

**INTREXON CORPORATION**  
**20374 Seneca Meadows Parkway**  
**Germantown, Maryland 20876**  
**Telephone: (301) 556-9900**

July 10, 2015

**By EDGAR Transmission**

Securities and Exchange Commission  
100 F Street, N.E.  
Washington, D.C. 20549-7410

Attention: Jeffrey Riedler, Assistant Director  
Division of Corporation Finance

**Re: Intrexon Corporation**  
**Form 10-K for the Fiscal Year Ended December 31, 2014**  
**Filed March 2, 2015**  
**File No. 1-36042**

Dear Mr. Riedler:

As Chief Legal Officer of Intrexon Corporation I am transmitting herewith for filing the Company's response to the comments of the staff (the "Staff") of the Division of Corporation Finance of the Securities and Exchange Commission (the "Commission") contained in its comment letter to Randal J. Kirk's attention, dated June 30, 2015.

Set forth below is the response of the Company to the comment of the Staff. For convenience of reference, the Staff comment is reprinted in bold and is followed by the corresponding response of the Company.

When used in this letter, the terms "Company," "Intrexon," "we," "us," and "our" refer to Intrexon Corporation.

**Intellectual Property, page 14**

**1. We refer to your intellectual property disclosure on page 14. Please expand your patent disclosure to provide the following information separately for each of your material patents:**

- **specific products, product groups and technologies to which the patent relates;**
- **whether the patent is owned or licensed from third parties and if licensed, from whom;**
- **type of patent protection such as composition of matter, use or process;**
- **patent expiration date;**
- **jurisdiction; and**
- **contested proceedings and/or third-party claims.**

**Response:**

We acknowledge the Staff's comment. In response to the Staff's comment, we will include expanded disclosure regarding Intrexon's intellectual property in substantially the form set forth in Exhibit A to this letter in our Annual Report on Form 10-K for the year ending December 31, 2015, and other future filings, as appropriate. We respectfully note that the bolded and underlined and struck text set forth in Exhibit A indicates our proposed expanded disclosure using the disclosure set forth in our Annual Report on Form 10-K for the year ended December 31, 2014.

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In connection with the Company's response to the comment of the Staff set forth herein, the Company acknowledges the following:

- the Company is responsible for the adequacy and accuracy of the disclosure in the filing;
- Staff comments or changes to disclosure in response to Staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the Company may not assert Staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

If there is any additional information that we might provide to assist the Staff's review, please call me at (301) 556-9809.

Sincerely,

/s/ Donald P. Lehr

Chief Legal Officer

cc: Randal J. Kirk

**EXHIBIT A**

**Intellectual property**

As we advance technologies across multiple platforms and synthetic biology areas, correspondingly, we apply a multilayered approach for protecting intellectual property relating to the inventions we have developed internally as well as those we have acquired from third parties, such as by assignment or by in-license. We seek patent protection in the United States and in other countries for our inventions and discoveries, and we develop and protect our key know-how and trade secrets relating to our platform technologies as well as to the products we are developing with our collaborators.

We seek patent protection for our platform technologies, including but not limited to our (i) switch technology, (ii) activator ligands for our switch technology ~~and~~, (iii) **portfolio around various genetic componentry such as vectors, cells and organisms containing these genetic componentry and (iv) cell identification and selection platform.** In addition, we seek patents covering specific collaborator's products. With respect to a particular collaborator's product, we may seek patent protection on some or all of the following **aspects of the invention such as: the compound itself, its commercial or material, the composition, its production of matter, and its methods of use/or the method or process of making or using the composition.**

Through the use of our various platform technologies we seek to design and build proprietary compounds, vectors, methods and processes across a variety of end markets. In particular, we focus our intellectual property on synthetic biology technologies that provide platforms for the design and creation of cells, vectors and components for our collaborators. In addition, we may pursue intermediate and product-specific patents associated with our collaborators' lead programs.

Our success depends, in part, upon our ability to obtain patents and maintain adequate protection for our intellectual property relating to our technologies and products and potential products. We have adopted a strategy of seeking patent protection in the United States and in other jurisdictions globally as we deem appropriate under the circumstances, with respect to certain of the technologies used in or relating to our products and processes. **For instance, where we believe appropriate, we have also filed counterpart patents and patent applications in other countries, including Australia, Argentina, Brazil, Canada, China, Europe, Hong Kong, India, Indonesia, Israel, Japan, Korea, Mexico, New Zealand, Philippines, Russia, Singapore, South Africa and Taiwan. In the future we may file in these or additional jurisdictions as deemed appropriate for the protection of our technologies.**

As of December 31, ~~2014~~ 2015, we owned at least ~~55~~ **XX** issued U.S. patents and ~~55~~ **XX** pending U.S. patent applications relating to certain aspects of our technologies, and we have pursued counterpart patents and patent applications in other jurisdictions around the world, as we have deemed appropriate. We continue to actively develop our portfolio through the filing of new patent applications, provisionals and continuations **or divisionals** relating to our technologies, methods and products as we and our collaborators deem appropriate.

We have strategic positioning with respect to our key technologies including **owned** patent portfolios directed to: our switch technology covering aspects of our ~~gene switches, such as our RheoSwitch Therapeutic System,~~ and gene modulation systems; **with a last to expire patent currently in 2026, our portfolio around various genetic componentry such as** vectors, cells and organisms containing these ~~switches~~ **genetic componentry with a last to expire patent in 2031,** and their use; our activator ligand technology covering aspects of our activator ligands and their use **with a last to expire patent in 2032;** and our cell identification and selection technology covering aspects of our cell identification and selection platform, including our cell purification, isolation, characterization and manipulation technologies. ~~We have also filed counterpart patents and patent applications in other countries, when appropriate, including Australia, Argentina, Brazil, Canada, China, Europe, Hong Kong, India, Indonesia, Israel, Japan, Korea, Mexico, New Zealand, Philippines, Russia, Singapore, South Africa and Taiwan. In the future we may file in these or additional jurisdictions as deemed appropriate for the protection of our technologies.~~ **with a last to expire patent in 2031. Although we cannot be assured that that these patents may not be subject to challenge in the future, as of this filing, there are currently no material contested proceedings and/or third party claims with respect to any of these patent portfolios.** Additionally, we complement our intellectual property portfolio with exclusive and non-exclusive patent licenses and options for licenses to third party technologies.

A principal component of our strategy is maximizing the value of our ECCs through our intellectual property that covers our technologies, which is accentuated by intermediate and program-specific intellectual property protections. In addition to owned and in-licensed patents, we solidify our intellectual property protection through a combination of trade secrets, know-how, confidentiality, nondisclosure and other contractual provisions, and security measures to protect our confidential and proprietary information related to each platform and collaborator program. We regularly assess and review the risks and benefits of protecting our developments through each aspect of intellectual property available to us.

Because we rely on trade secrets, know-how and continuing technological advances to protect various aspects of our core technology, we require our employees, consultants and scientific collaborators to execute confidentiality and invention assignment agreements with us to maintain the confidentiality of our trade secrets and proprietary information. Our confidentiality agreements generally provide that the employee, consultant or scientific collaborator will not disclose our confidential information to third parties. These agreements also provide that inventions conceived by the employee, consultant or scientific collaborator in the course of working for us will be our exclusive property. Additionally, our employees agree to take certain steps to facilitate our assertion of ownership over such intellectual property. These measures may not adequately protect our trade secrets or other proprietary information. If they do not adequately protect our rights, third parties could use our technologies, and we could lose any competitive advantage we may have. In addition, others may independently develop similar proprietary information or techniques or otherwise gain access to our trade secrets, which could impair any competitive advantage we may have.