

**UNITED STATES DISTRICT COURT
MIDDLE DISTRICT OF ALABAMA
EASTERN DIVISION**

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AUBURN UNIVERSITY, an Alabama Corporation,)	
)	
Plaintiff,)	
)	
v.)	Civil Action No. 3:09cv694 (MEF)
)	
INTERNATIONAL BUSINESS MACHINES CORP., a New York Corporation,)	
)	
Defendant.)	JURY TRIAL DEMANDED
)	
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**FIRST AMENDED COMPLAINT FOR CORRECTION
OF INVENTORSHIP AND PATENT INFRINGEMENT**

Plaintiff Auburn University (“Auburn”) files this First Amended Complaint and demand for jury trial seeking relief for correction of inventorship and patent infringement by Defendant International Business Machines Corp. (“IBM”). Auburn states and alleges the following:

NATURE OF THE ACTION

1. This is an action against IBM for correction of inventorship and patent infringement.
2. Dr. Adit Singh is James B. Davis Professor in the school of Electrical Engineering at Auburn University. One of Dr. Singh’s many areas of expertise is in the assessment of defects in circuit technology. Dr. Singh has won numerous awards and published numerous articles in this area, and he is the current chairman of the IEEE Test Technology Technical Council.

3. One of the largest costs of manufacturing computer components such as integrated circuits and memory is reliability testing. Such components are difficult to produce without defects and testing for those defects can be time consuming and costly. A substantial percentage of the cost of making such computer components is the cost of this testing.

4. Beginning in the mid-1990s, Dr. Singh came to know Mr. Phil Nigh, who worked at IBM's Burlington, Vermont facility. To assist in Dr. Singh's research, Mr. Nigh began sharing IBM confidential information with Dr. Singh. Likewise, Dr. Singh provided Mr. Nigh with confidential, unpublished research papers prior to publication. Both Dr. Singh and Mr. Nigh understood that the other's information was confidential and not to be shared or published without permission.

5. As part of his research, Dr. Singh, working with one of his graduate students, Thomas Barnett, discovered methods whereby computer components can be classified based on their expected defect rate, allowing manufacturers to determine quickly which manufactured components are most likely to fail. Dr. Singh and Mr. Barnett's discoveries allow computer manufacturers, for example, to vastly reduce the cost of manufacturing integrated circuits and memory. Dr. Singh and Mr. Barnett's inventions were made using Auburn's time and facilities and under Auburn's patent policy; Auburn was and is the equitable owner of the inventions.

6. Dr. Singh and Mr. Barnett shared confidential, unpublished papers describing their inventions with Mr. Nigh before the papers were published. Dr. Singh and Mr. Barnett disclosed this information to IBM with the expectation that IBM would honor Auburn's intellectual property rights.

7. Based on this research, Auburn patented methods for classifying computer components based on expected reliability and estimating the reliability of those components

based on the classification. Auburn filed the first of a number of patent applications on this technology in October, 2001. Auburn disclosed the existence of these confidential patent applications to IBM shortly after filing.

8. IBM, having learned first-hand of Auburn's inventions, filed a patent application on Auburn's inventions within months of Auburn's applications. IBM's application resulted in the Patent Office issuing to IBM U.S. Patent No. 6,789,032. IBM subsequently filed another patent application on Auburn's inventions, which resulted in the Patent Office issuing to IBM U.S. Patent No. 7,139,944 (collectively, the "IBM Patents"). These patents wrongfully omit Dr. Singh as an inventor and wrongfully claim Auburn's intellectual property.

9. The Patent Office issued U.S. Patent Nos. 7,194,366 and 7,409,306 to Auburn (the "Auburn Patents"). These patents properly name Dr. Singh as an inventor.

10. Knowing this technology was and is lawfully Auburn's, IBM stole this technology and improperly obtained patents covering Auburn's intellectual property. In addition, IBM has been infringing Auburn's patent rights since the dates that the Auburn Patents issued.

11. Through this action, Auburn seeks at least the following remedies:

- a. An order directing that the inventorship of the IBM Patents be corrected by adding Dr. Singh as an inventor and removing improperly named IBM inventors;
- b. An order establishing Auburn's right, title and interest in the IBM Patents as of the respective date of issuance of each patent, or in the alternative requiring IBM to assign to Auburn its right, title and interest in the IBM Patents effective as of the respective date of issuance of each patent; and
- c. Damages for IBM's infringement of the Auburn Patents.

PARTIES

12. Auburn is a public university with a principal place of business located at 309 Samford Hall, Auburn University, Alabama 36849.

13. IBM is a corporation existing under the laws of the state of New York with a principal place of business located at New Orchard Road, Armonk, New York, 10504.

JURISDICTION AND VENUE

14. This action arises under the patent laws of the United States, 35 U.S.C. § 100, *et seq.*

15. This Court has original subject matter jurisdiction in this action under 28 U.S.C. §§ 1331 and 1338(a).

16. Upon information and belief, this Court has personal jurisdiction over IBM because it regularly conducts business in the Middle District of Alabama and therefore has substantial and continuous contacts within this judicial district; because IBM has purposefully availed itself of the privileges of conducting business in this judicial district; and/or because IBM has injured Auburn, a citizen of the state of Alabama.

17. Venue is proper in this District under 28 U.S.C. §§ 1391(b) and (c) and 1400(b).

BACKGROUND FACTS

IBM's Appropriation of Auburn's Technologies Requires a Correction of Inventorship

18. Dr. Singh is a Professor in the Department of Electrical Engineering at Auburn University. Dr. Singh was a supervisor to Mr. Thomas Barnett, a graduate student at Auburn who was also a research assistant on several grants.

19. In the 1990's, Phil Nigh of IBM began collaborating with Dr. Singh to validate research on defect clustering and test optimization using data available internally at IBM and

from the SEMATECH test methods experiment. Dr. Singh accepted IBM's confidential internal data with the understanding that it was confidential and not to be disclosed or shared with others without IBM's permission.

20. Dr. Singh and Mr. Nigh became friends and worked together to advance testing technology. Dr. Singh trusted Mr. Nigh.

21. In 2000, while Mr. Barnett was still a graduate student at Auburn, IBM invited Auburn to nominate students for IBM Fellowships.

22. Upon receiving this notice, Dr. Singh contacted Mr. Nigh to gauge his interest in working with Mr. Barnett. If Mr. Nigh was interested, Dr. Singh indicated that he would nominate Mr. Barnett for a fellowship. In this communication, Dr. Singh forwarded a copy of a paper describing Dr. Singh and Mr. Barnett's research on a yield-reliability model that had been submitted for presentation at an upcoming conference. Mr. Nigh knew that the paper had been submitted to him in confidence, and that technical conferences discouraged or prohibited distribution of papers prior to publication at the conference. Dr. Singh shared this paper with IBM with the expectation that IBM would not publish or disclose the contents of the paper and that IBM would respect Auburn's intellectual property rights.

23. Mr. Nigh responded by telling Dr. Singh that he should nominate Mr. Barnett for a fellowship. Mr. Nigh went on to say that even if Mr. Barnett did not receive a fellowship, IBM was "definitely interested" in a summer co-op position for Mr. Barnett. Mr. Nigh explained IBM's interest: "[u]nderstanding defect clustering and wafer spatial variations is something we are very interested in right now."

24. After consultation with Dr. Singh, Mr. Barnett accepted IBM's invitation and spent the summer of 2001 at IBM as a summer intern at IBM's Burlington, Vermont facility, while he continued to be a graduate student at Auburn.

25. Mr. Barnett's tasks at IBM included the validation of the yield-reliability model developed by Dr. Singh and Mr. Barnett and disclosed to Mr. Nigh in the unpublished paper on that subject.

26. IBM was indeed interested in Dr. Singh and Mr. Barnett's research and formed the Statistical Analysis Group (Logic Test Division, IBM) on June 1, 2001, only weeks after Mr. Barnett arrived in Vermont

27. During the summer of 2001, IBM shared with Dr. Singh confidential test results relating to the yield-reliability model. Dr. Singh accepted this information with the understanding that it was confidential to IBM and not to be used or distributed without IBM's permission.

28. During the summer of 2001, Dr. Singh and Mr. Barnett shared a copy of another confidential, unpublished technical paper describing their yield-reliability models with IBM. Dr. Singh and Mr. Barnett shared this paper with IBM with the expectation that IBM would not publish or disclose the paper and would respect Auburn's intellectual property rights.

29. After he completed his summer at IBM in the Statistical Analysis Group, Mr. Barnett returned to Auburn to finish his Ph.D program.

30. In October 2001, while at Auburn, Dr. Singh and Mr. Barnett filed patent applications on their inventions.

31. In the context of their confidential relationship, Dr. Singh disclosed the existence of Auburn's non-public patent applications to Mr. Nigh and others at IBM shortly after the applications were filed.

32. On December 26, 2001, while Auburn's patent applications were pending, IBM filed a patent application directed towards similar subject matter as Auburn's patent applications (IBM filed Provisional Patent Application No. 60/344,209). That application eventually resulted in the '032 patent being issued to IBM. A true and correct copy of the '032 patent is attached hereto as Exhibit 1.

33. Although IBM named Mr. Barnett as an inventor on its application, IBM would not show the patent application to Mr. Barnett until after it was filed. IBM also told Mr. Barnett that "additional authors, namely [Dr. Singh], could be added later." IBM felt that Auburn's intellectual property rights could not stop IBM from implementing Auburn's technology.

34. In February 2002, Auburn contacted IBM to discuss the situation. IBM indicated that it looked forward to working with Auburn toward a mutually beneficial arrangement. Auburn and IBM signed a letter of understanding regarding the discussions.

35. Auburn again contacted IBM in May of 2003 in an attempt to resolve the situation. IBM indicated that it was interested in having discussions with Auburn. During a conference call, Bob Lund indicated that IBM was interested in a non-exclusive license to Auburn's technology, IBM had some "educational" patents that might interest Auburn, and that IBM might want an option to license Auburn's patent if Auburn's patent issued.

36. On August 25, 2003, IBM filed a second patent application on similar subject matter as Auburn's patent applications. That application eventually resulted in the '944 patent being issued to IBM. A true and correct copy of the '944 patent is attached hereto as Exhibit 2.

37. After Auburn's '366 patent issued in March 2007, Auburn again contacted IBM to resolve the intellectual property dispute. But as before, IBM refused to take responsibility for its conduct.

38. The IBM Patents are based in whole or in part on the research and inventions of Dr. Singh and Mr. Barnett. While Mr. Barnett is listed as a co-inventor on the IBM Patents, Dr. Singh is not.

39. Auburn did not authorize IBM to file patent applications on Auburn's technology.

40. IBM knew that Dr. Singh was an inventor of the technology.

41. IBM knew of Auburn's rights to the technology at the time it filed for and obtained the IBM Patents.

IBM's Infringement of Auburn's Patents

42. Dr. Singh and Mr. Barnett filed patent applications on their inventions in October 2001 (U.S. Provisional Application Nos. 60/347,974 and 60/335,108) and in March 2002 (U.S. Provisional Application No. 60/366,109) (collectively "Auburn's patent applications"). Auburn's patent policy required Dr. Singh and Mr. Barnett to assign their patent rights to Auburn, which they did.

43. On March 20, 2007, United States Patent No. 7,194,366, entitled "System and Method for Estimating Reliability of Components for Testing and Quality Optimization," was issued to Auburn. A true and correct copy of the '366 patent is attached hereto as Exhibit 3.

44. On August 5, 2008, United States Patent No. 7,409,306, entitled "System and Method for Estimating Reliability of Components for Testing and Quality Optimization" was issued to Auburn. A true and correct copy of the '306 patent is attached hereto as Exhibit 4.

45. Auburn is the owner by assignment of the '366 patent and the '306 patent.

46. Auburn's Patents disclose and claim methods for classifying computer components, such as integrated circuit die components (*i.e.*, computer chips), based on expected reliability, and using reliability determinations to optimize subsequent defect testing.

47. Upon information and belief, IBM has used and is using the technologies claimed in Auburn's Patents.

COUNT I
CORRECTION OF INVENTORSHIP OF U.S. PATENT NO. 6,789,032

48. Auburn incorporates by reference the allegations in paragraphs 18 to 41 above.

49. While at Auburn, Dr. Singh and Mr. Barnett conceived of the inventions claimed in the '032 patent.

50. Through error, however, Dr. Singh is not named as an inventor on the '032 patent.

51. The omission of Dr. Singh as an inventor of the '032 Patent occurred without any deceptive intent on Dr. Singh's part.

52. Upon information and belief, none of Mr. Barbour, Mr. Grady or Ms. Purdy conceived of, or contributed to the conception of, the inventions claimed in the '032 patent.

53. Through error, however, Mr. Barbour, Mr. Grady and Ms. Purdy are each named as an inventor on the '032 patent.

54. Pursuant to 35 U.S.C. § 256, Auburn is entitled to an Order from the Court requiring correction of the inventorship of the '032 patent and an Order directed to the U.S. Commissioner of Patents (the Director of the U.S. Patent and Trademark Office) requiring issuance of a Certificate of Correction.

COUNT II
CORRECTION OF INVENTORSHIP OF U.S. PATENT NO. 7,139,944

55. Auburn incorporates by reference the allegations in paragraphs 18 to 41 above.

56. Dr. Singh conceived of, or contributed to the conception of, at least one of the inventions claimed in the '944 patent.

57. Through error, however, Dr. Singh is not named as an inventor on the '944 patent.

58. The omission of Dr. Singh as an inventor of the '944 Patent occurred without any deceptive intent on Dr. Singh's part.

59. Upon information and belief, none of Mr. Barbour, Mr. Grady, Mr. Huott or Mr. Ouellette conceived of, or contributed to the conception of, at least one of the inventions claimed in the '032 patent.

60. Pursuant to 35 U.S.C. § 256, Auburn is entitled to an Order from the Court requiring correction of the inventorship of the '944 patent and an Order directed to the U.S. Commissioner of Patents (the Director of the U.S. Patent and Trademark Office) requiring issuance of a Certificate of Correction.

COUNT III
INFRINGEMENT OF U.S. PATENT NO. 7,194,366

61. Auburn incorporates by reference the allegations in paragraphs 42 to 47 above.

62. Upon information and belief, IBM performs testing (or has testing performed for its benefit) that infringes one or more of the claims of the '366 patent.

63. Upon information and belief, IBM has directly infringed, contributed to and/or actively induced infringement of the '366 patent and is continuing to directly infringe, contribute to and/or actively induce infringement by making, using, importing, offering for sale, soliciting sales by others, enabling or assisting with sales by others of, and/or selling within the United

States products, including, without limitation, integrated circuits tested using the claimed methods, which is covered by one or more claims of the '366 patent.

64. Upon information and belief, IBM has been and is infringing the '366 patent with knowledge of the patent, and thus IBM's infringement is willful.

65. IBM's infringement of the '366 patent is without the consent of, authority of, or license from, Auburn.

66. Upon information and belief, IBM has caused and will continue to cause Auburn irreparable injury and damage by infringing the '366 patent. Auburn will suffer further irreparable injury, for which it has no adequate remedy at law, unless and until IBM is enjoined from infringing the '366 patent.

COUNT IV
INFRINGEMENT OF U.S. PATENT NO. 7,409,306

67. Auburn incorporates by reference the allegations in paragraphs 42 to 47 above.

68. Upon information and belief, IBM performs testing (or has testing performed for its benefit) that infringes one or more of the claims of the '306 patent.

69. Upon information and belief, IBM has directly infringed, contributed to and/or actively induced infringement of the '306 patent and is continuing to directly infringe, contribute to and/or actively induce infringement by making, using, importing, offering for sale, soliciting sales by others, enabling or assisting with sales by others of, and/or selling within the United States products, including, without limitation, integrated circuits tested using the claimed methods, which is covered by one or more claims of the '306 patent.

70. IBM's infringement of the '306 patent is without the consent of, authority of, or license from, Auburn.

71. Upon information and belief, IBM has caused and will continue to cause Auburn irreparable injury and damage by infringing the '306 patent. Auburn will suffer further irreparable injury, for which it has no adequate remedy at law, unless and until IBM is enjoined from infringing the '306 patent.

PRAYER FOR JUDGMENT AND RELIEF

WHEREFORE, Auburn requests judgment against IBM as follows:

1. In Plaintiffs' favor on all Counts in this First Amended Complaint;
2. An order establishing Auburn's right, title and interest in the IBM Patents as of the respective date of issuance of each patent, or in the alternative requiring IBM to assign to Auburn its right, title and interest in the IBM Patents effective as of the respective date of issuance of each patent;
3. An order revising the name of the inventors on the '032 patent and '944 patent to name only the true inventors;
4. An order directed to the U.S. Commissioner of Patents (the Director of the U.S. Patent and Trademark Office) attesting to the fact that Dr. Singh was erroneously omitted as an inventor on the '032 and '944 patents and requiring issuance of a Certificate of Correction;
5. Pursuant to 35 U.S.C. § 271, a determination that IBM has directly infringed and contributed to and actively induced infringement of U.S. Patent Nos. 7,194,366 and 7,409,306;
6. Award Auburn an accounting for acts of infringement not presented at trial and an award by the Court of additional damage for any such acts of infringement;
7. Pursuant to 35 U.S.C. § 283, an order that IBM and its officers, agents, employees, attorneys, and all persons in active concert or participation with any of them, be preliminarily and permanently enjoined from infringing the '366 and '306 patents;

8. Pursuant to 35 U.S.C. § 284, an award of damages adequate to compensate Auburn for IBM's infringement of the '366 patent as of the March 20, 2007, issuance of the '366 patent, together with pre-judgment and post-judgment interest and costs;

9. Pursuant to 35 U.S.C. § 284, an award of damages adequate to compensate Auburn for IBM's infringement of the '306 patent as of the August 5, 2008, issuance of the '306 patent, together with pre-judgment and post-judgment interest and costs;

10. Pursuant to 35 U.S.C. § 284, an award of treble damages due to the willful and deliberate nature of IBM's infringement of the '366 patent;

11. Pursuant to 35 U.S.C. § 285, a determination that this is an exceptional case and entry of judgment for Auburn's costs with an assessment of interest and reasonable attorney's fees;

12. All other damages in the amount established at trial; and

13. That the Court grant such other, further, or different relief as the Court may deem just and proper.

Respectfully submitted this 17th day of June, 2010.

/s/ G. Lane Knight

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ATTORNEYS FOR PLAINTIFF AUBURN
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DEMAND FOR JURY TRIAL

Pursuant to Rule 38 of the Federal Rules of Civil Procedure and Local Civil Rule 38.1, Auburn demands a trial by jury on all issues triable as of right by a jury.

Dated: June 17, 2010

/s/ G. Lane Knight

Attorney for Plaintiff Auburn University

CERTIFICATE OF SERVICE

The undersigned certifies that on June 17, 2010, I filed the foregoing with the Court's CM/ECF system, causing this filing to be served electronically on all parties registered with the Court's electronic filing system.

/s/ G. Lane Knight

Attorney for Plaintiff Auburn University