a superior immunogenicity profile compared to the approved bovine thrombin product." (Copy attached hereto as Ex. 21.)

91. In the December 18th News Release, Defendant also stated, "Bovine-derived thrombin has been associated with the development of antibodies that may cross-react with human blood proteins and in some case these antibodies appear to be related to serious bleeding complications." (Ex. 21.)

92. Upon information and belief, Defendant's December 18th News Release led to an article entitled "ZymoGenetics Submits Biologics License Application to the FDA for rhThrombin as an Aid to Controlling Bleeding During Surgery" by Yahoo!® Finance on December 18, 2006, that contained the following statements:

- As previously disclosed, the Phase 3 study showed that rhThrombin had comparable efficacy and a superior immunogenicity profile as compared to the approved bovine thrombin product.
- Bovine-derived thrombin has been associated with the development of antibodies that may cross-react with human blood proteins and in some cases these antibodies appear to be related to serious bleeding complications.

(Copy attached hereto as Ex. 22.).

93. Upon information and belief, Defendant's December 18th News Release led to an article entitled "ZymoGenetics Submits Biologics License Application to the FDA for rhThrombin as an Aid to Controlling Bleeding During Surgery" by PipelineReview.com on December 18, 2006, that contained the statements:

- As previously disclosed, the Phase 3 study showed that rhThrombin had comparable efficacy and a superior immunogenicity profile as compared to the approved bovine thrombin product.
- Bovine-derived thrombin has been associated with the development of antibodies that may cross-react with human blood proteins and in some case these antibodies appear to be related to serious bleeding complications.

(Copy attached hereto as Ex. 23.)

94. Upon information and belief, Defendant's December 18th News Release led to an article entitled "ZymoGenetics Submits Biologics License Application to the FDA for rhThrombin as an Aid to Controlling Bleeding During Surgery" by Medical News Today on December 19, 2006, that contained the statements:

- As previously disclosed, the Phase 3 study showed that rhThrombin had comparable efficacy and a superior immunogenicity profile as compared to the approved bovine thrombin product.
- Bovine-derived thrombin has been associated with the development of antibodies that may cross-react with human blood proteins and in some case these antibodies appear to be related to serious bleeding complications.

(Copy attached hereto as Ex. 24.)

95. Upon information and belief, Defendant's December 18th News Release led to an article entitled "ZymoGenetics Submits Biologics License Application to the FDA for rhThrombin as an Aid to Controlling Bleeding During Surgery" by EARTHtimes.org on December 18, 2006, that contained the statements:

- As previously disclosed, the Phase 3 study showed that rhThrombin had comparable efficacy and a superior immunogenicity profile as compared to the approved bovine thrombin product.
- Bovine-derived thrombin has been associated with the development of antibodies that may cross-react with human blood proteins and in some case these antibodies appear to be related to serious bleeding complications.

(Copy attached hereto as Ex. 25.)

96. Upon information and belief, Defendant's December 18th News Release led to an article entitled "ZymoGenetics Submits Biologics License Application to the FDA for rhThrombin as an Aid to Controlling Bleeding During Surgery" by PharmaLive on December 18, 2006, that contained the following statements:

- As previously disclosed, the Phase 3 study showed that rhThrombin had comparable efficacy and a superior immunogenicity profile as compared to the approved bovine thrombin product.
- Bovine-derived thrombin has been associated with the development of antibodies that may cross-react with human blood proteins and in some case these antibodies appear to be related to serious bleeding complications.

(Copy attached hereto as Ex. 26.)

97. Upon information and belief, Defendant's December 18th News Release lead to an article entitled "ZymoGenetics Seeks OK for rhThrombin" by United Press International on December 18, 2006, that contained the following statements:

- ZymoGenetics said rhThrombin may have an advantage over currently available therapies, which are derived from bovine blood and may contribute to the development of antibodies that may cross-react with human blood proteins and lead to serious bleeding complications.
- A Phase 3 study showed that rhThrombin had comparable efficacy to a currently available bovine Thrombin but a superior immunogenicity profile.

(Copy attached hereto as Ex. 27.).

98. Upon information and belief, Defendant's December 18th News Release led to an article entitled "ZymoGenetics seeks OK to market drug" by Luke Timmerman in The Seattle Times on December 18, 2006, that contained the following statements:

- In the study, half of patients got Thrombin, and half got the standard drug derived from cow blood. The study showed Thrombin was roughly equally effective, but safer.
- The safety advantage is meaningful, because such reactions can cause severe bleeding and prevent patients from being re-dosed with Thrombin during surgery.

- ZymoGenetics says it will make cow-derived Thrombin obsolete, and possibly double or even triple the size of the market. It says there are limited supplies of King's drug, and it carries warning labels that may discourage surgeons from using it.

(Copy attached hereto as Ex. 28.)

99. Upon information and belief, Defendant's December 18th News Release led to an article entitled "ZymoGenetics Files Recombinant Human Thrombin" by Dela Dawkins in *'The Pink Sheet' Daily* on December 18, 2006, that contained the following statements:

- Results of a Phase III pivotal study demonstrated rhThrombin "had comparable efficacy and a superior immunogenicity profile compared to the approved bovine thrombin product," Thrombin-JMI, ZymoGenetics said.
- However, "bovine blood thrombin has been associated with the development of antibodies that may cross-react with human blood proteins, and in some case these antibodies appear to be related serious bleeding complications."
- Labeling for Thrombin-JMI contains a "black box" warning regarding abnormalities in hemostasis related to antibody formation against bovine thrombin.

(Copy attached hereto as Ex. 29.)

**(viii) Defendant's Presentation at the Citigroup 2007
Healthcare Conference on May 24, 2007**

100. In Defendant's presentation at the Citigroup 2007 Healthcare Conference on May 24, 2007, James A. Johnson, Senior Vice President and Chief Financial Officer of Defendant, made the following statements:

- rThrombin is being developed as a preferred alternative to bovine thrombin
- Patients treated with rhThrombin showed a trend toward faster hemostasis than patients treated with bovine thrombin
- More blood transfusions were required in patients treated with bovine thrombin – 63% more patients in the bovine thrombin group received more than one liter of red blood cells
- Immunogenicity of bovine thrombin confirmed
- 22% rate of antibody generation

- 80% of patients with pre-existing antibodies had ten-fold or greater increase after exposure to bovine thrombin
- No patient safety issues noted with rThrombin treatment [in Phase 3 safety outcomes]
- Primary initial strategy: displace bovine thrombin
- Surgeons overwhelmingly prefer recombinant over human or bovine plasma derived (emphasis in original)
- With awareness of black box warning, high percentage of surgeons have concerns
- P&T Committees consider patient safety to be the most important factor in evaluating new products
- Product bundling unlikely to overcome relative safety advantage of rThrombin
- Superior product profile

(Copy of presentation slides attached hereto as Ex. 30 (emphasis in original).)

101. At the Citigroup 2007 Healthcare Conference, Johnson presented a chart that indicated that bThrombin had immunogenicity and was not pure or consistent, whereas rThrombin purportedly lacks immunogenicity and has purity and consistency. (Ex. 30 at p. 10.)

**(ix) Defendant's Presentation at the Bank of America 2007 Healthcare Conference
Presentation on May 31, 2007**

102. In Defendant's presentation at the Bank of America 2007 Healthcare Conference on May 31, 2007, Carter stated that recombinant thrombin would replace bovine thrombin. (Copy of presentation slides attached hereto as Ex. 31.)

**(x) Defendant's Presentation at Society for Vascular Surgery Annual
Conference on June 7, 2007**

103. On June 7, 2007, at the Society for Vascular Surgery Annual Conference in Baltimore, Maryland, Lawson (who is believed to be a consultant paid by Defendant) gave a presentation entitled "The Clinical Use and Immunologic Impact of Thrombin in Surgery" that,

upon information and belief, was sponsored by Defendant. (A copy of the presentation materials is attached hereto as Ex. 32.)

104. During the June 7th Presentation, Lawson displayed a slide with the statement, “More than 100 reports in the worlds literature of adverse events related to bovine thrombin exposure in humans.” (Ex. 32 at p. 2.)

105. During the June 7th Presentation, Lawson also displayed a picture of a surfer in front of the shadow of a large shark in reference to bovine thrombin. (Ex. 32 at p. 2.)

106. During the June 7th Presentation, Lawson displayed a slide that contained the statement “Patients with autoantibodies to bovine thrombin preparations should not be re-exposed to these products.” (Ex. 32 at p. 6.)

107. During the June 7th Presentation, Lawson displayed a slide entitled “Topical Bovine Thrombin Antigens” that was accompanied by his discussion of the differences in bovine and human thrombin. (Ex. 32 at p. 8.)

108. During the June 7th Presentation, Lawson displayed a picture of a forest fire. (Ex. 32 at p. 8.)

109. During the June 7th Presentation, Lawson asserted that exposure to bovine thrombin resulted in an increase in elicited IgG antibodies. (Ex. 32 at p. 10.)

110. During the June 7th Presentation, Lawson asserted that exposure to bovine thrombin resulted in abnormal coagulation studies. (Ex. 32 at p. 11.)

111. During the June 7th Presentation, Lawson asserted that a study related to exposure to bovine thrombin resulted in sixty-five (65) adverse events in patients, including hemorrhage, thrombosis, wound complications, and death. (Ex. 32 at p. 11.)

112. In a slide entitled “Adverse Events Related to Pre-operative Antibody Levels” during the June 7th Presentation, Lawson indicated that clinical complications from “[m]ultiple elevated antibody levels” resulted in an increase of adverse events including hemorrhagic and/or thromboembolic events and death. (Ex. 32 at p. 11.)

113. During the June 7th Presentation, Lawson displayed slides that indicated that patients with “pre-operative elevated antibody levels to *multiple* bovine proteins” had an approximately 39% greater likelihood of adverse events than patients without “pre-operative elevated antibody levels to *multiple* bovine proteins.” (Ex. 32 at p. 14.)

114. During the June 7th Presentation, Mr. Lawson displayed a series of slides entitled “Conclusions” that contained the following statements:

- Bovine topical thrombin is highly immunogenic when used in the setting of cardiovascular surgery.
- Thirty percent of patients exposed to bovine thrombin develop cross-reactive antibodies with the human blood coagulation factors.
- Thirty percent of patients with anti-clotting factor antibodies develop abnormal blood coagulation tests.
- Patients with multiple elevated antibodies prior to surgery are more likely to sustain adverse clinical outcomes.
- Patients with multiple elevated antibodies prior to surgery appear to have increased cost associated with the procedure which is independent of preoperative comorbid conditions.

(Ex. 32 at p. 14.)

115. During the June 7th Presentation, Mr. Lawson displayed a slide with the statement “Greater than 80% of patients with a history of graft thrombosis have elevated antibody levels to bovine thrombin reagents.” (Ex. 32 at p. 15.)

**(xi) Defendant's Conference Call to Provide Update on rThrombin on
August 22, 2007**

116. On August 22, 2007, Defendant held a "Conference Call to Provide Update on rThrombin." (A transcript of the conference call is attached hereto as Ex. 33.)

117. During the conference call and in response to the question "In the event that the [sic](inaudible) product is approved, do you see this delay having any meaningful impact on your ability to position yourself with the P&T committees?", Carter (Defendant's CEO and President at that time and current Chairman of the Board of Defendant) stated:

You know, as an Olympic athlete, you always want to be first. But we do believe that we have—There's no question we believe that we have the superior product. We clearly have a recombinant coming. I don't think anyone can seriously question that recombinant products have always displaced animal- or human-derived products. And I don't think anyone can question the question of why would you take the risk of something that comes from pool human plasma or bovine plasma when you take a recombinant *without taking that risk?*

(Ex. 33 at p. 6 (emphasis added).)

118. In his closing comments during the conference call, Carter stated in pertinent part:

As I said before, we would prefer to have been the first in the marketplace, but I would reiterate that we believe that have a superior product. And, why would you take the risk of something coming from plasma if you have a recombinant? We believe history is on our side. If one looks at the history of all the other recombinant proteins, they rapidly displace things coming from animal or humans.

(Ex. 33 at p. 12.)

(xii) Defendant's News Release on January 17, 2008

119. On January 17, 2008, Defendant issued a "News Release" entitled "FDA Approves ZymoGenetics' RECOTHROM™ Thrombin, topical (Recombinant)" in which it announced the FDA approval of RECOTHROM®. (Copy attached hereto as Ex. 34.)

120. In the January 17th News Release, Defendant stated, “A Phase 3 pivotal clinical trial showed that RECOTHROM had comparable efficacy and a significantly lower incidence of antibody formation compared to the commercially available bovine thrombin product.” (Ex. 34 at p. 2.)

(xiii) Defendant’s Email Advertisements in 2008

121. In or around 2008, Defendant distributed email advertisements that consisted of the sentence, “Do you know the source of your thrombin?” followed by the moving image a medicinal bottle of liquid that is the shape, size, and color of the bottle of King’s Thrombin-JMI® product.

122. In the above-referenced advertisement, the bottle for the Thrombin-JMI® product moved side-to-side to the sound of a ringing cow bell.

123. In the above-referenced advertisement, after several rings of the cow bell, a moving image of a black and white spotted cow appeared in the bottle, followed by the sentence “Antibodies developed to bovine thrombin may cross-react with native human coagulation factors.”

124. In the above-referenced advertisement, the aforementioned images were followed by a red screen with the sentence, “Isn’t it time for an alternative to bovine-derived thrombin?” followed by prescription information regarding RECOTHROM®.

(xiv) Defendant’s Presentation before Citigroup Healthcare on May 21, 2008

125. In Defendant’s presentation before Citigroup Healthcare on May 21, 2008, Defendant (directly or through its agent or representative) made the following statements:

- “RECOTHROM™ Superior product profile in \$500M+ potential U.S. market opportunity”
- “Strong label...Lower incidence of antibody formation...No black box warning”

- “Superior product label”

(Copy of presentation slides attached hereto as Ex. 35.)

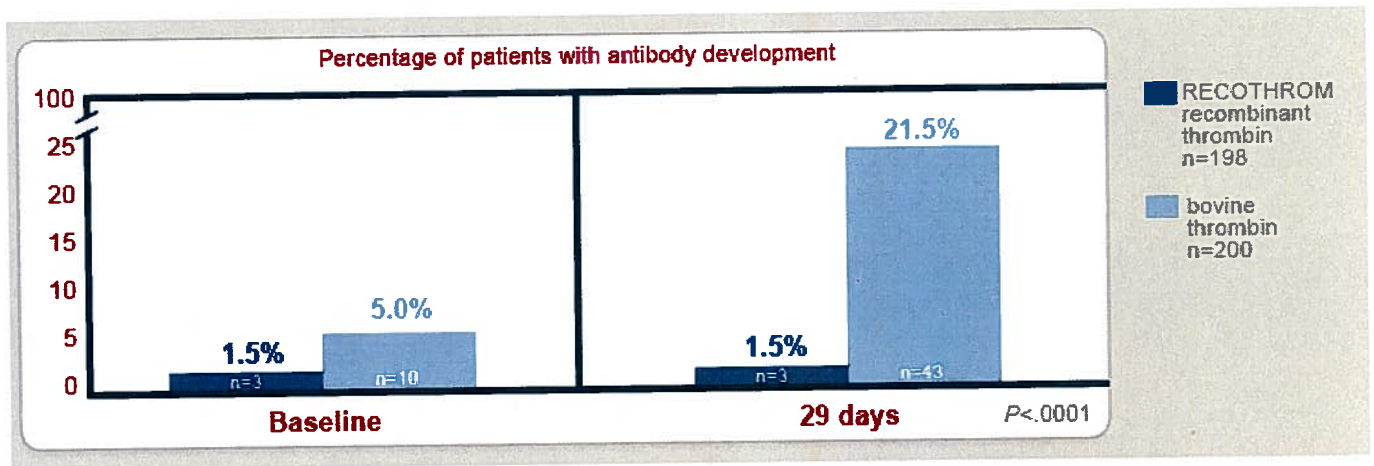
(xv) Defendant’s Promotional Materials on or about May 23, 2008

126. On or about May 23, 2008, a representative of Defendant left promotional materials with a physician that contain the statements:

- “Minimizes the risk of transmitting known and unknown blood-borne pathogens”
- “Low incidence of specific anti-product antibody development”

(Copy of materials attached hereto as Ex. 36.)

127. The above-referenced promotional materials contained a page displaying the statement “**Significantly lower rate of specific anti-product antibody formation**” along with the following chart, allegedly based on Defendant’s Phase III study:



(Ex. 36 at p. 7.) Defendant’s Phase III study indicates that the “bovine thrombin” in the above chart was the Thrombin-JMI® product.

128. Below the foregoing chart on the promotional materials were the statements:

- “Before surgery, 5% of patients in the bovine thrombin arm had preexisting, specific antibodies to bovine thrombin product”
- “After surgery, a significantly higher percentage of patients (21.5%) developed antibodies to bovine thrombin product compared to RECOTHROM (1.5%)”

- “No reported adverse events were considered causally related to antibody formation in either group during the Phase 3 study.”

(Ex. 36 at p. 7.)

129. The foregoing promotional materials also contained the following statements:

- “100% free of human or animal plasma”
- “Minimizes the risk of transmitting blood-borne pathogens”
- “Does not contain extraneous plasma proteins”
- “State-of-the-art recombinant manufacturing processes provide consistent quality and product availability”
- “Patients with antibodies to bovine thrombin should not be reexposed”.

(Ex. 36 at p. 8.)

130. With the foregoing promotional materials, Defendant’s representative left promotional materials entitled “A Phase 3, Randomized, Double-Blind Comparative Study of the Efficacy and Safety of Topical Recombinant Human Thrombin and Bovine Thrombin in Surgical Hemostasis”, which stated that there is a “significantly lower incidence of antibody formation” from exposure to recombinant thrombin as compared to bovine thrombin. (Copy attached hereto as Ex. 37.)

(xvi) 2008 Annual Report Shareholder Letter

131. On or around February 11, 2009, Doug E. Williams, Defendant’s current CEO, issued his “2008 Annual Report Shareholder Letter”. (Copy attached hereto as Ex. 38.)

132. In his letter, Williams stated in pertinent part:

Looking ahead to 2009, we have a lot of work to do to unlock the intrinsic value in ZymoGenetics. Our first priority is to make RECOTHROM a commercial success. During 2008, we received approvals for three separate product presentations and launched the produce in the US market... Admittedly, the US launch has not

proceeded to displace bovine thrombin as quickly as we had hoped. We took steps at the end of 2008 which we believe will provide greater sales momentum to build on in 2009. In addition, we recently announced the recruitment of a senior level executive, Stephen Zaruby, who has extensive hospital sales and marketing experience, to be our President and head up our RECOTHROM business. His mandate is simple: establish RECOTHROM as the leading topical surgical hemostat and identify additional product line extensions and licensing opportunities to leverage our commercial infrastructure.

(Ex. 38.).

(xvii) Defendant's Annual Report filed with the SEC on March 6, 2009

133. On March 6, 2009, Defendant filed its Annual Report for the fiscal year ending on December 31, 2008 ("2008 Annual Report") with the Securities and Exchange Commission ("SEC"). (Copy attached hereto as Ex. 39.)

134. In its 2008 Annual Report, Defendant makes the following statements:

- Net sales of RECOTHROM totaled \$8.8 million during the year ended December 31, 2008.
- The market for thrombin has grown since 2000, with the combined net sales of Thrombin-JMI, Evithrom and RECOTHROM estimated to be approximately \$270 million in 2008. It has been estimated that thrombin is used in over a million surgical procedures annually in the United States.
- We believe that there are several potentially important advantages to recombinant thrombin. Some patients may experience allergic reactions to plasma-derived product. Patients could also develop antibodies to bovine plasma-derived thrombin or to bovine Factor V or other protein impurities in the bovine plasma-derived product. **In some cases, these antibodies can cross-react with analogous human proteins, creating a bleeding condition that can be difficult to manage and which has been fatal in patients who develop the most severe cases. Use of bovine plasma-derived thrombin in patients with pre-existing antibodies to bovine clotting factors may cause bleeding, thrombosis or other post-operative complications, which can result in increased treatment costs.**
- RECOTHROM also **demonstrated a superior immunogenicity profile to bovine thrombin, based on a significantly lower incidence of post-treatment anti-product antibody development.** Both treatments were well tolerated and exhibited similar adverse event profiles.

(Ex. 39 (emphasis added).)

(xviii) Defendant's News Release on August 20, 2009

135. On August 20, 2009, Defendant issued a "News Release" entitled "ZymoGenetics Submits Citizen Petition to FDA Requesting Removal of Bovine Thrombin from Market in the Interest of Patient Safety." (Copy attached hereto as Ex. 40.)

136. In the August 20th News Release, Defendant stated:

ZymoGenetics, Inc. (NASDAQ:ZGEN), announced today the submission of a Citizen Petition to the U.S. Food and Drug Administration (FDA) requesting that the FDA remove Thrombin-JMI® Thrombin, topical (bovine origin) from the market in the interest of patient safety. The Citizen Petition is prompted by recent reports of serious or fatal bleeding-related adverse events in surgical patients exposed to bovine (cattle-derived) thrombin.

"Serious adverse events, including **death**, linked to bovine thrombin continue to be reported to the FDA," said George Rodgers, M.D., Ph.D, Professor of Medicine and Pathology at the University of Utah, and Medical Director of the Coagulation Laboratory at ARUP Laboratories. "These adverse events are a serious, ongoing safety issue for patients undergoing surgery."

The petition notes that because bovine thrombin is recognized by the body as a foreign protein, and bovine thrombin preparations contain low levels of other coagulation proteins found in cattle plasma, these products prompt an immune response (formation of antibodies) in a substantial portion of patients exposed to them. **In some patients, these antibodies may interfere with the coagulation process and consequently cause coagulation abnormalities; this condition is called immune-mediated coagulopathy (IMC).¹ Effects of IMC can range from lab abnormalities to severe bleeding and, in some cases, death.** The FDA-approved prescribing information for topical bovine thrombin notes that the risk of antibody formation increases with multiple exposures, and that patients with pre-existing antibodies to bovine thrombin preparations should not be re-exposed to these products.² However, clinicians do not have access to a readily available diagnostic test to screen for these antibodies, and patients are not likely to know whether they have previously been exposed to bovine thrombin.

The petition states that more than 25 cases of patients developing IMC after exposure to bovine thrombin preparations have been published since 2000 in the medical literature, representing a wide range of surgical settings and adult and pediatric patients. The adverse events reported in published case reports have ranged from asymptomatic laboratory abnormalities to serious adverse events including **severe hemorrhage, thrombosis, and death**. Publications by independent experts highlight the relationship between exposure to bovine thrombin preparations and the development of IMC.

The petition asserts that the body of evidence from the contemporary medical literature, combined with ongoing spontaneous adverse event reports to FDA, indicate that IMC is a continuing safety risk associated with bovine thrombin, warranting action by FDA. In the past few years, FDA has approved alternative human thrombin products not derived from cattle plasma, including one made by ZymoGenetics. The petition asserts that the risks associated with use of Thrombin-JMI outweigh the benefits. ZymoGenetics can provide no assurance that the petition will be granted or that Thrombin-JMI will be removed from the market.

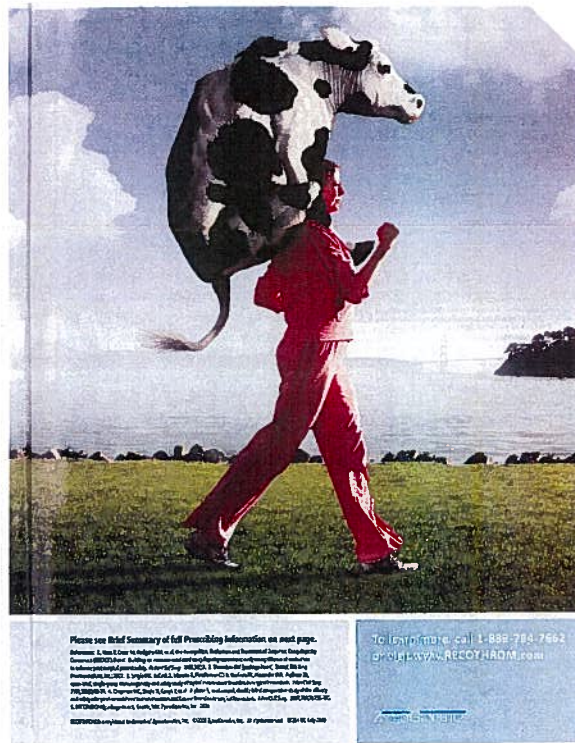
(Ex. 40.) (emphasis supplied)

137. Upon information and belief, Defendant's August 20th News Release led to an article entitled "ZymoGenetics Submits Citizen Petition to FDA Requesting Removal of Bovine Thrombin from Market in the Interest of Patient Safety" by Reuters on August 20, 2009, that contained the statement, "The Citizen Petition is prompted by recent reports of **serious or fatal bleeding-related adverse events** in surgical patients exposed to bovine (cattle-derived) thrombin." (Copy attached hereto as Ex. 41.) (emphasis supplied)

(xix) Defendant's Cow-Riding-Woman Advertisement on September 1, 2009

138. In the American Journal of Health-System Pharmacy™, Volume, 66, Number 17, on September 1, 2009, Defendant ran an advertisement for RECOTHROM® under the title "The **risks** associated with cattle thrombin may stay with patients long after surgery." (Copy attached hereto as Ex. 42 (emphasis in original).)

139. On the second page of the advertisement in the American Journal of Health-System Pharmacy™, Defendant displayed the following picture:



(Ex. 42.)

(xx) Defendant’s Sponsorship of “Patient Safety in Surgery” Article

140. On September 4, 2009, “Patient Safety in Surgery” published a peer-review article by Christopher Lomax entitled “Safety of topical thrombins: the ongoing debate” in which Lomax concluded that Defendant’s rhThrombin product should be used in surgeries rather than King’s bovine thrombin product because of the purported risk of clinically significant defects in hemostasis, secondary to the formation of antibodies to coagulation proteins caused by bovine thrombin. (Copy attached hereto as Ex. 43.)

141. In the foregoing article, Mr. Lomax did not cite to any link between antibodies that may be caused by exposure to bovine thrombin and any increase in adverse effects. (Ex. 43.)

142. In the “acknowledgement” section of Mr. Lomax’s article, he states, “The author wishes to thank Jack Raber, PharmD, for editorial assistance funded by an unrestricted education grant from ZymoGenetics, Inc.” (Ex. 43.)

(xxi) Statements on Defendant’s www.zymogenetics.com website

143. The following statements are contained on Defendants website, www.zymogenetics.com:

- [B]ovine-derived thrombin has been associated with the development of antibodies that may crossreact with human blood proteins and in some cases, these antibodies appear to be related to serious bleeding complications.
- Today only Thrombin-JMI, derived from bovine blood, and marketed by King Pharmaceuticals, is available in the U.S. as a stand-alone product.
- The potential for development of antibodies to bovine thrombin or other protein impurities in the bovine product is a reported safety concern related to use of the product.
- Although bovine thrombin can function in the context of the human clotting cascade, it is still recognized as foreign by the human immune system and can trigger the production of antibodies. Other proteins present in the bovine product may trigger an antibody response; in some cases antibodies produced against bovine proteins cross-react with homologous human proteins and lead to significant bleeding disorders.
- The Phase 3 pivotal study showed the rThrombin had comparable efficacy and superior immunogenicity compared to the marketed bovine thrombin product.

(Copies of pertinent web pages attached hereto as collective Ex. 44.)

144. The section of Defendant’s website entitled “rThrombin Quick Facts” contains the following statements:

Why are there concerns regarding the use of bovine thrombin?

- The U.S. Food and Drug Administration (FDA) placed a black box warning on bovine thrombin after some patients experienced severe adverse events after being treated with the product.
- Thrombin-JMI contains bovine Factor V, which is foreign to humans. The immune system may respond by producing antibodies, which can cross-react with human Factor V and potentially result in Factor V deficiency and severe bleeding.

- Repeated applications of bovine thrombin increase the likelihood that antibodies against thrombin and/or Factor V may be formed.
- Among patients treated with topical bovine thrombin, approximately 20% or greater develop antibodies to the preparations.
- There have been reports of coagulation problems, severe bleeding and, in rare cases, death in some patients who develop antibodies to bovine thrombin preparations.

(Copy of web page attached hereto as Ex. 45.)

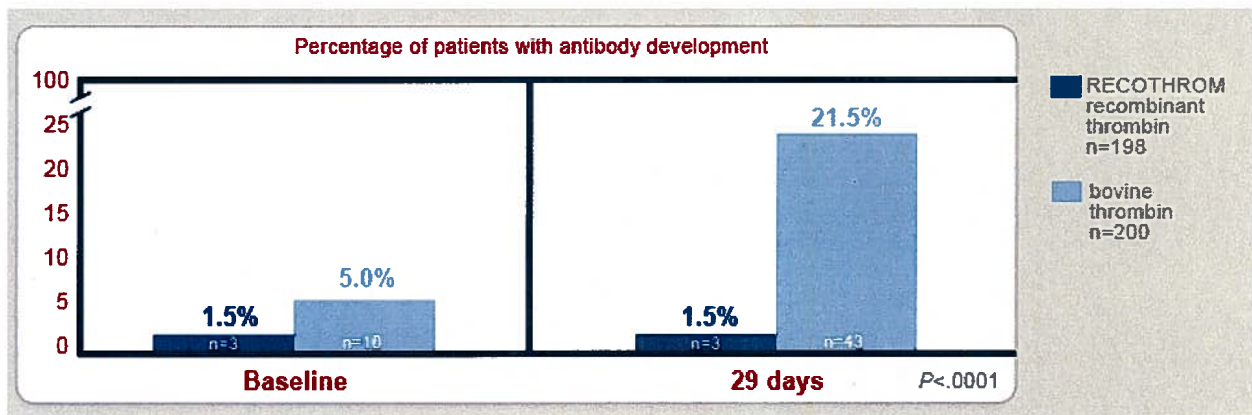
(xxii) Statements on Defendant’s www.recothrom.com website

145. Defendant’s website, www.recothrom.com, displays the following statements:

- **No Black Box warning required**, based on available safety and immunogenicity data
- **State-of-the-art recombinant manufacturing processes** provide consistent quality and product availability
- **Plasma-Free Features:** RECOTHROM provides comparable efficacy to bovine thrombin yet alleviates risks and concerns associated with plasma-derived thrombins
- **Significantly lower rate of specific anti-product antibody formation**

(Copy of web page attached hereto as Ex. 46.)

146. On the “safety” page of Defendant’s www.recothrom.com website, there appears the statement “**Significantly lower rate of specific anti-product antibody formation**” along with the following chart, allegedly based on Defendant’s Phase III study:



(Copy of web page attached hereto as Ex. 46 at p. 4.) The bovine thrombin referenced in the forgoing chart was a Thrombin-JMI® product.

147. Four lines from the bottom of the above-referenced page, in smaller letter in a font color only slightly different than the color on the “safety” web page background, Defendant states, **“No reported adverse events were considered causally related to antibody formation in either group during the Phase 3 study.”** (Ex. 46 at p. 4.) (emphasis supplied)

148. In the second to last line at the bottom of the “safety” web page on www.recothrom.com, Defendant states, “Patient with antibodies to bovine thrombin should not be reexposed” and cites the Thrombin-JMI® product’s “package insert” as the basis for the statement. (Ex. 46 at p. 4.)

149. Under the “Safety” section of Defendant’s www.recothrom.com website, Defendant states, “Serious adverse events were reported by 18% of the patients treated with RECOTHROM and 22% of patients treated with bovine thrombin.” (Copy attached hereto as Ex. 46.)

150. Under the “Prescribing Information” section of Defendant’s www.recothrom.com website, Defendant states, “Treatment with RECOTHROM resulted in a statistically significantly lower incidence of specific anti-product antibody development. Three of 198 (1.5%; 95% CI, 0 to 4%) of the patients in the RECOTHROM arm developed specific anti-thrombin product antibodies (one patient also developed anti-CHO host cell protein antibodies). Forty-three of 200 subjects, (22%; 95% CI, 16 to 28%) in the bovine thrombin arm developed specific antibodies to bovine thrombin product. None of the antibodies in the RECOTHROM group neutralized native human thrombin (6.2). Antibodies against bovine thrombin product were not tested for

neutralization of native human thrombin. Development of antibodies in either group did not lead to any adverse events such as excessive bleeding. (Copy attached hereto as Ex. 47).

(xxiii) Defendant's www.postopbleeding.org website

151. As early as September 16, 2009, Defendant sponsors and/or operates a website with the domain name www.postopbleeding.org. (Copies of web pages from the website are attached hereto as collective Ex. 48.)

152. Upon information and belief, Defendant is the owner of the domain name www.postopbleeding.org domain name. (Copy of domain name registry information attached hereto as Ex. 49.)

153. Upon information and belief, Defendant registered the www.postopbleeding.org domain name through Domains by Proxy, Inc. on or about November 5, 2008. (Ex. 49.)

154. By registering the www.postopbleeding.org domain name through Domains by Proxy, Inc., Defendant was able to hide its ownership of said domain name from the general public and King in particular. (Ex. 49.)

155. Upon information and belief, Defendant is the owner of the domain name www.postopbleeding.com domain name. (Copy of domain name registry information attached hereto as Ex. 50.)

156. Upon information and belief, Defendant registered the www.postopbleeding.com domain name through Domains by Proxy, Inc. on or about November 5, 2008. (Ex. 50.)

157. By registering the www.postopbleeding.com domain name through Domains by Proxy, Inc., Defendant was able to hide its ownership of said domain name from the general public and King in particular. (Ex. 50.)

158. Upon information and belief, Defendant or its agent(s) or representative(s) did not publish a website available at www.postopbleeding.org until approximately August 14, 2009. (Ex. 49.)

159. Upon information and belief, Defendant does not operate a website at www.postopbleeding.com and instead, re-directs any potential viewer of www.postopbleeding.com to the website located at www.postopbleeding.org to give the viewer the impression that information provided on www.postopbleeding.org comes from a “non-profit” type organization rather than a commercial pharmaceutical company.

160. Upon information and belief, the purpose of www.postopbleeding.org is to create an increase in reported adverse events allegedly related to exposure to bovine thrombin.

161. Rather than being an un-biased, neutral website dedicated to collecting data on all postoperative bleeding, Defendant’s www.postopbleeding.org website provides links and materials related solely to the alleged harmful effects of exposure to bovine thrombin with no reference to the risk of adverse events arising from exposure to recombinant thrombin.

162. Among other statements on www.postopbleeding.com, Defendant, through an article by Lawson (upon information and belief is a consultant paid by Defendant), states

Further, there is significant documentation that patients who are exposed to non-human forms of thrombin are at risk for the development of anti-factor V, anti-thrombin, and antiphospholipid antibodies. This observation has been documented in numerous clinical reports, supported in animal trials, and included in the labeling for topical bovine thrombin preparations in the form of a boxed warning (commonly referred to as a “black box warning”). The product label warns that patients with pre-existing antibodies to bovine thrombin preparations should not be re-exposed. Unfortunately, there is no commercially available test to determine which patients have bovine thrombin antibodies.

Incidence

The label for bovine thrombin preparations notes an occasional association with the development of coagulopathies. The true incidence of immune-mediated coagulopathy in patients exposed to non-human hemostatic products is unknown. From a historical perspective, the rate of antibody formation against bovine factor V and bovine thrombin has ranged from as high as 95% of patients exposed to the product, to as low as 20%, depending on the source of the thrombin and the clinical and laboratory specifics of the report. The more recent publications report results at the low end of this range. Further, some recent clinical studies have not detected an association between antibody response to bovine thrombin and adverse clinical outcomes, although these trials were designed and powered for other endpoints.

Regardless of the specific number, it appears that a significant portion of immunocompetent individuals, who are exposed to non-human thrombin products, are able to mount an immune response to the product, and may develop cross-reactive (auto-reactive) antibodies against their own human coagulation proteins. The effect of these cross-reacting antibodies may range from abnormalities in lab parameters with no discernible clinical effects, to serious bleeding events. It is not known what long-term effect sensitization of the immune system to non-human coagulation proteins has.

(Copy of web page attached hereto as Ex. 51 at p. 4.)

163. Defendant also states on its www.postopbleeding.org website

Acquired Specific Factor Inhibitors

Multiple published reports and clinical studies have demonstrated that some patients will develop antibodies against bovine thrombin and/or factor V following exposure to bovine thrombin preparations. In some cases, these antibodies cross-react with the corresponding human coagulation factor and interfere with their normal functioning, occasionally leading to a coagulopathy. This phenomenon is described in the labeling for topical bovine thrombin preparations in the form of a boxed warning, which is commonly referred to as a “black box warning.”

In the United States, a “black box warning” is required in labeling of certain medications by the FDA to inform healthcare professionals of the potential risk of serious—or even life-threatening—adverse events. The text for the boxed warning is typically bolded inside a box with a black outline to emphasize the importance of the warning.

The reported incidence of antibody development in patients exposed to bovine thrombin varies widely depending upon the formulation and assay methodology. A recent study indicated that approximately 20% or more of patients exposed to bovine thrombin develop antibodies. It is important to note that not all patients who develop antibodies to bovine thrombin and/or factor V will develop coagulopathy. The true incidence of coagulopathy associated with bovine thrombin is unknown.

Understanding the Problem

The pathophysiology of this phenomenon has been studied. Bovine thrombin is a xenogeneic protein; the amino acid structure of bovine thrombin and human thrombin are not identical. Additionally, bovine thrombin preparations contain small amounts of impurities, such as bovine factor V. Thus, the administration of bovine thrombin preparations can result in the development of antibodies to bovine thrombin and/or factor V that may cross-react with human coagulation factors. Although purification methods used in production of bovine thrombin preparations have been enhanced over time, the clinical significance of these process changes is unknown. Further, the minimum amount of bovine thrombin or bovine factor V required to induce an immune response is also unknown.

(Copy of web page attached hereto as Ex. 52.)

164. Defendant's www.postopbleeding.org website attempts to influence the diagnostic method of physicians dealing with postoperative bleeding where it states:

Diagnosis

If a patient is suspected of having immune-mediated coagulopathy, how can the diagnosis be made? *First, a rational history of the patient's surgical care must be obtained. Was the patient exposed to non-human coagulation proteins (eg, bovine thrombin)? Was this the patient's first exposure to the product, or have they undergone other procedures that may have been related to exposure?* Is the patient bleeding or clotting abnormally in the absence of a technical problem with surgery?

(Copy of web page attached hereto as Ex. 53 (emphasis added).)

165. On Defendant’s www.postopbleeding.org website, Defendant does not suggest determining whether a patient suffering an adverse event has been exposed to recombinant thrombin during diagnosis of the cause of an adverse event.

166. On Defendant’s www.postopbleeding.org website, there is no mention of the potential for the development of autoantibodies resulting from exposure to rhThrombin.

167. Defendant’s www.postopbleeding.org website is intended to artificially increase the number of event reports related to bovine thrombin.

168. On www.postopbleeding.org, Defendant further seeks to create a deceptive and misleading parallel and comparison between “Heprin-Induced Thrombocytopenia” and “Bovine Thrombin-Associated Coagulopathy”, where it states in pertinent part:

Heparin-Induced Thrombocytopenia (HIT) and Bovine Thrombin-Associated Coagulopathy: Historical Awareness and Detection

A review of the literature and case reports on iatrogenic immune-mediated coagulopathy (IMC) shows that there are numerous historical parallels that can be drawn between heparin-induced thrombocytopenia (HIT) and bovine thrombin-associated coagulopathy.

Heparin-Induced Thrombocytopenia (HIT)	Bovine Thrombin-Associated Coagulopathy
First described 1969	First described 1989
Variable presentations	Variable presentations
Not all antibodies lead to clinical events	Not all antibodies lead to clinical events
Initial low clinical awareness	Low clinical awareness
Initial uncertainty in pathogenic mechanism	Initial uncertainty in pathogenic mechanism
Early laboratory evaluation difficult	No commercially available antibody assays

Both disease states have variable clinical presentations, and detectable antibodies do not necessarily correlate with clinical events. Early on, there was very low clinical awareness of HIT, and the pathophysiology of the disease state was uncertain. Robust laboratory diagnostics for HIT antibodies were not initially available. Similarly, there is currently very low clinical awareness of bovine thrombin-associated coagulopathy. There are also diagnostic challenges, including the lack of a widely available anti-bovine thrombin antibody assay.

(Copy of web page attached hereto as Ex. 54.)

169. On www.postopbleeding.org, Defendant directly implies that, although there are no studies demonstrating that antibodies correlate with clinical events, future diagnostics may determine that bovine-associated antibodies correlate with clinical events. (Ex. 55.)

E. DEFENDANT'S FALSE AND MISLEADING STATEMENTS

(i) Defendant's False and Misleading Statement about RECOTHROM® and Recombinant Human Thrombin

170. Upon information and belief, Defendant made literally and impliedly false and misleading statements regarding the nature, characteristics, quality, efficacy, and safety of its recombinant thrombin product prior to and during its pre-FDA approval and post-FDA approval promotion of the RECOTHROM® product.

171. Upon information and belief, Defendant (directly or through its agents or representatives) falsely and/or misleadingly told potential customers of the RECOTHROM® product that it could be used in the exact same manner and/or same application as the Thrombin-JMI® product, which would necessarily be an off-label use of the RECOTHROM® product.

172. Upon information and belief, Defendant (directly or through its agents or representatives) falsely and/or misleadingly told potential customers of the RECOTHROM® product that it could be used to stop "acute" bleeding, which would necessarily be an off-label use of the RECOTHROM® product.

173. Upon information and belief, Defendant (directly or through its agents or representatives) falsely and/or misleadingly told potential customers of the RECOTHROM® product that exposure to it would not result in the production of any antibodies to recombinant thrombin or the RECOTHROM® product.

174. Upon information and belief, Defendant (directly or through its agents or representatives) falsely and/or misleadingly told potential customers of the RECOTHROM® product that exposure to it would not result in an increase in antibodies when in fact the RECOTHROM® product may result in the production of antibodies.

175. Upon information and belief, Defendant (directly or through its agents or representatives) falsely and/or misleadingly told potential customers of RECOTHROM® that it was “human thrombin” when in fact it is not identical to human thrombin.

176. Upon information and belief, Defendant (directly or through its agents or representatives) falsely and/or misleadingly has told potential customers of the RECOTHROM® product that it is “safer” when, in fact, there have not been any long-term studies conducted to prove such claim, and, therefore, no factual scientific basis for such claim and no FDA approval for such claim.

177. Upon information and belief, Defendant (directly or through its agents or representatives) has failed to tell potential customers of the RECOTHROM® product that it utilizes and may contain rattlesnake venom.

178. Upon information and belief, Defendant (directly or through its agents or representatives) has failed to tell potential customers of the RECOTHROM® product that it may contain Chinese hamster proteins.

179. Upon information and belief, Defendant (directly or through its agents or representatives) has failed to tell potential customers of the RECOTHROM® product that it is created through a conversion of pre-thrombin to recombinant human thrombin, which is not the same process as naturally occurring conversion of human prothrombin to human thrombin.

180. Defendant falsely and/or misleadingly told potential customers of the RECOTHROM® product that its use does not have any of the same risks as exposure to bovine thrombin or human thrombin derived from human plasma.

181. Upon information and belief, Defendant (directly or through its agents or representatives) has made statements to potential customers of the RECOTHROM® product that falsely and/or misleadingly imply that exposure to bovine thrombin has a greater risk of transmitting blood-borne pathogens than exposure to the RECOTHROM® product. Both the Thrombin-JMI® product and the RECOTHROM® product actually utilize nano-filtration methods to eliminate all viruses and blood-borne pathogens.

182. Upon information and belief, Defendant (directly or through its agents or representatives) has made statements to potential customers of RECOTHROM® that falsely and/or misleadingly imply that re-exposure to RECOTHROM® is without risk of adverse event.

183. Upon information and belief, Defendant (directly or through its agents or representatives) falsely and/or misleadingly told potential customers of RECOTHROM® that “the risks associated with cattle thrombin may stay with patients long after surgery.”

184. Defendant falsely and/or misleadingly implied its “Cow Riding Woman” advertisement directed to potential RECOTHROM™ customers that the risk of exposure to patients would be an unnecessary “weight on their shoulders.”

185. Upon information and belief, Defendant (directly or through its agents or representatives) falsely and/or misleadingly told potential customers of the RECOTHROM® product that it is more consistent than bovine thrombin or the Thrombin-JMI® product.

186. Upon information and belief, Defendant (directly or through its agents or representatives) falsely and/or misleadingly told potential customers of RECOTHROM® that the RECOTHROM® product is more readily available than bovine thrombin or the Thrombin-JMI® product.

187. Upon information and belief, Defendant (directly or through its agents or representatives) has attempted to create studies and data sources (such as www.postopbleeding.com) to falsely and/or misleadingly direct potential customers away from bovine thrombin products and toward RECOTHROM®

188. Upon information and belief, Defendant (directly or through its agents or representatives) failed to identify whether the purported antibodies resulting from exposure to bovine thrombin are neutralizing or non-neutralizing, or clinically significant or not which omission is false or misleading.

189. Upon information and belief, Defendant (directly or through its agents or representatives) has falsely and misleadingly stated or implied that anti-bovine thrombin antibodies will cross-react to human thrombin.

190. Upon information and belief, Defendant (directly or through its agents or representatives) has made statements to potential customers of RECOTHROM® that use of RECOTHROM® has a lower risk of malpractice lawsuits being filed against the customer as opposed to use of Thrombin-JMI® products. [No lawsuits have been filed against any party

beginning January 1, 2004, to date alleging product liability claims against King or healthcare providers relating to Thrombin-JMI® products].

(ii) Defendant's False and Misleading Statements regarding Thrombin-JMI® Products and Bovine Thrombin Generally

191. Upon information and belief, Defendant made literally and impliedly false and misleading statements regarding the nature, characteristics, quality, efficacy, and safety of Thrombin-JMI® products and bovine thrombin generally prior to and during its promotion of the RECOTHROM® product.

192. Upon information and belief, Defendant (directly or through its agents or representatives) falsely and/or misleadingly told potential and/or existing Thrombin-JMI® product customers that Thrombin-JMI® products cause an increase in antibodies and, in particular, antibovine thrombin antibodies, which causes safety concerns.

193. Upon information and belief, Defendant (directly or through its agents or representatives) falsely and/or misleadingly told potential and/or existing Thrombin-JMI® product customers that Thrombin-JMI® products cause death.

194. Upon information and belief, Defendant (directly or through its agents or representatives) falsely and/or misleadingly told potential and/or existing Thrombin-JMI® product customers that Thrombin-JMI® products cause blood anomalies.

195. Upon information and belief, Defendant (directly or through its agents or representatives) falsely and/or misleadingly told potential and/or existing Thrombin-JMI® product customers that Thrombin-JMI® products have a 50% chance of causing fatalities.

196. Upon information and belief, Defendant (directly or through its agents or representatives) falsely and/or misleadingly told potential and/or existing Thrombin-JMI®

product customers that the use of Thrombin-JMI® products has resulted in lawsuits against King.

197. Upon information and belief, Defendant (directly or through its agents or representatives) falsely and/or misleadingly told potential and/or existing Thrombin-JMI® product customers that the use of Thrombin-JMI® products has resulted in malpractice lawsuits against Thrombin-JMI® product customers.

198. Upon information and belief, Defendant (directly or through its agents or representatives) falsely and/or misleadingly told potential and/or existing Thrombin-JMI® product customers that the use of Thrombin-JMI® products will likely result in malpractice lawsuits against Thrombin-JMI® product customers.

199. Upon information and belief, Defendant (directly or through its agents or representatives) falsely and/or misleadingly told potential and/or existing Thrombin-JMI® product customers that exposure to Thrombin-JMI® products or bovine thrombin generally results in the production of antibodies that are linked to an increase in adverse events.

200. Upon information and belief, Defendant (directly or through its agents or representatives) falsely and/or misleadingly told potential and/or existing Thrombin-JMI® product customers that RECOTHROM® is a superior product as compared to Thrombin-JMI® products.

201. Upon information and belief, Defendant (directly or through its agents or representatives) falsely and/or misleadingly told potential and/or existing Thrombin-JMI® product customers that recombinant human thrombin is a superior product as compared to bovine thrombin.

202. Upon information and belief, Defendant (directly or through its agents or representatives) falsely and/or misleadingly told potential and/or existing Thrombin-JMI® product customers that the RECOTHROM® product has superior immunogenicity as compared to Thrombin-JMI® products.

203. Upon information and belief, Defendant (directly or through its agents or representatives) falsely and/or misleadingly told potential and/or existing Thrombin-JMI® product customers that recombinant human thrombin has superior immunogenicity as compared to bovine thrombin and results in a safer product.

204. Upon information and belief, Defendant (directly or through its agents or representatives) falsely and/or misleadingly told potential and/or existing Thrombin-JMI® product customers that the RECOTHROM® product is safer than Thrombin-JMI® products.

205. Upon information and belief, Defendant (directly or through its agents or representatives) falsely and/or misleadingly told potential and/or existing Thrombin-JMI® product customers that recombinant human thrombin is safer than bovine thrombin.

206. Upon information and belief, Defendant (directly or through its agents or representatives) falsely and/or misleadingly told potential and/or existing Thrombin-JMI® product customers that bovine thrombin is “highly immunogenic” that results in a less safe product.

207. Upon information and belief, Defendant (directly or through its agents or representatives) falsely and/or misleadingly told potential and/or existing Thrombin-JMI® product customers that RECOTHROM® will result in lower costs to patients.

208. Upon information and belief, Defendant (directly or through its agents or representatives) has used certain pictures to imply a false level of danger to exposure to bovine thrombin and/or Thrombin-JMI® products.

209. Upon information and belief, Defendant (directly or through its agents or representatives) has sponsored faulty and biased studies in an attempt to falsely and/or misleadingly indicate that exposure to bovine thrombin and/or Thrombin-JMI® products is dangerous.

210. Upon information and belief, Defendant (directly or through its agents or representatives) falsely and/or misleadingly used statements from the prescription insert for the Thrombin-JMI® product out of context to directly or implicitly indicate that exposure to bovine thrombin and/or Thrombin-JMI® products is dangerous, including, but not limited to the sentence, “Bovine-derived thrombin has been associated with the development of antibodies that may cross-react with human blood proteins and in some cases these antibodies appear to be related to serious bleeding complications.”

211. Upon information and belief, Defendant (directly or through its agents or representatives) falsely and/or misleadingly told potential and/or existing Thrombin-JMI® product customers that there are “event reports” that prove that exposure to bovine thrombin has caused adverse effects.

212. Upon information and belief, Defendant (directly or through its agents or representatives) falsely and/or misleadingly told potential and/or existing Thrombin-JMI® product customers that it might contain such infectious agents as HIV, hepatitis, Mad-Cow disease (BSE) and the West Nile virus.

213. Upon information and belief, Defendant (directly or through its agents or representatives) falsely and/or misleadingly told potential and/or existing Thrombin-JMI® product customers that there is a link between the presence of anti-bovine thrombin antibodies in patients and bleeding or thromboembolic events, hypersensitivity events, or high aPTT in those patients.

214. Upon information and belief, Defendant (directly or through its agents or representatives) falsely and/or misleadingly told potential and/or existing Thrombin-JMI® product customers that there are “studies” that prove that exposure to bovine thrombin has caused adverse effects.

215. Upon information and belief, Defendant (directly or through its agents or representatives) made statements to potential customers of the RECOTHROM® product that falsely and/or misleadingly imply that re-exposure to bovine thrombin increases the risk of an adverse effect.

216. Upon information and belief, Defendant (directly or through its agents or representatives) falsely and/or misleadingly told Thrombin-JMI® product customers that “the risks associated with cattle thrombin may stay with patients long after surgery.”

F. THE FDA’S WARNINGS AND REPRIMAND OF DEFENDANT

217. Upon information and belief, the FDA was aware of Defendant’s false and misleading statements that it had made prior to receiving approval from the FDA for the RECOTHROM® product.

218. In the January 17, 2008 Approval Letter for the RECOTHROM® product, the FDA stated

All promotional claims must be consistent with and not contrary to approved labeling. You should not make a comparative promotional claim or claim of superiority over

other products unless you have submitted data to support such claims to us and received [the FDA's Center for Biologics Evaluation & Research's] approval for such claims.

(Ex. 3 at p. 5. (emphasis added).)

219. In the above-referenced Approval Letter, the FDA also stated

In vitro and in vivo biochemical and functional characterization of RECOTHROMTM **demonstrated that its hemostatic activities are comparable (non-inferior)** to those of human plasma-derived thrombin. Currently two thrombin products, one purified from human blood and one purified from bovine blood, are licensed in the U.S. The proposed indication for the topical use of RECOTHROMTM is the same as that for both currently licensed thrombin products. In addition, human plasma-derived thrombin is an active ingredient in two U.S. licensed fibrin sealant products. Evaluation of the safety data in RECOTHROMTM clinical studies (~ 270 subjects) did not reveal unexpected issues in this class of products. The study design to evaluate efficacy of RECOTHROMTM was adequate and well controlled and the results of the study did not raise any concerns related to safety and efficacy. **In particular, RECOTHROMTM was non-inferior to a licensed bovine thrombin product. Monitoring of potential immunogenic responses to RECOTHROMT will continue after the approval of the BLA in a Phase IV, repeat-exposure study.**

(Ex. 3 at pp. 5-6 (emphasis added).)

220. On April 25, 2008, Robert Sausville of the FDA sent a Violative Advertising and Promotional Labeling Letter to Defendant stating that Defendant's January 17, 2008 news release entitled "FDA Approves ZymoGenetics RECOTHROMTM Thrombin, topical (Recombinant)," posted in the "Newsroom" section of www.zymogenetics.com, omitted material facts about the RECOTHROM[®] product and, therefore, was false or misleading in violation of the Federal Food, Drug, and Cosmetic Act, 21 U.S.C. §§ 352(a) and 321(n) (the "2008 Reprimand Letter"). (Copy of letter is attached hereto as Ex. 54.)

221. Specifically, the 2008 Reprimand Letter cited the following statement from Defendant's January 17, 2008 news release:

A Phase 3 pivotal clinical trial showed that RECOTHROM had comparable efficacy and a significantly lower incidence of antibody formation compared to the commercially available bovine thrombin product.

(Ex. 54.)

222. In the 2008 Reprimand Letter, the FDA concluded that the foregoing statement suggested Defendant's RECOTHROM® product was safer than bovine thrombin due to a lower incidence of antibody formation in patients treated with the RECOTHROM® product versus bovine thrombin, a claim the FDA stated Defendant could not make in any marketing or promotional materials. (Ex. 55.)

223. In addition, the FDA determined that the cited statement was false and misleading because it "excludes important contextual information necessary to understand the limitation of this finding." (Ex. 55.)

224. In the 2008 Reprimand Letter, the FDA demanded that Defendant "immediately cease the dissemination of the violative promotional material for Recothrom" and provide a listing of, and plan for, discontinuing all other similarly violative materials. (Ex. 55.)

225. In response to the 2008 Reprimand Letter, on May 2, 2008, Defendant added the following statement to page 3 of the January 17, 2008 News Release:

Post Release Note (02 may 2008): In the Phase 3 pivotal clinical study comparing RECOTHROM to bovine thrombin, adverse events were reported with similar frequency in both treatment groups. No reported adverse events were considered causally related to antibody formation in either group. Limited data (n = 6) are available on repeat exposure to RECOTHROM.

(Ex. 56.)

226. Notwithstanding the 2008 Reprimand Letter, the statement that the FDA determined to be misleading and false remains on page 1 in the first paragraph of the January 17,

2008 News Release (which is currently available on Defendant's website), notwithstanding Defendant's addition on May 2, 2008.

227. Since the issuance of the 2008 Reprimand Letter, King has notified the FDA on three separate occasions that Defendant continues to make the prohibited comparative safety claims. (True and correct copies of letters from King to the FDA dated September 5, 2007, May 30, 2008, and September 8, 2009, are attached hereto as collective Ex. 57.)

228. As of the filing of this Complaint, King is not aware of the actions that the FDA has taken in response to the aforementioned letters.

G. THE EFFECTS OF DEFENDANT'S FALSE AND MISLEADING STATEMENTS

229. Defendant's false and/or misleading statements including, but not limited, to those contained in Defendant's News Releases, advertising, websites, sponsored speakers, sponsored studies, and/or promotional materials have resulted in confusion among consumers of thrombin products.

230. For example, in an email dated February 27, 2008, from Bubba Arnold of St. Vincent Hospital in Little Rock, Arkansas, to a King representative, Mr. Arnold stated

I'm a little confused. Does your purified product have a black box warning? If not then our P&T was misinformed and I will take it back to the group. Do you have new data that makes the black box warning a non-issue? The study info listed on the recombinant product's PI under Immunogenicity says that 22% of the patients exposed to the beef product developed antibodies, which as I understand it may affect human thrombin in a small percentage of patients. Do you have data saying otherwise? Thanks.

(Copy of email attached hereto as Ex. 58.)

231. Defendant's false and/or misleading statements have resulted in King's losing a significant number of Thrombin-JMI® product customers including, but not limited to, St. Vincent Hospital.

232. On or about September 3, 2009, Bryan Fox M.D. sent a letter to the FDA regarding his concerns with the Thrombin-JMI® product, in which he stated in pertinent part

I routinely perform complex revision spinal surgeries on patients with extensive past surgical histories, but without knowledge of their history of exposure to bovine derived products, especially thrombin. I was not aware of the potential and incidence of Immune Mediated Coagulopathies (IMC) until I researched them while treating a post-operative patient with an unidentified coagulopathy. My subsequent discussion with several colleagues has lead me to believe that they were likewise in the dark about this potentially fatal complication, and that there is a likely widespread under-reporting of the true incidence of this complication. This is further exacerbated by the widespread use of bovine thrombin, and the lack of patients' knowledge of their own exposure.

Although under-reported, a large volume of case reports and basic science research exists that objectifies this problem. This is despite the manufacturer's attempt at purification, an endeavor that has little if any chance of success given the nature and causation of IMC. Additionally, large clinical trials have demonstrated equivalent efficacy in hemostatic effect for several alternative products that have no potential to induce IMC. The current FDA mandated boxed warning is clearly inadequate, as case reports continue to be generated in the 13 years since it was required. It is my belief that the risks of use of bovine derived thrombin far outweigh any potential benefits...

(Copy of letter attached hereto as Ex. 59).

233. Defendant's false and/or misleading statements also have resulted in an increasing number of requests for safety information related to the Thrombin-JMI® product and internal reviews of Thrombin-JMI® products by numerous other customers to determine whether to continue to use and purchase Thrombin-JMI® products.

234. As a result of Defendant's false and misleading statements, the RECOTHROM® product's sales, customer base, and share of the hemostatic modifier market have increased.

235. Upon information and belief, as a result of Defendant's false and misleading statements, Defendant's revenues and profits from the RECOTHROM® product have substantially increased.

236. According to Defendant's 2008 Annual Report, net sales of the RECOTHROM product totaled \$8.8 million during the year ended December 31, 2008. (Ex. 39.)

237. In Defendant's Quarterly Report for the period ended June 30, 2009, Defendant stated, "Net product sales increased by \$4.6 million and \$8.1 million for the three and six-month periods ended June 30, 2009 as compared to the corresponding periods in 2008. The increase is due to market share increases as additional hospitals convert usage from bovine thrombin to RECOTHROM and existing customers increased their purchase volumes of RECOTHROM." (Copy attached hereto as Ex. 60.)

238. King has been seriously damaged by Defendant's activities complained of herein, and unless such activities are preliminarily and permanently enjoined, King and its goodwill and reputation will suffer irreparable injury of an insidious and continuing sort that cannot be adequately calculated or compensated in money damages.

V. CAUSES OF ACTION

COUNT I

VIOLATION OF 15 U.S.C. § 1125(a)

239. King incorporates the preceding paragraphs as though fully set forth herein.

240. Defendant's explicit and implicit promotional claims in interstate commerce about its RECOTHROM® product and rhThrombin are literally and impliedly false and misleading.

241. Defendant's explicit and implicit promotional claims in interstate commerce about King's Thrombin-JMI® products and bovine thrombin generally are literally and impliedly false and misleading.

242. Defendants' implicit and explicit claims violate Section 43(a) of the Lanham Act, 15 U.S.C. § 1125(a), subsection (1) of which provides:

Any person who, on or in connection with any goods or services, or any container for goods, uses in commerce any word, term, name, symbol, or device, or any combination thereof, or any false designation of origin, false or misleading description of fact, or false or misleading representation of fact, which (A) is likely to cause confusion, or to cause mistake, or to deceive as to the affiliation, connection, or association of such person with another person, or as to the origin, sponsorship, or approval of his or her goods, services, or commercial activities by another person, or (B) in commercial advertising or promotion, misrepresents the nature, characteristics, qualities, or geographic origin of his or her or another person's goods, services, or commercial activities shall be liable in a civil action by any person who believes that he or she is or is likely to be damaged by such act.

243. Defendant's false and/or misleading statements regarding its RECOTHROM® product and/or recombinant human thrombin are material in that the statements will likely influence existing and potential buyers of buyers of thrombin products generally and the RECOTHROM® product and Thrombin-JMI® products in particular.

244. Buyers of Defendant's RECOTHROM® product (and buyers of thrombin products generally) have no choice in many circumstances but to trust that statements made by Defendant (directly or through its agents or representatives) that the RECOTHROM® product and/or rhThrombin have the nature, characteristics, and qualities claimed for them by Defendant.

245. Defendant's false and/or misleading statements regarding the Thrombin-JMI® product and/or bovine thrombin are material in that the statements will likely influence existing and potential buyers of (a) thrombin products generally; (2) the RECOTHROM® product; and (c) Thrombin-JMI® products.

246. Buyers of Defendant's RECOTHROM® product (buyers of thrombin products generally) have no choice in many circumstances but to trust that statements made by Defendant

(directly or through its agents or representatives) that Thrombin-JMI® products and/or bovine thrombin have the nature, characteristics, and qualities claimed for them by Defendant.

247. Defendant's false and/or misleading statements regarding bovine thrombin, Thrombin-JMI® products, recombinant human thrombin, and/or the RECOTHROM® product have actually deceived or have the capacity to tend to deceive a substantial portion of the intended audience for such statements.

248. Defendant willfully, knowingly, intentionally, maliciously, or recklessly is using in commerce false and/or misleading descriptions of fact or misleading representations of fact concerning the nature, characteristics, and qualities of the RECOTHROM® product, Thrombin-JMI® products, bovine thrombin, and recombinant human thrombin.

249. Defendant's false and/or misleading statements have caused King damage.

250. King has been injured by Defendant's actions and representations because customers who would otherwise have purchased from King have made, or will make, purchasing decisions based upon Defendant's false and misleading representations concerning the attributes of the RECOTHROM® product, Thrombin-JMI® products, bovine thrombin, and recombinant human thrombin.

251. Unless enjoined by this Court, Defendant's acts will irreparably injure King's goodwill and erode its sales, customer base, and share in the hemostatic modifier market.

252. King is entitled to all available remedies provided by 15 U.S.C. §§ 1114, 1116, 1117, and 1118, including preliminary and permanent injunctive relief; Defendant's profits; any damages sustained by King; costs; destruction of all packaging, containers, devices, products, literature, advertising and any other material bearing false, deceptive, and/or misleading statements and/or any variants thereof (or similar wording); and other equitable relief.

253. Pursuant to 15 U.S.C. § 1117, King seeks judgment for three times the amount of Defendant's profits or King's damages, whichever is greater, due to the nature of Defendant's conduct.

254. Defendant's acts are willful, wanton, and calculated to deceive, and are undertaken in bad faith, making this an exceptional case entitling King to recover additional damages and reasonable attorney fees pursuant to 15 U.S.C. § 1117.

COUNT II

COMMON LAW UNFAIR COMPETITION

255. King incorporates the preceding paragraphs as though fully set forth herein.

256. This count arises under the Tennessee common law of unfair competition.

257. Defendant's explicit and implicit promotional claims about its RECOTHROM® product are literally and impliedly false and misleading.

258. Defendant's explicit and implicit promotional claims about King's Thrombin-JMI® products and bovine thrombin generally also are literally and impliedly false and misleading.

259. Defendant's foregoing acts constitute unfair competition and infringement of King's common law rights for which King has no adequate remedy at law.

260. Defendant's acts as alleged herein were committed with the intent to deceive and defraud the public in order to gain an increase its sales, customer base, and share in the hemostatic modifier market and/or eliminate King from the hemostatic modifier market.

COUNT III

TENNESSEE CONSUMER PROTECTION ACT VIOLATIONS

261. King incorporates the preceding paragraphs as though fully set forth herein.

262. Defendant's actions and/or omissions constitute unfair and/or deceptive practices in violation of the Tennessee Consumer Protection Act, Tenn. Code Ann. § 47-18-101 *et seq.*, including, but not limited to:

- Representing that goods or services have sponsorships, approval, characteristics, ingredients, uses, benefits or quantities that they do not have (Tenn. Code Ann. § 47-18-104(5));
- Representing that goods are of a particular standard, quality or grade (Tenn. Code Ann. § 47-18-104(7));
- Disparaging the goods, services or business of another by false or misleading representations of fact (Tenn. Code Ann. § 47-18-104(8));
- Using statements or illustrations in any advertisement which create a false impression of the grade, quality, quantity, make, value, age, size, color, usability or origin of the goods offered in such a manner that later, on the disclosure of the true facts, there is a likelihood that the buyer may be switched from the advertised goods or services to other goods or services (Tenn. Code Ann. § 47-18-104(21)); and
- Engaging in any other act or practice which is deceptive to the consumer or to any other person (Tenn. Code Ann. § 47-18-104(27)).

263. King has suffered an ascertainable loss of money and market share as a result of the use or employment by Defendant of the aforementioned unfair or deceptive acts or practices.

264. Defendant's acts are and were willful and knowing, thus entitling King to all available remedies pursuant to the Tennessee Consumer Protection Act, including but not limited to injunctive relief; King's damages; Defendant's profits; treble damages, attorneys' fees; costs; pre-judgment and post-judgment interest; and other equitable relief.

COUNT IV

TORTIOUS INTERFERENCE WITH EXISTING AND PROSPECTIVE ECONOMIC RELATIONS

265. King incorporates the preceding paragraphs as though fully set forth herein.

266. King possessed existing and prospective business relationships with its wholesalers, customers, and others, arising from and related to its bovine-origin thrombin products, including Thrombin JMI® products.

267. Defendant had knowledge of the aforementioned relationships.

268. Defendant intended to and indeed did interfere with King's existing and prospective business relationships related to its bovine thrombin products, including Thrombin JMI® products.

269. As such, Defendant is liable to King for common law tortious interference with King's existing and prospective business relations.

270. As a direct and proximate result of Defendant's wrongful interference with King's contractual relations, King has been damaged in an amount to be determined at trial, plus prejudgment and post-judgment interest, attorneys' fees, expenses, and costs.

COUNT V

DEFAMATION

271. King incorporates the preceding paragraphs as though fully set forth herein.

272. Defendant made false statements about King and its bovine thrombin products, including Thrombin-JMI® products.

273. Defendant's false statements include, but are not limited to, those described hereinabove.

274. Defendant's false statements reflect in a defamatory manner upon the conduct, management, or financial condition of King – namely, that King develops, manufactures, distributes, and sells dangerous and/or inferior thrombin products.

275. Defendant published the false statements about King and its bovine thrombin products, including Thrombin-JMI® products, to a broad audience that included prospective and

existing Thrombin-JMI® product customers; prospective and existing RECOTHROM® product customers; and other individuals who influence such customers, including, but not limited to, physicians, pharmacists, hospital administrators, and patients.

276. Defendant made the false statements about King and its bovine thrombin products, including Thrombin-JMI® products, with knowledge of the falsity of the statements, with reckless disregard for truth of the statements, or with negligence in failing to ascertain the truth of the statements.

277. Upon information and belief, as a result of Defendant's false statements, King has suffered actual damage including, but not limited to, the loss of numerous existing and prospective customers who have ceased purchasing King's bovine thrombin products or are in the process of reviewing any future purchases of King's bovine thrombin products, including Thrombin JMI® products.

278. Upon information and belief, as a result of Defendant's false statements, King has suffered actual damage from the increase in false information spread on the internet regarding King's bovine thrombin product, including Thrombin-JMI® products.

279. King is entitled to all available remedies provided by common law including preliminary and permanent injunctive relief; Defendant's profits; any damages sustained by King; and costs.

280. King is entitled to punitive damages because Defendant's conduct was intentional, willful, malicious, and/or made with a wanton and reckless disregard for the rights of others.

COUNT VI

UNJUST ENRICHMENT

281. King incorporates the preceding paragraphs as though fully set forth herein.

282. Defendant has unjustly benefited from engaging in unfair competition and from making false, misleading, deceptive, and/or defamatory statements about King's Thrombin JMI® product by luring and appropriating King's customers, and it would be inequitable for it to retain the benefit of such acts without repayment of the value thereof.

283. As a result of Defendant's unjust enrichment, King has been damaged in an amount to be determined at trial, plus accrued interest to the date of the judgment, its attorneys' fees and costs.

COUNT VII

INFRINGEMENT OF KING R&D'S FEDERALLY REGISTERED THROMBIN-JMI® TRADEMARK

284. King R&D incorporates the preceding paragraphs as though fully set forth herein.

285. Defendant's purchase and/or use of "thrombin-jmi" on www.google.com is a use in commerce under the Trademark Act of 1946, as amended.

286. Defendant's acts constitute trademark infringement of King R&D's Thrombin-JMI® trademark in violation of the Federal Trademark Act of 1946, specifically 15 U.S.C. § 1114(1), and of King R&D's trademark rights at common law.

287. Defendant's acts of infringement have caused King R&D damage.

288. King R&D is entitled to all available remedies provided by 15 U.S.C. §§ 1114, 1116, 1117, and 1118, including preliminary and permanent injunctive relief; Defendant's profits; any damages sustained by King R&D; costs; and other equitable relief.

289. Pursuant to 15 U.S.C. § 1117, King R&D seeks judgment for three times the amount of Defendant's profits or King R&D's damages, whichever is greater, due to the nature of Defendant's conduct.

290. This is an exceptional case under 15 U.S.C. § 1117 such that King R&D is entitled to its reasonable attorneys' fees.

COUNT VIII

FEDERAL UNFAIR COMPETITION RELATED TO KING R&D'S THROMBIN-JMI® TRADEMARK

291. King R&D incorporates the preceding paragraphs as though fully set forth herein.

292. Defendant has used names and marks which are identical or confusingly similar to King R&D's Thrombin-JMI® trademark with the intent to deceive the public into believing that goods and services offered or sold by Defendant are made by, approved by, sponsored by, connection with, or affiliated with King R&D.

293. Defendant's acts as alleged herein were committed with the intent to pass off Defendant's goods and services as the goods and services of King R&D, and with the intent to deceive and defraud the public.

294. Defendant's acts constitute unfair competition and passing off, and have caused King damages, including, without limitation, lost profits, harm to reputation, and costs to remediate the confusion and harm to King R&D's goodwill and reputation caused by Defendant.

295. Defendant's acts constitute violations of Section 43(a) of the Trademark Act of 1946, as amended, 15 U.S.C. §1125.

296. King is entitled to all available remedies provided by 15 U.S.C. §§ 1114, 1116, 1117, 1118, and 1125, including preliminary and permanent injunctive relief; Defendant's profits; any damages sustained by Plain King R&D; and other equitable relief.

297. Pursuant to 15 U.S.C. § 1117, King R&D seeks judgment for three times the amount of Defendant's profits or King R&D's damages, whichever is greater, due to the nature of Defendant's conduct.

298. This is an exceptional case under 15 U.S.C. § 1117 such that King R&D is entitled to its reasonable attorneys' fees.

COUNT IX

FALSE DESIGNATION OF ORIGIN AND FALSE DESCRIPTION

299. King R&D incorporates the preceding paragraphs as though fully set forth herein.

300. Defendant has used the Thrombin-JMI® trademark in interstate commerce.

301. Defendant's use of the Thrombin-JMI® trademark constitutes a false designation of origin which is likely to cause confusion, to cause mistake, and to deceive as to the affiliation, connection, or association of Defendant with King R&D and as to the origin, sponsorship, or approval of Defendant's goods by King R&D.

302. Defendant's acts are in violation of Section 43(a) of the Trademark Act of 1946, as amended, 15 U.S.C. § 1125 in that Defendant has used in connection with its goods and services a false designation of origin, or a false or misleading description and representation of fact, which is likely to cause confusion, and to cause mistake, and to deceive as to the affiliation, connection, or association of Defendant with King R&D and as to the origin, sponsorship, and approval of Defendant's goods, services, and commercial activities by King R&D.

303. King R&D is entitled to all available remedies provided by 15 U.S.C. §§ 1114, 1116, 1117, 1118, and 1125, including preliminary and permanent injunctive relief; Defendant's profits; any damages sustained by King R&D; and other equitable relief.

304. Pursuant to 15 U.S.C. § 1117, King R&D seeks judgment for three times the amount of Defendant's profits or King R&D's damages, whichever is greater, due to the nature of Defendant's conduct.

305. This is an exceptional case under 15 U.S.C. § 1117 such that King R&D is entitled to its reasonable attorney fees.

COUNT X

TRADEMARK INFRINGEMENT UNDER TENNESSEE COMMON LAW

306. King R&D incorporates the preceding paragraphs as though fully set forth herein.

307. King R&D is the owner of the common law trademark rights in the Thrombin-JMI® trademark, which is well known, distinctive and recognized as denoting high quality goods and services to the purchasing public throughout Tennessee and the United States. Due to such reputation and public awareness, King R&D has established valuable good will in connection with its common law Thrombin-JMI® trademark.

308. Defendant's use of the "thrombin-jmi" in Tennessee, which has caused confusion with King R&D 's common law Thrombin-JMI® trademark, is likely to cause confusion or mistake and have and will deceive the public into associating Defendant's goods with King R&D.

309. King R&D is entitled to all available remedies provided by common law including preliminary and permanent injunctive relief; Defendant's profits; any damages sustained by King R&D ; and costs.

310. King R&D is entitled to punitive damages because Defendant's conduct was intentional, willful, malicious, or made with reckless disregard for the rights of others.

COUNT XI

UNFAIR COMPETITION IN RELATION TO THE THROMBIN-JMI® TRADEMARK UNDER TENNESSEE COMMON LAW

311. King R&D incorporates the preceding paragraphs as though fully set forth herein.

312. Defendant's adoption and use of the Thrombin-JMI® trademark in Tennessee constitutes unlawful appropriation of King R&D's exclusive rights in and to the Thrombin-JMI®

trademark and such unauthorized use has caused and is causing damage and irreparable injury to King R&D.

313. Defendant's foregoing acts constitute unfair competition and infringement of King R&D's common law rights for which King R&D has no adequate remedy at law.

COUNT XII

TENNESSEE'S CONSUMER PROTECTION ACT VIOLATIONS IN RELATION TO DEFENDANT'S USE OF "THROMBIN-JMI"

314. King R&D incorporates the preceding paragraphs as though fully set forth herein.

315. Defendant's acts constitute unfair and/or deceptive practices in violation of the Tennessee Consumer Protection Act, Tenn. Code Ann. § 47-18-101 *et seq.*

316. Defendant's use of "thrombin-jmi" in Tennessee have caused and are likely to continue to cause consumer confusion or mistake as to the affiliation, connection and/or association of Defendant's goods with King R&D and into falsely believing that Defendant's products and services originated with or are sponsored by or are approved by King R&D .

317. Defendant's actions and/or omissions constitute unfair and/or deceptive practices in violation of the Tennessee Consumer Protection Act, Tenn. Code Ann. § 47-18-101 *et seq.*, including, but not limited to:

- Representing that goods or services have sponsorships, approval, characteristics, ingredients, uses, benefits or quantities that they do not have (Tenn. Code Ann. § 47-18-104(5));
- Representing that goods are of a particular standard, quality or grade (Tenn. Code Ann. § 47-18-104(7));
- Using statements or illustrations in any advertisement which create a false impression of the grade, quality, quantity, make, value, age, size, color, usability or origin of the goods offered in such a manner that later, on the disclosure of the true facts, there is a likelihood that the buyer may be switched from the advertised goods or services to other goods or services (Tenn. Code Ann. § 47-18-104(21)); and

- Engaging in any other act or practice which is deceptive to the consumer or to any other person (Tenn. Code Ann. § 47-18-104(27)).

318. Defendant's acts are and were willful and knowing, thus entitling King R&D to all available remedies pursuant to the Tennessee Consumer Protection Act, including but not limited to injunctive relief, damages, treble damages, attorney fees, costs, pre-judgment interest, post-judgment interest, and other equitable relief.

COUNT XIII

UNJUST ENRICHMENT IN RELATION TO DEFENDANT'S USE OF "THROMBIN-JMI"

319. King R&D incorporates the preceding paragraphs as though fully set forth herein.

320. Defendant has unjustly benefited from using King's "Thrombin JMI" trademark in commerce as a Google adword to lure and appropriate King's customers, and it would be inequitable for it to retain the benefit of such acts without repayment of the value thereof.

321. As a result of Defendant's unjust enrichment, King has been damaged in an amount to be determined at trial, plus accrued interest to the date of the judgment, its attorneys' fees and costs.

VI. REQUEST FOR RELIEF

Wherefore, King requests the following relief:

1. That judgment enter in favor of King against Defendant as to each of the above Counts;

2. That King be awarded all relief to which it is entitled under 15 U.S.C. §§ 1111 *et seq.*; Tenn. Code Ann. §§ 47-18-101 *et seq.*; and Tennessee common law.

3. That Defendant, its officers, agents, servants, employees, and attorneys, and any other persons who are in active concert or participation with any of the foregoing, shall be temporarily restrained and preliminary enjoined from stating, representing, or implying orally or

in writing (including, but not limited to, print advertisements, marketing materials, websites, blogs, social media) that Plaintiffs' thrombin product is unsafe and/or dangerous including, but not limited to, statements such as:

- a. Thrombin-JMI® products cause death;
- b. Bovine thrombin causes death;
- c. Thrombin-JMI® products have a 50% chance of causing fatalities;
- d. Thrombin-JMI® products may contain such infectious agents as HIV, hepatitis, Mad-Cow Disease, and the West Nile virus;
- e. Use of Thrombin-JMI® products has resulted in lawsuits against King;
- f. Use of Thrombin-JMI® products has resulted in malpractice lawsuits against Thrombin-JMI® product customers;
- g. Use of Thrombin-JMI® products will likely result in malpractice lawsuits against Thrombin-JMI® product customers;
- h. Bovine thrombin and/or Thrombin-JMI® products are highly immunogenic;
- i. Thrombin-JMI® products cause blood anomalies;
- j. There have been reports of coagulation problems, severe bleeding and, in rare cases, death in some patients who develop antibodies to bovine thrombin;
- k. There are "event reports" and/or other reports that prove that exposure to bovine thrombin has caused adverse effects;
- l. There are more than 100 reports in the world's literature of adverse events related to bovine thrombin exposure in humans;
- m. The risks associated with bovine thrombin may stay with patients long after surgery;

n. The prescription insert for Thrombin-JMI® products directly or implicitly indicates that exposure to bThrombin and/or the Thrombin-JMI® product is dangerous, including, but not limited to the sentence, “Bovine-derived thrombin has been associated with the development of antibodies that may cross-react with human blood proteins and in some cases these antibodies appear to be related to serious bleeding complications.”; and

o. A high percentage of surgeons have concerns over the black-box warning in Thrombin-JMI® product’s Prescribing Information insert.

4. That Defendant, its officers, agents, servants, employees, and attorneys, and any other persons who are in active concert or participation with any of the foregoing, shall be temporarily restrained and preliminary enjoined from stating, representing, or implying orally or in writing (including, but not limited to, print advertisements, marketing materials, websites, blogs, social media) that Defendant’s RECOTHROM® product can be used for off-label applications including, but not limited to, in connection with stopping acute bleeding or in dry form applied directly to a wound site.

5. That Defendant, its officers, agents, servants, employees, and attorneys, and any other persons who are in active concert or participation with any of the foregoing, shall be temporarily restrained and preliminary enjoined from stating, representing, or implying orally or in writing (including, but not limited to, print advertisements, marketing materials, websites, blogs, social media) that Defendant’s RECOTHROM® product can be used in the exact same manner and/or same application as Thrombin-JMI® products.

6. That Defendant, its officers, agents, servants, employees, and attorneys, and any other persons who are in active concert or participation with any of the foregoing, shall be temporarily restrained and preliminary enjoined from stating, representing, or implying orally or

in writing (including, but not limited to, print advertisements, marketing materials, websites, blogs, social media) that Defendant's RECOTHROM® product (or recombinant human thrombin generally) is superior as compared to King's Thrombin-JMI® products (or bovine thrombin generally) including, but not limited to, statements such as:

a. The RECOTHROM® product has a significantly lower rate of specific anti-product antibody formation as compared to Thrombin-JMI® products;

b. Recombinant human thrombin has a significantly lower rate of specific anti-product antibody formation as compared to bovine thrombin

c. Recombinant human thrombin has superior immunogenicity as compared to bovine thrombin;

d. The RECOTHROM® product has superior immunogenicity as compared to Thrombin-JMI® products;

e. The RECOTHROM® product has a superior product profile as compared to Thrombin-JMI® products;

f. The RECOTHROM® product is a superior product as compared to Thrombin-JMI® products;

g. The RECOTHROM® product is more consistent than Thrombin-JMI® products;

h. The RECOTHROM® product is more readily available than Thrombin-JMI® products;

i. Recombinant human thrombin is a preferred alternative to bovine thrombin;

j. The RECOTHROM® product is safer than Thrombin-JMI® products;

k. Recombinant human thrombin is safer than bovine thrombin;

l. The RECOTHROM® product will result in lower costs to patients;

m. Patients treated with recombinant human thrombin showed a trend toward faster hemostasis than patients treated with bovine thrombin;

n. More blood transfusions were required in patients treated with bovine thrombin than in patients treated with recombinant human thrombin;

o. Exposure to bovine thrombin has a greater risk of transmitting blood-borne pathogens than exposure to recombinant human thrombin; and

p. Surgeons overwhelmingly prefer recombinant human thrombin over bovine thrombin.

7. That Defendant, its officers, agents, servants, employees, and attorneys, and any other persons who are in active concert or participation with any of the foregoing, shall be temporarily restrained and preliminary enjoined from stating, representing, or implying orally or in writing (including, but not limited to, print advertisements, marketing materials, websites, blogs, social media) that exposure to King's Thrombin-JMI® products cause an increase in the formation of antibodies and/or such antibodies may or are likely to result in adverse events including, but not limited to, such statements as:

a. Thrombin-JMI® products cause an increase in antibodies and, in particular, anti-bovine thrombin antibodies;

b. Anti-bovine thrombin antibodies will cross-react with human thrombin;

c. Exposure to Thrombin-JMI® products or bovine thrombin results in the production of antibodies that are linked to an increase in adverse events;

d. There is a link between the presence of anti-bovine thrombin antibodies in patients and bleeding or thromboembolic events, hypersensitivity events, or high aPTT in those patients;

- e. Multiple elevated antibody levels resulted or result in an increase in adverse events including hemorrhagic and/or thromboembolic events and death;
- f. Patients with pre-operative elevated antibody levels to multiple bovine proteins have a greater likelihood of adverse events than patients without pre-operative elevated antibody levels to multiple bovine proteins;
- g. Patients pre-operatively exposed to bovine antibodies had higher actual costs of care than patients who had not been pre-operatively exposed to bovine antibodies;
- h. Patients exposed to bThrombin develop cross-reactive antibodies with the human blood coagulation factors;
- i. Patients with multiple elevated antibodies prior to surgery are more likely to sustain adverse clinical outcomes;
- j. Patients with multiple elevated antibodies prior to surgery appear to have increased cost associated with the procedure which is independent of preoperative comorbid conditions;
- k. The potential for development of antibodies to bThrombin or other protein impurities in the bThrombin products is a reported safety concern; and
- l. Future diagnostics may determine that bovine-associated antibodies correlate with clinical events.

8. That Defendant, its officers, agents, servants, employees, and attorneys, and any other persons who are in active concert or participation with any of the foregoing, shall be temporarily restrained and preliminary enjoined from stating, representing, or implying orally or in writing (including, but not limited to, print advertisements, marketing materials, websites,

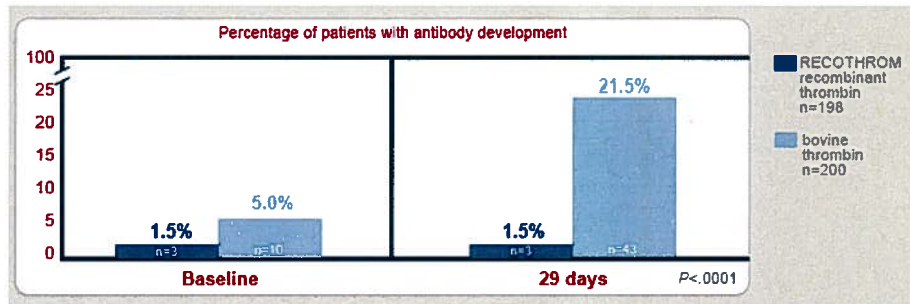
blogs, social media) that make false, deceptive or misleading statements regarding Defendant's RECOTHROM® product including, but not limited to, such statements as:

- a. Re-exposure to RECOTHROM® is without risk of adverse event; and
- b. Exposure to the RECOTHROM® product will not result in the production of any antibodies to recombinant human thrombin or the RECOTHROM® product;
- c. Exposure to the RECOTHROM® product will not result in an increase in antibodies in general; and
- d. The RECOTHROM® product is "human thrombin" or identical to human thrombin.

9. That Defendant, its officers, agents, servants, employees, and attorneys, and any other persons who are in active concert or participation with any of the foregoing, shall be temporarily restrained and preliminary enjoined from publishing, distributing, or displaying (including, but not limited to, print advertisements, marketing materials, websites, blogs, social media) any picture, graphic, or chart that indicates or implies that exposure to Thrombin-JMI® products or bovine thrombin is dangerous including but not limited to, (1) a picture of a cow riding on a woman's back, (2) a picture of a surfer in front of the shadow of a large shark, (3) a picture an iceberg that had a large portion of the iceberg beneath the surface of the water, and (4) a picture of a forest fire.

10. That Defendant, its officers, agents, servants, employees, and attorneys, and any other persons who are in active concert or participation with any of the foregoing, shall be temporarily restrained and preliminary enjoined from using "Thrombin-JMI" or variants thereof (including, but not limited to, "thrombin jmi", "thrombin-jmi", and "THROMBIN-JMI") as an Adword.

11. That Defendant, its officers, agents, servants, employees, and attorneys, and any other persons who are in active concert or participation with any of the foregoing, shall be temporarily restrained and preliminary enjoined from publishing, distributing, or displaying the following chart or any chart or graphic similar thereto:



12. That Defendant, its officers, agents, servants, employees, and attorneys, and any other persons who are in active concert or participation with any of the foregoing, shall be temporarily restrained and preliminary enjoined from publishing, distributing, or displaying that advertisement that consisted of the sentence, “Do you know the source of your thrombin?” followed by the moving image a medicinal bottle of liquid that is the shape, size, and color of the bottle of King’s Thrombin-JMI® product to the sound of a ringing cow bell.

13. That Defendant, its officers, agents, servants, employees, and attorneys, and any other persons who are in active concert or participation with any of the foregoing, shall be temporarily restrained and preliminary enjoined from violating the terms of the April 25, 2008 letter from the United States Food and Drug Administration that required Defendant to cease the dissemination of the promotional material for RECOTHROM® that contains the following statement:

A Phase 3 pivotal clinical trial showed that RECOTHROM had comparable efficacy and a significantly lower incidence of antibody formation compared to the commercially available bovine thrombin product

14. That Defendant, its officers, agents, servants, employees, and attorneys, and any other persons who are in active concert or participation with any of the foregoing, shall be temporarily restrained and preliminary enjoined from publicly or in the presence of existing or potential customers (or individuals or entities who may influence such customers) mentioning, referencing, referring to, or making any comment regarding its Citizen Petition to FDA Requesting Removal of Bovine Thrombin from Market.

15. That Defendant, its officers, agents, servants, employees, and attorneys, and any other persons who are in active concert or participation with any of the foregoing, shall be temporarily restrained and preliminary enjoined from publishing, displaying, or using the website currently located at www.postopbleeding.org.

16. That Defendant, its officers, agents, servants, employees, and attorneys, and any other persons who are in active concert or participation with any of the foregoing, shall be temporarily restrained and preliminary enjoined from disseminating, distributing, and/or displaying any statement that affirmatively states or implies that Defendant's RECOTHROM® product (or recombinant human thrombin generally) is generally superior to and/or safer than King's Thrombin-JMI® product (or bovine thrombin products generally).

17. That Defendant, its officers, agents, servants, employees, and attorneys, and any other persons who are in active concert or participation with any of the foregoing, shall be temporarily restrained and preliminary enjoined from disseminating, distributing, and/or displaying any statement that affirmatively states or implies that Defendant's RECOTHROM® product (or recombinant human thrombin generally) is superior to and/or safer than King's Thrombin-JMI® products (or bovine thrombin products generally) due to a lower incidence of antibody formation or superior immunogenicity.

18. That Defendant, its officers, agents, servants, employees, and attorneys, and any other persons who are in active concert or participation with any of the foregoing, shall be temporarily restrained and preliminary enjoined from violating the terms of the FDA approval letter dated January 17, 2008 that requires the following:

All promotional claims must be consistent with and not contrary to approved labeling. **You should not make a comparative promotional claim or claim of superiority over other products** unless you have submitted data to support such claims to us [FDA] and received CBER approval for such claims.

In particular, RECOTHROM[™] was non-inferior to a licensed bovine thrombin product. [Thrombin-JMI® product] (emphasis supplied)

19. Thus Defendant, its officers, agents, servants, employees, attorneys, and any other persons who are in active concert or participation with any of the foregoing, shall cease and stop the dissemination and promotion of all materials that claim its RECOTHROM® product is safer than King's Thrombin-JMI® products or any other comparative promotional claim of superiority over King's Thrombin-JMI® products.

20. That Defendant, its officers, agents, servants, employees, and attorneys, and any other persons who are in active concert or participation with any of the foregoing, shall be temporarily restrained and preliminary enjoined from violating the terms of the FDA Violation Letter dated April 25, 2008 that provides in part the following:

The Advertising and Promotional Labeling Branch (APLB) in the Food and Drug Administration (FDA's) Center for Biologics Evaluation and Research (CBER) has reviewed information on your website www.zymogenetics.com, including a press release for Recothrom (Thrombin, Topical (Recombinant)). **This promotional material is false or misleading because it omits material facts about Recothrom.** Thus, the promotional material misbrands your Recothrom product in violation of the Federal Food, Drug, and Cosmetic Act (Act), 21 U.S.C. §§ 352(a) and 321(n).

In the “Newsroom” portion of your website, www.zymogenetics.com, the press release entitled “FDA Approves ZymoGenetics RECOTHROM[™] Thrombin, topical (Recombinant)”, dated January 17, 2008, contains the following statement:

- “A Phase 3 pivotal clinical trial showed that RECOTHROM[™]. had comparable efficacy and a significantly lower incidence of antibody formation compared to the commercially available bovine thrombin product.”

This statement is false and misleading because it suggests that Recothrom is safer than the bovine thrombin product due to a lower incidence of antibody formation in the patients who took the Recothrom. However, this statement excludes important contextual information necessary to understand the limitation of this finding.

Indeed, according to the “Immunogenicity” section of the Recothrom PI, the development of antibodies in either group did not lead to any adverse events such as excessive bleeding. In addition, according to the “Adverse Reactions” section of the PI, the incidences of pre-specified adverse events were similar between Recothrom and bovine thrombin.

For reasons discussed above, your promotional material misbrands Recothrom within the meaning of 21 U.S.C. §§ 352(a) and 321(n) of the Act.

We request that ZymoGenetics immediately cease the dissemination of the violative promotional material for Recothrom, as described above.

The violations discussed in this letter do not necessarily constitute an exhaustive list. It is your responsibility to ensure that the promotional material for your products comply with each applicable requirement of the Act and implementing. (emphasis supplied)

Thus, Defendant, its officers, agents, servants, employees, attorneys, and any other persons who are in active concert or participation with any of the foregoing shall immediately cease the dissemination of the promotional materials for its RECOTHROM[®] product that state or imply that Defendant’s RECOTHROM[®] product is superior to and/or safer than King’s Thrombin-

JMI® product due to a lower incidence of antibody formation in the patients who were exposed to the RECOTHROM® product as compared to patients who were exposed to the Thrombin-JMI® product.

21. That Defendant be directed to file with this Court and serve on King within ten (10) days after the service of a temporary restraining order, a report in writing under oath, setting forth in detail the manner and form in which Defendant has complied with the temporary restraining order.

22. That Defendant be directed to file with this Court and serve on King within thirty (30) days after the service of a preliminary injunction, a report in writing under oath, setting forth in detail the manner and form in which Defendant has complied with the injunction.

23. That, at conclusion of trial, Defendant, its officers, agents, servants, employees, and attorneys, and any other persons who are in active concert or participation with any of the foregoing, be forthwith permanently enjoined from the acts that King requests to be temporarily restrained and preliminary enjoined in ¶¶ 1-20 immediately above.

24. That, at conclusion of trial, Defendant be directed to deliver up and destroy all packaging, containers, devices, products, literature, advertising and any other material (including, but not limited to, its websites) bearing any of the hereinabove referenced literally false or impliedly false and deceptive statements regarding the RECOTHROM® product, the Thrombin-JMI® products, recombinant human thrombin, and bovine thrombin, or variants thereof.

25. That Defendant be directed to publish and distribute corrective advertising (including, but not limited to, on its websites and in journals where it has advertised or sponsored studies were published) to reduce the effects of the literally false or impliedly false and/or

misleading statements regarding the RECOTHROM® product, Thrombin-JMI® products, recombinant human thrombin, and bovine thrombin.

26. That Defendant be directed to relinquish all rights to the “Thrombin-JMI” Adword or Adword variants thereof to King R&D and be barred from future use of “Thrombin-JMI” and variants thereof as Adwords.

27. That Defendant be directed to take down its website located at www.postopbleeding.org.

28. That Defendant’s acts be deemed exceptional under 15 U.S.C. § 1117.

29. That King be awarded a judgment against Defendant for monetary damages based on Defendant’s profits, King’s damages, treble damages, punitive damages, reasonable attorney fees, litigation expenses, costs, pre-judgment interest, post-judgment interest, and other equitable relief;

30. That King R&D be awarded a judgment against Defendant for monetary damages based on Defendant’s profits, King’s damages, treble damages, punitive damages, reasonable attorney fees, litigation expenses, costs, pre-judgment interest, post-judgment interest, and other equitable relief;

31. That King (including, but not limited to, King R&D) be awarded such other and further relief as this Court deems just and proper.

Respectfully submitted,



Sam Berry Blair (TN BPR No. 10375)
(motion for pro hac vice filed herewith)

Michael Richards (TN BPR No. 7973)
(motion for pro hac vice filed herewith)

Clinton J. Simpson (TN BPR No. 20284)

(motion for pro hac vice filed herewith)

Samuel F. Miller (TN BPR No. 22936)
(admitted to E.D. Tenn.)

Sarah Elizabeth Moccaldi (TN BPR No. 24608)
(motion for pro hac vice filed herewith)


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CERTIFICATE OF SERVICE

I hereby certify that on this Friday, the 30th day of October, a true and correct courtesy copy of the foregoing sent via Fed Ex Delivery. The foregoing will also be personally served on November 3rd, 2009 upon the following:

Doug Williams, CEO
ZymoGenetics, Inc.
1201 Eastlake Avenue East
Seattle, Washington 98102

A. Demarest Allen
Registered Agent for
ZymoGenetics, Inc.
1201 Eastlake Avenue East
Seattle, Washington 98102



Samuel F. Miller