**COMMONWEALTH OF MASSACHUSETTS**

**APPELLATE TAX BOARD**

**GENENTECH, INC.     v.  COMMISSIONER OF REVENUE**

Docket Nos.: C282905, C293424,

             C298502 & C298891      Promulgated:

                                    November 17, 2014

 These are appeals filed under formal procedure pursuant to G.L. c. 62C, § 39 and G.L. c. 58A, § 7, from the refusal of the Commissioner of Revenue to abate corporate excise for the tax years ended December 31, 1998 through December 31, 2004 (“periods at issue”).

Chairman Hammond heard the appellant’s motion for summary judgment and the appellee’s motion for partial summary judgment, as well as an issue not decided by summary judgment, and was joined in issuing Decisions for the appellee on her motion for partial summary judgment and the remaining issue in these appeals by Commissioners Scharaffa, Rose, Chmielinski, and Good.

 These findings of fact and report are made at the request of both the appellee and appellant pursuant to G.L. c. 58A, § 13 and 831 CMR 1.32.

 *Charles J. Moll III*, Esq., *Alan V. Lindquist*, Esq., *Philip S. Olsen, Esq., and Jennifer B. Green, Esq.* for the appellant.

 *Brett M. Goldberg,* Esq. and *Matthew F. Cammarata,* Esq. for the appellee.

**FINDINGS OF FACT AND REPORT**

Based on an agreed statement of facts and supporting documents as well as exhibits and testimony offered into evidence at the hearing of these appeals, the Appellate Tax Board (“Board”) made the following findings of fact.

1. **Introduction**

 Genentech, Inc. (“Genentech” or the “appellant”) is a biotechnology company, organized in Delaware in 1976. Headquartered in South San Francisco, California, the appellant is engaged in the research, development, production, and sale of therapeutic drugs used to treat a variety of conditions. Genentech produces these drugs using genetically modified bacteria and animal cells. While Genentech did not maintain an office open to the public in Massachusetts, it did employ a number of employees resident in the Commonwealth, retained title to bulk inventory during a stage of production at a third-party’s facility in Massachusetts, and retained title to drugs being used as part of clinical trials conducted by third parties in Massachusetts.

As discussed further in the following Opinion, pursuant to G.L. c. 63, § 38, Massachusetts imposes different apportionment formulas on corporate taxpayers based on the nature of their business activities. Massachusetts requires corporations which are substantially engaged in manufacturing to apportion their income using a single sales factor and all other corporations (apart from those which fall into certain other categories not relevant to these appeals) to apportion their income using a three-factor apportionment formula based on property, payroll, and sales. For tax years ended December 31, 1998 through December 31, 2003, Genentech filed its Massachusetts corporate excise returns using the three-factor apportionment formula applicable to general business corporations. For the tax year ended December 31, 2004, Genentech originally filed its Massachusetts corporate excise return using the single sales factor apportionment formula applicable to manufacturers, but subsequently filed an Application for Abatement claiming that it was not substantially engaged in manufacturing and thus should have been entitled to apportion its income on the standard three-factor basis.

The Commissioner made an assessment of additional corporate excise, arguing that Genentech was substantially engaged in manufacturing for all periods at issue and thus required to use a single sales factor apportionment formula. Genentech appealed the assessment on four grounds: (1) despite its history of filing returns in the Commonwealth, pursuant to 15 U.S.C. § 381 (“Public Law 86-272”), a federal law that prevents a state from imposing an income tax on a taxpayer whose sole activity in the state is the solicitation of sales of tangible property, its activities were not sufficient to have created nexus; (2) the production of its drugs was not a manufacturing activity; (3) even if the production were considered manufacturing, it did not rise to the necessary level of “substantial manufacturing” when Genentech’s gross receipts from redemption and maturity of short-term securities were taken into account; and (4) the restriction of investment tax credits (“ITC”) to property placed in service in Massachusetts and research and development credits (“R&D Credits”) to costs incurred in Massachusetts is an unconstitutional discrimination against interstate commerce.

1. **Jurisdictional Background**

 These appeals involve two audit cycles of the appellant’s corporate excise returns, the first covering the tax years ended December 31, 1998, June 30, 1999, October 26, 1999, December 31, 1999, December 31, 2000, and December 31, 2001 (“1998 – 2001 Audit Cycle”) and the second covering the tax years ended December 31, 2002, December 31, 2003, and December 31, 2004 (“2002 – 2004 Audit Cycle”).

1. *1998 – 2001 Audit Cycle* *(Docket No. C282905)*

 As a result of the first audit cycle, the Commissioner issued a Notice of Assessment dated July 6, 2005 assessing additional corporate excise in the total amount of $1,125,764, including interest and penalties, for the tax periods ended June 30, 1999, October 26, 1999, December 31, 1999, December 31, 2000, and December 31, 2001.[[1]](#footnote-1) A second Notice of Assessment was issued on July 11, 2005 for the tax year ended December 31, 1998 in the amount of $61,673.95, including interest and penalties. Finally, on September 17, 2005, the Commissioner issued a third Notice of Assessment in the amount of $49,244.08, including interest and penalties, of additional corporate excise for the tax year ended December 31, 1999.

 Genentech filed an application for abatement, dated September 27, 2005, for all amounts assessed by the Commissioner as a result of the 1998 – 2001 Audit Cycle. The appellant’s application for abatement was denied by the Commissioner on January 17, 2006. On March 16, 2006, Genentech timely filed a Petition Under Formal Procedure with the Board.

1. *2002 – 2004 Audit Cycle* (*Docket Nos. C293424 and C298502)*

 Genentech timely filed a Massachusetts corporate excise return for each of the years of the 2002 – 2004 Audit Cycle. The Commissioner issued a Notice of Assessment of additional corporate excise on February 7, 2007 for the 2002 – 2004 Audit Cycle in the amount of $2,027,746, including interest and penalties. The appellant filed an Application for Abatement for the 2002 – 2004 Audit Cycle on March 9, 2007, which was denied by the Commissioner on June 11, 2007 with respect to the 2002 and 2003 tax years, but she neither expressly allowed nor denied the appellant’s claim with respect to the 2004 tax year. On August 10, 2007, Genentech timely filed a Petition Under Formal Procedure with the Board appealing the Commissioner’s refusal to abate additional corporate excise assessed for the 2002 – 2004 Audit Cycle (Docket No. C293424).

 On March 1, 2008, Genentech filed a second Application for Abatement for the year ended December 31, 2004, which was denied on June 6, 2008. On August 1, 2008, Genentech timely filed a Petition Under Formal Procedure appealing the Commissioner’s refusal to abate additional corporate excise assessed for the 2004 tax year (Docket No. C298502). Also on March 1, 2008, Genentech filed a second Application for Abatement raising issues which had not been raised in previous applications, namely that if the Commissioner required the appellant to file as a manufacturing corporation, it should be entitled to Massachusetts ITC on purchases of qualified manufacturing property placed in service outside of the Commonwealth. By letter dated October 24, 2008, Genentech withdrew its consent for the Commissioner to act on this second Application for abatement and thereafter filed a second Petition Under Formal Procedure with the Board on December 22, 2008 (Docket No. C298891).

Based on the foregoing, the Board found that it had jurisdiction to decide these appeals for both audit cycles. Genentech filed a Motion for Summary Judgment with the Board, which the Board denied. The Commissioner filed her own Motion for Partial Summary Judgment on the issues of whether Genentech had nexus with the Commonwealth and was engaged in manufacturing activity. A hearing was then held on the issue of whether Genentech was engaged in substantial manufacturing activity. For the reasons set out below, the Board found that for all of the years at issue, the factual record was sufficient to find and rule on summary judgment that Genentech had nexus in Massachusetts and was engaged in manufacturing activities. The Board also ruled that the Massachusetts ITC and R&D credit statutes do not infringe upon the appellant’s rights under the U.S. Constitution. Upon further hearing on the remaining issue, the Board found that Genentech was substantially engaged in manufacturing activities and was therefore required to use a single sales factor apportionment formula to apportion its income to Massachusetts.

1. **Nexus of Appellant With Massachusetts**
2. *Alkermes Co-Development and Manufacturing Relationship*

On January 9, 1995, Genentech entered into a Collaborative Development Agreement with Alkermes Controlled Therapeutics, Inc. (“Alkermes”), a third-party pharmaceutical manufacturer headquartered in Massachusetts (“Alkermes Collaborative Development Agreement”). Alkermes possessed encapsulation technology which it used to create slow-release formulations of drugs, allowing them to be administered less frequently. Genentech and Alkermes agreed to investigate whether Alkermes’ encapsulation technology could be incorporated into Genentech’s human growth hormone (“hGH”) drug, marketed under the name Nutropin®, to create a slow-release formulation for commercial sale. Pursuant to the terms of the Alkermes Collaborative Development Agreement, Genentech agreed to provide bulk[[2]](#footnote-2) hGH to Alkermes at no cost to be used in the development process and in clinical studies.

On November 13, 1996, as the two parties continued the development process, Genentech entered into a formal license agreement with Alkermes, whereby Alkermes licensed their encapsulation technology to Genentech to be used in creating sustained release formulations of hGH in return for a royalty based on net sales of any resulting drug approved for commercial sale as well as certain milestone payments (“Alkermes License Agreement”).[[3]](#footnote-3) As a result of the collaboration between the parties, in late December 1999, Genentech received approval from the Food and Drug Administration (“FDA”) for a slow-release version of hGH. Genentech consequently entered into a Manufacturing and Supply Agreement effective January 1, 2000 with Alkermes (“Alkermes Manufacture and Supply Agreement”)[[4]](#footnote-4) to begin manufacture of the drug for commercial sale under the name Nutropin Depot, which began in 2000. Genentech would ship bulk hGH in a frozen state in large 400L to 1,000L tanks to Alkermes’s manufacturing facility in Massachusetts, where a designated manufacturing suite was kept for the production of Nutropin Depot. Under the terms of the Alkermes Manufacture and Supply Agreement, Genentech agreed to provide bulk hGH to Alkermes at least fourteen days before any predetermined processing date. During the course of the manufacturing relationship, shipments occurred generally one to two times per month.

After encapsulation and quality testing, Alkermes would fill the resulting product into vialed, unlabeled dosage containers and package them with any requisite diluent and administration needles. Once in this finished form, the drug would be shipped back to Genentech in California to be labeled and sold. While Alkermes stored and handled the bulk, Genentech, by the terms of the Alkermes Manufacturing and Supply Agreement, retained title to all bulk drug inventory work in progress at all times while in Alkermes’ Massachusetts facility. Due to the limited commercial success of Nutropin Depot as compared to other forms of Nutropin®, the parties agreed to formally cease production in April 2005.

 The record contained discrepancies about the amount of inventory work in progress that Genentech held title to at Alkermes’ facility during the years at issue. Genentech’s property apportionment schedules showed that the appellant owned $529,000 worth of inventory in the Commonwealth at the end of 1999 (despite the fact that commercial sale did not begin until 2000), $2,496,451 worth of inventory in 2000, $1,986,012 worth of inventory in 2001, $3,173,776 worth of inventory in 2002, and $4,571,219 worth of inventory in 2003. For 2004, the apportionment schedule reflected zero inventory. However, this does not comport to what was reported on Genentech’s Massachusetts tax returns for the 2004 tax year, which showed $2,306,986 of property owned by Genentech in Massachusetts for apportionment purposes for the 2004 tax year. Given the level of inventory in prior years at the Alkermes facility and that the manufacturing relationship extended through 2005, the Board found that the Massachusetts property shown on the appellant’s 2004 tax return represented inventory kept at Alkermes’ Massachusetts facility.

 Under the terms of the Alkermes Manufacturing and Supply Agreement, Genentech had the option to install capital equipment at Alkermes’ manufacturing location, to which it would retain title, and to maintain a reasonable number of its own employees on-site at the Alkermes facility to oversee the manufacturing process. The appellant was not able to establish definitively whether any such capital equipment was installed or whether there were any employees present at the Alkermes facility. However, as the Board found that the inventory property in Massachusetts owned by Genentech was sufficient in and of itself to create nexus for all the years of the appellant’s collaboration with Alkermes, the Board did not need to reach the question of whether there were any additional assets or whether Genentech employees were present on-site.

1. *Property in Massachusetts in the 1998 Tax Year*

Genentech’s property apportionment workpapers included in the record showed that it owned $86,774 of machinery and equipment located in Massachusetts during the 1998 tax year.[[5]](#footnote-5) Per its Federal Form 1120 for the 1998 tax year, Genentech’s total assets at the end of 1998 were $2,906,451,261, including inventory of $148,625,645 and buildings and depreciable assets with an original cost of $1,075,949,590. Genentech asserted that this property consisted of “computers, printers, and other property provided to Genentech’s salespeople for use in their sales solicitation activities.” Genentech’s Motion for Summary Judgment and Supporting Memorandum of Points and Authorities at 24. The workpapers show that the total may be broken down into categories as follows:

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| **Table 1** |
| **Summary of 1998 Massachusetts Property** |
| **Property** | **Original****Cost** | **Accumulated Depreciation** | **Net Book Value** |
| Compaq Proliant 5000  | $44,982 | $19,680 | $25,302 |
| Storage Dimensions Tape Drive and Optical Fibers | 6,543 | 1,330 | 5,213 |
| Castelle FaxPress and Uninterrupted Power Source | 10,380 | 2,162 | 8,218 |
| IBM and Dell Computers/Laptops and Printer | 9,421 | 9,421 | 0 |
| Medical Testing Equipment and Software (e.g., HPLC Detectors, Biflow Sensors, Capillary Tubes) | 14,650 | 12,113 | 2,537 |
| Miscellaneous | 798 | 25 | 773 |
|  |  |  |  |
| **Grand Total** | **$86,774** | **$44,731** | **$42,043** |

Apart from the cursory explanation that the property was a *de minimis* amount of ancillary property provided to sales people, Genentech did not offer any evidence as to what the property was used for.

As shown above, $9,421 of the total Massachusetts property was made up of computers and printers. However, more than half of the property appears to have consisted of $44,982 of computer equipment and a computer tape storage drive and fiber optic cables worth $6,543. The remaining property included $14,650 of medical equipment, including HPLC Detectors, diagnostic spirometers, biflow sensors, and capillary tubes, as well as laboratory testing software. The appellant contends that this latter property “was fully depreciated and presumably no longer in use or had been disposed of but not yet removed from Genentech’s books.” Genentech’s Reply to the Commissioner’s Opposition to Genentech’s Motion for Summary Judgment at 41. However, no evidence was offered to support this supposition that the property was no longer in use in the Commonwealth or how the equipment was being used by Genentech employees in a manner that was ancillary to the solicitation of sales. Based on the foregoing, the Board found that the appellant owned or used machinery and equipment in the Commonwealth in 1998 and did not meet its burden of proof to show that the property was *de minimis* or entirely ancillary to the solicitation of sales.

1. *Massachusetts Clinical Trial Activities*

During each of the tax years at issue, Genentech engaged with various contract research organizations (“CROs”) in Massachusetts, which were third parties hired to conduct a clinical trial with human subjects to test the efficacy of the appellant’s drugs. The CROs were responsible for the selection of the site of the study, the patient subjects to be included, and selection of the principal investigator. According to the appellant, while Genentech scientists or physicians may have been involved in writing the protocols of a trial, no Genentech personnel ever conducted any clinical trial or monitored or evaluated any trials in Massachusetts. However, Genentech was required to retain title to any material being tested during clinical trials. Any materials not used by the investigator were required to be returned to Genentech or destroyed.

Genentech did not maintain records of the amounts of drugs used in the clinical trials; however, based on contracts in the record, Genentech had engaged Massachusetts based CROs to conduct clinical trials over a number of years to study the following numbers of anticipated subjects, beginning in each of the following years: 25 subjects in 1998; 30 subjects in 1999; 27 subjects in 2000; 30 subjects in 2001; 1,998 subjects in 2003; and 205 subjects in 2004. Genentech itself noted that because of the complexity involved in development and production, the “astronomical” cost of its drugs can run to hundreds of thousands of dollars per patient once approved by the FDA. Genentech’s Reply to the Commissioner’s Opposition to Genentech’s Motion for Summary Judgment at 31. Therefore, the Board found that Genentech’s continued ownership of the drugs being tested represented the ownership or use of property in the Commonwealth and that the amount and value of property was not *de minimis.*

1. *Activities Engaged in by Genentech Employees in Massachusetts*

Genentech employed between nine and twenty-eight people in Massachusetts during the years at issue. Most of the Massachusetts employees were “clinical specialists” or “senior clinical specialists,” sales representatives that met with physicians and other health care providers to promote the use of Genentech drugs with the goal that through these efforts, doctors would be more likely to prescribe Genentech drugs to their patients. While these meetings would most often occur in a clinical setting, clinical specialists often met with healthcare providers over lunch or at other informal venues, such as sporting events. New clinical specialists were trained in California and all clinical specialists based in the northeast region of the United States met at twice yearly sales meetings in either New York or Boston.[[6]](#footnote-6)

Clinical specialists conducted hands-on demonstrations to teach nurses the correct method for injection. The clinical specialists were first trained on the proper mixing of the product for injection and their trainers also filmed an instructional video displaying the process, which the clinical specialist would leave with the nurses being trained as a reference. Genentech employed two sales managers who oversaw the activities of clinical specialists in Massachusetts, one of whom, Kelli Wilson, lived in the Commonwealth, and the other of whom, John Mastrianni, lived outside of the Commonwealth but periodically travelled to Massachusetts as part of his job duties.[[7]](#footnote-7)

In addition to clinical specialists, Genentech employed Medical Science Liaisons (“MSLs”), individuals with medical and scientific backgrounds that were not part of the Genentech sales organization. MSLs, who because of their background could speak to issues such as off-label use or drug interaction in a way that clinical specialists were not able to, served as technical field resources for clinical healthcare providers. MSLs were also integral in coordinating presentations given by “thought leaders,” doctors and researchers who were eminent in a certain field of medicine. These thought leaders, who generally were contracted by Genentech through a speaker’s bureau in return for an honorarium, gave presentations organized by Genentech to medical professionals.

John Mastrianni was a sales manager for the periods at issue until 2004 when he transitioned into a new role as part of Genentech’s managed care division. The managed care division sought to increase awareness among health insurance companies of Genentech’s products, by providing clinical information about new drugs and indications with the aim that the insurance companies would cover the cost when prescribed to a patient who was a policy holder. As the cost of Genentech’s drugs was very high for an average person, many patients would not be able to take them without insurance coverage. Mr. Mastrianni visited the Commonwealth two to three times a year to conduct his duties. Mr. Mastrianni replaced another Genentech employee who lived outside of Massachusetts that performed the same responsibilities described above in the Commonwealth until that person retired in 2004.

For the reasons set out in the following Opinion, the Board ruled that solicitation of doctors to increase prescriptions to patients of Genentech drugs was not a nexus creating activity pursuant to Public Law 86-272. While certain activities of the MSLs and managed care division employees may have exceeded the scope of Public Law 86-272, the Board did not reach the issue as it found and ruled that Genentech’s ownership of tangible property was already sufficient to establish nexus in Massachusetts.[[8]](#footnote-8)

1. **Manufacturing Activities of Appellant**

Unlike traditional pharmaceutical companies that generally combine chemical compounds to produce drugs, Genentech is a “biotechnology” company which develops drugs produced by living cells. Genentech genetically modifies these cells to produce a protein with a desired pharmacologic effect, called a “protein of interest.” There are four stages of Genentech’s drug production process: (1) alteration the deoxyribonucleic acid (“DNA”) or genetic code of a living cell to instruct it to produce the protein of interest; (2) production of the desired protein by genetically altered cells; (3) purification of the desired protein; and (4) formulation and packaging of the resulting bulk drug for sale to the public. All of Genentech’s drug production activities took place outside of Massachusetts, other than activities undertaken as part of the collaboration with Alkermes.

While the proteins that form the basis for Genentech’s drugs occur naturally, Genentech developed the technology to synthetically mass produce them. This is done by introducing a DNA sequence into a cell’s genetic code which then “transforms” the cell, directing it to produce the protein of interest. The insertion of the gene is facilitated by the use of polyethylene glycol, which alters cell membrane permeability. Simple biotechnology drug compounds such as insulin and hGH are produced using E. coli, while more complex drugs such as Avastin®, a Genentech treatment for cancer, are produced using Chinese hamster ovary cells. Genentech then allows the cell line to grow and reproduce, with each cell copy carrying the genetic modification that instructs it to produce the protein. Genentech acclimatizes the cells in larger and larger tanks, ranging in size up to 25,000L for 3 days to 2 weeks, to continue their growth. Genentech employees feed the cells glucose and other nutrients and closely monitor their environment.

Once the proteins have been expressed, they must be purified by separating and isolating them from the mix of cells and other material present. Genentech must also extract any proteins that are not directly expressed into the solution by “disrupting” or breaking down the cell walls containing them. The filtration processes used by Genentech typically include ultrafiltration, where the solution is passed through the microscopic pores of a membrane acting as a sieve to separate material by size, and chromatography, where solution is passed through a column to fully separate the protein from any other unwanted solution components. There are three common types of chromatography processes: affinity, size exclusion, and ion exchange chromatography. In affinity chromatography, antibodies are introduced into the column that will bind to the desired protein to help extract it. Size exclusion filters based on the size of the desired protein while ion exchange chromatography uses the difference in electrical charges of the protein and other components to separate the two. After the purification process, the bulk drug is delivered to other facilities where it is formulated as required and filled into its final dosage form, which is labeled and packaged for individual patient use. The packaged drug is delivered to distributors or directly to physicians, hospitals, and pharmacies around the world.

As further explained in the following Opinion, the Board found and ruled that the appellant’s production of drugs through the introduction of semi-synthetic genes used to alter the genetic code of living organisms to produce proteins which must be extracted and purified, involves sufficient man-made physical change to be treated as manufacturing for Massachusetts corporate excise purposes under G.L. c. 63, § 38(*l*).

1. **Substantial Manufacturing Activities of Appellant**

In order to be treated as a manufacturing corporation for tax purposes, a taxpayer’s manufacturing activity must be “substantial,” which has been defined by statute as meeting certain thresholds comparing the level of the taxpayer’s property, payroll, and sales related to its manufacturing activities to its total property, payroll, and sales from all activities. The parties agreed that Genentech’s property and payroll proportions fell short of the thresholds in the years at issue. However, Genentech would nonetheless be designated a manufacturing corporation if it had derived a sufficient percentage of its gross receipts from the sale of goods which it manufactured, which the Board found and ruled included sales of its drugs. Where the parties disagree is whether gross receipts for this purpose should not only include revenue such as product sales, interest, dividends, royalties, capital gain, and other business income included in taxable income, but should also include gross proceeds from the maturity and redemption of short-term securities.

Genentech’s treasury department managed the investment of the appellant’s excess cash in short-term securities. Genentech maintained eleven accounts to hold these short-term assets at Mellon Bank (“Mellon Accounts”), which held money market funds, commercial paper, and treasury bonds. Money market funds are pooled investment vehicles that differ from other types of investment funds in that they aim to maintain a consistent net asset value (“NAV”) of $1 per share. *See* Mark Perlow, ***Money Market Funds - Preserving Systemic Benefits, Minimizing Systemic Risks***, 8 Berkeley Bus. L.J. 74, 76-77 (Spring 2011). Unlike shares of other equity investments, the price of which is expected to fluctuate, investors generally expect to be able to redeem their shares of money market funds for the amount originally invested, while earning interest or dividends throughout the term that they hold shares in the fund.

***Id.***at77. During the periods at issue, the money market funds held in the Mellon Accounts maintained a $1 NAV, thus allowing Genentech to redeem for the purchase price with no gain or loss.**[[9]](#footnote-9)**

Commercial paper is a short-term debt instrument that is usually issued by a corporation in order to meet working capital needs as an alternative to a bank loan. ***Id.*** Van Bui, the appellant’s treasurer, testified that Genentech’s treasury department, which ranged from two to seven employees in California, would assess Genentech’s cash needs on a daily basis and would accordingly liquidate investments to free up cash or invest excess cash into short-term securities, as necessary. The receipts recorded in the Mellon Accounts included dividends, interest, and return of capital through the redemption or maturity of securities. There were no capital gains or losses generated in the Mellon Accounts during the years at issue, despite the enormous amount of securities that were purchased and sold, meaning Genentech was able to either redeem the securities in every instance for the same amount as it paid for them or hold them to maturity.

The redemption and maturity of the short-term securities resulted in gross proceeds. Assume an example where Genentech used $100 of excess cash to purchase 100 shares of a money market fund. Over the course of 30 days, Genentech earned $2 in interest, but when a need arose for $100 to be used in the business, Genentech redeemed its 100 shares for $100 in cash. The disagreement between the parties boils down to whether, for purposes of determining the percentage of its receipts that were derived from manufacturing, Genentech should be able to claim gross receipts of $102, comprised of the $2 in interest plus the $100 return of capital which the appellant had originally invested and then redeemed, or just the $2 in profit. Due to the volume of transactions whereby Genentech redeemed and reinvested cash on an almost daily basis, the two methods yield vastly different results:

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| **Table 2 - Manufacturing Receipts - No Return of Capital Included** |
| **Year** | **Gross Receipts from the Sale of Manufactured Drugs** | **Other Income (royalties, etc.)** | **Total Business Receipts** | **% of Sales from Manufacturing** |
| 1998 |  732,072,208  |  421,188,311  |  1,153,260,519  | 63.5% |
| 1999 |  1,044,396,528  |  352,429,204  |  1,396,825,732  | 74.8% |
| 2000 |  1,277,114,954  |  608,971,609  |  1,886,086,563  | 67.7% |
| 2001 |  1,757,383,569  |  701,455,417  |  2,458,838,986  | 71.5% |
| 2002 |  2,167,681,513  |  468,187,220  |  2,635,868,733  | 82.2% |
| 2003 |  2,629,672,632  |  987,002,520  |  3,616,675,152  | 72.7% |
| 2004 |  3,642,361,423  |  935,735,394  |  4,578,096,817  | 79.6% |

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| **Table 3 - Manufacturing Receipts - Return of Capital Included** |
| **Year** | **Gross Receipts from the Sale of Manufactured Drugs** | **Total Business Receipts** | **Total Return of Capital** | **Total receipts with Return of Capital** | **% of Sales from Manufacturing**  |
| 1998 |  732,072,208  |  1,153,260,519  |  17,836,392,054  |  18,989,652,573  | 3.9% |
| 1999 |  1,044,396,528  |  1,396,825,732  |  22,582,749,670  |  23,979,575,402  | 4.4% |
| 2000 |  1,277,114,954  |  1,886,086,563  |  13,530,052,242  |  15,416,138,805  | 8.3% |
| 2001 |  1,757,383,569  |  2,458,838,986  |  28,706,747,792  |  31,165,586,778  | 5.6% |
| 2002 |  2,167,681,513  |  2,635,868,733  |  28,065,938,152  |  30,701,806,885  | 7.1% |
| 2003 |  2,629,672,632  |  3,616,675,152  |  22,251,732,041  |  25,868,407,193  | 10.2% |
| 2004 |  3,642,361,423  |  4,578,096,817  |  34,648,742,481  |  39,226,839,298  | 9.3% |

The proceeds from the redemption and maturity were not included in the computation of Genentech’s revenue on its publicly available financial statements, were not included in the computation of gross receipts reported on Genentech’s Form 1120 federal corporate income tax return used to determine taxable income, and were not included in the total receipts used to compute sales factor apportionment in California (which, unlike Massachusetts, includes certain receipts from the sale of securities). For the reasons detailed in the following Opinion, the Board found and ruled that to include the return of capital in the computation of the proportion of Genentech’s receipts that was derived from manufacturing generated a distorted and absurd result that did not reflect the true nature of its business activities. Accordingly, the Board found and ruled that Genentech’s manufacturing activity was substantial for the periods at issue and it was therefore required to apportion its income using a single sales factor.

Mellon Bank acted as custodian over the Mellon Accounts and kept the records of all deposits, withdrawals, sales and purchases of securities, redemptions, and receipt of interest and dividends. Genentech did not keep its own records of transactions within the Mellon Accounts and relied on Mellon’s employees to do so. In order to produce evidence of the amount of return of capital proceeds, Genentech requested that Mellon employees produce historical reports for purposes of the hearing of these appeals (“Mellon Spreadsheets”). Genentech was unable to locate the compact discs which had been contemporaneously provided to them during the periods at issue containing their trade records. No employee of Mellon testified at the hearing about how the records were produced. The Commissioner raised several objections to the admissibility and accuracy of the Mellon Spreadsheets. As the Board found that no portion of the return of capital was properly included in the analysis of whether Genentech’s manufacturing activity was substantial, it did not reach these objections.

1. **Constitutionality of Denial of Massachusetts Investment Tax Credits and Research and Development Credits to Appellant**

 Massachusetts provides manufacturers with the ability to claim ITC of a percentage of their expenditures on qualified property placed in service in Massachusetts and corporations engaged in research and development with the ability to claim an R&D Credit of a percentage of their expenditures on research activity conducted in Massachusetts. All of Genentech’s activities which would otherwise have qualified for credits took place outside of Massachusetts. California provides similar credits for investments and research and development by a manufacturer in California, which Genentech qualified for and took on its California corporate income tax return for each of the years at issue.

 Genentech argued that it was entitled to Massachusetts credits on its expenditures because Massachusetts only offered the credits to taxpayers conducting in-state activity in violation of the Commerce Clause of the U.S. Constitution. As explained in the following Opinion, the Board ruled that the Massachusetts ITC and R&D Credit statutes are constitutional as applied to Genentech, and that Genentech was not entitled to claim any credits for the periods at issue.

1. **Summary of Findings**

As discussed in the following Opinion, the Board found and ruled that: (1) the appellant’s ownership of property in Massachusetts was sufficient to create nexus for all periods at issue; (2) the appellant was properly treated as a corporation which was engaged in manufacturing activity; (3) the revenue generated from that activity was substantial when measured against its gross receipts, not including the return of capital; and (4) the appellant was not entitled to claim any Massachusetts tax credits related to its activities outside of the state. Accordingly, the Board issued a decision for the appellee in these appeals.

**OPINION**

Pursuant to 831 CMR 1.22, "issues sufficient in themselves to determine the decision of the Board or to narrow the scope of the hearing may be separately heard and disposed of in the discretion of the Board." Thus, the Board may hear and decide cases where there is no genuine issue of material fact and a party is entitled to judgment as a matter of law. ***Sears, Roebuck & Co. v. Commissioner of Revenue***, Mass. ATB Findings of Fact and Report 2012-1, 5; ***Rossi v. Commissioner of Revenue*** Mass. ATB Findings of Fact and Reports 2003-473, 475-76. Genentech and the Commissioner both filed Motions for Summary Judgment arguing that there were no genuine questions of material fact and that each was entitled to judgment in its favor as to whether the appellant had nexus in Massachusetts for the tax periods at issue and whether it was engaged in manufacturing activity. The Board found that the factual record supporting the parties’ motions was sufficient to reach a ruling on the issues of nexus, whether the appellant was engaged in manufacturing activity, and whether the denial of Massachusetts tax credits was unconstitutional, as applied to the appellant. Therefore, the Board found it appropriate to decide these three issues on summary judgment.

1. **Genentech’s Activities in Massachusetts Were Sufficient to Create Nexus**

Massachusetts levies a corporate excise on any corporation which exercises its charter, does business, or owns or uses any part of its capital, plant or other property in the Commonwealth. G.L. c. 63, § 39. The Commissioner, pursuant to the authority granted by the Legislature in G.L. c. 62C, § 3, promulgated a regulation, 830 CMR 63.39.1, describing the circumstances under which a foreign corporation will be subject to tax as required by G.L. c. 63, § 39. *See* ***Geoffrey, Inc. v. Commissioner of Revenue***, 453 Mass. 17, 22 (2009). Pursuant to 830 CMR 63.39.1(4)(d)(1), a corporation is deemed to own or use property in Massachusetts if it “owns property that is held by another in Massachusetts under a lease, consignment, or other arrangement...”

Beginning in 1999 through the end of the periods at issue, Genentech held title to bulk Nutropin in Massachusetts while it was transformed by the integration of Alkermes’ slow-release technology and packaged into doses ready for labeling. During the periods at issue, the value of inventory to which Genentech held title in Massachusetts averaged in the millions of dollars. The Alkermes Manufacture and Supply Agreement was an ongoing collaboration between the parties whereby Genentech regularly shipped out large quantities of bulk Nutropin to Massachusetts, on the order of once or twice a month, resulting in a constant store of inventory in progress. In ***Universal Instruments Corp. v. Commissioner of Revenue***, Mass. ATB Findings and Reports 1998-407, 410-411, the taxpayer had placed inventory on consignment at customer locations in the Commonwealth either to allow a customer to test equipment before purchase or as an interim solution while the taxpayer was designing a specific piece of equipment for a particular customer. The Board found that the consignment of inventory, which amounted to $65,727 in 1983 and $86,360 in 1984, constituted the ownership or use of property in Massachusetts sufficient to create nexus. ***Id.*** This was the case even though the customer had possession and control of the inventory while placed at their location. ***Id.***

The only statutory exemptions to the imposition of tax in the case of a corporation which owns property located in the Commonwealth are if (1) the tax would be precluded by the U.S. Constitution; (2) the tax would be precluded by Public Law 86-272; or (3) the property is stored in a licensed public storage warehouse that is not owned or leased by a consignor or consignee of the property being stored. G.L. c. 63, § 39. Public Law 86-272 is a federal statute that prevents a state from imposing tax on a taxpayer whose only activities in the state are the “solicitation of orders... in [the] State for sales of tangible personal property, which orders are sent outside the State for approval or rejection, and, if approved, are filled by shipment or delivery from a point outside the State.” 15 U.S.C. § 381(a).

Genentech has not argued that the property placed at Alkermes’ facility was related to the solicitation of sales or was housed in a public warehouse. The Supreme Judicial Court (“SJC”) has found the physical presence of property owned by the taxpayer in the state to be a constitutional basis for imposing corporate excise, even if it is used there only by a third party. *See* ***Truck Renting and Leasing Assoc., Inc. v. Commissioner of Revenue***, 433 Mass. 733, 741 (2001); ***Aloha Freightways, Inc. v. Commissioner of Revenue***, 428 Mass. 418, 423 (1998). The taxpayer in ***Truck Renting and Leasing Associates, Inc.*** did not have any presence in Massachusetts apart from the fact that it knowingly leased vehicles to which it retained title and which the taxpayer knew would be partially used by the lessees in Massachusetts to transport goods. 433 Mass. at 734–735. The Court found that the significant use of the taxpayer’s property in Massachusetts by its lessees was sufficient to satisfy due process and establish a substantial nexus with the Commonwealth for purposes of the Due Process and Commerce Clauses. ***Id.*** at 741.

Genentech argues that the holding in ***Truck Renting and Leasing Assoc., Inc.*** does not apply because unlike the taxpayer in that case, the appellant does not derive income from the use of property in Massachusetts. However, that was only one factor considered by the SJC as to whether the taxpayer had the requisite minimum contacts to satisfy the Due Process clause. ***Id.*** at 737. The Court noted that the requirement was also satisfied if a taxpayer “purposefully avails” itself of the “privilege of conducting activities” in the Commonwealth. ***Id***. at 738 (quoting ***Quill Corp. v. North Dakota***, 504 U.S. 298, 307 (1992) and ***Hanson v. Denckla***, 357 U.S. 235, 253 (1958)). Thus the taxpayer, which “allowe[d] and facilitate[d] its lessees to use its property within the taxing state,” had sufficient minimum contacts therewith. ***Id***. Genentech met that standard as it allowed and facilitated Alkermes’ use of the bulk hGH in Massachusetts. Therefore, the Board ruled that the inventory property to which Genentech held title in Massachusetts was sufficient in and of itself to create nexus for the 1999 through 2004 tax years.

 Genentech did not have a material amount of inventory at Alkermes’ Massachusetts location until 1999. For the 1998 tax year, however, Genentech owned $86,774 of tangible property in Massachusetts, with a net book value of $42,043. The appellant bears the burden of establishing its right to an abatement by the preponderance of the evidence, including proof that the taxpayer was not subject to the corporate excise tax when it claims its activities are protected under Public Law 86-272. ***Advanced Logic Research, Inc. v. Commissioner of Revenue***, Mass. ATB Findings of Fact and Reports 2008-19, 28.Genentech stated in its Motion for Summary Judgment that the property consisted “of computers, printers and other property provided to Genentech’s salespeople for use in their sales solicitation activities” and thus within the scope of Public Law 86-272. Genentech’s Motion for Summary Judgment and Supporting Memorandum of Points and Authorities at 24. However, the appellant did not provide any further detail or explanation as to what the assets constituted and how they were used in Massachusetts.

Genentech cites to ***Wisconsin Dept. of Revenue v. Wrigley* (“*Wrigley*”)**, 505 U.S. 214 (1992), the leading Supreme Court case drawing the boundaries of permissible activities under Public Law 86-272, which includes an express recognition that, under the “venerable maxim *de minimis not curat lex* (‘the law cares not for trifles’),” a taxpayer would not be subject to a state’s taxing jurisdiction if it only had a *de minimis* connection to that state. ***Id.*** at 231. Genentech argues that Massachusetts should not be able to impose tax based on what it argues is a *de minimis* amount of property it held in Massachusetts during 1998*.* While the Court did not go on to give an indication of what would fall under a *de minimis* scope, it took specific note of the fact that the activity performed by the taxpayer it had held to be unprotected by Public Law 86-272 only generated .00007% of Wrigley’s total sales. ***Id.***at 235. As it so happens, the $86,774 original cost of tangible property in Massachusetts was .007% -- or 100 times that much -- of Genentech’s total inventory of $148,625,645 plus the original cost of buildings and depreciable assets of $1,075,949,590 as of the end of the 1998 tax year.[[10]](#footnote-10) Also, the Board has previously found similar levels of property to be sufficient to create nexus. *See* ***Universal Instruments Corp. v. Commissioner of Revenue***, Mass. ATB Findings and Reports at 1998-411 (taxpayer with $65,727 of inventory in 1983 and $86,360 of inventory in 1984).

Genentech also held title to drugs being used in an investigation by a CRO based in Massachusetts that began in 1998 with twenty-five subjects. The Board previously ruled that when a pharmaceutical company supplied CROs with drugs to be tested, it “constitute[d] the ‘owning or using’ of [the pharmaceutical company’s] property in the Commonwealth under G.L. c. 63, § 39, for purposes other than the solicitation of orders,” where the pharmaceutical company retained title to the drugs. ***Amgen, Inc. v. Commissioner of Revenue,*** Mass. ATB Findings of Fact and Reports 1997-539, 559. While the Board does not adopt a bright linerule that a specified level of property or possession of clinical trial material in and of itself will create nexus in every case, a court “need not decide whether any... nonimmune activities [is] *de minimis* in isolation,” ***Wrigley***, 505 U.S. at 235, and the Board ruled that Genentech’s ownership of tangible property used by employees taken together with its ownership of drugs used in clinical trials was sufficient to create nexus for the 1998 tax year.[[11]](#footnote-11)

In addition to property located in Massachusetts, Genentech also employed multiple individuals who worked in the Commonwealth during the tax periods at issue. Genentech contends that the activities of these individuals were limited to the solicitation of sales of tangible property, which were approved outside of the state, and thus Massachusetts is circumscribed from asserting nexus pursuant Public Law 86-272. In ***Wrigley,*** the Court found that the phrase “solicitation of orders” in Public Law 86-272 covered “more than what is strictly essential to making requests for purchases[,]” but included activities which were “**entirely ancillary** to requests for purchases – those that serve no independent business function apart from their connection to the soliciting of orders” and not “those activities that the company would have reason to engage in anyway but chooses to allocate to its in-state sales force.” ***Id***. at 228-229 (emphasis in original).

The pharmaceutical industry is unique in that there are three parties who are usually involved in the purchase transaction: the doctor who prescribes a particular drug, the patient who completes the purchase of the drug from the pharmacy and ultimately uses it, and the patient’s insurance company who in most cases ultimately pays for it. The Board has dealt previously at length with the applicability of Public Law 86-272 to pharmaceutical companies in ***Amgen, Inc. v. Commissioner of Revenue***, Mass. ATB Findings of Fact and Reports 1997-539. The taxpayer, Amgen, Inc. (“Amgen”), was a California-based pharmaceutical manufacturer, which had no physical operations in Massachusetts but had a number of employees here, including “Professional Sales Representatives” (“PSRs”) and “Clinical Support Specialists” (“CSSs”). ***Id.***At 542***.*** PSRs performed a function similar to Genentech’s clinical specialists, while the CSSs were registered nurses who assisted the PSRs in their sales efforts, but who performed additional clinical services due to their increased level of expertise. ***Id.*** at 543 and 546-547.

The Board ruled that the solicitation of doctors by the PSRs was within the boundaries of Public Law 86-272. ***Id*.** at 556-557. The SJC, in upholding the Board’s ruling, indicated that, because nurses may also have significant input into the purchasing decision, the PSRs solicitation of nurses and demonstration made to them, without more, could be a permitted indirect form of solicitation of orders under Public Law 86-272. ***Amgen***, 427 Mass. 357, 362, n. 5. (1998). Thus, the Board likewise ruled that the activities of Genentech’s clinical specialists were similarly protected activities within the purview of Public Law 86-272.[[12]](#footnote-12)

While the activities of the PSRs in ***Amgen*** werefound to be the solicitation of sales, the activities of the CSSs, which included reviewing patient charts and answering patient specific questions, exceeded the solicitation of orders. ***Id.*** at 361. In explaining its ruling, the SJC addressed Amgen’s argument that the CSSs’ activities were part of the overall solicitation effort:

Amgen is misreading the proper standard for determining whether an activity is protected from the Massachusetts excise by Pub. L. 86-272. Amgen has indicated how the activities of its CSSs might tend to increase general sales. Amgen's brief even states that the activities of its sales force were exclusively dedicated to the goal of increasing orders. Amgen has not indicated how such activities increase the actual solicitation of orders. Pub. L. 86-272 protects only the latter from the Massachusetts excise. ***Id***. at 362.

Although the activities of Genentech’s MSLs and managed care division are geared toward increasing the use of Genentech’s drugs, their activities do not involve the solicitation of doctors and nurses. MSLs are individuals with specialized medical or scientific training who are not in the sales organization but who serve as “liaisons” between Genentech, clinical treatment providers, and thought leaders in the field. They did not have any sales accounts, but supported the overall sales efforts by answering technical, clinical questions from providers, meeting with thought leaders, and coordinating educational presentations. John Mastrianni and his predecessor covering Massachusetts as part of Genentech’s managed care division did not call on anyone involved in clinical treatment of patients who might be in a position to prescribe drugs. Health insurance companies are not the party that chooses which drug is prescribed or the party which makes the purchase of the drug at the pharmacy, but in many cases they are the party that bears the ultimate cost of the drugs. As such, whether a drug is covered under an insurance plan and to what extent can have a material impact on whether it can be chosen as a treatment.

However, the Board did not ultimately reach the issue of whether the activities of MSLs or the managed care division exceeded the boundaries of Public Law 86-272 for each of the periods at issue as it found that the ownership of property was sufficient to subject Genentech to Massachusetts corporate excise tax for all of the periods at issue.

1. **Genentech’s Production of Biologically Derived Pharmaceuticals is Manufacturing**

Pursuant to G.L. c. 63, § 38(*l*), a “manufacturing corporation” is required to apportion its income to Massachusetts using a single sales factor apportionment formula. A manufacturing corporation is defined as one that is “engaged in manufacturing,” which means being “engaged, in substantial part, in transforming raw or finished physical materials by hand or machinery, and through human skill and knowledge into a new product possessing a new name, nature, and adapted to a new use.” ***Id*.;** *See* ***Boston & Me. R.R. v. Billerica***, 262 Mass. 439, 444-445 (1928)(manufacturing is “[c]hange wrought through the application of forces directed by the human mind, which results in the transformation of some pre-existing substance or element into something different, with a new name, nature or use”). Massachusetts courts have historically “construed the phrase ‘engaged in manufacturing’ as having a flexible meaning that should not be narrowly restricted.” ***Onex Communications Corp. v. Commissioner of Revenue***, 457 Mass. 419, 425 (2010)(citing ***William F. Sullivan & Co. v. Commissioner of Revenue***, 413 Mass. 576, 579 (1992) and ***Commissioner of Corps. & Taxation v. Assessors of Boston***, 324 Mass. 32, 36 (1949)).

A determination as to whether a corporation is engaged in manufacturing depends on the facts and circumstances of each taxpayer. ***Commissioner v. Houghton Mifflin Co.***, 423 Mass. 42, 45 (1997); ***William F. Sullivan & Co.*** 413 Mass at 581; ***Commissioner of Corps. & Taxation***, 324 Mass. at 733. This case-by-case analysis has prompted a large body of case law through which a variety of activities have been determined to be manufacturing. *See* *e.g.*, ***William F. Sullivan & Co.,*** 413 Mass. at 579 (cleaning and sorting scrap metal and processing into blocks); ***Joseph T. Rossi Corp. v. Commissioner of Revenue*,** 369 Mass. 178, 182 (1975)(converting standing timber into cut lumber); ***Assessors of Boston v. Commissioner of Corps. & Taxation***, 323 Mass. 730, 741-748 (1949) (roasting and grinding coffee, producing soft drinks, juice, and chocolate milk, scouring wool); ***Random House, Inc. v. Commissioner of Revenue***, Mass. ATB Findings of Fact and Reports 2012-973, 982 (creating electronic files used to print books). The Commissioner has promulgated a regulation, 830 CMR 58.2.1, which outlines certain principles derived from these cases to serve as guidelines for what constitutes manufacturing, including, *inter alia*, that: (1) if the process involves chemical change to property rather than only physical change, it is more likely to be manufacturing; (2) if the process involves only physical change to property, the greater the degree of physical change, the more likely the process is manufacturing; and (3) a process which merely makes an item more attractive for sale without substantially altering the item is not manufacturing. 830 CMR 58.2.1(6)(b).

Genentech characterizes its activities as harvesting naturally occurring proteins that were secreted by naturally reproducing cells and selling them for human use without alteration. Thus, in the appellant’s view, its activities are akin to a farmer who harvests corn or tomatoes produced by plants, which even if it is often done with the aid of heavy machinery, is not manufacturing. The Board found the appellant’s analogy to farming to be facile at best.

While it is true that the proteins which comprise Genentech’s drugs are naturally occurring, they certainly do not naturally occur in the environment where Genentech harvests them. Genentech scientists implanted DNA molecules into a bacteria cell or Chinese hamster ovary to genetically transform that medium to behave in ways other than what its natural genetic code would dictate. Genentech then took the original genetically altered cells developed to produce each of their drugs and let them reproduce billions of times over, each time replicating the same strand of DNA necessary to make the desired protein.

Genentech does not take any action to replicate the cells – that is the natural action of what a cell does. In that way, the appellant argues that its activities are analogous to those in ***The Charles River Breeding Laboratories, Inc. v. State Tax Commission***, 374 Mass. 333 (1978) (“***Charles River Labs”***), which involved a taxpayer engaged in the production of laboratory animals in Massachusetts. Unlike normal animals, the animals sold by Charles River Labs were intended to be used in biomedical research and were accordingly born and raised in rigidly controlled, germ-free conditions. ***Id***. at 334. The mice or rats introduced into the sterile environment were originally delivered via cesarean section; however, once in the environment, the animals continued to breed normally. ***Id.*** The SJC held that the breeding of these sterile animals was not manufacturing as there was no change of any substance, element, or material into something different, “[n]o matter how intricately [the breeding process was] carried on.” ***Id.*** at 335.

However, the SJC added a caveat its holding, specifying that the Court “[left] to another day, if it comes, the question whether processes which alter the genetic structure of animals fall within the statutory concept of manufacturing.” ***Id.*** n. 4. As the SJC recognized in explicitly making a distinction between the two scenarios, there is a difference between simple reproduction as a naturally occurring process and a process where something is transformed by human knowledge or skill through the means of genetic modification. Charles River Labs did not alter the animals themselves in any way; it let nature take its course, allowing the animals to procreate. Genentech did not simply identify a cell that naturally produces a certain desirable protein and allow that cell to reproduce in a controlled environment. Genentech took a naturally occurring organism and modified its DNA, physically transforming it into something that does not occur in nature.

Moreover, the initial implantation of the DNA is not the end of the manufacturing steps in the production of Genentech drugs. This is because the genetically modified replicated E. coli or Chinese hamster ovary cell is of no medical use to a patient until the protein of interest is extracted and purified. Genentech likens this process of harvesting of protein from a cell to the act of farming plants from the soil and further argued that, because there is no physical transformation to the protein itself, the process is not tantamount to manufacturing. However, in order to extract the expressed proteins, Genentech in many instances must disrupt or break down the cell walls, effectively breaking the cell apart and releasing all of its contents. Regardless of whether cells must be disrupted, in every case, the appellant must take the cell mixture and through physical change separate out a product through purification and separation into something fit for consumption. The Board therefore found and ruled Genentech’s processes, from the creation and implanting of genes through harvesting and purification, constituted manufacturing.

Genentech also points to a line of cases which involved mining and quarry operations that were found not to be manufacturing, including ***Tilcon-Warren Quarries, Inc. v. Commissioner of Revenue***, 392 Mass. 670 (1984) and ***Se. Sand and Gravel v. Commissioner of Revenue***, 384 Mass. 794 (1981). The taxpayer in ***Tilcon-Warren Quarries, Inc.*** blasted rock from its quarries using dynamite, which it then crushed into smaller pieces, sorted by size, or crushed further into sand. 392 Mass***.*** at 671 – 672. Quoting the observation of the Virginia Supreme Court that in the case of quarrying and crushing stone, “the sand is still sand and the rock is still rock” after processing, the SJC found that there was not sufficient change to render the crushing to be manufacturing. ***Id***. at 673 (quoting ***Solite Corp. v. County of King George,*** 220 Va. 661, 663 (1980)).

The Board found that Genentech’s disruption of cells and separation of specific proteins through an extensive purification process to be completely different from quarrying stone. Instead of breaking down an extant substance into smaller pieces where the intrinsic properties of the substance remain the same, Genentech’s purification process takes a substance - - the cell mixture solution - - and subjects it to physical change to derive a new product fit for human use - - the purified protein. Such processes have been found on multiple occasions to be manufacturing. *See* *e.g.,* ***Joseph T. Rossi v. State Tax Comm’n,*** 369 Mass. at 182 (1975) (transforming standing timber into usable lumber is manufacturing); ***Noreast Fresh, Inc. v. Commissioner of Revenue***, 50 Mass. App. Ct. 352, 357 (2000) (processing of bulk lettuce, cabbage, and carrots into cut pieces which are rinsed, sanitized, and mixed to make salad is manufacturing as it resulted in a new article and a new use); ***Golden Eye Seafood, Inc. v. State Tax Comm’n*** Mass. ATB Findings of Fact and Reports 1980-268, 270 (processing of whole, scaled fish which is inedible into fillets which are saleable for human consumption is manufacturing). Accordingly, the Board found and ruled that Genentech was engaged in manufacturing activities.

1. **Genentech’s Measure of Substantial Manufacturing Activity May Not Include Proceeds from Redemption or Maturity of Short-Term Securities**

 A corporation is only required to use a single sales factor apportionment formula if it is “substantially engaged” in manufacturing activities. G.L. c. 63, § 38(*l*)(1). Manufacturing activities will be deemed to be substantial if any one of the following four numeric tests are met, with a fifth catch-all provision:

(1) 25% or more of its gross receipts are derived from the sale of manufactured goods that it manufactures;

(2) 25% or more of its payroll is paid to employees working in its manufacturing operations and 15% or more of its gross receipts are derived from the sale of manufactured goods that it manufactures;

(3) 25% or more of its tangible property is used in its manufacturing operations and 15% or more of its gross receipts are derived from the sale of manufactured goods that it manufactures;

(4) 35% or more of its tangible property is used in its manufacturing operations; or

(5) the corporation's manufacturing activities are deemed substantial under relevant regulations promulgated by the commissioner. ***Id*.**

During the periods at issue, the parties agreed that the proportion of Genentech’s property and payroll involved in manufacturing were both below the requisite thresholds. Accordingly, the determination rests on whether 25 percent or more of Genentech’s gross receipts were derived from the sale of goods that it manufactured (“Receipts Test”). The disagreement between the parties hinges on what is included in the definition of “gross receipts” for purposes of the Receipts Test, as no definition of “gross receipts” is given in the statute.

The Commissioner promulgated 830 CMR 58.2.1, which outlines the qualifications of a manufacturing corporation for property tax purposes, which hews to the same tests, but for the fact that only the taxpayer’s Massachusetts activities are included in the analysis. Pursuant to 830 CMR 63.38.1(10)(b)(3), the percentage of receipts derived from the sale of manufactured goods for purposes of the Receipts Test is to be determined using the receipts fraction for property tax purposes delineated in 830 CMR 58.2.1, except that gross receipts attributable to manufacturing performed outside of Massachusetts are to be included in both the numerator and denominator of the receipts fraction.

The denominator of the receipts fraction defined in 830 CMR 58.2.1(e)(1)(b) for property tax purposes is the sum of (1) gross receipts derived from the sales of products manufactured in Massachusetts; (2) gross receipts derived from all non-manufacturing business activities in Massachusetts; and (3) the sum of all gross interest, dividends, and capital gains, except those gains attributable to an extraordinary event, multiplied by the taxpayer’s Massachusetts apportionment.[[13]](#footnote-13) Thus, by explicitly limiting the third category of includable receipts to “interest, dividends, and capital gains,” the applicable regulation clearly dictates that only the interest and dividends earned by Genentech through the use of its capital are to be taken into account as a receipt, not the return of that underlying capital itself.

Genentech argues that this is inconsistent with G.L. c. 63, § 38(*l*), which only broadly states that activity should be measured against all “gross receipts.” In general, "[w]here a regulation is consistent with the statute which it interprets and represents a reasonable interpretation of that statute, the administrative interpretation is entitled to deference." ***Holyoke Gas and Electric Dept. v. Commissioner of Revenue***, Mass. ATB Findings of Fact and Reports 2002-262, 277-78. The burden is on the party challenging the regulation to demonstrate that it is invalid, such as where it is in conflict with the statute or exceeds the authority of the agency which promulgated it. ***Entergy Nuclear Generation Co. v. Department of Envtl. Protection***, 459 Mass. 319, 329 (2011).

The Legislature created a specially weighted apportionment formula for manufacturing corporations, including the Receipts Test by amending G.L. c. 63, § 38 on November 28, 1995. *See* St. 1995, c. 280, § 2. The formula was to be phased in for manufacturers beginning with the tax year beginning on or after January 1, 1996. ***Id***. The Commissioner’s first version of a regulation under G.L. c. 63, § 38, promulgated in August 1995, predated that amendment by a few months and therefore did not address the issue. *See* 771 Mass. Reg. 145 (Aug. 11, 1995). In February 1999, the Commissioner issued a new version of the regulation specifically in order to “take into account the single sales factor apportionment provisions of St. 1995, c. 280.” 862 Mass. Reg. 95 (Feb. 5, 1999). The revised regulation contained the direction to rely on the tests outlined in 830 CMR 58.2.1, which had been in place for a number of years, and was applied retroactively to 1996. ***Id.*** Therefore, the Board ruled that the Commissioner’s regulations were due the deference of a contemporaneously promulgated regulation and that the regulation is consistent with the Receipts Test.[[14]](#footnote-14)

 The appellant nevertheless argues that the Board should disregard the Commissioner’s regulation because as a matter of statutory construction, “gross receipts” must be given its plain meaning to encompass revenue from any source. Furthermore, the appellant argues that G.L. c. 63, § 38(*l*) must be construed in harmony with G.L. c. 63, § 38(f), which provides that the sales factor includes all “gross receipts” less “gross receipts from the maturity, redemption, sale, exchange or other disposition of securities” and thus by inference every time “gross receipts” is mentioned in G.L. c. 63, § 38 it would include all gross receipts from the sale of securities.

Where the language of a statute is clear and unambiguous, it is conclusive as to legislative intent and courts will enforce the statute according to its plain wording; however, this is only the case so long as its application would not lead to an absurd result. ***City of Worcester v. College Hill Props., LLC***, 465 Mass. 134, 138 (2013); ***Pyle v. School Comm. of S. Hadley***, 423 Mass. 283, 285 (1996). The Board found and ruled that the obvious purpose inherent in comparing a taxpayer’s manufacturing property, payroll, and sales to its overall property, payroll, and sales to test whether its manufacturing activity is “substantial” is to use those figures as a proxy to represent what portion of the taxpayer’s overall business activities comprises manufacturing. *See* ***First Marblehead Corp. v. Commissioner of Revenue***, Mass. ATB Findings of Fact and Reports 2013-241, 280 (portion of taxpayer’s annual receipts that are derived from manufacturing is a reasonable reflection of the amount of available resources that a taxpayer devotes to the activity).

If the Board were to follow Genentech’s approach for the 2004 tax year as an example, the appellant would have generated $39,226,839,298 in gross receipts, of which only $4,578,096,817 came from ordinary business income, such as revenue from the sale of drugs, royalties from the license of intellectual property, contract revenue, and investment income in the form of interest, dividends, and capital gains. The remainder of those “gross receipts” would have been derived from redeeming money market funds or commercial paper for their cash equivalent, receipts that were not included for accounting purposes in the measures of revenue reported to shareholders or included in the computation of taxable income. Using these figures as a proxy would mean that approximately 88% of Genentech’s overall business activities in 2004 consisted of a handful of employees in the treasury department managing Genentech’s day-to-day cash flow. The Board found and ruled that including these receipts, therefore, would lead to the conclusion that instead of being in the business of developing and selling drugs, Genentech’s primary activity was acting as a cash management company in the business of purchasing and selling money market funds and commercial paper. The Board declined to reach this absurd result.

The appellant urged the Board to follow the California Supreme Court’s decision in ***Microsoft Corporation v. Franchise Tax Board***, 39 Cal. 4th 750 (2006). The taxpayer, Microsoft Corporation (“Microsoft”), was a large computer software company based in Seattle, which had a treasury function, similar to Genentech’s, that invested its excess cash in short-term securities. ***Id.*** at 757. Microsoft argued that its gross proceeds from redemption and maturity of those securities should be included in its sales factor denominator for California corporate income tax apportionment purposes, which by statute was defined to include all “gross receipts.” ***Id.*** Because Microsoft’s treasury function was located outside of California, inclusion of the receipts would have had the effect of decreasing its California sales factor from 11 percent to 3 percent and cutting its tax nearly in half. ***Id***. As the appellant notes, the California Supreme Court found that while the statute was “not unambiguous,” the term “gross receipts” should be deemed to include the gross proceeds from redemption or maturity of securities. ***Id***. at 759.

However, in that case, the Court was “unable to accept, even for a moment, the notion that” a significant portion of a taxpayer’s entire unitary business activities “should be attributed to **any** single state solely because it is the center of working capital investment activities that are clearly only an incidental part of one of America’s largest, and most widespread, businesses.” ***Id***. at 765 (emphasis in original)(quoting ***Appeal of Pacific Telephone and Telegraph***, 1978 Cal. Tax LEXIS 91, \*30 (1978)). The fact that “modern corporate treasury departments... are qualitatively different from the rest of a corporation’s business and [their] typical margins may be quantitatively several orders or magnitude different from the rest of a corporations’ business...” led to a situation where Microsoft’s short-term investments produced less than 2 percent of its income but accounted for 73 percent of all gross receipts. ***Id.*** at 768, 765. Accordingly, the Court held that inclusion of the receipts would result in an overly distorted measure of the taxpayer’s sales attributable to California and invoked a statute that authorized the use of an alternative apportionment formula for a specific taxpayer, which in Microsoft’s case meant only including net receipts to the extent the redemption or maturity price was greater than the original purchase price.[[15]](#footnote-15) ***Id.*** at 771.

The Board agreed with California in so far as its conclusion that labeling proceeds from the daily redemption of short-term securities for their cash equivalent is distortive. Thus, in accordance with the applicable regulation and the legislative purpose behind the Receipts Test, the Board found and ruled that only interest, dividends, and capital gains generated by investing activity are properly included in the denominator Receipts Test. Accordingly, as greater than 25 percent of Genentech’s receipts under that measure were derived from the sale of manufactured drugs, Genentech was required by G.L. c. 63, § 38(*l*) to apportion its income using a single sales factor.

1. **Investment Tax Credits and Research and Development Tax Credits**

Massachusetts provides a credit against corporate excise for corporations engaged in manufacturing which purchase eligible tangible property placed in service in Massachusetts or which undertake research and development activities in the Commonwealth. G.L. c. 63, §§ 31A and 38M. The credits are calculated as a fixed percentage of the related qualified expenditure. ***Id***. These incentives are available to any corporations which meet the statutory requirements, regardless of their place of domicile; however, in order to claim the credit, the underlying activity must take place in Massachusetts. ***Id.*** The appellant argued that this renders the Massachusetts ITC and R&D Credit regimes to be in violation of the Commerce Clause of the U.S. Constitution by unfairly discriminating against interstate commerce. Therefore, Genentech asserts that it should have been entitled to claim Massachusetts ITC and R&D Credits for its activities conducted in California that would otherwise have qualified for a credit if conducted in Massachusetts.

The Board recently found this argument to be unpersuasive in ***Random House, Inc. v. Commissioner of Revenue***, Mass. ATB Findings of Fact and Reports 2012-973 (“***Random House***”). There the taxpayer, like Genentech, had made otherwise qualifying investments outside of the Commonwealth and had also argued that the ITC was unconstitutional because it only extended benefits to companies that made qualifying investments in Massachusetts. ***Id.*** at 980. After extensive analysis, the Board ruled ITC to be constitutional, ***Id.***at 999, a ruling whose logic naturally extends to R&D Credits and which the Board reaffirms today. As the Board explained in ***Random House,*** “the crucial factor in a Dormant Commerce Clause analysis is whether the differential treatment is imposed, not simply on an out-of-state taxpayer, but on interstate commerce, which entails the movement of goods and services.” ***Id.***at 998-999. The credit was denied to Random House “because it failed to make a qualifying one-time investment in Massachusetts, not because it moved its goods or services across state lines.” ***Id.*** at 999. Massachusetts provides a credit to corporations offsetting the cost of making a qualifying investment or undertaking qualifying research in Massachusetts, but does not disparately treat taxpayers in the marketplace or otherwise distort interstate commerce in favor of in-state businesses.

1. **Conclusion**

Based on the foregoing, the Board found and ruled that the appellant was not entitled to an abatement of corporate excise as assessed by the Commissioner and it therefore issued Decisions for the appellee in these appeals.

 **THE APPELLATE TAX BOARD**

**By: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

 **Thomas W. Hammond, Jr., Chairman**

**Attest: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

           **Clerk of the Board**

1. The appellant signed a succession of Forms A-37, Consent Extending the Time for Assessment of Taxes for the tax years ended December 31, 1998 through December 31, 2001, resulting in the extension of the statute of limitations for those tax years ultimately to December 31, 2005. [↑](#footnote-ref-1)
2. “Bulk” product refers to a drug or pharmaceutical that has been produced into a raw or “bulk” state that is ready for further processing and to be packaged into its final dosage form. [↑](#footnote-ref-2)
3. A subsequent version of the License Agreement between Alkermes and Genentech was entered into on April 14, 1999. However, there was no material change to the terms outlined above. [↑](#footnote-ref-3)
4. An Amended Manufacturing and Supply Agreement was executed by the parties on February 20, 2002, but the amendments did not affect any of the provisions described below. [↑](#footnote-ref-4)
5. This figure varies immaterially from the amount of property reported on Genentech’s Schedule F of its Form 355 of $86,969. [↑](#footnote-ref-5)
6. Stephen Fauci, a former Genentech senior clinical specialist based in Massachusetts, alleged that there was a widespread practice among clinical specialists to complete Statements of Medical Necessity (“SMNs”). SMNs are statements issued by a doctor to a patient’s insurance provider. Mr. Fauci was terminated by Genentech in 2005 and has subsequently filed a wrongful termination suit in federal court, alleging that his firing was due to his repeated reporting to supervisors of alleged illegitimate sales tactics. Genentech contested Mr. Fauci’s allegations and maintained that the completion of SMNs by clinical specialists would be improper, against corporate policy, and did not occur to Genentech’s management’s knowledge. The Board did not make a determination as to whether Genentech clinical specialists engaged in this behavior in Massachusetts during the periods at issue as it found and ruled that other activities were sufficient to create nexus. [↑](#footnote-ref-6)
7. Genentech leased office space for Kelli Wilson to use instead of a home office during 2003 and 2004 because she could not receive internet access at her home. Because the Board found and ruled that nexus was present for those years due to the Alkermes inventory, it did not need to reach a conclusion as to whether this office created nexus in Massachusetts. [↑](#footnote-ref-7)
8. Per the employee roster provided (which only covered the 2004 tax year), Genentech also employed individuals with the following job descriptions that would appear on their face to fall outside of the sales organization: (1) Senior Professional Education Liaison; (2) Professional Education Liaison; (3) Vice President, Manufacturing Collaboration and Contract Manufacturing; (4) Senior Manager, Quality; and (5) Product Manager. The appellant did not provide any evidence regarding the duties of these individuals or when these individuals began working for Genentech in Massachusetts. [↑](#footnote-ref-8)
9. The appellant highlighted that a money market fund is not an investment without risk as the value of its shares may fall. While there is a risk that the NAV of a money market fund will fall below $1 per share, known as “breaking the buck,” this has only actually happened three times, with the most recent occurrence in September 2008, at the nadir of the financial crisis, when the NAV of a money market fund called Reserve Primary Fund fell temporarily to 97 cents. Diya Gullapalli, Shefali Anand, and Daisy Maxey, ***Money Fund, Hurt by Debt Tied to Lehman, Breaks the Buck***, Wall Street Journal, Sept. 17, 2008, at C3. [↑](#footnote-ref-9)
10. The Massachusetts property was equal to approximately .003% of all of the appellant’s end of year assets of $2,906,451,261, including intangible assets. [↑](#footnote-ref-10)
11. In ruling that the appellant’s ownership of inventory and clinical trial drugs was sufficient to create nexus, the Board rejected Genentech’s argument that because the activities of an independent contractor cannot be attributed for corporate excise tax nexus purposes, the activities performed by Alkermens or the CROs cannot impute nexus back to Genentech. *See* 830 CMR 63.39.1(7). It is not the activities of Alkermes or the CROs that were nexus creating; it was the ownership of the underlying property in Massachusetts itself that created nexus. [↑](#footnote-ref-11)
12. The Commissioner suggests that the fact that some of the solicitation of doctors took place outside of a clinical setting, such as lunch meetings and baseball outings that Genentech paid for, somehow changes the nature of the meeting into something other than the solicitation of sales. The Board recognizes that the sales profession frequently involves the social entertainment of potential customers and that meetings may take place over lunch or dinner at the seller’s expense. As the Supreme Court stated in ***Wrigley***, if “[t]he purpose of an activity... [is] to ingratiate the salesman with the customer, thereby facilitating requests for purchases,” it will fall within the scope of permitted solicitation. ***Wrigley***, 505 U.S. at 235. The Board found that the added social aspect of some of the outings hosted by Genentech was not outside the bounds of permitted solicitation. [↑](#footnote-ref-12)
13. The appellant correctly points out that if the direction of 830 CMR 63.38.1(10) to add non-Massachusetts manufacturing receipts to the numerator and denominator to the gross receipts fraction described in 830 CMR 58.2.1(d) is followed literally, the result is to compare manufacturing receipts everywhere to the sum of manufacturing receipts everywhere, non-manufacturing activities in Massachusetts, and investment income apportioned to Massachusetts. The Commissioner’s approach during the course of the audit appears to have consistently been to examine Genentech’s manufacturing receipts everywhere compared to its total business receipts everywhere. As Genentech’s manufacturing receipts exceeded 25% under either of those two measures, the Board did not reach the question of whether there is any unfairness inherent in the Commissioner’s regulation to out-of-state taxpayers by only including Massachusetts non-manufacturing receipts in the denominator. [↑](#footnote-ref-13)
14. The Board rejected Genentech’s contention that the February 1999 version of 830 CMR 63.38.1 can only extend to periods after its promulgation, despite the express provision for its retroactive application. The amendment to the regulation did not introduce any substantive changes to the existing statute, but merely provided additional clarification. *See* ***Cohen v. Board of Water Commissioners***, 411 Mass. 744,752 (1992). [↑](#footnote-ref-14)
15. After the California Supreme Court’s holding in ***Microsoft Corp.,*** the state’s legislature amended the relevant statute to make clear that “[r]epayment, maturity, or redemption of the principal of a loan, bond, mutual fund, certificate of deposit, or similar marketable instrument” and “[a]mounts received from transactions in intangible assets held in connection with a treasury function” did not constitute gross receipts, which it explicitly stated “constitute[d] [a] clarifying, nonsubstantive [change].” Cal. Rev. & Tax. Code § 25120(f). [↑](#footnote-ref-15)