



SAN FRANCISCO PLANNING DEPARTMENT

Reissued Letter of Determination

CLERICALLY AMENDED

July 26, 2016

Andrew J. Junius
Rueben, Junius & Rose, LLP
One Bush Street, Suite 600
San Francisco CA 94104

Site Address:	NA
Assessor's Block/Lot:	NA
Zoning District:	NA
Staff Contact:	Corey Teague, (415) 575-9081 or corey.teague@sfgov.org
Record No.:	2016-006976ZAD

Dear Mr. Junius:

This letter is in response to your request for a Letter of Determination regarding the land use classification for BlackThorn Therapeutics ("BlackThorn"). According to your letter, BlackThorn is a biomedicine company founded in 2014 that focuses on discovering the causes of various neurological diseases. It is currently searching for a company location in San Francisco to pursue basic scientific research into the causes of various mental illnesses (i.e. schizophrenia, autism spectrum disorder, and depression). More specifically, you requested a determination as to whether BlackThorn would be considered a Laboratory use per Planning Code Section 890.52.

Your letter states that BlackThorn was founded in 2014. However, there is no public documentation of any current or previous location of any facility for the company. Additionally, BlackThorn's website (www.blackthornrx.com) includes only a single page, which in turn states only "TARGETED MEDICINES for NEURODEVELOPMENTAL DISORDERS." Additional online research only produces mentions of the company by third parties. As such, there is no way to base this determination on the current or previous operations or practices of the company.

However, your letter further states that BlackThorn will not use organisms, cells, or parts thereof to produce products or services. Instead, it will conduct scientific research that will primarily use computational systems to develop hypothetical neurological structures. You further state that BlackThorn is a research-driven company with a mission to discover the causes of neurobehavioral disorders. Specifically, BlackThorn will use a cutting-edge technology platform, comprising functional imaging, clinical databases, and behavioral testing to produce scientific hypotheses about causes of brain disorders. It would use data gained from diagnostic programs, then conduct analytical testing in a laboratory setting to produce molecules based on these hypotheses. These molecules will then be used for further analysis and testing into the causes of various brain disorders.

1650 Mission St.
Suite 400
San Francisco,
CA 94103-2479

Reception:
415.558.6378

Fax:
415.558.6409

Planning
Information:
415.558.6377

Andrew J. Junius
Rueben, Junius & Rose, LLP
One Bush Street, Suite 600
San Francisco, CA 94104

July 20, 2016
Letter of Determination

BlackThorn's synthetic and analytical work will be performed in a traditional chemistry laboratory environment with characteristics such as fume hoods, benches, and sinks. It will use common laboratory equipment, including high performance liquid chromatography, mass spectrometers, and other tools used for synthetic organic chemistry. No animal or human testing will be conducted at the facility, nor will there be any animal facilities or vivaria located on the premises.

Based solely on the information provided in your letter, it is my determination that BlackThorn – as described – would be classified as a Laboratory use per Planning Code Sections 102 and 890.52. Please note that if BlackThorn establishes a location within San Francisco and operates differently than described, it may be classified as a different land use under the Planning Code.

Please note that a Letter of Determination is a determination regarding the classification of uses and interpretation and applicability of the provisions of the Planning Code. This Letter of Determination is not a permit to commence any work or change occupancy. Permits from appropriate Departments must be secured before work is started or occupancy is changed.

APPEAL: If you believe this determination represents an error in interpretation of the Planning Code or abuse in discretion by the Zoning Administrator, an appeal may be filed with the Board of Appeals within 15 days of the date of this letter. For information regarding the appeals process, please contact the Board of Appeals located at 1650 Mission Street, Room 304, San Francisco, or call (415) 575-6880.

Sincerely,



Scott F. Sanchez
Zoning Administrator

cc: Corey A. Teague, Assistant Zoning Administrator.
Citywide Neighborhood Groups

REUBEN, JUNIUS & ROSE, LLP

May 24, 2016

Via Messenger

Mr. Scott Sanchez
Zoning Administrator
San Francisco Planning Department
1650 Mission Street, Suite 400
San Francisco, CA 94103

R# 2016-006976 ZAD
CK # 26745 \$ 645 -
C. TEAGUE

**Re: Request for Letter of Determination confirming
BlackThorn Therapeutics as Laboratory Use
Our File No.: 10301.01**

Dear Mr. Sanchez:

I am writing on behalf of BlackThorn Therapeutics ("BlackThorn"), a biomedicine company founded in 2014 that focuses on discovering the causes of various neurological diseases. These disorders are a tremendous human and social problem. According to the National Alliance on Mental Illness (www.nami.org), serious mental illness costs America \$193.2 billion in lost earnings per year. Mood disorders, including major depression, dysthymic disorder and bipolar disorder, are the third most common cause of hospitalization in the U.S. for both youth and adults aged 18-44. It is through understanding the underlying causes of neurobehavioral diseases that the lives of these patients, and their families, can be improved. BlackThorn is a leading researcher in this emerging field. BlackThorn is looking for a new company location in San Francisco to pursue basic scientific research into the causes of these devastating disorders. We seek your determination that the business as described in this letter is a Laboratory under Section 890.52 of the Planning Code.

A. Overview of Company

BlackThorn is a research-driven company whose mission is to discover the causes of neurobehavioral disorders for conditions such as schizophrenia, autism spectrum disorder, and depression. Specifically, the company's scientists use cutting edge technology platform, comprising functional imaging, clinical databases and behavioral testing, to produce scientific hypothesis about causes of brain disorders. BlackThorn researchers, using the data gained from the diagnostic programs, then conduct analytical testing in a laboratory setting to produce molecules based on these hypotheses. These molecules will be used for further analysis and testing into the causes of various brain disorders.

James A. Reuben | Andrew J. Junius | Kevin H. Rose | Daniel A. Frattin | John Kevlin
Jay F. Drake | Lindsay M. Petrone | Sheryl Reuben¹ | Tuija I. Catalano | Thomas Tunny
David Silverman | Melinda A. Sarjapur | Mark H. Loper | Jody Knight | Stephanie L. Haughey
Chloe V. Angelis | Louis J. Sarmiento | Jared Eigerman^{2,3} | John McInerney III²

1. Also admitted in New York 2. Of Counsel 3. Also admitted in Massachusetts

One Bush Street, Suite 600
San Francisco, CA 94104

tel: 415-567-9000
fax: 415-399-9480

www.reubenlaw.com

BlackThorn's synthetic and analytical work is performed in a traditional chemistry laboratory environment with characteristics such as fume hoods, benches, and sinks, and utilizes common laboratory equipment including high performance liquid chromatography ("HPLC"), mass spectrometers, and other tools used for synthetic organic chemistry (such as distillation equipment, centrifuges, etc.). All of the chemistry, development, and quality assurance/quality control work will be conducted in full compliance with relevant federal, state and city regulations, including, the *California Business and Professions Code*, Division 2, Chapter 3, Section 1200 *et. al.*, and is regulated by the California Department of Public Health.

BlackThorn designs, analyzes and evaluates molecules that can lead to understanding the causes of neurological diseases. No animal or human testing will be conducted at the BlackThorn facility, nor will be any animal facilities or vivaria located on premises.

B. Laboratory Use

Section 890 of the Planning Code contains two definitions that pertain to biochemistry research: Laboratory (890.52) and Life Sciences (890.53). A Laboratory is defined as a "space within any structure intended or primarily suitable for scientific research." Specific examples include:

- (a) Chemistry, biochemistry, or analytical laboratory;
- (b) Engineering laboratory;
- (c) Development laboratory;
- (d) Biological laboratories including those classified by the Centers for Disease Control (CDC) and National Institutes of Health (NIH) as Biosafety level 1, Biosafety level 2, or Biosafety level 3;
- (e) Animal facility or vivarium, including laboratories classified by the CDC/NIH as Animal Biosafety level 1, Animal Biosafety level 2, or Animal Biosafety level 3;
- (f) Support laboratory;
- (g) Quality assurance/Quality control laboratory;
- (h) Core laboratory.

BlackThorn uses technological systems to come up with possible neurological targets that are then analyzed to see whether there is a correlation to neurological diseases. This enables BlackThorn to proceed to the design of candidate molecules, which is done with computational and synthetic organic chemistry. As such, BlackThorn can be classified as a, biochemistry, analytical, engineering, or development laboratory, under (a), (b), or (c). It seems clear that BlackThorn is a Laboratory Use under Section 890.52.

In contrast to *Laboratory*, planning Code Section 890.53 defines a *Life Science Laboratory* as broader category of scientific use. It states:

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fax: 415-399-9480

“[Life Sciences] involves the integration of natural and engineering sciences and advanced biological techniques using organisms, cells, and parts thereof for products and services. This includes the creation of products and services used to analyze and detect various illnesses, the design of products that cure illnesses, and/or the provision of capital goods and services, machinery, instruments, software, and reagents related to research and production. Life Science uses may utilize office, laboratory, light manufacturing, or other types of space. As a subset of Life Science uses. Life Science laboratories typically include biological laboratories and animal facilities or vivaria, as described in Section 890.52(d) and (e).”

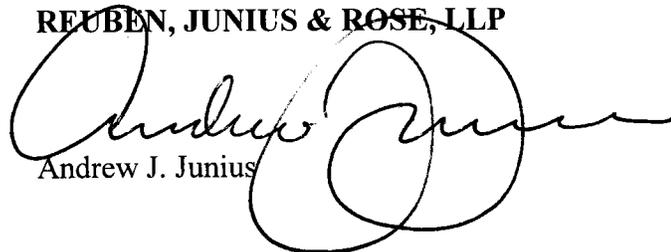
A key clause in the Life Science definition is the first one: “[Life Science] involves the integration of natural and engineering sciences and advanced biological techniques using organisms, cells, and parts thereof for products and services.” BlackThorn does not use organisms, cells, or any parts thereof to provide products or services. As described above, BlackThorn is a scientific research company that primarily utilizes computational systems to develop hypological neurological structures. The facility is not used for the creation of products of any kind, but only for basic research. As such, BlackThorn is not a Life Science use but rather a Laboratory as defined in Section 890.52.

C. Conclusion

BlackThorn seeks a letter of determination (“LOD”) determining that it falls under the Laboratory definition of Section 890.52 and not the Life Science definition of Section 890.53. Pursuant to Section 307(a) of the San Francisco Planning Code, we respectfully request a written determination confirming that the use described above is considered a Laboratory pursuant to Section 890.52. I have enclosed a check in the amount of \$630 made payable to the San Francisco Planning Department for the required fee. Please call me if you have any questions or need additional information. Thank you for your attention to this matter.

Very truly yours,

REUBEN, JUNIUS & ROSE, LLP



Andrew J. Junius

Cc: BlackThorn

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San Francisco, CA 94104

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fax: 415-399-9480

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